

# OLYMPUS

Your Vision, Our Future

ENT



**Flexible ENT  
Endoscopes**

**Rigid ENT  
Endoscopes**

**Otology**

**Equipment  
for ENT**

**Sinus Surgery**

**Rhinology**

**Laryngology**

**Pharynx,  
Larynx**

**Ossicular  
Reconstruction**

**General  
Hospital  
Equipment**

**Systems  
Integration**

**Stapedectomy/  
Stapedotomy**

**Imaging  
Equipment**

**Myringotomy**

**Vocal Cord  
Medialization**

**Accessories**

**Packing,  
Splints and  
Stents**

**Reprocessing**



The work of Olympus is characterized by a simple philosophy: By combining excellent quality with constant product improvement, we put the best-possible instruments into the physician's hand.

With its development of increasingly superior medical instruments, Olympus has contributed significantly towards the success of minimal-invasive surgery. Surgical endoscopes developed by Olympus today already conform to tomorrow's standards. Modern sterilization methods place high demands on both materials and their processing. The durability and reliability of the medical instruments are exposed to great strain during the process. Olympus manufactures surgical endoscopes that, even after long terms of use and many autoclave cycles, operate just as precisely and dependably as on their first day of use.

Over the years, surgery has been marked by continuous progress. Olympus Surgical Technologies Europe has optimized surgical techniques and technical equipment to make such interventions as safe and gentle for the patient as possible. Laparo-Endoscopic Single-Site surgery – abbreviated LESS surgery – represents the advance in the development of surgical techniques and minimally invasive surgery. The entire operative intervention can be performed through one small incision.

The fields of urology, surgery, gynecology, arthroscopy and ENT are nowadays inconceivable without high-quality endoscopes. In a dialogue with experienced doctors from these application fields Olympus develops instruments for progressively less invasive methods of diagnosis and therapy.

## Medical Technology by Olympus

The development of surgical endoscopy ideally combines smallest-possible dimensions with best-quality image. It is here that Olympus sets the pace. Olympus Tokyo is one of the leading manufacturers of high-quality optical systems, while Olympus Surgical Technologies Europe, headquartered in Hamburg, is the development and production centre for endoscopy, bipolar high-frequency surgery, systems integration in the operating theatre (ENDOALPHA) and instrument reprocessing for the global market. Further core fields are service as well as distribution and training.

One reason for the success enjoyed by Olympus is the close cooperation between German and Japanese research and development engineers. The most modern optical technology from Japan is combined with German know-how in the field of high-precision mechanics. Today, a total of 1,100 people are employed at locations in Hamburg, Berlin and Tuttlingen in Germany, Přerov in the Czech Republic and Cardiff in Wales, United Kingdom.

Olympus Surgical Berlin is a pioneer in bipolar high-frequency technology. Olympus Surgical Cardiff supplies its optimum "See and Treat" solutions for the fields of endoscopy and open surgery. Olympus Surgical Tuttlingen has a large selection of products marketed under the well-known brands of Explorent, Stuemmer and Richards to cover the entire range of ENT applications. With its technology centre for the production, engineering and servicing of medical energy products, Olympus Surgical Přerov adds one of the most modern production sites in Europe to the group.





### Design Award Winner

1996, 1997, 1999, 2000, 2001, 2002, 2003, 2005, 2009, 2010

### hamburger **designpreis**<sup>o</sup>

#### Hamburg und Design

1999, 2006



### Good Design Award

2005, 2007, 2009



### Internationaler Designpreis

2004



### reddot design award

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2014



INFORMATIONSTECHNOLOGIE 2010

### Manufacturing Excellence Award

2010



### bundespreis produkt design

1996

At Olympus, product quality begins with the accuracy of the individual components. This requires high-precision manufacturing, followed by rigorous tests and checks. Independent institutions confirmed the high quality of the manufacturing process at an early stage.

In 1993 Olympus Surgical received certification by the technical supervisory authority TÜV Rheinland. Proof of fulfillment of European Directive 93/42 EEC for medical products and of German Medical Devices Act was acquired in September 1995: As a sign of their conformity with all of the legal European requirements, Olympus surgical products bear – since then – the CE labeling. Olympus Surgical is in compliance with the Canadian Medical Devices Assessment System (CMDCAS), the MHLW Ministerial Ordinance and the TCP (Technical Cooperation Programs, Taiwan). The Olympus Surgical group also conforms to the Good Manufacturing Practice (GMP) guidelines of the U.S. Food and Drug Administration (FDA).

Olympus instruments are regularly honoured for their ergonomics with the most important design prizes, among them the Red Dot Design Award, IF Design Award and the Good Design Award.

Olympus Surgical has implemented best-practice solutions. The company was honoured for the successful restructuring of its supply chain and the introduction of process organization with the Manufacturing Excellence Award (MX Award) in 2010.

Olympus Surgical Hamburg is a trustable trade partner. In January 2011, we have been successfully audited and are holding the title “Authorized Economic Operator” (AEO). As a result of increasing risks of terrorist activities new security measures had to be implemented.



■ Leading Business Centers

■ Worldwide subsidiaries and distributors

Olympus is represented by large sales organizations in America, Japan, Asia, Australia and Europe. And thanks to a compact network of its own subsidiaries and distributors, you can benefit from Olympus service and support throughout the world – as well as in your own local area. Addresses can be found on our global website: [www.olympus-global.com](http://www.olympus-global.com)

#### Imprint/Legal Notice

Olympus Surgical Technologies Europe

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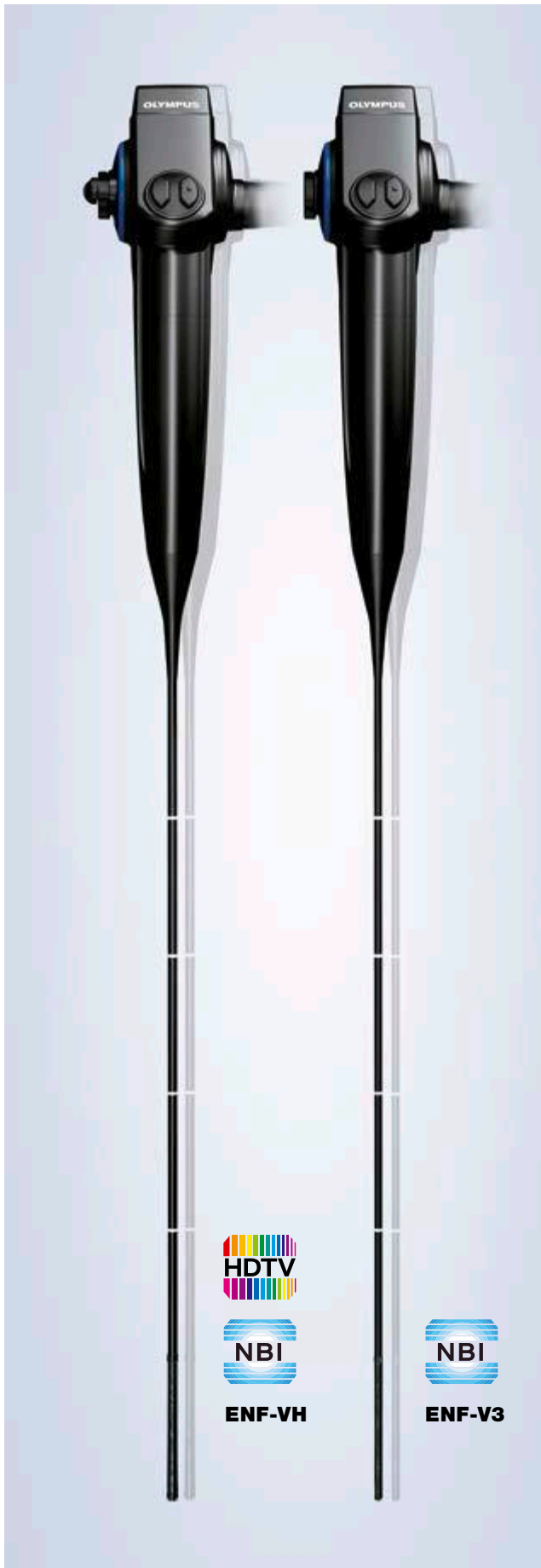






## Two Endoscopes Cover Most Examination Needs

- ENF-VH: for more detailed images achieved via HD
- ENF-V3: crisp, high-resolution images with a distal end diameter of only 2.6 mm  
Astounding image quality:  
Thanks to advances in CCD technology, ENF-VH delivers HD images which show even greater detail for examinations.
- Surprisingly slim diameter:  
The distal end of the ENF-V3 scope is only 2.6 mm in diameter. Also, the difference between the diameters of the distal end and the insertion tube is minimal, which makes insertion into tight nasal passages much easier. Moreover, the improved CCD chip means that even this slim scope delivers exceptional image quality.
- Exceptional luminosity:  
Although it has a small diameter, the scope still illuminates a broad area, providing a detailed image of any lesions within the field of view. This exceptional luminosity is especially useful when observing with NBI.
- Wide field of view:  
The ENF-VH has a viewing angle of 110°. Furthermore, with HD resolution and exceptional illumination, every corner of the field can be thoroughly inspected.
- Pre-freeze function:  
The scope continuously captures still images even before you push the pre-freeze button. When you press the button, the system automatically selects the sharpest image among several.
- NBI (Narrow Band Imaging):  
During endoscopic observation, NBI enhances visualization of the capillary network and mucosal morphology.



**VISERA**  
ELITE

### Rhino-Laryngo Videoscope ENF-VH

N3828360 ENF-VH Rhino-Laryngo Videoscope



Delivery includes: Endoscope,  
ETO cap

#### Technical Data

Optical system	
Field of view .....	110°
Direction of view .....	0° (forward viewing)
Depth of field.....	5–50 mm
Insertion section	
Distal end outer diameter .....	3.9 mm
Insertion tube outer diameter.....	3.6 mm
Insertion section working length .....	300 mm
Bending section	
Angulation range .....	130° up 130° down
Size	
Total length .....	510 mm
Common specifications	
Classification acc. to 93/42/EEC .....	Class IIa
EMC.....	group 1, class B
Protection against electric shock ....	Type BF applied part
Environment	
Operation .....	10–40° C 30–85% relative humidity 700–1060 hPa
Transportation and storage.....	-47–70° C 10–95% relative humidity 700–1060 hPa

### Rhino-Laryngo Videoscope ENF-V3

N3828260 ENF-V3 Rhino-Laryngo Videoscope



Delivery includes: Endoscope,  
ETO cap

#### Technical Data

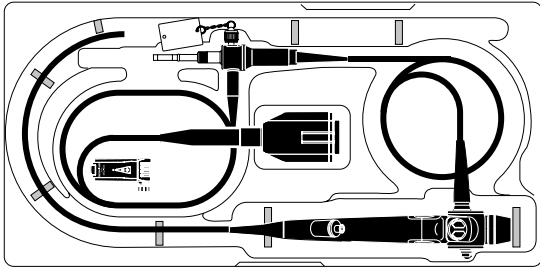
Optical system	
Field of view .....	90°
Direction of view .....	0° (forward viewing)
Depth of field.....	3.5–50 mm
Insertion section	
Distal end outer diameter .....	2.6 mm
Insertion tube outer diameter.....	2.9 mm
Insertion section working length .....	300 mm
Bending section	
Angulation range .....	130° up 130° down
Size	
Total length .....	510 mm
Common specifications	
Classification acc. to 93/42/EEC .....	Class IIa
EMC.....	group 1, class B
Protection against electric shock ....	type BF applied part
Environment	
Operation .....	10–40° C 30–85% relative humidity 700–1060 hPa
Transportation and storage.....	-47–70° C 10–95% relative humidity 700–1060 hPa



## Instrument Tray for Flexible Endoscopes

WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

outer dimensions: 531 x 79 x 255 mm

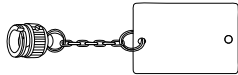


## Accessories

028616 MA-651 Mouthpiece

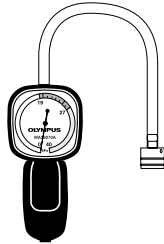


027706 MB-156 ETO cap



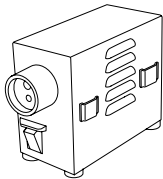
WA23080A Leakage tester,  
for flexible Olympus endoscopes

- for manual use
- with indicator
- for all Olympus surgical fiberscopes



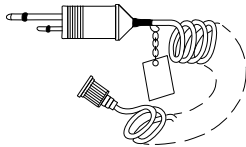
025249 MU-1 Maintenance unit

- to be used with MB-155



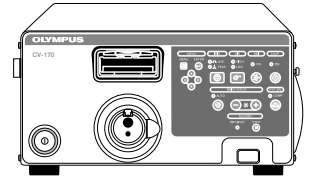
027700 MB-155 Water leakage tester

- for all flexible OES  
and EVIS endoscopes



## Video Systems

CV-170 Video System Center

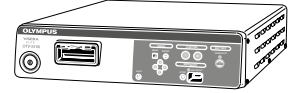


For details, see page 55.

OTV-S190 VISERA ELITE Video System Center

**VISERA  
ELITE**

For details, see page 589.



CV-190 EVIS EXERA III Video Processor

**EVIS EXERA III**

For details, see page 585.

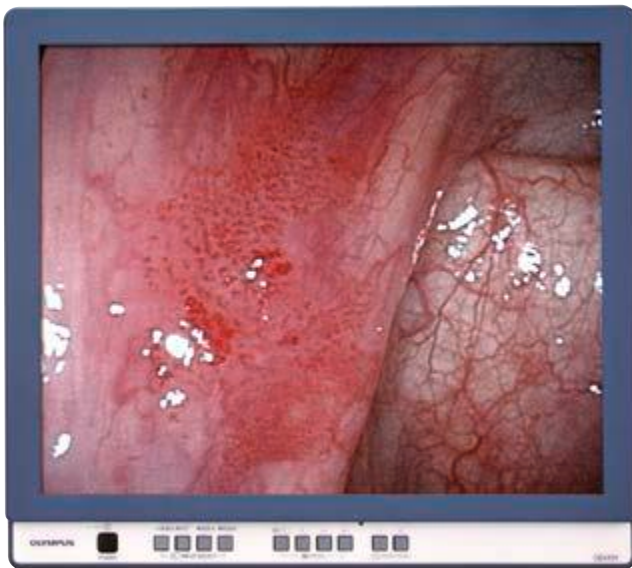






- “Chip-on-the-tip” for high-resolution images

The ENF-VQ features a distally mounted CCD that delivers high-resolution and full-screen images enabling you to observe minute otorhinolaryngeal details.



- Full-screen images: clear and bright in every corner

Full-screen images make observation much easier. With large-size images that are clear and bright even in the corners, the ENF-VQ makes it possible to detect minute details that would not have been previously detected.



- Narrow Band Imaging

When used with the EVIS EXERA II System, the ENF-VQ is compatible with Narrow Band Imaging (NBI). NBI is a powerful image processing function that exploits particular characteristics resulting from the interaction of light with tissue, and it enhances visualization of mucosal surfaces. When combined with ENF-VQ’s bright full-screen images, the result is remarkably clear views of anatomical structures and the fine capillary patterns of the mucous membranes, which are normally difficult to distinguish.





## EVIS EXERA II

The ENF-VQ provides high-resolution, full-screen images that are clear and bright throughout the entire field. This outstanding imaging capability is achieved without sacrificing the slim, compact design, enabling you to use this endoscope with a variety of patients.

Pursuing picture quality without compromising performance or versatility, the ENF-VQ brings unprecedented imaging to your ENT practice.

## Rhino-Laryngo Videoscope ENF-VQ

N3633860 ENF-VQ Rhino-Laryngo Videoscope

Delivery includes:  
Videoscope and ETO cap

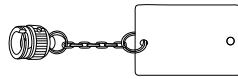
### Technical Data

Field of view .....	90°
Depth of field .....	5–50 mm
Outer diameter (distal tip) .....	3.9 mm
Outer diameter (insertion tube) .....	3.6 mm
Working length .....	300 mm
Total length .....	528 mm
Maximum angulation (up) .....	130°
Maximum angulation (down) .....	130°

For details, see page 633.

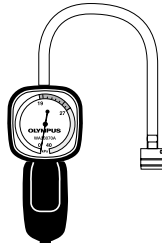
## Accessories

027706 MB-156 ETO cap



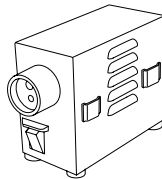
WA23080A Leakage tester,  
for flexible Olympus endoscopes

- for manual use
- with indicator
- for all Olympus surgical fiberscopes



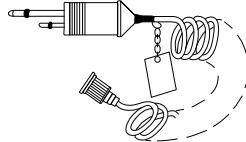
025249 MU-1 Maintenance unit

- to be used with MB-155



027700 MB-155 Water leakage tester

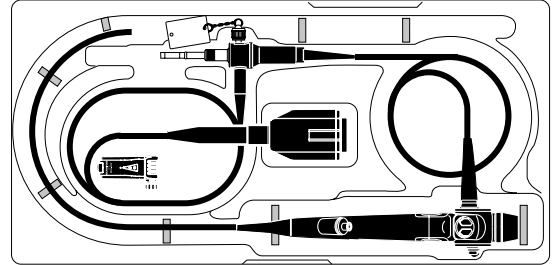
- for all flexible OES  
and EVIS endoscopes



## Instrument Tray for Flexible Endoscopes

WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

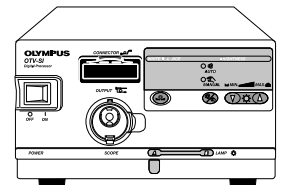
outer dimensions: 531 x 79 x 255 mm



## Video Systems

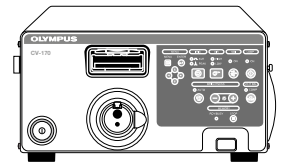
OTV-SI Video system

For details,  
see page 59.



CV-170 Video System Center

For details,  
see page 55.



OTV-S190 VISERA ELITE Video System Center

**VISERA  
ELITE**

For details, see page 589.



CV-190 EVIS EXERA III Video Processor

**EVIS EXERA III**

For details, see sheets 585.







The ENF-V2 not only delivers some of the brightest, clearest images available from a videoscope, but also boasts a revolutionary 3.2 mm ultra-thin diameter. A simultaneous multicolor CCD built into the tip provides color-resistant, moiré-free images.

- Focus-free high-resolution imaging
- 3.2 mm ultra-slim diameter
- Easy insertion while enabling clearer observation



**VISERA**

## Rhino-Laryngo Videoscope ENF-V2

N3633760 ENF-V2 Rhino-Laryngo Videoscope

Delivery includes:  
Endoscope, ETO cap and carrying case

### Technical Data

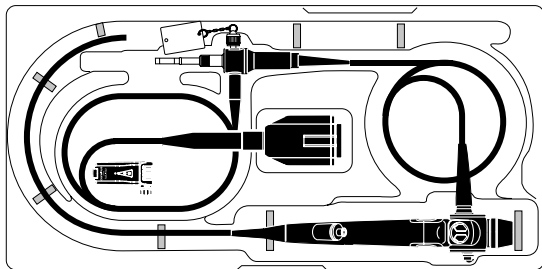
Field of view .....	90°
Depth of field.....	5–50 mm
Outer diameter (distal tip) .....	3.2 mm
Outer diameter (insertion tube) .....	3.4 mm
Working length .....	300 mm
Total length .....	528 mm
Maximum angulation (up) .....	130°
Maximum angulation (down).....	130°

For light-guide adapters, see page 633.

## Instrument Tray for Flexible Endoscopes

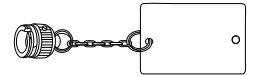
WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

outer dimensions: 531 x 79 x 255 mm



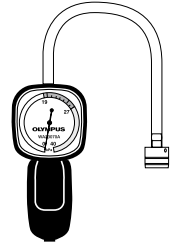
## Accessories

027706 MB-156 ETO cap



WA23080A Leakage tester,  
for flexible Olympus endoscopes

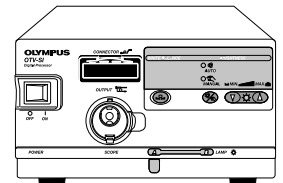
- for manual use
- with indicator
- for all Olympus surgical fiberscopes



## Video Systems

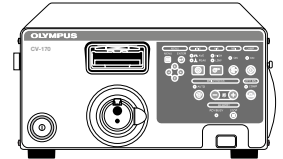
OTV-SI Video system

For details,  
see page 59.



CV-170 Video System Center

For details,  
see page 55.



OTV-S190 VISERA ELITE Video System Center

**VISERA  
ELITE**

For details, see page 589.



CV-190 EVIS EXERA III Video Processor

**EVIS EXERA III**

For details, see page 585.





The ENF-VT2 features outstanding observation capability and a reliable treatment performance. The high image quality combined with a close focus feature deliver the brightest and clearest images for greater accuracy.

- Superior chip-on-the-tip technology
- 2.0 mm viewing distance
- Large working channel with 2 mm in diameter
- NBI compatible
- Compatible with laser and electrosurgery treatments



## EVIS EXERA II

## Rhino-Laryngo Videoscope ENF-VT2

N5408430 ENF-VT2 Rhino-Laryngo Videoscope

Delivery includes:

Endoscope, biopsy valve MAJ-2101 (20 pcs.), biopsy valve MD-4953 (10 pcs.), suction valve MAJ-2072 (10 pcs.), suction valve MAJ-2092 (20 pcs.), suction cleaning adapter MAJ-222, cleaning brushes MH-507, BW-15B, and ETO cap

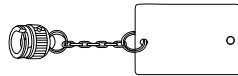
### Technical Data

Field of view .....	90°
Direction of view .....	0°
Depth of field.....	2–40 mm
Outer diameter (distal tip).....	4.8 mm
Outer diameter .....	4.9 mm
Working length .....	365 mm
Total length .....	635 mm
Maximum angulation (up).....	130°
Maximum angulation (down).....	130°
Instrument channel.....	∅ 2.0 mm

For light-guide adapters, see page 633.

## Accessories

027706 MB-156 ETO cap



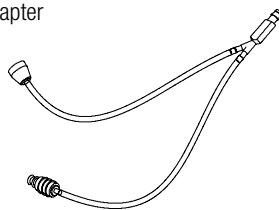
026441 MH-507 Cleaning brush,  
for channel opening



026799 BW-15B Cleaning brush,  
for instrument channel

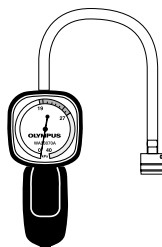


028962 MAJ-222 Suction cleaning adapter



WA23070A Leakage tester,  
for flexible Olympus endoscopes

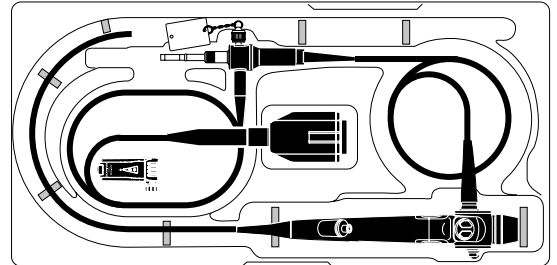
- for manual use
- with indicator
- for all Olympus surgical fiberscopes



## Instrument Tray for Flexible Endoscopes

WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

outer dimensions: 531 x 79 x 255 mm



## Attachments

028987 Suction valve,  
MAJ-209, disposable, 20 pcs.

028958 MAJ-207, semi-disposable, 10 pcs.



028988 Biopsy valve,  
MAJ-210, disposable, 20 pcs.

028899 MD-495, semi-disposable, 10 pcs.

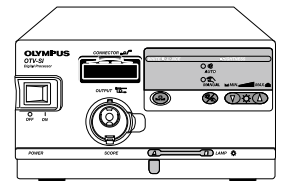


For Endo-Therapy instruments, see page 27.

## Video Systems

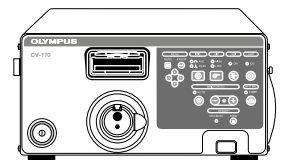
OTV-SI Video system

For details,  
see page 59.



CV-170 Video System Center

For details,  
see page 55.



OTV-S190 VISERA ELITE video system

For details, see page 589.

**VISERA  
ELITE**

CV-190 EVIS EXERA III Video Processor

For details, see page 585.

**EVIS EXERA III**





The ENF-GP is a complete, all-in-one portable solution for rhino-laryngoscopy. The diagnostic rhino-laryngo fiberscope can be used either with a standard light-guide cable or with an optional miniature light source. The EndoLED miniature light source provides extremely bright and whitish light to ensure clear visualization of the vocal cords at any location inside or outside the medical facility.

- Standard connector for most common light-guide cables
- Superior image size and resolution
- Advanced light distribution system
- Extremely bright EndoLED LED miniature light source for greater flexibility (accessory)

## Rhino-Laryngo Fiberscope ENF-GP

5789030 ENF-GP Rhino-Laryngo Fiberscope

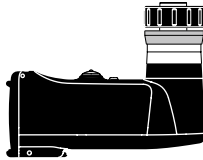
Delivery includes:  
Endoscope, ETO cap, light-guide adapter MAJ-900,  
and carrying case

### Technical Data

Field of view .....	85°
Direction of view .....	0°
Depth of field.....	5–50 mm
Outer diameter (distal tip) .....	3.4 mm
Outer diameter .....	3.6 mm
Working length .....	300 mm
Total length .....	530 mm
Maximum angulation (up) .....	130°
Maximum angulation (down).....	130°

## Light Source EndoLED

WA91502A Light source “EndoLED”,  
for flexible endoscopes

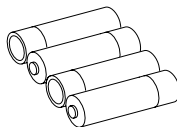


- for rechargeable batteries  
(requires 2 batteries),
- with battery status indicator (lasts up to 3 hrs.)

### Technical Data

Dimensions .....	70 (W) x 90 (H) x 35 (D) mm
Weight (without batteries).....	119 g

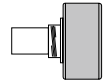
Battery,  
AA type, rechargeable,  
4 pcs.,



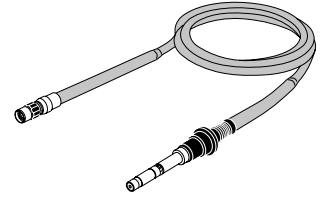
WA91505A Ansmann MaxE 2500  
N1453892 CAMEDIA B-01E

## Light-Guide Adapter

A70982A Light-guide adapter “MAJ-900”,  
OES light-guide cable to ENF-GP



WA03300A Light-guide cable,  
2.8 mm,  
3 m,  
CF type

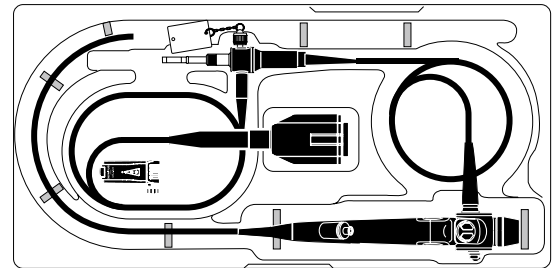


For light-guide adapters,  
see page 633.

## Instrument Tray for Flexible Endoscopes

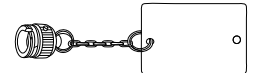
WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

outer dimensions: 531 x 79 x 255 mm



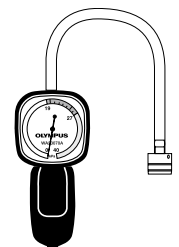
## Accessories

027706 MB-156 ETO cap



WA23070A Leakage tester,  
for flexible Olympus endoscopes

- for manual use
- with indicator
- for all Olympus surgical fiberscopes





The diagnostic ENF-P4 rhino-laryngo fiberscope represents the gold standard for safe rhino-laryngo diagnosis. Thanks to the latest fiber optic technology, the ENF-P4 displays bright images and high resolution with a slim outer diameter of 3.4 mm. The working length (300 mm) facilitates diagnosis behind the vocal cords; alternatively, the distance to the patient might be increased for hygienic reasons (if required).

- Highest optical quality
- Range of tip bending 130° up and down
- High resolution

## Rhino-Laryngo Fiberscope ENF-P4

5363530 ENF-P4 Rhino-Laryngo Fiberscope

Delivery includes:  
Endoscope, ETO cap and carrying case

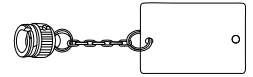
### Technical Data

Field of view .....	85°
Direction of view .....	0°
Depth of field .....	5–50 mm
Outer diameter (distal tip) .....	3.4 mm
Outer diameter .....	3.6 mm
Working length .....	300 mm
Total length .....	530 mm
Maximum angulation (up) .....	130°
Maximum angulation (down) .....	130°

For light-guide adapters, see page 633.

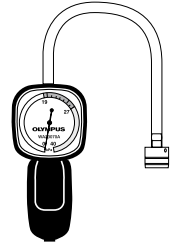
## Accessories

027706 MB-156 ETO cap



WA23080A Leakage tester,  
for flexible Olympus endoscopes

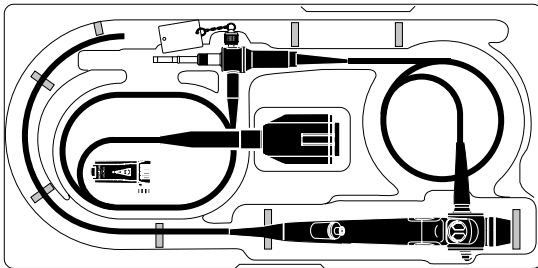
- for manual use
- with indicator
- for all Olympus surgical fiberscopes



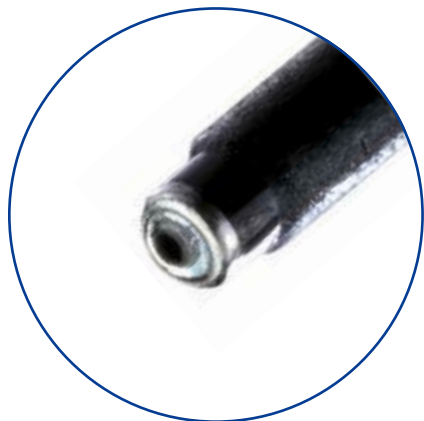
## Instrument Tray for Flexible Endoscopes

WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

outer dimensions: 531 x 79 x 255 mm







Even when faced with difficult anatomy, the ultra-slim 2.2 mm insertion section of this flexible rhino-laryngoscope facilitates minimally invasive access and is the right choice for pediatric application, featuring extraordinary image quality and brightness.

- 1.8 mm outer diameter of the distal tip
- Superior optical quality
- Range of tip bending 130° up and down
- Easy access to narrow lumen and paranasal sinuses

## Rhino-Laryngo Fiberscope ENF-XP

5363430 ENF-XP Rhino-Laryngo Fiberscope

Delivery includes:  
Endoscope, ETO cap, protection tube,  
and carrying case

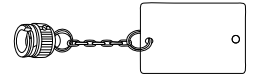
### Technical Data

Field of view .....	75°
Direction of view .....	0°
Depth of field.....	2.5–50 mm
Outer diameter (distal tip) .....	1.8 mm
Outer diameter .....	2.2 mm
Working length .....	300 mm
Total length .....	530 mm
Maximum angulation (up) .....	130°
Maximum angulation (down).....	130°

For light-guide adapters, see page 633.

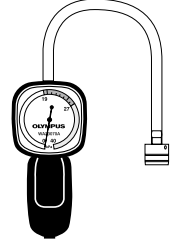
## Accessories

027706 MB-156 ETO cap



WA23080A Leakage tester,  
for flexible Olympus endoscopes

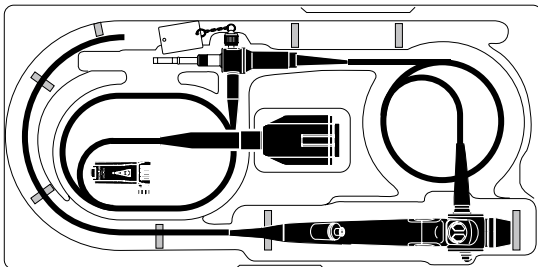
- for manual use
- with indicator
- for all Olympus surgical fiberscopes



## Instrument Tray for Flexible Endoscopes

WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

outer dimensions: 531 x 79 x 255 mm





With its 2.2 mm working channel and an outer diameter of 4.8 mm, this flexible rhino-laryngoscope is ideally suited for therapeutic interventions like biopsy, aspiration and removal of foreign bodies. Thanks to the slim outer diameter, applications can be performed gently under local anesthesia. The working length (365 mm) allows for biopsies, even in areas that are difficult to access.

- Range of tip bending 130° up and down
- Excellent optical quality
- Ideal therapeutic capability

## Rhino-Laryngo Fiberscope ENF-T3

N3823530 ENF-T3 Rhino-Laryngo Fiberscope

Delivery includes:

Endoscope, biopsy valve MAJ-210, valve holder MD-51, syringe valve MB-884, cleaning brushes BW-15B, MH-507, ETO cap, and carrying case

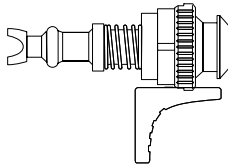
### Technical Data

Field of view .....	85°
Direction of view .....	0°
Depth of field.....	5–50 mm
Outer diameter (distal tip) .....	4.8 mm
Outer diameter .....	5.0 mm
Working channel diameter.....	2.2 mm
Working length .....	365 mm
Total length .....	585 mm
Maximum angulation (up) .....	130°
Maximum angulation (down).....	130°

For light-guide adapters, see page 633.

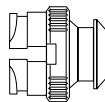
## Attachments

028900 MD-493 Aspiration valve



028847 MD-51 Plastic collar

- for biopsy valve MAJ-210
- spare for MD-493

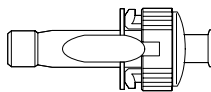


028988 MAJ-210 Disposable biopsy valve

- single use
- 20 pcs.



028848 MB-884 Syringe valve

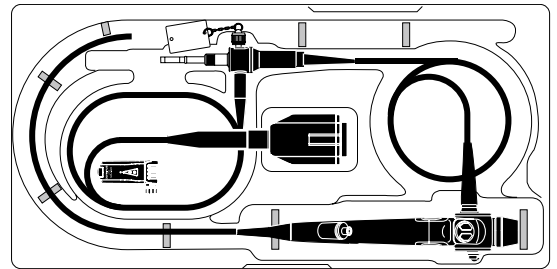


For Endo-Therapy instruments, see page 27.

## Instrument Tray for Flexible Endoscopes

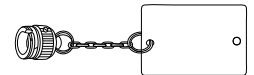
WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series

outer dimensions: 531 x 79 x 255 mm



## Accessories

027706 MB-156 ETO cap



026441 MH-507 Cleaning brush,  
for channel opening

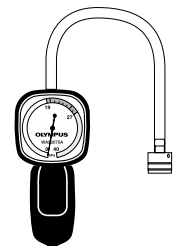


026799 BW-15B Cleaning brush,  
for instrument channel



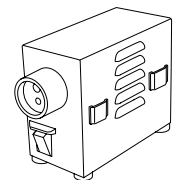
WA23080A Leakage tester,  
for flexible Olympus endoscopes

- for manual use
- with indicator
- for all Olympus surgical fiberscopes



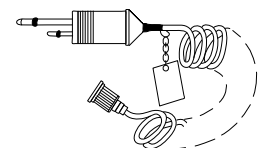
025249 MU-1 Maintenance unit

- to be used with MB-155



027700 MB-155 Water leakage tester

- for all flexible OES  
and EVIS endoscopes

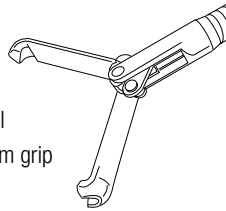


## Reusable Grasping Forceps

For ENF-VT2

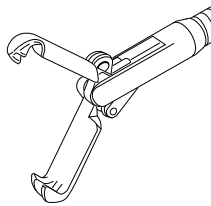
A02902A Grasping forceps "FG-53SX-1",  
1.85 x 700 mm

- For stent and foreign body removal
- Wide jaws with rat teeth to give firm grip



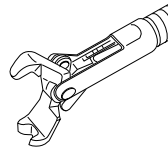
A2819 Grasping forceps "FG-38SX-1",  
1.85 x 700 mm

- For stent and foreign body removal
- Jaws with rat teeth to give firm grip



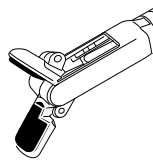
026238 Grasping forceps "FG-14P-1",  
rat tooth,  
1.85 x 1900 mm

- For removal of stents and flat objects
- Rat tooth for firm grip



026266 Grasping forceps "FG-20P-1",  
silicone tip,  
1.85 x 1900 mm

- Silicone tip for slippery, flat objects

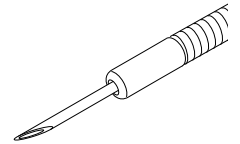


## Injection Needle

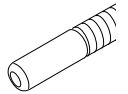
For ENF-VT2

- Reusable outer metal sheath used with single use inner needle
- Ergonomic handle with positive "click" action
- Metal coil sheath enhances mucosal penetration.
- Two-way safety stop for easy handling and to protect endoscope channel

026540 Cannula "MAJ-75/NM-8L-1",  
0.6 x 1650 mm,  
6 pcs.,  
sterile, single use



026992 Sheath "MAJ-74",  
for needle MAJ-75 (NM-8L-1),  
1 pc., reusable

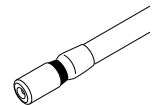


## Reusable Spray Catheter

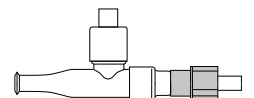
For ENF-VT2

- To spray dye on suspected areas to confirm the size and location of lesions.
- Diffuse dye evenly over a wider area.

026027 Cannula "PW-6C-1",  
1050 mm



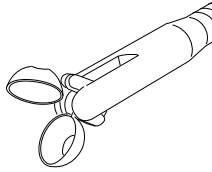
026028 Valve "MAJ-929",  
for PW-6C-1



## Single Use Biopsy Forceps

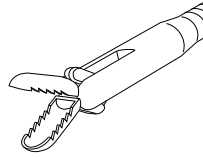
For ENF-VT2 and ENF-T3

026659 Biopsy forceps "FB-52C-1", fenestrated, 1.8 x 1050 mm



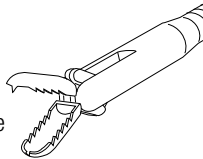
- Ellipsoid cups for deeper biopsies
- Rat tooth to aid anchorage
- Alligator jaws to prevent slippage
- Unique SwingJaw mechanism to aid tangential biopsies
- Fenestrated cups for larger biopsies

A2344 Biopsy forceps "FB-15C-1", 1.8 x 1050 mm



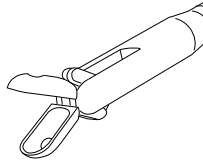
- For biopsy of tough tissue
- Alligator jaws to prevent slippage

A2811 Biopsy forceps, fenestrated, "FB-19C-1", 1.8 x 1050 mm  
026671 "FB-19CR-1", 1.9 x 1050 mm, rotatable



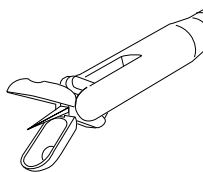
- For routine biopsies
- Fenestrated cups for larger biopsies
- Minimum tissue damage
- Rotatable version for accurate positioning

A9174 Biopsy forceps "FB-21C-1", ellipsoid, fenestrated, 1.8 x 1050 mm



- Ellipsoid cups for deeper biopsies
- Fenestrated cups for larger biopsies

A9173 Biopsy forceps "FB-34C-1", fenestrated, with needle, 1.8 x 1050 mm



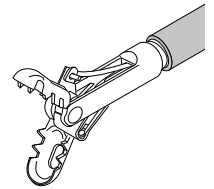
- Needle for improved anchorage
- Fenestrated cups for larger biopsies
- Minimum tissue damage

## Single Use Biopsy Forceps

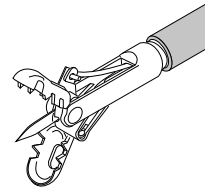
For ENF-VT2

- Ribbed coated sheath to aid insertion
- Fenestrated cups for larger biopsies
- Unique swinging jaw mechanism to aid tangential biopsies
- Color coded sheaths for easy recognition

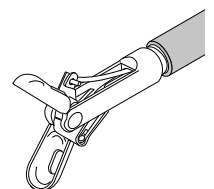
N1081630 Biopsy forceps "FB-211D", alligator jaws, 1.9 x 1150 mm, sterile, single use, 20 pcs.



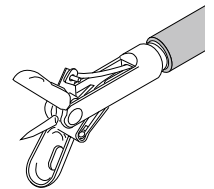
N1081830 Biopsy forceps "FB-221D", alligator jaws, with needle, 1.9 x 1150 mm, sterile, single use, 20 pcs.

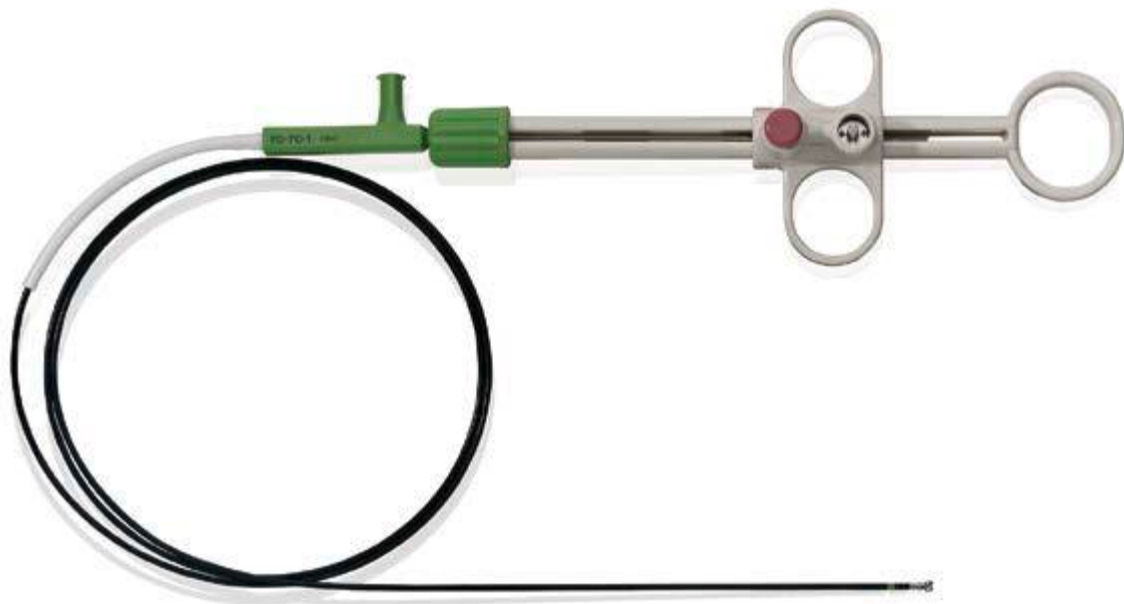


N1082030 Biopsy forceps "FB-231D", 1.9 x 1150 mm, sterile, single use, 20 pcs.



N1082230 Biopsy forceps "FB-241D", with needle, 1.9 x 1150 mm, sterile, single use, 20 pcs.

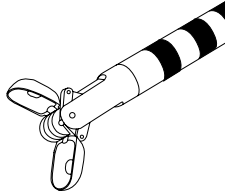




## Hot Biopsy Forceps

A02909A  
024880

Biopsy forceps "FD-7C-1",  
6 Fr. x 1050 mm,  
monopolar,  
A set\*  
B set



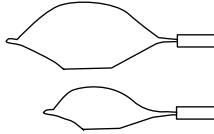
A set includes: Forceps, handle MH-264, HF cable MH-969  
B set includes: Forceps

- Oval cups
- Uses HF current to coagulate and cut

## Electrosurgical Snares

on request  
A02911A  
on request  
A02912A

HF electrode, monopolar,  
1.87 mm x 1050 mm,  
"SD-7C-1", A set\*, loop 23 mm Ø  
"SD-7C-1", B set, loop 23 mm Ø  
"SD-18C-1", A set\*, loop 13 mm Ø  
"SD-18C-1", B set, loop 13 mm Ø



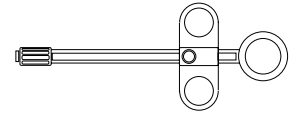
A set includes: 2 snare tubes, 2 snare wires,  
handle MH-264, HF cable MH-969  
B set includes: 2 snare tubes, 2 snare wires

- For debulking of tumor
- Braided wire 0.3 mm
- Green safety marking at distal end of catheter

## Handle

A02910A

SD Handle "MH-264",  
for monopolar instruments  
FD-7C-1, SD-7C-1,  
SD-18C-1, KD-31C-1



## Coagulation Electrode

N1072530

HF electrode "CD-6C-1",  
1.9 mm x 1050 mm,  
button, for coagulation,  
monopolar, 1 pc.



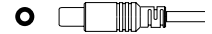
- For haemostasis after biopsy and coagulation of ulcer lesions
- Fixed distal tip
- Green safety marking at distal end of catheter

## HF Cables for ET Instruments

For SD Handle "MH-264" and HF electrode CD-6C-1.

A02915A

HF cable "MAJ-860", monopolar,  
for Olympus UES-30/-40,  
Erbe International, new generation Valleylab,  
Bovie, and Bowa HF units,  
2.09 m length



A8406

HF cable "MH-969", monopolar,  
for Olympus UES-10/-20,  
and old generation Valleylab HF units,  
3 m length



A02916A

HF cable "MAJ-861", monopolar,  
for Erbe T series, Martin,  
and Berchtold HF units,  
2.07 m length



For details, see page 635.



### LARYNGOSCOPES

HD Laryngoscope Rigid Laryngoscopes	33
Telescopes for Larynx Surgery	37

### SINUSCOPES

ULTRA Sinusscopes VISERA 4K UHD	41
HD Sinusscopes 4 mm	45
ENDORIZON V-DOV Multi-View Sinuscope	47
TrueView II 2.7 mm Sinusscopes	49
Mini-TrueView 1.9 mm Sinusscopes	51

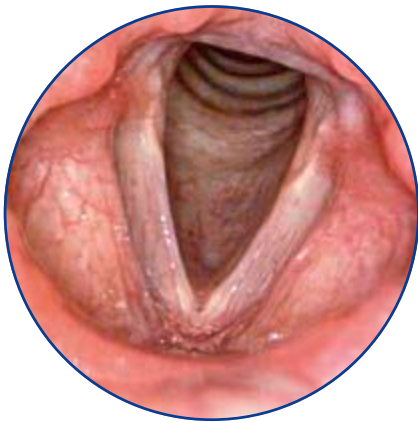




Design  
Award  
Winner  
2009



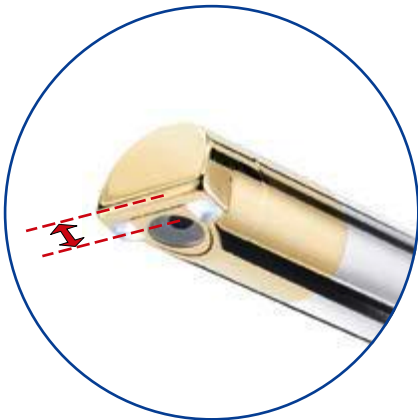
reddot design award  
winner 2009



- High definition  
High image quality – great convenience  
The HD laryngoscope offers a unique HD optical system.  
Contrast and color technology represent the highest level of technology.  
Thanks to the large depth of field, no refocusing is required during procedures.



- High durability  
Innovative design – great durability  
Reduced costs over lifetime: The newly designed lens system ensures serious durability.  
Shocks are absorbed by the innovative lens protection system; lens breakage is reduced during daily work and reprocessing.



- Designed for patients' convenience  
Less pharyngeal reflex: The distance between the optics and the distal end is minimized.



- Ready for use  
The HD laryngoscope is compatible with all the relevant reprocessing techniques – autoclaving, automated cleaning and disinfection (glutaraldehyde and peracetic acid processes).  
Detachable handle for easy and complete cleaning.



reddot design award  
winner 2009



Design  
Award  
Winner  
2009

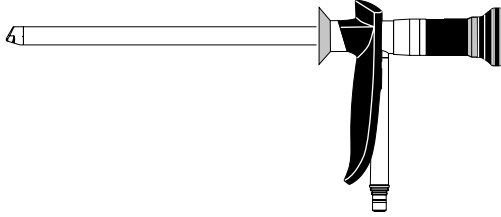


- High definition, high durability
- No refocusing required thanks to the high depth of field.
- Designed for patients' convenience.
- Detachable handle for easy and complete cleaning
- Excellent reprocessing compatibility

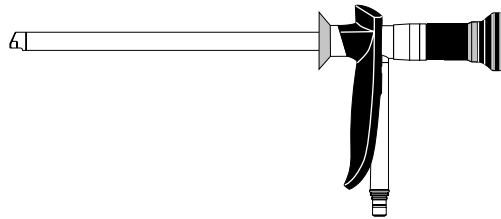
## High Definition Laryngoscope

HD laryngoscopes are delivered with a detachable handle.

WA96100A Telescope,  
10 mm, 70°,  
autoclavable



WA96105A Telescope,  
10 mm, 90°,  
autoclavable



### Technical Data

#### Dimensions

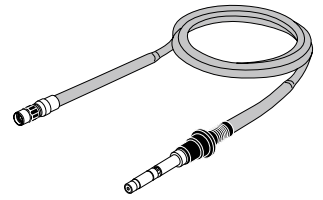
Outer diameter ..... 10 mm  
Working length ..... 167 mm

#### Direction of view

WA96100A ..... 70°  
WA96105A ..... 90°

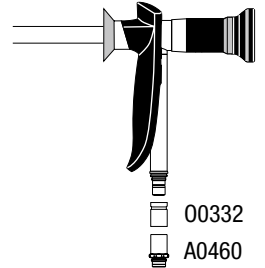
## Accessories

WA03310A Light-guide cable,  
4.25 mm,  
3 m,  
CF type

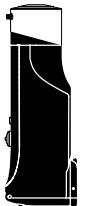


For light-guide adapters,  
see page 631.

A0460  
00332 Light-guide adapter,  
for Storz light-guide cables  
for Wolf light-guide cables

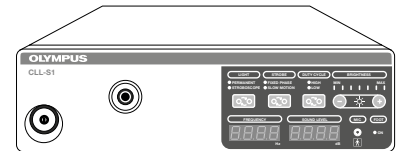


WA91500A Light source “EndoLED”,  
for rigid endoscopes



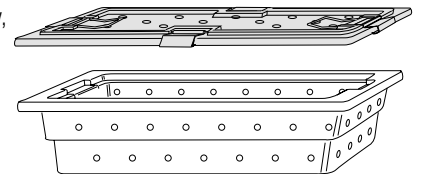
For details, see page 607.

WA97010A Light source “OLYMPUS CLL-S1”,  
for stroboscopy



For details, see page 601.

WA05970A Instrument tray,  
large,  
with lid



Delivery includes silicone mat WA05980A.  
Outer dimensions 537 × 139 × 268 mm

For details, see page 671.



- Brilliant image quality
- Better definition of margins with NBI and HDTV
- High depth of field – no refocusing required
- New approach for better diagnosis



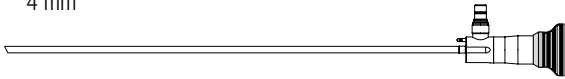
## 4 mm Telescopes

Telescopes are delivered with instrument tray WA05990A.  
For details, see page 669.

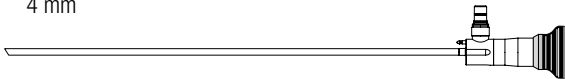
A22000A Telescope,  
0°,  
4 mm



A22001A Telescope,  
12°,  
4 mm



A22002A Telescope,  
30°,  
4 mm



A22003A Telescope,  
70°,  
4 mm



A22004A Telescope,  
110°,  
4 mm



A22005A Telescope,  
30°, wide angle,  
4 mm



## 5.4 mm Telescopes

Telescopes are delivered with instrument tray WA05990A.  
For details, see page 669.

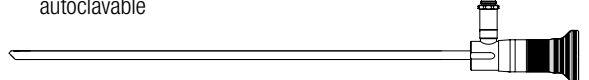
WA50372B Telescope,  
5.4 mm,  
0°,  
quick lock,  
autoclavable



WA50373B Telescope,  
5.4 mm,  
30°,  
quick lock,  
autoclavable



WA50374B Telescope,  
5.4 mm,  
45°,  
quick lock,  
autoclavable



A5333 Eyepiece cup,  
quick lock



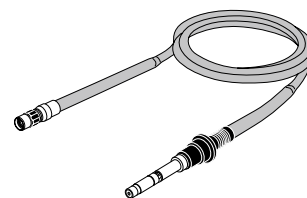


### Technical Data

Outer Diameter	
A22000A/-01A/-02A/-03A/-04A/-05A.....	4 mm
WA50372B/-73B/-74B .....	5.4 mm
Working length	
A22000A/-01A .....	280 mm
A222002A.....	282 mm
A222003A/-04A.....	284 mm
A222005A.....	283 mm
WA50372B/-73B/-74B .....	299 mm
Direction of view	
A22000A, WA50372B .....	0°
A22001A .....	12°
A22002A, WA50373B .....	30°
WA50374B .....	45°
A22003A.....	70°
A22004A.....	110°
A22005A.....	30° wide angle

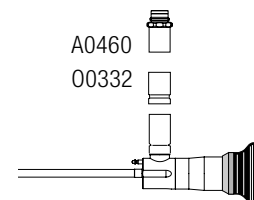
### Accessories and Spare Parts

	Light-guide cable, 3 m, CF type,
WA03300A	2.8 mm
WA03310A	4.25 mm



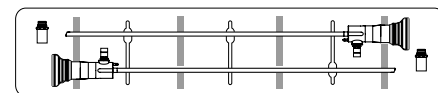
For details, see page 629.

	Light-guide adapter, for Storz light-guide cables
A0460	
	for Wolf light-guide cables
O0332	



### Instrument Tray

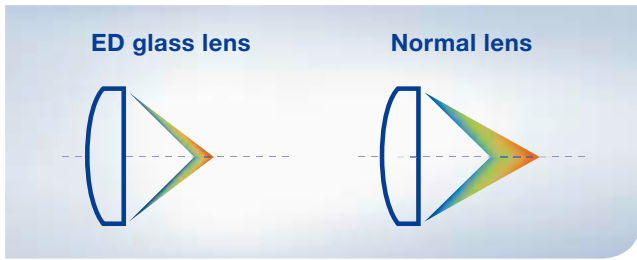
WA05990A	Instrument tray, for 2 telescopes
----------	--------------------------------------



For details, see page 669.



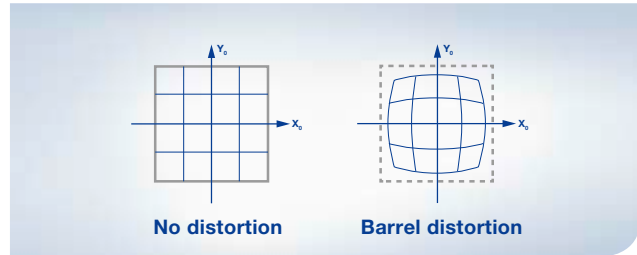




## ED Glass Lenses – Razor-Sharp Images

- Optimized for high-resolution imaging
- High contrast at high spatial frequencies
- Precise distinction of colors

## Distortion-Free Images (5.4 mm telescope)



- Clear images, even at the edges
- No barrel or pincushion distortion (using 5.4 mm telescope)



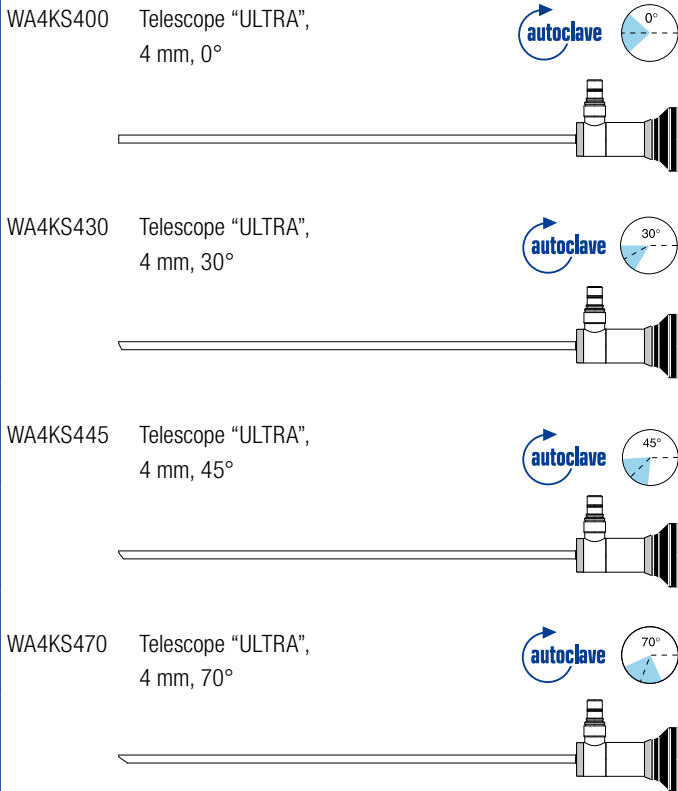
- Full autoclavability  
Reduced waste due to full reusability of the telescopes
- Compatibility  
Mechanical compatibility with current generations of camera heads and light-guide cables from Olympus and other manufacturers that comply with DIN 58105.



- Optimized for high-resolution imaging
- High contrast at high spatial frequencies
- Precise distinction of colors

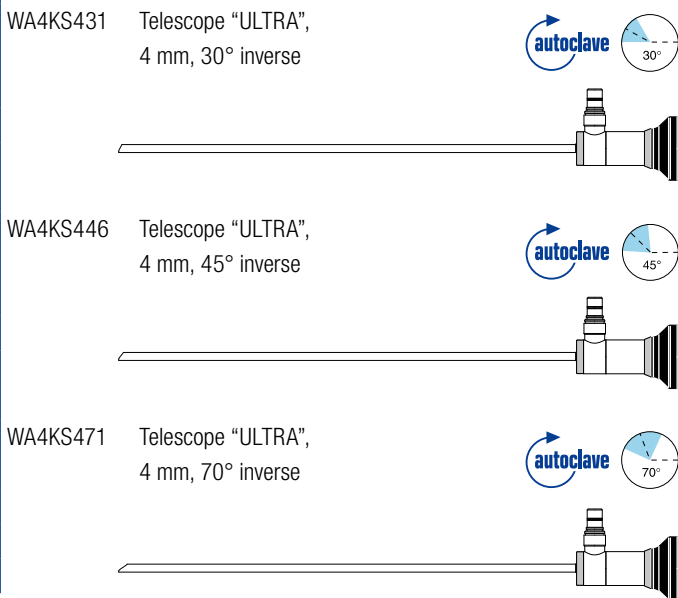
## 4 mm ULTRA Sinuscopes

- Light-guide connector on top of the telescope



## Inverse 4 mm ULTRA Sinuscopes

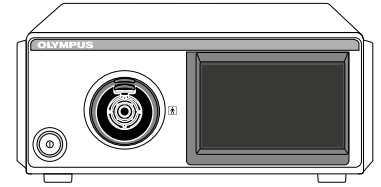
- Light-guide connector on bottom of the telescope



## Video Systems

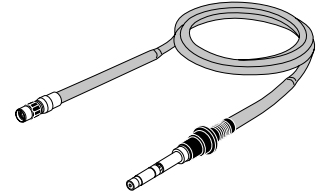
OTV-S400 VISERA 4K UHD  
camera control unit

**4K**  
VISERA



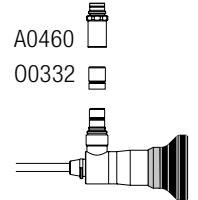
## Accessories and Spare Parts

WA03300A Light-guide cable,  
2.8 mm,  
3 m,  
CF type



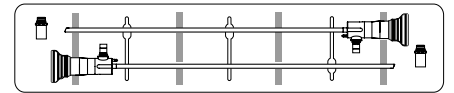
For light-guide adapters,  
see page 629.

A0460 Light-guide adapter,  
for Storz light-guide cables  
00332 for Wolf light-guide cables



## Instrument Tray

WA05990A Instrument tray,  
for 2 telescopes



For details, see page 669.

## Technical Data

Outer Diameter .....	4 mm
Working length	
WA4KS400 .....	176.7 mm
WA4KS430/-31 .....	176.9 mm
WA4KS445/-46 .....	177.2 mm
WA4KS470/-71 .....	178.2 mm
Direction of view	
WA4KS400 .....	0°
WA4KS430/-31 .....	30°
WA4KS445/-46 .....	45°
WA4KS470/-71 .....	70°
Field of view .....	93°





The true color lens system of the 4 mm HD Sinusscopes allows for definition and clarity of mere structures throughout the endoscopic field. When combined with their durable mechanical design, the HD Sinusscopes become something truly special.

- Outstanding optical quality thanks to excellent contrast and homogeneous illumination
- No reprocessing concerns:
  - Autoclavable
  - Glutaraldehyde and peracetic acid compatible
  - Washer/disinfector compatible
- Complete product line: diverse direction of view, connector for light guide on top and on bottom

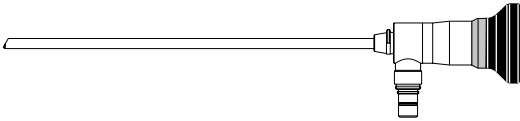


## 4 mm HD Sinusopes

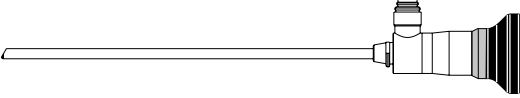
WA96200A Telescope, 4 mm, 0°, connector for light guide on bottom, autoclavable



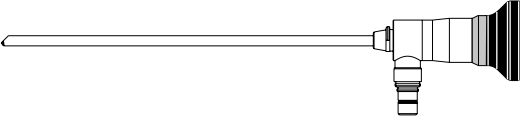
WA96201A Telescope, 4 mm, 30°, connector for light guide on bottom, autoclavable



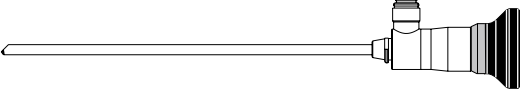
WA96202A Telescope, 4 mm, 30°, connector for light guide on top, autoclavable



WA96203A Telescope, 4 mm, 45°, connector for light guide on bottom, autoclavable



WA96204A Telescope, 4 mm, 45°, connector for light guide on top, autoclavable



WA96205A Telescope, 4 mm, 70°, connector for light guide on bottom, autoclavable



WA96206A Telescope, 4 mm, 70°, connector for light guide on top, autoclavable

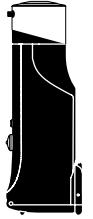


## Accessories and Spare Parts

WA96208 Handle, for sinuscope

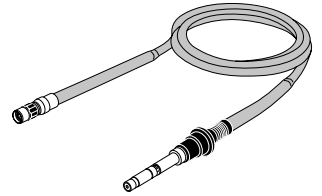


WA91500A Light source "EndoLED", for rigid endoscopes



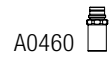
For details, see page 607.

WA03300A Light-guide cable, 2.8 mm, 3 m, CF type

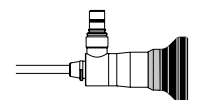
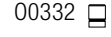


For details, see page 629.

A0460 Light-guide adapter, for Storz light-guide cables

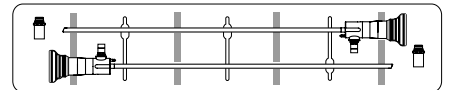


O0332 for Wolf light-guide cables



## Instrument Tray

WA05990A Instrument tray, for 2 telescopes



For details, see page 669.

## Technical Data

Outer Diameter.....	4 mm
Working length	
WA96200A/-03A.....	147,5 mm
WA96201A/-02A/-04A.....	147,9 mm
WA96205A/-06A.....	148,4 mm
Direction of view	
WA96200A.....	0°
WA96201A/-02A.....	30°
WA96203A/-04A.....	45°
WA96205A/-06A.....	70°

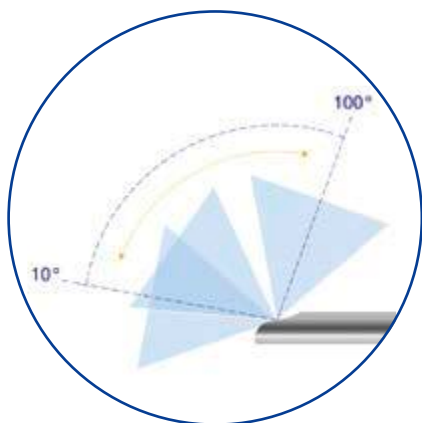






Broadening the horizon in sinuscopy with the ENDORIZON V-DOV Multi-View sinuscope.

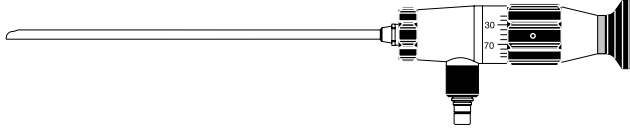
Two thumb wheels allow you to adjust the direction of view and rotate the entire endoscope. Orientation is made quicker and easier by just moving a fingertip. The ENDORIZON sinuscope visualizes the ethmoid, frontal, and sphenoid sinus without changing from one conventional telescope with fixed direction of view to another. Thus, tissue damage decreases and the procedural time is reduced, making the procedure more cost-efficient.



- Continuously variable direction of view from 10° to 100°
- 340° rotatable shaft system
- Ergonomic design
- Fully autoclavable

## ENDORIZON V-DOV Sinuscope

WA9T400V Telescope "V-DOV",  
4 mm,  
autoclavable



Delivery includes:  
protective tube WA9P400A

### Technical Data

#### Dimensions

Maximum insertion portion width.....4.35 mm  
Working length ..... 175.5 mm  
Direction of view ..... 10 – 100°

#### Ambient conditions

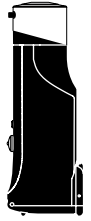
Operation .....temperature 10 – 40 °C  
relative humidity 30 – 85 %  
Storage .....temperature 10 – 40 °C  
relative humidity 30 – 85 %  
Transport..... temperature -29 – 60 °C  
relative humidity 30 – 85 %

WA9P400A Spare protective tube "V-DOV",  
4 mm telescope



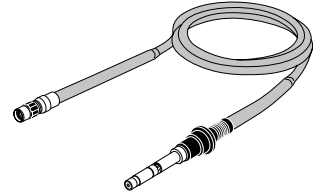
## Accessories and Spare Parts

WA91500A Light source "EndoLED",  
for rigid endoscopes



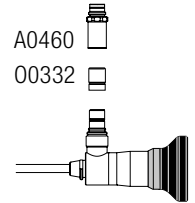
For details, see page 607.

WA03300A Light-guide cable,  
2.8 mm,  
3 m,  
CF type



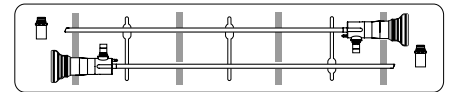
For details, see page 629.

A0460 Light-guide adapter,  
for Storz light-guide cables  
00332 for Wolf light-guide cables



## Instrument Tray

WA05990A Instrument tray,  
for 2 telescopes



For details, see page 669.





The 2.7 mm TrueView II telescopes are based on an outstanding lens system. It is the combination of superior optical performance and durable mechanical design that makes Olympus telescopes something special.

- Superior optical quality
- Brilliant color reproduction
- Durable mechanical design

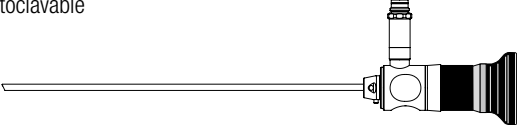


## 2.7 mm TrueView II Telescopes

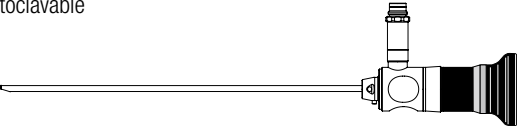
A70960A Telescope "TrueView II",  
2.7 mm, 0°,  
autoclavable



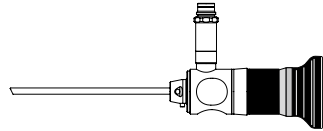
A70961A Telescope "TrueView II",  
2.7 mm, 30°,  
autoclavable



A70962A Telescope "TrueView II",  
2.7 mm, 70°,  
autoclavable



A70963A Telescope "TrueView II",  
2.7 mm, 30°,  
autoclavable

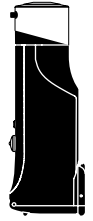


## Technical Data

Outer Diameter .....	2.7 mm
Working length	
A70960A/-61A/-62A .....	160 mm
A70963A .....	70 mm
Direction of view	
A70960A .....	0°
A70961A/-63A .....	30°
A70962A .....	70°

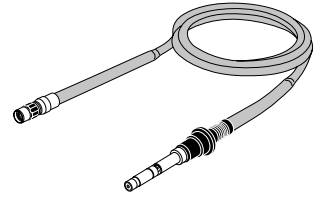
## Accessories and Spare Parts

WA91500A Light source "EndoLED",  
for rigid endoscopes



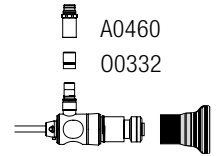
For details, see page 607.

WA03300A Light-guide cable,  
2.8 mm,  
3 m,  
CF type



For details, see page 629.

A0460 Light-guide adapter,  
for Storz light-guide cables  
00332 for Wolf light-guide cables

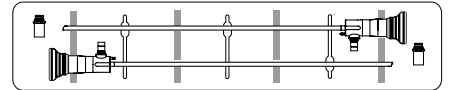


A5333 Eyepiece cup,  
for telescopes

A5333

## Instrument Tray

WA05990A Instrument tray,  
for 2 telescopes



For details, see page 669.





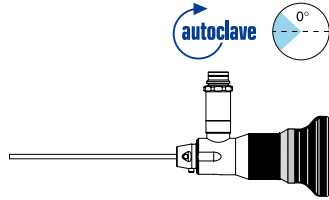
Based on the TrueView II design, a new generation of 1.9 mm telescopes for sinus surgery is available. The new telescope class is fully autoclavable and very durable thanks to Olympus's advanced fiber technology. For the physician, the new telescope class means bright images, brilliant color reproduction, high resolution and ergonomic design.



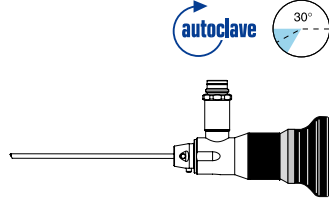
- High durability
- Fiber technology

## 1.9 mm TrueView Telescopes

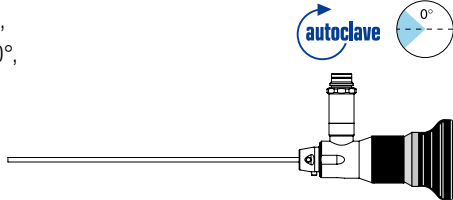
A7504A Telescope,  
1.9 mm, 0°,  
65 mm,  
autoclavable



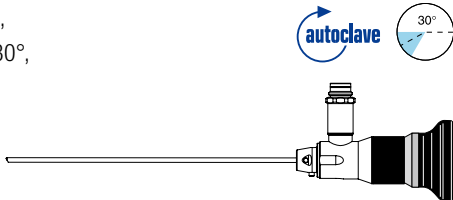
A7505A Telescope,  
1.9 mm, 30°,  
65 mm,  
autoclavable



A7506A Telescope,  
1.9 mm, 0°,  
115 mm



A7507A Telescope,  
1.9 mm, 30°,  
115 mm



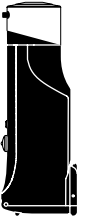
## Technical Data

Outer Diameter .....	1.9 mm
Working length	
A7504A/-05A .....	65 mm
A7506/-07A .....	115 mm
Direction of view	
A7504A/-06A .....	0°
A7505A/-07A .....	30°

## Accessories and Spare Parts

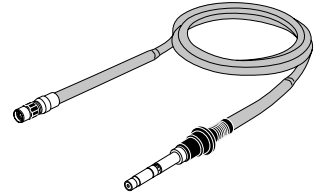
WA91500A Light source "EndoLED",  
for rigid endoscopes

For details, see page 607.



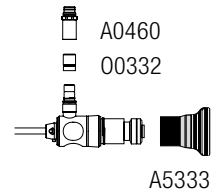
WA03300A Light-guide cable,  
2.8 mm,  
3 m,  
CF type

For details, see page 629.



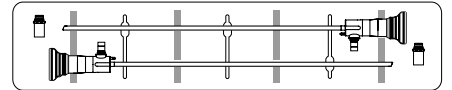
A0460 Light-guide adapter,  
for Storz light-guide cables  
O0332 for Wolf light-guide cables

A5333 Eyepiece cup,  
for telescopes



## Instrument Tray

WA05990A Instrument tray,  
for 2 telescopes



For details, see page 669.

### ENT VIDEO SYSTEMS

CV-170 ENT Imaging Platform	55
OTV-SI ENT Office Video Endoscopy System	59

### DIEGO

DIEGO ELITE Multidebrider	63
PK DIEGO Powered Dissector System	69
DIEGO System Sinus Application Blades	75
DIEGO System Burrs, Nasopharyngeal and Laryngeal Application Blades	77
Viper Otology Drill System	79
Drill Burr Line for Viper Otology Drill System	81

### CELON

RFITT Bipolar Radiofrequency-Induced Thermotherapy	83
ESG-200	85
CELON ELITE ProCut	87
CelonENT RFITT for ENT Treatment	89
CelonProCut Accessories	91







## HDTV

High-resolution HDTV images deliver sharp and clear details, boosting observation capabilities when viewing mucosal structures and other vessel patterns. The system's improved imaging with minimal halation and image noise effectively and efficiently supports diagnostics. This superior performance will take the potential of endoscopy to a new level.



- Clinical pictures of suspicious tissue can be easily recorded and stored on the MAJ 1925 portable memory drive.

## NBI (Narrow Band Imaging)

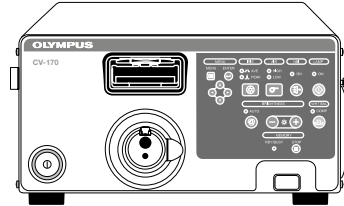
NBI enhances the visibility of capillaries and other structures on the mucosal surface by using special illumination to optically contrast abnormal tissue against the surrounding healthy area. This advanced and unique visualization technology potentially eliminates unnecessary biopsies and improves examination quality. The combination of NBI and HDTV aims to facilitate optimal diagnosis and treatment.

## Compact Design with LED Technology

- The CV-170's all-in-one design condenses its performance into a compact and convenient size.
- The newly adopted long-life LED lamp minimizes lamp replacement and thus makes maintenance much easier. It generates virtually no heat, ensuring long hours of operation while reducing energy and noise.

### Video System Center

- Video system center "CV-170", set, with videoscope,
- E0497606 with ENF-V3<sup>1</sup>
  - E0497607 with ENF-VH<sup>1</sup>
  - E0497610 with ENF-VT<sup>2</sup>
  - E0497648 with ENF-VQ<sup>3</sup>
  - E0497649 with ENF-V2<sup>4</sup>

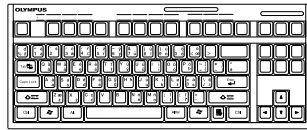


Delivery includes:  
video system center, videoscope, keyboard (MAJ-2004),  
foot holder (MAJ-699), white cap (MH-155), water container  
(MAJ-901), portable memory (MAJ-1925), SDI cable  
(MAJ-1951), white cap holder (MAJ-960), power cable

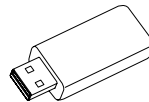
<sup>1</sup> For details, see page 7.  
<sup>2</sup> For details, see page 17.  
<sup>3</sup> For details, see page 11.  
<sup>4</sup> For details, see page 15.

### Accessories

- N4493050 Keyboard "MAJ-2004"

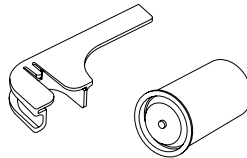


- N3647000 Portable memory "MAJ-1925"



- 6882800 White cap set "MAJ-941"

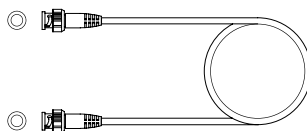
For white balance,  
includes white cap MH-155 and  
white cap holder MAJ-960.



- GJ6819 Foot holder "MAJ-699"  
4 pcs.



- N3647800 SDI cable "MAJ-1951"



### Technical Data

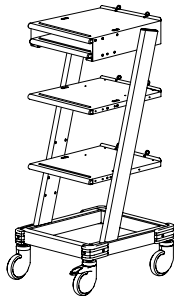
Power supply	
Voltage.....	220 – 240 V ~
Frequency .....	50/60 Hz
Power consumption .....	200 VA
Size	
Dimensions, standard .....	width 295 mm
	height 145 mm
	depth 425 mm
Weight .....	11 kg
Safety	
Protection against electric shock .....	class I
Directive 93/42/EEC .....	class IIa
Observation	
Analog HDTV.....	output RGB (1080/50i)
	YPbPr (1080/50i)
Analog SDTV output.....	VBS composite (576/50i: PAL)
	Y/C (576/50i: PAL)
	RGB (576/50i: PAL)
Digital signal output .....	SDI (HD-SDI or SD-SDI)
	DVI (WUXGA, 1080p or SXGA)
Illumination	
Examination lamp .....	LED
Observation mode.....	normal or NBI
Ambient conditions	
Operation .....	temperature 10 – 40 °C
	relative humidity 30 – 85 %
	atmospheric pressure 700 – 1060 hPa
Transport and storage.....	temperature -25 – 70 °C
	relative humidity 10 – 90 %
	atmospheric pressure 700 – 1060 hPa

### Camera Heads

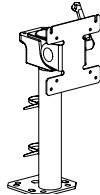
For compatible OTV-S7H series camera heads,  
see page 593.

## Trolley

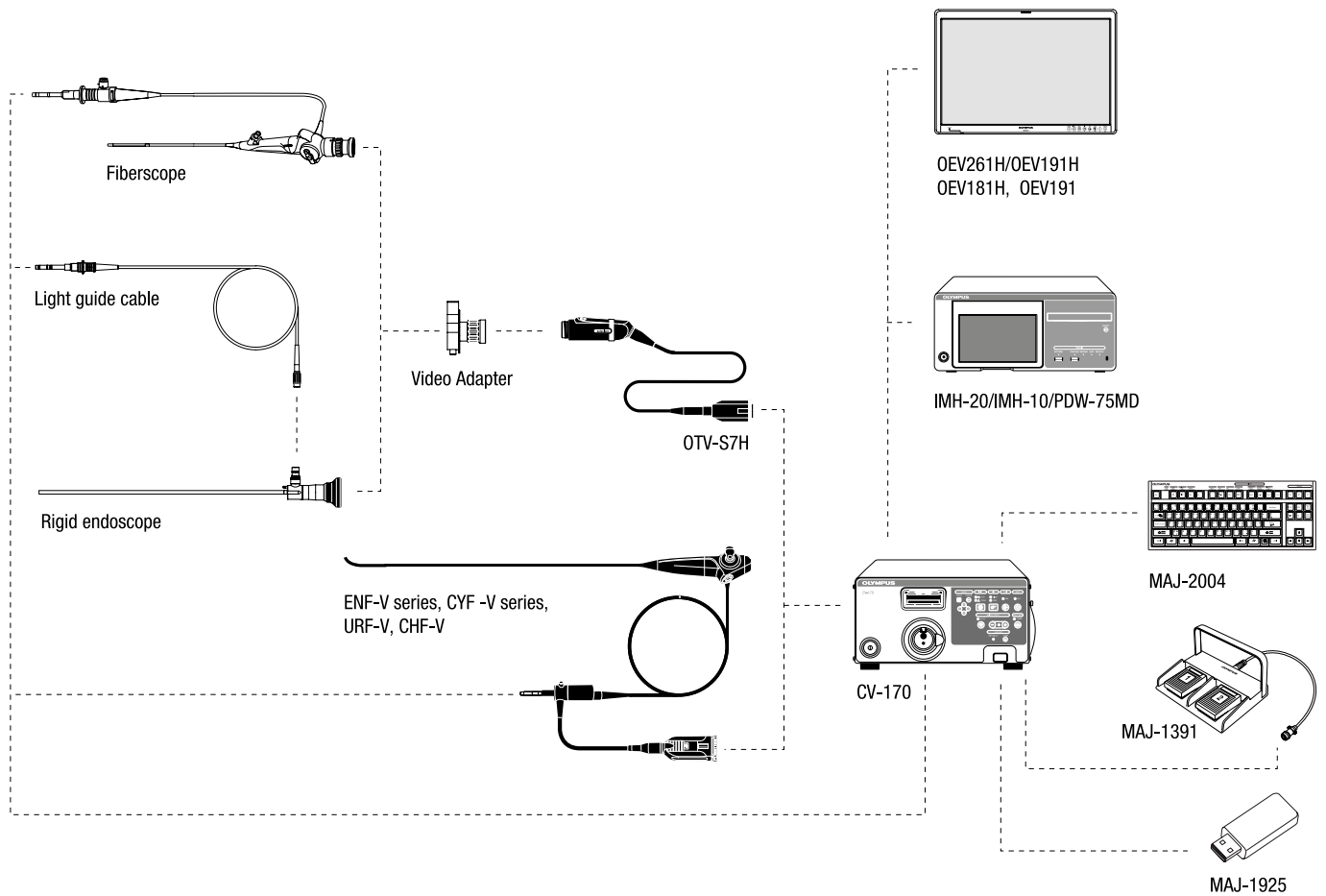
7502007 Trolley "TC-NE"



K10001078 LCD monitor mount kit "MAJ-197"



## System Chart





With its compact design for efficient use of limited office space, the OTV-SI permits the use of existing fiber-optic endoscopes and telescopes.

- High-quality images
- More effective patient consultations
- Compatible with fiberscopes and telescopes

## Rhino-Laryngo Videoscopes ENF-VQ/ENF-V2/ENF-VT2

- Superior imaging that only a videoscope can offer
- Unprecedented image quality
- Contour enhancement

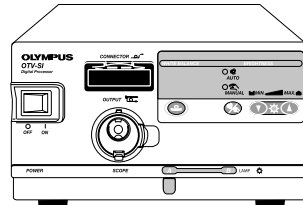
## Video System OTV-SI

- Two-in-one: Video system and light source integration
- Space-saving design: The video system and integrated light source make the OTV-SI a standard imaging platform for clinics of all sizes.

- Multi-purpose interface for fiber/rigid endoscopes: Existing fiber/rigid endoscopes can be connected by camera heads.



### ENT Office Endoscopy Video System



Video system "OTV-SI", set, with videoscope,  
 E0497502 with ENF-VQ (for details, see page 11)  
 E0497349 with ENF-V2 (for details, see page 15)  
 E0497453 with ENF-VT2 (for details, see page 17)  
 E0497323 with LF-V

#### Technical Data

Power supply  
 Voltage..... 220 – 240 V ~  
 Frequency .....50/60 Hz  
 Input current.....1.2 A (220 – 240 V)

Size  
 Dimensions .....300 (W) x 171 (H) x 434 (D) mm  
 Weight ..... 12 kg

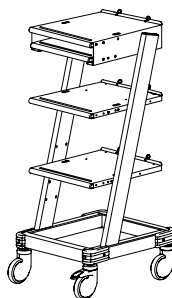
Classification  
 Protection against electric shock ..... class 1, type BF

Illumination  
 Lamp .....150 W Halogen  
 Lamp life ..... approx. 40 hrs.  
 on continuous use<sup>1</sup>  
 Brightness adjustment .....light-path diaphragm control

<sup>1</sup> In intermittent use, lamp life may differ slightly.

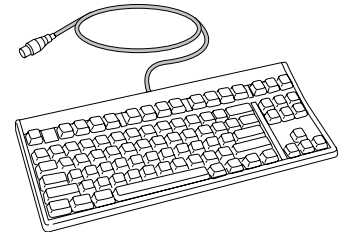
### Trolley

7502007 Trolley "TC-NE"  
 K10001078 LCD monitor mount kit "MAJ-197"  
 (not shown)



### Accessories

N1019500 Keyboard "MAJ-1124"



### Camera Heads

Camera head, standard, angled, with two remote control switches,  
 N1012540 "OTV-S7H-N"  
 N1012640 "OTV-S7H-1N", with moiré filter

head size (from mount surface) Ø 27 x 37 mm  
 weight 40 g (excluding cable)  
 cable Ø 5.2 mm x 4 m

Camera head "OTV-S7H-1D", standard, straight, with two remote control switches, with moiré filter  
 N1012740

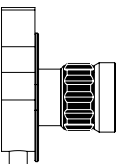
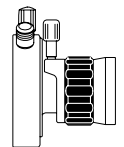
head size (from mount surface) Ø 27 x 37 mm  
 weight 40 g (excluding cable)  
 cable Ø 5.2 mm x 4 m



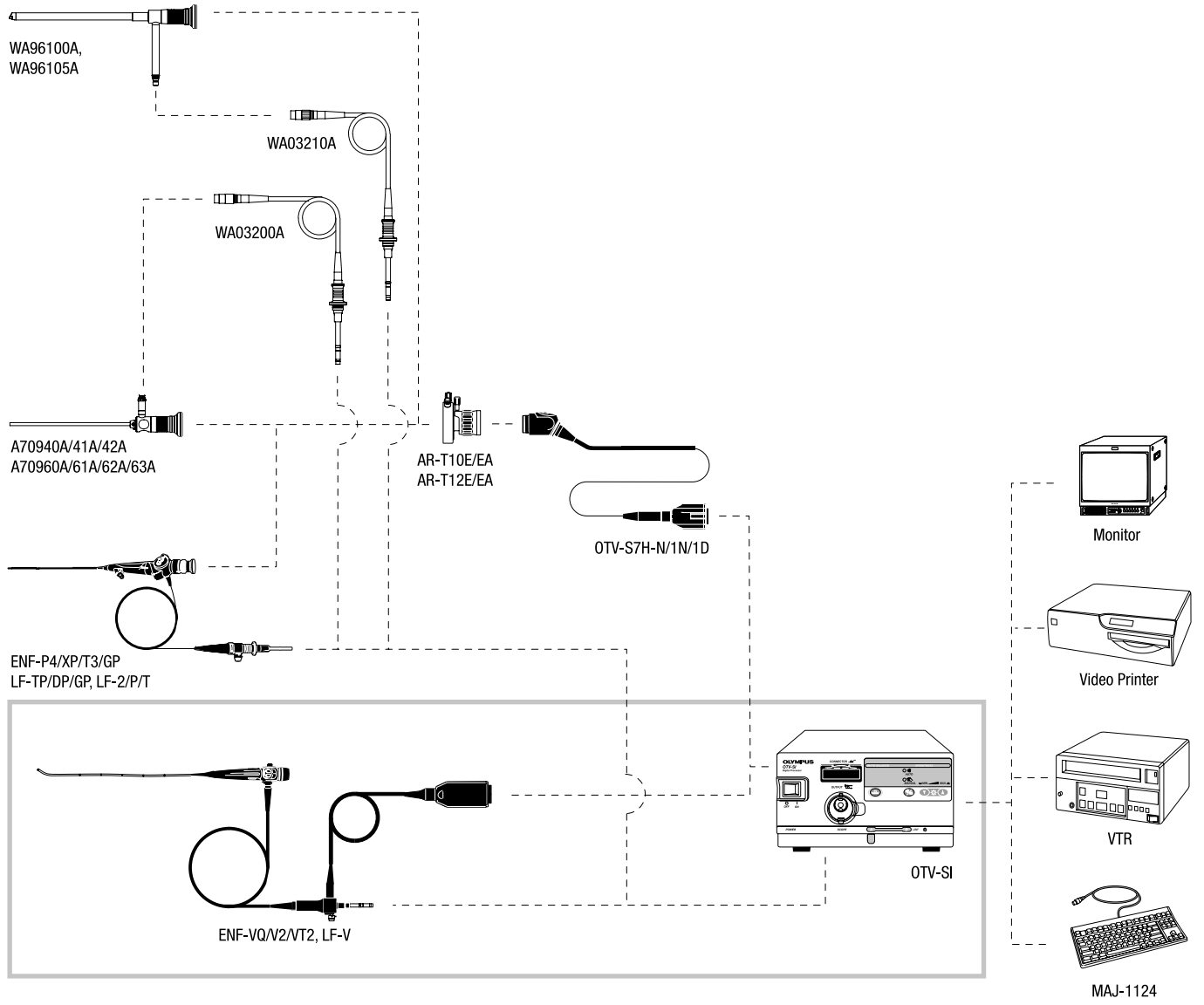
### Video Adapter

Video adapter, eyepiece type,  
 A8960 "AR-T10E", 1.0x  
 A8963 "AR-T12E", 1.2x

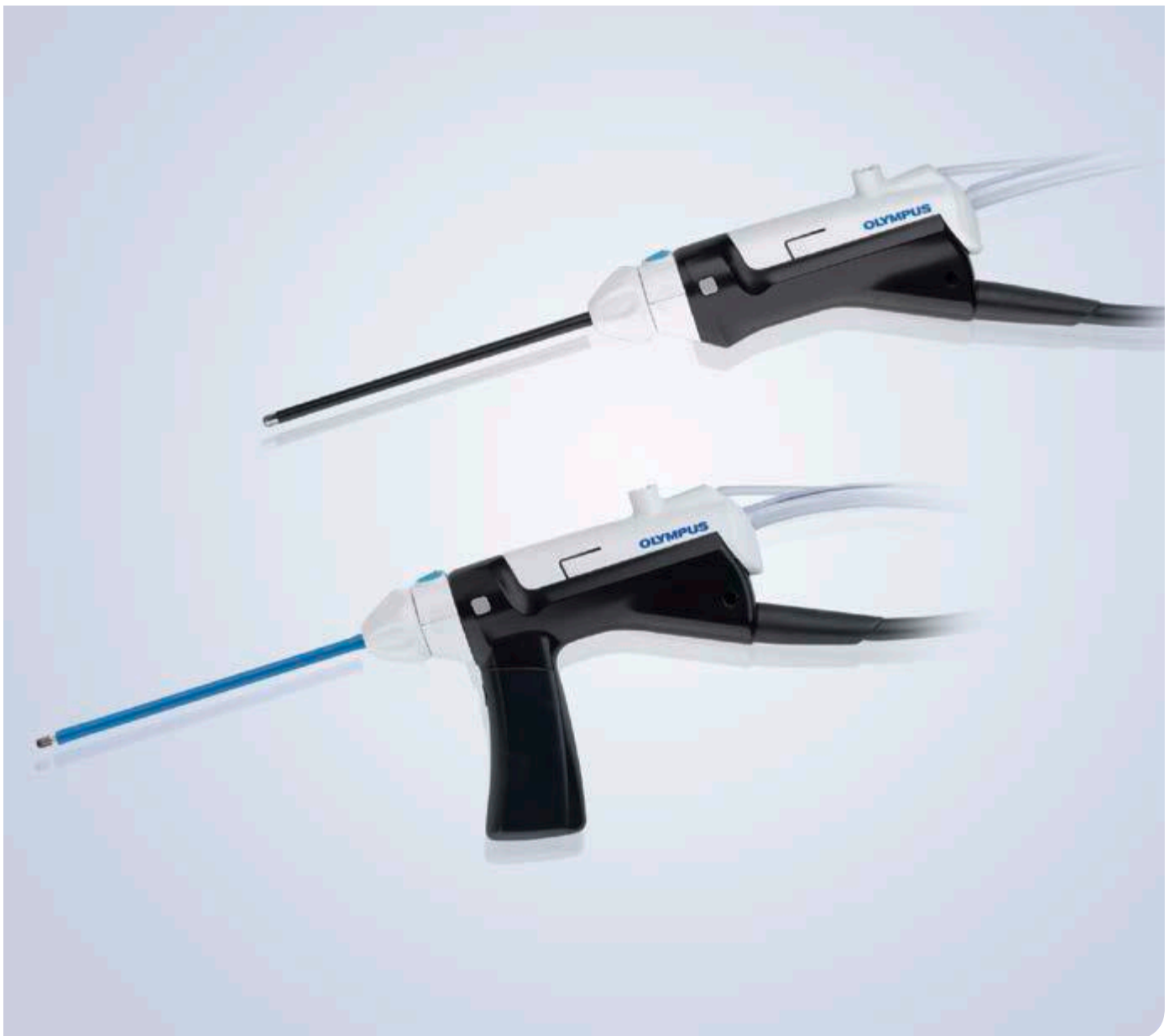
Video adapter, eyepiece type, autoclavable,  
 A4210A "AR-T10EA", 1.0x  
 A4211A "AR-T12EA", 1.2x



# System Chart









## Standard blades

- Type A blades enable better tissue dissection.
- Distal suction increases visualization with fewer clogs and instrument exchanges.



## Bipolar blades

- Improved coagulation performance when compared to PK DIEGO.
- Significantly shorter operating time when compared to standard blades.
- Available for sinus, turbinate, and tonsil and adenoid blades.



## Monopolar blades

- Monopolar coagulation at your fingertips is one option to better control bleeding.
- Equivalent monopolar performance to standard operating generators.
- Available for both sinus and tonsil and adenoid blades.

## 27% faster tissue removal<sup>1</sup>

- Minimal clogging
- Reduction in instrument exchanges
- Better tissue dissection

## 12% faster when using bipolar<sup>2</sup>

- Significantly shorter operating time
- More cost-effective
- Faster procedure times

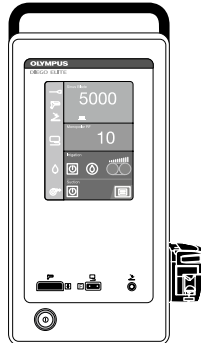
<sup>1</sup> Data on file

<sup>2</sup> Sindwani, R, Kumar, N. Bipolar microdebrider may reduce intraoperative blood loss and operating time during nasal polyp surgery. *Ear Nose Throat Journal*. 2012 Aug.; 91(8):336–44.

## Power Console

MDCONS100 DIEGO ELITE power console

Delivery includes:  
Console, power cable



### Technical Data

#### Power supply

Voltage ..... 100 – 240 V ~  
Frequency ..... 50/60 Hz  
Maximum input power ..... 720 VA  
Power fuse ..... 2x 5 A

#### Size

Width x depth x height ..... 370 x 465 156 mm  
Weight ..... 12.5 kg

#### Classification

Protection against electric shock ..... type BF, class I  
Directive 93/42/EEC ..... class IIa

#### Output

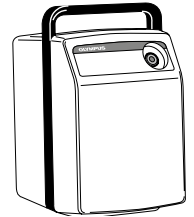
High frequency functions ..... monopolar/bipolar  
High frequency ..... 430 kHz ±20%  
Maximum high frequency power ..... 320 W  
All modes ..... 25% duty cycle  
(e.g. 10 s activated, 30 s deactivated)

#### Ambient conditions

Operation ..... temperature 10 – 35 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa  
Transport and storage ..... temperature -25 – 60 °C  
relative humidity 10 – 85 %  
atmospheric pressure 500 – 1060 hPa

## Suction Module

DIEGO ELITE suction module,  
MDSM110V 110 VAC  
MDSM220V 220 VAC



### Technical Data

#### Power supply

Voltage (MDSM110V) ..... 100 – 120 V ~  
Voltage (MDSM220V) ..... 220 – 240 V ~  
Frequency ..... 50/60 Hz  
Maximum input power ..... 264 VA  
Power fuse ..... 4 A / 2 A

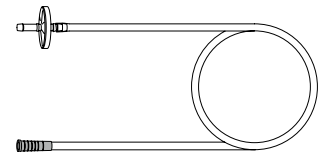
#### Size

Width x depth x height ..... 420 x 470 x 356 mm  
Weight ..... 11.5 kg

#### Classification

Protection against electric shock ..... type BF, class I  
Directive 93/42/EEC ..... class IIa

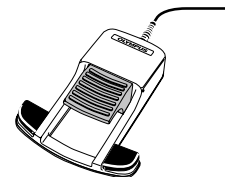
TS102SF Suction module tube set,  
suction/filter,  
5 pcs.



multi-use, replace daily

## Foot Switch

MDFS100 DIEGO ELITE foot switch



### Technical Data

#### Size

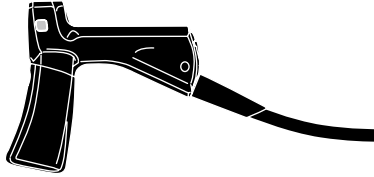
Width x depth x height ..... 175 x 185 x 50 mm  
Weight ..... 1.6 kg  
Length of cable ..... 4 m

#### Classification

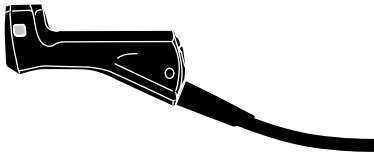
Ingress protection rating ..... IPX8 (except plug)

## Handpieces

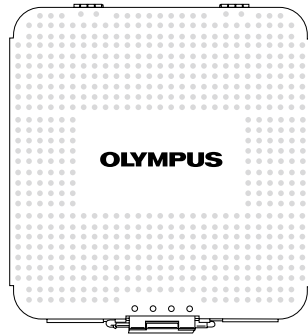
MDHP100A Multidebrider handpiece, angled



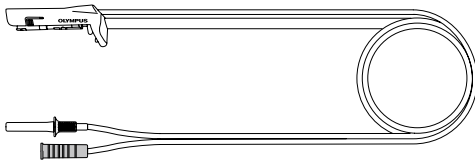
MDHP100S Multidebrider handpiece, straight



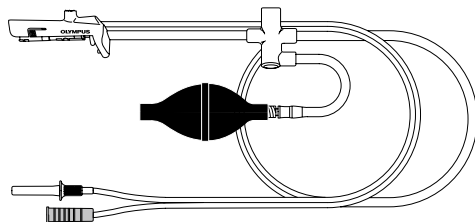
MDHPTRAY Multidebrider handpiece sterilization tray



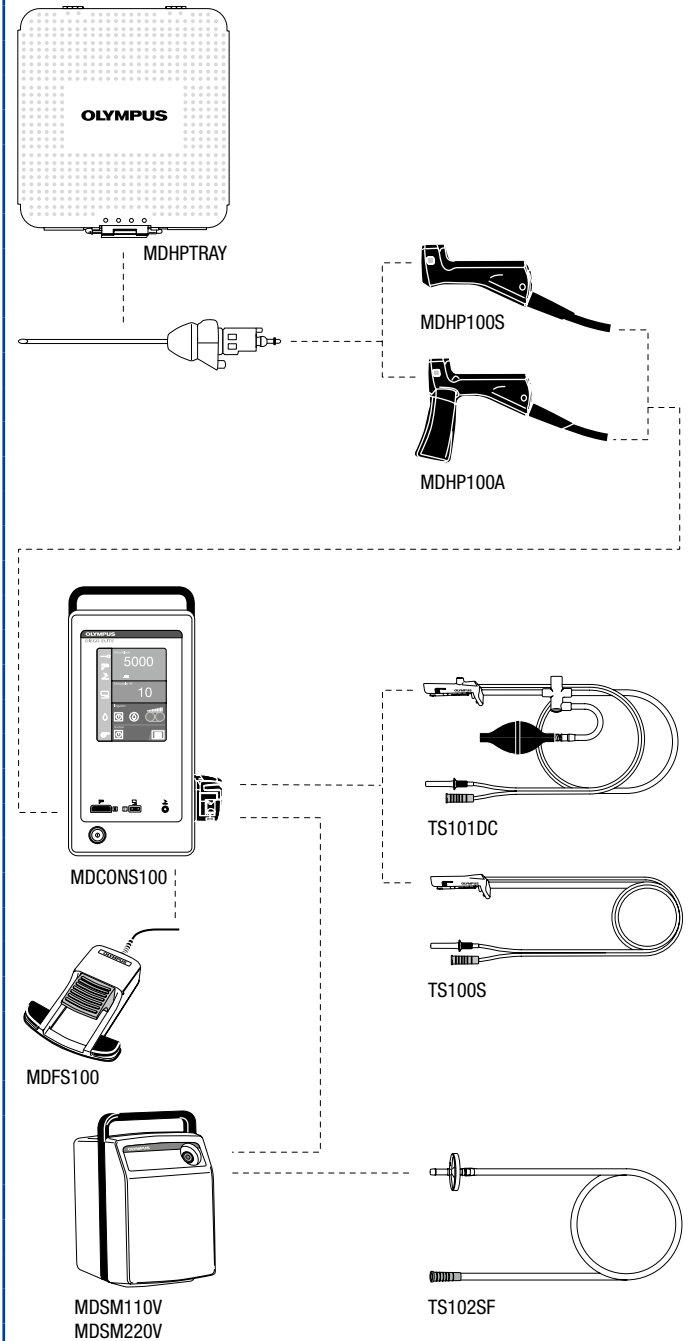
TS100S DIEGO ELITE tubeset, standard, sterile, single use, 5 pcs.




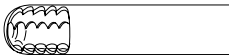
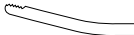






TS101DC DIEGO ELITE tubeset, declog, sterile, single use, 5 pcs.









## System Chart



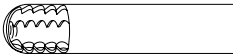

## Sinus Application Blades

	Shaver blade, standard, type A, sterile, single use, 5 pcs.,	
SB4000SA	4 mm, straight	
SB4800SA	4.8 mm, straight	
	Shaver blade, standard, serrated, distal suction, sterile, single use, 5 pcs.,	
SB2900SS	2.9 mm, straight	
SB2940SS	2.9 mm, 40°	
SB2975SS	2.9 mm, 75°	
SB4000SS	4 mm, straight	
SB4015SS	4 mm, 15°	
SB4040SS	4 mm, 40°	
SB4060SS	4 mm, 60°	
	Shaver blade, rotatable, serrated, distal suction, sterile, single use, 5 pcs.,	
SB4040RS	4 mm, 40°	
SB4060RS	4 mm, 60°	
SB4090RS	4 mm, 90°	
	Bipolar blade, standard, serrated, distal suction, sterile, single use, 5 pcs.,	
BB4000SS	4 mm, straight	
BB4040SS	4 mm, 40°	
MB4000SS	Monopolar blade, standard, serrated, 4 mm, straight, sterile, single use, 5 pcs.	
	Working end: Geometry straight edge form, serrated with distal suction	

## Tonsils and Adenoid Application Blades

MS4000SS	Malleable blade, 4 mm, 0° – 40°, serrated, T/A, distal suction, sterile, single use, 5 pcs.	
	Convex window orientation shown	
BB4040XS	Bipolar blade, 4 mm, 40°, convex, serrated, sterile, single use, 5 pcs.	
	Convex window orientation shown	
MM4000SS	Malleable monopolar blade, 4 mm, 0° – 40°, serrated, T/A, sterile, single use, 5 pcs.	
	Convex window orientation shown	

## Non Distal Suction Blades

	Shaver blade, standard, serrated, closed, sterile, single use, 5 pcs.,	
SB4000SC	4 mm, straight	
SB4015SC	4 mm, 15°	
SB2940SC	2.9 mm, 40°	
SB4040SC	4 mm, 40°	
SB4060SC	4 mm, 60°	
SB2975SC	2.9 mm, 75°	
	Shaver blade, rotatable, serrated, closed, sterile, single use, 5 pcs.,	
SB4040RC	4 mm, 40°	
SB4060RC	4 mm, 60°	
SB4090RC	4 mm, 90°	

## Turbinate Application Blades

SB2000SA Shaver blade,  
2 mm, straight,  
standard, type A,  
sterile, single use, 5 pcs.



BB2000SA Bipolar blade,  
2 mm, straight,  
standard, type A,  
sterile, single use, 5 pcs.



## Laryngeal Application Blades

Laryngeal blade,  
2.9 mm,  
standard, superficial,  
sterile, single use, 5 pcs.,



LB2922SS 22 cm

LB2927SS 27 cm

Working end:  
Geometry double bend,  
18° distal angle, edge form: smooth,  
sterile, single use, 5 pcs.



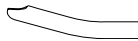
Laryngeal blade,  
4.0 mm,  
standard, de-bulking,  
sterile, single use, 5 pcs.,



LB4022SD 22 cm

LB4027SD 27 cm

Working end:  
Geometry double bend,  
18° distal angle, edge form: smooth-serrated,  
sterile, single use, 5 pcs.



## Burrs

Burr,  
3 mm,  
diamond bullet,  
sterile, single use, 5 pcs.,



BUR3015DB 15 cm, 15°

BUR3070DB 13.5 cm, 70°



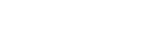
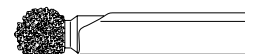
Burr,  
4 mm,  
diamond taper,  
sterile, single use, 5 pcs.,



BUR4015DT 15 cm, 15°

BUR4070DT 13.5 cm, 70°

BUR4515BB Burr,  
4.5 mm,  
13.5 cm, 15°,  
diamond ball burr,  
sterile, single use, 5 pcs.



Burr,  
4.2 mm,  
fluted barrel,  
sterile, single use, 5 pcs.,



BUR4215FB 13.5 cm, 15°

BUR4260FB 13.5 cm, 60°



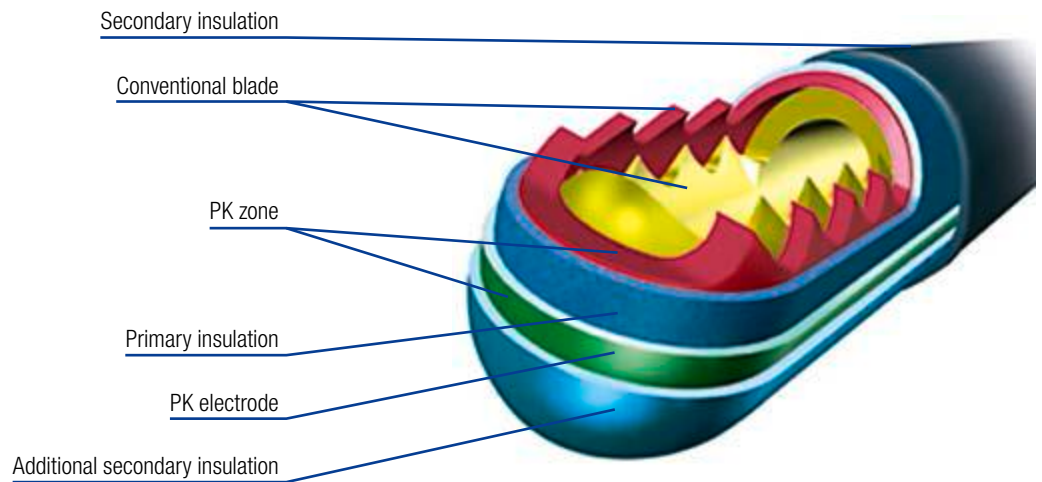


## Better Bipolar Energy – How PK Does It

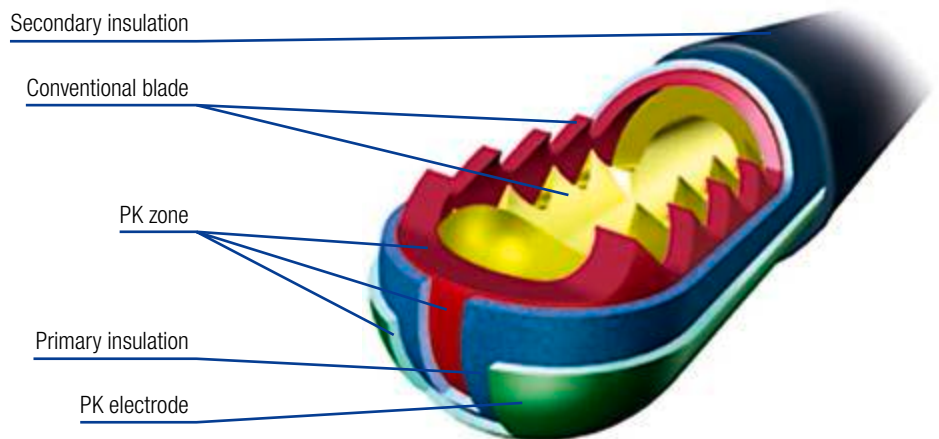
No other platform today combines superior dissection, ergonomic comfort, and bipolar hemostasis like PK DIEGO. In one device, you get a versatile, complete system that saves time. It's the ultimate tool for ENTs – because it was designed by ENTs.

PK takes a relatively small amount of energy and configures it to create a unique waveform with a smoother, more efficient load curve. As a result, hemostasis is safe and gentle, yet highly effective and reliable – and perfectly integrated with precision DIEGO dissection technology.

Sinus Blade



Tonsil and Adenoid Blade







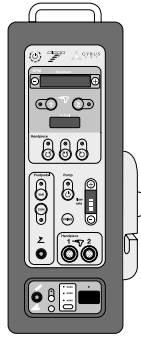
**DIEGO**  
SYSTEM

**PK TECHNOLOGY**

- PK DIEGO combines the award-winning Diego powered mechanical dissection platform and PK Technology.
- PK DIEGO blades allow the surgeon to control ordinary bleeding, either discretely or while dissecting.
- PK DIEGO blades create a gentle hemostatic effect with minimal thermal spread, and less smoke and char than are normally associated with monopolar electro-surgery.

## PK DIEGO System Console

70339050 PK DIEGO console, enabled for both finger control of handpiece and PK technology



Delivery includes:  
console, power cable (type B, NEMA 5-15, for the USA)

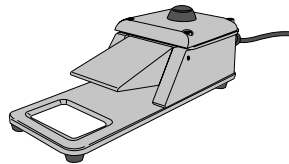
Power cable,  
70231054 type G (BS 1363), for UK  
70231055 type E/F (CEE 7/7), for continental Europe  
70231056 type I (AS 3112), for Australia

### Technical Data

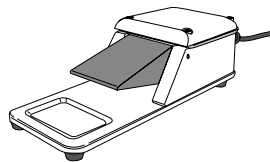
Power supply  
Voltage..... 100 – 120/220 – 240 V ~  
Frequency .....50/60 Hz  
Input current.....2 A

## Footswitches

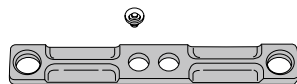
70338011 Footswitch, for diego console, illuminated, green light



70339054 Footswitch, for PK diego console, includes coupler 70339053

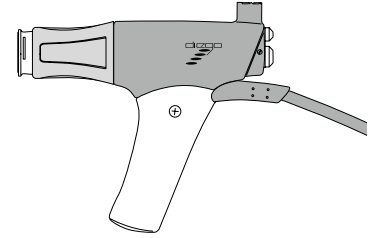


70339053 Coupler, connects diego and PK diego footswitch

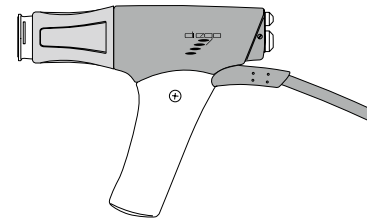


## diego Dissector System Handpieces

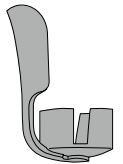
70338010 DIEGO Starlink Handpiece, compatible with Brainlab Starlink, and universal IGS adapters 70338012/-8013



70339001 DIEGO handpiece, enabled for finger control of handpiece



70338008 Trigger DIEGO, for finger control of handpiece, sterile, single use, 6 pcs.

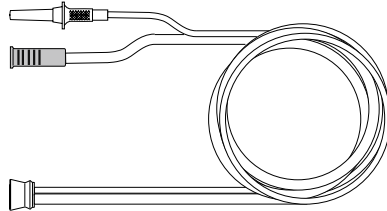


### Technical Data

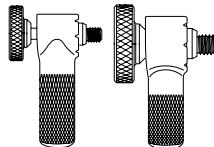
Speed  
Oscillation .....5,000 min<sup>-1</sup>  
Forward and reverse ..... 15,000 min<sup>-1</sup>  
Power ..... High/Medium/Low

### Accessories for DIEGO Handpieces

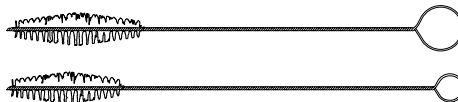
70338003 Tube set,  
integrated suction and irrigation lines,  
includes cleaning stylets,  
sterile,  
single use,  
6 pcs.



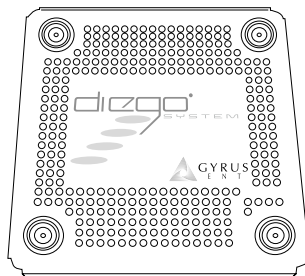
70338012 Adapter,  
for use with IGS clamping systems,  
small  
70338013 large



70338009 Cleaning brush, set,  
for DIEGO handpiece,  
includes 1 large and 1 small brush,  
6 pcs.

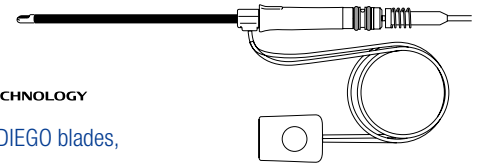


70338005 Instrument tray,  
for DIEGO handpieces



### PK DIEGO Blades

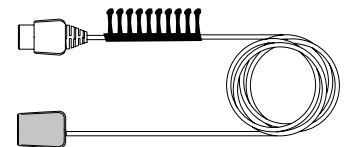
Blades with PK Technology create a gentle hemostatic effect with minimal thermal spread, along with less smoke and char that are normally associated with conventional monopolar electro-surgery.



**PK TECHNOLOGY**

For PK DIEGO blades,  
see page 64.

70339051 Cable,  
for PK blades,  
with tube organizer,  
reusable,  
tested for 50 uses

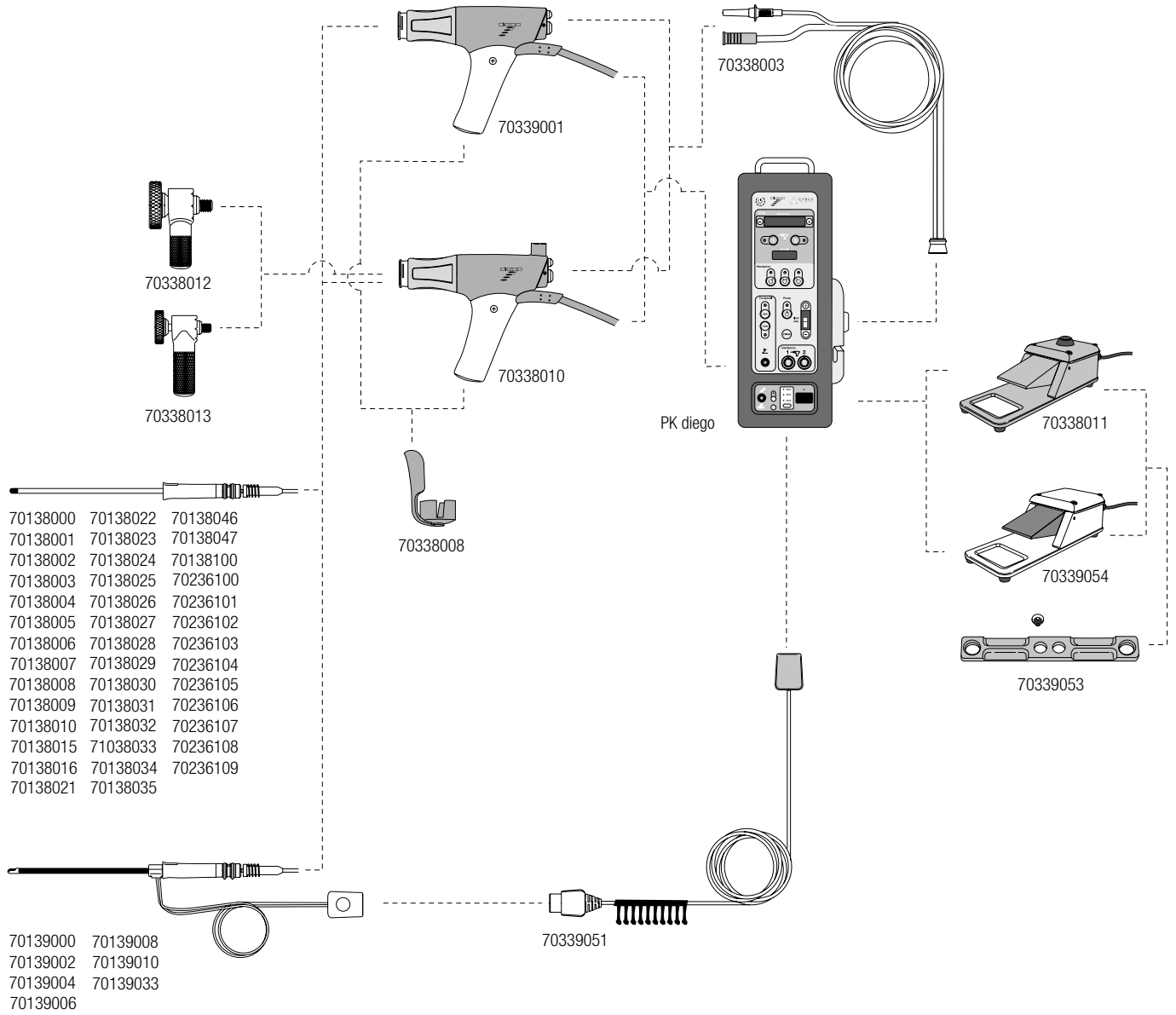


### DIEGO Blades



For DIEGO blades, see page 75.

# PK DIEGO System Chart



### Aggressive Blades (Straight)

The new exclusive aggressive edgeform improves surgical precision through better tissue engagement and removal. A speed setting of 3000 min<sup>-1</sup> in oscillate mode is recommended.

70138100 Blade, straight, aggressive, sterile, single use, 4.0 mm, 6 pcs.,



70139033 Blade, straight, aggressive, SMR, hemostatic with PK, sterile, single use, 3.0 mm, 6 pcs.



PK TECHNOLOGY

### Serrated Blades (Straight)

Blade, straight, serrated, sterile, single use, 6 pcs.,

70138000 4.0 mm  
70138035 3.4 mm  
70138001 2.9 mm  
70138033 2.0 mm



Blade, straight, serrated, hemostatic with PK, sterile, single use, 6 pcs.,

70139000 4.2 mm  
70139002 4.8 mm



PK TECHNOLOGY

### Smooth Blades (Straight)

70138002 Blade, straight, smooth, round tip, sterile, single use, 4.0 mm, 6 pcs.



70138003 Blade, straight, smooth, square tip, sterile, single use, 4.0 mm, 6 pcs.



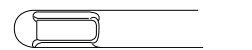
### Turbinate Blades (Straight)

This blade is ideal for use in turbinate reduction procedures. An exclusive axial orientation line provides visual feedback on window orientation during the time the blade is inserted in the turbinate.

70138033 Blade, straight, serrated, sterile, single use, 2.0 mm, 6 pcs.



70138034 Blade, straight, smooth elongated, sterile, single use, 2.0 mm, 6 pcs.



70139033 Blade, straight, aggressive, SMR, hemostatic with PK, sterile, single use, 3.0 mm, 6 pcs.



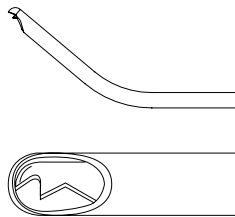
PK TECHNOLOGY

### Curved DIEGO Blades

Curved DIEGO blades feature the next generation drive shaft, a recent engineering breakthrough in powered dissection technology, enabling enhanced precision, increased cutting strength and superior fluid evacuation.

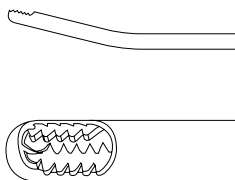
### Curved Aggressive Blades

70138106 Blade, curved, angled 40°, aggressive, sterile, single use, 6 pcs., 4.0 mm convex window



### 15° Curved Blades

70138004 Blade, curved, angled 15°, serrated, sterile, single use, 6 pcs., 4.0 mm, concave window  
 70138010 4.0 mm, convex window  
 70138028 2.9 mm, concave window



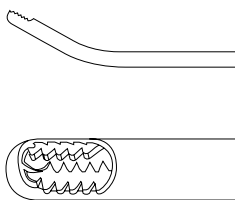
70139004 Blade, curved, angled 15°, serrated, hemostatic with PK, sterile, single use, 6 pcs., 4.8 mm, concave window  
 70139010 4.8 mm, convex window



PK TECHNOLOGY

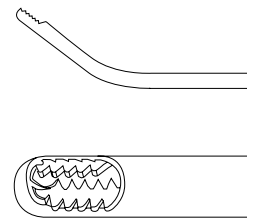
### 30° Curved Blades

70138005 Blade, curved, angled 30°, serrated, sterile, single use, 6 pcs., 4.0 mm, concave window  
 70138029 2.9 mm, concave window



### 40° Curved Blades

70138007 Blade, curved, angled 40°, serrated, sterile, single use, 6 pcs., 4.0 mm, convex window  
 70138008 4.0 mm, concave window  
 70138030 2.9 mm, concave window



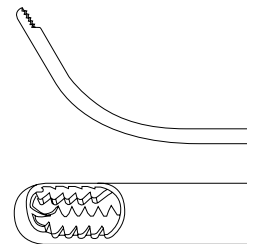
70139008 Blade, curved, angled 40°, serrated, sterile, single use, 6 pcs., hemostatic with PK, 4.8 mm, concave window  
 70139006 4.8 mm, convex window



PK TECHNOLOGY

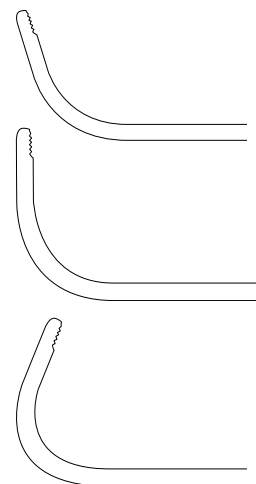
### 60° Curved Blades

70138009 Blade, curved, angled 60°, serrated, sterile, single use, 6 pcs., 4.0 mm, concave window  
 70138031 2.9 mm, concave window


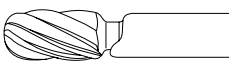
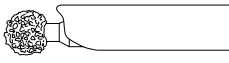
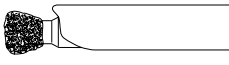


### 75°, 90°, 110° Curved Blades

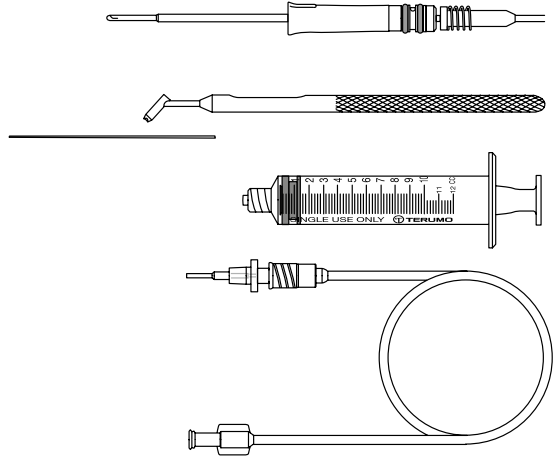
70138027 Ideal for use in maxillary or frontal sinus procedures  
 Blade, curved, serrated, sterile, single use, 6 pcs., concave window, angled 75°, 4.0 mm  
 70138032 angled 75°, 2.9 mm  
 70138046 angled 90°, 4.0 mm  
 70138047 angled 110°, 4.0 mm



### Burrs

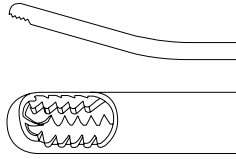
	Burr, diamond type, bullet, suction, irrigating, 3 mm bit diameter, sterile, single use, 3 pcs.,	
70236100	straight	
70236103	15° shaft angle	
70236104	40° shaft angle	
70236105	70° shaft angle	
	Burr, fluted type, barrel, suction, irrigating, 4.2 mm bit diameter, sterile, single use, 3 pcs.,	
70236101	straight	
70236106	15° shaft angle	
70236107	60° shaft angle	
	Burr, diamond type, ball, suction, irrigating, 4.5 mm bit diameter, sterile, single use, 3 pcs.,	
70236102	straight	
70236108	15° shaft angle	
	Burr, diamond type, taper, suction, irrigating, 4 mm bit diameter, sterile, single use, 3 pcs.,	
70236109	15° shaft angle	
70236110	70° shaft angle	

### Frontal Trephination

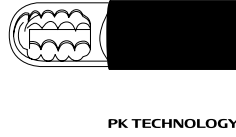
70138017	Frontal trephination set, single-use, sterile, single use, 3 pcs.	
	Delivery includes: trephine drill bit (2 mm Ø), guide wire, syringe (20 ml), irrigating cannula and tubing set	
70138019	Drill guide, reusable, 2.25 mm passage	

## Tonsil and Adenoid Blades

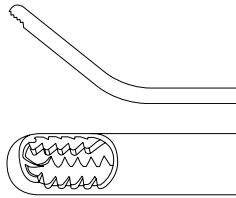
70138010 Blade, curved, 15° shaft angle, tonsil, serrated, convex window, 4 mm, sterile, single use, 6 pcs.



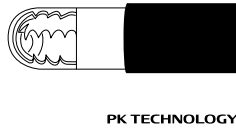
70139010 Blade, curved, tonsil, serrated, hemostatic with PK, 4.8 mm, convex window, 15° shaft angle, sterile, single use, 6 pcs.



70138006 Blade, curved, 40° shaft angle, tonsil, adenoid, serrated, convex window, 4 mm, sterile, single use, 6 pcs.

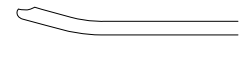


70139006 Blade, curved, tonsil and adenoid, serrated, hemostatic with PK, 4.8 mm, convex window, 40° shaft angle, sterile, single use, 6 pcs.



## Debulking Blades

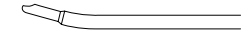
Blade, double bend, 18° distal angle, serrated, debulking, subglottic, sterile, single use, 3 pcs., 4.0 mm, concave window,



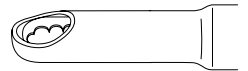
70138015 220 mm  
70138023 270 mm



Blade, double bend, 18° distal angle, serrated, debulking, supraglottic, sterile, single use, 3 pcs., 3.2 mm, swagged tip, convex window,



70138021 220 mm  
70138025 270 mm



## Superficial Blades

Blade, double bend, 18° distal angle, smooth, superficial, sterile, single use, 3 pcs., supraglottic, 220 mm, 4.0 mm, convex window  
70138050 2.9 mm, convex window



70138016 4.0 mm, convex window  
70138050 2.9 mm, convex window

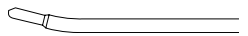


Blade, double bend, 18° distal angle, smooth, superficial, sterile, single use, 3 pcs., subglottic, 270 mm,

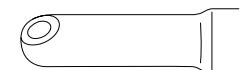


70138024 4.0 mm, convex window  
70138051 2.9 mm, convex window

Blade, double bend, 18° distal angle, smooth, superficial, supraglottic, sterile, single use, 3 pcs., 3.2 mm, swagged tip, convex window



70138022 220 mm  
70138026 270 mm





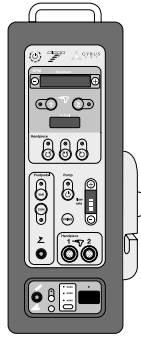


The Viper Drill System places success at your fingertips. The configuration of handpieces and consoles gives you a drill for every otologic procedure, from the most delicate to the most demanding.

- The ergonomic, balanced Viper drill mastoid handpieces help you perform quick mastoid resection.
- The delicate yet powerful micro drill supports the full range of vestibular and anterior canal wall drilling.
- The Diego console drives powered dissection for every subspecialty of ENT. The Diego console's labels are easy to read, and lighted power and LED tachometer speed information at a glance.
- The easy-to-load, and elegant integrated irrigation pump drives irrigation for both the mastoid and powered dissector handpieces.
- The console is designed for IV-pole mounting and includes a convenient space for footswitch storage.
- Illumination on the footswitch helps the surgeon to readily identify it during surgery.
- With Diego, Viper, and Stapes handpieces, the Diego ENT workstation provides you with an overall powered dissection option.

## PK diego System Console

70339050 Console "PK diego", enabled for both finger control of handpiece and PK technology



Delivery includes:  
console, power cable (type B, NEMA 5-15, for the USA)

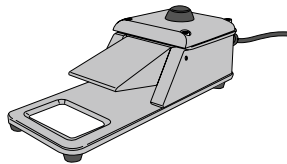
Power cable,  
70231054 type G (BS 1363), for UK  
70231055 type E/F (CEE 7/7), for continental Europe

### Technical Data

Power supply  
Voltage..... 100 – 120/220 – 240 V ~  
Frequency .....50/60 Hz  
Input current.....2 A

## Footswitch

70338011 Footswitch, for diego console



## Irrigation

70336900 Viper irrigation tubing, 6 pcs.

70921605 Irrigation tubing, replacement

70338007 Pump tubing "Viper", with irrigation spike, 6 pcs.

## Otology Drill Handpieces

Viper handpiece, for diego console,  
70338030 straight  
70338031 angled



### Technical Data

Motor  
Maximum Speed.....44,000 min<sup>-1</sup>  
Weight  
EG70338031 ..... 124.74 g (4.4 oz.)  
EG70338030 ..... 107.73 g (3.8 oz.)

## Accessories for Handpieces

70921443 O rings, for handpieces

70325512 Cleaning kit, for handpieces, 6 pcs.

325507 Instrument tray, for handpieces

325509 Instrument tray, for handpieces, with burr rack set

### Mastoid Drill Burr Line

	Burr, diamond, sterile, single use,
70326500	0.5 x 65 mm
70326501	1.0 x 65 mm
70326502	1.5 x 65 mm
70326503	2.0 x 65 mm
70326504	2.5 x 65 mm
70326505	3.0 x 65 mm
70326506	3.5 x 65 mm
70326507	4.0 x 65 mm
70326508	4.5 x 65 mm
70326509	5.0 x 65 mm
70326510	5.5 x 65 mm
70326511	6.0 x 65 mm
70326512	6.5 x 65 mm
70327000	0.5 x 70 mm
70327001	1.0 x 70 mm
70327002	1.5 x 70 mm
70327003	2.0 x 70 mm
70327004	2.5 x 70 mm
70327005	3.0 x 70 mm
70327006	3.5 x 70 mm
70327007	4.0 x 70 mm
70327008	4.5 x 70 mm
70327009	5.0 x 70 mm
70327010	5.5 x 70 mm
70327011	6.0 x 70 mm
70327012	6.5 x 70 mm
70328000	0.5 x 80 mm
70328001	1.0 x 80 mm
70328002	1.5 x 80 mm
70328003	2.0 x 80 mm
70328004	2.5 x 80 mm
70328005	3.0 x 80 mm
70329001	1.0 x 90 mm
70329003	2.0 x 90 mm
70329005	3.0 x 90 mm
70329007	2.0 x 90 mm
70329009	2.5 x 90 mm
70329011	3.0 x 90 mm

### Mastoid Drill Burr Line

	Burr, round cutting, sterile, single use,
70326532	0.5 x 65 mm, 6 flutes
70326533	1.0 x 65 mm, 6 flutes
70326534	1.5 x 65 mm, 6 flutes
70326535	2.0 x 65 mm, 6 flutes
70326536	2.5 x 65 mm, 6 flutes
70326537	3.0 x 65 mm, 6 flutes
70326538	3.5 x 65 mm, 6 flutes
70326539	4.0 x 65 mm, 8 flutes
70326540	4.5 x 65 mm, 8 flutes
70326541	5.0 x 65 mm, 10 flutes
70326542	5.5 x 65 mm, 10 flutes
70326543	6.0 x 65 mm, 12 flutes
70326544	6.5 x 65 mm, 12 flutes
70327033	1.0 x 70 mm, 6 flutes
70327034	1.5 x 70 mm, 6 flutes
70327035	2.0 x 70 mm, 6 flutes
70327036	2.5 x 70 mm, 6 flutes
70327037	3.0 x 70 mm, 6 flutes
70327038	3.5 x 70 mm, 8 flutes
70327039	4.0 x 70 mm, 8 flutes
70327040	4.5 x 70 mm, 8 flutes
70327041	5.0 x 70 mm, 10 flutes
70327042	5.5 x 70 mm, 10 flutes
70327043	6.0 x 70 mm, 12 flutes
70327044	6.5 x 70 mm, 12 flutes

### Burr Rack

325508	Rack, for mastoid burrs
--------	----------------------------

## Stapes Drill Burr Line

	Burr, cutting, for stapes, nonsterile, reusable,
70326100	0.5 mm
70326101	0.6 mm
70326102	0.7 mm
70326103	0.8 mm
70326104	0.9 mm
70326105	1.0 mm
70326106	1.3 mm
70326107	1.5 mm
70326108	1.7 mm
70326109	1.9 mm
70326110	2.0 mm
70326111	2.3 mm
70326132	3.0 mm

	Burr, diamond, for stapes, nonsterile, reusable,
70326120	0.5 mm
70326121	0.6 mm
70326122	0.7 mm
70326123	0.8 mm
70326124	0.9 mm
70326125	1.0 mm
70326126	1.3 mm
70326127	1.5 mm
70326128	1.7 mm
70326129	1.9 mm
70326130	2.0 mm
70326131	2.3 mm
70326133	3.0 mm

## Accessories for Stapes Drill Burrs

70325710	Instrument tray, for drill burrs 703261xx
70325711	Rack, for stapes burrs
130082	Cleaning brush, for stapes burrs





The bipolar radiofrequency - induced thermotherapy (RFITT) technique represents an effective, user-friendly and safe alternative to conventional surgical methods, to laser technology and to monopolar high-frequency applications.

## How Does Bipolar RFITT Work?

The method is based on the principle of local thermal destruction of pathologically altered tissue by use of radiofrequency current. In other words, by heating to over 80 °C, the affected tissue is destroyed and resorbed by the body within a short time, leading to a volume reduction of the tissue. In addition, the body forms scar tissue which results in the tightening of the treated area.

The bipolar electrode arrangement used in the Celon applicator permits precise delimitation of the treatment area, because the flow of current takes place exclusively between the two poles at the tip of the applicator. In monopolar methods, by contrast, the current flows through the whole body of the patient. Bipolar RFITT is thus even suitable for treating patients with heart pacemakers. A further advantage of the Celon method is that in most cases it can be performed on an outpatient basis under local anaesthesia and with only minimal pain and discomfort to the patient. It also involves very little bleeding and is an extremely efficient form of treatment.

Left:

Area of current flow on a bipolar RFITT applicator tip

## RFITT in ENT

In ENT treatment, bipolar RFITT is particularly successful for turbinate hypertrophy and chronic snoring. However, the Celon method can also be used to gently treat more serious conditions such as obstructive sleep apnoea, where breathing is interrupted during the night, thereby leading to a lack of oxygen supply to the body. It is also suitable for treating hypertrophic tonsils.



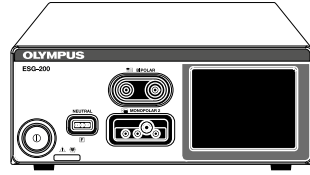


The CELON system is a procedure-oriented, safe and efficient solution for ENT specialists. The CELON system uses bipolar radiofrequency-induced thermotherapy (RFITT) which allows minimally invasive and impedance-controlled tissue ablation.

- Impedance-controlled
- Tissue monitoring for safe and efficient procedures
- Smart instrument design for ergonomic treatment
- Mode selection for procedure-oriented treatment
- Smart user interface to personalize procedure settings and save time.
- Efficient and economical outpatient treatment
- Full range of monopolar and bipolar standard modes for procedures in the office or operating room

## CELON ELITE ESG-200

Electrosurgical generator "CELON ELITE ESG-200",  
WA90001A E type  
WA90002A B type



Radiofrequency based power control unit for RFITT and standard electrosurgical procedures. Controls Celon bipolar applicators and Celon Elite ProCut system. Continuous tissue monitoring allows precise and safe tissue ablation for a variety of ENT indications. Settings can be personalized to simplify the everyday work routine for the ENT specialist and medical staff.

Delivery includes:  
Electrosurgical generator, foot switch

### Technical Data

#### Power supply

Voltage..... 100-120 V~/ 220 – 240 V ~  
Maximum input power..... 650 VA

#### Dimensions

Width ..... 295 mm  
Height ..... 115 mm  
Depth..... 400 mm  
Weight ..... 6.61 kg

#### Classification

Protection against electric shock ..... type CF, class I  
Directive 93/42/EEC ..... class IIb

#### Output

High frequency functions..... monopolar/bipolar  
High frequency ..... 356 kHz  $\pm$ 20%  
Maximum high frequency power ..... 120 W  
All modes ..... 25% duty cycle  
(e.g. 10 s activated, 30 s deactivated)

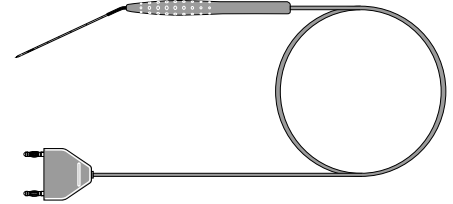
#### Ambient conditions

Operation temperature ..... 10 – 40 °C  
relative humidity 30 – 85 %  
atmospheric pressure 70 – 106 hPa  
Transport and storage..... temperature -25 – 60 °C  
relative humidity 10 – 85 %  
atmospheric pressure 50 – 106 hPa

## CelonProBreath Applicator

WB990007 Bipolar applicator "CelonProBreath"

for use with CELON ELITE ESG-200,  
sterile, single use, 5 pcs.



#### Application:

Indicated for ablation and coagulation of soft tissue in otorhinolaryngological surgery including submucosal tissue shrinkage for nasal airway obstruction by reduction of hypertrophic nasal turbinates.

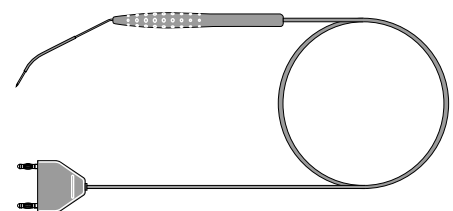
#### Technical Data

Applicator tip..... conical  
Electrode diameter..... 1.1 mm  
Electrode length ..... 100 mm  
Handle length ..... 140 mm  
Cable length..... 3 m  
Power range..... 0 – 25 W

## CelonProSleep plus Applicator

WB990008 Bipolar applicator "CelonProSleep plus"

for use with CELON ELITE ESG-200,  
sterile, single use, 5 pcs.



#### Application:

Ablation and coagulation of soft tissue in otorhinolaryngological surgery including submucosal tissue shrinkage and tissue coagulation in the soft palate for the treatment of snoring, in the palatine tonsils for the treatment of tonsillar hypertrophy, and in the root of the tongue for the treatment of mild obstructive sleep apnoea (OSAS).

#### Technical Data

Applicator tip..... triangular  
Electrode diameter..... 1.3 mm  
Electrode length ..... 140 mm  
Cable length..... 3 m  
Power range..... 0 – 25 W

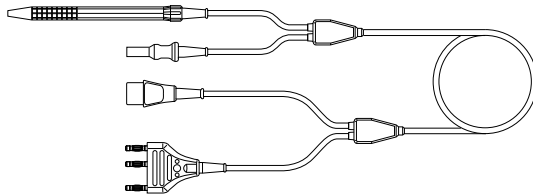


## CELON ELITE ProCut System

The CELON ProCut functionality enables monopolar cutting with the advantages of bipolar technology.

- Gentle and precise cutting
- Cutting with constant spark intensity in various tissues
- Short treatment time as a return electrode is not needed
- RF current remains confined to the tissue area undergoing treatment
- Can be used in an outpatient setting as well as the OR

WB990278 Handpiece "CELON ELITE ProCut"



WB990177 CelonProCut-Electrode Type1 (5 pcs)



- sterile, single use

WB990202 CelonProCut-Gripping Forceps, angled

- monopolar



## CelonForceps

Bipolar coagulation forceps for use with CELON ELITE ESG-200

WB990033 CelonForceps, angled (19cm, tip 2mm)



WB990034 CelonForceps, bayonet (20cm, tip 1mm)

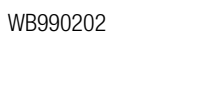


## System Chart

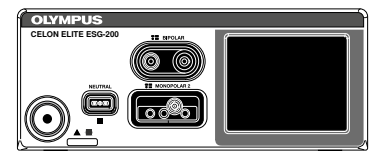
WB990177



WB990202



WB990278



CELON ELITE ESG-200



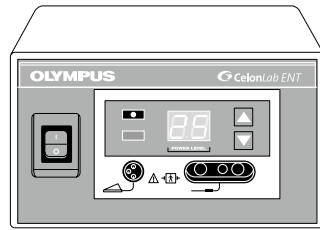


Bipolar radiofrequency-induced thermotherapy (RFITT) is a minimally invasive method for thermal shrinkage and stiffening of excessive tissue.

- **Totally bipolar**
  - No neutral electrode required
  - No current flow through the delicate head-neck-region
  - Easy and convenient
- **Maximum patient comfort**
  - Impedance feedback with acoustic signal
  - Low risk of bleeding
  - Surface of the organ remains intact (concha epithelium and mucous membranes)
  - Low peri- and post-op pain level
  - Local anaesthesia possible
- **Fast and secure**
  - Safe procedure and reproducible lesion size thanks to auto-stop function

## CelonLab ENT Power Control Unit

- WB991001 CelonLab ENT 200-240 V~ (KIT)
- WB991007 CelonLab ENT 100-120 V~ (KIT)



Power control unit with acoustic monitoring of the coagulation process and automatic dosimetry control for reproducible lesion sizes. Controls Celon bipolar applicators and Celon ProCut bipolar tissue cutting system for ENT applications.

Delivery includes:  
control unit, foot switch

### Technical Data

#### Power supply

Voltage (WB991001)	200 – 240 V ~
Voltage (WB991007)	100 – 120 V ~
Power consumption	< 95 VA

#### Dimensions

Width	335 mm
Height	165 mm
Depth	267 mm
Weight (incl. foot switch)	8.3 kg

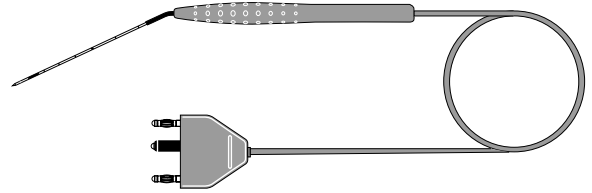
#### Output

Power	1 – 25 W in 1 W steps
Frequency	470 kHz (±10 kHz)

## CelonProBreath Applicator

- WB990004 CelonProBreath (5 pcs)

for use with CelonLabENT power control unit,  
sterile, single use



#### Application:

Submucosal volume reduction of the hyperplastic nasal concha without damaging the ciliated epithelium, essential for proper function of the nose.

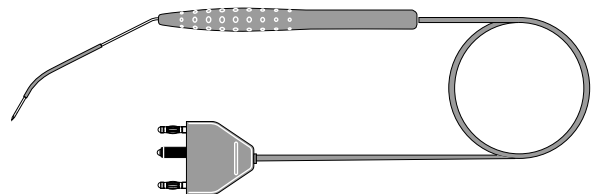
### Technical Data

Applicator tip	conical
Electrode diameter	1.1 mm
Electrode length	100 mm
Handle length	140 mm
Cable length	3 m
Power range	0 – 25 W

## CelonProSleep plus Applicator

- WB990095 CelonProSleep plus (5 pcs)

for use with CelonLabENT power control unit,  
sterile, single use



#### Application:

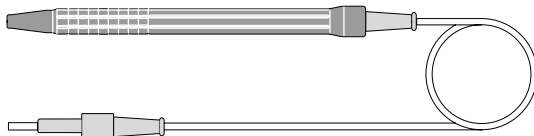
Volume reduction and tightening of the soft palate tissue to reduce habitual snoring, combined treatment of the soft palate and the base of the tongue to treat mild cases of obstructive sleep apnea syndrome (OSAS), volume reduction of the hyperplastic palatine tonsils, while leaving the lymphatic tissue intact.

### Technical Data

Applicator tip	triangular
Electrode diameter	1.3 mm
Electrode length	100 mm
Handle length	140 mm
Cable length	3 m
Power range	0 – 25 W

### CelonProCut Bipolar Cutting Accessories

WB990178 CelonProCut-Electrode Handpiece



WB990177 CelonProCut-Electrode Type1  
(5 pcs)

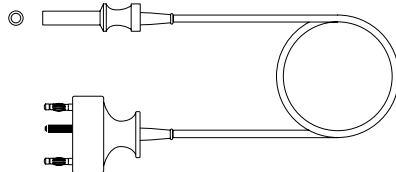


- sterile, single use

WB990202 CelonProCut-Gripping Forceps,  
angled



WB925039 CelonProCut-ForcepsCable



### CelonForceps

Bipolar coagulation forceps for use  
with CelonLabENT power control unit.

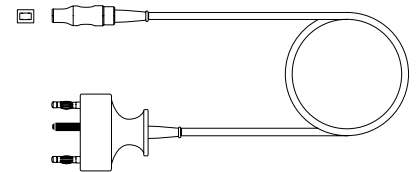
WB990033 CelonForceps, angled  
(19cm, tip 2mm)



WB990034 CelonForceps,  
bayonet  
(20cm, tip 1mm)



WB990035 CelonCable F0



- Cable to connect CelonForceps with  
CelonLabENT power control unit.



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## EXPLORENT INSTRUMENTS

### **Manufacturer**

evonos GmbH & Co.KG  
Stockacher Str. 134  
78532 Tuttlingen, Germany

### **Distributor**

Olympus Surgical Technologies Europe  
Olympus Winter & Ibe GmbH  
Kuehnstr. 61  
22045 Hamburg, Germany





- Tuning forks with or without foot
- Noise apparatus with olive tip

## Hartmann Tuning Forks

### Turning fork, acc. to Hartmann

nickel-plated steel

- WT138000 Tuning fork, acc. to Hartmann, concert pitch C = 128
- WT138001 Tuning fork, acc. to Hartmann, concert pitch C1 = 256
- WT138002 Tuning fork, acc. to Hartmann, concert pitch C2 = 512
- WT138003 Tuning fork, acc. to Hartmann, concert pitch C3 = 1024
- WT138004 Tuning fork, acc. to Hartmann, concert pitch C4 = 2048
- WT138005 Tuning fork, acc. to Hartmann, concert pitch C5 = 4096



### Tuning fork

nickel-plated steel, with foot

- WT138301 Tuning fork, with foot, concert pitch A1 = 440

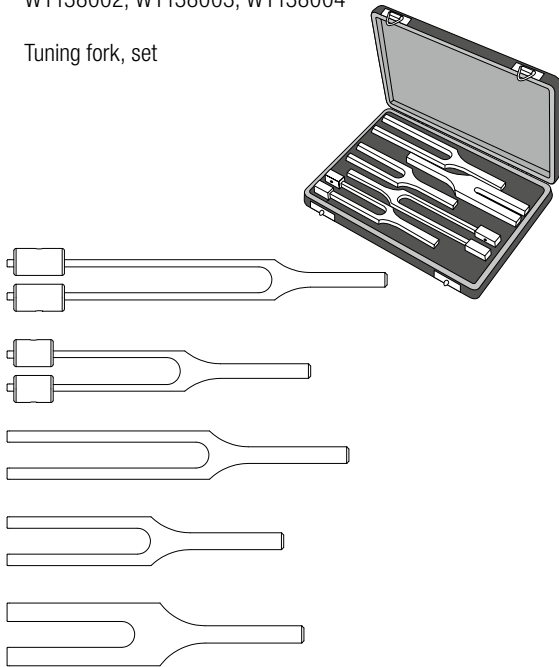


### Tuning fork, set

in case

Delivery includes: tuning forks WT138201, WT138202, WT138002, WT138003, WT138004

- WT138500 Tuning fork, set



## Barany Noise Apparatus

### Noise apparatus, acc. to Barany

with olive tip

- WT139000 Noise apparatus, acc. to Barany, with olive





- Different sets
- Models with open and closed head
- Heads with or without magnification
- Additional specula available

**EXPLORENT**

## Bruenings Anastigmatic Aural Magnifier

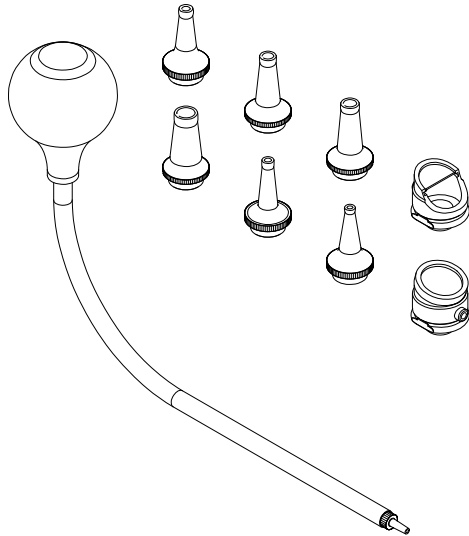
### Aural magnifier, set with small specula

complete in wooden case

Delivery includes:

ear specula WT119620, WT119610, WT119601, WT119602, WT119603, WT119604, diagnostic heads WT119800, WT119900, rubber bulb WT119300

WT120600 Anastigmatic aural magnifier, acc. to Brünings, Set S



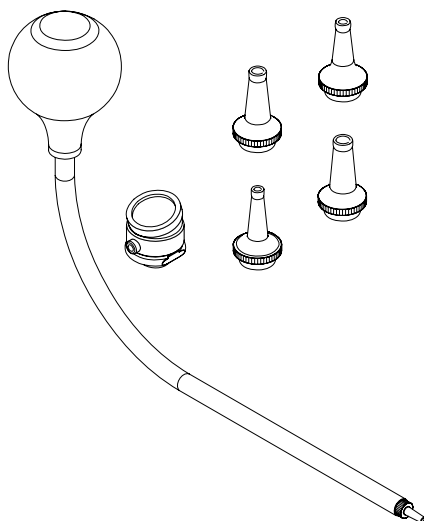
### Aural magnifier, set with large specula

complete in wooden case

Delivery includes:

ear specula WT119610, WT119601, WT119602, WT119603, diagnostic head WT119800, rubber bulb WT119300

WT119000 Anastigmatic aural magnifier, acc. to Brünings, Set L

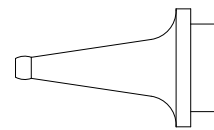


## Bruenings Ear Specula

### Ear speculum, acc. to Bruenings

inner and outer diameters (mm)

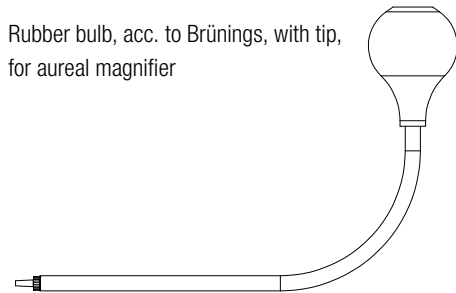
WT119620	Ear speculum, acc. to Brünings, size 2.5 x 4.0
WT119610	Ear speculum, acc. to Brünings, size 3.0 x 4.8
WT119601	Ear speculum, acc. to Brünings, size 4.0 x 6.0
WT119602	Ear speculum, acc. to Brünings, size 5.0 x 7.0
WT119603	Ear speculum, acc. to Brünings, size 6.5 x 8.5
WT119604	Ear speculum, acc. to Brünings, size 8.5 x 10.5



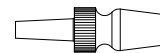
## Bruenings Components

### Rubber bulb

WT119300 Rubber bulb, acc. to Brünings, with tip, for aural magnifier



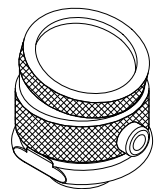
WT119400 Connector, for Bruenings rubber bulb (not shown)



### Diagnostic head

closed and open type, with and without magnification

WT119700	Diagnostic head, acc. to Brünings, closed, without magnification
WT119800	Diagnostic head, acc. to Brünings, closed, with magnification
WT119900	Diagnostic head, acc. to Brünings, open, without magnification





- Matt-finished and ebony-finished models
- Models for infants and adults
- Models with round and oval oblique end

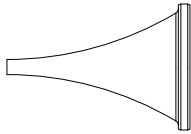
## EXPLORENT

## Hartmann Ear Specula

### Ear speculum, acc. to Hartmann

stainless steel, matt finish,  
36 mm length,  
various diameters (mm)

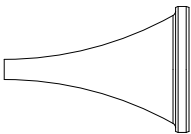
WT118000	Ear speculum, acc. to Hartmann 1.8 x 36
WT118001	Ear speculum, acc. to Hartmann 3.2 x 36
WT118002	Ear speculum, acc. to Hartmann 4.0 x 36
WT118003	Ear speculum, acc. to Hartmann 5.3 x 36
WT118004	Ear speculum, acc. to Hartmann 6.5 x 36



### Ear speculum, for postoperative treatment

matt finish, round, various inner diameters (mm)

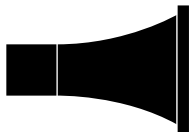
WT118101	Ear speculum, for postoperative treatment, size 8.0
WT118102	Ear speculum, for postoperative treatment, size 9.0



### Ear speculum, for postoperative treatment

ebony finish, round, 9 mm inner diameter

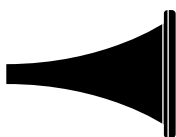
WT118109	Ear speculum, for postoperative treatment, black, size 9
----------	--



### Ear speculum, acc. to Hartmann

ebony finish, round  
various inner diameters (mm)

WT118301	Ear speculum, acc. to Hartmann, black, size 3.0
WT118302	Ear speculum, acc. to Hartmann, black, size 4.0
WT118303	Ear speculum, acc. to Hartmann, black, size 5.0
WT118304	Ear speculum, acc. to Hartmann, black, size 7.0

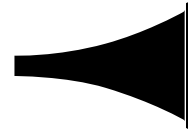


## Toynbee Ear Specula

### Ear speculum, acc. to Toynbee

matt finish, round, various inner diameters (mm)

WT118401	Ear speculum, acc. to Toynbee, size 3.2
WT118402	Ear speculum, acc. to Toynbee, size 4.0
WT118403	Ear speculum, acc. to Toynbee, size 5.3

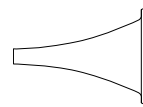


## Politzer Ear Specula

### Ear speculum, acc. to Politzer

infant type, matt finish, round,  
27 mm length, various inner diameters (mm)

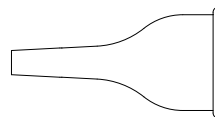
WT118201	Ear speculum, acc. to Politzer, short, size 2.0 x 27
WT118202	Ear speculum, acc. to Politzer, short, size 3.0 x 27
WT118203	Ear speculum, acc. to Politzer, short, size 4.0 x 27



## Gruber Ear Specula

### Ear speculum, acc. to Gruber

WT118702	Ear speculum, acc. to Gruber, oval, size 3.8 x 4.8
WT118703	Ear speculum, acc. to Gruber, oval, size 5.0 x 5.2
WT118704	Ear speculum, acc. to Gruber, oval, size 6.0 x 7.2

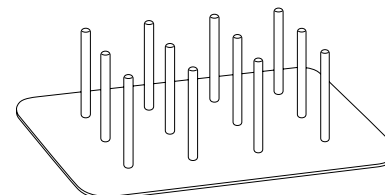


## Accessories

### Stand for speculum

140 mm length, 105 mm width, 50 mm height

WT118612	Stand, for 12 ear speculum, size 140 x 105 x 50
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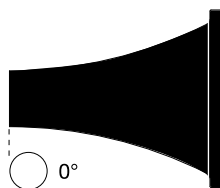


## Farrior Ear Specula

### Ear speculum, acc. to Farrior

stainless steel, special dull polish, round, regular end, various inner diameters (mm)

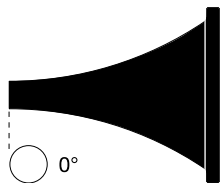
- WT216001 Ear speculum, acc. to Farrior, round, straight, size 4.5
- WT216002 Ear speculum, acc. to Farrior, round, straight, size 5.5
- WT216003 Ear speculum, acc. to Farrior, round, straight, size 6.5
- WT216004 Ear speculum, acc. to Farrior, round, straight, size 7.5
- WT216005 Ear speculum, acc. to Farrior, round, straight, size 8.5
- WT216006 Ear speculum, acc. to Farrior, round, straight, size 9.5
- WT216007 Ear speculum, acc. to Farrior, round, straight, size 10



### Ear speculum, acc. to Farrior

stainless steel, black, round, regular end, various inner diameters (mm)

- WT216011 Ear speculum, acc. to Farrior, round, black, straight, size 4.5
- WT216012 Ear speculum, acc. to Farrior, round, black, straight, size 5.5
- WT216013 Ear speculum, acc. to Farrior, round, black, straight, size 6.5
- WT216014 Ear speculum, acc. to Farrior, round, black, straight, size 7.5
- WT216015 Ear speculum, acc. to Farrior, round, black, straight, size 8.5
- WT216016 Ear speculum, acc. to Farrior, round, black, straight, size 9.5
- WT216017 Ear speculum, acc. to Farrior, round, black, straight, size 10

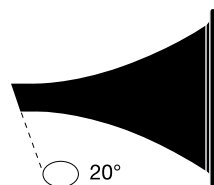


## Farrior Ear Specula (cont.)

### Ear speculum, acc. to Farrior

stainless steel, special dull polish, oval, 20° oblique end, various inner diameters (mm)

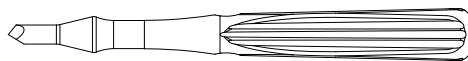
- WT216201 Ear speculum, acc. to Farrior, oval, oblique end 20, size 4.2 x 4.6
- WT216202 Ear speculum, acc. to Farrior, oval, oblique end 20, size 5.2 x 5.8
- WT216203 Ear speculum, acc. to Farrior, oval, oblique end 20, size 5.9 x 6.8
- WT216204 Ear speculum, acc. to Farrior, oval, oblique end 20, size 7.0 x 8.0
- WT216205 Ear speculum, acc. to Farrior, oval, oblique end 20, size 7.9 x 9.2
- WT216206 Ear speculum, acc. to Farrior, oval, oblique end 20, size 8.8 x 10.1
- WT216207 Ear speculum, acc. to Farrior, oval, oblique end 20, size 9.5 x 10.8



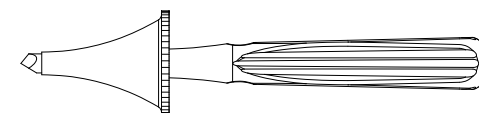
## Trocar

### Trocar

- WT519060 Trocar, Russia type, without speculum, size 6.2



- WT519065 Trocar, Russia type, Set

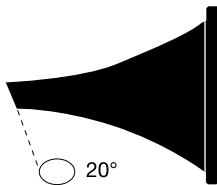


## Farrior Ear Specula (cont.)

### Ear speculum, acc. to Farrior

stainless steel, special dull polish, black, oval, 20° oblique end, various inner diameters (mm)

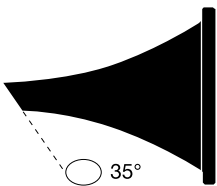
- WT216211 Ear speculum, acc. to Farrior, oval, black, oblique end 20, size 4.2 x 4.6
- WT216212 Ear speculum, acc. to Farrior, oval, black, oblique end 20, size 5.2 x 5.8
- WT216213 Ear speculum, acc. to Farrior, oval, black, oblique end 20, size 5.9 x 6.8
- WT216214 Ear speculum, acc. to Farrior, oval, black, oblique end 20, size 7.0 x 8.0
- WT216215 Ear speculum, acc. to Farrior, oval, black, oblique end 20, size 7.9 x 9.2
- WT216216 Ear speculum, acc. to Farrior, oval, black, oblique end 20, size 8.8 x 10.1
- WT216217 Ear speculum, acc. to Farrior, oval, black, oblique end 20, size 9.5 x 10



### Ear speculum, acc. to Farrior

stainless steel, special dull polish, oval, 35° oblique end, various inner diameters (mm)

- WT216401 Ear speculum, acc. to Farrior, oval, oblique end 35, size 4.2 x 4.6
- WT216402 Ear speculum, acc. to Farrior, oval, oblique end 35, size 5.2 x 5.8
- WT216403 Ear speculum, acc. to Farrior, oval, oblique end 35, size 5.9 x 6.8
- WT216404 Ear speculum, acc. to Farrior, oval, oblique end 35, size 7.0 x 8.0
- WT216405 Ear speculum, acc. to Farrior, oval, oblique end 35, size 7.9 x 9.2
- WT216406 Ear speculum, acc. to Farrior, oval, oblique end 35, size 8.8 x 10.1
- WT216407 Ear speculum, acc. to Farrior, oval, oblique end 35, size 9.5 x 10.8

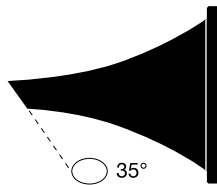


## Farrior Ear Specula (cont.)

### Ear speculum, acc. to Farrior

stainless steel, black, oval, 35° oblique end, various inner diameters (mm)

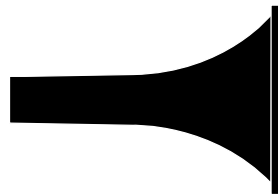
- WT216411 Ear speculum, acc. to Farrior, oval, black oblique end 35, size 4.2 x 4.6
- WT216412 Ear speculum, acc. to Farrior, oval, black oblique end 35, size 5.2 x 5.8
- WT216413 Ear speculum, acc. to Farrior, oval, black oblique end 35, size 5.9 x 6.8
- WT216414 Ear speculum, acc. to Farrior, oval, black oblique end 35, size 7.0 x 8.0
- WT216415 Ear speculum, acc. to Farrior, oval, black oblique end 35, size 7.9 x 9.2
- WT216416 Ear speculum, acc. to Farrior, oval, black oblique end 35, size 8.8 x 10.1
- WT216417 Ear speculum, acc. to Farrior, oval, black oblique end 35, size 9.5 x 10.8



## Zoellner Ear Specula

### Ear speculum, acc. to Zoellner

- WT215001 Ear speculum, acc. to Zoellner, black, oval, size 4.4 x 5.4
- WT215002 Ear speculum, acc. to Zoellner, black, oval, size 5.5 x 6.5
- WT215003 Ear speculum, acc. to Zoellner, black, oval, size 6.6 x 7.5
- WT215004 Ear speculum, acc. to Zoellner, black, oval, size 7.6 x 8.7
- WT215005 Ear speculum, acc. to Zoellner, black, oval, size 8.7 x 9.3
- WT215006 Ear speculum, acc. to Zoellner, black, oval, size 9.4 x 10.7





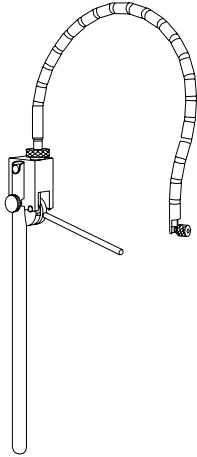
- Complete with holding rod for attachment to operating table
- With optional rotation clamp
- Optional ear speculum clamp and ear telescope clamp

## Flexible Tension Arm

### Articulated arm

complete with holding rod,  
for attachment to operating table

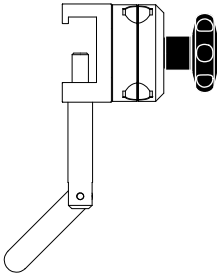
WT218800 Articulated arm, flexible, with holding rod



### Clamp socket

for articulated arm WT218800,  
attachable to operating table

WT218801 Clamp socket, for articulated arm WT218800



### Holding rod

spare, for articulated arm WT218800

WT218812 Holding rod, for articulated arm WT218800

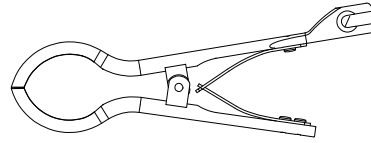


WT218809 Spare screw, for arm system

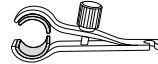


## Adapters for Flexible Tension Arm

WT218802 Adapter, ear speculum to articulated arm WT218800,  
size 120



WT218803 Adapter, endoscope to articulated arm WT218800,  
size 80





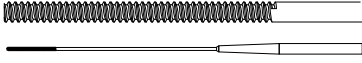
- Cotton applicators:  
serrated, triangular and twisted models,  
standard and very delicate models
- Ear snare:  
angled model,  
snare wires cut and formed

## Cotton Applicators

### Cotton applicator

stainless steel, twisted end, very delicate, 0.7 mm diameter, various lengths (mm)

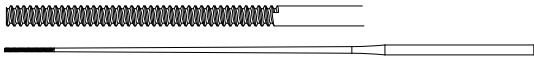
- WT122411 Cotton applicator, with thread, size 0.7 x 110
- WT122415 Cotton applicator, with thread, size 0.7 x 150



### Cotton applicator, acc. to Frohn

stainless steel, twisted end, various lengths (mm), 0.9 mm diameter,

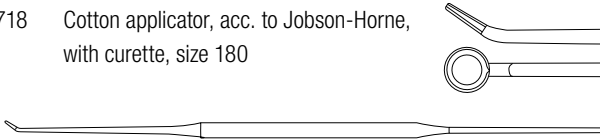
- WT122812 Cotton applicator, serrated, size 0.9 x 120
- WT122814 Cotton applicator, serrated, size 0.9 x 140
- WT122816 Cotton applicator, serrated, size 0.9 x 160



### Cotton applicator, acc. to Jobson-Horne

with curette, 18 cm total length

- WT122718 Cotton applicator, acc. to Jobson-Horne, with curette, size 180

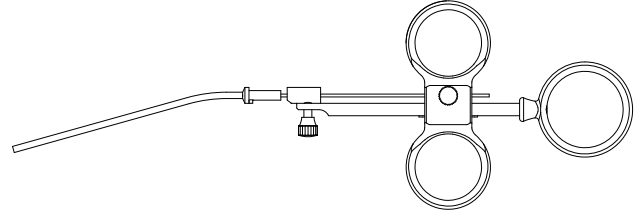


## Ear Snare

### Polyp snare, acc. to Krause

18 cm total length

- WT137000 Polyp snare, acc. to Krause, size 180



### Snare Wire

for polyp snare, shaped, for ear polypus snares, 0.2 mm diameter size

- WT137500 Wire, for polyp snare, shaped, size 0.2, 100 pcs. (not shown)
- WT137600 Wire, for polyp snare, shaped, size 0.2, 12 pcs. (not shown)



- Silver and silver-plated probes
- Smooth and serrated ear loops
- Sharp and blunt ear curettes, straight and curved models
- Fine ear spatula and foreign body lever

## Probes

### Probe, acc. to Stacke

silver plated, 10 cm length

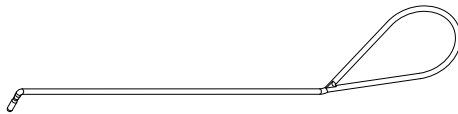
WT121000 Probe, acc. to Stacke, silver plated, size 100



### Probe, acc. to Stacke-Frenzel

silver, angled tip, 9 cm length, 1mm diameter

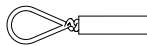
WT121200 Probe, acc. to Stacke-Frenzel, silver, curved, size 90



## Loops

### Loop, acc. to Billeau

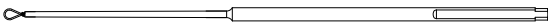
straight, 16.5 cm total length, various loop sizes (mm)



WT123001 Loop, acc. to Billeau, straight, size 4.0 x 3.0 165

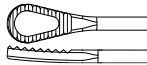
WT123002 Loop, acc. to Billeau, straight, size 6.0 x 3.5 165

WT123003 Loop, acc. to Billeau, straight, size 8.0 x 4.5 165



### Ear loop, acc. to Snellen

slight, curved, serrated, 15 cm total length, various loop sizes (mm)



WT123201 Ear loop, acc. to Snellen, serrated, curved, size 3.0 x 150

WT123202 Ear loop, acc. to Snellen, serrated, curved, size 4.0 x 150

WT123203 Ear loop, acc. to Snellen, serrated, curved, size 4.5 x 150

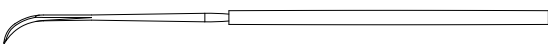


## Spatula

### Spatula, acc. to Zaufal

16 cm total length, 3 mm width

WT124100 Spatula, acc. to Zaufal, curved, size 160



## Curettes

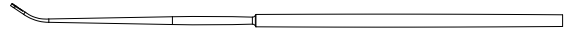
### Ear curette, acc. to Shapleigh

slight, curved, serrated, 16.5 cm total length, various curette widths (mm)



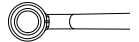
WT123301 Ear curette, acc. to Shapleigh, serrated, curved, size 2.6 x 165

WT123302 Ear curette, acc. to Shapleigh, serrated, curved, size 3.0 x 165



### Ear curette, acc. to Buck

blunt, 15 cm total length, various curette sizes (mm)



WT125020 Ear curette, acc. to Buck, blunt, size 00, 1.6 x 150

WT125010 Ear curette, acc. to Buck, blunt, size 0, 2.0 x 150

WT125001 Ear curette, acc. to Buck, blunt, size 1, 2.8 x 150

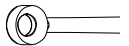
WT125002 Ear curette, acc. to Buck, blunt, size 2, 3.2 x 150

WT125003 Ear curette, acc. to Buck, blunt, size 3, 3.5 x 150



### Ear curette, acc. to Buck

sharp, 15 cm total length, various curette sizes (mm)



WT125120 Ear curette, acc. to Buck, sharp, size 00, 1.6 x 150

WT125110 Ear curette, acc. to Buck, sharp, size 0, 2.0 x 150

WT125101 Ear curette, acc. to Buck, sharp, size 1, 2.8 x 150

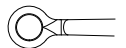
WT125102 Ear curette, acc. to Buck, sharp, size 2, 3.2 x 150

WT125103 Ear curette, acc. to Buck, sharp, size 3, 3.5 x 150



### Ear curette

angled, blunt, 35° up-curved

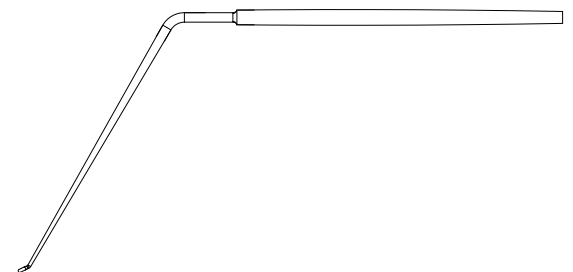


WT125300 Ear curette, blunt, angled, up-curved, size 2.5

WT125301 Ear curette, blunt, angled, up-curved, size 2.8

WT125302 Ear curette, blunt, angled, up-curved, size 3.5

WT125303 Ear curette, blunt, angled, up-curved, size 3.8





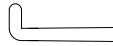


- Standard models
- Double-ended model with hook and spoon

## Ear Hooks

### Ear hook, acc. to Day

14.5 cm total length, various hook sizes (mm)



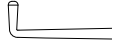
WT123401 Ear hook, acc. to Day, size 2.0 x 145

WT123402 Ear hook, acc. to Day, size 3.0 x 145



### Ear hook, acc. to Lucae

14.5 cm total length, various hook sizes (mm)



WT123501 Ear hook, acc. to Lucae, with ball end, size 2.0 x 145

WT123502 Ear hook, acc. to Lucae, with ball end, size 2.5 x 145

WT123503 Ear hook, acc. to Lucae, with ball end, size 3.5 x 145



### Ear hook, acc. to Wagener

15 cm total length, various hook sizes (mm)



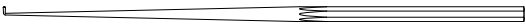
WT123601 Ear hook, acc. to Wagener, size 2.0 x 150

WT123602 Ear hook, acc. to Wagener, size 2.5 x 150

WT123603 Ear hook, acc. to Wagener, size 3.0 x 150

WT123604 Ear hook, acc. to Wagener, size 3.5 x 150

WT123605 Ear hook, acc. to Wagener, size 4.5 x 150

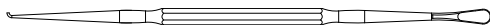


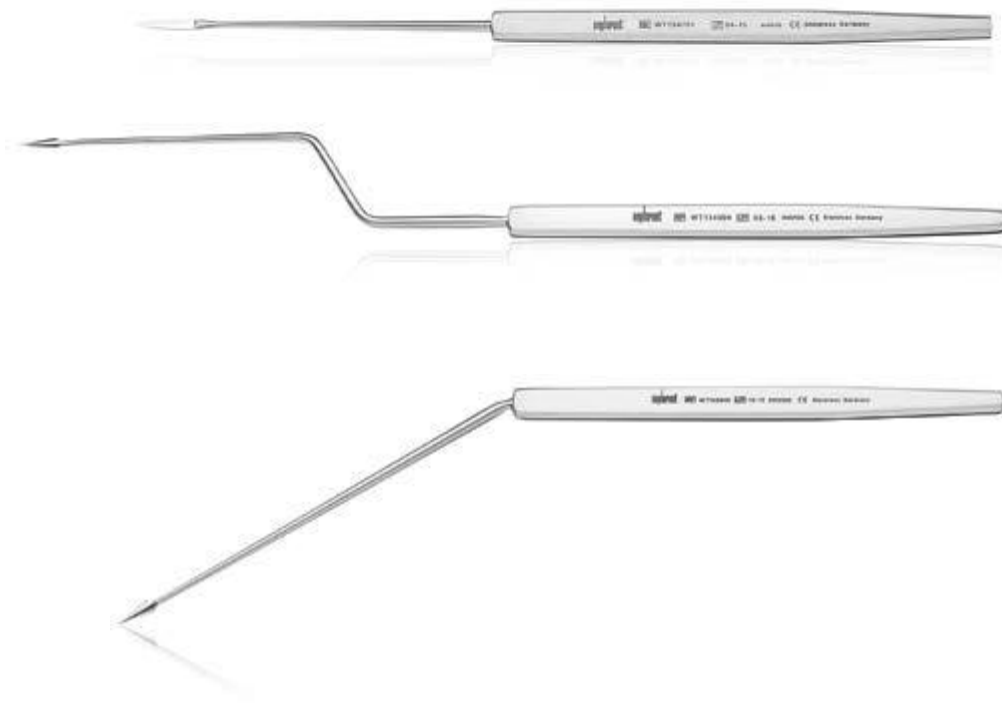
### Hook, acc. to Gross

with spoon, 1.5 mm hook, sharp,  
13 cm total length, 9 x 4 mm spoon



WT123900 Hook, acc. to Gross, with spoon, size 130



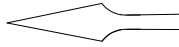


- Straight, angled, curved and bayonet-shaped models
- Perforators with detachable tips
- Up- and downcutting models

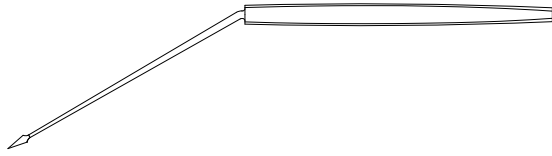
## Tympanum Perforators

### Perforator, acc. to Politzer

angled, for tympanum,  
16 cm total length



WT133000 Perforator, acc. to Politzer, for tympanum, angled, size 160

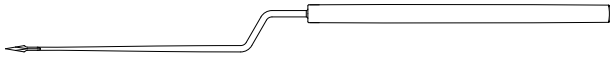


### Perforator, acc. to Lucae

bayonet, for tympanum,  
18.5 cm total length



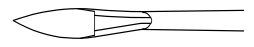
WT134000 Perforator, acc. to Lucae, for tympanum,  
bayonet shaped, size 185



## Myringotomy Knives

### Knife

for myringotomy, straight,  
16.5 cm total length



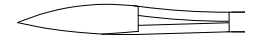
WT133100 Knife, for myringotomy, straight, size 165



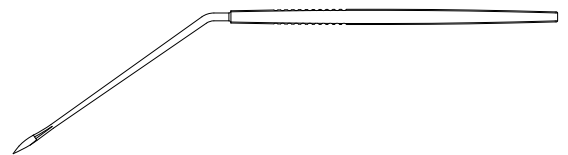
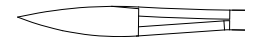
### Knife, acc. to Royce

angled, 16 cm total length

WT133400 Knife, acc. to Royce,  
upwards cutting, curved, size 160



WT133500 Knife, acc. to Royce,  
downward cutting, curved, size 160



### Ear knife, acc. to Politzer

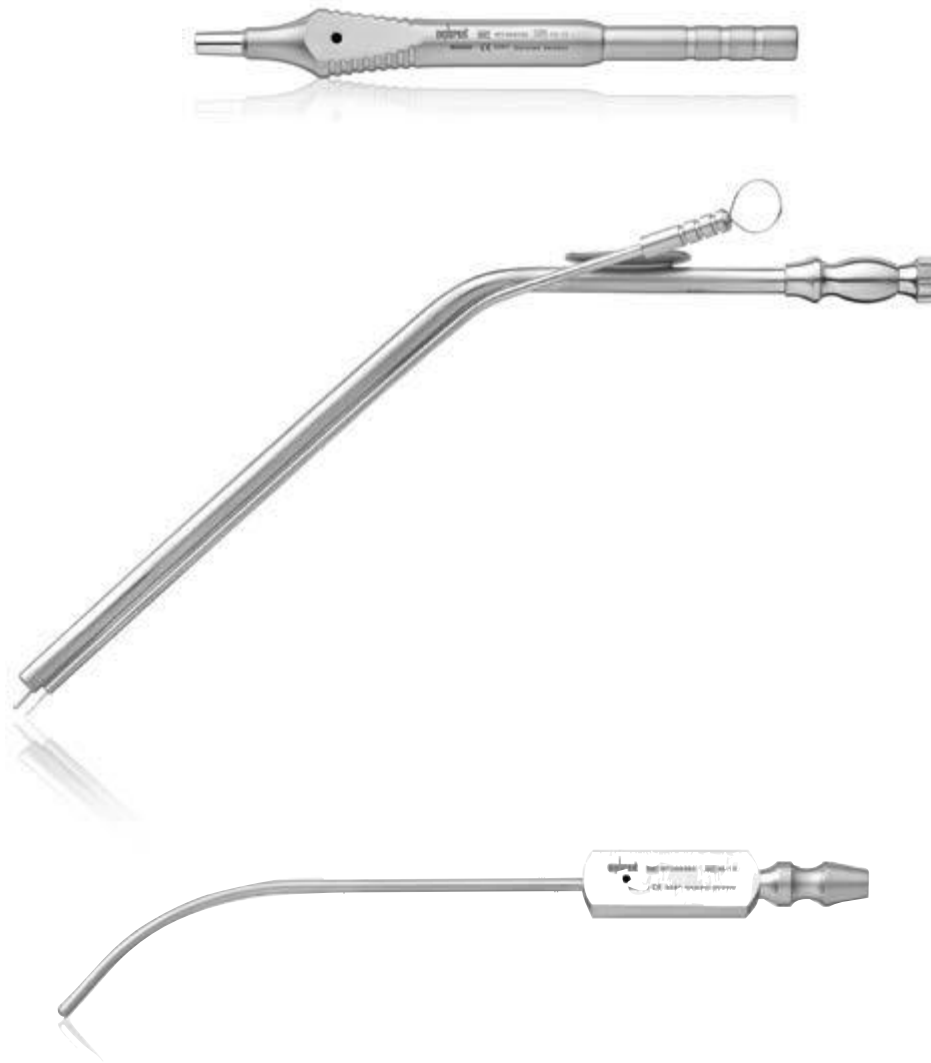
16 cm total length

WT134701 Ear knife, acc. to Politzer,  
straight, size 160



WT134702 Ear knife, acc. to Politzer,  
curved, size 160





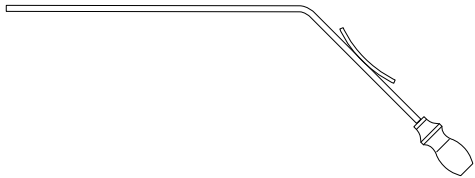
- Standard and micro suction models
- Angled and curved models
- Stainless steel and silver models
- Different adapters

## Suction Tubes

### Suction tube, acc. to Verhoeven

9 cm working length, various diameters

- WT135200 Suction tube, acc. to Verhoeven, straight, size 2.0 x 90  
 WT135300 Suction tube, acc. to Verhoeven, straight, size 1.5 x 90



### Suction tube, acc. to Nijmegen

7.5 cm working length, various diameters

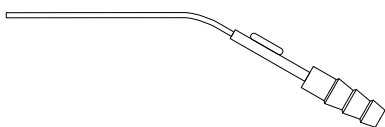
- WT136015 Suction tube, acc. to Nijmegen, size 1.5 x 75  
 WT136020 Suction tube, acc. to Nijmegen, size 2.0 x 75  
 WT136025 Suction tube, acc. to Nijmegen, size 2.5 x 75  
 WT136030 Suction tube, acc. to Nijmegen, size 3.0 x 75  
 WT136040 Suction tube, acc. to Nijmegen, size 4.0 x 75



### Suction tube, acc. to Barnes, Luer connection

5 cm working length, with cut-off, various diameters

- WT136615 Suction tube, acc. to Barnes, Luer connection, size 1.5 x 50  
 WT136617 Suction tube, acc. to Barnes, Luer connection, size 1.7 x 50  
 WT136620 Suction tube, acc. to Barnes, Luer connection, size 2.0 x 50



## Suction Tubes (cont.)

### Suction tube, curved, with Luer conus

curved, cylindric, Luer,  
 10.5 cm working length, various diameters

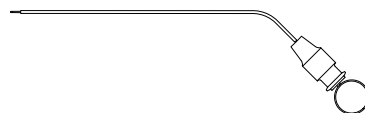
- WT136510 Suction tube, curved, with Luer conus, size 1.0 x 105  
 WT136515 Suction tube, curved, with Luer conus, size 1.5 x 105  
 WT136520 Suction tube, curved, with Luer conus, size 2.0 x 105  
 WT136530 Suction tube, curved, with Luer conus, size 3.0 x 105  
 WT136540 Suction tube, curved, with Luer conus, size 4.0 x 105  
 WT136550 Suction tube, curved, with Luer conus, size 5.0 x 105



### Suction tube, acc. to House

7 cm working length, 10 cm total, various diameters

- WT266106 Suction tube, acc. to House, with Luer-lock, curved, size 0.6 x 70  
 WT266108 Suction tube, acc. to House, with Luer-lock, curved, size 0.8 x 70  
 WT266110 Suction tube, acc. to House, with Luer-lock, curved, size 1.0 x 70  
 WT266112 Suction tube, acc. to House, with Luer-lock, curved, size 1.2 x 70  
 WT266115 Suction tube, acc. to House, with Luer-lock, curved, size 1.5 x 70  
 WT266118 Suction tube, acc. to House, with Luer-lock, curved, size 1.8 x 70  
 WT266120 Suction tube, acc. to House, with Luer-lock, curved, size 2.0 x 70  
 WT266122 Suction tube, acc. to House, with Luer-lock, curved, size 2.2 x 70  
 WT266125 Suction tube, acc. to House, with Luer-lock, curved, size 2.5 x 70  
 WT266130 Suction tube, acc. to House, with Luer-lock, curved, size 3.0 x 70



### Mandrin

for House suction tubes (not shown)

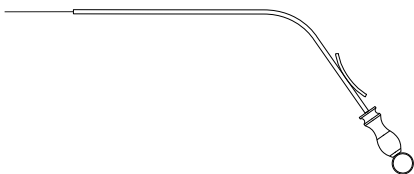
- WT000812 Mandrin, for suction tubes acc. to House, size 0.6  
 WT000815 Mandrin, for suction tubes acc. to House, size 1.2

## Suction Tubes (cont.)

### Suction tube, acc. to Baron

7.5 cm working length, 14 cm total, various diameters

- WT134803 Suction tube, acc. to Baron, with cut-off, size 1.0 x 75
- WT134805 Suction tube, acc. to Baron, with cut-off, size 1.7 x 75
- WT134807 Suction tube, acc. to Baron, with cut-off, size 2.3 x 75



### Mandrin

for Baron suction tubes (not shown)

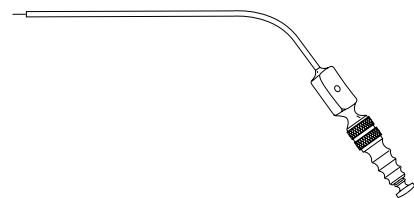
- WT000801 Mandrin, for Suction tubes acc. to Baron, size 1.3
- WT000802 Mandrin, for Suction tubes acc. to Baron, size 1.7
- WT000803 Mandrin, for Suction tubes acc. to Baron, size 2.3



### Suction tube, acc. to Frazier

9 cm working length, various diameters

- WT210006 Suction tube, acc. to Frazier, with cut-off, size 2.0 x 90
- WT210008 Suction tube, acc. to Frazier, with cut-off, size 2.7 x 90
- WT210010 Suction tube, acc. to Frazier, with cut-off, size 3.3 x 90
- WT210012 Suction tube, acc. to Frazier, with cut-off, size 4.0 x 90
- WT210015 Suction tube, acc. to Frazier, with cut-off, size 5.0 x 90

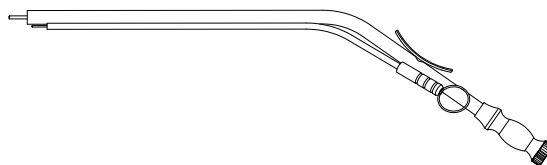


## Suction Tubes (cont.)

### Suction/irrigation tube, acc. to House

9 cm working length, 16 cm total length

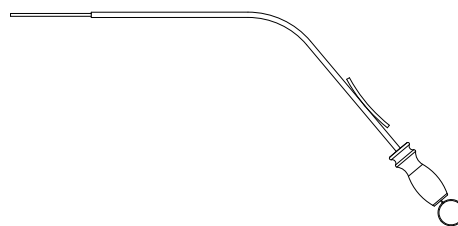
- WT268501 Suction/irrigation tube, acc. to House, size 4.5 x 2.0, 90
- WT268502 Suction/irrigation tube, acc. to House, size 3.0 x 2.0, 90
- WT268503 Suction/irrigation tube, acc. to House, size 2.5 x 2.0, 90
- WT268504 Suction/irrigation tube, acc. to House, size 1.8 x 1.8, 90
- WT268505 Suction/irrigation tube, acc. to House, size 1.5 x 1.5, 90
- WT268506 Suction/irrigation tube, acc. to House, size 1.2 x 0.9, 90
- WT268507 Suction/irrigation tube, acc. to House, size 0.9 x 0.7, 90



### Suction tube, acc. to Schuhknecht

Luer, 7 cm working length, tapered tip, with wire, 14 cm total length, diameters (mm)

- WT269020 Suction tube, acc. to Schuhknecht, with Luer cone size 0.9 x 70
- WT269024 Suction tube, acc. to Schuhknecht, with Luer cone size 0.6 x 70

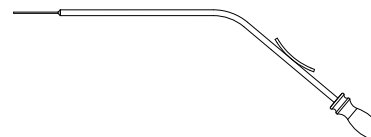


### Mandrin

for Schuhknecht suction tubes (not shown)

- WT000806 Mandrin, for suction tubes acc. to Schuhknecht, size 20G
- WT000807 Mandrin, for suction tubes acc. to Schuhknecht, size 24G

- WT269026 Suction tube, acc. to Schuhknecht, size 0.5 x 60

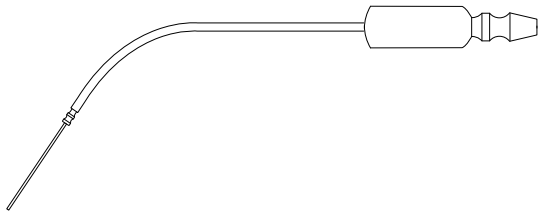


## Zoellner Suction Tubes

### Suction tube, acc. to Zoellner

Luer, 2.4 mm diameter, 14 cm working length

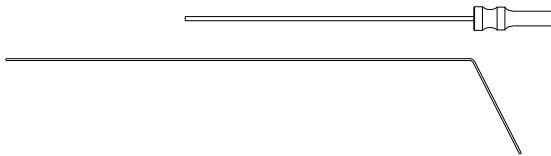
- WT268000 Suction tube, acc. to Zoellner, size 2.4 x 140,  
with tip WT268107



### Suction tube, tip, acc. to Zoellner

micro suction cannula to slip on Zoellner suction tube,  
with wire, various diameters (mm)

- WT268105 Suction tube, tip, acc. to Zoellner, size 0.5  
WT268106 Suction tube, tip, acc. to Zoellner, size 0.6  
WT268107 Suction tube, tip, acc. to Zoellner, size 0.7  
WT268108 Suction tube, tip, acc. to Zoellner, size 0.8  
WT268109 Suction tube, tip, acc. to Zoellner, size 0.9  
WT268112 Suction tube, tip, acc. to Zoellner, size 1.2

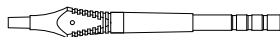


## Adapters for Suction Tubes

Adapter, acc. to Wullstein

stainless steel, Luer-cone, 11 cm total length

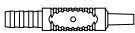
- WT265002 Adapter, acc. to Wullstein, for suction tubes, Luer cone



Adapter, acc. to House

Luer-cone, 5.2 cm total length

- WT265502 Adapter, acc. to House, with Luer cone, size 52







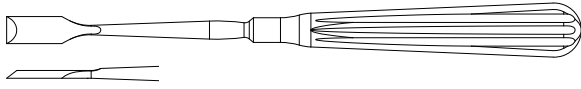
- Single- and double-ended models
- Large and delicate models
- Oval curettes

## Single-Ended Elevators

### Elevator, acc. to Adson

straight, 17 cm total length, 8 mm width

WT205500 Elevator, acc. to Adson, straight, size 8.0 x 170

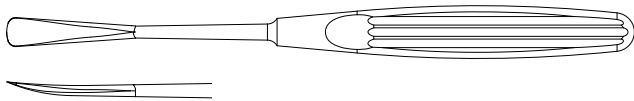


### Raspatory, acc. to Jansen

19.5 cm total length, various widths (mm)

WT205609 Raspatory, acc. to Jansen, size 9.0 x 195

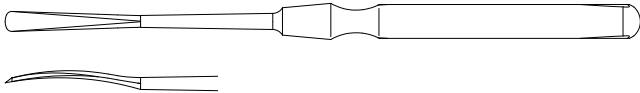
WT205614 Raspatory, acc. to Jansen, size 14 x 195



### Raspatory, acc. to Eicken

19.5 cm total length, 6 mm width

WT205706 Raspatory, acc. to Eicken, size 6.0 x 195



### Raspatory, acc. to Lempert (Joseph)

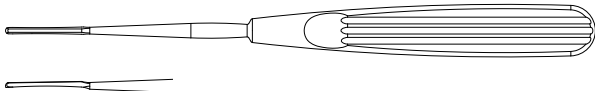
17.5 cm total length, various widths (mm)

WT208001 Raspatory, acc. to Lempert (Joseph), slightly curved, size 2.0 x 175

WT208002 Raspatory, acc. to Lempert (Joseph), slightly curved, size 3.0 x 175

WT208003 Raspatory, acc. to Lempert (Joseph), slightly curved, size 4.0 x 175

WT208004 Raspatory, acc. to Lempert (Joseph), slightly curved, size 5.0 x 175

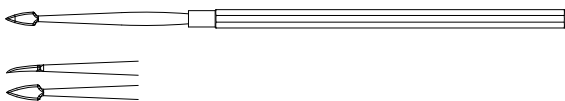


### Raspatory, acc. to Wullstein

16.5 cm total length

WT261500 Raspatory, acc. to Wullstein, delicate, curved, size 165

WT261501 Raspatory, acc. to Wullstein, large, curved, size 165



## Single-Ended Elevators (2)

### Raspatory, acc. to Shambough-Derlacki

16.5 cm total length, 3 mm width

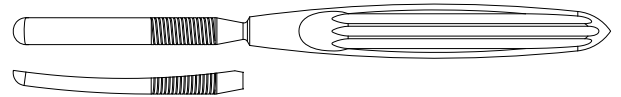
WT261600 Raspatory, acc. to Shambough-Derlacki, Duckbill shape, size 3.0 x 165



### Raspatory, acc. to Plester

18 cm total length, 8 mm width

WT261700 Raspatory, acc. to Plester, size 8.0 x 180



### Raspatory, acc. to Fisch

17 cm total length, 10 mm width

WT261800 Raspatory, acc. to Fisch, size 10 x 170

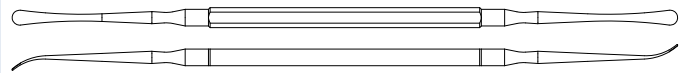


## Double-Ended Elevators

### Elevator, acc. to Freer

double-ended, sharp/blunt, 20 cm total length, USA model, 4.5 mm width

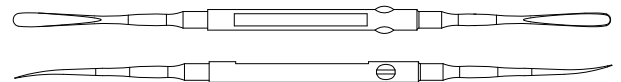
WT315000 Elevator, acc. to Freer, double-ended, american type, size 200



### Elevator, acc. to Freer

double-ended, sharp/blunt, 18 cm total length, 4.7 mm width

WT315100 Elevator, acc. to Freer, double-ended, sharp/blunt, size 180

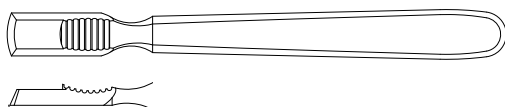


### Raspatories

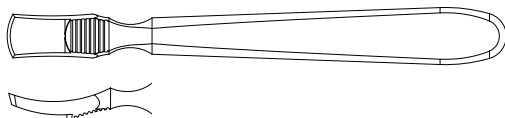
#### Raspatory, acc. to Farabeuf

various widths and total lengths (mm)

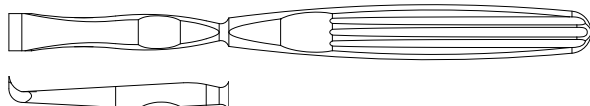
WT205000 Raspatory, acc. to Farabeuf, straight, size 13 x 150



WT205100 Raspatory, acc. to Farabeuf, curved, size 13 x 150



WT205111 Raspatory, acc. to Farabeuf, curved, size 11 x 175



### Sharp Curettes

#### Curette, acc. to Spratt

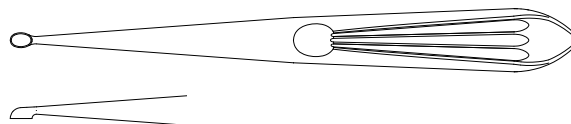
17 cm total length, various curette sizes (mm)



WT242000 Curette, acc. to Spratt, oval, size 0, 3.5 x 5.5 170

WT242001 Curette, acc. to Spratt, oval, size 1, 4.5 x 7.0 170

WT242002 Curette, acc. to Spratt, oval, size 2, 5.5 x 8.0 170



#### Curette, acc. to Lempert

oval, various curette sizes, 21 cm total length,



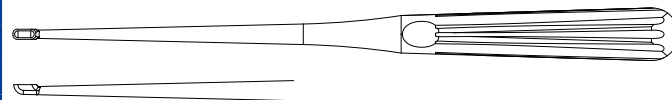
WT243010 Curette, acc. to Lempert, oval, size 0, 3.9 x 6.3 210

WT243020 Curette, acc. to Lempert, oval, size 2/0, 3.5 x 5.3 210

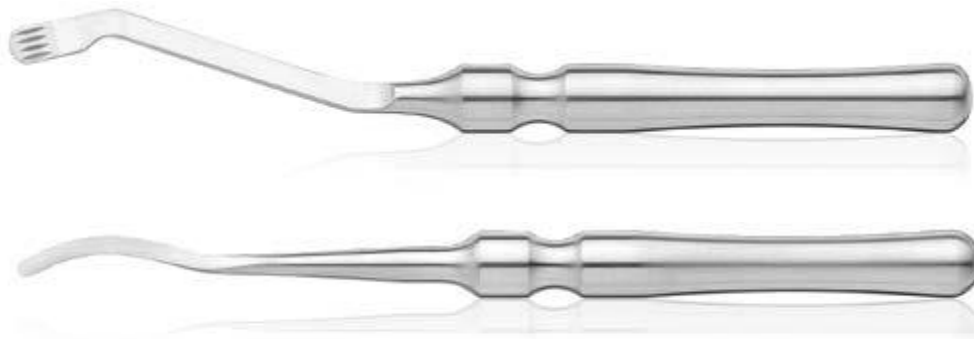
WT243030 Curette, acc. to Lempert, oval, size 3/0, 2.9 x 4.3 210

WT243040 Curette, acc. to Lempert, oval, size 4/0, 2.0 x 3.5 210

WT243050 Curette, acc. to Lempert, oval, size 5/0, 2.0 x 2.9 210







In recent years, the minimally invasive otoplasty (MIO) technique has met with increasing interest throughout the world; it is now well established as an elegant alternative to open otoplasty techniques.

- Right and left ear scoring instruments, allowing biomechanical shaping of the anthelix cartilage, thus weakening its restoring force.
- Right and left ear elevators for tunneling the perichondrium at the anthelix front
- For minimally invasive and open otoplasty

## Benedict Anthelix Set for Minimally Invasive and Open Otoplasty

These instruments were specially designed for the minimally invasive otoplasty, but they can be used in open otoplasty as well.

The elevator serves for tunneling the perichondrium at the anthelix front, the scoring instrument for biomechanical shaping of the anthelix, thus weakening its cartilage restoring force.

During most otoplasties the cartilage is usually being scored with a scalpel knife. In comparison with the scalpel method the Benedict type scoring instrument allows more precise and defined scoring of the cartilage. Synchronous scoring is achieved by four identical microblades, arranged in parallel.

The depth of scoring is thereby exactly defined; thus helping to prevent visible cutting edges even with thin cartilage, since the cartilage is only scored but not completely severed. The slender and curved design of the instruments corresponds to the anthelix shape

Reference:

Dr. M. Benedict, Ettlingen/Karlsruhe, Germany

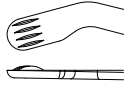
M. Benedict, K.-U. Pirwitz: Minimal-invasive Otoplastik.

HNO 2005, 53:230-237

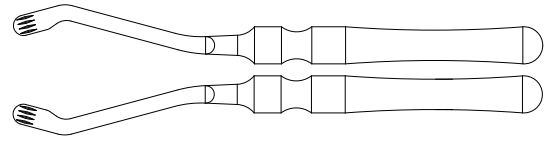
## Benedict Scoring Instruments

**Scoring instrument, acc. to Benedict**  
for otoplasty, set

Delivery includes: WT290001, WT290002



WT290000 Scoring instrument, acc. to Benedict, for otoplasty, set



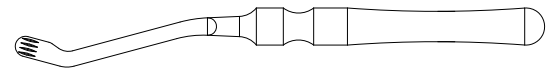
**Scoring instrument, acc. to Benedict**

4 blades, 6 mm width, 15.7 cm total length

WT290001 Scoring instrument, acc. to Benedict, right, four-blades, size 6.0 x 157



WT290002 Scoring instrument, acc. to Benedict, left, four-blades, size 6.0 x 157



## Benedict Elevators

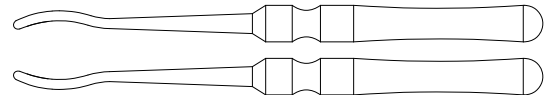
**Elevator, acc. to Benedict**

for otoplasty, set

Delivery includes: WT290006, WT290007



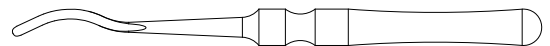
WT290005 Elevator, acc. to Benedict, Set, curved left and right



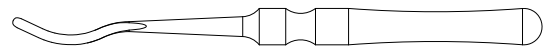
**Elevator, acc. to Benedict**

working part round curved 3.3 cm,  
16 cm total length

WT290006 Elevator, acc. to Benedict, curved right, size 160



WT290007 Elevator, acc. to Benedict, curved left, size 160





- Chisels and gouges with different widths
- Chisels especially for haemostatis
- Mallets with different weights
- Mallet with replaceable nylon caps

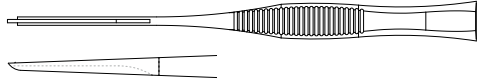
**EXPLORENT**

## Ear Chisels and Gouges

### Gouge, acc. to Partsch

14 cm total length, various widths (mm)

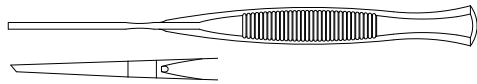
- WT220002 Gouge, acc. to Partsch (Trautmann), size 2.2 x 140
- WT220004 Gouge, acc. to Partsch (Trautmann), size 4.0 x 140
- WT220006 Gouge, acc. to Partsch (Trautmann), size 6.0 x 140
- WT220008 Gouge, acc. to Partsch (Trautmann), size 8.0 x 140
- WT220010 Gouge, acc. to Partsch (Trautmann), size 10 x 140



### Chisel, acc. to Partsch (Trautmann)

14 cm total length, various widths (mm)

- WT220102 Chisel, acc. to Partsch (Trautmann), size 2.0 x 140
- WT220104 Chisel, acc. to Partsch (Trautmann), size 4.0 x 140
- WT220106 Chisel, acc. to Partsch (Trautmann), size 6.0 x 140



### Gouge acc. to Brünings

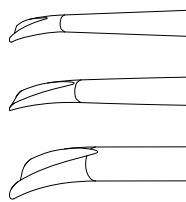
- WT221004 Gouge, acc. to Brünings, size 4.0 x 160
- WT221006 Gouge, acc. to Brünings, size 6.0 x 160



### Gouge, acc. to Heermann

for partial resection of the bony posterior aural meatus and the lateral attic wall, curved, 11 cm total length, various widths (mm)

- WT264010 Gouge, acc. to Heermann, curved, size 1.0 x 110
- WT264015 Gouge, acc. to Heermann, curved, size 1.5 x 110
- WT264030 Gouge, acc. to Heermann, curved, size 3.0 x 110

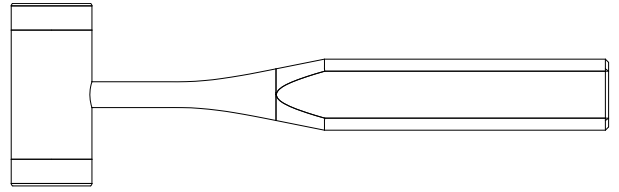


## Mallets

### Mallet with replaceable polyamide caps

flat/flat face, 212 g,  
18 cm length, 25 mm diameter

- WT413500 Mallet, metal, light handle, size 180



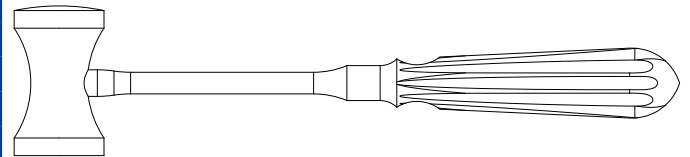
- WT413501 Spare mallet heads, polyamide  
2 pcs.



### Mallet, acc. to Hajek

round/flat face, solid, 200 g,  
20 cm total length, 27 mm diameter

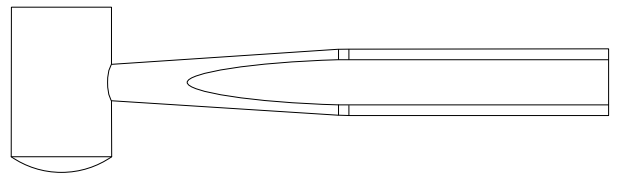
- WT230000 Mallet, acc. to Hajek, metal, size 200



### Mallet, acc. to Cottle

round/flat face, 340 g,  
with black handle,  
18 cm total length, 30 mm diameter

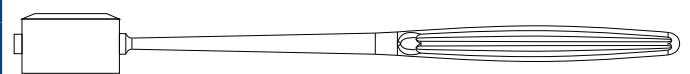
- WT413000 Mallet, acc. to Cottle, size 180



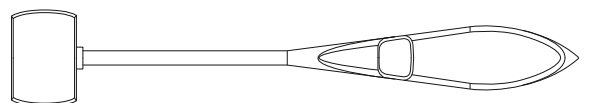
### Mallet, acc. to Heermann

various total length (mm)

- WT263500 Mallet, acc. to Heermann, large, size 220



- WT263501 Mallet, acc. to Heermann, small, size 170







- Straight and curved models with slender and very delicate jaws
- Models with double-action transmission

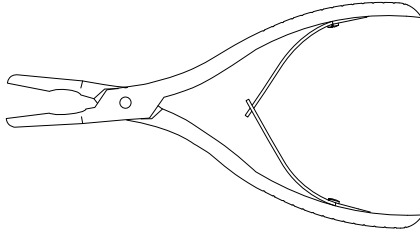
**EXPLORENT**

## Rongeurs

### Bone rongeur, acc. to Luer

up-curved, 15 cm total length

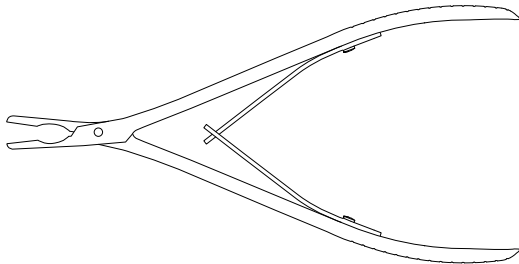
WT231000 Bone rongeur, acc. to Luer, curved up, size 150



### Bone rongeur, acc. to Lempert

straight, slender,  
18.5 cm total length

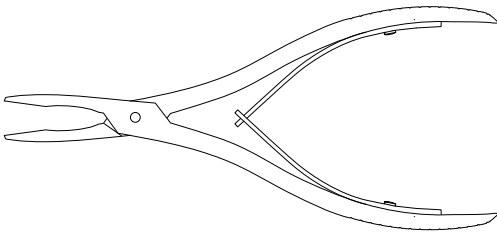
WT232000 Bone rongeur, acc. to Lempert, slender, straight, size 185



### Bone rongeur, acc. to Beyer

slight up-curved, long slender jaws,  
18 cm total length

WT233000 Bone rongeur, acc. to Beyer, curved up, size 180

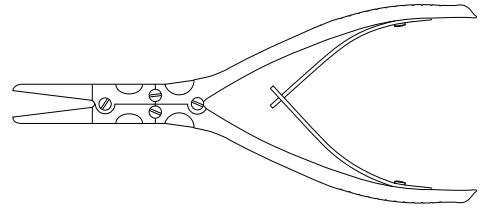


## Rongeurs (cont.)

### Bone rongeur, acc. to Beyer

slight up-curved, double-action transmission,  
18 cm total length

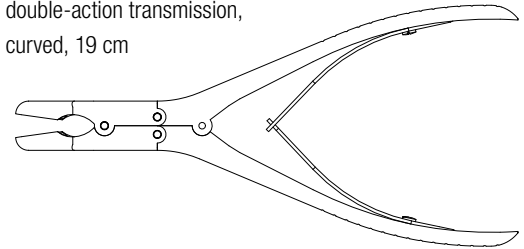
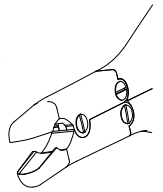
WT234000 Bone rongeur, acc. to Beyer, double-action,



### Bone rongeur, acc. to Ruskin

slight up-curved, double-action transmission,  
18.5 cm total length

WT234200 Bone rongeur, acc. to Ruskin, double-action,  
curved up, size 185,  
slight up-curved,  
double-action transmission,  
curved, 19 cm



### Punch forceps, acc. to Kerrison

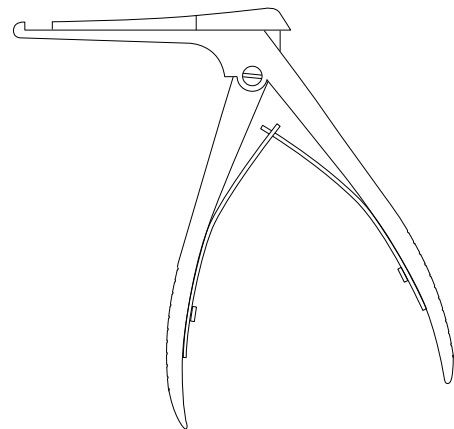
8 cm working length, various cutting widths (mm)

WT235000 Punch forceps, acc. to Kerrison, size 3.5 x 80

WT235001 Punch forceps, acc. to Kerrison, size 4.0 x 80

WT235002 Punch forceps, acc. to Kerrison, size 4.5 x 80

WT235003 Punch forceps, acc. to Kerrison, size 5.0 x 80





- Models with teeth, serrated and atraumatic jaws
- Slender and very delicate models, Jeweler micro forceps
- Ossicle forceps with fixation screw
- Slender and very delicate tampon forceps

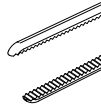
## Dressing and Tissue Forceps

### Thumb forceps, acc. to Semken

serrated, delicate, straight, various total lengths (mm)

WT208612 Thumb forceps, acc. to Semken, delicate, size 125

WT208615 Thumb forceps, acc. to Semken, straight, size 150

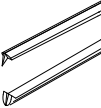


### Thumb forceps, for dissection, acc. to Semken

1 x 2 teeth, delicate, straight, various total lengths (mm)

WT208712 Thumb forceps, for dissection, acc. to Semken, delicate, size 125

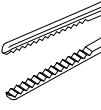
WT208715 Thumb forceps, for dissection, acc. to Semken, straight, size 150



### Thumb forceps, acc. to McIndoe

serrated, straight, 15 cm total length

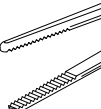
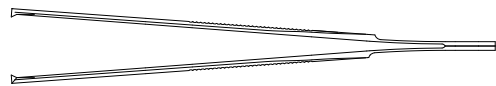
WT208915 Thumb forceps, acc. to McIndoe, size 150



### Thumb forceps

serrated, straight, 14.5 cm total length

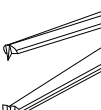
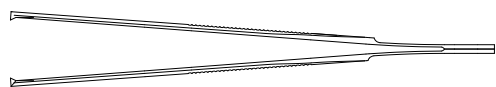
WT209014 Thumb forceps, straight, size 145



### Thumb forceps, for dissection

1 x 2 teeth, straight,  
14.5 cm length

WT209114 Thumb forceps, for dissection, straight, size 145



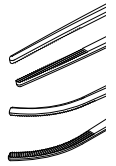
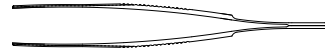
## Dressing and Tissue Forceps (cont.)

### Thumb forceps, acc. to Graefe

delicate, serrated, 0.7 mm, 10 cm total length

WT209210 Thumb forceps, acc. to Graefe, straight, size 100

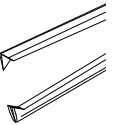
WT209220 Thumb forceps, acc. to Graefe, curved, size 0.7 x 100



### Thumb forceps, for dissection, acc. to Graefe,

delicate, 1 x 2 teeth, straight, 0.7 mm,  
10 cm total length

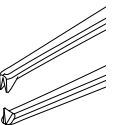
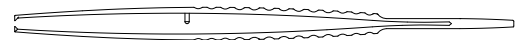
WT209310 Thumb forceps, for dissection, acc. to Graefe, straight, size 100



### Thumb forceps, for dissection, acc. to Gillies

1 x 2 teeth, serrated, 15 cm

WT209415 Thumb forceps, for dissection, acc. to Gillies, size 150



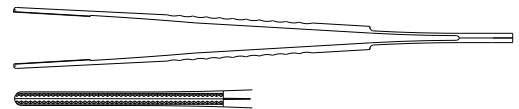
## Atraumatic, Dressing and Tissue Forceps

### Thumb forceps, atraumatic, acc. to DeBakey

15 cm length, various widths (mm)

WT209516 Thumb forceps, atraumatic, acc. to DeBakey straight, size 1.5 x 150

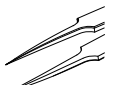
WT209616 Thumb forceps, atraumatic, acc. to DeBakey straight, size 2.0 x 150



### Thumb forceps

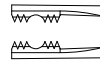
pointed, straight, 11 cm length

WT209711 Thumb forceps, delicate, pointed, straight, size 110

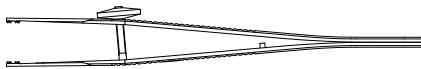


## Atraumatic, Dressing and Tissue Forceps (2)

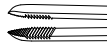
**Thumb forceps, for ossicles, acc. to Derlacki**  
ossicle holding, 12.5 cm length



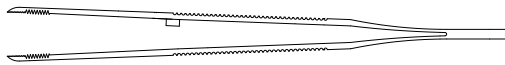
WT272000 Thumb forceps, for ossicles, acc. to Derlacki, with screw, size 125



**Thumb forceps, atraumatic, acc. to Helms**  
pointed, atraumatic, slender tip shape, 15 cm total length



WT272200 Thumb forceps, atraumatic, acc. to Helms, pointed, size 150



**Thumb forceps, acc. to Adson**  
serrated, delicate, 12 cm total length



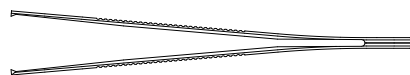
WT425112 Thumb forceps, acc. to Adson, size 120



**Thumb forceps, for dissection, acc. to Adson**  
1 x 2 teeth, delicate, 12 cm total length



WT425212 Thumb forceps, for dissection, acc. to Adson, size 120

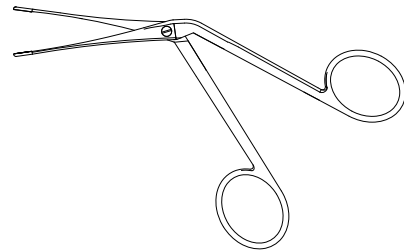


## Dressing Forceps

**Ear forceps, acc. to Hartmann**  
6 cm working length



WT131000 Ear forceps, acc. to Hartmann, slender, size 6

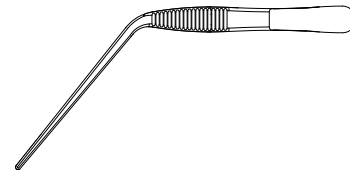


**Thumb forceps, acc. to Troeltsch (Wilde)**  
delicate, various total lengths (mm)

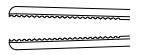


WT132011 Thumb forceps, acc. to Troeltsch (Wilde), size 110

WT132013 Thumb forceps, acc. to Troeltsch (Wilde), size 130



**Thumb forceps, acc. to Lucae**  
serrated, bayonet, 14 cm total length



WT132314 Thumb forceps, acc. to Lucae, size 140

WT132324 Thumb forceps, acc. to Lucae, bayonet shaped, narrow, size 140

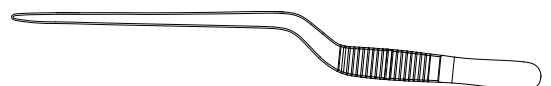


**Thumb forceps, acc. to Lucae**  
bayonet, 16 cm length



WT132316 Thumb forceps, acc. to Lucae, bayonet shaped, size 160

WT132326 Thumb forceps, acc. to Jansen, bayonet shaped, narrow, size 160







- With tungsten carbide cutting edges for extremely high durability
- Serrated blade models
- Delicate dissection models
- Wire cutter with serrated blades

## Delicate Scissors

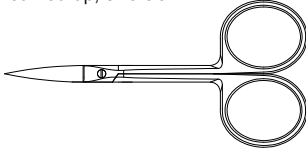
### Scissors

sharp/sharp, 9 cm total length

WT277609 Iris scissors, sharp/sharp, straight, size 90



WT277709 Iris scissors, sharp/sharp, curved up, size 90



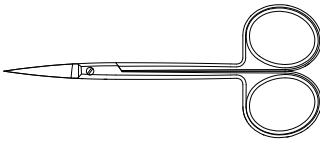
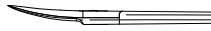
### Scissors

sharp/sharp, 10.5 cm total length

WT277510 Iris scissors, sharp/sharp, straight, size 105



WT277610 Iris scissors, sharp/sharp, curved up, size 105



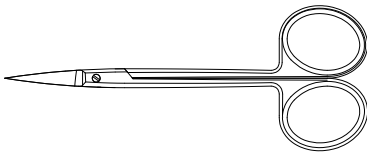
### Scissors

sharp/sharp, 11.5 cm total length

WT277712 Iris scissors, sharp/sharp, straight, size 115



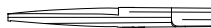
WT277812 Scissors, sharp/sharp, curved up, size 115



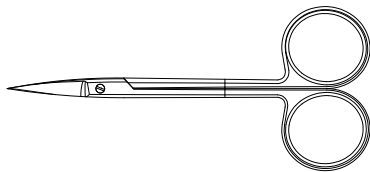
### Scissors

sharp/sharp, with tungsten carbide edges, 11.5 cm total length

WT277512 Iris scissors, sharp/sharp, with tungsten carbide, straight, size 115



WT277612 Iris scissors, sharp/sharp, with tungsten carbide, curved up, size 115

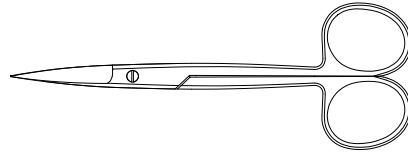


## Delicate Scissors (cont.)

### Scissors

sharp/sharp, delicate, curved, 12 cm total length

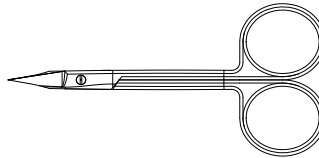
WT183312 Scissors, fine, sharp/sharp, curved up, size 120



### Wire cutting scissors, acc. to Schuhknecht

serrated, 10 cm total length

WT269500 Wire cutting scissors, acc. to Schuhknecht, serrated, size 100



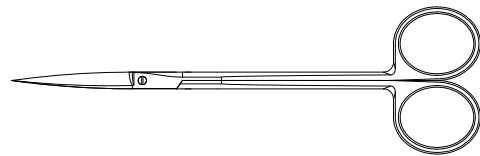
### Scissors, acc. to Joseph

sharp/sharp, 14 cm total length

WT276514 Scissors, acc. to Joseph, straight, size 140



WT276614 Scissors, acc. to Joseph, curved up, size 140



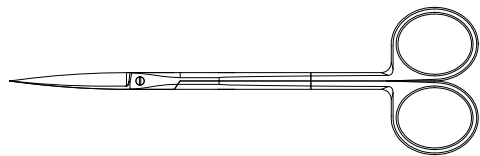
### Joseph scissors

sharp/sharp, with tungsten carbide edges, 14 cm total length

WT276714 Scissors, acc. to Joseph, with tungsten carbide, straight, size 140



WT276814 Scissors, acc. to Joseph, with tungsten carbide curved up, size 140



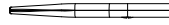


## Dissection Scissors

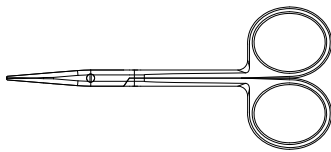
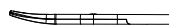
### Scissors

blunt/blunt, 10.5 cm length

WT277010 Strabismus scissors,  
blunt/blunt, straight, size 105



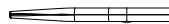
WT277110 Strabismus scissors,  
blunt/blunt, curved up, size 105



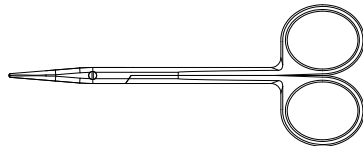
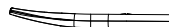
### Scissors

blunt/blunt, 11.5 cm total length

WT277212 Strabismus scissors,  
blunt/blunt, straight, size 115



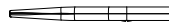
WT277312 Strabismus scissors,  
blunt/blunt, curved up, size 115



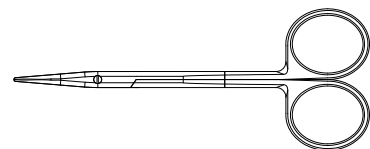
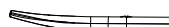
### Scissors

blunt/blunt, with tungsten carbide edges,  
11.5 cm total length

WT277012 Strabismus scissors, blunt/blunt,  
with tungsten carbide, straight, size 115



WT277112 Strabismus scissors, blunt/blunt,  
with tungsten carbide, curved up, size 115

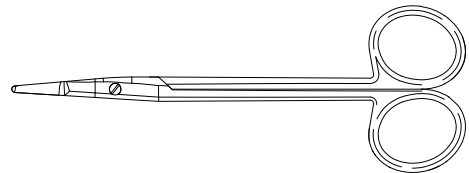


## Dissection Scissors (cont.)

### Dissection scissors, acc. to Kilner

curved, flat end, 13.5 cm total length,  
for elevation of the tympanic membrane

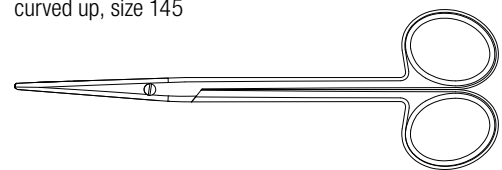
WT438714 Dissection scissors, acc. to Kilner,  
curved up, size 135



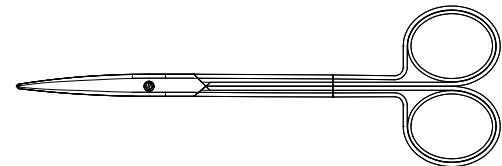
### Dissection scissors, acc. to Metzenbaum

14.5 cm total length

WT542014 Dissection scissors, acc. to Metzenbaum,  
curved up, size 145






WT542214 Dissection scissors, acc. to Metzenbaum,  
with tungsten carbide, curved up, size 145

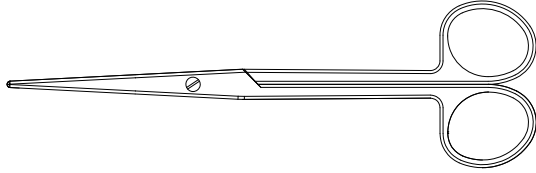


## Dissection Scissors (cont.)

### Dissection scissors, acc. to Lexer

delicate, various total lengths (mm)

- |          |   |   |
|----------|---|---|
| WT212216 | Dissection scissors, acc. to Lexer-Fino, straight, size 165                         |  |
| WT212316 | Dissection scissors, acc. to Lexer-Fino, curved up, size 165                        |  |
| WT212326 | Dissection scissors, acc. to Mayo-Lexer, with tungsten carbide, curved up, size 160 |  |





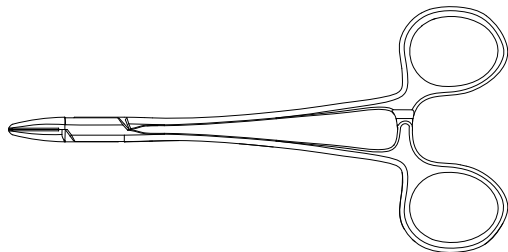
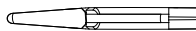
- With tungsten carbide inserts for extremely high durability

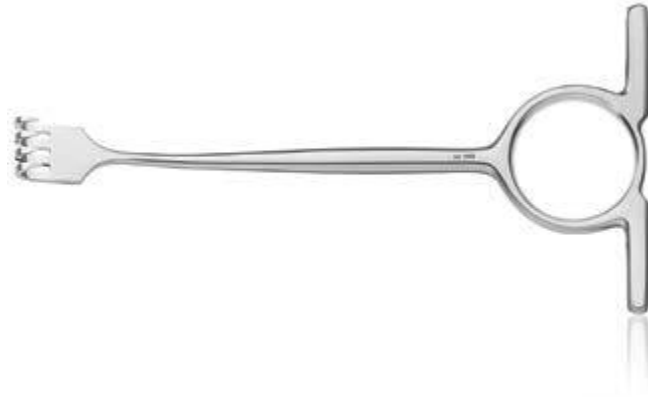
## Needle Holder

### **Needle holder, acc. to Crile-Wood**

with tungsten carbide inserts, straight,  
15 cm total length

WT213015 Needle holder, acc. to Crile-Wood,  
with tungsten carbide, size 150





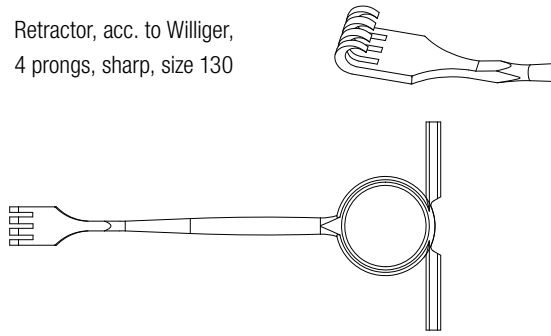
- Models with blunt and sharp prongs, long slender blades
- Self-retaining and adjustable models

## Williger Retractor

### Retractor, acc. to Williger

4 prongs, sharp, 13 cm total length, 11.8 mm width

- WT201400 Retractor, acc. to Williger,  
4 prongs, sharp, size 130

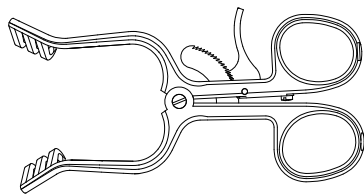


## Wullstein Retractors

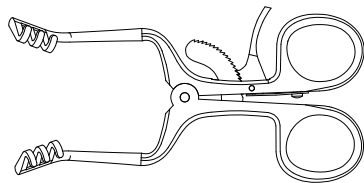
### Retractor, acc. to Wullstein

3 x 3 prongs, sharp or blunt type,  
11 cm total length

- WT200011 Retractor, acc. to Wullstein, sharp,  
3 x 3 prongs, size 110  
WT200013 Retractor, acc. to Wullstein, sharp,  
3 x 3 prongs, size 130  
WT200016 Retractor, acc. to Wullstein, sharp,  
3 x 3 prongs, size 160



- WT200111 Retractor, acc. to Wullstein, blunt,  
3 x 3 prongs, size 110  
WT200113 Retractor, acc. to Wullstein, blunt,  
3 x 3 prongs, size 130  
WT200116 Retractor, acc. to Wullstein, blunt,  
3 x 3 prongs, size 160

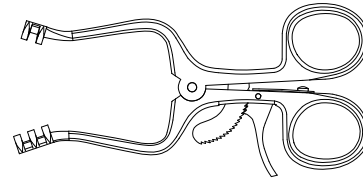


## Weitlaner Retractors

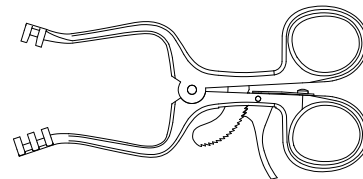
### Retractor, acc. to Weitlaner

2 x 3 or 3 x 4 prongs, sharp or blunt type,  
11, 13 or 16 cm total length

- WT200211 Retractor, acc. to Weitlaner, sharp,  
2 x 3 prongs, size 110  
WT200213 Retractor, acc. to Weitlaner, sharp,  
3 x 4 prongs, size 130  
WT200216 Retractor, acc. to Weitlaner, sharp,  
3 x 4 prongs, size 160



- WT200311 Retractor, acc. to Weitlaner, blunt,  
2 x 3 prongs, size 110  
WT200313 Retractor, acc. to Weitlaner, blunt,  
3 x 4 prongs, size 130  
WT200316 Retractor, acc. to Weitlaner, blunt,  
3 x 4 prongs, size 160

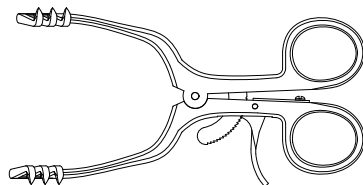


## Schuhknecht (Fisch) Retractor

### Retractor, acc. to Schuhknecht

2 x 2 prongs, curved, 13 cm total length

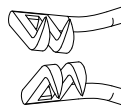
- WT200413 Retractor, acc. to Schuhknecht, curved,  
2 x 2 prongs, size 130



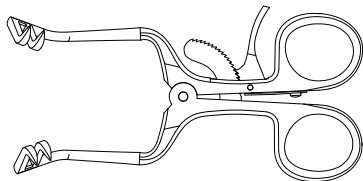
## Plester Retractors

### Retractor, acc. to Plester

2 x 2 prongs, sharp, 11 cm total length



WT201011 Retractor, acc. to Plester, 2 x 2 prongs, size 110

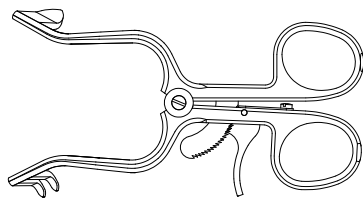


### Retractor, acc. to Plester

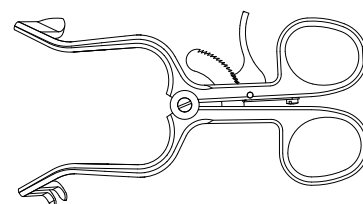
2 prongs, sharp, solid blade, 11 cm total length



WT201111 Retractor, acc. to Plester, 2 prongs right, size 110



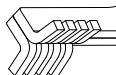
WT201211 Retractor, acc. to Plester, 2 prongs left, size 110



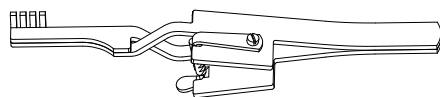
## Mini Retractor

### Retractor

4 x 4 prongs, blunt, delicate self-retaining, with ratchet crossed, 11 cm total length



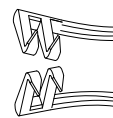
WT201510 Retractor, acc. to Williger, 4 prongs, sharp, size 130



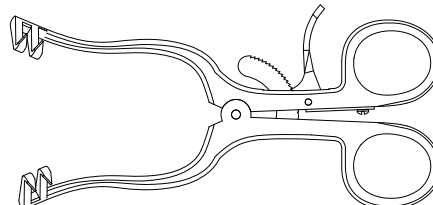
## Fisch Retractors

### Retractor, acc. to Fisch

2 x 2 prongs, sharp, 13 cm total length

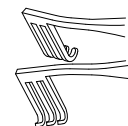


WT201013 Retractor, acc. to Fisch, 2 x 2 prongs, size 130



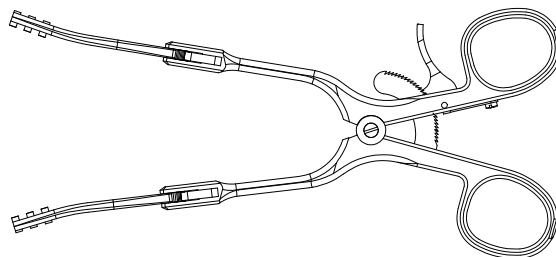
### Retractor, acc. to Fisch

3 x 3 prongs, 16.5 cm total length



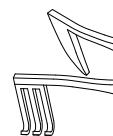
WT202517 Retractor, acc. to Fisch, adjustable jaws, 3 x 3 prongs, size 165

WT202518 Retractor, acc. to Fisch, adjustable jaws, blunt, 3 x 3 prongs, size 165



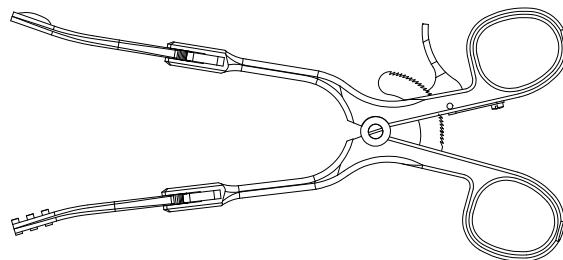
### Retractor, acc. to Fisch

3 prongs, blunt, solid blade, 16.5 cm total length



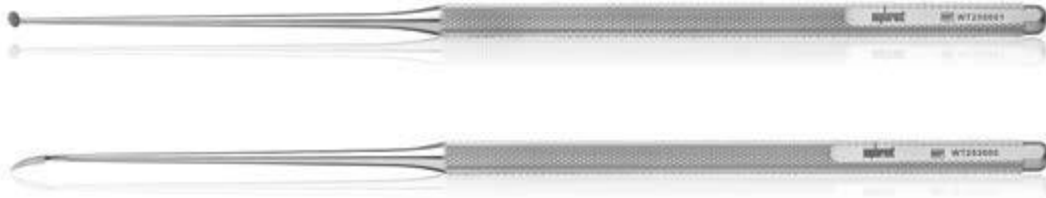
WT202617 Retractor, acc. to Fisch, adjustable jaws, 3 prongs right, blade left, size 165

WT202717 Retractor, acc. to Fisch, adjustable jaws, 3 prongs left, blade right, size 165









## EXPLORENT

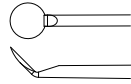
- Round, lancet, flap and sickle knife models
- Straight, curved and angled models

## Micro Ear Knives



### Round knife, acc. to Rosen

45° angled, various diameters (mm)



- WT250001 Round knife, acc. to Rosen, angled 45, size 2.5
- WT250002 Round knife, acc. to Rosen, angled 45, size 2.3
- WT250003 Round knife, acc. to Rosen, angled 45, size 2.0
- WT250004 Round knife, acc. to Rosen, angled 45, size 1.8
- WT250005 Round knife, acc. to Rosen, angled 45, size 1.5
- WT250006 Round knife, acc. to Rosen, angled 45, size 1.2
- WT250007 Round knife, acc. to Rosen, angled 45, size 1.0

### Round knife, acc. to Rosen

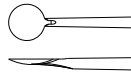
90° angled, 2.0 mm diameter



- WT000835 Round knife, acc. to Rosen, angled 90, size 2.0

### Rosen round knife

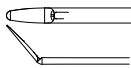
straight, various diameters (mm)



- WT250011 Round knife, acc. to Rosen, straight, size 2.5
- WT250012 Round knife, acc. to Rosen, straight, size 2.3
- WT250013 Round knife, acc. to Rosen, straight, size 2.0
- WT250017 Round knife, acc. to Rosen, straight, size 1.0

### Lancet knife, acc. to Rosen

16.5 cm total length



- WT251000 Lancet knife, acc. to Rosen, size 165

### Incision knife, acc. to Plester

16.5 cm total length

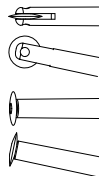


- WT251500 Incision knife, acc. to Plester, size 2.5 x 165, 16.5 cm

### Roller knife, acc. to Schuhknecht

16.5 cm total length, various cutting types, 3.5 mm diameter

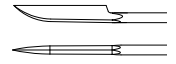
- WT252000 Roller knife, acc. to Schuhknecht, vertical cutting, size 165
- WT252100 Roller knife, acc. to Schuhknecht, horizontal cutting, size 165



## Micro Ear Knives (cont.)

### Sickle knife, acc. to Wullstein

straight, 16.5 cm total length, 8 mm blade



- WT253500 Sickle knife, acc. to Wullstein, straight, size 165

### Sickle knife, acc. to Plester

curved, 16.5 cm total length



- WT253600 Sickle knife, acc. to Plester, straight, size 165

### Sickle knife, acc. to Plester

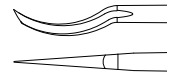
curved, very delicate, 16.5 cm total length, 5 mm blade



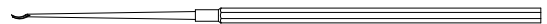
- WT253700 Sickle knife, acc. to Plester, delicate, size 165

### Sickle knife, acc. to Fisch

16 cm total length



- WT263005 Sickle knife, acc. to Fisch, size 160





## EXPLORENT

- Straight, curved and angled models
- Delicate perforator models

## Needles



### Needle, acc. to Wullstein

straight, 16.5 cm total length

WT254000 Needle, acc. to Wullstein, sharp, straight, size 165

WT254100 Needle, acc. to Wullstein, blunt, straight, size 165

### Needle, acc. to Wullstein

slight curved, 16.5 cm total length

WT254200 Needle, acc. to Wullstein, sharp, slightly curved, size 165

WT254300 Needle, acc. to Wullstein, blunt, slightly curved, size 165

### Needle, acc. to Wullstein

strong curved, 16.5 cm total length

WT254400 Needle, acc. to Wullstein, sharp, strongly curved, size 165

WT254500 Needle, acc. to Wullstein, blunt, strongly curved, size 165

### Needle, acc. to Wullstein

very slight curved, 16.5 cm total length

WT254600 Needle, acc. to Wullstein, sharp, very slightly curved, size 165

WT254700 Needle, acc. to Wullstein, blunt, very slightly curved, size 165

## Dissector

### Dissector, acc. to House-Crabtree

16,3 cm total length

WT550738 Dissector, acc. to House-Crabtree, small tip, angled, size 163

## Picks



### Pick

micro, 90° angled, 16.5 cm total length, various sizes (mm)

WT000836 Pick, micro, angled 90, black, size 0.2 x 150

WT255002 Pick, micro, angled down 90, size 0.2 x 165

WT255004 Pick, micro, angled down 90, size 0.4 x 165

WT255006 Pick, micro, angled down 90, size 0.6 x 165

WT255008 Pick, micro, angled down 90, size 0.8 x 165

WT255010 Pick, micro, angled down 90, size 1.0 x 165

### Pick

micro, 45° angled, 16.5 cm total length, various sizes (mm)

WT256002 Pick, micro, angled down 45, size 0.2 x 165

WT256004 Pick, micro, angled down 45, size 0.4 x 165

WT256006 Pick, micro, angled down 45, size 0.6 x 165

WT256008 Pick, micro, angled down 45, size 0.8 x 165

WT256010 Pick, micro, angled down 45, size 1.0 x 165

WT256015 Pick, micro, angled down 45, size 1.5 x 165

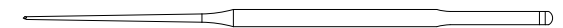
## Perforators

### Hand perforator, acc. to Larkin

0.8 mm diameter, length 16 cm total length

WT262502 Hand perforator, acc. to Larkin, size 0.8 x 160

WT262501 Perforator, acc. to Larkin, size 0.8



### Perforator, acc. to Fisch

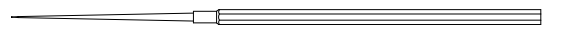
Fisch-type, 16 cm, various diameter (mm)

WT263103 Perforator, acc. to Fisch, size 0.3 x 160

WT263104 Perforator, acc. to Fisch, size 0.4 x 160

WT263105 Perforator, acc. to Fisch, size 0.5 x 160

WT263106 Perforator, acc. to Fisch, size 0.6 x 160

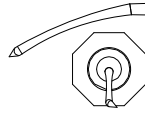




## Micro Hooks

### Hook, acc. to Zenner

double curved, 16.5 cm total length

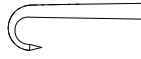


- WT256100 Hook, acc. to Zenner, for footplate, double curved, size 165

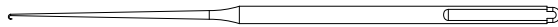


### Hook, acc. to Gerlach

16.5 cm total length

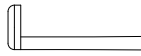


- WT256200 Hook, acc. to Gerlach, size 165

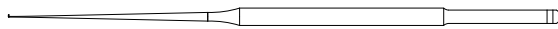


### Hook, acc. to Plester

0.3 mm diameter, 16.5 cm total length



- WT256700 Hook, acc. to Plester, for footplate, size 0.3 x 165



### Hook, acc. to Draf

various diameters (mm), various lengths (mm)

- WT339502 Hook, acc. to Draf, angled 90, curved, blunt, size 2.0 x 190



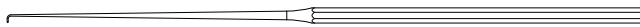
- WT258503 Ear hook, acc. to Schuhknecht, angled up, size 0.7 x 160



- WT258504 Ear hook, acc. to Schuhknecht, round, angled down, size 0.7 x 160



- WT258506 Ear hook, acc. to Schuhknecht, angled up, size 1.0 x 160



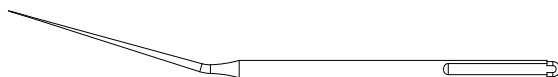
### Needle, acc. to Schuhknecht

straight, 16.5 cm total length



- WT257000 Needle, acc. to Schuhknecht, sharp, straight, size 165

- WT257100 Needle, acc. to Schuhknecht, blunt, straight, size 165



## 90° Schuhknecht Hooks

### Ear hook, acc. to Schuhknecht

90° angled, 16.5 cm total length, various diameters (mm)

- WT258102 Ear hook, acc. to Schuhknecht, curved left, angled 90, size 0.2 x 165



- WT258104 Ear hook, acc. to Schuhknecht, curved left, angled 90, size 0.4 x 165

- WT258106 Ear hook, acc. to Schuhknecht, curved left, angled 90, size 0.6 x 165

- WT258108 Ear hook, acc. to Schuhknecht, curved left, angled 90, size 0.8 x 165

- WT258110 Ear hook, acc. to Schuhknecht, curved left, angled 90, size 1.0 x 165

- WT258202 Ear hook, acc. to Schuhknecht, curved right, angled 90, size 0.2 x 165



- WT258204 Ear hook, acc. to Schuhknecht, curved right, angled 90, size 0.4 x 165

- WT258206 Ear hook, acc. to Schuhknecht, curved right, angled 90, size 0.6 x 165

- WT258208 Ear hook, acc. to Schuhknecht, curved right, angled 90, size 0.8 x 165

- WT258210 Ear hook, acc. to Schuhknecht, curved right, angled 90, size 1.0 x 165

- WT258302 Ear hook, acc. to Schuhknecht, curved up, angled 90, size 0.2 x 165



- WT258304 Ear hook, acc. to Schuhknecht, curved up, angled 90, size 0.4 x 165

- WT258306 Ear hook, acc. to Schuhknecht, curved up, angled 90, size 0.6 x 165

- WT258308 Ear hook, acc. to Schuhknecht, curved up, angled 90, size 0.8 x 165

- WT258310 Ear hook, acc. to Schuhknecht, curved up, angled 90, size 1.0 x 165

- WT258402 Ear hook, acc. to Schuhknecht, curved down, angled 90, size 0.2 x 165



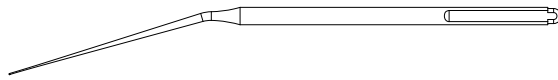
- WT258404 Ear hook, acc. to Schuhknecht, curved down, angled 90, size 0.4 x 165

- WT258406 Ear hook, acc. to Schuhknecht, curved down, angled 90, size 0.6 x 165

- WT258408 Ear hook, acc. to Schuhknecht, curved down, angled 90, size 0.8 x 165

- WT258410 Ear hook, acc. to Schuhknecht, curved down, angled 90, size 1.0 x 165

## 45° Schuhknecht Hooks (1)



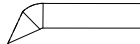
### Ear hook, acc. to Schuhknecht

45° angled, 16.5 cm total length, various diameters (mm)

- WT259002 Ear hook, acc. to Schuhknecht, curved down, angled 45, size 0.2 x 165
- WT259004 Ear hook, acc. to Schuhknecht, curved down, angled 45, size 0.4 x 165
- WT259006 Ear hook, acc. to Schuhknecht, curved down, angled 45, size 0.6 x 165
- WT259010 Ear hook, acc. to Schuhknecht, curved down, angled 45, size 1.0 x 165



- WT259102 Ear hook, acc. to Schuhknecht, curved left, angled 45, size 0.2 x 165
- WT259104 Ear hook, acc. to Schuhknecht, curved left, angled 45, size 0.4 x 165
- WT259106 Ear hook, acc. to Schuhknecht, curved left, angled 45, size 0.6 x 165
- WT259108 Ear hook, acc. to Schuhknecht, curved left, angled 45, size 0.8 x 165
- WT259110 Ear hook, acc. to Schuhknecht, curved left, angled 45, size 1.0 x 165



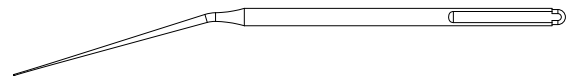
### Ear hook, acc. to Schuhknecht

round, 16 cm total length, 0.4 mm diameter

- WT258502 Ear hook, acc. to Schuhknecht, round, angled down, size 0.4 x 160



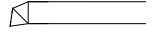
## 45° Schuhknecht Hooks (2)



### Ear hook, acc. to Schuhknecht

45° angled, 16.5 cm total length, various diameters (mm)

- WT259202 Ear hook, acc. to Schuhknecht, curved right, angled 45, size 0.2 x 165
- WT259204 Ear hook, acc. to Schuhknecht, curved right, angled 45, size 0.4 x 165
- WT259206 Ear hook, acc. to Schuhknecht, curved right, angled 45, size 0.6 x 165
- WT259208 Ear hook, acc. to Schuhknecht, curved right, angled 45, size 0.8 x 165
- WT259210 Ear hook, acc. to Schuhknecht, curved right, angled 45, size 1.0 x 165



- WT259302 Ear hook, acc. to Schuhknecht, curved up, angled 45, size 0.2 x 165
- WT259304 Ear hook, acc. to Schuhknecht, curved up, angled 45, size 0.4 x 165
- WT259306 Ear hook, acc. to Schuhknecht, curved up, angled 45, size 0.6 x 165
- WT259308 Ear hook, acc. to Schuhknecht, curved up, angled 45, size 0.8 x 165
- WT259310 Ear hook, acc. to Schuhknecht, curved up, angled 45, size 0.8 x 165







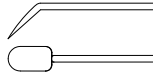


- Micro elevators, raspatories and dissectors:  
delicate and micro models,  
single and double curved models
- Micro curettes:  
double-ended, sharp models,  
round and oval cup models,  
straight and curved models

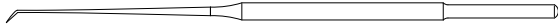
## Micro Elevators, Raspatories, Dissectors

### Raspatory

micro, 16.5 cm total length



WT250500 Raspatory, micro, size 165



### Elevator, acc. to Houghes

0.5 width, 16 cm total length

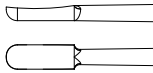


WT250700 Elevator, acc. to Houghes, curved, size 0.5 x 160



### Elevator, acc. to Beales

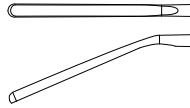
1.5 mm width, 16 cm total length



WT250600 Elevator, acc. to Beales, curved, size 1.5 x 160

### Raspatory

oval, 1.8 mm width, 16 cm total length



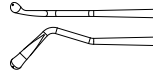
WT260400 Raspatory, oval, size 1.8 x 160

### Dissector

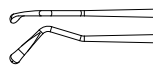
delicate, 1.4 mm width, 16 cm total length



WT260500 Dissector, delicate, double curved, right, size 1.4 x 160



WT260600 Dissector, delicate, double curved, left, size 1.4 x 160

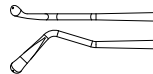


### Dissector

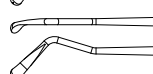
1.9 mm width, 16 cm total length



WT260700 Dissector, double curved, right, large, size 1.9 x 160



WT260800 Dissector, double curved, left, large, size 1.9 x 160



### Dissector

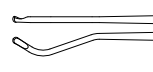
Fisch-type, 1.9 mm width, 16 cm total length



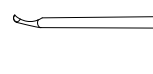
WT263001 Dissector, double curved, right, size 1.9 x 160



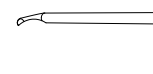
WT263002 Dissector, double curved, left, size 1.9 x 160



WT263003 Dissector, acc. to Fisch, single curved, right, size 1.9 x 160



WT263004 Dissector, acc. to Fisch, single curved, left, size 1.9 x 160



## Micro Elevators, Raspatories, Dissectors (2)

### Elevator, acc. to Rosen

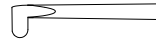
1.2 mm width, 16 cm total length



WT260000 Elevator, acc. to Rosen, size 1.2 x 160

### Dissector

16.5 cm total length



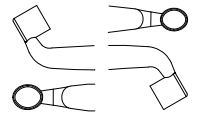
WT230332 Dissector, acc. to House, Crabtree type, angled 90, size 165



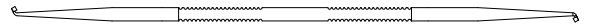
## House Micro Curettes

### Curette, acc. to House

17 cm, double-ended, round cups, sharp, curved, 1.0 x 1.2 mm diameter



WT272500 Curette, acc. to House, round, curved, size 1.0/1.2 x 170

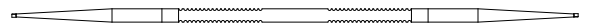


### Curette, acc. to House

17 cm, double-ended, round cups, sharp, straight, 1.0 x 1.2 mm diameter

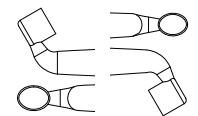


WT272700 Curette, acc. to House, round, straight, size 1.0/1.2 x 170



### Curette, acc. to House

17 cm, double-ended, oval cups, sharp, curved, various diameters (mm)



WT272600 Curette, acc. to House, double-ended, oval, curved, size 0.8 x 1.0/1.0 x 1.2 170

WT272601 Curette, acc. to House, double-ended, oval, curved, size 1.1 x 1.5/1.3 x 1.8 170

WT272602 Curette, acc. to House, double-ended, oval, curved, size 1.5 x 2.2/1.9 x 2.6 170

WT272603 Curette, acc. to House, double-ended, oval, curved, size 2.3 x 3.1/2.5 x 3.3 170





- Special otology mallets
- Micro gouges and mobilization hooks
- Long and finest grasping forceps
- Delicate attic inspection mirror

## EXPLORENT

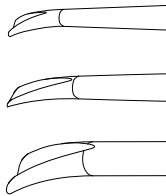
## Heermann Instruments



### Gouge, acc. to Heermann

curved,  
for partial resection of the bony posterior  
aural meatus and the lateral attic wall,  
11 cm total length, various diameters (mm)

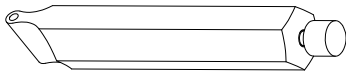
- WT264010 Gouge, acc. to Heermann,  
curved, size 1.0 x 110
- WT264015 Gouge, acc. to Heermann,  
curved, size 1.5 x 110
- WT264030 Gouge, acc. to Heermann,  
curved, size 3.0 x 110



### Handle, acc. to Heermann

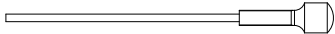
black, 12 cm total length,  
for WT264010–030, WT264301–304

- WT264100 Handle, acc. to Heermann, black,  
for Heermann gouges/micro larynx instruments



### Spare Screw, acc. to Heermann

- WT000804 Spare screw, for handle acc. to Heermann

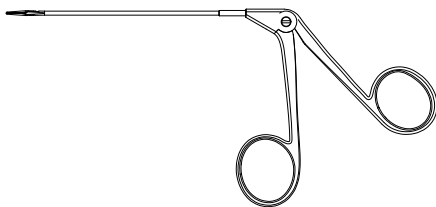


### Ear forceps, acc. to Heermann

long, delicate jaws, 9 cm total length,  
for work between the stapes, in the small cavity  
of the oval window and around the footplate



- WT281700 Ear forceps, acc. to Heermann, straight, size 8



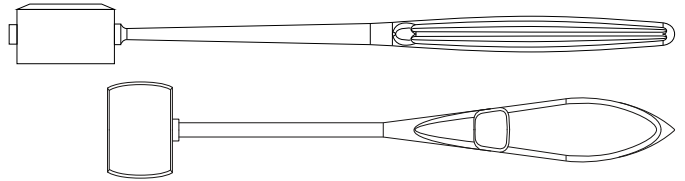
## Heermann Instruments (2)

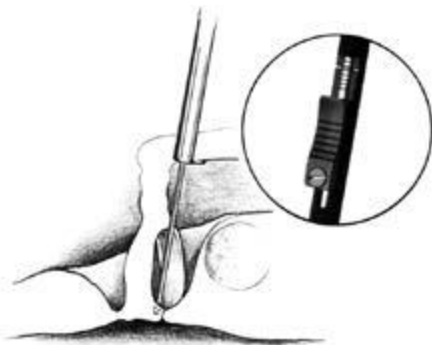
### Mallet, acc. to Heermann

various total lengths (mm)

- WT263500 Mallet, acc. to Heermann, large, size 220

- WT263501 Mallet, acc. to Heermann, small, size 170





- Microsurgical gauge for stapedectomy and tympanoplasty
- Highly precise scales
- Straight and bayonet-curved models
- Introducer for prosthesis

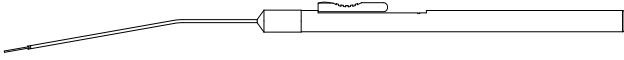
**EXPLORENT**

## Measuring Devices

### Gauge pin

18.5 cm total length, 0.4 mm gauge diameter,  
for stapedectomy and tympanoplasty,  
range 0–7 mm,  
handle ebony finished, light in weight

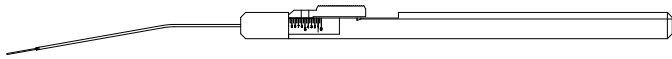
WT269800 Gauge pin, 0-7, black handle, size 0.4 x 185



### Gauge pin

21 cm total length, 0.3 mm diameter,  
for stapedectomy and tympanoplasty,  
range 0–10 mm,  
highly precise scale

WT269900 Gauge pin, Explorent type, 0-10, size 0.3 x 210



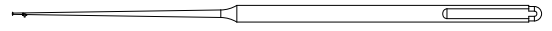
## Measuring Rods

### Gauge pin

3.5 mm, 4.0 mm, 4.5 mm,  
16 cm total length



WT256500 Gauge pin, for stapes, size 3.5 x 4.0 x 4.5 160



### Gauge pin, acc. to Fisch

16.5 cm total length,  
various diameter (mm)



WT263204 Gauge pin, acc. to Fisch, size 0.4 x 165

WT263206 Gauge pin, acc. to Fisch, size 0.6 x 165

WT263208 Gauge pin, acc. to Fisch, size 0.8 x 165



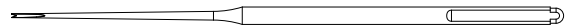
## Introducer

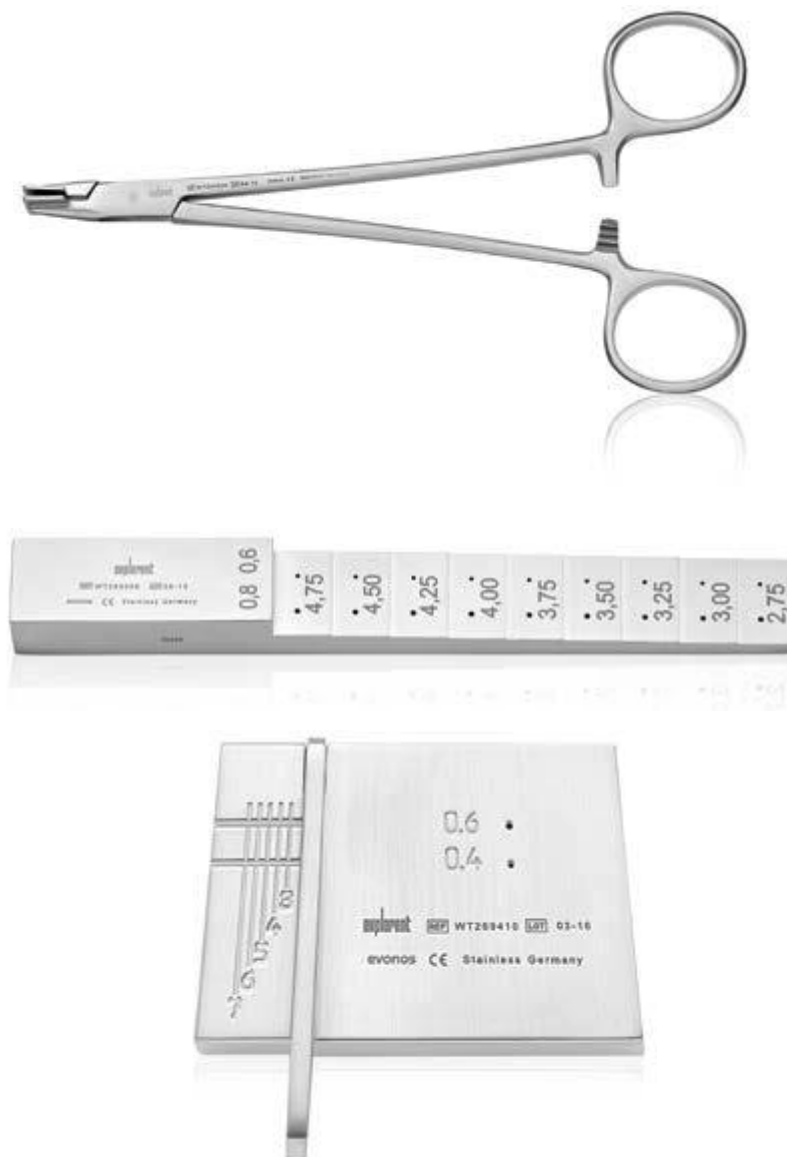
### Introducer, acc. to Plester

16.5 cm total length



WT256800 Introducer, acc. to Plester,  
for stapes prosthesis, size 165

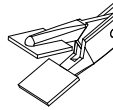




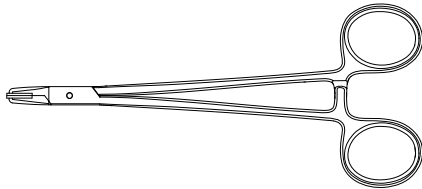
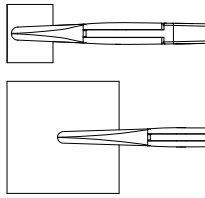
- Gelfoam Pressure Forceps: models with different sizes
- Jigs, blocks and trays for cutting and preparation
- Wire cutter with serrated blades

## Gelfoam Pressure Forceps

**Gelfoam pressure forceps, acc. to House**  
various sizes (mm)



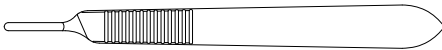
- WT264500 Gelfoam pressure forceps, acc. to House, size 11 x 14
- WT264501 Gelfoam pressure forceps, acc. to House, size 30 x 30
- WT264502 Gelfoam pressure forceps, acc. to House, size 22 x 30 (not shown)



## Scalpel Handles

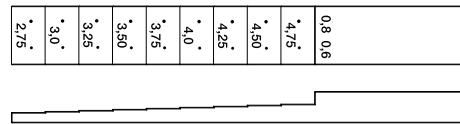
**Scalpel handle**  
various total lengths (mm)

- WT429003 Scalpel handle, no. 3, solid, size 125
- WT429004 Scalpel handle, no. 4, solid, size 125
- WT429007 Scalpel handle, no. 7, solid, long, size 165
- WT429103 Scalpel handle, no. 3L, solid, straight, size 215
- WT429104 Scalpel handle, no. 4L, solid, straight, size 215
- WT429107 Scalpel handle, no. 7, solid, size 125

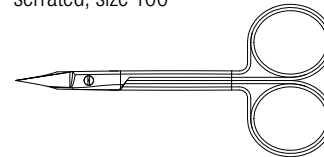


## Cutting Tools for Protheses

WT269300 Cutting jig, for PTFE prostheses

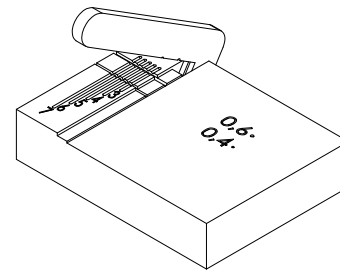


WT269500 Wire cutting scissors, acc. to Schuhknecht, serrated, size 100



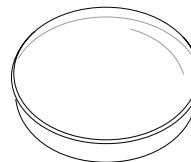
- Serrated

WT269410 Cutting jig, acc. to Fisch, for stapes prostheses, size 0.4 / 0.6



- 0.4 mm Ø and 0.6 mm Ø

WT269600 Cutting block, acrylic glass, size 80



- round, 8 cm Ø,
- autoclavable

WT269700 Tray, metal, with scale, size 95 x 55



- 95 x 55 mm, for implants

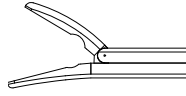




## Wire Crimpers

### Ear forceps, acc. to McGee

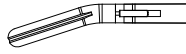
0.8 x 3.5 mm,  
8 cm working length



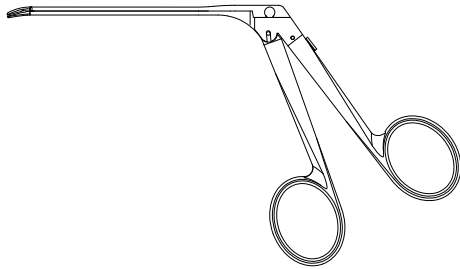
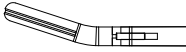
WT285000 Ear forceps, acc. to McGee,  
wire closure, curved down, size 8



WT285001 Ear forceps, acc. to McGee,  
wire closure, curved left, size 8

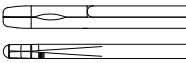


WT285002 Ear forceps, acc. to McGee,  
wire closure, curved right, size 8

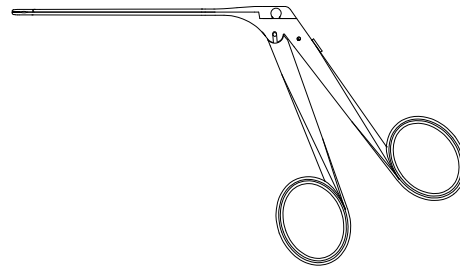


### Ear forceps, acc. to Greven

8 cm working length

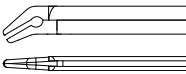


WT285010 Ear forceps, acc. to Greven, wire closure, size 8

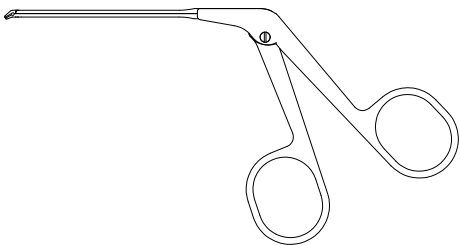


### Ear forceps, acc. to Fisch-McGee

Fisch-type,  
8 cm working length



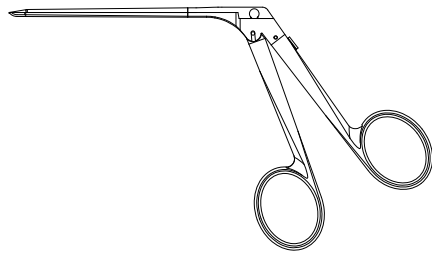
WT285100 Ear forceps, acc. to Fisch-McGee, wire closure, size 8





- Very delicate, straight and differently curved models
- Crurotomy models, left and right curved
- Up- and downbiting Malleus nippers
- Neurectomy scissors with round handle

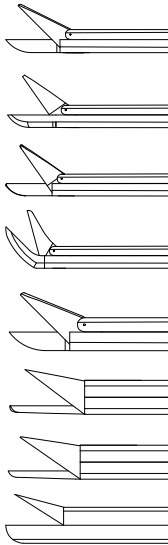
## Bellucci and Shea-Bellucci Ear Scissors



### Ear scissors, acc. to Bellucci

delicate, 8 cm working length,  
various blade sizes (mm)

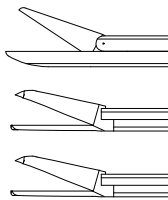
- WT278000 Ear scissors, acc. to Bellucci, micro, straight, size 80
- WT278001 Ear scissors, acc. to Bellucci, micro, curved to left, size 80
- WT278002 Ear scissors, acc. to Bellucci, micro, curved to right, size 80
- WT278003 Ear scissors, acc. to Bellucci, micro, curved up, size 80
- WT278100 Ear scissors, acc. to Bellucci, micro, straight, size 3.0 x 80
- WT278101 Ear scissors, acc. to Bellucci, micro, curved to left, size 3.0 x 80
- WT278102 Ear scissors, acc. to Bellucci, micro, curved to right, size 3.0 x 80
- WT278014 Ear scissors, acc. to Bellucci, micro, straight, size 4.0 x 80



### Ear scissors, acc. to Shea-Bellucci

8 cm working length,  
various blade sizes (mm)

- WT278200 Ear scissors, acc. to Shea-Bellucci, straight, size 8.0 x 80
- WT278201 Ear scissors, acc. to Shea-Bellucci, curved to left, size 8.0 x 80
- WT278202 Ear scissors, acc. to Shea-Bellucci, curved to right, size 8.0 x 80

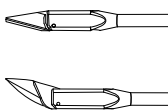


## Wullstein Ear Scissors

### Ear scissors, acc. to Wullstein

9 cm working length

- WT278500 Ear scissors, acc. to Wullstein, straight, size 90
- WT278503 Ear scissors, acc. to Wullstein, curved up, size 90

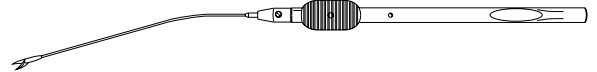


## Fisch Ear Scissors

### Fisch neurectomy scissors

18.5 cm total length, axial-handle,  
4 mm blade length

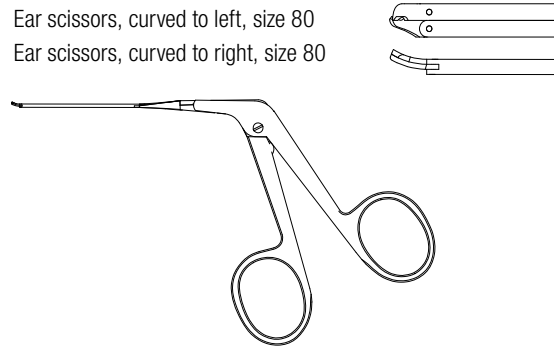
- WT278300 Ear scissors, acc. to Fisch, for neurectomy, straight, size 4.0 x 185



### Fisch crurotomy scissors

7.5 cm working length

- WT278601 Ear scissors, curved to left, size 80
- WT278602 Ear scissors, curved to right, size 80

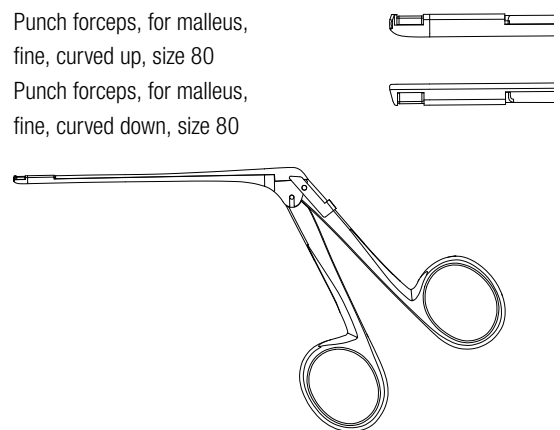


## Dieter Malleus Nipper

### Punch forceps

8 cm working length

- WT283003 Punch forceps, for malleus, fine, curved up, size 80
- WT283004 Punch forceps, for malleus, fine, curved down, size 80



## Accessories

### Protective sleeve

11.5 cm total length,  
for storage and steam sterilization of micro ear forceps

- WT279900 Protective sleeve, PTFE, for ear forceps, size 115

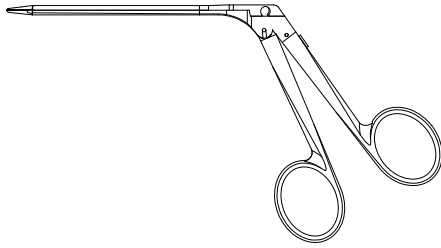




## EXPLORENT

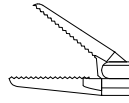
- Oval cupped jaws, straight and curved models
- Models with serrated, sharp and through-cutting jaws

## Hartmann Ear Forceps



### Ear forceps, acc. to Hartmann

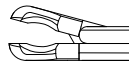
8 cm working length,  
straight, serrated



WT126000 Ear forceps, acc. to Hartmann, serrated, size 8

### Ear forceps, acc. to Hartmann

8 cm working length, straight,  
various diameter (mm)



WT127001 Ear forceps, acc. to Hartmann,  
with cupped jaws, size 1.5 x 8

WT127002 Ear forceps, acc. to Hartmann,  
with cupped jaws, size 2.0 x 8.5

WT127003 Ear forceps, acc. to Hartmann,  
with cupped jaws, size 2.5 x 8.5

WT127004 Ear forceps, acc. to Hartmann,  
with cupped jaws, size 3.0 x 8.5

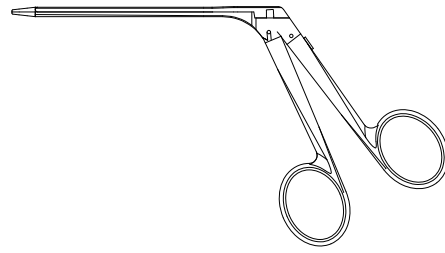
### Ear forceps, acc. to Hartmann-Hoffmann

8 cm working length,  
round cupped jaws,  
through-cutting, 3.0 mm diameter, straight



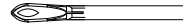
WT127500 Ear forceps, acc. to Hartmann-Hoffmann,  
straight, size 8

## Struempel Ear Forceps



### Ear forceps, acc. to Struempel

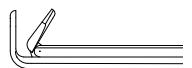
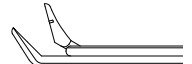
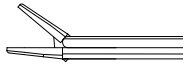
various working lengths (cm),  
oval cupped jaws,  
2.5 mm width



WT128000 Ear forceps, acc. to Struempel,  
straight, size 8

WT128001 Ear forceps, acc. to Struempel,  
curved up, size 8

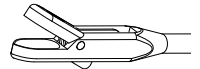
WT128002 Ear forceps, acc. to Struempel,  
curved up, size 8.5



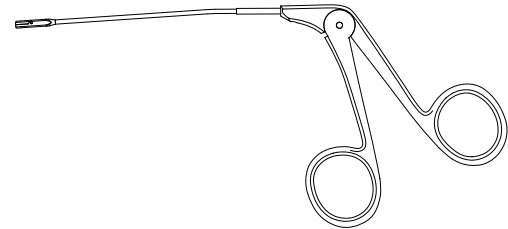
## Wullstein-Blakesley Ear Forceps

### Ear forceps, acc. to Wullstein-Blakesley

tube shaft, 2 mm width,  
10 cm working length, straight



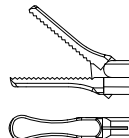
WT129000 Ear forceps, acc. to Wullstein-Blakesley, size 2 x 10



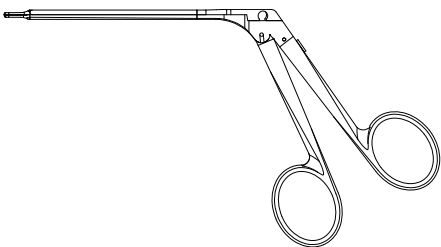
## Duckbill Ear Forceps

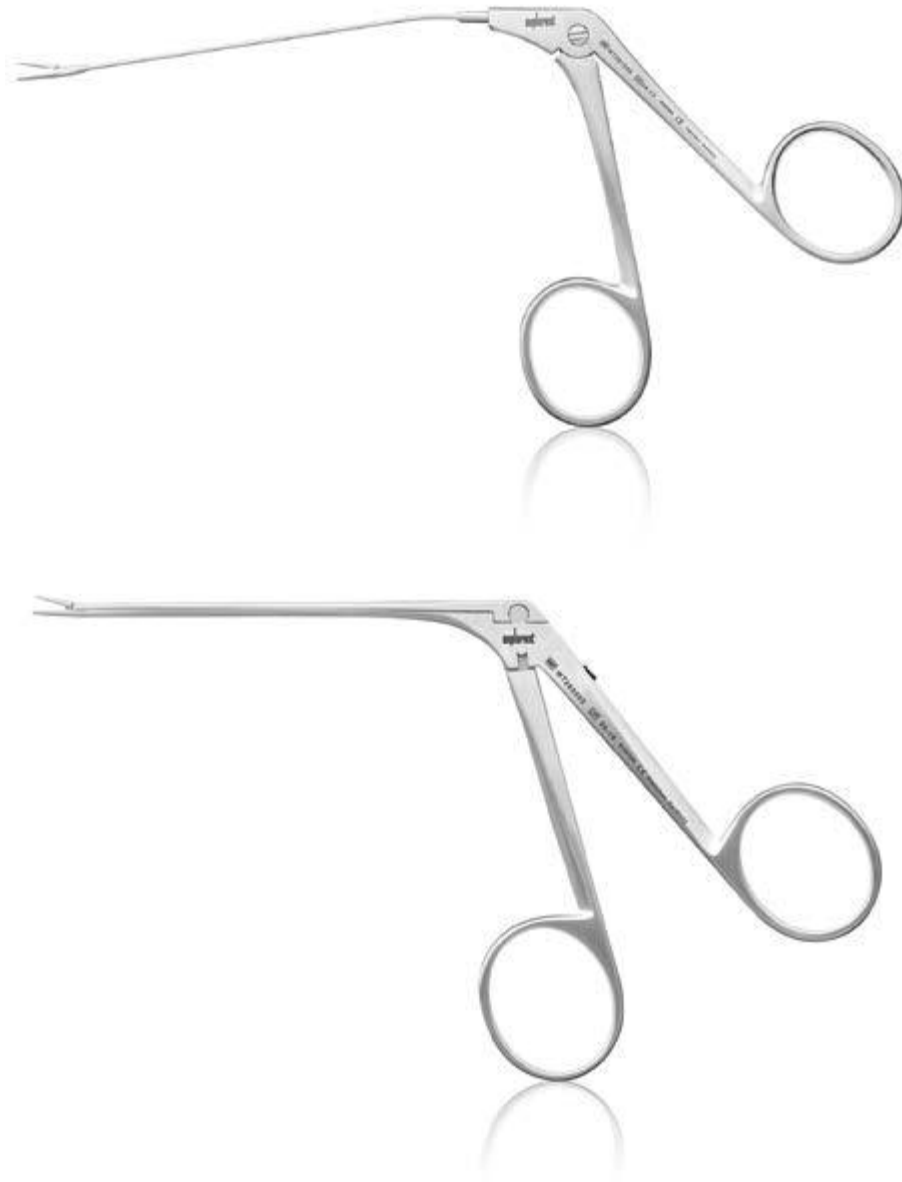
### Ear forceps

8 cm working length, flat jaws, serrated



WT126300 Ear forceps, Duckbill shaped, serrated, size 8



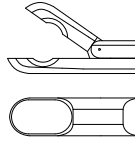


- Models with oval cupped and serrated jaws
- Very delicate and super-delicate models
- Slide shaft and tube shaft models

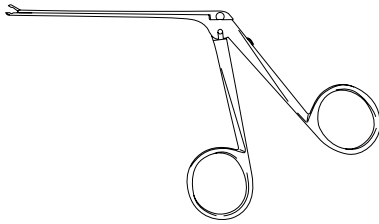
## Micro Ear Forceps With Oval Cups

### Ear forceps

oval cupped jaws, 1.0 x 1.5 mm,  
jaws 4 mm, 8.5 cm working length

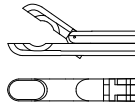


- WT279500 Ear forceps, with oval cups, delicate, straight, size 1.0 x 8.5
- WT279501 Ear forceps, with oval cups, delicate, curved left, size 1.0 x 8.5
- WT279502 Ear forceps, with oval cups, delicate, curved right, size 1.0 x 8.5
- WT279503 Ear forceps, with oval cups, delicate, curved up, size 1.0 x 8.5
- WT279504 Ear forceps, with oval cups, micro, curved down, size 8

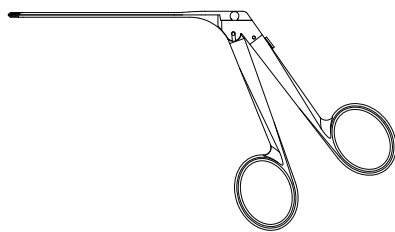


### Ear forceps

oval cupped jaws, 0.7 x 1.0 mm, jaws 3.5 mm,  
8.5 cm working length, straight

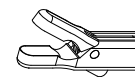


- WT279600 Ear forceps, with oval cups, very delicate, straight, size 0.7 x 8.5
- WT279700 Ear forceps, with oval cups, super delicate, straight, size 0.7 x 8.5

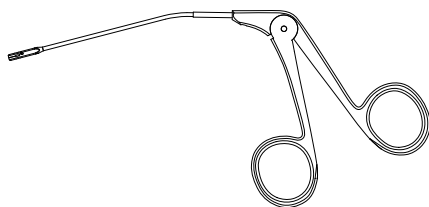


### Ear forceps

9.5 cm working length,  
tube shaft 1.5 mm diameter,  
oval cupped jaws 2.5 x 5 mm, delicate, straight



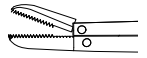
- WT279800 Ear forceps, micro, with oval jaws, straight, size 9.5



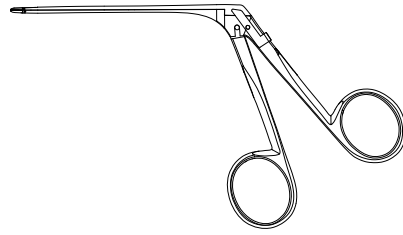
## Serrated Micro Ear Forceps

### Ear forceps

curved left, 8 cm working length

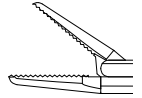


- WT280301 Ear forceps, micro, curved left, size 8

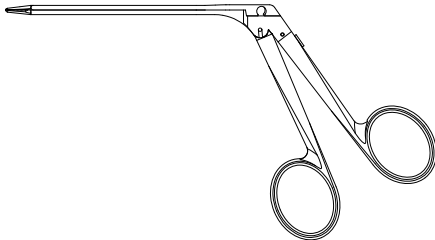


### Ear forceps

delicate, serrated, 8 cm working length

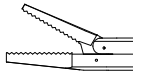


- WT280000 Ear forceps, micro, serrated, straight, size 8
- WT280500 Ear forceps, micro, serrated, straight, short jaws, size 8
- WT280501 Ear forceps, micro, serrated, curved left, size 8
- WT280502 Ear forceps, micro, serrated, curved right, size 8
- WT280503 Ear forceps, micro, serrated, curved up, size 8

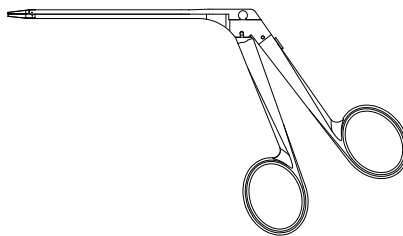


### Ear forceps

Fisch-type, very delicate,  
straight, serrated, 0.7 x 3.5 mm,  
8 cm working length

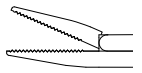


- WT280600 Ear forceps, micro, serrated, very delicate, curved up, size 8



### Ear forceps

super delicate,  
straight, serrated, 0.7 x 3.5 mm,  
8 cm working length



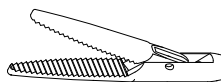
- WT280700 Ear forceps, micro, serrated, super delicate, straight, size 8



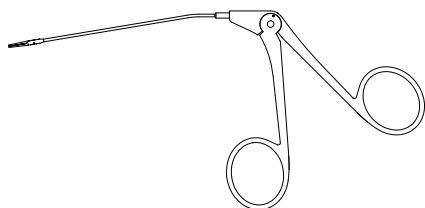
### Delicate Micro Ear Forceps

#### Ear forceps, acc. to House

very delicate,  
serrated, tube shaft 0.9 mm diameter,  
8 cm working length, straight



WT281500 Ear forceps, acc. to House, serrated,  
very delicate, size 8

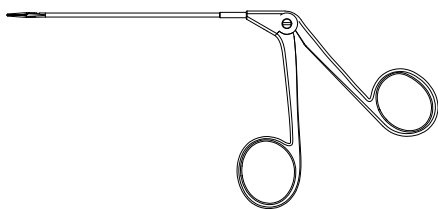


#### Ear forceps, acc. to Heermann

long, delicate jaws,  
8 cm working length,  
for work between the stapes, in the small cavity  
of the oval window and around the footplate



WT281700 Ear forceps, acc. to Heermann, straight, size 8

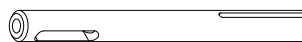


### Accessories

#### Protection sleeve

11.5 cm total length,  
for storage and steam sterilization of micro ear forceps

WT279900 Protective sleeve, PTFE, for ear forceps, size 115





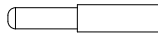


- Models with ring handles, round handles
- Ebony-finished models
- T-tube inserter with 3-step adjustment

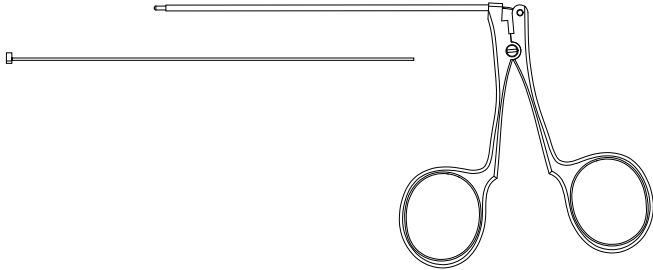
## Tube Inserters

### Ear forceps

15.5 cm working length,  
with stylet 1.0 mm (WT285210) and  
1.2 mm diameter (WT285212)



WT285200 Ear forceps, inserter for ventilation tubes,  
size 1.0 and 1.2 x 155



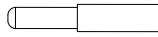
### Mandrin

11.5 cm total length, for WT285200,  
various diameters (mm) (not shown)

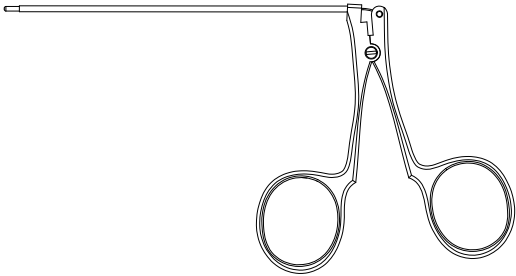
WT285210 Mandrin, for WT285200, size 1.0  
WT285212 Mandrin, for WT285200, size 1.2

### Ear forceps, acc. to Morgan

17 cm, conical tip



WT285250 Ear forceps, acc. to Morgan,  
inserter for ventilation tubes, size 170

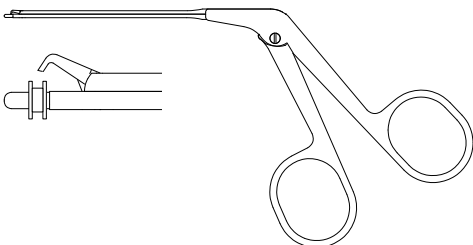


### Ear forceps

14 cm,  
for tubes with 0.95 mm Ø or larger



WT285300 Ear forceps, inserter for ventilation tubes, size 140

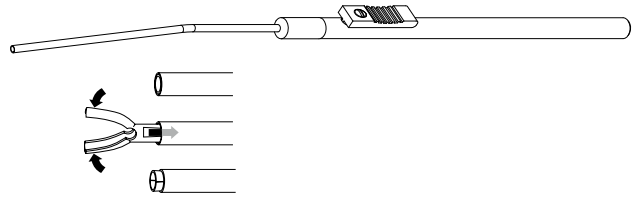


## T-Tube Inserters

### Inserter

handle ebony finished,  
18.5 cm working length

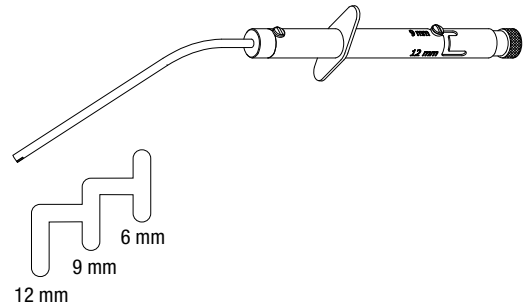
WT285600 Inserter, for T-Tubes, size 185

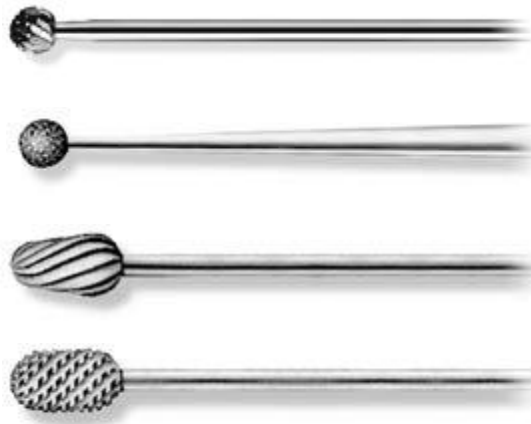


### Inserter

handle ebony finished, 16 cm total length,  
adjustment to the required setting  
(3 steps), allows for the precise  
insertion of 6, 9 and 12 mm T-tubes

WT285700 Inserter, for T-Tubes, size 160





- Round, bud, cylindrical and conical models
- Steel, tungsten carbide and diamond-coated models
- 2.35 mm shaft diameter, for power drills up to 40,000 min<sup>-1</sup>.
- Racks for straight shaft burrs with total length of 70 mm

## Round Standard Burrs

### Burr

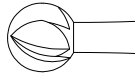
round,  
straight shaft, stainless steel,  
2.35 mm shaft Ø,  
70 mm total length ,  
various diameter (mm)



WT236006	Burr, round, size 0.6 x 70
WT236008	Burr, round, size 0.8 x 70
WT236010	Burr, round, size 1.0 x 70
WT236014	Burr, round, size 1.4 x 70
WT236018	Burr, round, size 1.8 x 70
WT236023	Burr, round, size 2.3 x 70
WT236027	Burr, round, size 2.7 x 70
WT236031	Burr, round, size 3.1 x 70
WT236035	Burr, round, size 3.5 x 70
WT236040	Burr, round, size 4.0 x 70
WT236045	Burr, round, size 4.5 x 70
WT236050	Burr, round, size 5.0 x 70
WT236060	Burr, round, size 6.0 x 70
WT236070	Burr, round, size 7.0 x 70

### Burr

round, coarse,  
straight shaft, stainless steel,  
2.35 mm shaft Ø ,  
57 mm total length,  
various diameter (mm)

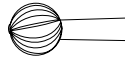


WT000867	Burr, round, size 4.0 x 57
WT000868	Burr, round, size 4.5 x 57
WT000869	Burr, round, size 5.0 x 57
WT000870	Burr, round, size 6.0 x 57
WT000871	Burr, round, size 7.0 x 57

## Round Tungsten Carbide Burrs

### Burr

round,  
cutting edge running over the top,  
straight shaft, stainless steel,  
2.35 mm shaft Ø,  
70 mm total length,  
various diameter (mm)

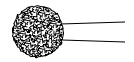


WT236110	Burr, round, tungsten carbide, size 1.0 x 70
WT236118	Burr, round, tungsten carbide, size 1.8 x 70
WT236123	Burr, round, tungsten carbide, size 2.3 x 70
WT236127	Burr, round, tungsten carbide, size 2.7 x 70
WT236131	Burr, round, tungsten carbide, size 3.1 x 70
WT236135	Burr, round, tungsten carbide, size 3.5 x 70
WT236140	Burr, round, tungsten carbide, size 4.0 x 70
WT236145	Burr, round, tungsten carbide, size 4.5 x 70
WT236150	Burr, round, tungsten carbide, size 5.0 x 70
WT236160	Burr, round, tungsten carbide, size 6.0 x 70
WT236170	Burr, round, tungsten carbide, size 7.0 x 70

## Round Diamond Burrs

### Burr

diamond, round,  
straight shaft, stainless steel,  
2.35 mm shaft Ø,  
70 mm total length,  
various diameter (mm)



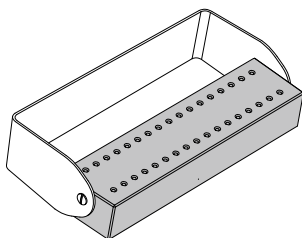
WT242006	Burr, diamond, size 0.6 x 70
WT242007	Burr, diamond, size 0.7 x 70
WT242008	Burr, diamond, size 0.8 x 70
WT242010	Burr, diamond, size 1.0 x 70
WT242014	Burr, diamond, size 1.4 x 70
WT242018	Burr, diamond, size 1.8 x 70
WT242023	Burr, diamond, size 2.3 x 70
WT242027	Burr, diamond, size 2.7 x 70
WT242031	Burr, diamond, size 3.1 x 70
WT242035	Burr, diamond, size 3.5 x 70
WT242040	Burr, diamond, size 4.0 x 70
WT242045	Burr, diamond, size 4.5 x 70
WT242050	Burr, diamond, size 5.0 x 70
WT242060	Burr, diamond, size 6.0 x 70
WT242070	Burr, diamond, size 7.0 x 70

### Accessories

#### Rack

for 70 mm straight shaft burrs,  
holds total of 34 burrs

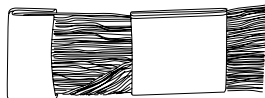
WT225300 Rack, for 34 burrs



#### Wire brush

for burrs, autoclavable,  
5 pcs.

WT226300 Wire brush, 5 pcs.



### Dermabraders

#### Dermabrader

cylindrical,  
diamond coated,  
straight shaft,  
2.35 mm shaft  $\emptyset$ ,  
50 mm total length,  
12.0 x 15.0 mm working part  $\emptyset$

WT246600 Dermabrader, diamond, size 12/15 x 50





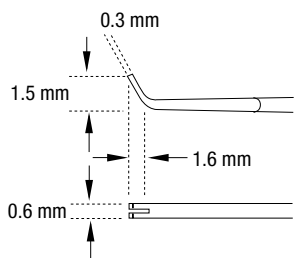






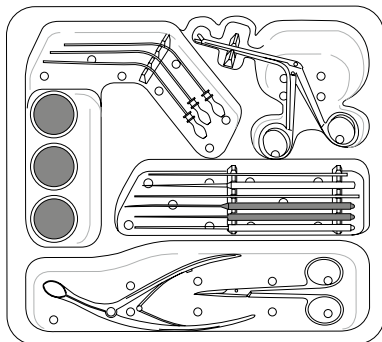
### Phenol Applicator

130610 Duberstein phenol applicator, round, knurled handle, 157 mm, 6.2", ebony finish



### Myringotomy Case

131413 Myringotomy case, 10" x 2.5" x 10.5", includes lid and finger mat, empty case, instruments not included



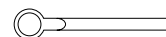
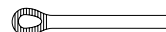
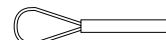
- The case includes space for:  
6 ear specula, 3 alligator forceps, 3 suction tubes, and 6 picks.
- Large pocket to hold larger, miscellaneous instruments.

### Wax Curettes



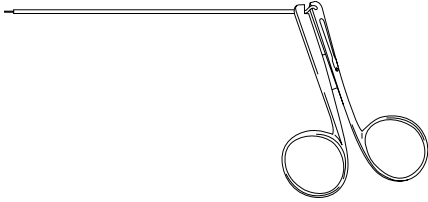
Wax curette, polypropylene handle, stainless steel shaft, 76 mm, sterile, 6 pcs.

- 130750 Billeau, small
- 130751 Billeau, medium
- 130752 Billeau, large
- 130755 Shapleigh, small
- 130756 Shapleigh, large
- 130759 Buck, size 0
- 130760 Buck, size 1
- 130761 Buck, size 2
- 130762 Buck, size 3



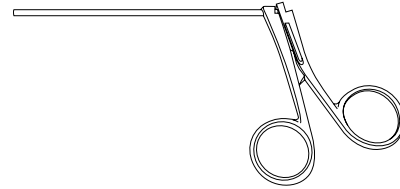
## Morgan Ventilation Tube Inserters

130547 Morgan ventilation tube inserter, stainless steel, vapor blast finish, 106 mm (4.2") shaft length, large, 1.2 mm (0.05")



## T-Tube Inserter

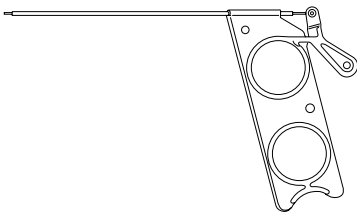
130549 T-tube inserter, stainless steel, satin finish, 1.2 mm (0.047") shaft diameter, 96.5 mm (3.8") shaft length



## Ventilation Tube Inserter

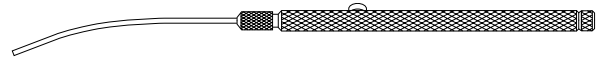
130710 Ventilation tube inserter, polypropylene handle, stainless steel shaft, 1.14 mm (0.45") inner diameter, 6 pcs., sterile, single-use

U.S. Patent No. 3,897,786

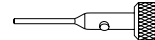


## Universal T-Tube Inserter

130550 Universal T-tube inserter, stainless steel, satin finish, 80 mm (3.15") shaft length, 200 mm (7.8") overall length



130551 Inserter stylus, spare for 130550, handle style round, knurled, vapor blast finish, 11 mm (0.43") tip diameter, 26 mm (1.02") overall length



130553 Standard tip, spare for 130550, handle style round, knurled, vapor blast finish, 1.7 mm (0.067") tip diameter, 80 mm (3.1") overall length



## Ear Specula



Ear speculum,  
stainless steel,  
ebony finish,

70130629	2.5 mm
130630	3 mm
130634	3.5 mm
130640	4 mm
130645	4.5 mm
130650	5 mm
130655	5.5 mm
130660	6 mm
130665	6.5 mm
130670	7 mm
130675	7.5 mm
130680	8 mm

- 2.5 mm ○
- 3 mm ○
- 3.5 mm ○
- 4 mm ○
- 4.5 mm ○
- 5 mm ○
- 5.5 mm ○
- 6 mm ○
- 6.5 mm ○
- 7 mm ○
- 7.5 mm ○
- 8 mm ○

## Disposable Ear Specula

Child ear specula,  
polypropylene,  
sterile, single use,  
round, nonbeveled, 3 mm  
130698  
oval, beveled, 4 mm  
130699

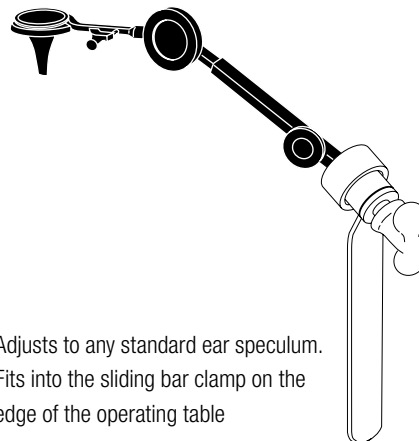


Adult ear specula,  
polypropylene,  
sterile, single use,  
oval, beveled, 5 mm  
130700  
oval, beveled, 6 mm  
130702



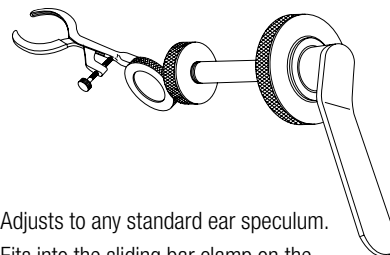
## Speculum Holders

130070 Speculum holder,  
stainless steel,  
ebony finish



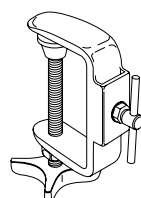
Adjusts to any standard ear speculum.  
Fits into the sliding bar clamp on the  
edge of the operating table

130072 Schuknecht modification of speculum holder,  
stainless steel,  
ebony finish



Adjusts to any standard ear speculum.  
Fits into the sliding bar clamp on the  
edge of the operating table

130074 C-clamp for speculum holder,  
stainless steel, chrome finish

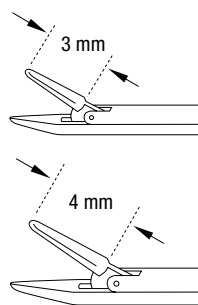


Attaches to the operating table.

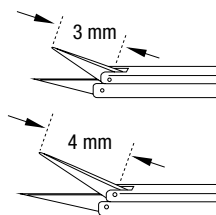


## Cawthorne Ear Forceps

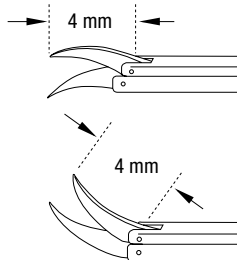
Cawthorne alligator forceps,  
straight, smooth,  
70 mm shaft length,  
ebony finish,  
131205 3 mm jaws length  
131216 4 mm jaws length



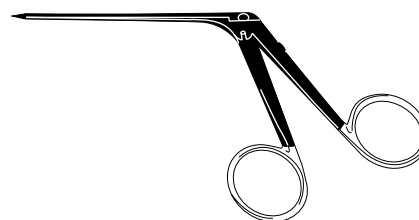
Cawthorne delicate scissors,  
straight,  
70 mm shaft length,  
ebony finish,  
131229 3 mm jaws length  
131230 4 mm jaws length



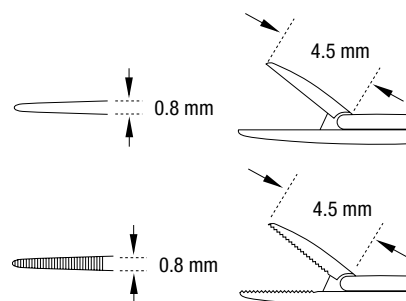
Cawthorne delicate scissors,  
4 mm jaws length,  
70 mm shaft length  
ebony finish,  
131231 curved left  
131232 curved right



## Gold Alligator Forceps

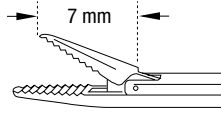


Gold alligator forceps,  
68 mm shaft length,  
ebony finish,  
gold plated rings,  
130330 straight, smooth, 4.5 mm jaws length  
130331 straight, serrated, 4.5 mm jaws length

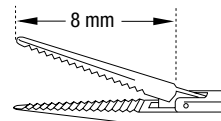
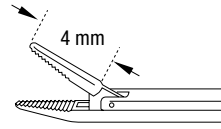


## Hartmann Alligator Forceps

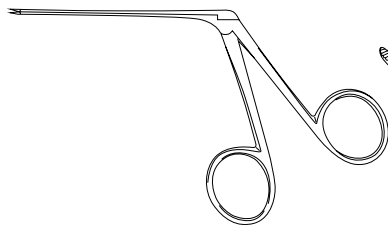
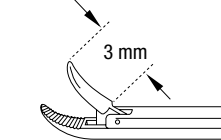
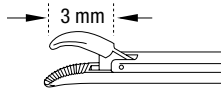
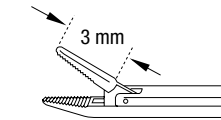
131227 Hartmann alligator forceps,  
serrated,  
straight,  
70 mm shaft length,  
vapor blast finish,  
7 mm jaws length



131210 Hartmann alligator forceps,  
serrated,  
straight,  
70 mm shaft length,  
ebony finish,  
4 mm jaws length  
131211 8 mm jaws length

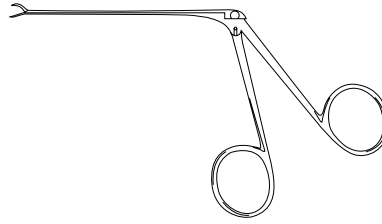


131200 Hartmann alligator forceps,  
serrated,  
3 mm jaws length,  
70 mm shaft length,  
ebony finish,  
straight  
131201 curved left  
131202 curved right

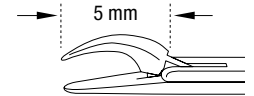


## House Wire Closure Forceps

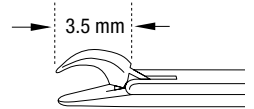
Designed for John House, M.D., Los Angeles, CA, USA



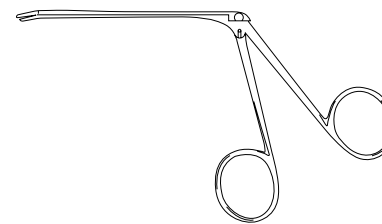
70230221 Large crimper,  
5.5 mm jaws length,  
81 mm shaft length,  
stainless steel,  
matt finish



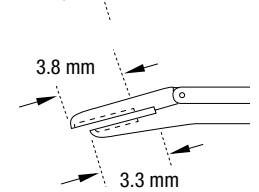
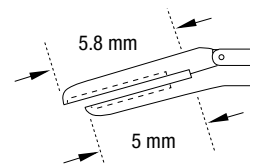
70230220 Small crimper,  
3.5 mm jaws length,  
67,5 mm shaft length,  
stainless steel,  
matt finish



## McGee Wire Closure Forceps

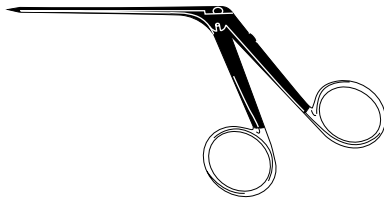


230192 McGee wire closure forceps,  
smooth,  
70 mm shaft length,  
ebony finish,  
large  
230193 small  
131225 angled down



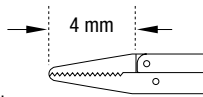


### Mini-McGee Instruments



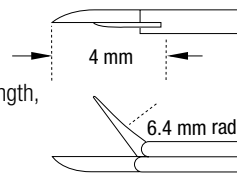
Mini-McGee forceps,  
straight,  
4 mm jaws length, 80 mm shaft length,  
ebony finish,  
electropolished rings,  
serrated  
smooth

131040  
131041



131044

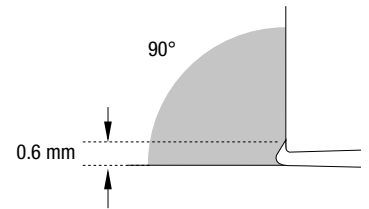
Mini-McGee scissors,  
straight, sharp,  
4 mm jaws length, 80 mm shaft length,  
ebony finish,  
electropolished handle



### Nippers

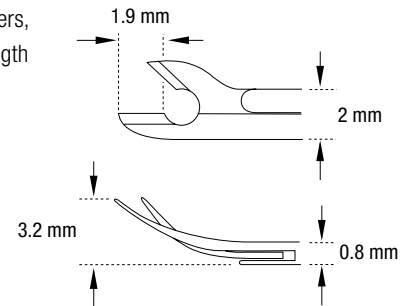
131223

Malleus nippers,  
straight,  
2.5 mm jaws length,  
70 mm shaft length,  
ebony finish



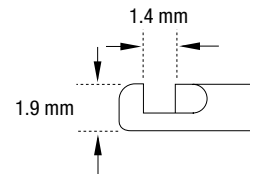
230006  
230007

Fisch crura nippers,  
76 mm shaft length  
ebony finish  
curved left  
curved right



230077

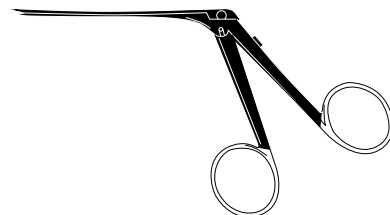
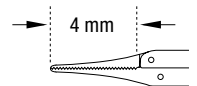
House type malleus nippers,  
straight,  
1.4 mm jaws length,  
80 mm shaft length,  
ebony finish



### Posigators

130003  
130004

Posigator forceps,  
straight,  
positive locking jaws,  
4 mm jaws length, 70 mm shaft length,  
ebony finish,  
electropolished rings,  
serrated  
smooth



## Protective Sleeve

- Protects shaft and tips.

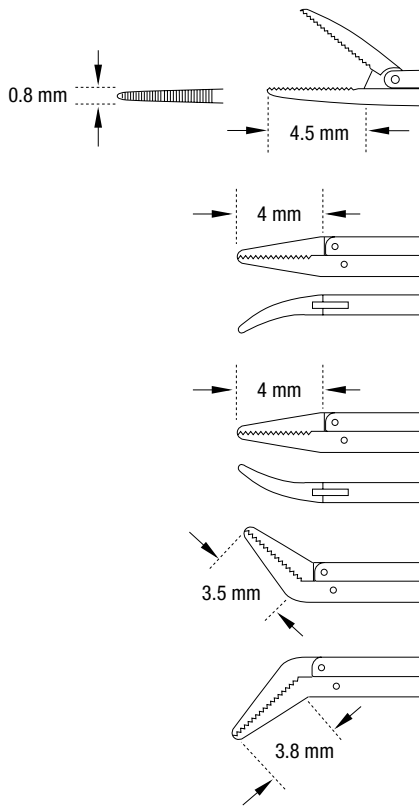
130128 Protective sleeve, for alligator forceps, 102 mm overall length, fluoroplastic, autoclavable



## Ear Forceps

Alligator forceps, serrated, 70 mm shaft length, ebony finish,

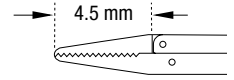
131010 straight, 4.5 mm jaws length  
 131012 curved left, 4.0 mm jaws length  
 131013 curved right, 4.0 mm jaws length  
 131014 curved up, 3.5 mm jaws length  
 131015 curved down, 3.8 mm jaws length



## Ear Forceps

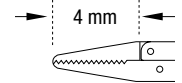
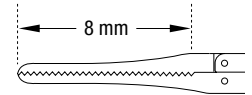


131016 Alligator forceps, straight, smooth, 4.5 mm jaws length, 70 mm shaft length, ebony finish

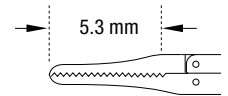


Alligator forceps, straight, serrated, ebony finish

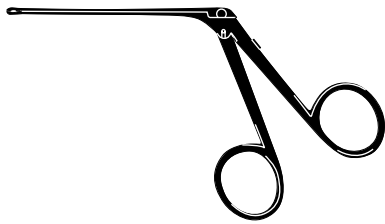
230038 8 mm jaws length, 80 mm shaft length  
 230103 4 mm jaws length, 152 mm shaft length



70230050 Richards alligator forceps, straight, serrated, 5.3 mm jaws length, 70 mm shaft length, ebony finish



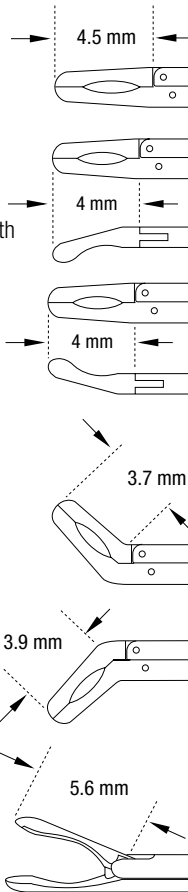
## Ear Forceps and Scissors



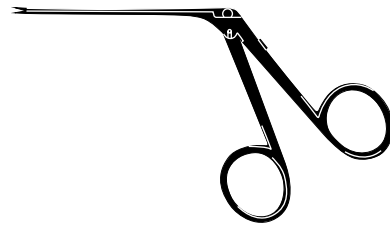
Cupped forceps,  
70 mm shaft length,  
ebony finish,

- 131024
- 131025
- 131026
- 131027
- 131028
- 131042

straight, 4.5 mm jaws length  
curved left, 4.0 mm jaws length  
curved right, 4.0 mm jaws length  
angled up 45°, 3.7 mm jaws length  
curved down, 3.9 mm jaws length  
straight, Mini-McGee, 5.6 mm jaws length

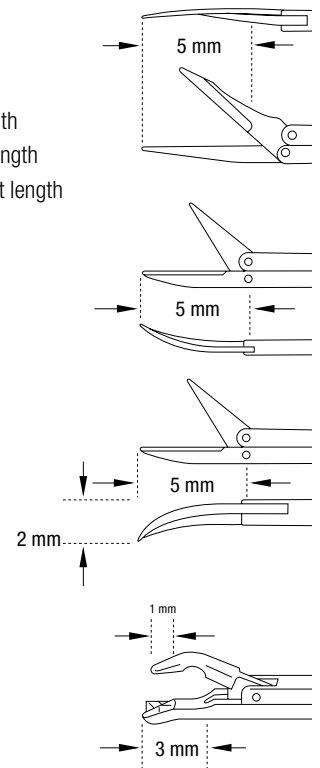


## Ear Forceps and Scissors (cont.)



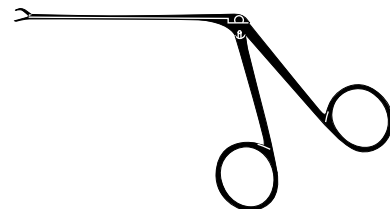
Delicate ear scissors,  
5 mm jaws length,  
ebony finish,  
straight, 80 mm shaft length  
curved up, 68 mm shaft length  
curved down, 80 mm shaft length

- 230061
- 230062
- 230063



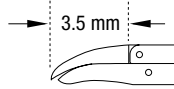
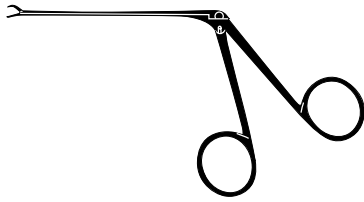
- 131226

Wire closure forceps,  
smooth,  
angled down,  
70 mm shaft length,  
ebony finish

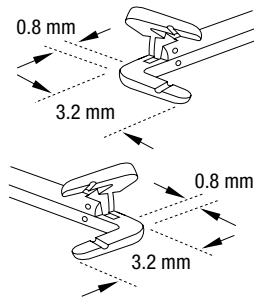


## Richards Ear Forceps

131080 Schuknecht wire closure forceps, smooth, 68 mm shaft length, ebony finish

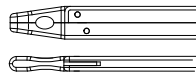
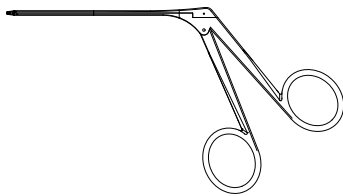


Seda wire closure forceps, 68 mm shaft length, ebony finish,  
131051 90° jaws angled left  
131050 90° jaws angled right

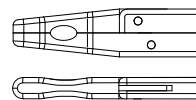
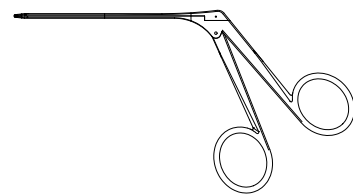


## Shea Forceps

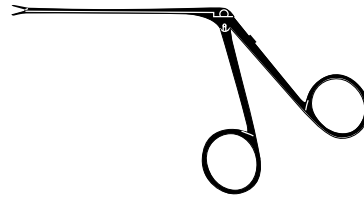
131206 Shea oval cup, fine, 3 x .5 mm  
131207 fine, curved left  
131208 fine, curved right  
131209 fine, curved up



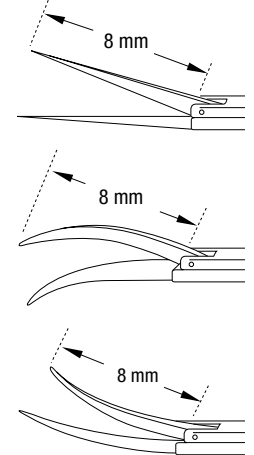
131219 Shea oval cup alligator forceps, straight, 4 x .8 mm  
131220 curved left, 4 x .8 mm  
131221 curved right, 4 x .8 mm  
131222 curved up, 4 x .8 mm



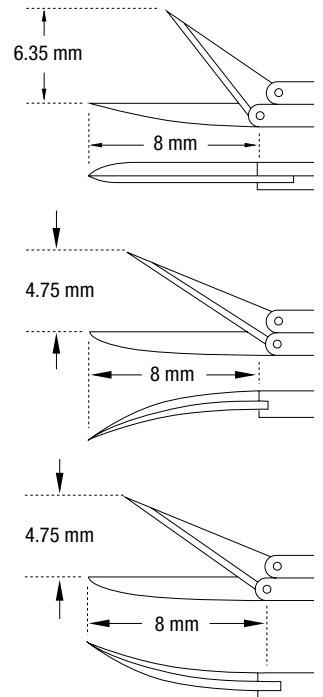
## Shea Belluci Scissors



Shea Belluci scissors, sharp, 8 mm jaws length, 70 mm shaft length, ebony finish,  
131233 straight  
131234 curved left  
131235 curved right



Shea Belluci scissors, sharp, 8 mm jaws length, 80 mm shaft length, ebony finish,  
230071 straight  
230072 curved left  
230073 curved right



## Disposable Ear Suction Tubes

Disposable ear suction tube,  
polypropylene handle,  
stainless steel shaft (76.2 mm length),  
sterile, single-use, 6 pcs.,  
without bypass,

130718 red, 14 Gauge, 9 Fr.

130720 yellow, 16 Gauge, 7 Fr.

130722 black, 18 Gauge, 5 Fr.

130724 green, 20 Gauge, 3 Fr.



Disposable ear suction tube,  
polypropylene handle,  
stainless steel shaft (76.2 mm length),  
sterile, single-use, 6 pcs.,  
with bypass,

130783 red, 14 Gauge, 9 Fr.

130785 yellow, 16 Gauge, 7 Fr.

130787 black, 18 Gauge, 5 Fr.

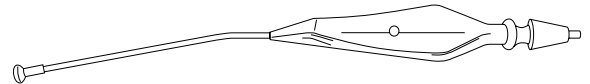
130789 green, 20 Gauge, 3 Fr.

U.S. Patent No. D234,032

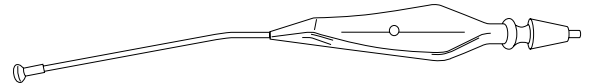


## Foreign Body Removers

130800 Foreign body remover,  
polypropylene handle,  
stainless steel shaft (76.2 mm length),  
nonsterile,  
operating room pack, 1 pc.



130811 Foreign body remover,  
polypropylene handle,  
stainless steel shaft (76.2 mm length),  
sterile, single-use,  
emergency room pack, 6 pcs.,

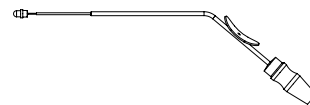


Designed for Harold F. Schuknecht, M.D., Boston, MA,  
USAU.S. Patent No. D234,032

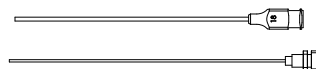
## Suction Tubes

Suction tip only,  
20 gauge

130151  
130153 24 gauge



Ear suction needle,  
230085 18 gauge  
230086 20 gauge  
230087 22 gauge  
230088 24 gauge

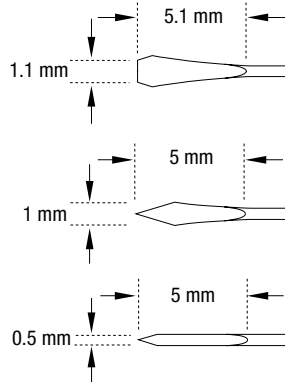




### Drills

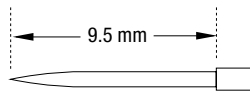


Buckingham footplate hand drill,  
 round, knurled handle,  
 straight shaft,  
 sharp tip,  
 149 mm overall length,  
 ebony finish,  
 large  
 130470  
 medium  
 130471  
 small  
 130472



130462

Larkin hand perforator,  
 round, knurled handle,  
 straight shaft,  
 sharp tip,  
 168 mm overall length,  
 ebony finish



### OtoView Instruments

70235620 OtoView elevator,  
 double-ended,  
 stainless steel,  
 ebony finish



70235621 OtoView knife,  
 double-ended,  
 round,  
 stainless steel,  
 ebony finish



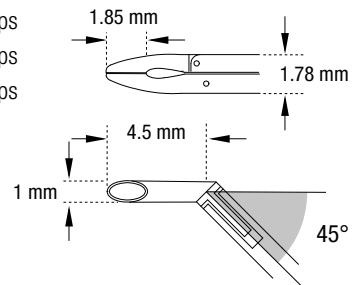
70235622 OtoView knife,  
 sickle,  
 stainless steel,  
 ebony finish



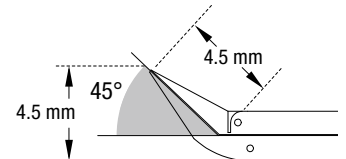
70235623 OtoView knife,  
 triangle,  
 stainless steel,  
 ebony finish



70235610 Otoview cupped forceps  
 70235611 Otoview cupped forceps  
 70235612 Otoview cupped forceps

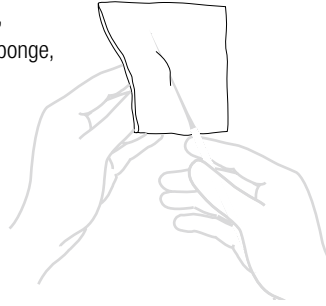


70235613 Otoview ear scissors



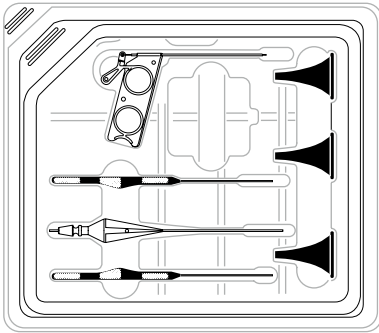
## Instrument Wipes

Micro-Instrument wipes,  
polyurethane ester foam,  
3.5" x 3.5" nonfibrous sponge,  
48 pcs.,  
sterile  
230030  
70230034 non-sterile



## Myringotomy Kits

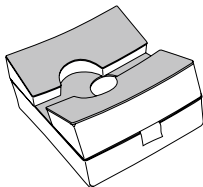
Set-Op myringotomy kit,  
sterile, single-use,  
890205 for children (3, 4, and 5 mm specula)  
890206 for adults (4, 5 and 6 mm specula)



Delivery includes:  
1 Billeau wax curette, 1 16 gauge suction needle with bypass,  
1 myringotomy knife, sickle blade, contoured handle, 1  
ventilation tube inserter (for 1.14 mm inner diameter tubes),  
3 specula

## Head Supports

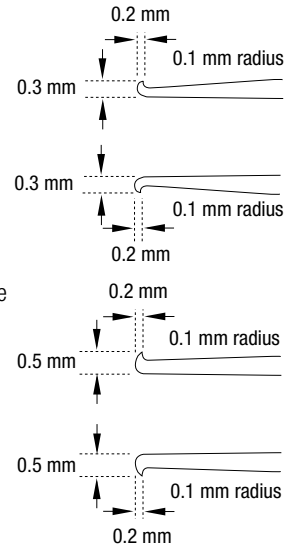
Shea foam head support,  
nonsterile,  
150179 for children  
150180 for adults



Designed for John J. Shea, M.D.,  
Memphis, TN, USA  
U.S. Patent No. 3,694,831.

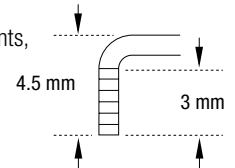
## Footplate Hook

Lippy footplate hook,  
round, knurled handle,  
shaft angled 20°,  
170 mm overall length,  
ebony finish,  
130135 angled up 90°, anterior  
130136 angled up 90°, posterior  
130137 angled up 90°, anterior, large  
130138 angled up 90°, posterior, large

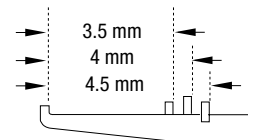


## Depth Gauges

130976 Applebaum measuring rod,  
straight, angled 90°,  
depths markings in 0.5 mm increments,  
round, knurled handle,  
150 mm overall length,  
ebony finish

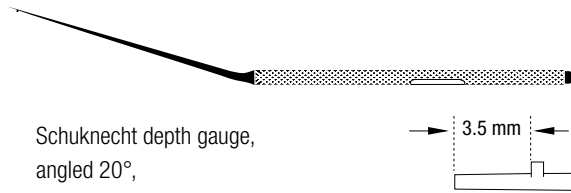


130290 Richards piston depth gauge,  
straight,  
depths markings staggered  
around shaft  
at 3.5 mm, 4.0 mm, 4.5 mm,  
round, knurled handle,  
174 mm overall length,  
ebony finish





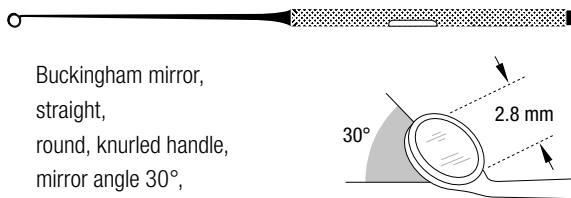
## Depth Gauges



Schuknecht depth gauge,  
angled 20°,  
depth marking at 3.5 mm,  
round, knurled handle,  
154 mm overall length,  
ebony finish

- 130291 0.6 mm
- 130292 0.8 mm

## Buckingham Mirror

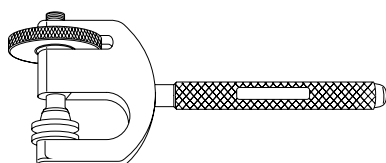


- 130535 Buckingham mirror,  
straight,  
round, knurled handle,  
mirror angle 30°,  
152 mm overall length,  
vapor blast finish

- 130536 Protective sleeve,  
for Buckingham mirror 130535,  
white fluoroplastic,  
115 mm overall length

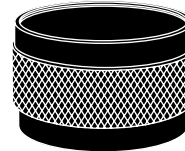
## Vein Press

- 130146 Vein press,  
15.8 x 15.8 mm press diameter,  
stainless steel,  
114 mm overall length

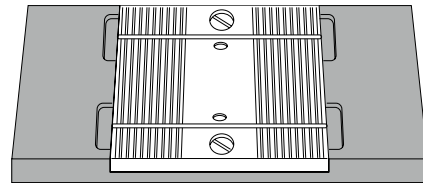


## Cutting Blocks

- 130130 Austin surgical cutting block,  
black polyoxymethylene,  
63.5 mm diameter

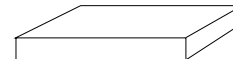


- 70135800 Goldenberg cutting block,  
stainless steel,  
polyoxymethylene



Designed for Robert Goldenberg, M.D., Dayton, OH, USA

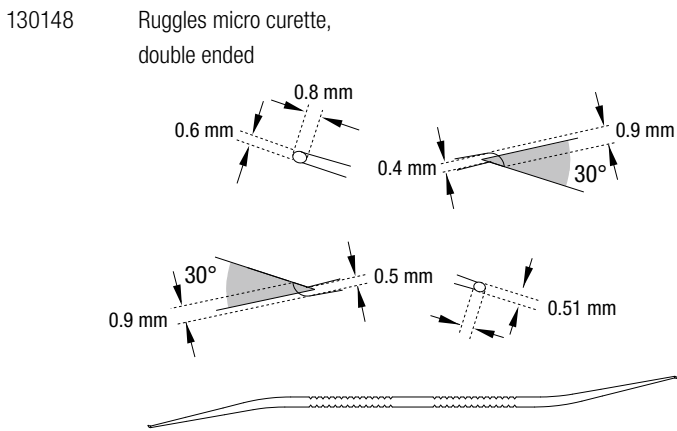
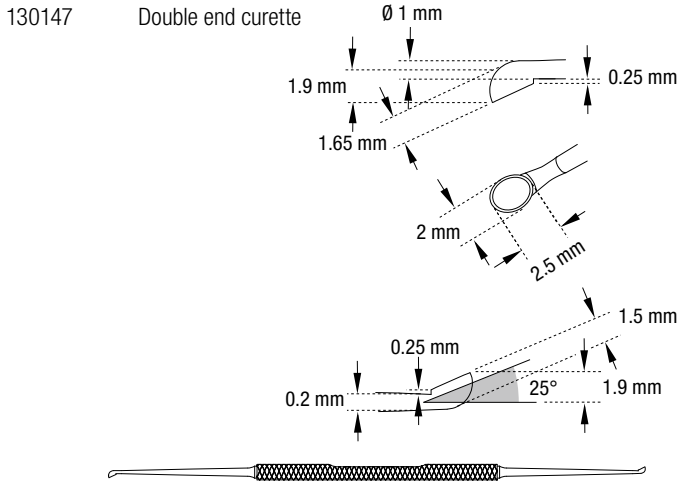
- 130131 House cutting block,  
white polyoxymethylene,  
73 x 38 mm



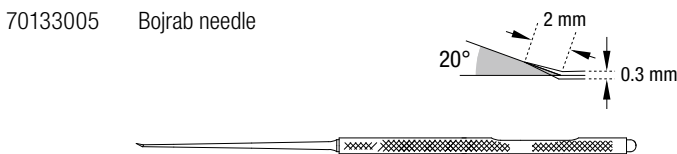
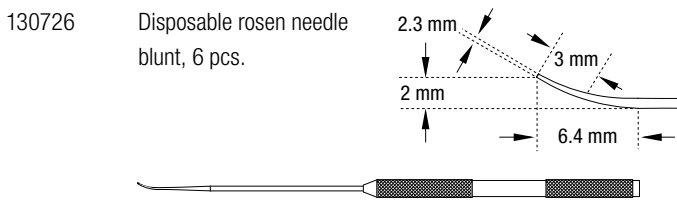
- 130289 Piston cutting jig,  
stainless steel,  
86 mm overall length



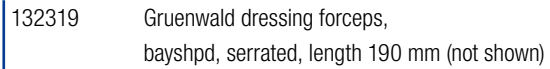
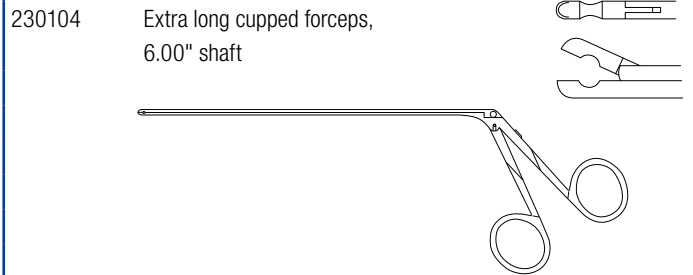
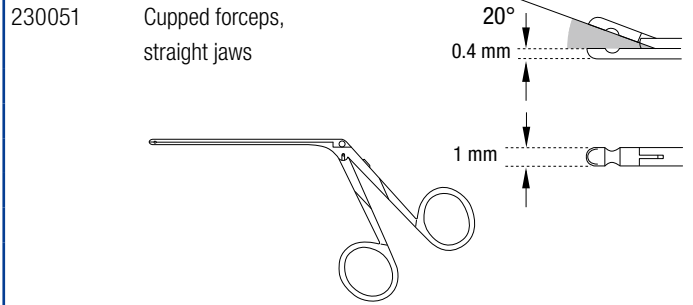
## Curettes



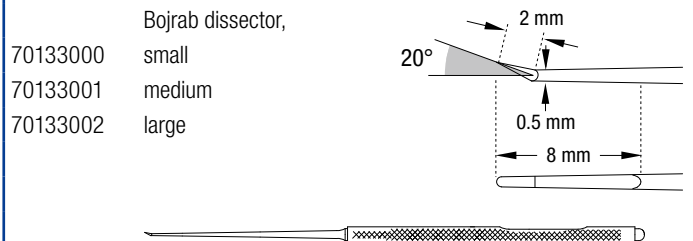
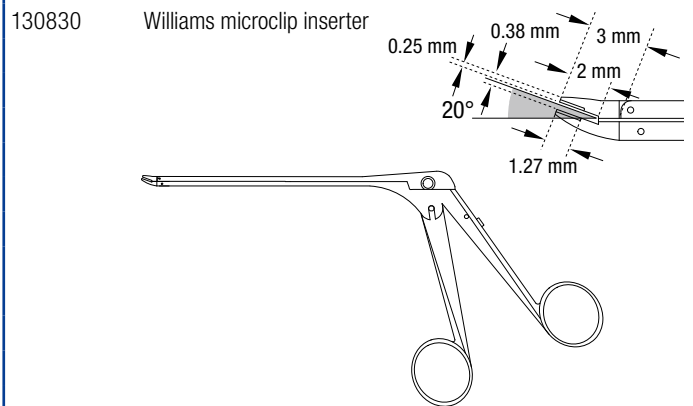
## Needles



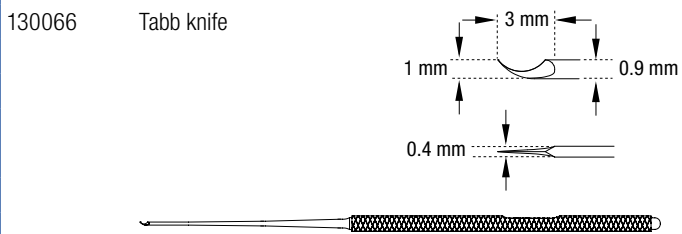
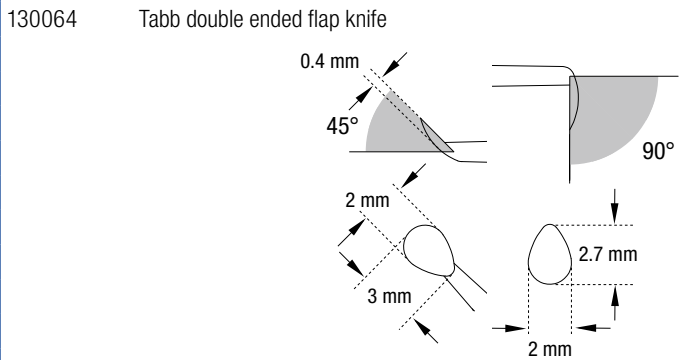
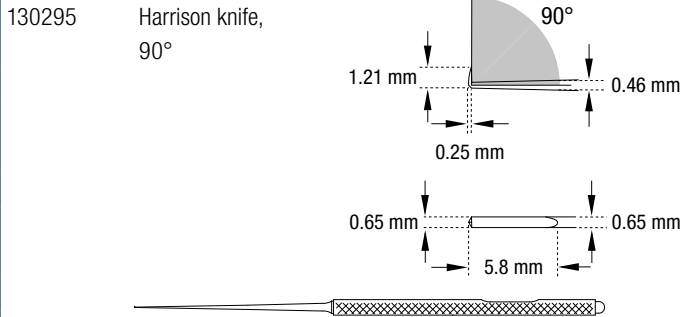
## Forceps



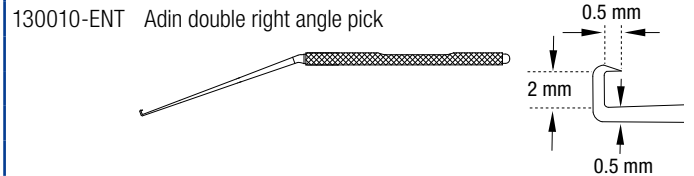
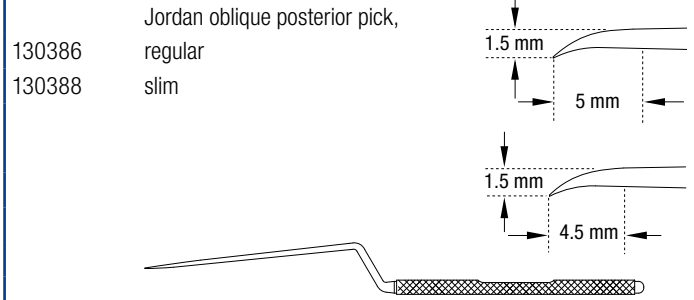
## Insertor, Dissector



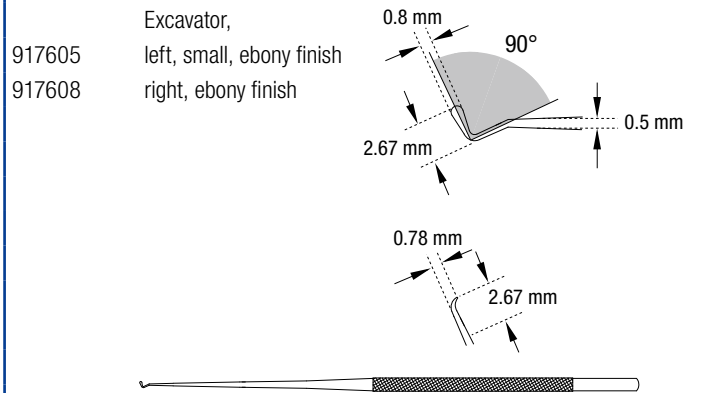
## Knives



## Picks



## Excavator



## Occluder, Crusher

890070 Ocular occluder, 36 pcs. (not shown)

230348 House-type fascia crusher (not shown)

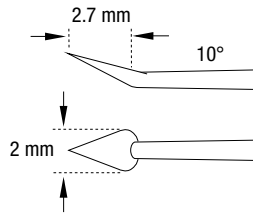




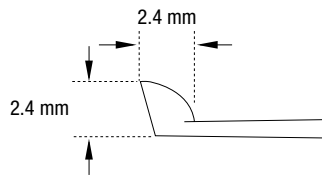


## Antoli-Candela Instruments (1)

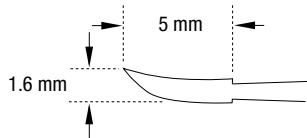
130161 Shea knife,  
round, knurled handle,  
straight shaft,  
blade angled 10°,  
165 mm overall length



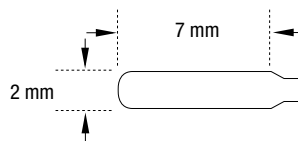
130162 Right angle knife,  
round, knurled handle,  
straight shaft,  
sharp blade,  
165 mm overall length



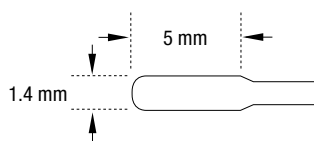
130163 Curved knife,  
round, knurled handle,  
straight shaft,  
sharp blade,  
165 mm overall length



130164 Angled elevator blade,  
round, knurled handle,  
straight shaft,  
blade tip angled 15°,  
165 mm overall length

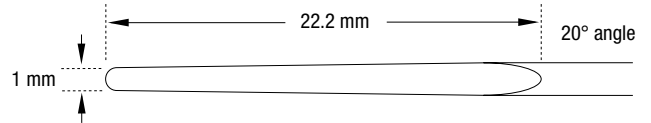


130165 Elevator, small,  
round, knurled handle,  
straight shaft,  
blade tip angled 10°,  
165 mm overall length

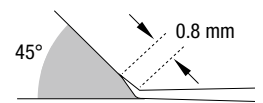


## Antoli-Candela Instruments (2)

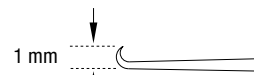
130166 Elevator, right,  
round, knurled handle,  
shaft angled 20°,  
straight tip,  
165 mm overall length



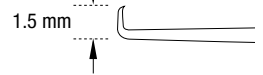
130167 Footplate mucosa pick,  
round, knurled handle,  
straight shaft,  
blade tip angled 45°,  
165 mm overall length



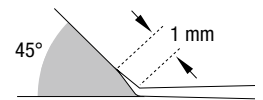
Right angle pick,  
round, knurled handle,  
straight shaft,  
blade tip angled 90°,  
165 mm overall length,



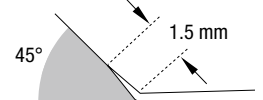
130168  
130169



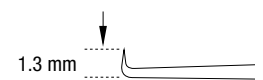
Obtuse angle pick, 1 mm,  
round, knurled handle,  
straight shaft,  
blade tip angled 45°,  
165 mm overall length,



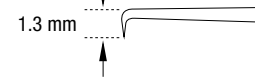
130170  
130171



Angled pick,  
round, knurled handle,  
shaft angled 10°,  
blade tip angled down,  
165 mm overall length,

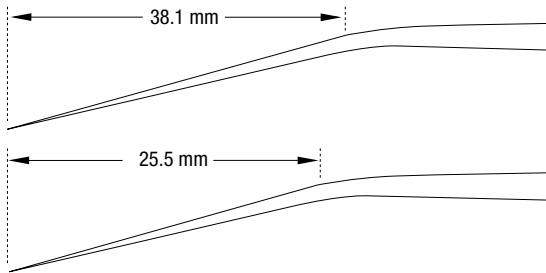


130172  
130173

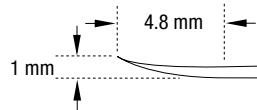


### Antoli-Candela Instruments (3)

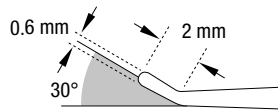
Angled pointed driver,  
round, knurled handle,  
straight shaft,  
blade tip angled 15°, sharp,  
165 mm overall length  
130174 38.1 mm blade length  
130175 25.4 mm blade length



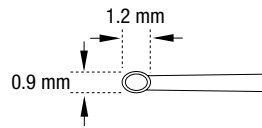
130176 Curved pick,  
round, knurled handle,  
straight shaft,  
curved blade tip,  
165 mm overall length



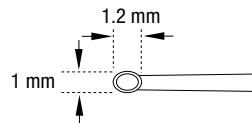
130177 Blunt probe,  
round, knurled handle,  
straight shaft,  
blade tip angled 30°,  
165 mm overall length



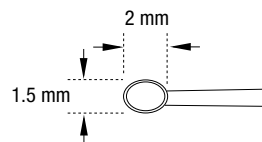
130178 Small window curette,  
flat handle,  
straight shaft,  
165 mm overall length



130179 Middle angle curette,  
flat handle,  
shaft angled 10°,  
165 mm overall length

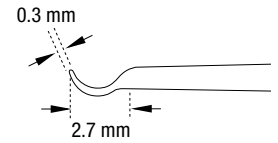


130180 Large curette,  
flat handle,  
shaft angled 10°,  
165 mm overall length

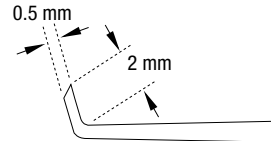


### Antoli-Candela Instruments (4)

130181 Elevator,  
round, knurled handle,  
straight shaft,  
cup angled up,  
165 mm overall length



130182 Flat curette,  
round, knurled handle,  
straight shaft,  
blade angled up,  
165 mm overall length



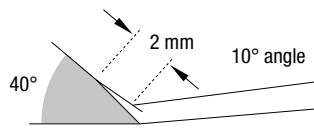
130189 Instrument case,  
for Antoli-Candela instruments  
(not shown)



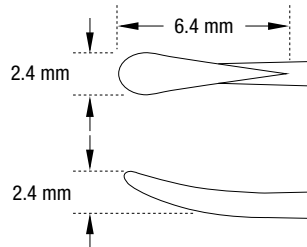


## Austin Instruments (1)

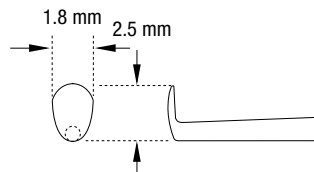
130031 Incising knife elevator, round, knurled handle, shaft angled 10°, blade tip angled 40°, 165 mm overall length



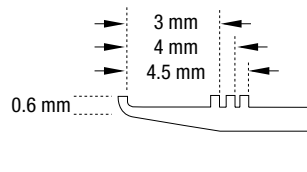
130032 Duckbill knife elevator, round, knurled handle, straight shaft, blunt tip, angled up, 165 mm overall length



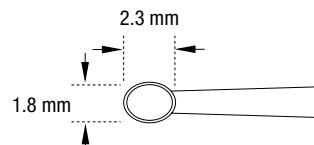
130033 Right angle elevator, round, knurled handle, straight shaft, tip angled up, 165 mm overall length



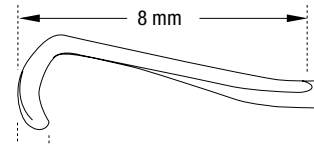
130034 Measuring rod, round, knurled handle, straight shaft, straight tip, 168 mm overall length



130035 Curette, flat handle, shaft angled 10°, 152 mm overall length



Excavator, round, knurled handle, straight shaft, 165 mm overall length,

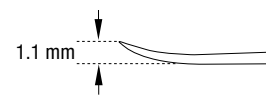


130036 right tip  
130037-ENT left tip

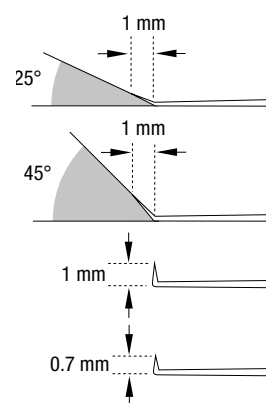


## Austin Instruments (2)

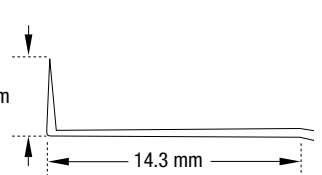
130038 Tympanoplasty pick, round, knurled handle, straight shaft, curved tip, 165 mm overall length



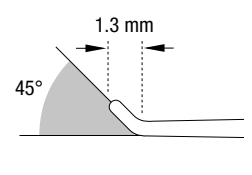
Angled pick, round, knurled handle, straight shaft, 165 mm overall length,  
130039 blade tip angled 25°  
130040 blade tip angled 45°  
130041 long angled tip  
130042 short angled tip



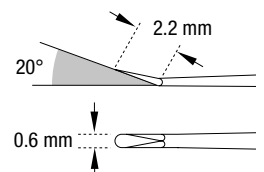
130043 Attic dissector, round, knurled handle, straight shaft, blade tip angled up, 165 mm overall length



130044 Probe, round, knurled handle, straight shaft, blade tip angled 45°, 168 mm overall length

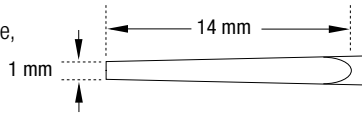


130045 Incudostapedial knife, round, knurled handle, straight shaft, blade tip angled 20°, 168 mm overall length

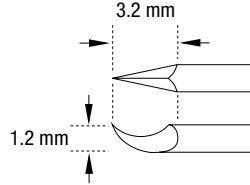


**Austin Instruments (3)**

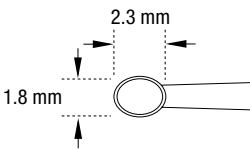
130046 Chisel,  
round, knurled handle,  
straight shaft,  
straight tip,  
165 mm overall length



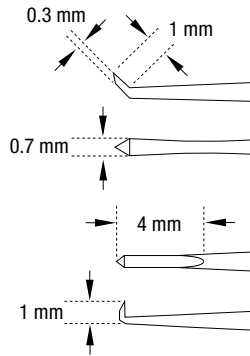
130047 Small sickle knife,  
round, knurled handle,  
straight shaft,  
curved blade,  
165 mm overall length



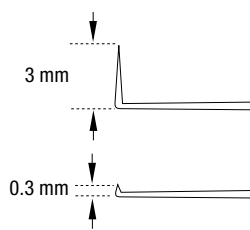
130092 Curette,  
round, knurled handle,  
shaft angled 10°,  
blade tip angled 10°,  
152 mm overall length



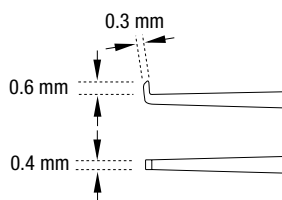
Dissection knife,  
round, knurled handle,  
straight shaft,  
165 mm overall length,  
blade tip angled 45°  
130093 blade tip angled 90°  
130094



Angled pick,  
round, knurled handle,  
straight shaft,  
blade tip angled,  
165 mm overall length,  
130095 3 mm blade length  
130097 0.3 mm blade length



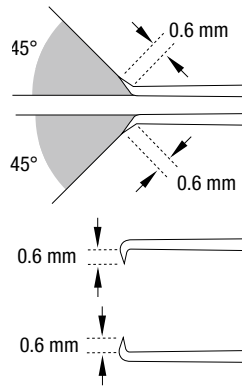
130096 Footplate elevator,  
round, knurled handle,  
shaft angled 10°,  
blade tip angled up,  
165 mm overall length



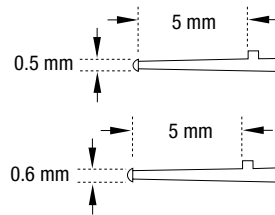
130052 Sterilizing case,  
for 22 instruments(not shown)

## Farrior Instruments (1)

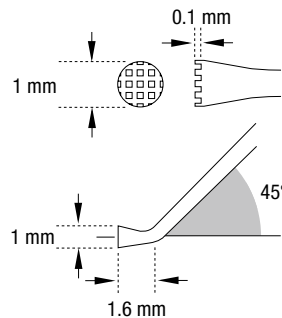
- Pick,  
round, knurled handle,  
shaft angled 30°,  
ebony finish
- 130431 blade tip angled right 45°  
130432 blade tip angled left 45°  
130433 blade tip angled down  
130434 blade tip angled up



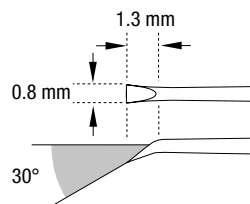
- Rasp,  
round, knurled handle,  
shaft angled 30°,  
straight blade tip,  
ebony finish
- 130435 0.5 mm  
130436 0.6 mm



- 130437 Tamper,  
round, knurled handle,  
shaft angled 30°,  
blade tip angled 45°,  
ebony finish



- 130438 Chisel,  
round, knurled handle,  
shaft angled 30°,  
straight blade tip,  
ebony finish

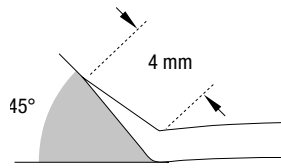


## Farrior Instruments (2)

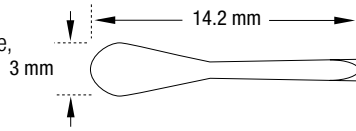
- 130439 Instrument case,  
for Farrior instruments  
(not shown)

**Goldman Instruments (1)**

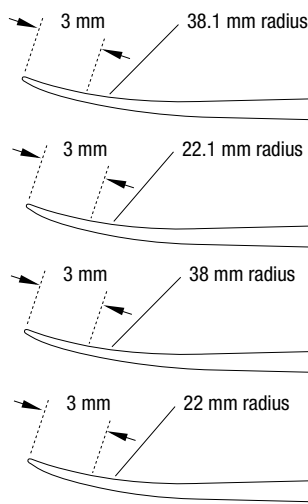
130401 Knife,  
round, knurled handle,  
straight shaft,  
blade tip angled 45°,  
ebony finish



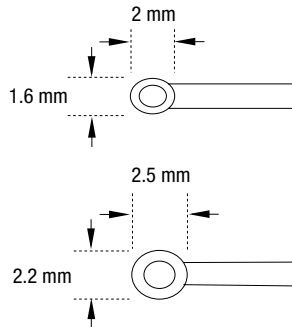
130402 Separator,  
round, knurled handle,  
straight shaft,  
blunt tip,  
ebony finish



Curved pick,  
round, knurled handle,  
straight shaft,  
curved tip,  
ebony finish,  
130403 dull, 38.1 mm tip radius  
130404 dull, 22.1 mm tip radius  
130405 sharp, 38 mm tip radius  
130406 sharp, 22 mm tip radius

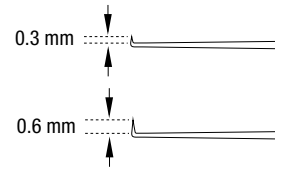


Curette,  
round, knurled handle,  
straight shaft,  
ebony finish,  
130407 medium  
130408 large

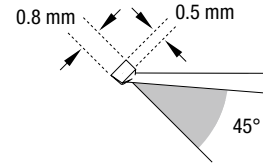


**Goldman Instruments (2)**

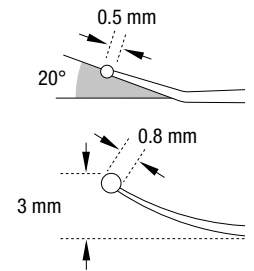
Angled pick,  
round, knurled handle,  
straight shaft,  
blade tip angled 90°,  
ebony finish,  
130409 small  
130410 large



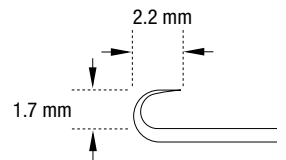
130411 Hoe,  
round, knurled handle,  
straight shaft,  
blade tip angled 45°,  
ebony finish



Ball probe,  
round, knurled handle,  
straight shaft,  
ebony finish,  
130413 small, blade tip angled 20°  
130414 large, curved tip



130415 Malleus retractor,  
round, knurled handle,  
straight shaft,  
blade tip angled up and over,  
ebony finish



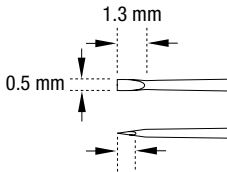
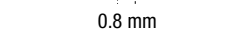
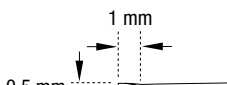
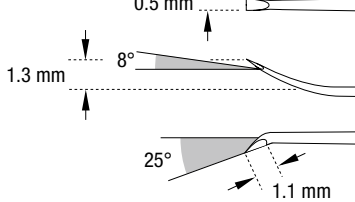
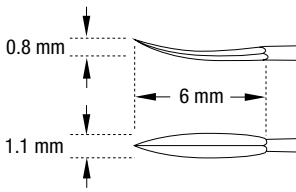
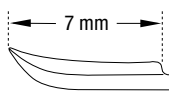
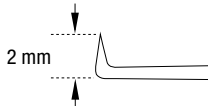
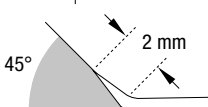
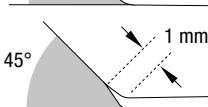
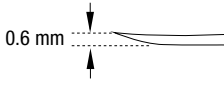
## Guilford Instruments (1)

<p>130241 130242</p>	<p>Angled pick, round, knurled handle, shaft angled 6°, 140 mm overall length, ebony finish, blade tip angled left blade tip angled right</p>	
<p>130243</p>	<p>Footplate pick, round, knurled handle, straight shaft, blade tip angled 15°, 140 mm overall length, ebony finish</p>	
<p>130244 130245 130246 130247</p>	<p>Angled pick, round, knurled handle, shaft angled 6°, 140 mm overall length, ebony finish, blade tip angled 45° blade tip angled 45° blade tip angled 90°, right blade tip angled 90°, left</p>	
<p>130274</p>	<p>Instrument case, for Guilford instruments (not shown)</p>	

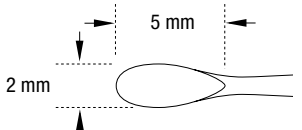
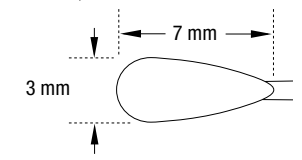
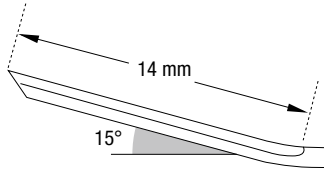
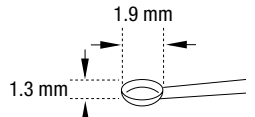
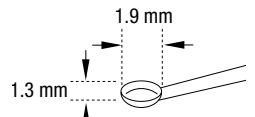
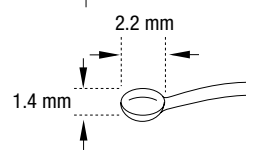
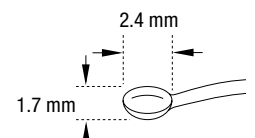
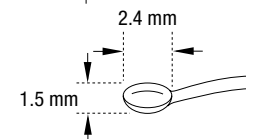
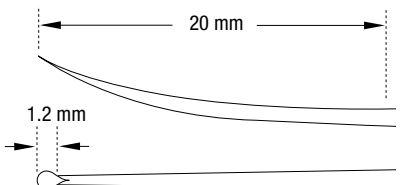
## Guilford Instruments (2)

<p>130248</p>	<p>Mucous membrane knife, round, knurled handle, straight shaft, blade tip angled 25°, 140 mm overall length, ebony finish</p>	
<p>130249</p>	<p>Mucous membrane knife, round, knurled handle, straight shaft, blade tip angled 25°, 140 mm overall length, ebony finish</p>	
<p>130250 130251</p>	<p>Crurotomy saw knife, round, knurled handle, straight shaft, 140 mm overall length, ebony finish, blade tip angled 10°, left blade tip angled 10°, right</p>	
<p>130252</p>	<p>Incudostapedial joint knife, round, knurled handle, straight shaft, blade tip angled 30°, 140 mm overall length, ebony finish</p>	

### Guilford Instruments (3)

	Chisel, round, knurled handle, shaft angled 6°, 140 mm overall length, ebony finish, straight blade tip	
130253	blade tip angled 8°	
130254	blade tip angled 25°	
130255		
130256	Stapedius tendon knife, round, knurled handle, straight shaft, curved blade, 140 mm overall length, ebony finish	
130257	Stapes knife, round, knurled handle, straight shaft, curved blade, 140 mm overall length, ebony finish	
130258	Angled pick, round, knurled handle, straight shaft, 140 mm overall length, ebony finish, blade tip angled 90°, 2 mm blade length	
130259	blade tip angled 45°, 2 mm blade length	
130260	blade tip angled 45°, 1 mm blade length	
130261	Curved mobilization pick, round, knurled handle, straight shaft, curved blade tip, 140 mm overall length, ebony finish	

### Guilford Instruments (4)

130262	Duckbill elevator, round, knurled handle, straight shaft, blunt blade tip, 140 mm overall length ebony finish, small	
130263	large	
130264	Annulus elevator, round, knurled handle, straight shaft, blade tip angled 15°, 140 mm overall length, ebony finish	
130265	Curette, round, knurled handle, straight shaft, 140 mm overall length ebony finish, straight, small	
130266	angled, small	
130267	angled medium	
130268	Curette, round, knurled handle, goose-neck shaft, 140 mm overall length ebony finish, large	
130269	large, cut up	
130270	Mucous membrane knife, round, knurled handle, straight shaft, straight blade tip, 140 mm overall length, ebony finish	



## Hough Instruments (1)

130101	Curette, round, knurled handle, straight shaft, 152 mm overall length, ebony finish, blade tip curved right	
130102	blade tip curved left	
130103	Stapes knife, round, knurled handle, straight shaft, blade tip angled 50°, 152 mm overall length, ebony finish	
130104	Annulus elevator, flat handle, bayonet shaft, blunt blade tip, angled up, 165 mm overall length, ebony finish	
130105	Spatula, round, knurled handle, straight shaft, blunt blade tip, 152 mm overall length, ebony finish	
130106	Curette, flat handle, straight shaft, 152 mm overall length, ebony finish, small	
130107	large	

## Hough Instruments (2)

130108	Derlacki mobilizer, round, knurled handle, shaft angled 10°, blade tip angled 15°, 165 mm overall length, ebony finish	
130109	Big curve pick, round, knurled handle, straight shaft, curved blade tip, 152 mm overall length, ebony finish	
130110	Gouge, round, knurled handle, straight shaft, curved blade tip, 152 mm overall length, ebony finish	
130111	Chisel, round, knurled handle, shaft angled 10°, straight blade tip, 152 mm overall length, ebony finish	
130112	Gentle curve pick, round, knurled handle, straight shaft, curved blade tip, 152 mm overall length, ebony finish	

### Hough Instruments (3)

Whirleybird,  
 round, knurled handle,  
 straight shaft,  
 152 mm overall length,  
 ebony finish,

130113 large right tip  
 130114 large left tip  
 130115 small right tip  
 130116 small left tip

130117 Angled pick,  
 round, knurled handle,  
 shaft angled 15°,  
 angled blade tip,  
 152 mm overall length,  
 ebony finish

130118 Excavator,  
 round, knurled handle,  
 shaft angled 15°,  
 blade tip angled up,  
 152 mm overall length,  
 ebony finish

130119 Angled pick,  
 round, knurled handle,  
 shaft angled 15°,  
 blade tip angled 45°,  
 152 mm overall length,  
 ebony finish

130120 Tiny tendon knife,  
 round, knurled handle,  
 straight shaft,  
 straight blade tip,  
 152 mm overall length,  
 ebony finish



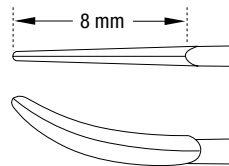
## Complete House Set

130557 House set

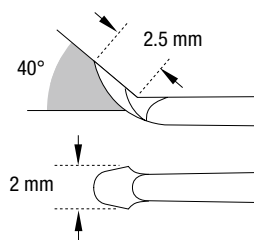
Delivery includes:  
 knives 130561/-62/-69, 230340,  
 separators 130563/-64,  
 needles 130565/-66/-70, elevator 130567, curette 130568,  
 measuring rods 130571/-72/-73, Barbara 130574,  
 hooks 130575/-76/-77/-78, 230336/-37,  
 chisel 130580, wire guide 130581, pick 230331,  
 House Crabtree 550738, dissector Crabtree 230332,  
 stapes 230333, narrow 230334, weapons 230336/-37

## Components House Set (1)

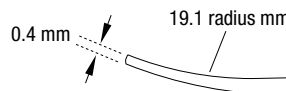
130561 Sickle knife, no. 1,  
 round, knurled handle,  
 straight shaft,  
 straight blade tip,  
 vapor blast finish



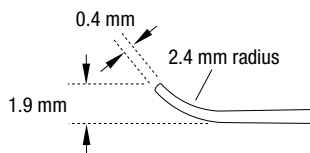
130562 Lancet knife, no. 2,  
 round, knurled handle,  
 straight shaft,  
 blade tip angled 40°,  
 vapor blast finish



130563 Wide separator,  
 flat handle,  
 bayonet shaft,  
 blunt tip,  
 vapor blast finish



130564 Narrow separator,  
 flat handle,  
 bayonet shaft,  
 blunt tip,  
 vapor blast finish

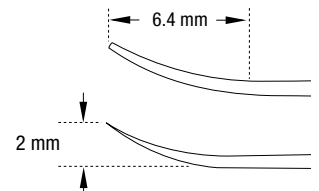


## Components House Set (2)

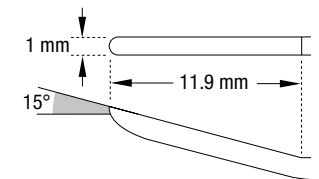
Rosen needle,  
 round, knurled handle,  
 straight shaft,  
 vapor blast finish

130565 blunt tip

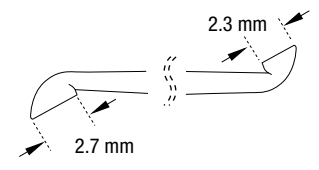
130566 sharp tip



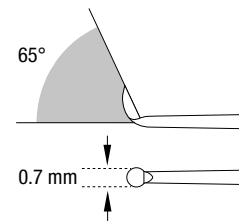
130567 Stapes elevator,  
 round, knurled handle,  
 straight shaft,  
 blade tip angled 15°,  
 vapor blast finish



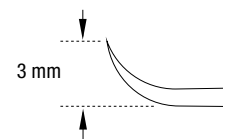
130568 Stapes curette,  
 flat handle,  
 straight shaft,  
 tip cuts up and down,  
 vapor blast finish



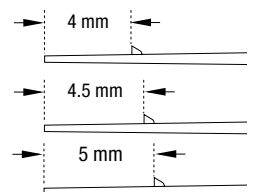
130569 Joint knife,  
 round, knurled handle,  
 straight shaft,  
 blade tip angled 65°,  
 vapor blast finish



130570 Heavy needle,  
 round, knurled handle,  
 straight shaft,  
 curved blade tip,  
 vapor blast finish



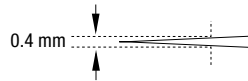
Measuring rod,  
 round, knurled handle,  
 straight shaft,  
 straight tip,  
 vapor blast finish



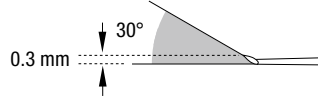
130571 4 mm  
 130572 4.5 mm  
 130573 5 mm

**Components House Set (3)**

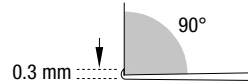
130574 Barbara,  
round, knurled handle,  
straight shaft,  
straight tip,  
vapor blast finish



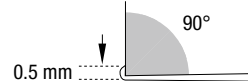
130575 Obtuse hook,  
round, knurled handle,  
shaft angled 30°,  
straight tip,  
vapor blast finish



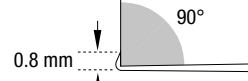
Hook,  
round, knurled handle,  
straight shaft,  
blade tip angled 90°,  
vapor blast finish,



130576 0.3 mm

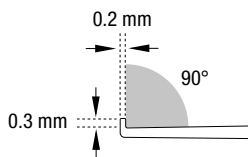


130577 0.5 mm

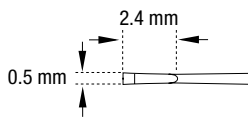


130578 0.8 mm

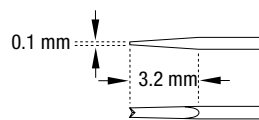
130579 Excavator,  
round, knurled handle,  
straight shaft,  
blade tip angled 90°,  
vapor blast finish



130580 Chisel,  
round, knurled handle,  
straight shaft,  
straight tip,  
vapor blast finish



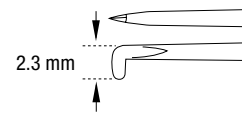
130581 Wire guide,  
round, knurled handle,  
straight shaft,  
straight tip,  
vapor blast finish



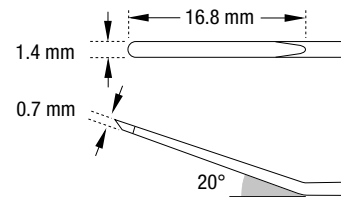
130559 Instrument case,  
for House instruments  
(not shown)

**Components House Set (4)**

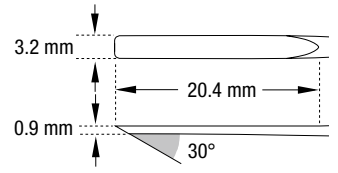
230332 Dissector Crabtree,  
hexagonal handle,  
straight shaft,  
blade tip angled 90°,  
vapor blast finish



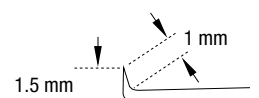
230333 Insulated stapes,  
straight,  
octagonal handle,  
angled shaft,  
vapor blast finish



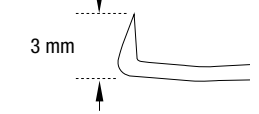
230334 Narrow,  
octagonal handle,  
straight shaft,  
blade tip angled 30°,  
electropolish finish



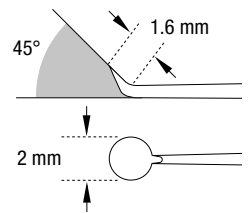
Hook,  
octagonal handle,  
straight shaft,  
angled tip,  
satin finish,  
1.5 mm



230336 1.5 mm  
230337 3 mm

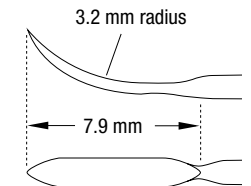


Sheehy weapon,  
octagonal handle,  
straight shaft,  
angled blade tip,  
satin finish,  
2 mm



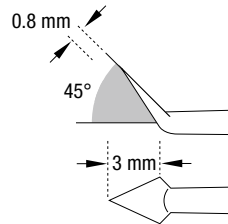
230338 2 mm  
230339 2.4 mm

230340 Sheehy flap knife,  
hexagonal handle,  
straight shaft,  
curved blade tip,  
vapor blast finish

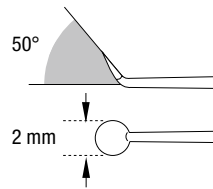


### Jordan Instruments (1)

130381 Angular knife,  
round, knurled handle,  
straight shaft,  
blade tip angled 45°,  
174 mm overall length,  
ebony finish

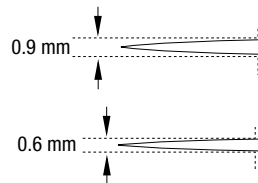


130382 Oval knife,  
round, knurled handle,  
straight shaft,  
blade tip angled 50°,  
174 mm overall length,  
ebony finish



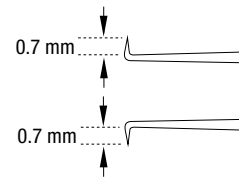
Pick,  
round, knurled handle,  
bayonet shaft,  
straight blade tip,  
165 mm overall length,  
ebony finish,

130383 heavy, 0.9 mm  
130384 slim, 0.6 mm

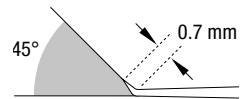


### Jordan Instruments (2)

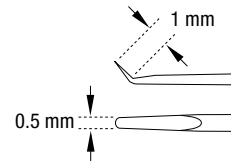
Angled pick,  
round, knurled handle,  
bayonet shaft,  
angled blade tip,  
165 mm overall length,  
ebony finish,  
130389 tip angled right  
130390 tip angled down  
130391 tip angled left



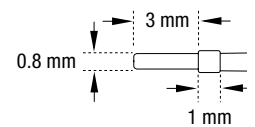
130392 Slim pick,  
round, knurled handle,  
bayonet shaft,  
blade tip angled 45°,  
165 mm overall length,  
ebony finish



130393 Capsule knife,  
round, knurled handle,  
bayonet shaft,  
blade tip angled 45°,  
165 mm overall length,  
ebony finish



130394 Measuring rod,  
round, knurled handle,  
bayonet shaft,  
straight blade tip,  
166 mm overall length,  
ebony finish



## McGee Instruments (1)

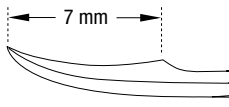
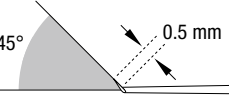
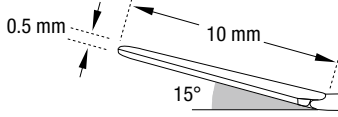
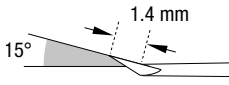
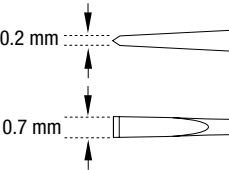
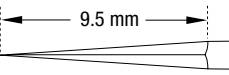
130441	Footplate hook, round, knurled handle, shaft angled 20°, blade tip angled 90°, 154 mm overall length, ebony finish, anterior	
130442	posterior	
130443	Double bladed knife, round, knurled handle, shaft angled 20°, straight blade tip, 154 mm overall length, ebony finish	
130444	Pick, round, knurled handle, shaft angled 20°, straight blade tip, 157 mm overall length, ebony finish, 0.76 mm	
130445	0.5 mm	
130446	Angled pick, round, knurled handle, shaft angled 20°, blade tip angled 20°, 157 mm overall length, ebony finish	
130447	Straight pick, round, knurled handle, shaft angled 20°, straight blade tip, 154 mm overall length, ebony finish	
130448	Flat chisel, round, knurled handle, shaft angled 20°, blade tip slightly angled, 165 mm overall length, ebony finish	

## McGee Instruments (2)

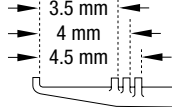
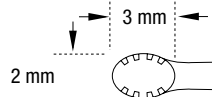
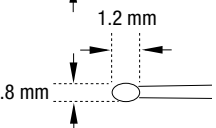
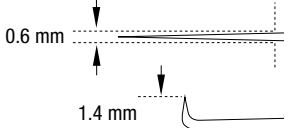

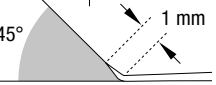
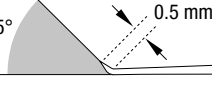
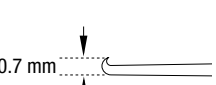
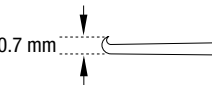
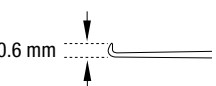
130449	Elevator, flat handle, bayonet shaft, blunt tip, angled up, 158 mm overall length, ebony finish	
130450	Separator, round, knurled handle, straight shaft, blade tip angled 10°, 156 mm overall length, ebony finish	
130451	Anterior canal elevator, round, knurled handle, straight shaft, blunt tip, angled up, 155 mm overall length, ebony finish	
130452	Roller knife, transverse, flat handle, straight shaft, straight blade tip, 158 mm overall length, ebony finish	
130453	Roller knife, sagittal, flat handle, straight shaft, straight blade tip, 158 mm overall length, ebony finish	
130454	Instrument case, for McGee instruments (not shown)	



## Ronis Instruments (1)

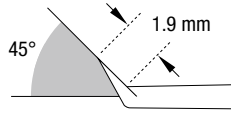
130351	Flap knife, round, knurled handle, straight shaft, straight blade tip, 152 mm overall length, ebony finish	
130352	Periosteal knife, round, knurled handle, straight shaft, blade tip angled 45°, 152 mm overall length, ebony finish	
130353	Elevator, round, knurled handle, straight shaft, blade tip angled up 15°, 152 mm overall length, ebony finish	
130354	Joint separator, round, knurled handle, straight shaft, blade tip angled 15°, 152 mm overall length, ebony finish	
130355	Chisel, round, knurled handle, straight shaft, straight blade tip, 152 mm overall length, ebony finish	
130356	Perforator, round, knurled handle, straight shaft, straight blade tip, 152 mm overall length, ebony finish	

## Ronis Instruments (2)

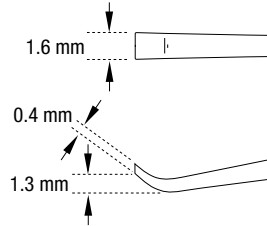
130357	Measuring rod, round, knurled handle, straight shaft, 152 mm overall length, ebony finish	
130358	Curette, flat handle, 152 mm overall length, ebony finish, shaft angled, tip 2 x 2.8 mm	
130359	shaft angled 10°, tip 0.8 x 1.2 mm	
130360	Pick, round, knurled handle, straight shaft, 152 mm overall length, ebony finish, straight blade tip	
130361	angled blade tip, 1.4 mm	
130362	angled blade tip, 0.8 mm	
130363	blade tip angled 45°, 1 mm	
130364	blade tip angled 45°, 0.5 mm	
130365	Fine right angle hook, round, knurled handle, straight shaft, 90° hook, 152 mm overall length, ebony finish	
130366	Fine hook, round, knurled handle, straight shaft, angled blade tip, 152 mm overall length, ebony finish	

## Scheer Instruments (1)

130302 Knife and elevator, round, knurled handle, straight shaft, blade tip angled 45°, 161 mm overall length, ebony finish

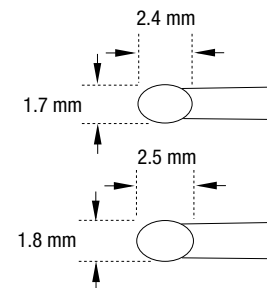


130303 Elevator, round, knurled handle, straight shaft, blunt tip, angled up, 161 mm overall length, ebony finish

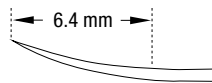


Curette, flat handle, straight shaft, 168 mm overall length, ebony finish,

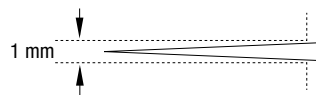
130304 tip 1.7 x 2.4 mm  
130305 tip 1.8 x 2.5 mm



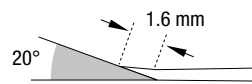
130306 45° angle pick, round, knurled handle, straight shaft, blade tip angled up, 161 mm overall length, ebony finish



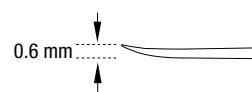
130307 Plastic tube, round, knurled handle, straight shaft, straight blade tip, 161 mm overall length, ebony finish



130308 Footplate pick, round, knurled handle, straight shaft, blade tip angled 20°, 161 mm overall length, ebony finish

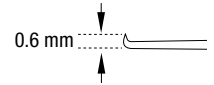


130309 Gelfoam placer, round, knurled handle, straight shaft, curved blade tip, 161 mm overall length, ebony finish

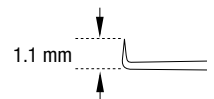


## Scheer Instruments (2)

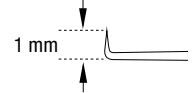
130310 Fine right-angle pick, round, knurled handle, straight shaft, angled blade tip, 162 mm overall length, ebony finish



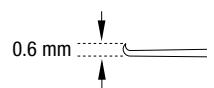
130311 Crura breaker, round, knurled handle, straight shaft, angled blade tip, 162 mm overall length, ebony finish



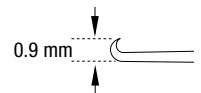
130312 Pick, round, knurled handle, straight shaft, angled blade tip, 162 mm overall length, ebony finish



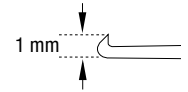
130313 Hook (delicate), round, knurled handle, straight shaft, blade tip curved up, 161 mm overall length, ebony finish



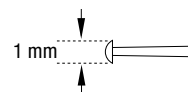
130316 Firm hook, round, knurled handle, straight shaft, blade tip curved up, 161 mm overall length, ebony finish



130317 Firm pick, round, knurled handle, straight shaft, angled blade tip, 162 mm overall length, ebony finish



130318 Oval window rasp, round, knurled handle, straight shaft, straight blade tip, 161 mm overall length, ebony finish



130324 Instrument case, for 18 Scheer instruments (not shown)

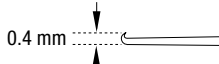
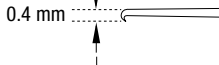

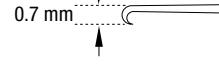
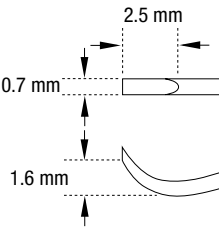
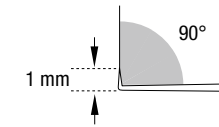
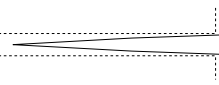
## Complete Schuknecht Set

130225 Complete set

Delivery includes:

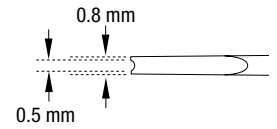
Hooks 130201/-02/-03/-04/-06, elevators 130205/-13/-14, pick 130207, spatula 130208, knives 130211/-12

## Components Schuknecht Set (1)

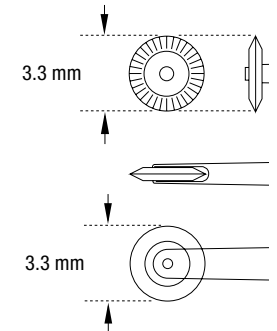
	Hook, round, knurled handle, shaft angled 20°, 154 mm overall length, ebony finish,	
130201	0.4 mm tip, angled up	
130202	0.4 mm tip, angled down	
130203	0.7 mm tip, angled up	
130204	0.7 mm tip, angled down	
130205	Oval window elevator, round, knurled handle, shaft angled 20°, curved blade tip, 154 mm overall length, ebony finish	
130206	Hook, round, knurled handle, shaft angled 20°, tip angled 90°, 154 mm overall length, ebony finish	
130207	Pick, round, knurled handle, shaft angled 20°, straight tip, 154 mm overall length, ebony finish	

## Components Schuknecht Set (2)

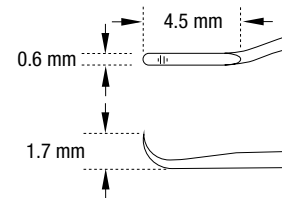
130208 Spatula,  
round, knurled handle,  
shaft angled 20°,  
blunt tip,  
154 mm overall length,  
ebony finish



Roller knife,  
flat handle,  
shaft angled 20°,  
154 mm overall length,  
ebony finish,  
130211 transverse, straight tip  
130212 sagittal, sharp tip



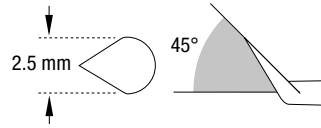
Modified Hough elevator,  
round, knurled handle,  
shaft angled 20°,  
154 mm overall length,  
ebony finish,  
130213 left tip  
130214 right tip



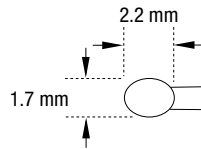
130224 Instrument case,  
for 12 Schuknecht instruments  
(not shown)

## Shea Instruments (1)

130015 Incising knife,  
round, knurled handle,  
shaft angled 10°,  
blade tip angled 45°,  
174 mm overall length,  
ebony finish



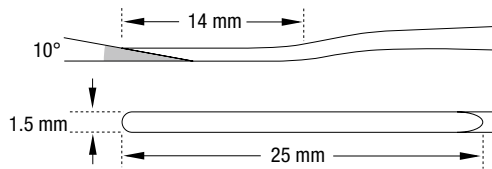
130016-ENT Curette,  
flat handle,  
shaft angled 10°,  
straight tip,  
146 mm overall length,  
ebony finish



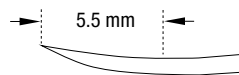
Elevator,  
round, knurled handle,  
straight shaft,  
174 mm overall length,  
ebony finish,

130017 tip angled left 10°

130018 tip angled right 10°



130019 Pick,  
round, knurled handle,  
straight shaft,  
curved tip,  
174 mm overall length,  
ebony finish



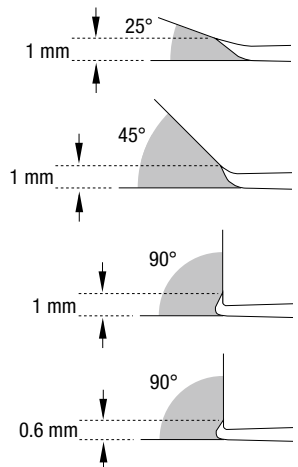
Fenestra hook,  
round, knurled handle,  
straight shaft,  
174 mm overall length,  
ebony finish,

130020 tip angled up 25°

130021-ENT tip angled up 45°

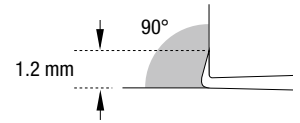
130022 tip angled up 90°, 1 mm

130023 tip angled up 90°, 0.6 mm

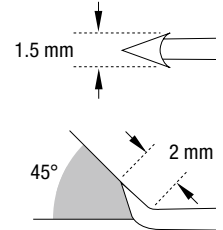


## Shea Instruments (2)

130024 Large angled pick,  
round, knurled handle,  
straight shaft,  
angled tip,  
174 mm overall length,  
ebony finish



130025-ENT Anterior crurotomy knife,  
round, knurled handle,  
straight shaft,  
blade tip angled 45°,  
174 mm overall length,  
ebony finish



130028 Instrument case,  
for 11 Shea instruments  
(not shown)



### Shea/Robertson Instruments (1)

130851 Duckbill elevator, round, knurled handle, straight shaft, curved blunt tip, ebony finish

130852 Reverse elevator, round, knurled handle, straight shaft, tip angled 90°, ebony finish

Excavator, round, knurled handle, straight shaft, tip angled 90°, ebony finish

130853 right

130854 left

130855 Attic dissector, round, knurled handle, straight shaft, tip angled 90°, ebony finish

### Shea/Robertson Instruments (2)

Pick, round, knurled handle, straight shaft, ebony finish

130856 sharp, tip angled 45°

130857 blunt, tip angled 45°

130858 sharp, tip angled 90°

130859 Probe, round, knurled handle, straight shaft, tip angled 90°, ebony finish

130860 Middle ear mirror, round, knurled handle, straight shaft, angled mirror tip, 1.3 x 3.2 mm, vapor blast finish



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## EXPLORENT INSTRUMENTS

### **Manufacturer**

evonos GmbH & Co.KG  
Stockacher Str. 134  
78532 Tuttlingen, Germany

### **Distributor**

Olympus Surgical Technologies Europe  
Olympus Winter & Ibe GmbH  
Kuehnstr. 61  
22045 Hamburg, Germany

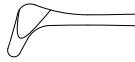
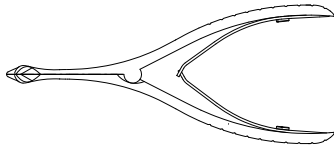




- Specula in standard design or with very thin blades
- Self-retaining and set-screw models
- Ebony-finished models

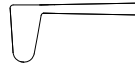
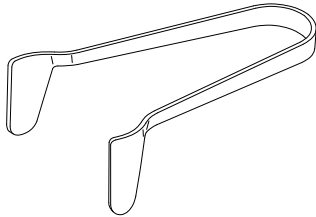
## Nasal Specula

WT140000 Nasal speculum, acc. to Tieck-Halle,  
for babies, size 17.5 x 130

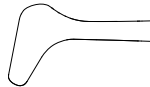
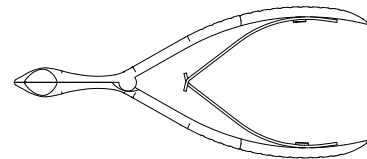


WT141301 Nasal speculum, acc. to Goldsmith,  
size S  
WT141302 size M  
WT141303 size L

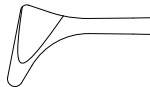
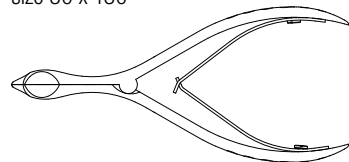
6.5 cm, 20 mm blade length



WT141601 Nasal speculum, acc. to Vienna,  
size 27 x 140  
WT141602 size 30.5 x 140  
WT141603 size 32.5 x 140



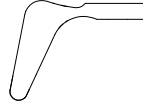
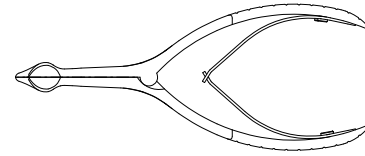
WT141401 Nasal speculum, acc. to Vienna,  
light-weight,  
size 27 x 130  
WT141402 size 30 x 130



## Hartmann Nasal Specula

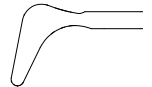
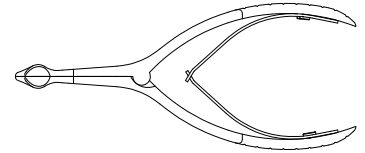
WT143001 Nasal speculum, acc. to Hartmann,  
for adults, size 33.5 x 135

13.5 cm, 33.5 mm blade length



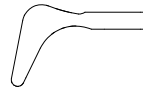
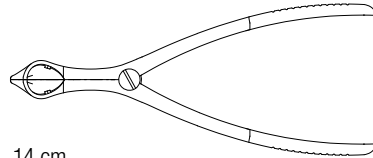
WT143002 Nasal speculum, acc. to Hartmann,  
for children, size 27 x 130

13 cm, 27 mm blade length



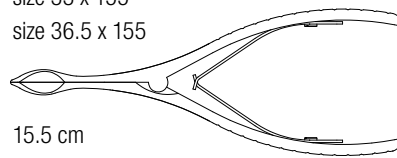
WT143500 Nasal speculum, acc. to Hartmann,  
light-weight, size 33.5 x 140

14 cm,  
33.5 mm blade length



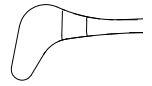
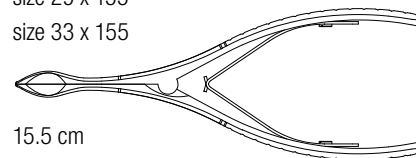
WT141001 Nasal speculum, acc. to Hartmann-Halle,  
size 29 x 155  
WT141002 size 33 x 155  
WT141003 size 36.5 x 155

15.5 cm



WT141501 Nasal speculum, acc. to Hartmann,  
size 25 x 155  
WT141502 size 29 x 155  
WT141503 size 33 x 155

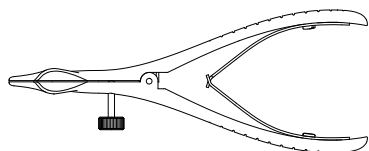
15.5 cm



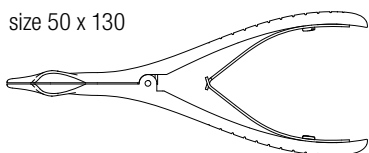
Size = blade length [mm] x total length [mm]

## Cottle Nasal Specula

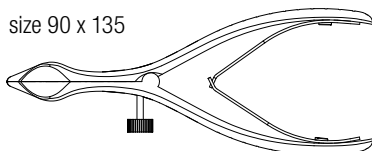
WT400000 Nasal speculum, acc. to Cottle, with set screw, size 50 x 130



WT400010 Nasal speculum, acc. to Cottle, size 50 x 130



Nasal speculum, acc. to Cottle,  
WT400001 size 35 x 135  
WT400002 size 50 x 135  
WT400003 size 75 x 135  
WT400004 size 90 x 135

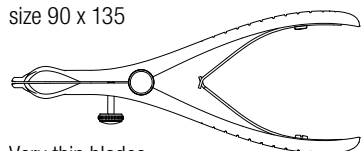


- with set screw

WT400011 Spare spring, for specula WT400001-04



Nasal speculum, acc. to Cottle, black, with set screw,  
WT400501 size 35 x 135  
WT400502 size 45 x 135  
WT400503 size 55 x 135  
WT400504 size 70 x 135  
WT400505 size 90 x 135



Very thin blades

## Cottle Nasal Specula (cont.)

WT400511 Spare screw, for adjustment of specula WT400501-04

WT400512 Spare screw, for specula WT400501-04 (not shown)

## Killian Nasal Specula

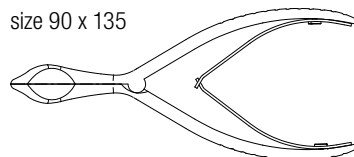
Nasal speculum, acc. to Killian,

WT142001 size 35 x 135

WT142002 size 50 x 135

WT142003 size 75 x 135

WT142004 size 90 x 135



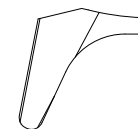
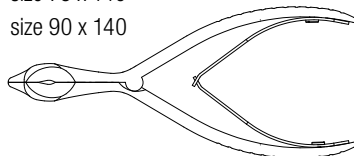
Nasal speculum, acc. to Killian-Struycken,

WT142240 size 40 x 140

WT142255 size 55 x 140

WT142275 size 75 x 140

WT142290 size 90 x 140



Size =blade length [mm] x total length [mm]





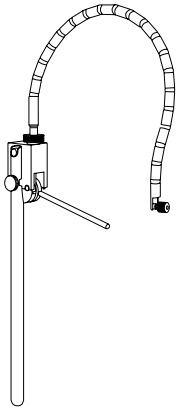


- Complete with holding rod for attachment to operating table
- Optional rotating clamp
- Compatible specula and retractors

## EXPLORENT

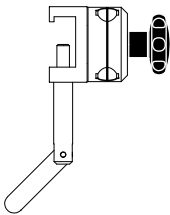
## Flexible Tension Arm

WT218800 Articulated arm,  
flexible,  
with holding rod



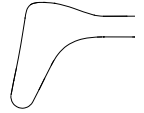
WT218801 Clamp socket,  
for articulated arm WT218800

Attachable to operating table

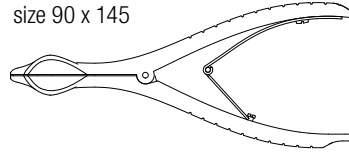


## Instruments for Flexible Tension Arm

Nasal speculum,  
acc. to Cottle-Masing,  
for articulated arm,



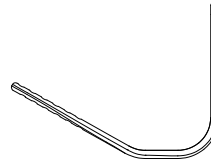
WT497635 size 35 x 145  
WT497650 size 50 x 145  
WT497675 size 75 x 145  
WT497690 size 90 x 145



Size = blade length [mm] x length [mm]

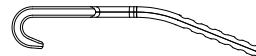
- With set screw and adaption for articulated arm

WT497300 Retractor,  
acc. to Aufricht,  
for articulated arm,  
size 43 x 7 60

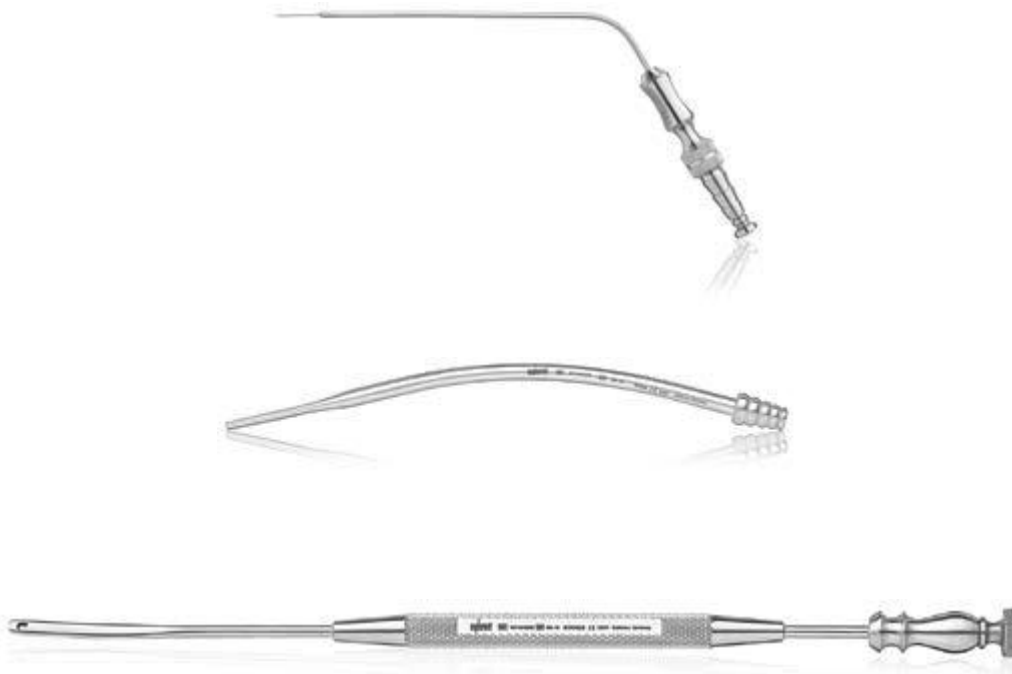


blade..... 43 x 7 mm  
length ..... 60 mm

WT497400 Retractor,  
acc. to Aufricht,  
for articulated arm,  
2 prongs, size 12 x 16



width..... 12 mm  
length ..... 60 mm



## Suction Tubes

Suction tube, acc. to Frazier, with cut-off,  
 WT210012 size 4.0 x 90  
 WT210015 size 5.0 x 90

- Stainless steel

Size = diameter [mm] x working length [mm]

WT458005 Suction tube, curved, flat tip, size 5 x 160

Size = diameter [mm] x total length [mm]

## Cotton Applicators

WT312116 Cotton applicator, triangular, serrated, size 1.5 x 160

Size = diameter [mm] x total length [mm]

## Suction Elevators

Size = diameter [mm] x total length [mm]

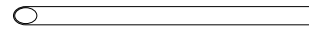
WT405800 Elevator, acc. to Gorney, with suction channel, size 3 x 190



- With mandrin

WT000821 Mandrin, for elevator WT405800, size 3.0 x 190 (not shown)

WT460000 Elevator, acc. to Guillen, with suction channel, bayonet-shaped, size 4.0 x 210

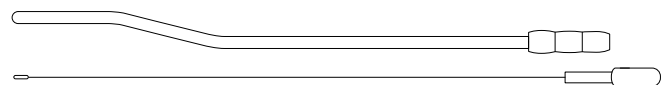
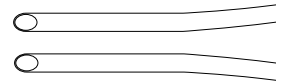


- Sharp
- With mandrin

WT460001 Mandrin, for suction elevator WT460000



Elevator, acc. to Guillen, with suction channel, bayonet-shaped,  
 WT460100 curved left, size 4.0 x 220  
 WT460200 curved right, size 4.0 x 220



- Sharp
- With mandrin

WT408600 Elevator, with suction channel, sharp, size 2.5 x 200



WT000883 Suction elevator, acc. to Ries, size 3.0 x 210



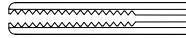
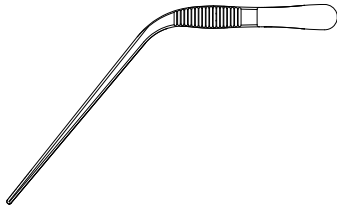


## EXPLORENT

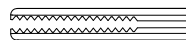
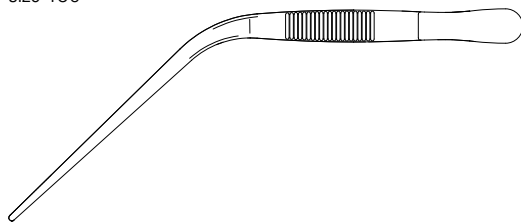
## Nasal Dressing Forceps (Thumb Forceps Type)

WT132013 Thumb forceps,  
acc. to Troeltsch (Wilde),  
size 130

- 75 mm working length
- Serrated, angular



WT132016 Thumb forceps,  
acc. to Troeltsch,  
size 160  
WT132018 size 180



- Working length  
WT132016 ..... 80 mm  
WT132018 ..... 100 mm
- serrated, angular

WT132316 Thumb forceps, acc. to Lucae,  
bayonet shaped,  
size 160

- 85 mm working length
- Serrated, slender



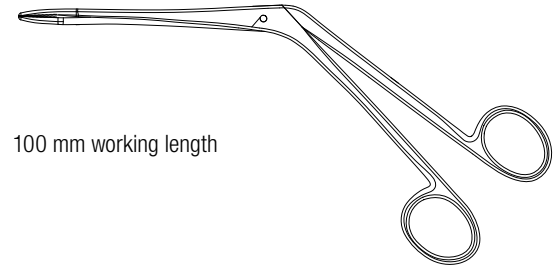
WT132319 Thumb forceps, acc. to Gruenwald,  
bayonet shaped,  
size 190

- 90 mm working length
- Serrated



## Nasal Dressing Forceps

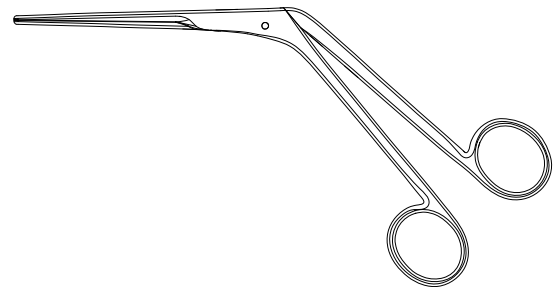
WT322021 Dressing forceps,  
acc. to Hartmann,  
slender, size 205



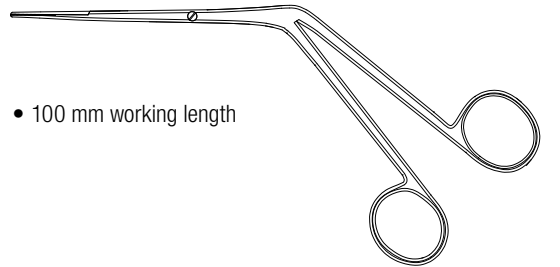
100 mm working length



WT322500 Dressing forceps,  
acc. to Lubet-Barbon,  
size 210



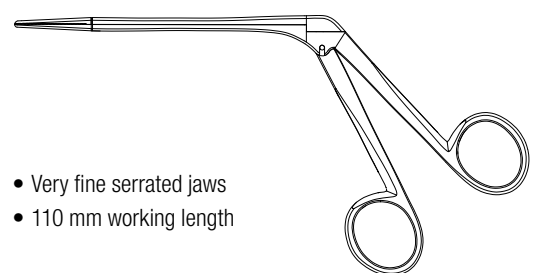
WT323500 Dressing forceps,  
acc. to Westmacott,  
size 200



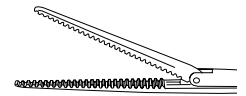
- 100 mm working length



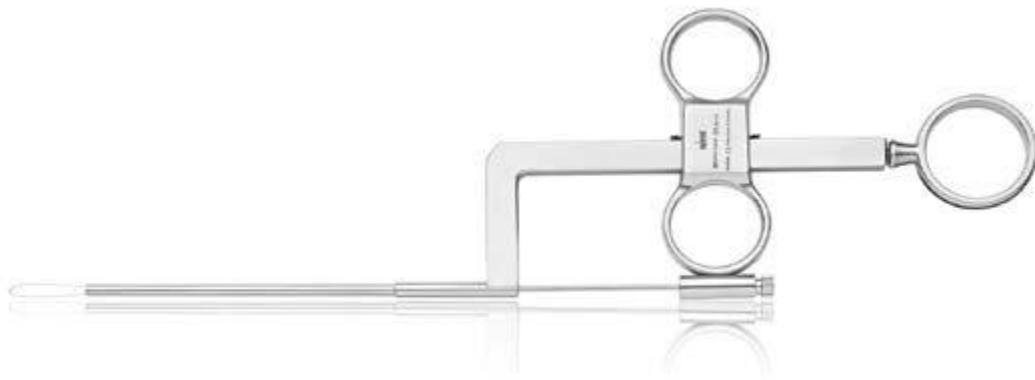
WT324100 Nasal forceps,  
acc. to Hoffmann,  
size 195



- Very fine serrated jaws
- 110 mm working length



size = total length [mm]



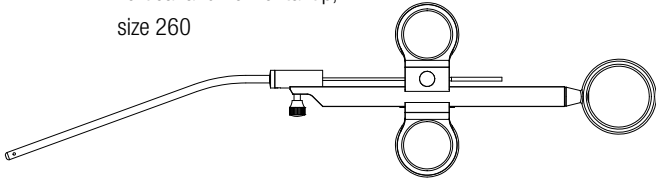
- Angled and bayonet models
- Vertical and horizontal tip
- Snare wires, cut and formed

**EXPLORENT**

## Nasal Polyp Snares

size = total length [mm]

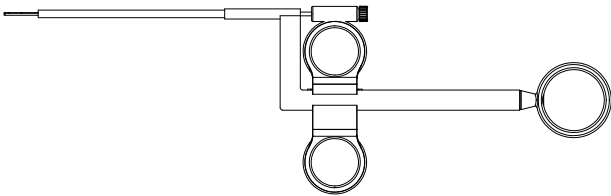
- WT310000 Polyp snare, acc. to Krause-Voss,  
vertical and horizontal tip,  
size 260



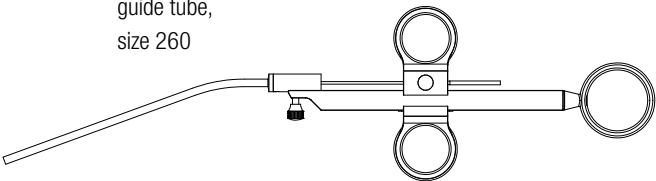
- WT310001 Spare rod, horizontal, for nasal snare  
WT000822 Spare rod, vertical, for nasal snare  
WT310002 Spare tip, horizontal, for nasal snare  
WT310003 Spare tip, vertical, for nasal snare



- WT310200 Snare, acc. to Lange Wilde,  
bayonet, guide tube,  
size 230



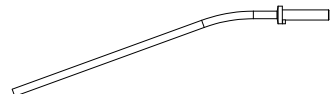
- WT310500 Snare, acc. to Krause,  
guide tube,  
size 260



- WT310501 Spare rod, for nasal snare acc. to Krause, serrated

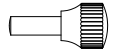


- WT310502 Spare guiding tube, for nasal snare acc. to Krause



## Nasal Polyp Snares (cont.)

- WT310503 Spare screw, for snares



## Snare Wires

- WT311000 Wire, for nasal snare,  
size 0.3 x 100, 12 pcs.  
WT311004 size 0.4 x 100, 12 pcs.  
WT311005 size 0.5 x 100, 12 pcs.  
WT311035 size 0.35 x 100, 12 pcs.  
WT311103 size 0.3 x 100, 100 pcs.  
WT311104 size 0.4 x 100, 100 pcs.  
WT311135 size 0.35 x 100, 100 pcs.



size = diameter [mm] x total length [mm]

- cut and formed

- WT311100 Wire, for nasal snare,  
size 0.4, coil  
(not shown)

size = diameter [mm]



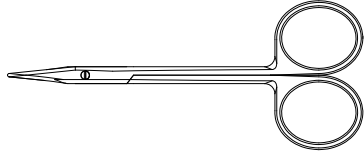


- With tungsten carbide cutting edges for extremely high durability
- Supercut and serrated blade models
- Smooth and very delicate models

## Scissors

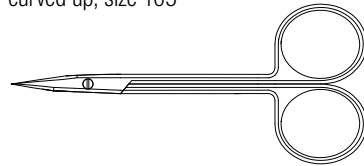
size = total length [mm]

- WT268210 Scissors, acc. to Stevens,  
blunt/blunt,  
straight, size 105
- WT268310 curved, size 105

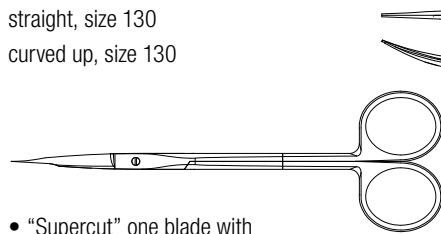


- Tenotomy and vascular scissors

- WT550011 Scissors, acc. to Stevens,  
for tenotomy, sharp/sharp,  
curved up, size 105

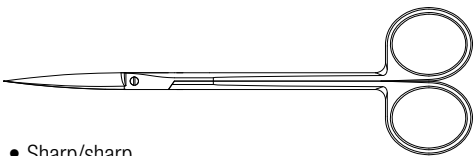


- WT268413 Scissors, acc. to Goldman-Fox,  
with tungsten carbide,  
straight, size 130
- WT268713 curved up, size 130



- "Supercut" one blade with micro-serration, other blade with knife edge

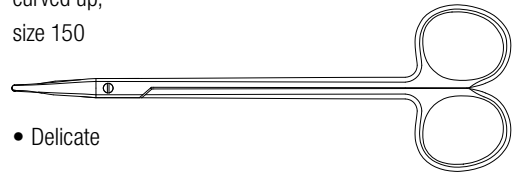
- WT276514 Scissors, acc. to Joseph,  
straight, size 140
- WT276614 curved up, size 140
- WT276714 with tungsten carbide,  
straight, size 140
- WT276814 with tungsten carbide,  
curved up, size 140



- Sharp/sharp

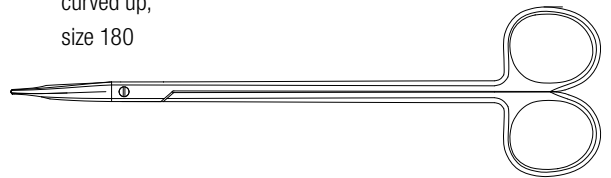
## Scissors (cont.)

- WT279615 Dissection scissors,  
acc. to Reynolds,  
curved up,  
size 150

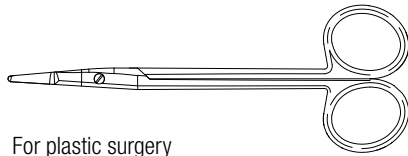


- Delicate

- WT279618 Dissection scissors,  
acc. to Reynolds,  
curved up,  
size 180

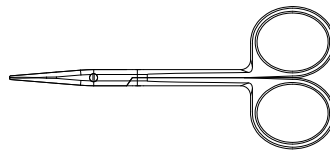


- WT438712 Scissors, acc. to Kilner,  
curved up, size 120
- WT438813 with tungsten carbide, curved up, size 120
- WT438714 curved up, size 135









For plastic surgery

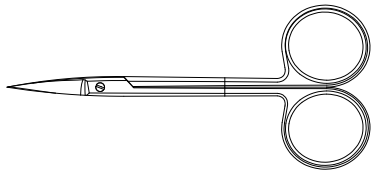
- Strabismus scissors,  
blunt/blunt,
- WT277010 straight, size 105
- WT277110 curved up, size 105
- WT277212 straight, size 115
- WT277012 with tungsten carbide, straight, size 115
- WT277312 curved up, size 115
- WT277112 with tungsten carbide, curved up, size 115






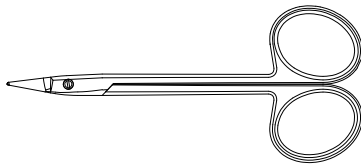
size = total length [mm]



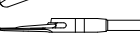
## Scissors (cont.)

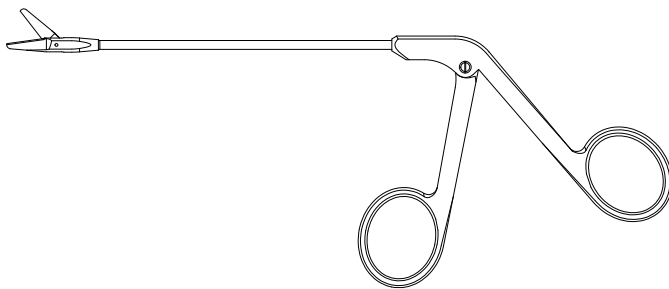
	Iris scissors, sharp/sharp,	
WT277510	straight, size 105	
WT277610	curved up, size 105	
WT277712	straight, size 115	
WT277512	with tungsten carbide, straight, size 115	
WT277812	curved up, size 115	
WT277612	with tungsten carbide, curved up, size 115	



	Scissors, acc. to Walter, blunt/blunt, angled, size 100	
WT438410		
WT438411	sharp/sharp, angled, size 100	
		




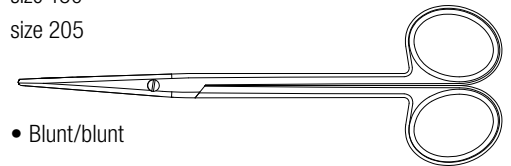
	Nasal scissors, serrated,	
WT326200	straight, size 130	
WT326201	curved to left, size 130	
WT326202	curved to right, size 130	




size = working length [mm]

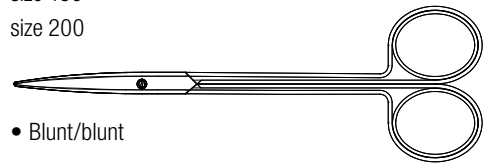
## Metzenbaum Scissors

	size = total length [mm]	
	Dissection scissors, acc. to Metzenbaum, curved up,	
WT542014	size 145	
WT542018	size 180	
WT542020	size 205	




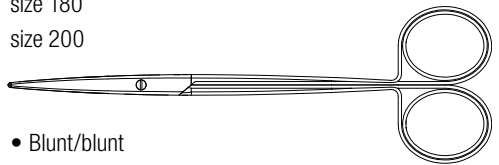
• Blunt/blunt

	Dissection scissors, acc. to Metzenbaum-Fino, curved up,	
WT542114	size 140	
WT542118	size 180	
WT542120	size 200	




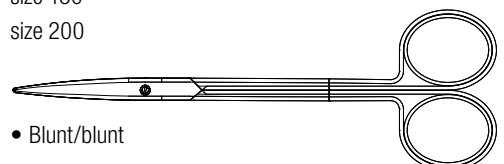
• Blunt/blunt

	Dissection scissors, acc. to Metzenbaum-Fino, with tungsten carbide, curved up,	
WT542414	size 145	
WT542418	size 180	
WT542420	size 200	



• Blunt/blunt

	Dissection scissors, acc. to Metzenbaum, with tungsten carbide, curved up,	
WT542214	size 145	
WT542218	size 180	
WT542220	size 200	

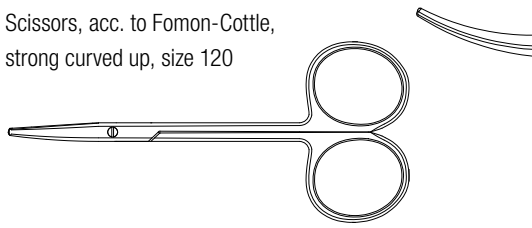


• Blunt/blunt

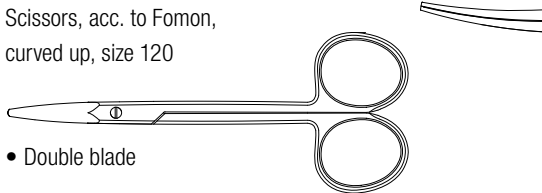
## Fomon Scissors

size = total length [mm]

WT438512 Scissors, acc. to Fomon-Cottle, strong curved up, size 120



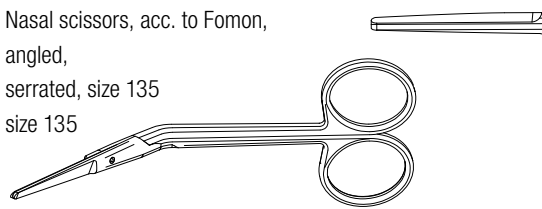
WT438612 Scissors, acc. to Fomon, curved up, size 120



- Double blade

Nasal scissors, acc. to Fomon, angled, serrated, size 135

WT439000



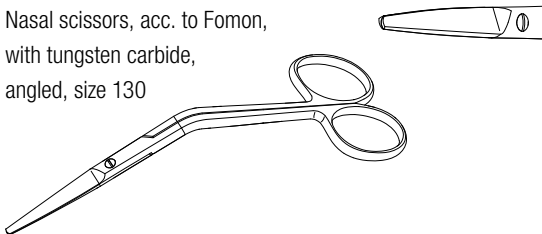
WT439001

size 135

- Delicate

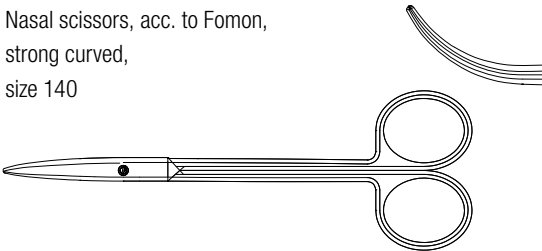
Nasal scissors, acc. to Fomon, with tungsten carbide, angled, size 130

WT439002



Nasal scissors, acc. to Fomon, strong curved, size 140

WT550393

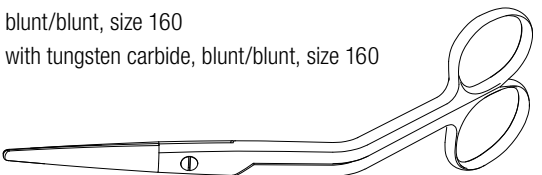


## Cottle Scissors

Nasal scissors, acc. to Cottle heavy design,

WT439100 blunt/blunt, size 160

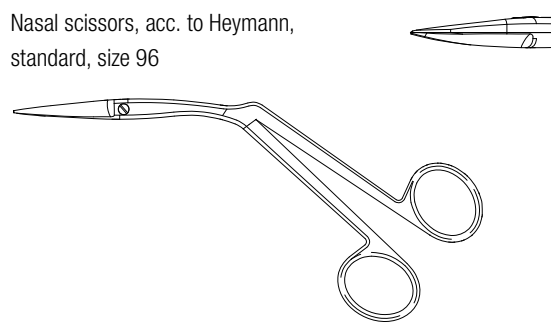
WT439200 with tungsten carbide, blunt/blunt, size 160



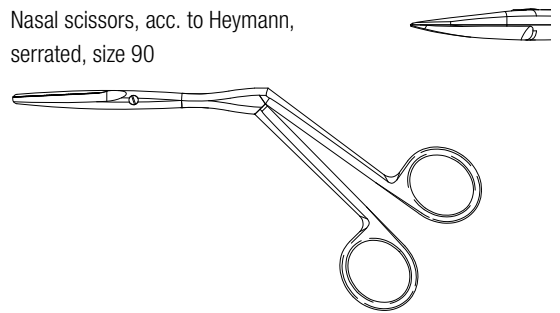
## Heymann Scissors

size = working length [mm]

WT326000 Nasal scissors, acc. to Heymann, standard, size 96



WT326100 Nasal scissors, acc. to Heymann, serrated, size 90



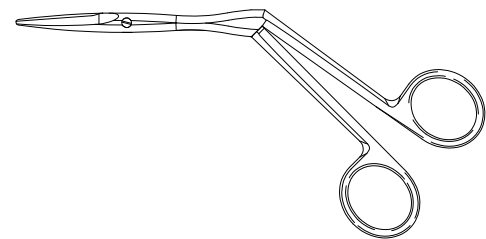
Nasal scissors, acc. to Heymann, size 90

WT326009

size 90

WT326011

size 110

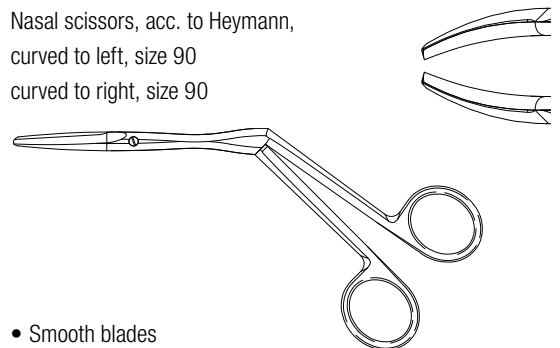


Nasal scissors, acc. to Heymann, curved to left, size 90

WT326101

WT326102

curved to right, size 90



- Smooth blades

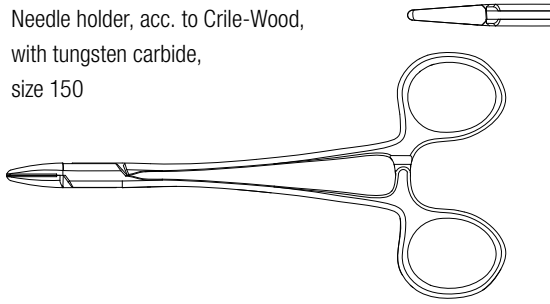


- With tungsten carbide inserts
- Slender shaped models
- Smooth and delicate models

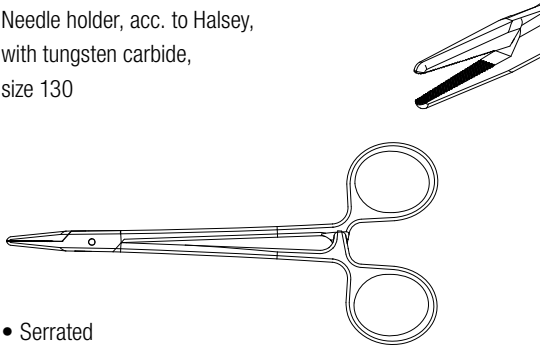
## Needle Holders

size = total length [mm]

WT213015 Needle holder, acc. to Crile-Wood,  
with tungsten carbide,  
size 150

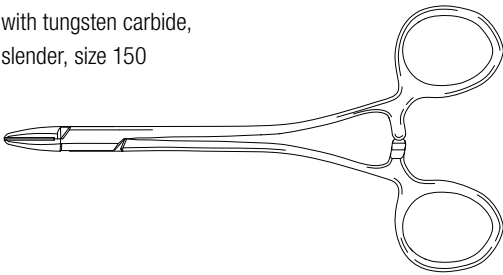


WT213113 Needle holder, acc. to Halsey,  
with tungsten carbide,  
size 130



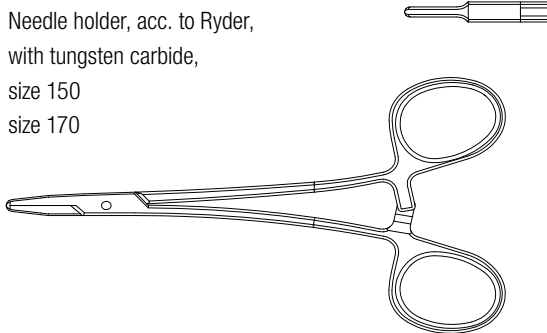
- Serrated

WT467015 Needle holder, acc. to Senning,  
with tungsten carbide,  
slender, size 150



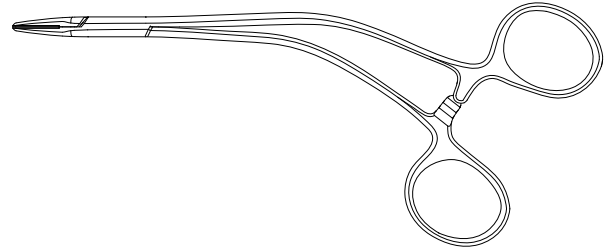
Needle holder, acc. to Ryder,  
with tungsten carbide,

WT467115 size 150  
WT467017 size 170

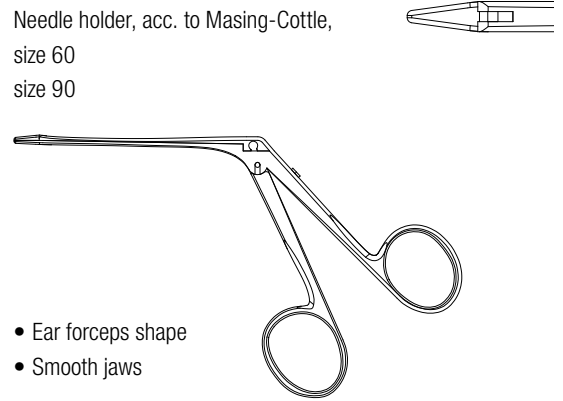


## Needle Holders (cont.)

WT467218 Needle holder,  
with tungsten carbide,  
delicate, size 180



WT468006 Needle holder, acc. to Masing-Cottle,  
size 60  
WT468009 size 90



- Ear forceps shape
- Smooth jaws

size = working length [mm]

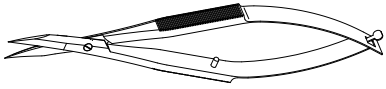


- Very delicate models
- Models with tungsten carbide inserts
- With flat handle and lock
- Models with smooth jaws

**EXPLORENT**

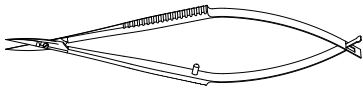
## Micro Scissors

WT430230 Scissors, acc. to Westcott,  
micro, curved up,  
sharp, size 115  
WT430231 blunt, size 115



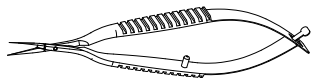
- Tenotomy scissors

WT430250 Iris scissors,  
micro, sharp,  
straight, size 100  
WT430251 curved up, size 100

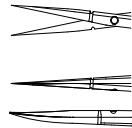
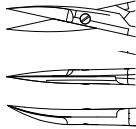
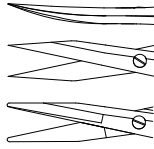


- Pointed

WT430330 Scissors, acc. to Vannas,  
micro,  
straight, size 85  
WT430331 curved up, size 85

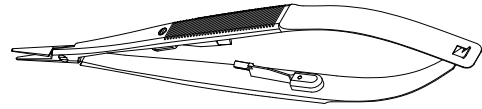


- Very delicate



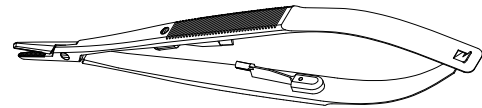
## Micro Needle Holders

WT430432 Needle holder, acc. to Castroviejo,  
micro, smooth,  
size 140

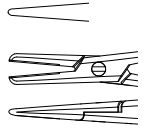
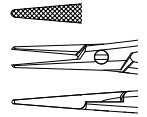


- Very delicate
- Straight, with lock

WT430450 Needle holder, acc. to Castroviejo,  
micro, with tungsten carbide,  
serrated, size 140  
WT430452 size 140



- Straight, with lock
- Smooth jaws



size = total length [mm]

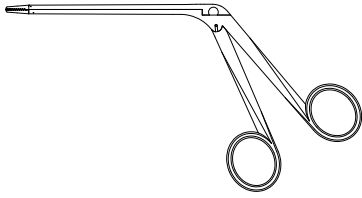




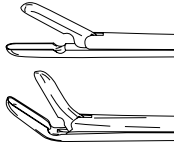
- Through-cutting models
- Models with serrated jaws
- Extra-delicate models

## EXPLORENT

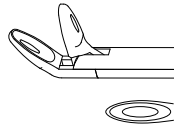
## Nasal Forceps



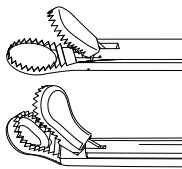
- WT327001 Nasal forceps, acc. to Takahashi,  
small, straight, size 3 x 100
- WT327002 curved up, straight, 3 x 100
- WT327003 large, straight, size 110



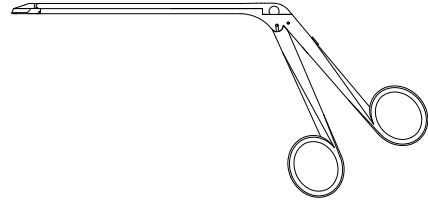
- WT330300 Nasal forceps, acc. to Struempel-Voss,  
curved up, delicate,  
size 2.5 x 110



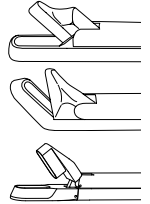
- Nasal forceps, acc. to Watson-Williams,  
serrated,  
size 100
- WT334000 size 100
- WT334045 curved up 45, size 100



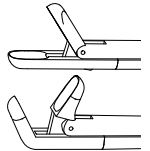
## Moriyama Punch Forceps



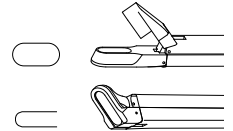
- Punch forceps, acc. to Moriyama,  
through-cutting,  
WT326801 delicate, straight, size 1.5 x 125
- WT326802 delicate, curved up, size 1.5 x 125
- WT326803 sheath curved up, size 1.5 x 125
- WT326815 straight, size 1.3 x 125
- WT326808 curved up, size 140



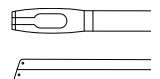
- Punch forceps, acc. to Moriyama,  
with oval cups,  
WT326804 straight, size 3.0 x 140
- WT326805 curved up, size 3.0 x 140
- WT326806 sheath curved up, size 140
- WT326809 curved up, size 140



- Punch forceps, acc. to Moriyama,  
through-cutting,  
WT326810 straight, size 105
- WT326811 straight, size 3.0 x 105
- WT326812 curved up, size 105
- WT326813 curved up, size 2.0 x 100
- WT326814 large, curved up, size 105



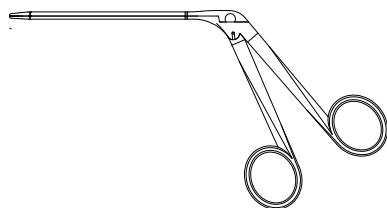
- WT326807 Punch forceps, acc. to Moriyama,  
backward cutting,  
sheath curved up, size 2.7 x 130



- Through-cutting
- Oval cups

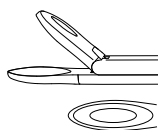
size = jaws width [mm] x working length [mm]

### Blakesley Nasal Forceps



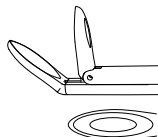
Nasal forceps, acc. to Blakesley,  
straight,

- WT330000 size 3.0 x 115
- WT330001 size 3.5 x 115
- WT330002 size 4.0 x 115
- WT330003 size 5.0 x 115
- WT330004 size 6.0 x 115



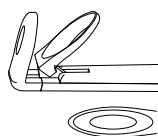
Nasal forceps, acc. to Blakesley,  
curved up 45,

- WT330100 size 3.0 x 115
- WT330101 size 3.5 x 115
- WT330102 size 4.0 x 115
- WT330103 size 5.2 x 115
- WT330104 size 6.0 x 115

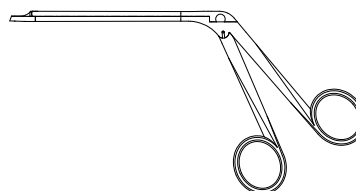


Nasal forceps, acc. to Blakesley,  
curved up 90,

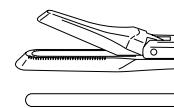
- WT330200 size 3.0 x 115
- WT330201 size 3.5 x 115
- WT330202 size 4.0 x 115
- WT330203 size 5.0 x 115



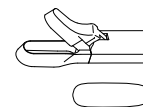
### Punch Forceps



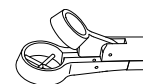
WT327500 Punch forceps, acc. to Struycken,  
size 1.2 x 110



Punch forceps, acc. to Gruenwald-Henke,  
WT328501 size 2.8 x 105  
WT328502 size 3.4 x 105



Punch forceps, acc. to Hartmann,  
with basket,  
WT329001 size 5.0 x 110  
WT329002 size 8.0 x 100  
WT329003 size 9.0 x 100  
WT329004 size 10 x 100

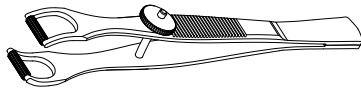


size = jaws width [mm] x working length [mm]



## Cottle Thumb Forceps

WT401000 Thumb forceps, columella, acc. to Cottle, with screw, size 105

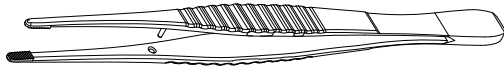


- 11.5 mm width

WT401001 Spare screw, for thumb forceps WT401000

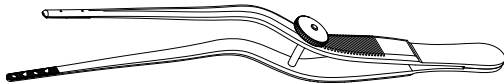


WT411000 Thumb forceps, for insertion, acc. to Cottle, size 155



- Serrated

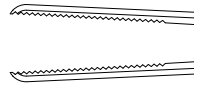
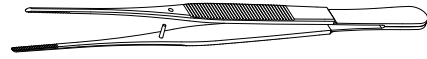
WT427015 Thumb forceps, for dissection, acc. to Cottle, bayonet-shaped, size 150



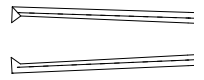
- With fixation screw
- Serrated and with thorns

## Semken Thumb Forceps

WT208612 Thumb forceps, acc. to Semken, delicate, size 125  
WT208615 delicate, size 150

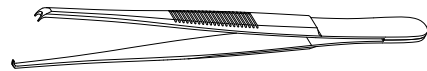


WT208712 Thumb forceps, for dissection, acc. to Semken, delicate, size 125  
WT208715 delicate, size 150



## Thumb Forceps

WT428000 Thumb forceps, for cartilage, acc. to Hinderer, size 125



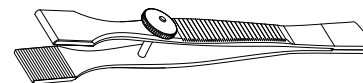
- 2 x 2 teeth

WT209415 Thumb forceps, for dissection, acc. to Gillies, size 150








- 1 x 2 teeth

WT401010 Thumb forceps, for cartilage, acc. to Hildmann, serrated jaws, size 105

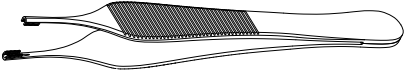
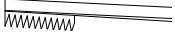
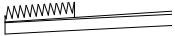



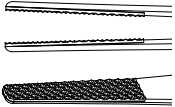


size = total length [mm]

## Graefe Thumb Forceps

		
	Thumb forceps, acc. to Graefe,	
WT209210	straight, size 100	
WT209220	curved, size 0.7 x 100	
	<ul style="list-style-type: none"> <li>• Serrated</li> </ul>	
WT209310	Thumb forceps, for dissection, acc. to Graefe, straight, size 100	
	<ul style="list-style-type: none"> <li>• Tip 0.7 mm</li> <li>• 1 x 2 teeth</li> </ul>	
WT426011	Thumb forceps, fixation , acc. to Graefe, 7 x 8 teeth, size 110	

## Adson Thumb Forceps

		
	Thumb forceps, for dissection, acc. to Adson-Brown,	
WT425012	7 x 7 teeth, size 120	
WT425512	with tungsten carbide, size 120	
WT425112	Thumb forceps, acc. to Adson, size 120	
	<ul style="list-style-type: none"> <li>• Delicate, serrated</li> </ul>	
WT425212	Thumb forceps, for dissection, acc. to Adson, size 120	
WT425213	serrated jaws, size 120	
	<ul style="list-style-type: none"> <li>• 1 x 2 teeth</li> </ul>	
WT425312	Thumb forceps, acc. to Adson, micro, very delicate, size 120	
WT425315	very delicate, size 150	
WT425412	for dissection, very delicate, size 120	
WT425612	Thumb forceps, for dissection, acc. to Adson, with tungsten carbide, size 1.7 x 120	
WT425712	size 125	

size = total length [mm]

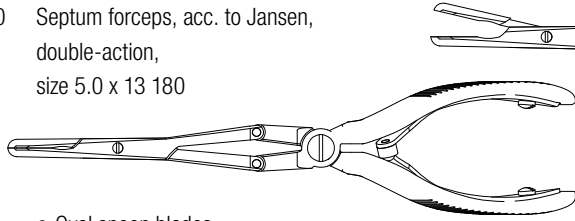
size = diameter [mm] x total length [mm]



- Models with double-action transmission
- Serrated jaws morcelizer
- Detachable models
- Forceps for nasal hump resection

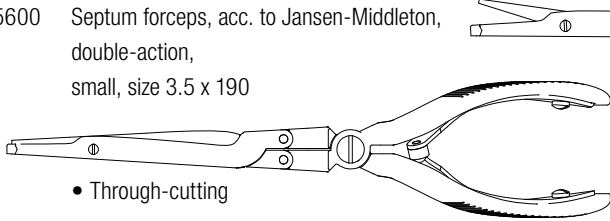
## Double-Action Forceps

WT335500 Septum forceps, acc. to Jansen, double-action, size 5.0 x 13 180



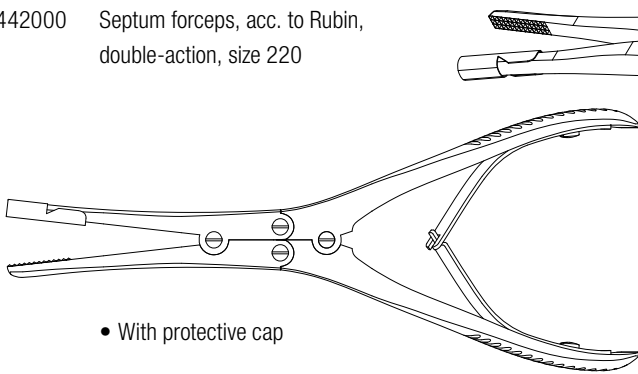
- Oval spoon blades

WT335600 Septum forceps, acc. to Jansen-Middleton, double-action, small, size 3.5 x 190



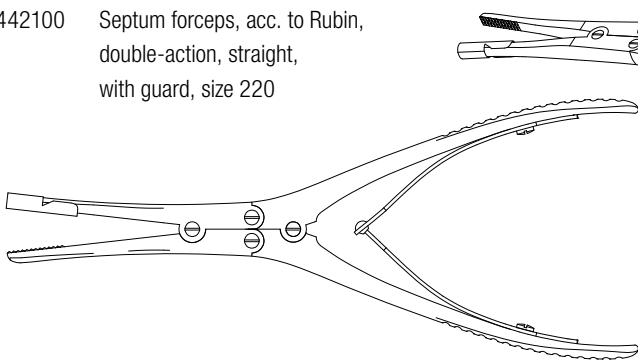
- Through-cutting

WT442000 Septum forceps, acc. to Rubin, double-action, size 220



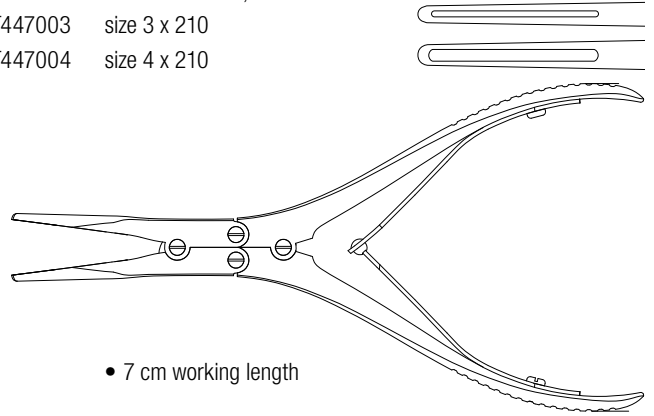
- With protective cap

WT442100 Septum forceps, acc. to Rubin, double-action, straight, with guard, size 220



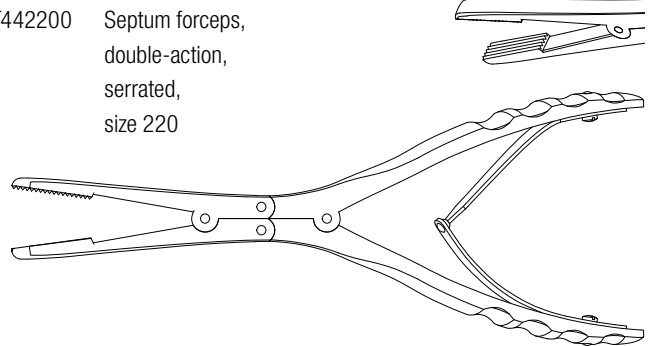
## Double-Action Forceps

Turbinate forceps, acc. to Kressner, size 3 x 210  
WT447003  
WT447004 size 4 x 210



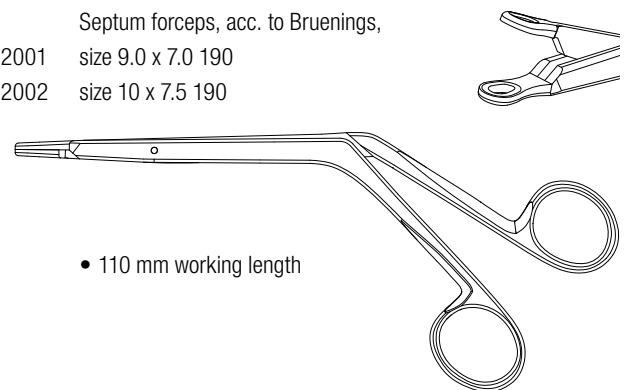
- 7 cm working length

WT442200 Septum forceps, double-action, serrated, size 220



## Septum Forceps

Septum forceps, acc. to Bruenings, size 9.0 x 7.0 190  
WT332001  
WT332002 size 10 x 7.5 190

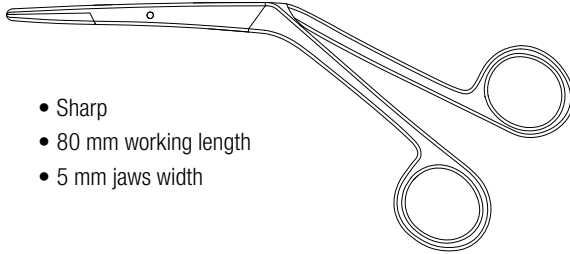
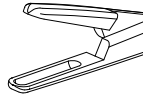


- 110 mm working length



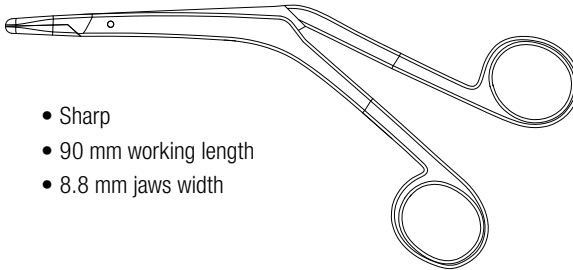
## Septum Forceps (cont.)

WT333000 Septum forceps, acc. to Craig, straight, size 180



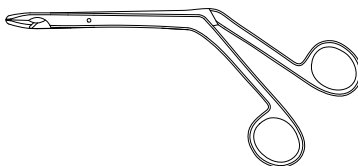
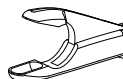
- Sharp
- 80 mm working length
- 5 mm jaws width

WT333100 Septum forceps, acc. to Craig-Domnick, curved left, size 180



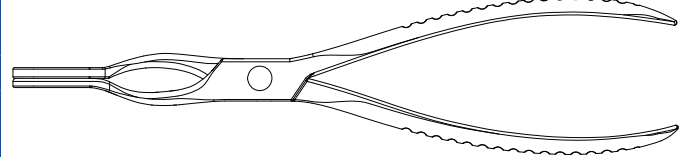
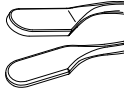
- Sharp
- 90 mm working length
- 8.8 mm jaws width

WT333200 Septum forceps, acc. to Knight, size 6.0 x 110



## Septum Straightening Forceps

WT443000 Septum forceps, acc. to Cottle-Walsham, detachable, size 215

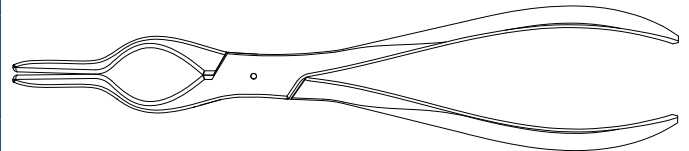
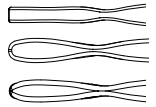


Septum forceps, acc. to Cottle-Walsham, straight, size 230

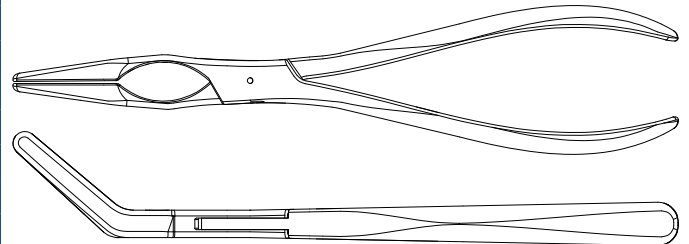
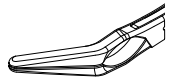
WT444000

WT444101 left, size 230

WT444102 right, size 230



WT445000 Septum forceps, acc. to Ash, angled, size 220

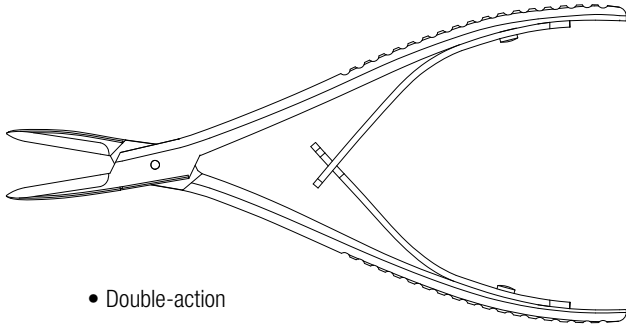
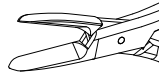


size = total length [mm]

size = cutting width [mm] x total length [mm]

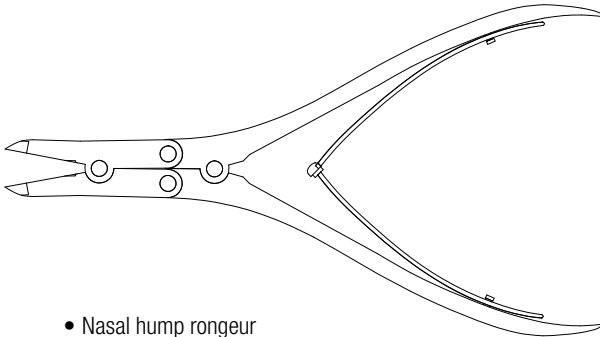
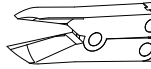
## Nasal Bone Forceps

WT440000 Bone cutting forceps, acc. to Cottle-Kazanjian, straight, size 185



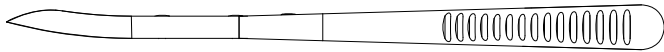
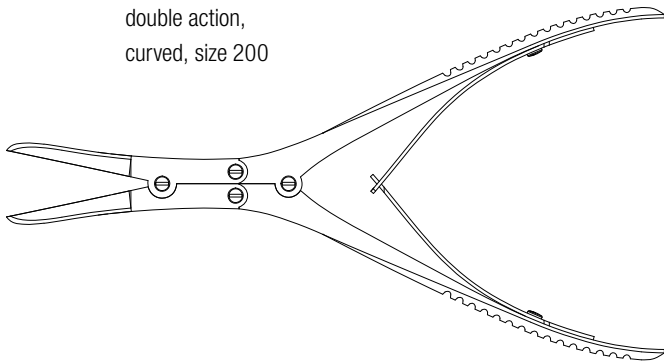
- Double-action

WT440700 Nasal forceps, acc. to Rowland, double-action, straight, size 180



- Nasal hump rongeur

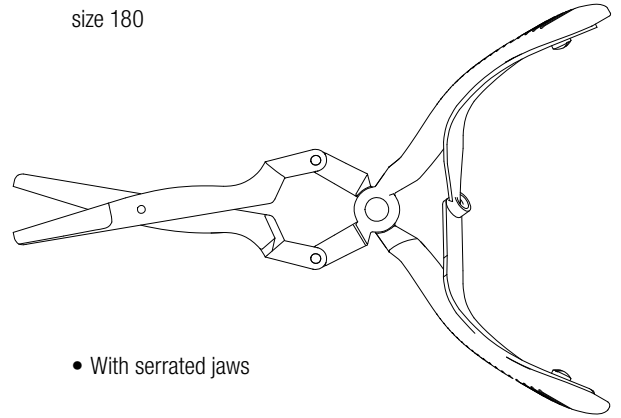
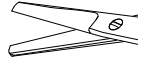
WT440800 Nasal forceps, acc. to Meyer, double action, curved, size 200



size = total length [mm]

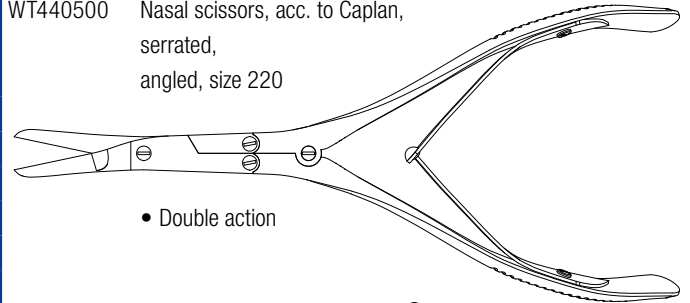
## Nasal Septum Scissors

WT441500 Septum scissors, acc. to Becker, double action, size 180

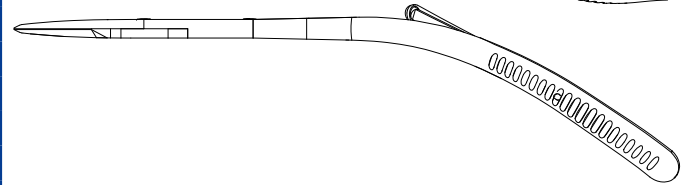


- With serrated jaws

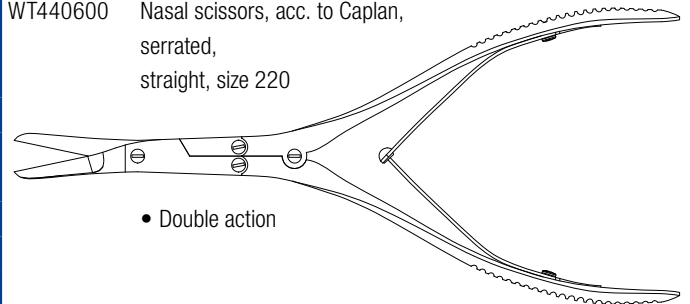
WT440500 Nasal scissors, acc. to Caplan, serrated, angled, size 220



- Double action



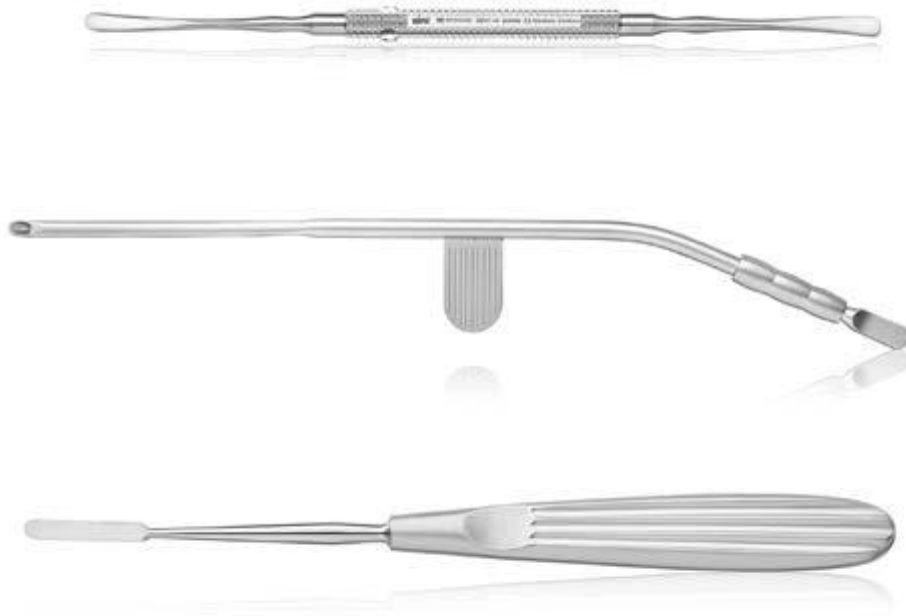
WT440600 Nasal scissors, acc. to Caplan, serrated, straight, size 220



- Double action



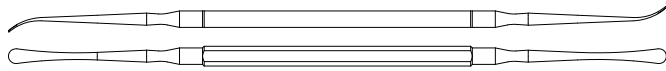
size = total length [mm]



- Double-ended models
- Very sharp suction elevators
- Delicate models

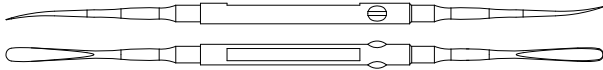
## Double-Ended Elevators

WT315000 Elevator, acc. to Freer,  
double-ended, American type, size 200



- Sharp/blunt
- 4.5 mm width

WT315100 Elevator, acc. to Freer,  
double-ended, sharp/blunt, size 180



- 4.7 mm width

WT315600 Elevator, acc. to Freer-Joseph,  
double-ended, with raspatory, size 200



- 4.5 and 3.5 mm width

Elevator, acc. to Killian,  
double-ended, sharp/blunt,

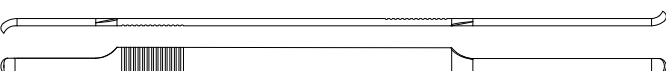
WT316000 size 190

WT316100 size 230



- 6 mm width

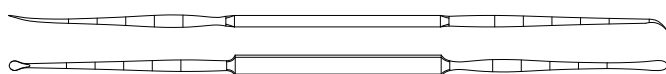
WT402500 Elevator, acc. to McKenty,  
double-ended, short/long, size 5.0 x 215



Elevator, acc. to Cottle,  
double-ended,

WT404500 sharp/blunt, size 230

WT404800 graduated, size 200

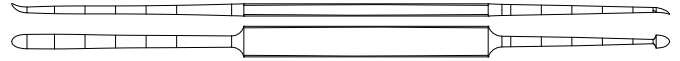


## Double-Ended Elevators (cont.)

Elevator, acc. to Masing,  
double-ended, sharp/blunt,

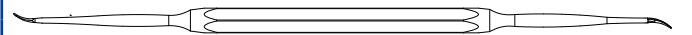
WT405000 size 230

WT405100 size 215

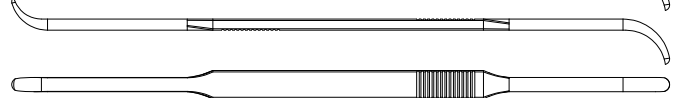


- graduated

WT550436 Elevator, acc. to Cottle,  
size 200



WT405500 Elevator, acc. to Cottle,  
double-ended, size 225



- Slight/strong curved
- 5 mm width

WT405600 Elevator, acc. to Pennington,  
double-ended size 210



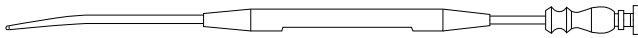
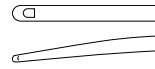
- For right and left side
- 5.8 mm cutting width

WT405700 Elevator, acc. to Pierce,  
double-ended, size 210



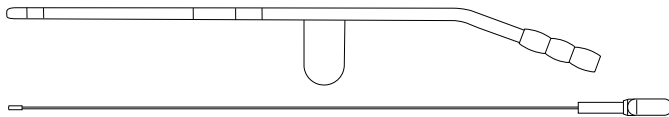
## Suction Elevators

WT405800 Elevator, acc. to Gorney, with suction channel, size 3 x 190



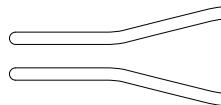
- With mandrin

WT460000 Elevator, acc. to Guillen, with suction channel, bayonet-shaped, size 4.0 x 210

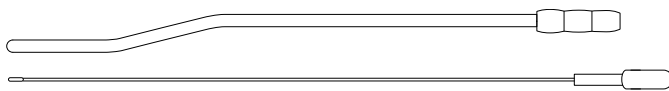


- Sharp
- With mandrin

Elevator, acc. to Guillen, with suction channel, bayonet-shaped,



WT460100 curved left, size 4.0 x 220  
WT460200 curved right, size 4.0 x 220



- Sharp
- With mandrin

WT460001 Mandrin, for suction elevator WT460000

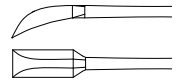


- For elevators WT460000/-100/-200

size = total length [mm]  
size = diameter [mm] x total length [mm]

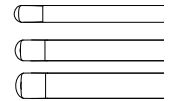
## Elevators

WT315200 Elevator, acc. to Freer, rectangular working part, curved, size 170



- Sharp cornered end
- 4 mm width

Elevator, acc. to McKenty,  
WT402003 size 3.0 x 145  
WT402004 size 4.0 x 145  
WT402005 size 5.0 x 145



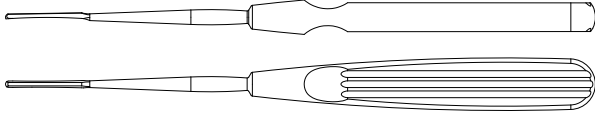
WT230334 Elevator, acc. to Narrow, House type, straight, size 187



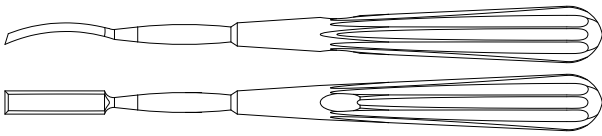
size = total length [mm]  
size = width [mm] x total length [mm]

## Raspatories

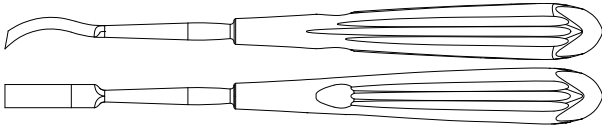
- Raspatory, acc. to Lempert (Joseph),  
slightly curved,
- WT208001 2.0 x 175
  - WT208002 3.0 x 175
  - WT208003 4.0 x 175
  - WT208004 5.0 x 175



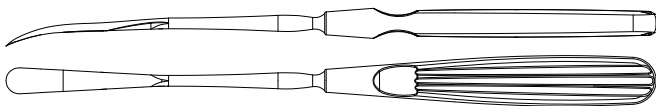
- WT208107 Raspatory, acc. to Lempert,  
curved,  
size 7.0 x 180



- WT550589 Raspatory, acc. to Lempert,  
bayonet curved,  
size 7.0 x 30 x 180



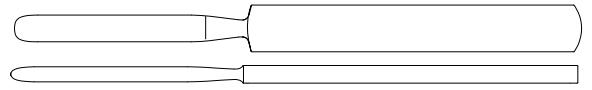
- WT316500 Raspatory, acc. to Cottle,  
curved,  
size 8.0 x 195



- Sharp

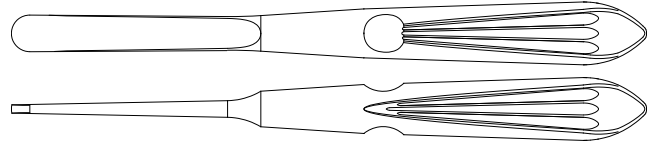
## Treatment of Nasal Fractures

- WT460500 Elevator,  
heavy design, size 170



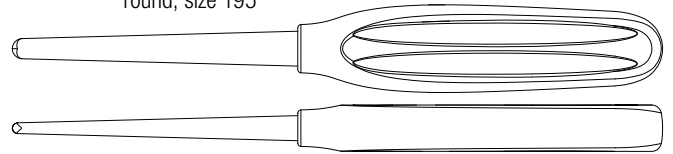
- 8 mm width

- WT461000 Elevator, acc. to Boies,  
blunt, size 11 x 190



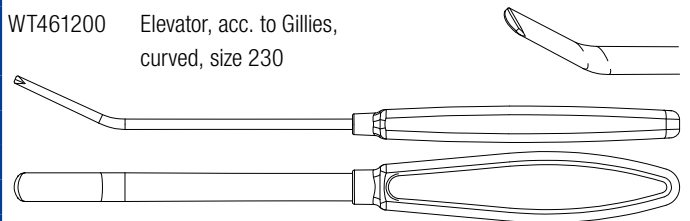
- Oval blade

- WT461100 Elevator, acc. to Goldman,  
round, size 195



- Conical shape

- WT461200 Elevator, acc. to Gillies,  
curved, size 230



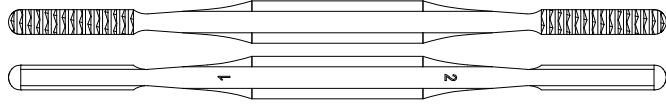
- 10 mm width



- Rasps with tungsten carbide inserts or diamond coating
- Single and double-ended rasps
- Up-cutting and down-cutting rasps
- Rasps with fine to coarse working ends
- Straight and bayonet-shaped saws with crossed teeth

## Double-Ended Nasal Raspers

- Rasp, double-ended,  
with tungsten carbide,
- WT452001 size 1 + 2, 200
  - WT452002 size 3 + 4, 200
  - WT452003 size 5 + 6, 200
  - WT452004 size 7 + 8, 200
  - WT452005 size 9 + 10, 200

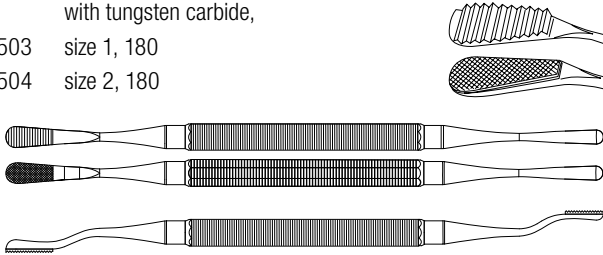


### Sizes

- 1 + 2 .....coarse
- 3 + 4 ..... coarse and medium
- 5 + 6 .....medium
- 7 + 8 .....medium and fine
- 9 + 10 ..... fine
- 200.....total length [mm]

Rasp, acc. to Miller,  
double-ended,,  
with tungsten carbide,

- WT453503 size 1, 180
- WT453504 size 2, 180

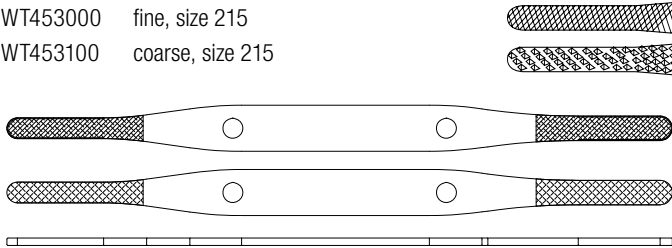


### Sizes

- 1 .....serrated
- 2 .....cross serrated
- Total length ..... 180 mm
- Width .....6.5/5.5 mm

Rasp, acc. to Cottle-Masing,  
double-ended,large/small,

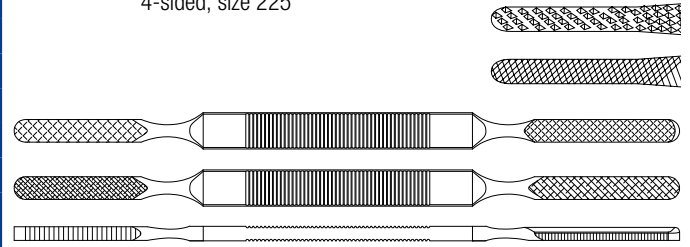
- WT453000 fine, size 215
- WT453100 coarse, size 215



size = [total length] mm

## Double-Ended Nasal Raspers (cont.)

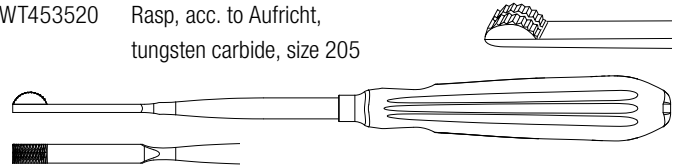
- WT453200 Rasp, acc. to Kleinert-Kutz (Fomon),  
4-sided, size 225



- double-ended
- each of 2 sides fine (flat) and coarse (convex)
- size = [total length] mm

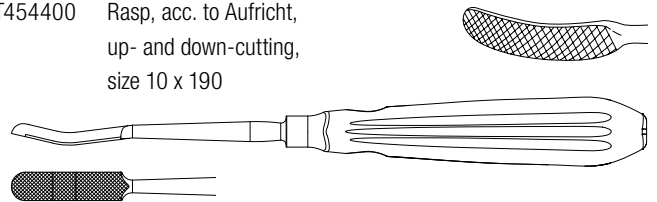
## Aufricht Glabella Raspers

- WT453520 Rasp, acc. to Aufricht,  
tungsten carbide, size 205



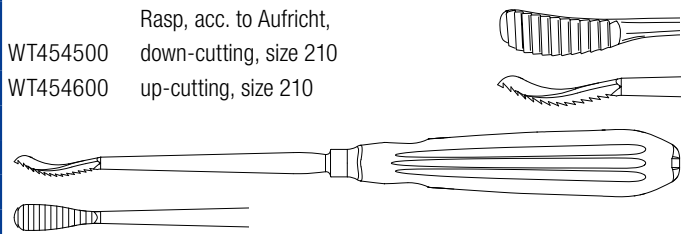
size = [total length] mm

- WT454400 Rasp, acc. to Aufricht,  
up- and down-cutting,  
size 10 x 190



size = [rasp width] mm x [total length] mm

- WT454500 Rasp, acc. to Aufricht,  
down-cutting, size 210
- WT454600 up-cutting, size 210



size = [total length] mm



### Maltz Nasal Rasps

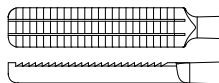
- With blood-groove  
size = [total length] mm

WT453500 Rasp, acc. to Maltz,  
size L, 160

WT453600 narrow, down-cutting, size 160

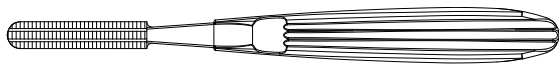
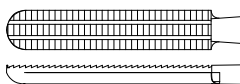
WT453700 large, up-cutting, size 160

WT453800 narrow, up-cutting, size 160



WT453501 Rasp, acc. to Maltz,  
tungsten carbide,  
down-cutting, size 165

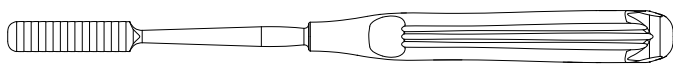
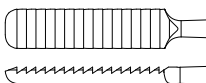
WT453502 up-cutting, size 165



### Single-Ended Nasal Rasps

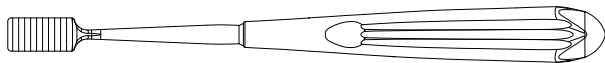
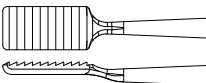
size = [total length] mm

WT454000 Rasp, acc. to Cottle,  
straight, down-cutting,  
size 210



WT456600 Rasp, acc. to Lewis,  
fine, down-cutting, size 180

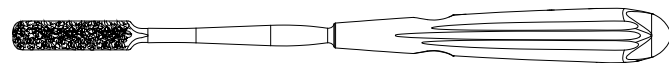
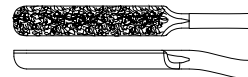
WT456700 coarse, down-cutting, size 180



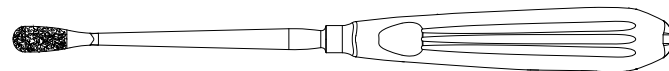
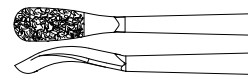
### Diamond-Coated Nasal Rasps

size = [total length] mm

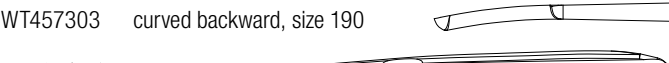
WT457100 Rasp, acc. to Cottle,  
diamond,  
straight, size 205



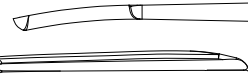
WT457200 Rasp, acc. to Aufricht,  
diamond, size 205



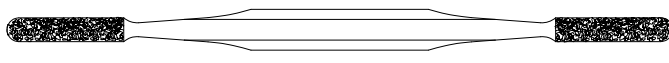
WT457301 Rasp,  
diamond coated,  
straight, size 190



WT457303 curved backward, size 190



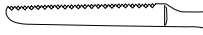
WT457400 Rasp, acc. to Fomon,  
diamond coated,  
double-ended, size 210



- Flat/oval

## Nasal Saws

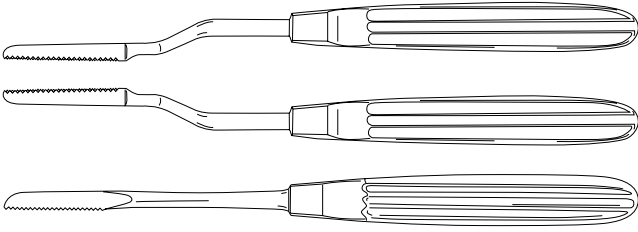
Saw, acc. to Joseph,  
bayonet-shaped,



WT448001 curved left, size 190

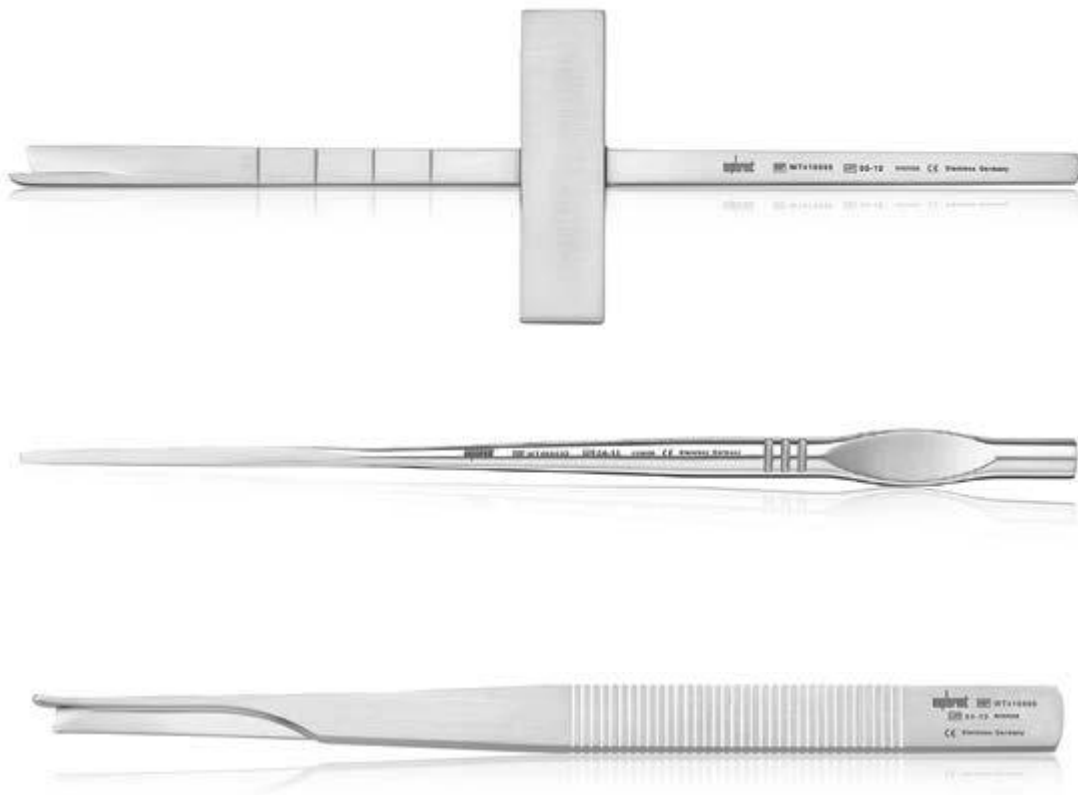
WT448002 curved right, size 190

WT448100 straight, size 190



- Crossed teeth

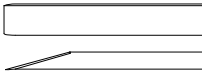
size = [total length] mm

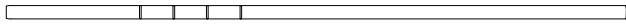



- Single and double guard models
- Graduated models
- Models with cross bar or stabilizer

**EXPLORENT**

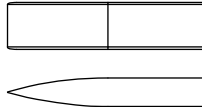
## Cottle Chisels and Osteotomes

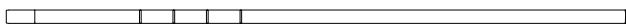
	Chisel, acc. to Cottle, straight, graduated,	
WT407004	size 4.0 x 185	
WT407007	size 7.0 x 185	
WT407009	size 9.0 x 185	
WT407012	size 12 x 185	




WT407106	Chisel, acc. to Cottle, curved, graduated, size 6.0 x 185	
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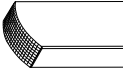


	Osteotome, acc. to Cottle, straight, graduated,	
WT407204	size 4.0 x 185	
WT407206	size 6.0 x 185	
WT407209	size 8.0 x 185	
WT407212	size 12 x 185	



WT410500	Osteotome, acc. to Cottle, with guard, straight, size 5.0 x 185	
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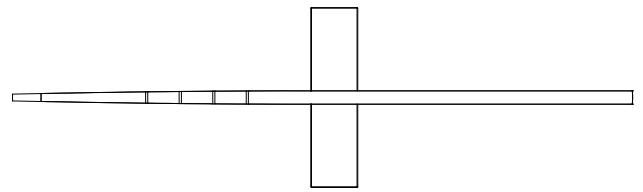



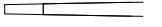

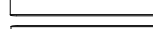


	Osteotome, acc. to Converse, with stabilizer,	
WT000837	size 2.0 x 180	
WT000838	size 3.0 x 180	
WT000839	size 4.0 x 180	
WT000840	size 5.0 x 180	
WT000841	size 10 x 180	
WT000842	size 11 x 180	
WT000843	size 12 x 180	








size = width [mm] x length [mm]

## Cottle Chisels and Osteotomes with Crossbar

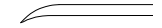
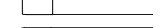
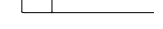



	Chisel, acc. to Cottle, with crossbar,	
WT407402	size 2.0 x 185	
WT407404	size 4.0 x 185	
WT407407	size 7.0 x 185	
WT407409	size 9.0 x 185	
WT407412	size 12 x 185	

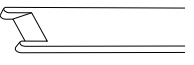
- Straight

	Osteotome, acc. to Cottle, with crossbar,	
WT407504	size 4.0 x 185	
WT407506	size 6.0 x 185	
WT407509	size 9.0 x 185	
WT407512	size 12 x 185	

- Straight


	Chisel, acc. to Cottle, with crossbar, curved,	
WT407704	size 4.0 x 185	
WT407706	size 6.0 x 185	

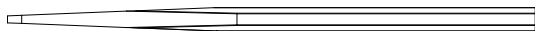
WT410505	Osteotome, acc. to Cottle, with guard and crossbar, size 5.0 x 185	
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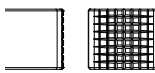

	Osteotome, acc. to Cottle, with guard and crossbar,	
WT410510	size 10 x 185	
WT410512	size 12 x 185	
WT410514	size 14 x 185	
WT410516	size 16 x 185	

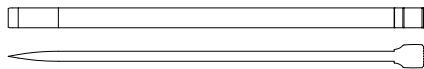
- Double guard


### Chisels, Gouges, Osteotomes (cont.)

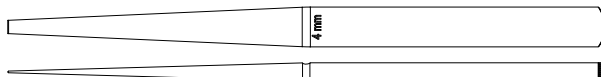
	Osteotome, acc. to Sheehan, hexagonal handle, straight,	
WT407602	size 2.0 x 160	
WT407603	size 3.0 x 160	
WT407604	size 4.0 x 160	
WT407605	size 5.0 x 160	
WT407606	size 6.0 x 160	
WT407607	size 7.0 x 160	
WT407608	size 8.0 x 160	
WT407609	size 9.0 x 160	
WT407610	size 10 x 160	
WT407611	size 11 x 160	
WT407612	size 12 x 160	






	Osteotome, mini, straight, size 2.0 x 125	
WT407302	straight, size 2.0 x 125	
WT407304	straight, size 4.0 x 125	
WT407306	straight, size 6.0 x 125	
WT407324	up-curved, size 4.0 x 125	
WT407326	up, curved, size 6.0 x 125	

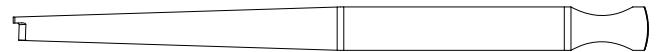



	Osteotome, acc. to Converse,	
WT407802	size 2.0 x 180	
WT407803	size 3.0 x 180	
WT407804	size 4.0 x 180	
WT407805	size 5.0 x 180	
WT407806	size 6.0 x 180	
WT407807	size 7.0 x 180	
WT407808	size 8.0 x 180	
WT407809	size 9.0 x 180	
WT407810	size 10 x 180	
WT407811	size 11 x 180	
WT407812	size 12 x 180	
WT407814	size 14 x 180	

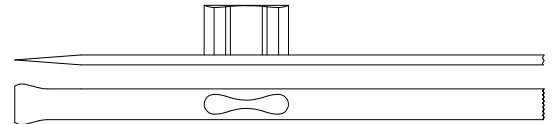



### Chisels, Gouges, Osteotomes (cont.)

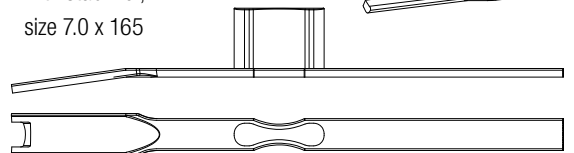
	Chisel, acc. to Converse, single guard,	
WT407900	straight, size 5.0 x 190	
WT407901	left, size 5.0 x 190	
WT407902	curved right, size 5.0 x 190	




	Osteotome, acc. to Rubin, with stabilizer,	
WT406010	size 10 x 160	
WT406012	size 12 x 160	
WT406014	size 14 x 160	
WT406016	size 16 x 160	

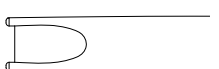


WT406100	Gouge, acc. to Rubin, with stabilizer, size 7.0 x 165	
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	Osteotome, acc. to Cinelli, double guard,	
WT406510	size 10 x 165	
WT406512	size 12 x 165	
WT406514	size 14 x 165	
WT406516	size 16 x 165	



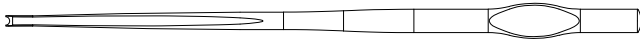
WT409000	Gouge, acc. to Parkes, size 6.0 x 180	
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size = width [mm] x length [mm]

## Chisels, Gouges, Osteotomes (cont.)

Gouge, acc. to Walter,  
 WT409530 size 3.0 x 190  
 WT409545 size 4.5 x 190



Osteotome, acc. to Walter,  
 WT409602 size 2.0 x 190  
 WT409603 size 3.0 x 190  
 WT409604 size 4.0 x 190  
 WT409607 size 7.0 x 190  
 WT409609 size 9.0 x 190  
 WT409612 size 12 x 190

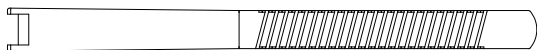


Chisel, acc. to Masing,  
 with guard,  
 WT410000 straight, size 180  
 WT410001 left, size 180  
 WT410002 right, size 180



• Slightly curved

WT410005 Chisel, acc. to Masing,  
 double guard,  
 size 10 x 160



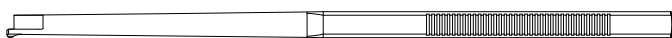
WT409100 Osteotome, acc. to Parkes,  
 single guard,  
 size 4.5 x 160



WT409200 Osteotome, acc. to Parkes,  
 single guard, slender,  
 size 4.0 x 180



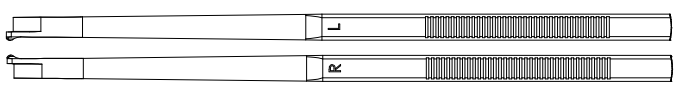
WT412000 Osteotome, acc. to Neivert,  
 with guard, straight, size 4 x 205



• For right and left use

## Chisels, Gouges, Osteotomes (cont.)

Osteotome, acc. to Anderson-Neivert,  
 WT412001 left, size 4.5 x 205  
 WT412002 right, size 4.5 x 205



• With guide

Osteotome, acc. to Ristow,  
 single guard,  
 WT412600 left and right, size 5.0 x 200  
 WT412601 left, size 5.0 x 200  
 WT412602 right, size 5.0 x 200



Chisel, acc. to Freer,  
 WT320001 straight, size 4.0 x 185  
 WT320002 curved, size 4.0 x 185



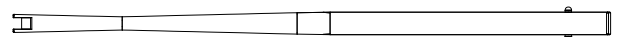
WT321000 Gouge, acc. to Killian-Claus,  
 bayonet-shaped,  
 size 5.0 x 165



WT321100 Gouge, acc. to Killian-Claus,  
 V-shaped,  
 size 5.0 x 165



Osteotome, Wuerzburg type,  
 WT410700 double guard, size 3.0 x 180  
 WT410701 single guard, left, size 3.0 x 180  
 WT410702 single guard, right, size 3.0 x 180



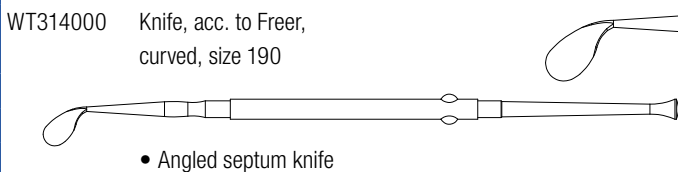
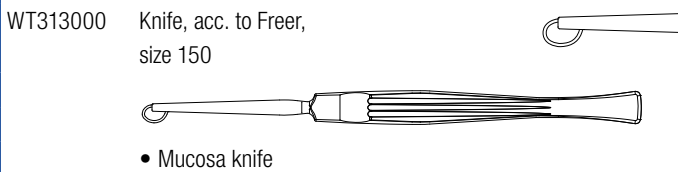
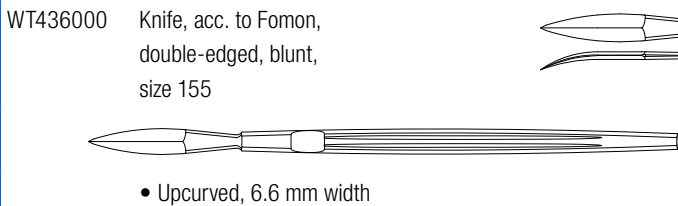
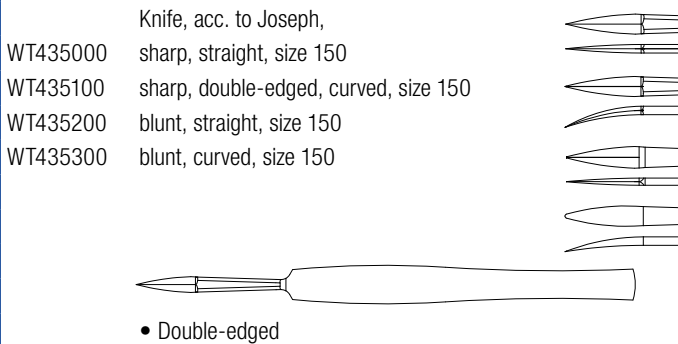
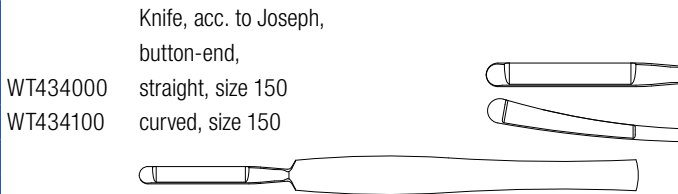
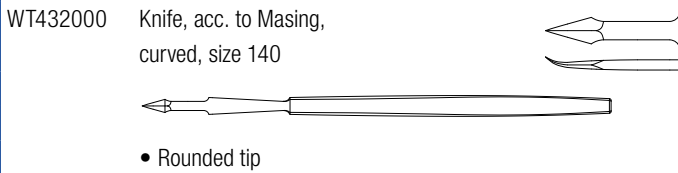
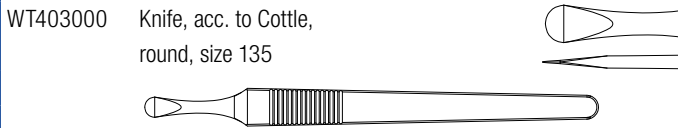
• Curved

size = width [mm] x length [mm]

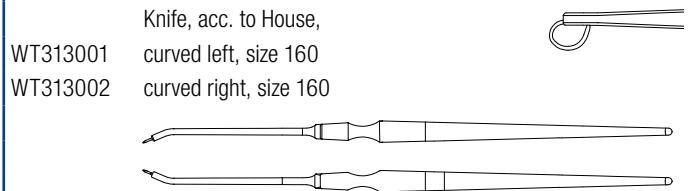


- With blunt or pointed tip
- Double-cutting models
- Button end models

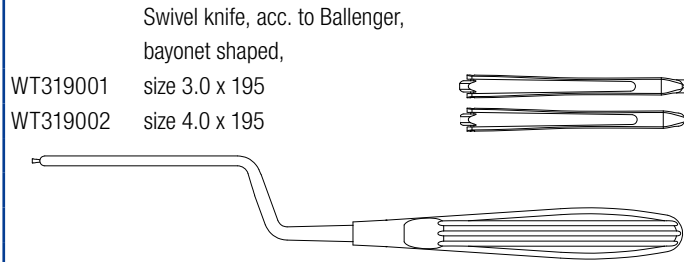
## Nasal Knives



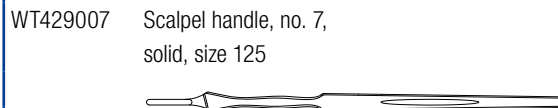
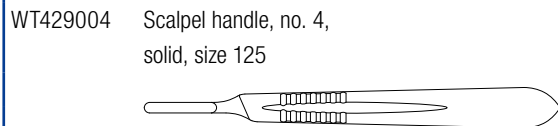
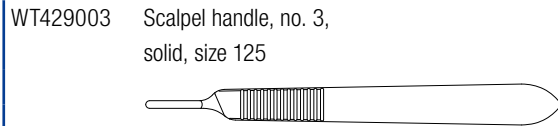
## Nasal Knives (cont.)



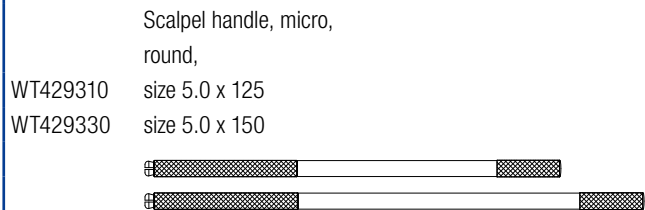
## Swivel Knives



## Scalpels



## Micro Scalpels



size = total length [mm]

size = width [mm] x total length [mm]





- Models with sharp and blunt prongs
- Ebony-finished models
- Double-ended models, with knife-guide

## EXPLORENT

## Retractors

- WT415000 Hook, acc. to Cottle,  
black,  
angled, size 145
- WT415100 curved, size 145

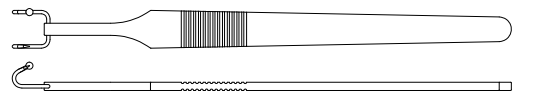
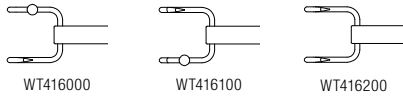


- Tenaculum hook, delicate

- WT416715 Hook, acc. to Joseph,  
1 prong,  
sharp, size 152



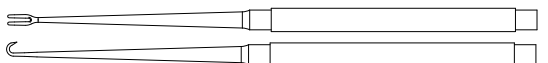
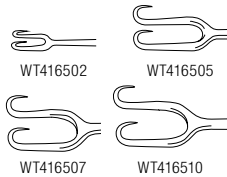
- WT416000 Hook, acc. to Cottle,  
2 prongs,  
sharp/blunt, size 10 x 150
- WT416100 blunt/sharp, size 10 x 150
- WT416200 sharp, size 10 x 150



- WT416400 Hook, acc. to Freer,  
2 prongs, sharp,  
size 3.0 x 150



- WT416502 Hook, acc. to Joseph-Cottle,  
2 prongs, sharp,  
size 2.0 x 160
- WT416505 size 5.0 x 160
- WT416507 size 7.0 x 160
- WT416510 size 10 x 160



## Retractors (cont.)

- WT416600 Retractor, acc. to Fomon,  
2 prongs, ball end tips,  
size 10 x 165



- WT416300 Hook, acc. to Gillies,  
1 prong, size 5.0 x 180



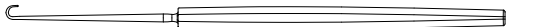
- WT416312 Hook, acc. to Graefe,  
1 prong, sharp,  
size 120



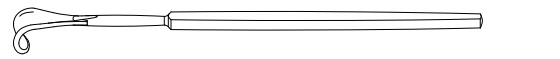
- WT417000 Hook, acc. to Frazier,  
size 120



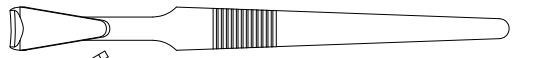
- WT417100 Hook, acc. to Cottle,  
sharp, size 150



- WT419000 Retractor, acc. to Cottle,  
short blade, size 11 x 140



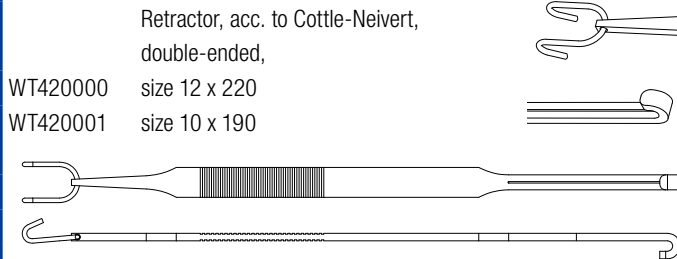
- WT419500 Retractor, acc. to Cottle,  
with lip, size 150



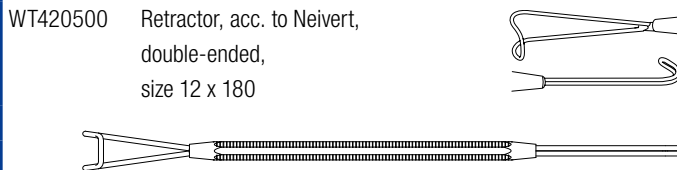
size = total length [mm]

size = width [mm] x total length [mm]

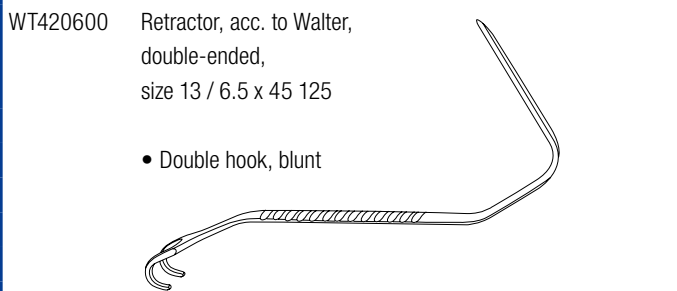
## Retractors (cont.)



- Two blunt retractor prongs



- Wire shape
  - Width 12/3 mm
- size = width [mm] x total length [mm]

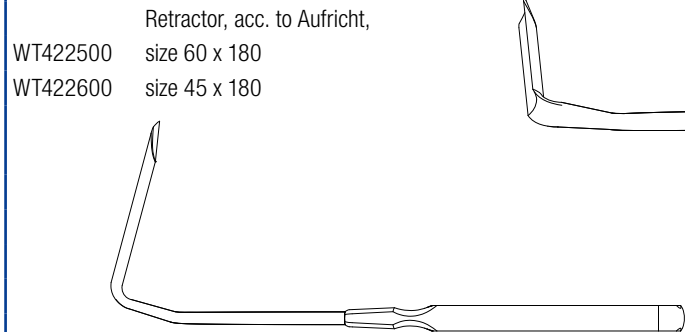


- Double hook, blunt

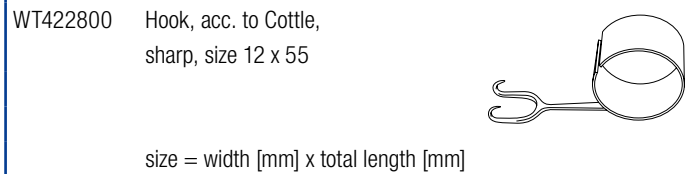
**Size**

Width ..... 13 mm  
Blade ..... 45 x 6.5 mm  
Total length ..... 125 mm

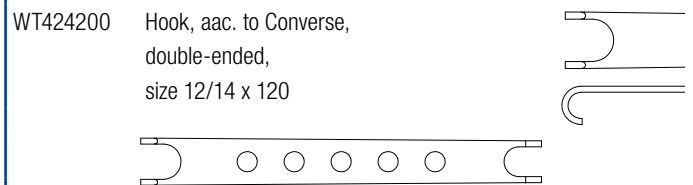
## Retractors (cont.)



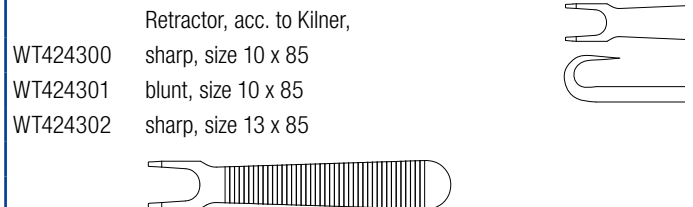
- 8 mm width
- size = blade length [mm] x total length [mm]



size = width [mm] x total length [mm]



- Blunt/blunt
- size = width left/width right [mm] x total length [mm]



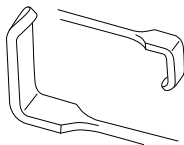
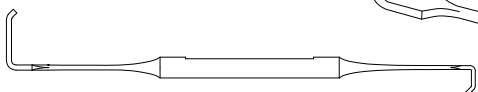
size = total length [mm]  
size = width [mm] x total length [mm]

## Retractors (cont.)

WT417500 Retractor, acc. to Mannerfelt,  
1 prong,  
sharp, size 155

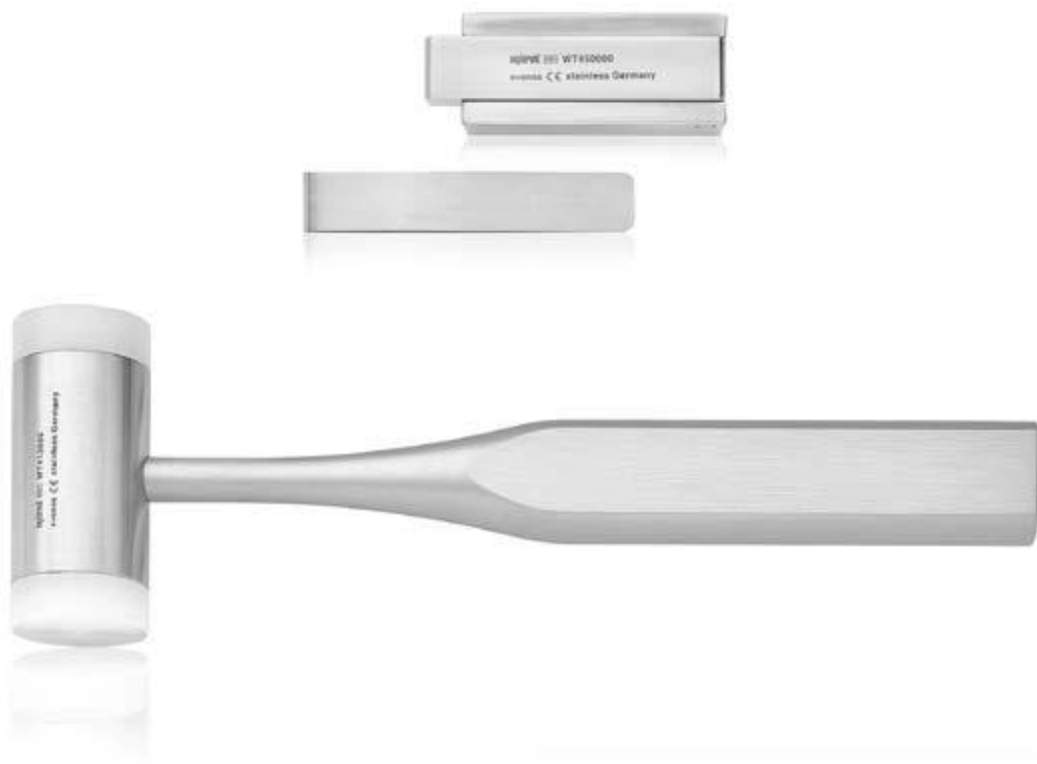


WT566914 Retractor, acc. to Ragnell,  
double-ended,  
size 140



size = total length [mm]

size = width [mm] x total length [mm]

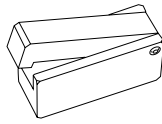


- Round and oblong crushers
- Rhinoplasty mallet with replaceable polyamide caps

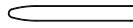
## Cartilage Crusher

size = width [mm]

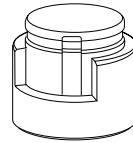
WT450000 Cartilage crusher, acc. to Cottle,  
with clamp,  
size 28  
WT450500 size 50



WT450001 Clamp,  
for cartilage crusher WT450000



WT450600 Cartilage crusher, acc. to Tolsdorff,  
with clamp, round,  
size 40

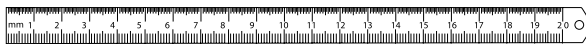


- To press pieces of bone up to 4 cm diameter venly extended in all directions.

## Distance Measuring Tools

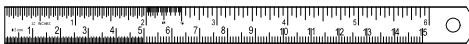
size = length [mm]

WT463500 Rule, metal,  
size 200, accuracy of 1 mm / 1 inch



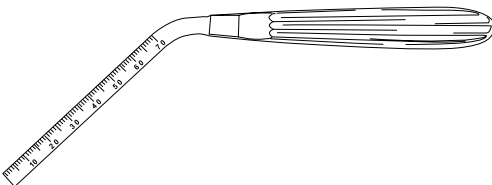
- flexible

WT463516 Rule, metal,  
size 160, accuracy of 1 mm / 1 inch



- flexible

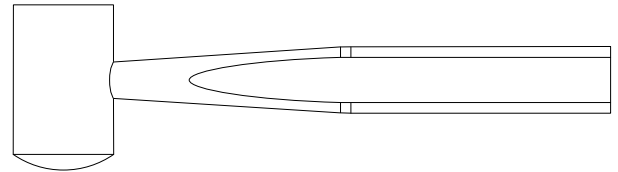
WT463200 Measuring instrument, acc. to Joseph,  
scaled, size 170, accuracy of 1 mm / 1 inch



## Rhinoplasty Mallets

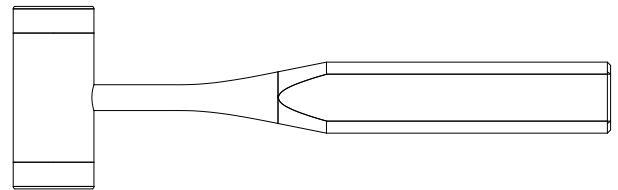
size = length [mm]

WT413000 Mallet, acc. to Cottle,  
size 180



- 340 g
- 30 mm diameter
- Round/flat face
- With black handle

WT413500 Mallet, metal,  
light handle, size 180



- With replaceable polyamide caps
- 212 g
- 25 mm diameter
- Flat/flat face

WT413501 Spare mallet heads,  
polyamide



- 2 pcs.
- For mallet WT413500



Including a selection of high-quality instruments, this set is state-of-the-art for rhinoplasty procedures. These precision instruments are gold-finished and have been carefully designed to supplement the standard instrument set.

- Osteotomes with special steel features and final conditioning guarantee long-lasting sharpness and durability
- Postoperative ecchymosis and edema are significantly reduced
- Scar tissue and hematoma are minimized

## Osteotomes

size = width [mm] x total length [mm]

- Osteotome, micro,  
with guard,
- WT000860 size 2.2 x 180
- WT000861 size 3.0 x 180



- Osteotome, micro,
- WT000850 size 2.0 x 180
- WT000855 size 2.5 x 180
- WT000851 size 3.0 x 180



- Osteotome, micro,
- WT000852 size 10 x 180
- WT000853 size 12 x 180
- WT000854 size 14 x 180



## Hooks and Retractors

- Hook, micro,
- WT000856 1 prong, size 180
- WT000857 2 prongs, size 2.0 x 180



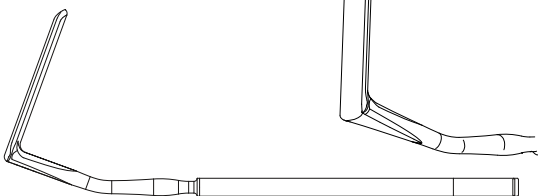
size = width [mm] x total length [mm]

- WT000858 Hook, 2 prongs,  
size 10 x 120



- Sharp
- size = width [mm] x total length [mm]

- WT000859 Retractor, acc. to Aufricht,  
size 9.0 x 45 155



### Size

hook width ..... 9.0 mm

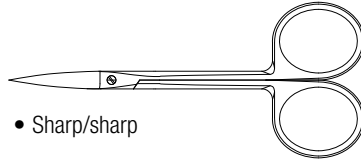
hook length ..... 45 mm

total length ..... 155 mm

## Rhinoplasty Scissors

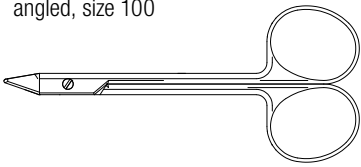
size = total length [mm]

- Rhinoplasty scissors,  
straight, size 100
- WT000879
- Rhinoplasty scissors,  
curved up, size 100
- WT000880

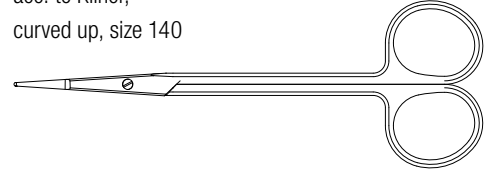


- Sharp/sharp

- WT000881 Rhinoplasty scissors, acc. to Walter,  
angled, size 100



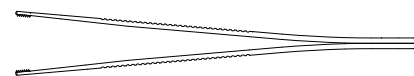
- WT000882 Rhinoplasty scissors,  
acc. to Kilner,  
curved up, size 140



## Thumb Forceps

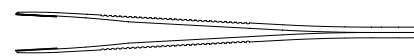
size = total length [mm]

- WT000844 Thumb forceps, for dissection,  
acc. to Adson-Brown, size 120

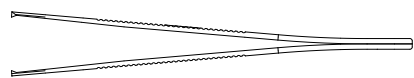


- Side grasping teeth

- WT000845 Thumb forceps, acc. to Adson,  
for rhinoplasty, size 120



- WT000846 Thumb forceps, acc. to Adson,  
for rhinoplasty dissection, size 120



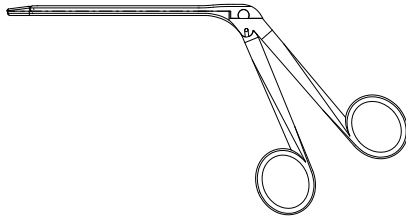
- 1x2 teeth





### Nasal Forceps

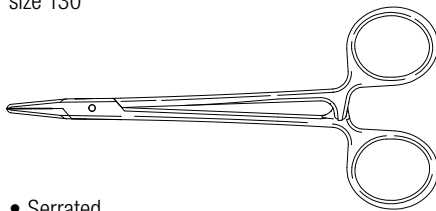
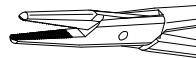
WT000878 Nasal forceps, acc. to Blakesley, very delicate, size 120



size = working length [mm]

### Needle Holder

WT000834 Needle holder, acc. to Halsey, with tungsten carbide, size 130



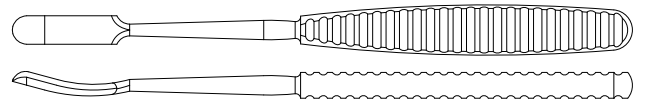
- Serrated

size = total length [mm]

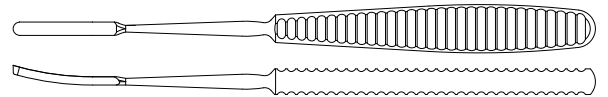
### Rasps and Elevator for Rhinoplasty

size = total length [mm]

WT000866 Rasp, acc. to Aufricht, up- and down-cutting, size 185



WT000849 Elevator, acc. to Joseph, size 3.0 x 175



- Slightly curved

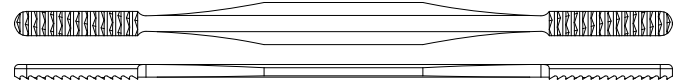
Rasp, double-ended, with tungsten carbide,

WT000862 coarse/medium, size 200

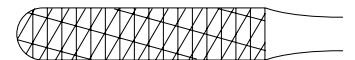
WT000863 medium, size 200

WT000864 medium/fine, size 200

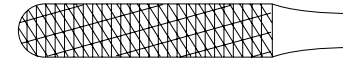
WT000865 fine/fine, size 200



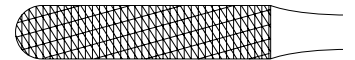
coarse



medium



fine





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## EXPLORENT INSTRUMENTS

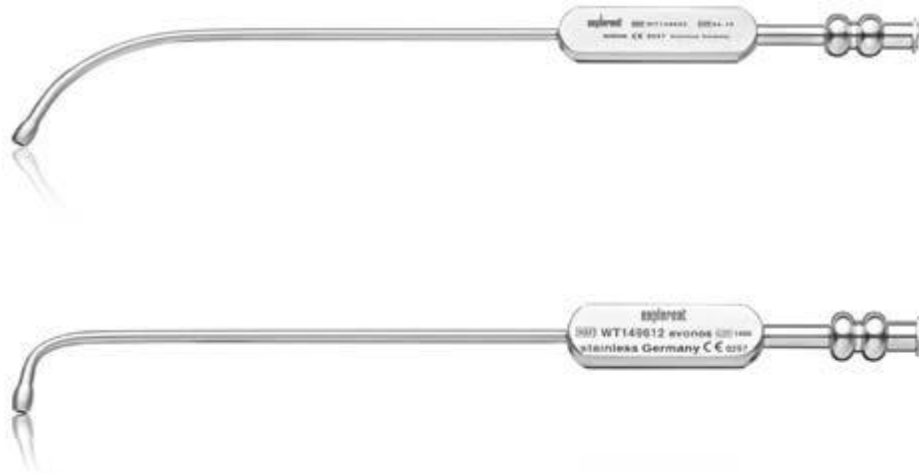
### **Manufacturer**

evonos GmbH & Co.KG  
Stockacher Str. 134  
78532 Tuttlingen, Germany

### **Distributor**

Olympus Surgical Technologies Europe  
Olympus Winter & Ibe GmbH  
Kuehnstr. 61  
22045 Hamburg, Germany





- Long and short curved models
- Malleable versions
- Variety of diameters

## EXPLORENT

## V. Eicken Antrum Irrigation Cannulas

### Cannula, acc. to Eicken

long curved,  
14.5 cm total length, various outer diameter sizes (mm)

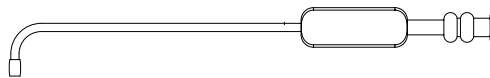
- WT149602 Cannula, acc to Eicken, with Luer-Lock,  
long curved, size 2.5 x 145
- WT149603 Cannula, acc to Eicken, with Luer-Lock,  
long curved, size 3 x 145
- WT149604 Cannula, acc to Eicken, with Luer-Lock,  
long curved, size 4 x 145



### Cannula, acc. to Eicken

short curved,  
14.5 cm total length, various outer diameter sizes (mm)

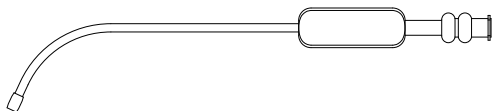
- WT149612 Cannula, acc. to Eicken, with Luer-Lock,  
short curved, size 2.5 x 145
- WT149613 Cannula, acc. to Eicken with Luer-Lock,  
short curved, size 3 x 145
- WT149614 Cannula, acc. to Eicken with Luer-Lock,  
short curved, size 4 x 145



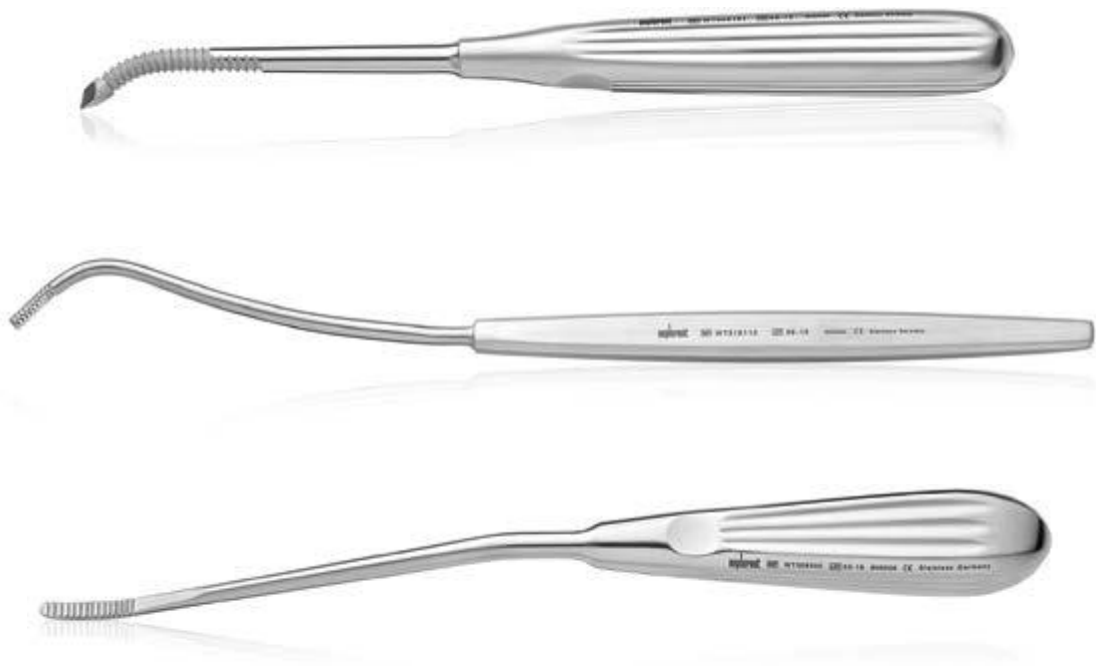
### Cannula, acc. to Eicken

long curved, malleable,  
14.5 cm total length, various outer diameter sizes (mm)

- WT149702 Cannula, acc. to Eicken, with Luer-Lock,  
long curved, malleable, size 2.5 x 145
- WT149703 Cannula, acc. to Eicken, with Luer-Lock,  
long curved, malleable, size 3 x 145
- WT149704 Cannula, acc. to Eicken, with Luer-Lock,  
long curved, malleable, size 4 x 145





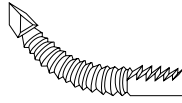


- Models with blunt tip and trocar tip
- Frontal sinus rasps, strong and slender pattern

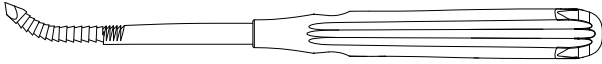
## Antrum and Frontal Sinus Rasps

### Rasp, vienna type

curved with trocar tip,  
18 cm total length, diameter size 6 mm

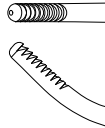


WT508101 Rasp, Vienna type, with trocar tip, size 6.0 x 180



### Rasp, acc. to Wigand

curved, 2.8/ 2.3 mm width, backward cutting,  
21 cm total length



WT518110 Rasp, acc to Wigand, strong

WT518111 Rasp, acc to Wigand, slender

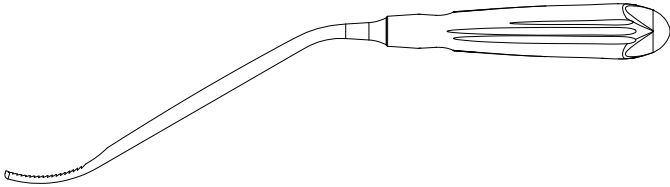


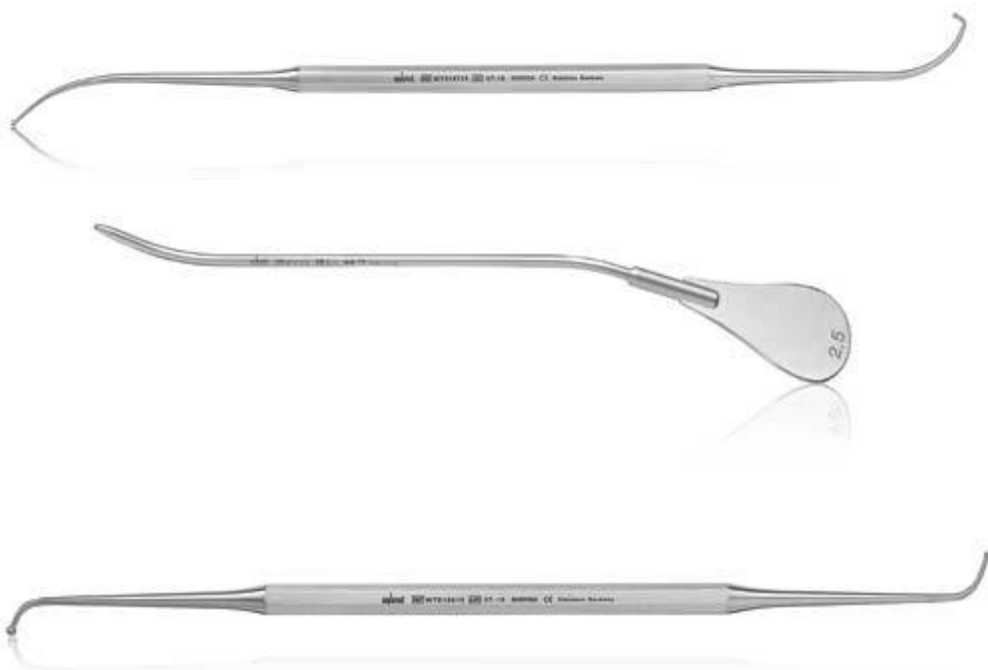
### Rasp, acc. to Watson-Williams

blunt, 3.7 mm width, backward cutting,  
23 cm total length



WT508500 Rasp, acc. to Watson-Williams, size 230





- S-shaped models
- Double-ended models

## Frontal Sinus Ostium Seeker

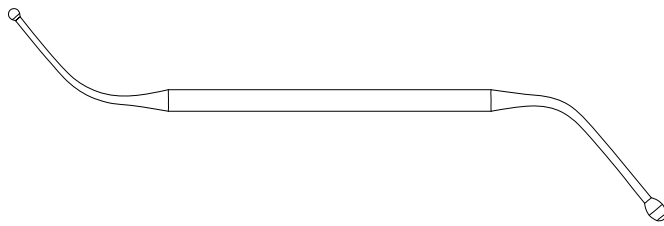
### Probe

double-ended, curved,  
total length 21 cm, ball size 1.3 mm

WT518725 Probe, double-ended, curved, size 210



WT230725 Probe, double-ended



## Ritter-Halle Frontal Sinus Bougie

### Dilator, acc. to Ritter-Halle

14.5 cm total length, various diameters (mm)

WT507025 Dilator, acc. to Ritter-Halle, size 2.5 x 145

WT507030 Dilator, acc. to Ritter-Halle, size 3.0 x 145

WT507040 Dilator, acc. to Ritter-Halle, size 4.0 x 145

WT507050 Dilator, acc. to Ritter-Halle, size 5.0 x 145



## Maxillary Sinus Ostium Seeker

### Probe

double ended, ball-shaped ends,  
1,2 mm ball size, 2 mm diameter,  
19 cm total length

WT518619 Probe, double-ended, ball-shaped ends, size 1.2 x 2.0 190





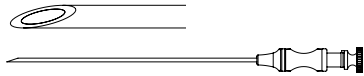
- Antrum trocar needle, with different diameters
- Double-ended elevators
  - Micro elevators, curved and angled
  - Suction elevator
- Round fontanelle knife for paranasal sinus surgery
- Sickle knives:
  - Straight and bayonet-shaped shaft
  - With blunt and pointed tip
  - Curved to left and curved to right

## Lichtwitz Antrum Trocar Needles

### Trocar, acc. to Lichtwitz

Essentially facilitate duraplasty during endonasal surgery.  
10 cm working length, various outer diameter sizes (mm)

- WT149315 Trocar, acc. to Lichtwitz, size 1.5 x 100  
WT149318 Trocar, acc. to Lichtwitz, size 1.8 x 100  
WT149320 Trocar, acc. to Lichtwitz, size 2.0 x 100

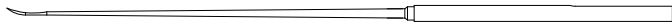
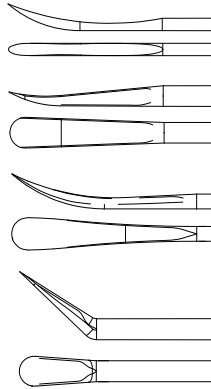


## Draf Micro Elevators

### Raspatory, acc. to Draf

sharp, 25 cm length, various widths (mm),  
15 cm working length

- WT339001 Raspatory, acc. to Draf, micro, slightly curved, size 1.0 x 250  
WT339002 Raspatory, acc. to Draf, micro, slightly curved, size 3.0 x 250  
WT339003 Raspatory, acc. to Draf, micro, strongly curved size 3.0 x 250  
WT339004 Raspatory, acc. to Draf, micro, curved size 4.0 x 250



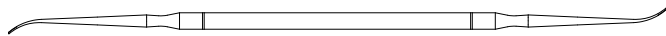
## Freer Elevator

### Elevator, acc. to Freer

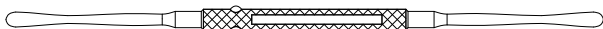
sharp/blunt, 4.5 mm width,  
20 cm total length



- WT315000 Elevator, acc. to Freer, double-ended, american type, size 200



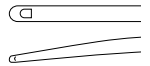
- WT230583 Elevator, acc. to Freer, double-ended, size 180



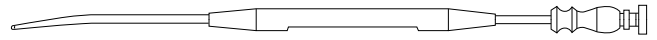
## Gorney Elevator

### Elevator, acc. to Gorney

19 cm total length, 3 mm tip



- WT405800 Elevator, acc. to Gorney, with suction channel size 3.0 x 190



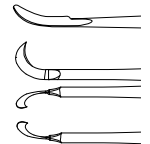
## Sickle Knives

### Sickle knife

double cutting, various tips,  
19 cm total length



- WT518301 Sickle knife, pointed, size 190  
WT518302 Sickle knife, blunt, size 190  
WT518303 Sickle knife, blunt, curved left, size 190  
WT518304 Sickle knife, blunt, curved right, size 190



### Sickle knife "Richards"

19 cm total length

- WT230580 Sickle knife "Richards", blunt, size 190  
WT230582 Sickle knife "Richards", sharp, size 190



### Sickle knife, acc. to Plester

16,5 total length, 5 mm blade



- WT253600 Sickle knife, acc. to Plester, straight, size 165



## Moriyama Fontanelle Knife

### Knife, acc. to Moriyama

round tip, curved,  
20 cm total length, 6 mm width



WT326820 Knife, acc. to Moriyama,  
curved, size 200



## Draf Knives (cont.)

### Sickle knife, acc. to Draf

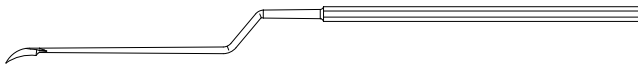
19 cm total length, 10 mm blade



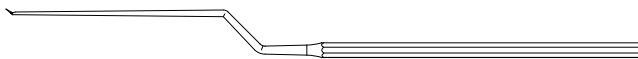
WT339101 Sickle knife, acc. to Draf,  
straight, size 190



WT339102 Sickle knife, acc. to Draf,  
bayonet shaped, size 190



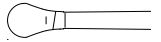
WT339302 Round knife, acc. to Draf,  
bayonet shaped, size 2.0 x 190



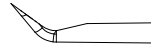
## Draf Knives (cont.)

### Round knife, acc. to Draf

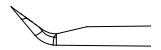
19 cm length, various diameters (mm)



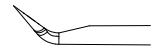
WT339201 Round knife, acc. to Draf, angled,  
straight handle, size 1.5 x 190



WT339202 Round knife, acc. to Draf,  
bayonet shaped, size 1.5 x 190



WT339301 Round knife, acc. to Draf,  
straight handle, size 2.0 x 190



WT339302 Round knife, acc. to Draf,  
bayonet shaped, size 2.0 x 190



### Incision knife, acc. to Draf

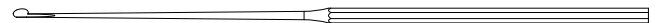
19 cm length



WT339401 Incision knife, acc. to Draf,  
straight, size 190



WT339402 Incision knife, acc. to Draf,  
bayonet shaped, size 190



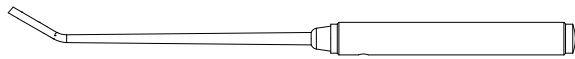






- Antrum, frontal sinus curettes:  
Round, oval and oblong models,  
double-ended, malleable models
- Sinuscopy trocars:  
for use with sinusscopes of 2.7 mm, 3.0 mm or  
4.0 mm diameter,  
models with billshaped and oblique beak

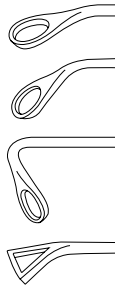
## Coakley Antrum Curettes



### Curette, acc. to Coakley

17 cm total length, 7,5 mm width

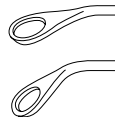
- WT503001 Curette, acc. to Coakley, oval, slightly curved, size 7.5 x 170
- WT503002 Curette, acc. to Coakley, oval, strong curved, size 7.5 x 170
- WT503003 Curette, acc. to Coakley, oval, retrograde curved, size 7.5 x 170
- WT503006 Curette, acc. to Coakley, triangular, strong curved, size 7.5 x 170



### Curette, acc. to Coakley

17 cm total length, 6 mm width

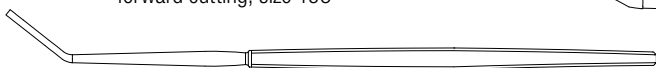
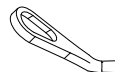
- WT503004 Curette, acc. to Coakley, oval, slightly curved, size 6.0 x 170
- WT503005 Curette, acc. to Coakley, oval, strong curved, size 6.0 x 170



### Curette, acc. to Coakley

19,5 cm total length

- WT230585 Antrum curette, acc. to Coakley, forward cutting, size 195

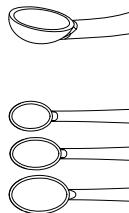


## Antrum Curettes

### Curette

slightly curved, various oval sizes (mm), 19 cm total length

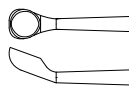
- WT518001 Curette, oval, size 7.0 x 190
- WT518002 Curette, oval, size 8.0 x 190
- WT518003 Curette, oval, size 9.0 x 190



### Curette

19 cm total length, diameter size (mm)

- WT518101 Curette, round, size 5.0 x 190

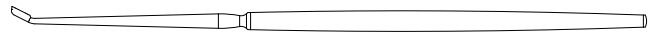
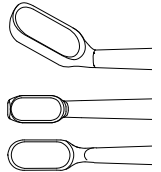


## Antrum Curettes (cont.)

### Curette

19 cm total length, various oval sizes (mm)

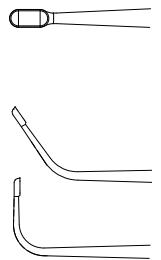
- WT518102 Curette, oval, size 6.0 x 3.0 190
- WT518103 Curette, oval, size 9.0 x 4.0 190



### Curette

oval size 3 mm, 55°/ 90° curved, 19 cm total length

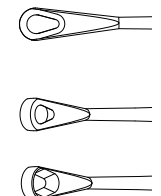
- WT518104 Curette, oval, small curved 55, size 3.0 x 190
- WT518105 Curette, oval, small curved 90, size 3.0 x 190



### Curette

19 cm total length, diameter size (mm)

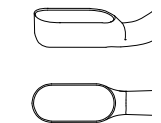
- WT518203 Curette, forward cutting, small, size 6.8 x 190
- WT518204 Curette, backward cutting, small, size 6.8 x 190



### Curette

10 cm total length, 7.0 mm width

- WT230715 Curette, acc. to Bent, curved, oval, size 7.0 x 10



## Faulkner Antrum Curette

### Curette, acc. to Faulkner

double ended, 21 cm total length,  
5.5 and 7.5 mm inner diameter



WT504000 Curette, acc. to Faulkner,  
double-ended, size 5.5/7.5 x 210



## Halle Antrum Curette

### Curette, acc. to Halle

malleable,  
21 cm total length,  
various oval sizes (length, width, mm)

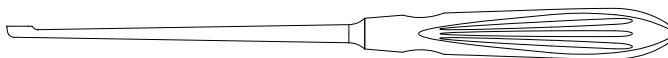
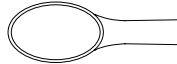
WT506001 Curette, acc. to Halle, malleable,  
size 8.0 x 5.5 210



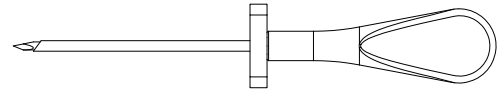
WT506002 Curette, acc. to Halle, malleable,  
size 9.0 x 6.0 210



WT506003 Curette, acc. to Halle, malleable,  
size 10 x 7.0 210



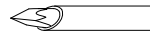
## Sinuscopy Trocars



### Trocar

for use with 2.7 mm telescopes,  
oblique beak,  
7 cm cannula length, 3.4 mm outer diameter

WT518503 Trocar, oblique, for endoscopes,  
size 2.7 x 70



### Trocar

for use with 3 mm telescopes,  
7 cm cannula length, 4 mm outer diameter

WT518504 Trocar, oblique, for endoscopes,  
size 3.0 x 70



### Trocar

for use with 4 mm telescopes,  
5 mm outer diameter, 8 cm cannula length

WT518400 Trocar, beak-shaped,  
for endoscopes, size 4 x 80



WT518500 Trocar, oblique,  
for endoscopes, size 4 x 80







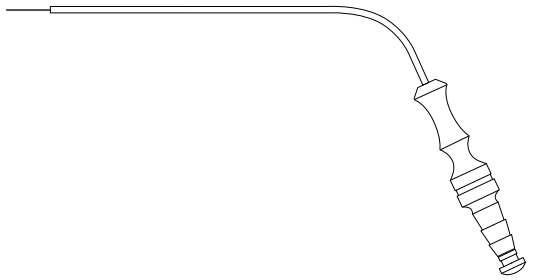
- Angled models with cut-off hole
- Models with ball-ended tip
- Models with closed blunt distal end and lateral holes
- Suction elevator model

## Frazier Suction Tube

### Suction tube, acc. to Frazier

with mandrin, stainless,  
9 cm working length, various diameters (mm)

- WT210008 Suction tube, acc. to Frazier,  
with cut-off, size 2.7 x 90
- WT210010 Suction tube, acc. to Frazier,  
with cut-off, size 3.3 x 90
- WT210012 Suction tube, acc. to Frazier,  
with cut-off, size 4.0 x 90
- WT210015 Suction tube, acc. to Frazier,  
with cut-off, size 5.0 x 90

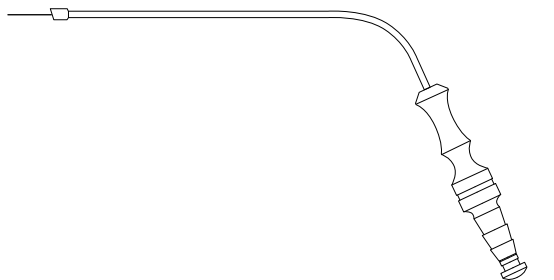


- WT210115 Mandrin, for suction tube WT210015, size 0.6  
(not shown)

### Suction tube, acc. to Frazier

ball-ended,  
9 cm working length, various diameter sizes (mm)

- WT210016 Suction tube, acc. to Frazier, ball-ended,  
with cut off, size 2.0 x 90
- WT210018 Suction tube, acc. to Frazier, ball-ended,  
with cut off, size 2.7 x 90
- WT210020 Suction tube, acc. to Frazier, ball-ended,  
with cut off, size 3.3 x 90
- WT210025 Suction tube, acc. to Frazier, ball-ended,  
with cut off, size 5.0 x 90

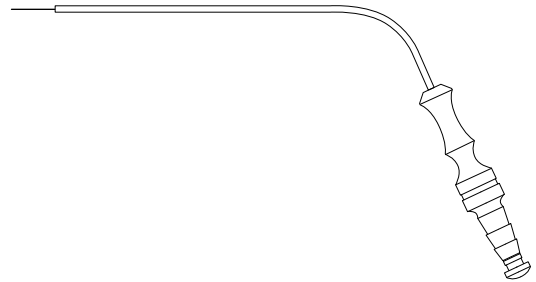


## Frazier Suction Tube (2)

### Suction tube, acc. to Frazier

graduated at 5 – 9 cm,  
9 cm working length, various diameters (mm)

- WT211006 Suction tube, acc. to Frazier, with scaling,  
with cut-off, size 2.0 x 90
- WT211008 Suction tube, acc. to Frazier, with scaling,  
with cut-off, size 2.7 x 90
- WT211009 Suction tube, acc. to Frazier, with scaling,  
with cut-off, size 3.0 x 90
- WT211010 Suction tube, acc. to Frazier, with scaling,  
with cut-off, size 3.3 x 90
- WT211012 Suction tube, acc. to Frazier, with scaling,  
with cut-off, size 4.0 x 90
- WT211015 Suction tube, acc. to Frazier, with scaling,  
with cut-off, size 5.0 x 90



### Suction tube, acc. to Ferguson-Frazier

strongly curved,  
10 cm working length, various diameters (mm)

- WT211806 Suction tube, acc. to Ferguson-Frazier, with cut-off,  
strongly curved, size 2.0 x 100
- WT211808 Suction tube, acc. to Ferguson-Frazier, with cut-off,  
strongly curved, size 2.7 x 100
- WT211809 Suction tube, acc. to Ferguson-Frazier, with cut-off,  
strongly curved, size 3.0 x 100
- WT211810 Suction tube, acc. to Ferguson-Frazier, with cut-off,  
strongly curved, size 3.3 x 100
- WT211812 Suction tube, acc. to Ferguson-Frazier, with cut-off,  
strongly curved, size 4.0 x 100
- WT211814 Suction tube, acc. to Ferguson-Frazier, with cut-off,  
strongly curved, size 5.0 x 100



## Frazier Suction Tube (3)

### Suction tube, acc. to Frazier

with cut-off hole, with mandrin, Luer, closed blunt distal end with holes, 15 cm working length, various diameters (mm)



- WT350003 Suction tube, acc. to Frazier, distal tip closed, holes on the side, size 3.0
- WT350004 Suction tube, acc. to Frazier, distal tip closed holes on the side, size 4.0



### Suction tube, acc. to Frazier

with cut-off hole, with mandrin, Luer, 15 cm working length, various diameters (mm)

- WT350006 Suction tube, acc. to Frazier, with cut-off, size 2.0 x 150
- WT350008 Suction tube, acc. to Frazier, with cut-off, size 2.7 x 150
- WT350010 Suction tube, acc. to Frazier, with cut-off, size 3.3 x 150
- WT350012 Suction tube, acc. to Frazier, with cut-off, size 4.0 x 150
- WT350015 Suction tube, acc. to Frazier, with cut-off, size 5.0 x 150



## Kahn-Frazier Frontal Sinus Tube

### Suction tube, acc. to Kahn-Frazier

25 mm angled tip, slightly curved, cut-off hole, 12 cm working length, 3.3 mm diameter

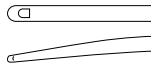
- WT211610 Suction tube, acc. to Kahn-Frazier, malleable, malleable, with cut-off, size 3.3 x 120



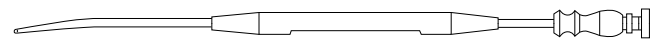
## Gorney Suction Elevator

### Elevator, acc. to Gorney

with mandrin, 3 mm tip, 19 cm length



- WT405800 Elevator, acc. to Gorney, with suction channel, size 3.0 x 190









- Orbital retractor, double-ended
- Standard retractor with grid handle
- Flexible spatula

## EXPLORENT

## Retractors and Spatulas

### Retractor, acc. to Hayek

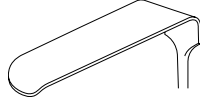
18 cm total length, tip 14 x 21 mm, serrated

WT500000 Retractor, acc. to Hayek, size 14 x 21 180



### Retractor, acc. to Langenbeck

various working lengths (mm),  
various diameters (mm),  
21 cm total length



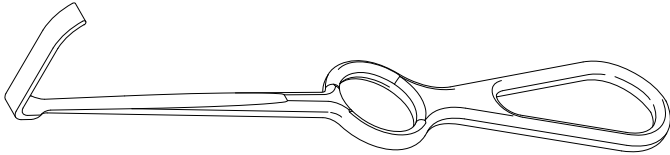
WT502501 Retractor, acc. to Langenbeck, size 35 x 7.0 210

WT502502 Retractor, acc. to Langenbeck, size 35 x 10 210

WT502503 Retractor, acc. to Langenbeck, size 35 x 15 210

WT502504 Retractor, acc. to Langenbeck, size 35 x 20 210

WT502505 Retractor, acc. to Langenbeck, size 40 x 11 210



### Retractor

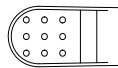
orbital, double-ended,  
25 cm total length, front/back width (mm)

WT507100 Retractor, orbital , size 22/26 250



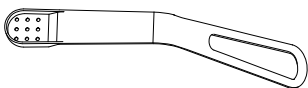
### Spatula, acc. to Tapia

perforated basket,  
9 cm total length, various widths (mm)



WT541009 Spatula, acc. to Tapia, with perforated basket,  
size 20 x 90

WT541012 Spatula, acc. to Tapia, with perforated basket,  
size 25 x 90



## Tongue Depressors

### Tongue depressor

flexible,  
20 cm total length, various widths (mm)

WT507212 Tongue depressor, flexible, size 12 x 200

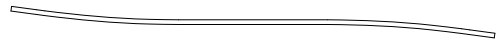
WT507217 Tongue depressor, flexible, size 17 x 200



### Richards tongue depressor

ribbon type, malleable,  
14,5 cm total length, 16 mm width

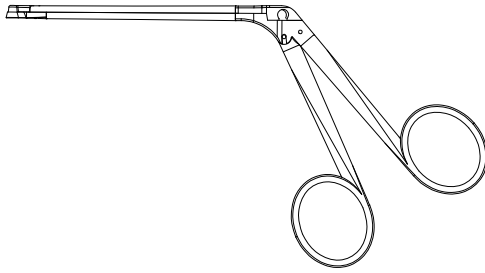
WT550515 Tongue depressor, acc. to Richards,  
ribbon type, malleable, size 16 x 145





- The “guillotine effect” biopsy forceps allow one to take specimens without damaging the epithelium and compressing the lamina propria. The specimen can be taken in an adequate size (approx. 3 mm diameter) and with a sufficient depth.
- Repeated biopsies on the same patient require a method that is quick and easily performed, thereby making the procedure as comfortable as possible for the patient.
- The knife-sharp edge of the cutting cup hits the sharp edge of the conical receptacle without putting tangential pressure onto the specimen.
- With the angled type, even biopsies of hypertrophic turbinates can be taken without difficulty.

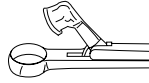
## Fokkens Biopsy Forceps



### **Punch forceps, acc. to Fokkens**

straight, 3 mm cutting width, round,  
8 cm working length

WT336000 Punch forceps, acc. to Fokkens,  
for biopsies,  
cupped jaws, straight, size 3



### **Punch forceps, acc. to Fokkens**

upcurved, 3 mm cutting width, round,  
11 cm working length

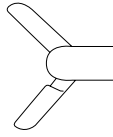
WT336045 Punch forceps, acc. to Fokkens,  
for biopsies,  
cupped jaws, curved up, size 3



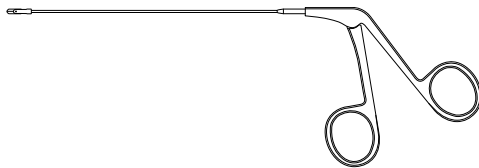
## Biopsy and Grasping Forceps

### Grasping forceps

oval cupped, double-action jaws,  
15 cm working length, 1.5 mm shaft diameter,  
2.5 mm jaws diameter



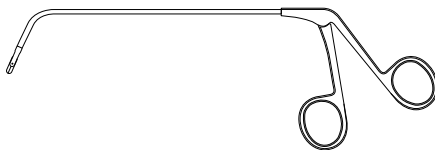
WT515000 Grasping forceps, for biopsies, double-action jaws,  
straight, size 2.5 x 150



### Grasping forceps

oval cupped, double-action jaws,  
12 cm working length, 3 mm jaws diameter,  
shaft angled down 70°

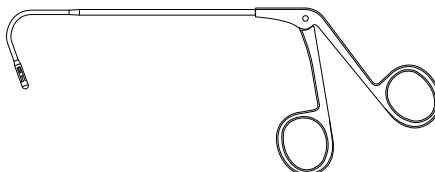
WT515070 Grasping forceps, for biopsies,  
oval-cupped,  
double-action jaws, size 3.0 x 120



### Grasping forceps

oval cupped, double-action jaws,  
11 cm working length, 3 mm jaws diameter,  
shaft angled down 110°

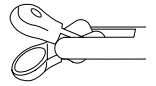
WT515110 Grasping forceps, for biopsies,  
oval-cupped,  
double-action jaws, size 3 x 11



## Biopsy and Grasping Forceps (2)

### Grasping forceps

malleable shaft end, double-action jaws,  
oval cupped, opening vertically,  
18 cm working length, 4 mm jaws diameter

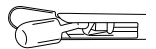


WT515005 Grasping forceps, for biopsies, malleable shaft,  
double-action, size 4.0 x 180



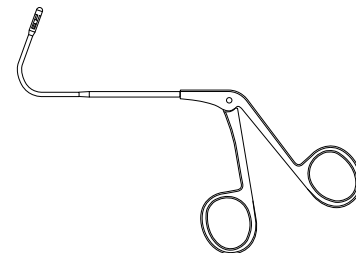
### Biopsy forceps

oval cupped, double-action jaws,  
18 cm working length, 2.6 mm diameter,  
110° upturned



WT335110 Biopsy forceps, oval cups, double-action jaws,  
horizontal opening, size 180

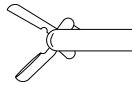
WT335111 Biopsy forceps, oval cups, double-action jaws,  
vertical opening, size 180



### Biopsy and Grasping Forceps (3)

#### Biopsy forceps,

oval cupped, double-action jaws,  
19.5 cm working length, 2.6 mm diameter,  
70° upturned

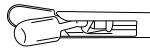


WT335170 Biopsie forceps, oval cups,  
double-action jaws,  
horizontal opening, size 195

WT335171 Biopsie forceps, oval cups,  
double-action jaws,  
vertical opening, size 195

#### Biopsy forceps

oval cupped, double-action jaws,  
22 cm working length, 4 mm diameter,  
110° upturned

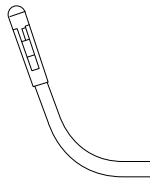


WT335114 Biopsy forceps, oval cups,  
double-action jaws,  
horizontal opening, size 220

WT335124 Biopsy forceps, oval cups,  
double-action jaws,  
vertical opening, size 220

#### Biopsy forceps

curved 70°, 2.0 mm diameter



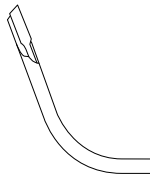
WT230711 Biopsy forceps, double spoon,  
curved 70, short,  
horizontal opening, size 2.0

WT230712 Biopsy forceps, double spoon,  
curved 70, short,  
vertical opening, size 2.0

WT230710 Biopsy forceps, double spoon,  
curved 70,  
horizontal opening, size 2.0

#### Biopsy forceps

curved 70°, 2.5 mm diameter

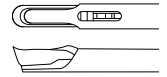


WT230593 Biopsy forceps, through-cutting,  
curved 70, short,  
vertical opening, size 2.5

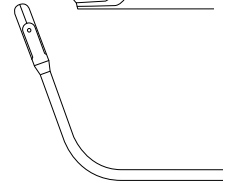
### Biopsy and Grasping Forceps (4)

#### Biopsy forceps

curved 70°, 2.0 mm diameter



WT230577 Biopsy forceps, through-cutting,  
curved 70, vertical opening, size 2.0

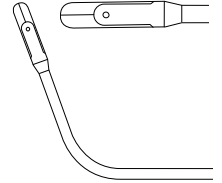


#### Biopsy forceps

curved 70°, 17,5 cm working length

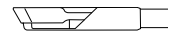


WT230575 Biopsy forceps, double spoon,  
curved 70, vertical opening, size 175



#### Punch forceps, for biopsies

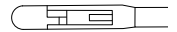
2.0 mm diameter



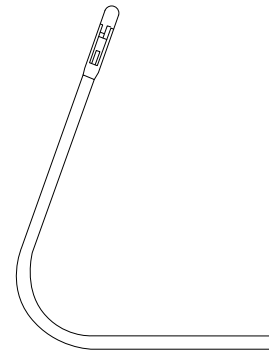
WT336300 Punch forceps, for biopsies,  
through-cutting, straight, size 2.0

#### Biopsy forceps

curved 110°



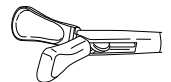
WT230578 Biopsy forceps, double spoon,  
curved 110



### Binner Polyp Grasping Forceps

#### Grasping forceps, acc. to Binner, for polyps

pear-shaped, jaws 3 x 1.5 mm,  
21 cm working length



WT335300 80° upturned, opening horizontally

WT335304 45° upturned, opening horizontally

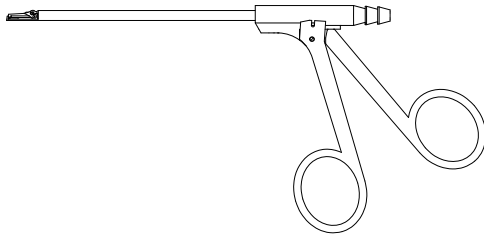
WT335301 80° upturned, shaft curved left

WT335302 80° upturned, shaft curved right



- Nasal suction forceps, biopsy suction punches
- Through-cutting models
- With integrated suction channel
- Straight and upturned models

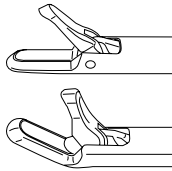
## Biopsy Suction Punches



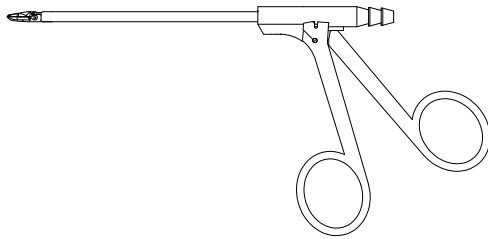
### Suction punch forceps

through-cutting, with suction channel,  
straight/ 30° upcurved,  
10 cm working length, 2 mm cutting width

- WT335200 Suction punch forceps, through-cutting,  
straight, size 2.0 x 100
- WT335201 Suction punch forceps, through-cutting,  
upcurved, size 2.0 x 100

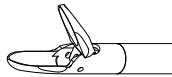


## Blakesley Suction Punches



### Suction punch, acc. to Blakesley

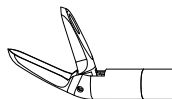
straight, with suction channel,  
4 mm diameter,  
10 cm working length, various cutting lengths (mm)



- WT336800 Suction punch, acc. to Blakesley, straight,  
size 2.5 x 100
- WT336801 Suction punch, acc. to Blakesley, straight,  
size 3.5 x 100

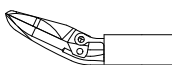
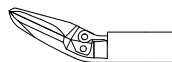
### Suction punch, acc. to Blakesley

with suction channel, 30° upcurved,  
4 mm diameter,  
10 cm working length, various cutting lengths (mm)

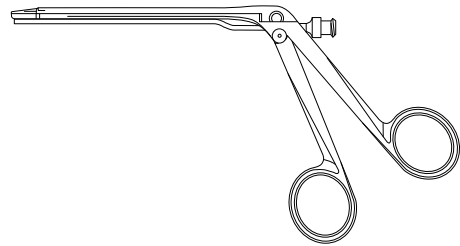


- WT336900 Suction punch, acc. to Blakesley,  
curved upward  
size 2.5 x 100

- WT336901 Suction punch, acc. to Blakesley,  
curved upward  
size 3.5 x 100

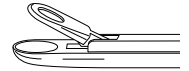


## Blakesley Suction Forceps



### Suction forceps, acc. to Blakesley

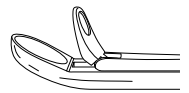
for biopsy and grasping,  
suction channel,  
11 cm working length, various cutting lengths (mm)



- WT337001 Suction forceps, acc. to Blakesley, straight,  
size 3.5 x 110
- WT337002 Suction forceps, acc. to Blakesley, straight,  
size 3.5 x 110
- WT337003 Suction forceps, acc. to Blakesley, straight,  
size 5.0 x 110

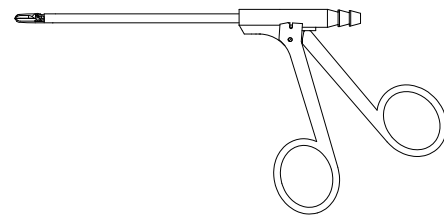
### Suction forceps, acc. to Blakesley

for biopsy and grasping,  
suction channel, 11 cm working length,  
various cutting lengths (mm)  
45° upturned



- WT337101 Suction forceps, acc. to Blakesley, curved,  
size 3.5 x 110
- WT337102 Suction forceps, acc. to Blakesley, curved,  
size 4.0 x 110
- WT337103 Suction forceps, acc. to Blakesley, curved,  
size 5.0 x 110

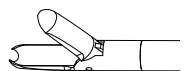
## Takahashi Suction Punches



### Suction punch, acc. to Takahashi

for biopsy and grasping, with suction channel,  
straight/ 30° upcurved,  
10 cm working length, 4 mm shaft diameter

- WT338001 Suction punch, acc. to Takahashi,  
straight, size 3.5 x 100
- WT338101 Suction punch, acc. to Takahashi,  
curved up, size 3.5 x 100





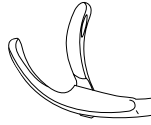


- 360° rotatable models
- Retrograde opening jaws 120°

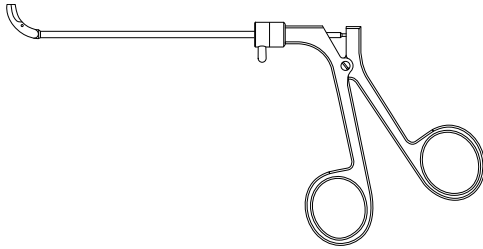
## Antrum Grasping Forceps

### Grasping forceps

finger post facilitates rotation,  
retrograde opening jaws 120°,  
10 cm working length, 360° rotatable



WT515510 Grasping forceps, rotatable, retrograde opening jaws,  
curved down, size 100

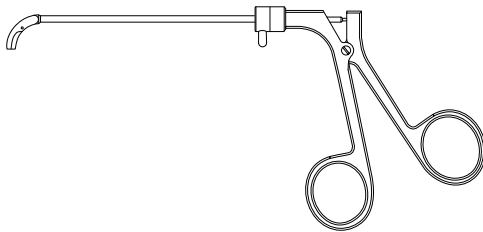


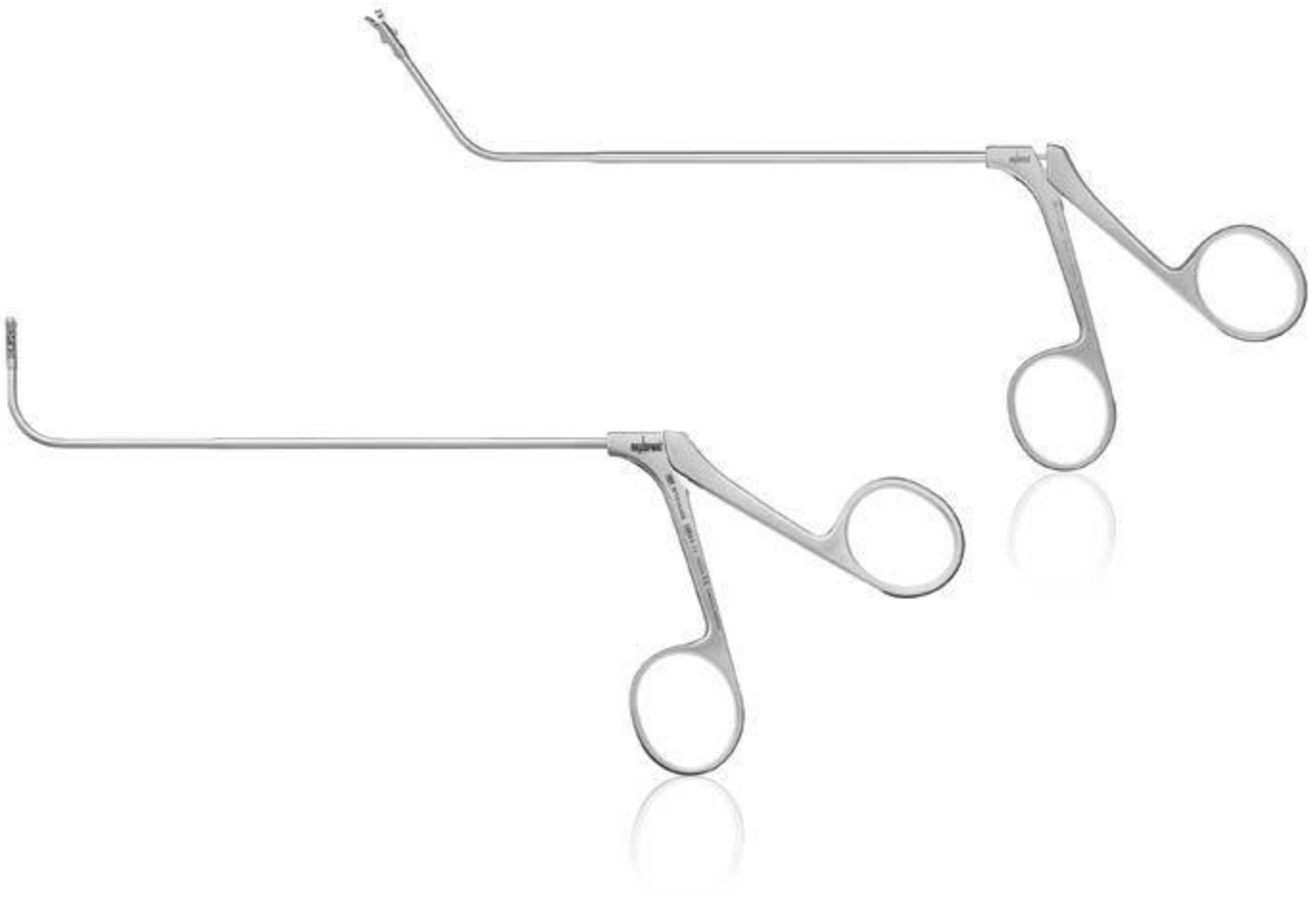
### Grasping forceps

for endonasal removal of cysts and polyps,  
retrograde opening jaws 120°,  
10 cm working length



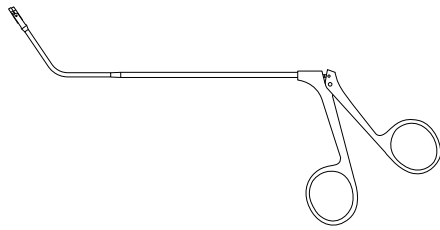
WT515500 Grasping forceps, retrograde opening jaws,  
curved down, size 100





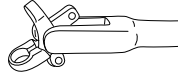
- Frontal sinus punch forceps:  
through-cutting models with round cutting jaws
- Giraffe forceps:  
models with round and oval cupped jaws
- Double-action jaws
- Models with vertical and horizontal opening jaws
- Upturned shaft

## Frontal Sinus Punch Forceps



### Punch forceps

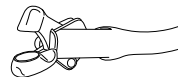
double-action jaws, cupped,  
2 mm cutting diameter,  
14.5 cm working length, 55° upturned



- WT336201 Punch forceps, with cupped jaws,  
through-cutting, curved up 55, size 2.0 x 145
- WT336202 Punch forceps, with cupped jaws,  
through-cutting, curved up 55, size 145

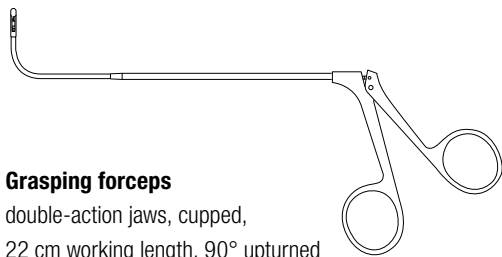
### Punch forceps

double-action jaws, 2 mm, cupped,  
14.5 cm working length, 90° upturned



- WT336203 Punch forceps, with cupped jaws,  
through-cutting, curved up 90, size 145
- WT336204 Punch forceps, with cupped jaws,  
through-cutting, curved up 90, size 145

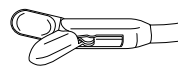
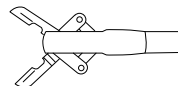
## 90° Giraffe Forceps



### Grasping forceps

double-action jaws, cupped,  
22 cm working length, 90° upturned

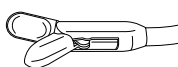
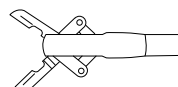
- WT335405 Grasping forceps,  
with cupped jaws, vertical opening,  
curved 90, size 2 x 220
- WT335406 Grasping forceps, with cupped jaws,  
horizontal opening,  
curved 90, size 2 x 220



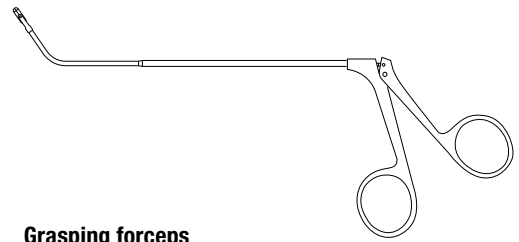
### Grasping forceps

double-action jaws, cupped,  
22 cm working length, 90° upturned

- WT335409 Grasping forceps,  
with cupped jaws,  
vertical opening, curved 90, 4 x 220
- WT335410 Grasping forceps,  
with cupped jaws,  
horizontal opening, curved 90, 4 x 220



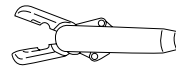
## 55° Giraffe Forceps



### Grasping forceps

double-action jaws, cupped,  
23 cm working length, 55° upturned

- WT335403 Grasping forceps,  
with cupped jaws,  
vertical opening, curved 55, size 4 x 230



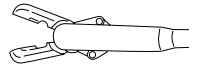
- WT335404 Grasping forceps,  
with cupped jaws,  
horizontal opening, curved 55, size 4 x 230



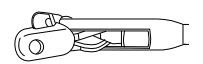
### Grasping forceps

double-action jaws, cupped,  
23 cm working length, 55° upturned

- WT335401 Grasping forceps,  
with cupped jaws,  
vertical opening, curved 55, size 3 x 230



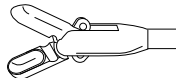
- WT335402 Grasping forceps,  
with cupped jaws,  
horizontal opening, curved 55, size 3 x 230



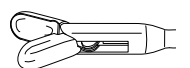
### Grasping forceps

double-action jaws, cupped,  
23 cm working length, 55° upturned

- WT335413 Grasping forceps,  
with cupped jaws,  
vertical opening, curved 55, size 4 x 230



- WT335414 Grasping forceps,  
with cupped jaws,  
horizontal opening, curved 55, size 4 x 230

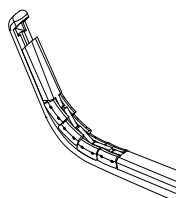


## Punch Forceps

### Punch forceps, for frontal sinus

12,5 cm working length, various diameters (mm)

- WT000884 Punch forceps, for frontal sinus,  
small, size 2.0 x 125
- WT000885 Punch forceps, for frontal sinus,  
standard, size 3.0 x 125
- WT000886 Punch forceps, for frontal sinus,  
large, size 5.0 x 125

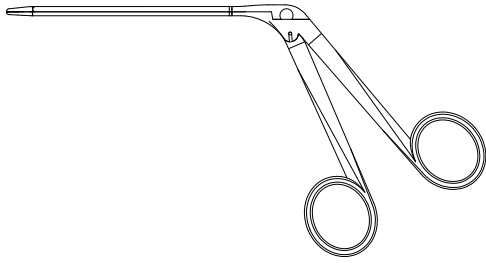




Large variety of models allowing access to all anatomies within the nose and sinus cavities.

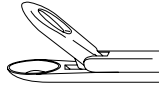
- Straight and upcurved models
- Models with basket
- Models with 360° rotatable shaft

## Blakesley Nasal forceps



### Nasal forceps, acc. to Blakesley

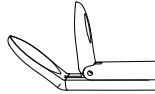
straight, 11.5 cm working length, various jaws widths (mm)



WT330000	Nasal forceps, acc. to Blakesley, straight, size 3.0 x 115	
WT330001	Nasal forceps, acc. to Blakesley, straight, size 3.5 x 115	
WT330002	Nasal forceps, acc. to Blakesley, straight, size 4.0 x 115	
WT330003	Nasal forceps, acc. to Blakesley, straight, size 5.0 x 115	
WT330004	Nasal forceps, acc. to Blakesley, straight, size 6.0 x 115	

### Nasal forceps, acc. to Blakesley

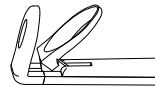
45° upcurved, 11.5 cm working length, various jaws widths (mm)



WT330100	Nasal forceps, acc. to Blakesley, curved up 45, size 3.0 x 115	
WT330101	Nasal forceps, acc. to Blakesley, curved up 45, size 3.5 x 115	
WT330102	Nasal forceps, acc. to Blakesley, curved up 45, size 4.0 x 115	
WT330103	Nasal forceps, acc. to Blakesley, curved up 45, size 5.2 x 115	
WT330104	Nasal forceps, acc. to Blakesley, curved up 45, size 6.0 x 115	

### Nasal forceps, acc. to Blakesley

90° upcurved, 10 cm working length, various jaws sizes (mm)

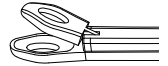


WT330200	Nasal forceps, acc. to Blakesley curved up 90, size 3.0 x 100	
WT330201	Nasal forceps, acc. to Blakesley curved up 90, size 3.5 x 100	
WT330202	Nasal forceps, acc. to Blakesley curved up 90, size 4.0 x 100	
WT330203	Nasal forceps, acc. to Blakesley curved up 90, size 5.0 x 100	

## Blakesley Nasal Forceps (2)

### Nasal forceps, acc. to Blakesley

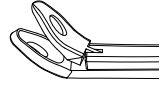
straight, 15 cm working length, various jaws sizes (mm)



WT331501	Nasal forceps, acc. to Blakesley, straight, size 3.5 x 150	
WT331502	Nasal forceps, acc. to Blakesley, straight, size 4.0 x 150	
WT331503	Nasal forceps, acc. to Blakesley, straight, size 5.0 x 150	

### Nasal forceps, acc. to Blakesley

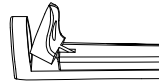
45° upcurved, 15 cm working length, various jaws sizes (mm)



WT331601	Nasal forceps, acc. to Blakesley, 45 curved up, size 3.5 x 150	
WT331602	Nasal forceps, acc. to Blakesley, 45 curved up, size 4.0 x 150	

### Nasal forceps, acc. to Blakesley

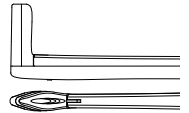
90° upcurved, 15 cm working length, various jaws sizes (mm)



WT331701	Nasal forceps, acc. to Blakesley, 90 curved up, size 3.5 x 150	
WT331702	Nasal forceps, acc. to Blakesley, 90 curved up, size 4.0 x 150	

### Nasal forceps, acc. to Blakesley

upcurved, 17,5 cm working length, 3.6 mm jaws size



WT230708	Nasal forceps, acc. to Blakesley, curved up, size 3.6 x 175	
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### Nasal forceps, acc. to Blakesley

straight, 17 cm working length, various jaws sizes

WT342100	Nasal forceps, acc. to Blakesley, straight, size 0, 170	
WT342101	Nasal forceps, acc. to Blakesley, straight, size 1, 170	

### Nasal forceps, acc. to Blakesley

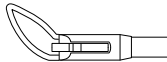
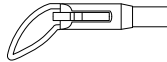
45° upcurved, 17 cm working length, various jaws sizes

WT342200	Nasal forceps, acc. to Blakesley, 45 curved up, size 0, 170	
WT342201	Nasal forceps, acc. to Blakesley, 45 curved up, size 1, 170	

## Blakesley Antrum Forceps

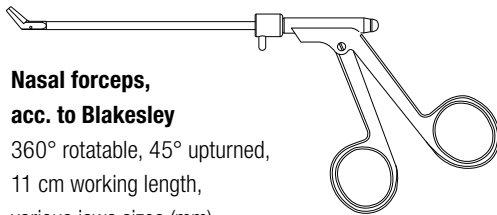
**Nasal forceps, acc. to Blakesley**  
9.5 x 4.5 mm, 10 cm working length

- WT330500 Nasal forceps, acc. to Blakesley with tubular shaft, curved to left, size 100
- WT330600 Nasal forceps, acc. to Blakesley with tubular shaft, curved to right, size 100



## Blakesley Nasal Forceps, rotatable

**Nasal forceps, acc. to Blakesley**  
360° rotatable, 45° upturned, 11 cm working length, various jaws sizes (mm)



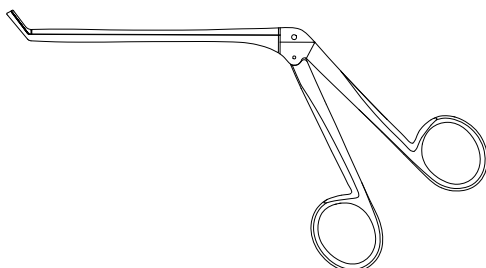
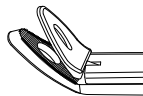
- WT330901 Nasal forceps, acc. to Blakesley, rotatable. 45° curved up, size 3.5 x 110
- WT330902 Nasal forceps, acc. to Blakesley, rotatable. 45° curved up, size 4.0 x 110
- WT330903 Nasal forceps, acc. to Blakesley, rotatable. 45° curved up, size 5.0 x 110



## Weil-Blakesley Nasal Forceps

**Nasal forceps, acc. to Weil-Blakesley**  
45° upcurved, 4.8 mm jaws size

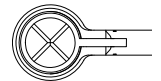
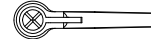
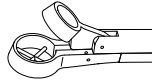
- WT230731 Nasal forceps, acc. to Weil-Blakesley, through-cutting, upcurved 45°, size 4.8



## Hartmann Nasal Cutting Forceps

**Hartmann nasal cutting forceps,**  
straight shaft, 11 cm working length, various basket diameters (mm)

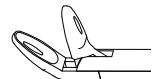
- WT329001 Hartmann nasal cutting forceps, with basket, size 5.0 x 110
- WT329002 Hartmann nasal cutting forceps, with basket, size 8.0 x 110
- WT329003 Hartmann nasal cutting forceps, with basket, size 9.0 x 110
- WT329004 Hartmann nasal cutting forceps, with basket, size 10 x 110



## Struempel-Voss Nasal Forceps

**Nasal forceps, acc. to Struempel-Voss**  
extra delicate, 45° upcurved, 10 cm working length, 2.5 mm jaws size

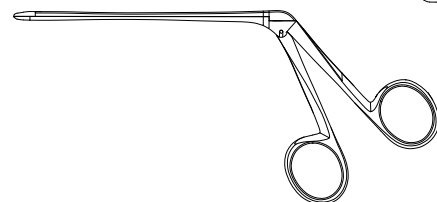
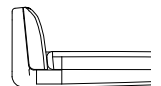
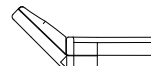
- WT330300 Struempel-Voss nasal forceps, curved up, delicate, size 110



## Struempel Forceps

**Nasal forceps, acc. to Struempel**  
oval cup-shaped jaws, 10 cm working length, 2.6 mm width

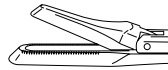
- WT341000 Nasal forceps, acc. to Struempel, straight, size 2.6 x 100
- WT341045 Nasal forceps, acc. to Struempel, curved up 45°, size 2.6 x 100
- WT341090 Nasal forceps, acc. to Struempel, curved up 90°, size 2.6 x 100



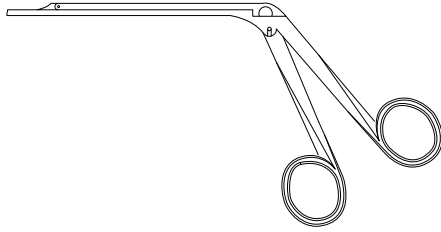
## Struycken Nasal Cutting Forceps

### Punch forceps, acc. to Struycken

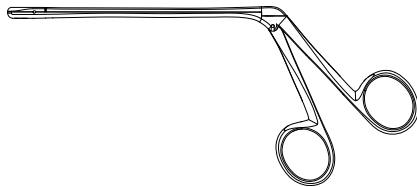
11 cm working length, cutting width (mm)



WT327500 Punch forceps, acc. to Struycken, size 1.2 x 110



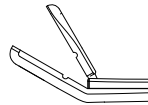
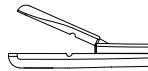
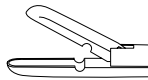
## Takahashi Nasal Forceps



### Nasal forceps, acc. to Takahashi

spoon 3 x 10 mm, 5 x 10 mm (large), various working lengths (mm)

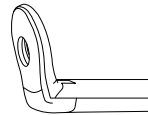
- WT327001 Nasal forceps, acc. to Takahashi, small, straight, size 3 x 100
- WT327002 Nasal forceps, acc. to Takahashi, curved up, straight, size 3 x 100
- WT327003 Nasal forceps, acc. to Takahashi, large, straight, size 115



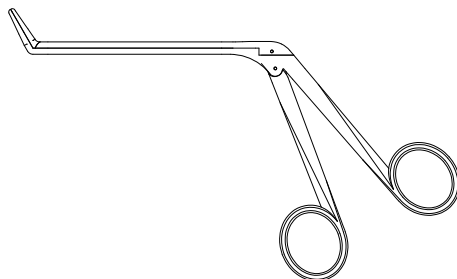
## Wigand Polyp Grasping Forceps

### Grasping forceps, acc. to Wigand

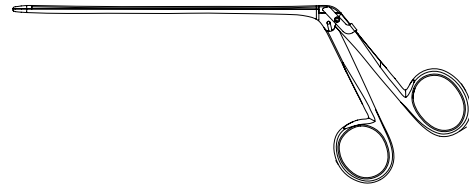
round shaped, spoon 6 x 14 mm, 11 cm working length, 60° upcurved



WT330400 Grasping forceps, acc. to Wigand, for polys, round, curved up, size 110

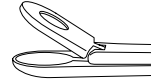


## Draf Ethmoid Forceps



### Nasal forceps, acc. to Draf

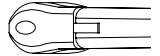
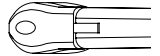
very delicate, 2.4 mm width, various working lengths (mm), straight



WT338413 Nasal forceps, acc. to Draf, straight, size 2.4 x 130

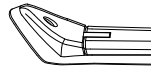
WT338416 Nasal forceps, acc. to Draf, straight, size 2.4 x 160

WT338419 Nasal forceps, acc. to Draf, straight, size 2.4 x 190



### Nasal forceps, acc. to Draf

very delicate, 2.4 mm width, various working lengths (mm), 60° upcurved



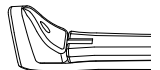
WT338513 Nasal forceps, acc. to Draf, curved up, size 2.4 x 130

WT338516 Nasal forceps, acc. to Draf, curved up, size 2.4 x 160

WT338519 Nasal forceps, acc. to Draf, curved up, size 2.4 x 190

### Nasal forceps, acc. to Draf

very delicate, 2.4 mm width, various working lengths (mm), 90° upcurved



WT338613 Nasal forceps, acc. to Draf, curved up, size 2.4 x 130

WT338616 Nasal forceps, acc. to Draf, curved up, size 2.4 x 160

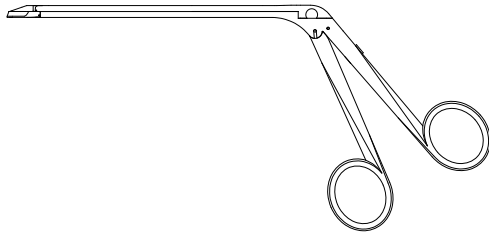
WT338619 Nasal forceps, acc. to Draf, curved up, size 2.4 x 190





- Especially for endonasal endoscopic or microscopic microsurgical operations: Removal of polypoid diseased mucous membranes, membrane remnants, lamellae of bone, septa and nasal polyps
- Special curved and slender instruments with long shafts for easier approach of the ostium and manipulation within the maxillary sinus. Facilitate the surgery of the agger-nasi, the frontal recess and the ostium of the frontal sinus.
- Delicate instruments for exact manipulation at anatomically critical places. Especially suitable for pre- and post-operative day surgery.
- Through-cutting, backbiter and oval cupped jaws models

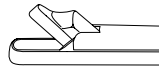
## Moriyama Forceps



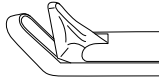
### Punch forceps, acc. to Moriyama

through-cutting, delicate,  
12,5 cm working length, various cup types  
and sizes (mm)

WT326801 Punch forceps, acc. to Moriyama,  
through cutting, delicate,  
straight, size 1.5 x 125



WT326802 Punch forceps, acc. to Moriyama,  
through cutting, delicate, curved up,  
size 1.5 x 125



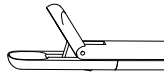
WT326803 Punch forceps, acc. to Moriyama,  
through cutting, delicate,  
sheath curved, size 1.5 x 125



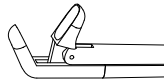
### Nasal forceps, acc. to Moriyama

with oval cups,  
14 cm working length, various cup types  
and sizes (mm)

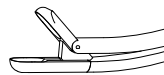
WT326804 Nasal forceps, acc. to Moriyama,  
with oval cups, straight,  
size 3.0 x 140



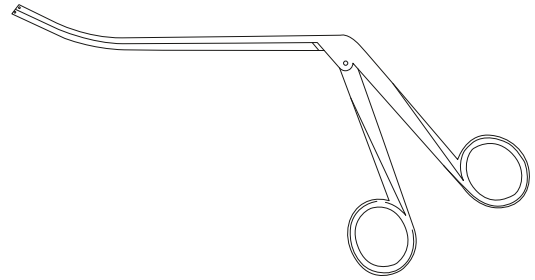
WT326805 Nasal forceps, acc. to Moriyama,  
with oval cups, curved up,  
size 3.0 x 140



WT326806 Nasal forceps, acc. to Moriyama,  
with oval cups, fine, sheath curved up,  
size 140



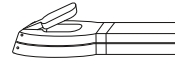
## Moriyama Forceps (2)



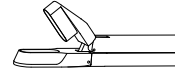
### Forceps, acc. to Moriyama

various types, cutting widths (mm)  
working lengths (mm)

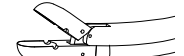
WT326807 Punch forceps, acc. to Moriyama,  
backward cutting, sheath curved up,  
size 2.7 x 130



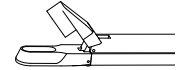
WT326808 Punch forceps, acc. to Moriyama,  
through cutting, curved up,  
size 140



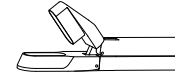
WT326809 Nasal forceps, acc. to Moriyama,  
with oval cups, curved up,  
size 140



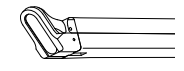
WT326810 Punch forceps, acc. to Moriyama,  
through cutting, straight,  
size 105



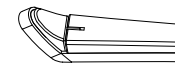
WT326811 Punch forceps, acc. to Moriyama,  
through cutting, straight,  
size 3 x 105



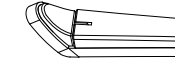
WT326812 Punch forceps, acc. to Moriyama,  
through cutting, curved up,  
size 105



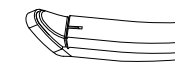
WT326813 Punch forceps, acc. to Moriyama,  
through cutting, curved up,  
size 2.0 x 100



WT326814 Punch forceps, acc. to Moriyama,  
through cutting, large, curved up,  
size 105



WT326815 Punch forceps, acc. to Moriyama,  
through cutting, straight,  
size 1.3 x 125





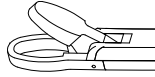
- Sharp, strong curved cutting punches and forceps. Serve to remove or fenestrate bone partitions, excise cysts and polyps.
- Through-cutting models with rigid lower jaw used as a perforator, and mobile upper jaw used as the cutting part.
- Super punch, upper jaw with serrated surface, prevents soft tissue or mucosa from slipping away.
- Through-cutting models, standard type.

## Wigand Through Cutting Forceps

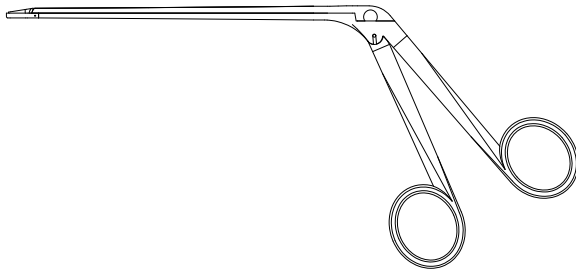
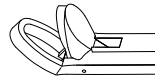
### Punch forceps, acc. to Wigand

universal, 14 cm working length,  
4.2 mm cutting width

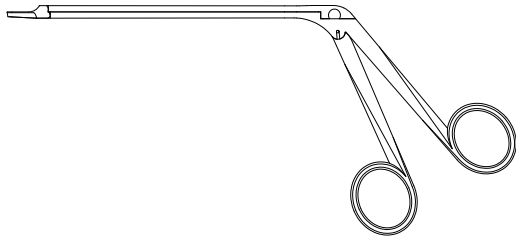
WT334200 Punch forceps,  
acc. to Wigand, universal,  
straight, size 4.2 x 140



WT334245 Punch forceps,  
acc. to Wigand, universal,  
curved up 45, size 4.2 x 140



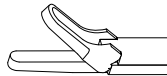
## Wigand "You see what you cut" Forceps



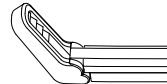
### Punch forceps, acc. to Wigand-Herberhold

13 cm working length/ 12.5 cm (WT334445)

WT334300 Punch forceps,  
acc. to Wigand-Herberhold,  
forward cutting, straight, size L



WT334345 Punch forceps,  
acc. to Wigand-Herberhold,  
forward cutting, curved up, size L



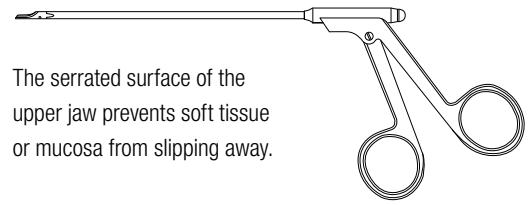
WT334400 Punch forceps,  
acc. to Wigand-Herberhold,  
forward cutting, straight, size S



WT334445 Punch forceps,  
acc. to Wigand-Herberhold,  
forward cutting, curved up, size S

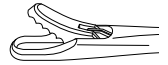


## "Super Punch" Forceps

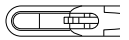


The serrated surface of the  
upper jaw prevents soft tissue  
or mucosa from slipping away.

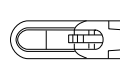
**Punch forceps "Super Punch"**  
through-cutting, serrated upper jaw,  
straight, 13 cm working length,  
various cutting widths (mm)



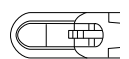
WT336400 Punch forceps "Super Punch", through-cutting,  
serrated, straight, size 2.0 x 130



WT336401 Punch forceps "Super Punch", through-cutting,  
serrated, straight, size 2.5 x 130



WT336402 Punch forceps "Super Punch", through-cutting,  
serrated, straight, size 3.0 x 130



**Punch forceps "Super Punch"**  
through-cutting, serrated upper jaw,  
upcurved, 13 cm working length,  
various cutting widths (mm)



WT336500 Punch forceps "Super Punch", through-cutting,  
serrated, curved, size 2.0 x 130



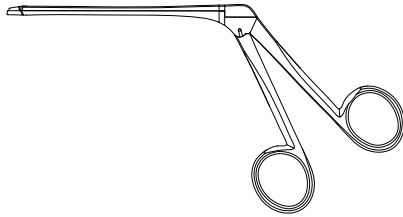
WT336501 Punch forceps "Super Punch", through-cutting,  
serrated, curved, size 2.5 x 130



WT336502 Punch forceps "Super Punch", through-cutting,  
serrated, curved, size 3.0 x 130

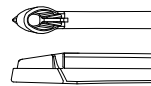
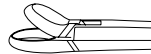


## Blakesley Through-Cutting Forceps



### Punch forceps, acc. to Blakesley

straight, working lengths shown in cm and mm (115=11.5 cm, 11=11cm), various cutting widths (mm)



- WT335800 Punch forceps, acc. to Blakesley, through-cutting, straight, size 2.0 x 110
- WT335801 Punch forceps, acc. to Blakesley, through-cutting, straight, size 2.5 x 100
- WT335802 Punch forceps, acc. to Blakesley, through-cutting, straight, size 3 x 11
- WT335900 Punch forceps, acc. to Blakesley, through-cutting, curved up, size 2 x 11
- WT335901 Punch forceps, acc. to Blakesley, through-cutting, curved up 45, size 2.5 x 115
- WT335902 Punch forceps, acc. to Blakesley, through-cutting, curved up, size 3 x 11

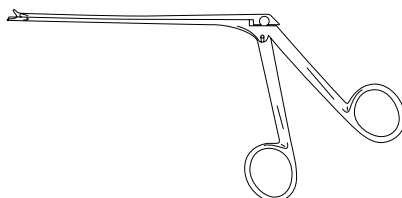
## Draf Punch Forceps

### Punch forceps, acc. to Draf

through-cutting, very delicate, oval jaws, 3 mm x 1 mm, 14 cm working length



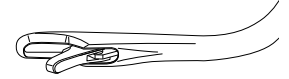
- WT338901 Punch forceps, acc. to Draf, through-cutting, straight, size 1.0 x 140



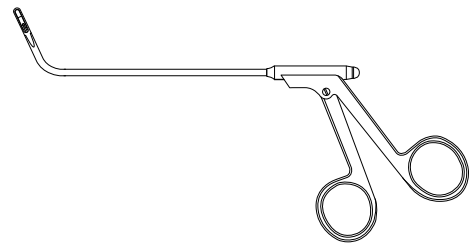
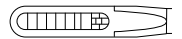
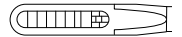
## Punch Forceps

### Punch forceps

through-cutting, oval, shaft 70° upcurved, 13 cm working length, cutting width 2 x 6 mm



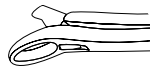
- WT336601 Punch forceps, through-cutting, curved up, cutting to the left, size 130
- WT336602 Punch forceps, through-cutting, curved up, cutting to the right, size 130



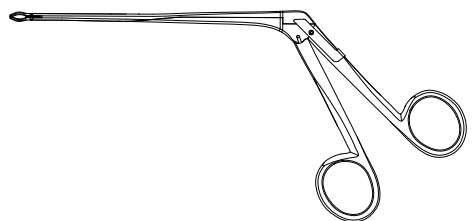
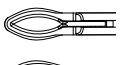
## Yoon Forceps

### Nasal forceps, acc. to Yoon

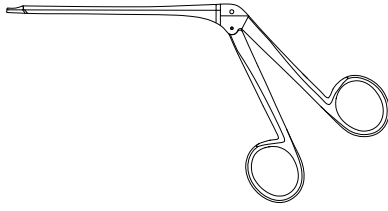
through-cutting, horizontal opening, cutting width 2.5 x 5 mm, oval, 13.5 cm working length



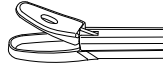
- WT336611 Nasal forceps, acc. to Yoon through-cutting, curved to left, size 2.5 x 135
- WT336612 Nasal forceps, acc. to Yoon through-cutting, curved to right, size 2.5 x 135



## Weil-Blakesley Through-Cutting Forceps

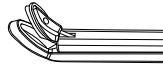


**Nasal forceps, acc. to Weil-Blakesley**  
straight, 11 cm working length



- WT336726 Nasal forceps, acc. to Weil-Blakesley, through-cutting, straight, S, size 110
- WT336728 Nasal forceps, acc. to Weil-Blakesley, through-cutting, straight, M, size 110
- WT336730 Nasal forceps, acc. to Weil-Blakesley, through-cutting, straight, L, size 110

**Nasal forceps, acc. to Weil-Blakesley**  
45° curved, 11 cm working length



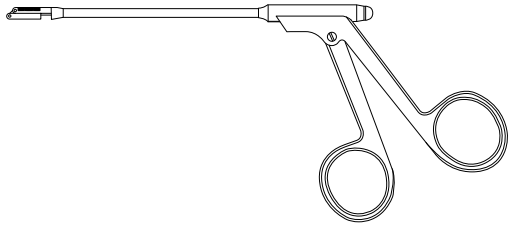
- WT336727 Nasal forceps, acc. to Weil-Blakesley, through-cutting, 45 curved, S, size 110
- WT336729 Nasal forceps, acc. to Weil-Blakesley, through-cutting, 45 curved, M, size 110
- WT336731 Nasal forceps, acc. to Weil-Blakesley, through-cutting, 45 curved, L, size 110





- Sidebiting models and backbiters
- 360° rotatable backbiters, micro backbiter
- Backbiters with integrated suction channel

## Antrum Backbiters (1)



### Punch forceps

adult size: 2.5 mm cutting width,  
10 cm working length

WT335000 Punch forceps, backward  
upcutting, size 2.5 x 100

WT335001 Punch forceps, backward  
cutting, to the left,  
size 2.5 x 100

WT335002 Punch forceps, backward  
cutting, to the right,  
size 2.5 x 100

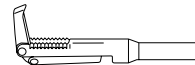
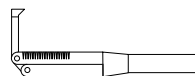
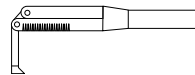
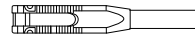
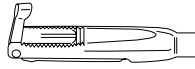
### Punch forceps

pediatric size: 1.5 mm cutting width,  
10 cm working length

WT335020 Punch forceps,  
backward upcutting,  
size 1.5 x 100

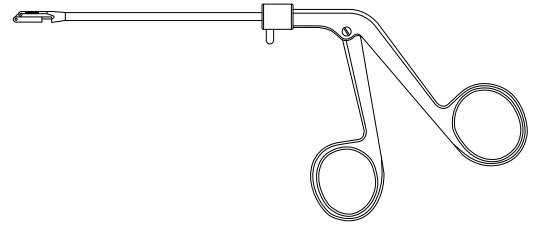
WT335021 Punch forceps,  
backward cutting,  
to the left, size 1.5 x 100

WT335022 Punch forceps,  
backward cutting,  
to the right, size 1.5 x 100



## Rotating Backbiters

The rotating system allows backward cutting to the left,  
the right and upwards.



### Punch forceps

finger post facilitates 360° rotation,  
10 cm working length,  
various cutting widths (mm)

WT335015 Punch forceps,  
rotatable,  
backward cutting,  
curved up, size 1.5 x 100

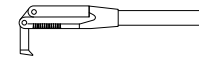
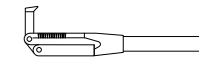
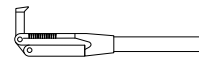
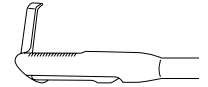
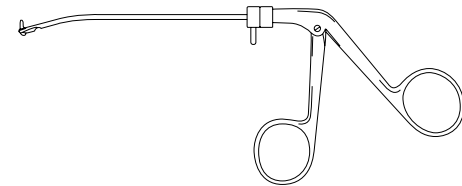
WT335013 Punch forceps, rotatable,  
backward cutting,  
curved up, size 2.0 x 100

WT335025 Punch forceps, rotatable,  
backward cutting,  
curved up, size 2.5 x 100

### Punch forceps

finger post facilitates 360° rotation,  
shaft curved down,  
10 cm working length, 2 mm cutting width

WT335050 Punch forceps, rotatable,  
backward cutting,  
size 2.0 x 100





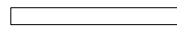
## Pediatric Antrum Suction Backbiters

### Suction punch forceps

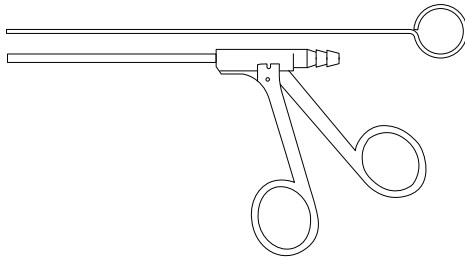
with integrated suction channel,  
2 mm cutting width,  
10 cm working length, 4 mm shaft diameter



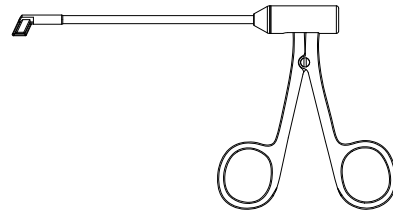
WT334900 Suction punch forceps,  
backward cutting,  
straight, size 4.0 x 100



WT334904 Suction punch forceps,  
backward cutting,  
upcurved, size 4.0 x 100



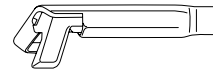
## Sidebiting Antrum Punch



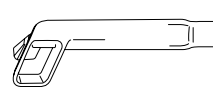
### Punch forceps

through-cutting,  
13 cm working length, 3 mm cutting width

WT334801 Punch forceps, sideward cutting,  
downward left, size 3.0 x 130



WT334802 Punch forceps, sideward cutting,  
downward right, size 3.0 x 130



### Punch forceps, acc. to Schwager

(not shown)

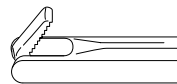
WT334803 Punch forceps, acc. to Schwager, curved left

WT334804 Punch forceps, acc. to Schwager, curved right

## Antrum Suction Backbiters for Adults

### Suction punch forceps

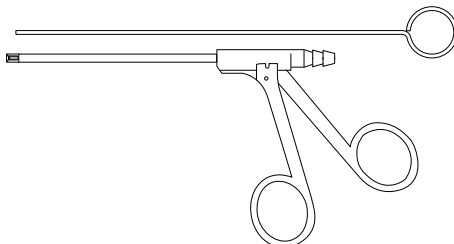
with integrated suction channel,  
2.5 mm cutting width,  
10 cm working length, 5 mm shaft diameter



WT335100 Suction punch forceps,  
backward cutting,  
straight, size 5.0 x 100



WT335104 Suction punch forceps,  
backward cutting,  
curved up, size 5.0 x 100







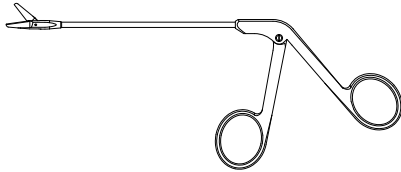
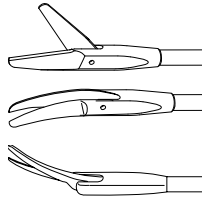
- Nasal scissors, concha and ethmoid scissors, sliding shaft and tubing shaft models
- Serrated blade models
- Smooth and very delicate models

## Nasal Scissors

### Nasal scissors

serrated blades, 13 cm working length, various types

- WT326200 Nasal scissors, serrated, straight, size 130
- WT326201 Nasal scissors, serrated, curved to left, size 130
- WT326202 Nasal scissors, serrated, curved to right, size 130

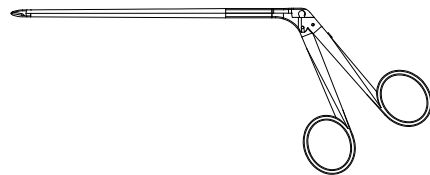
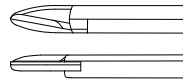


## Draf Ethmoid Scissors

### Ethmoid scissors, acc. to Draf

very delicate, 5.8 mm blade length, various shaft lengths (mm)

- WT338713 Ethmoid scissors, acc. to Draf, straight, size 130
- WT338716 Ethmoid scissors, acc. to Draf, straight, size 160
- WT338719 Ethmoid scissors, acc. to Draf, straight, size 190

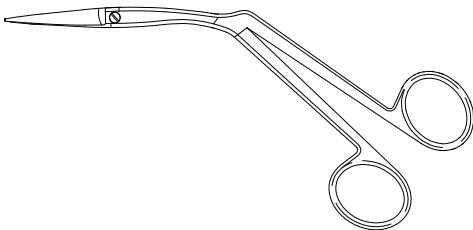
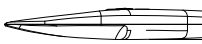


## Heymann Nasal Scissors

### Nasal scissors, acc. to Heymann

standard model, various working lengths (mm)

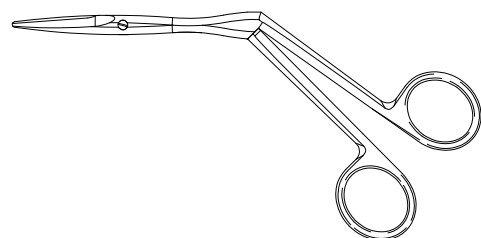
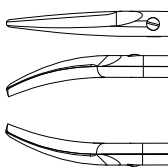
- WT326000 Nasal scissors, acc. to Heymann, standard, size 95
- WT326100 Nasal scissors, acc. to Heymann, standard, size 90
- WT326011 Nasal scissors, acc. to Heymann, standard, size 110



### Nasal scissors, acc. to Heymann

smooth blades, 9 cm working length

- WT326009 Nasal scissors, acc. to Heymann, size 90
- WT326101 Nasal scissors, acc. to Heymann, curved to left, size 90
- WT326102 Nasal scissors, acc. to Heymann, curved to right, size 90

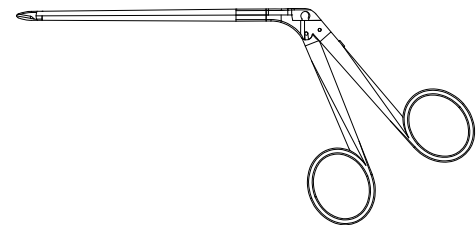
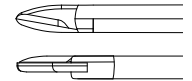


## Belucci Scissors

### Nasal scissors, acc. to Belucci

straight, 7.7 mm jaws length, 10 cm shaft length

- WT342000 Nasal scissors, acc. to Belucci, straight, size 100

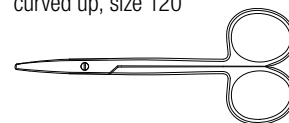
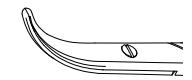


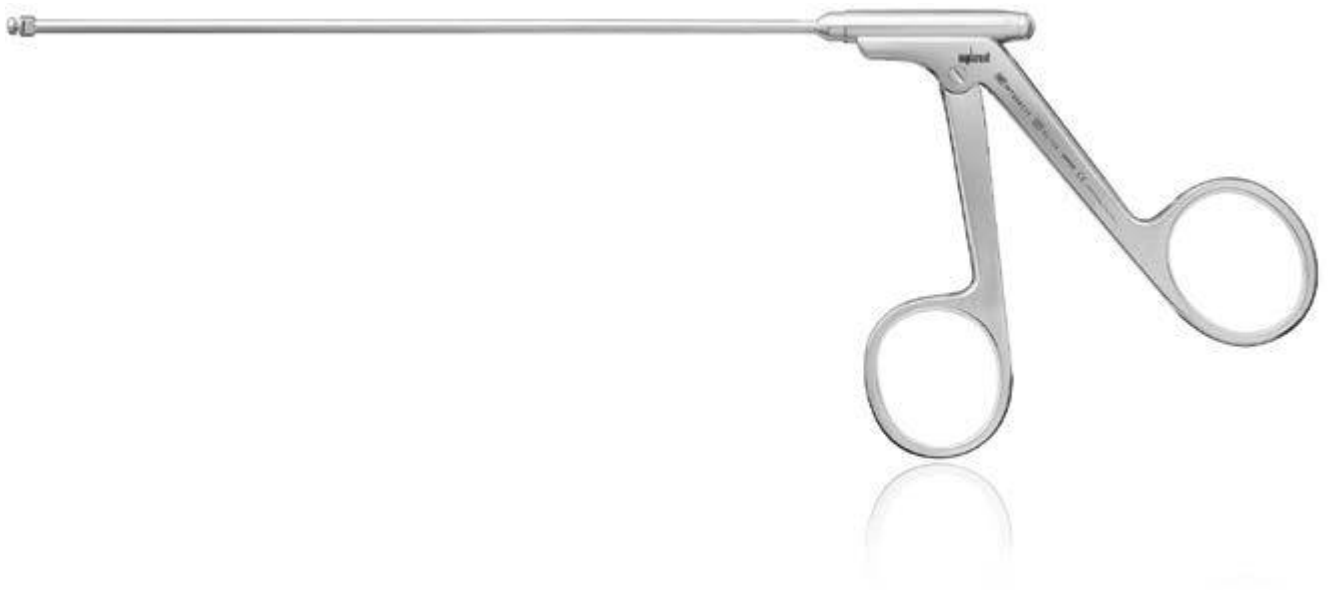
## Fomon Scissors

### Nasal scissors, acc. to Fomon

12 cm working length

- WT438912 Nasal scissors, acc. to Fomon, curved up, size 120



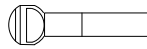


- For enlargement of openings in the sphenoid frontal wall
- Can be used to cut out pieces of the nasal concha, thin bone segments, bony ethmoid septa
- Useful for treatment of choanal atresia
- Full circle of 360° cutting without rotating the instrument; models with integrated suction channel
- By punching exclusively in the sagittal axis, there is a reduced risk of traumatizing the cranium, the carotis and the optic nerve osseous canal
- The rigid inside cutting jaws prevent the removal of tissue or mucosa while cutting

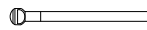
## Circular Cutting Punches

### Punch forceps, circular cutting

cutting in a full circle of 360°,  
straight/ 65° upturned,  
16 cm working length, various diameters (mm)

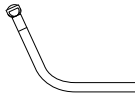


WT334735 Punch forceps, circular cutting,  
straight, size 3.5 x 160

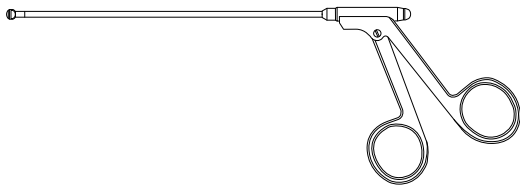


WT334745 Punch forceps, circular cutting,  
straight, size 4.5 x 160

WT334765 Punch forceps, circular cutting,  
curved up, size 3.5 x 160

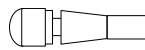


WT334775 Punch forceps, circular cutting,  
curved up, size 4.5 x 160



### Punch forceps, circular cutting

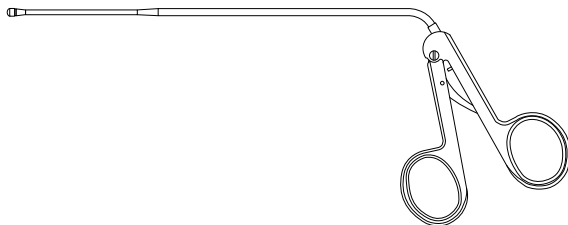
cutting in a full circle of 360°,  
18 cm working length, various diameters (mm)



WT334935 Punch forceps, circular cutting,  
straight, size 3.5 x 180



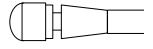
WT334945 Punch forceps, circular cutting,  
straight, size 4.5 x 180



## Circular Cutting Punches (cont.)

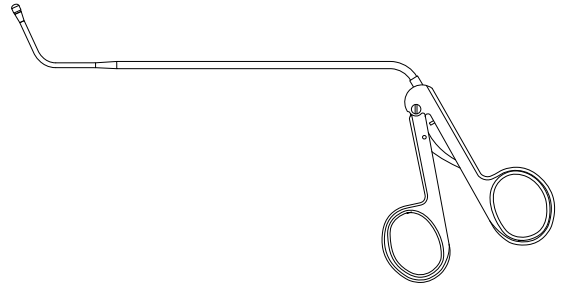
### Punch forceps, circular cutting

cutting in a full circle of 360°,  
65° upturned, 17 cm working length, various diameters (mm)



WT334965 Punch forceps, circular cutting,  
curved up, size 3.5 x 170

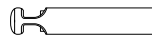
WT334975 Punch forceps, circular cutting  
curved up, size 4.5 x 170



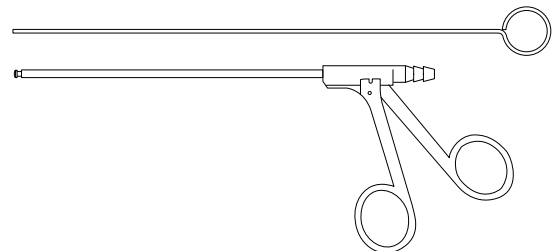
## Suction Punch

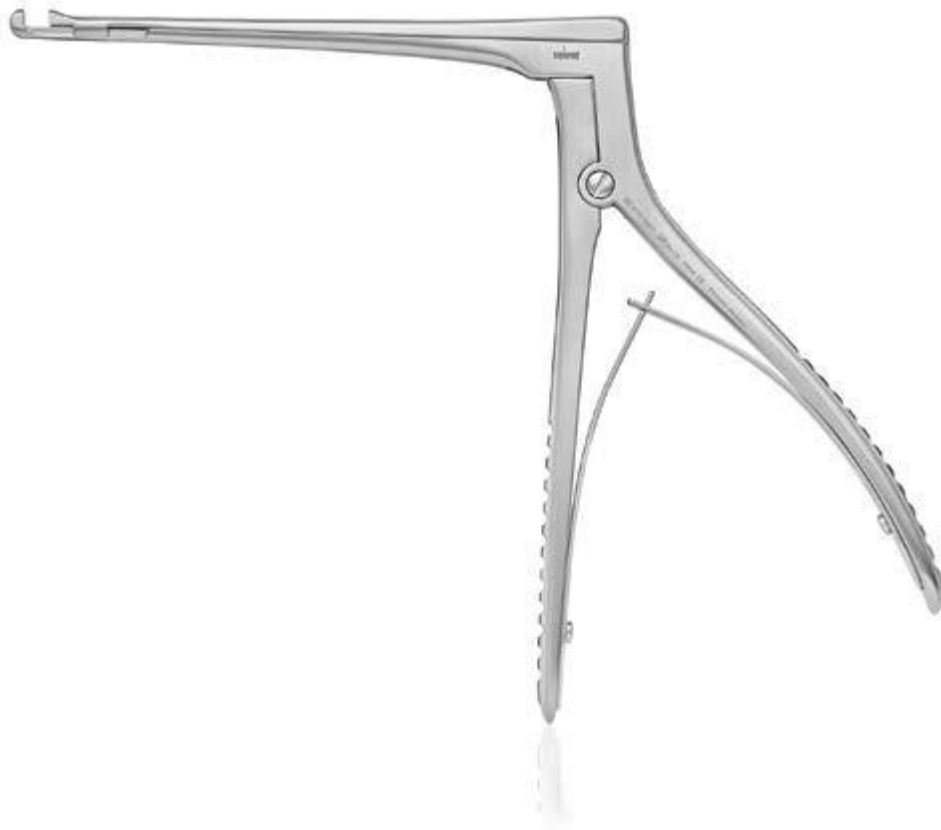
### Suction punch forceps

integrated suction channel,  
allows cutting in a full circle of 360° with  
simultaneous suction, 3.5 mm diameter,  
16 cm working length



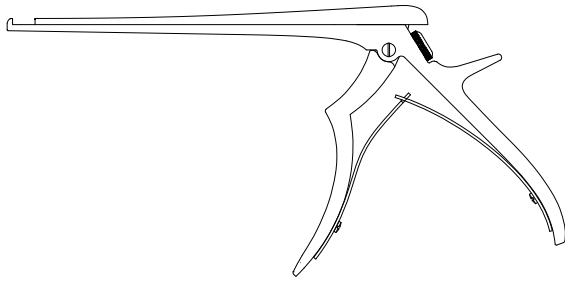
WT334835 Suction punch forceps, circular cutting,  
straight, size 3.5 x 160





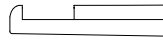
- Through-cutting models, backward cutting models with deposit to pick up and collect bone material
- 360° rotatable models, detachable models
- Up- and downbiting models
- Upturned models for frontal sinus

## Detachable Kerrison Sphenoid Punches



### Punch forceps, acc. to Kerrison

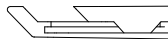
detachable for reprocessing,  
cutting up 90° or down 90°,  
18 cm working length,  
various cutting widths (mm)



- WT512901 Punch forceps, acc. to Kerrison,  
90 cutting upward, detachable, size 1.0 x 180
- WT512902 Punch forceps, acc. to Kerrison,  
90 cutting upward, detachable, size 2.0 x 180
- WT512903 Punch forceps, acc. to Kerrison,  
90 cutting upward, detachable, size 3.0 x 180
- WT512904 Punch forceps, acc. to Kerrison,  
90 cutting upward, detachable, size 4.0 x 180
- WT512911 Punch forceps, acc. to Kerrison,  
90 cutting downward, detachable, size 1.0 x 180
- WT512912 Punch forceps, acc. to Kerrison,  
90 cutting downward, detachable, size 2.0 x 180
- WT512913 Punch forceps, acc. to Kerrison,  
90 cutting downward, detachable, size 3.0 x 180
- WT512914 Punch forceps, acc. to Kerrison,  
90 cutting downward, detachable, size 4.0 x 180

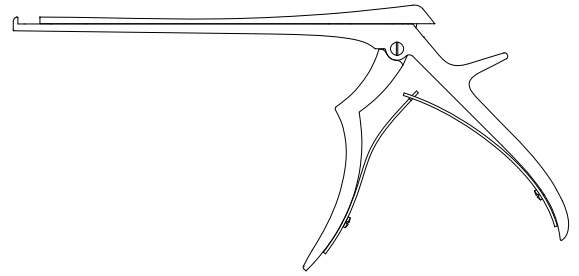
### Punch forceps, acc. to Kerrison

detachable for reprocessing,  
cutting up 40°,  
18 cm working length,  
various cutting widths (mm)



- WT512921 Punch forceps, acc. to Kerrison,  
40 cutting upward, detachable, size 1.0 x 180
- WT512922 Punch forceps, acc. to Kerrison,  
40 cutting upward, detachable, size 2.0 x 180
- WT512923 Punch forceps, acc. to Kerrison,  
40 cutting upward, detachable, size 3.0 x 180
- WT512924 Punch forceps, acc. to Kerrison,  
40 cutting upward, detachable, size 4.0 x 180
- WT512925 Punch forceps, acc. to Kerrison,  
40 cutting upward, detachable, size 5.0 x 180
- WT512926 Punch forceps, acc. to Kerrison,  
40 cutting upward, detachable, size 6.0 x 180

## Kerrison Sphenoid Punches



### Punch forceps, acc. to Kerrison

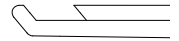
cutting up 90° or down 90°,  
18 cm working length,  
various cutting widths (mm)



- WT513201 Punch forceps, acc. to Kerrison, 90 cutting upward,  
size 1.0 x 180
- WT513202 Punch forceps, acc. to Kerrison, 90 cutting upward,  
size 2.0 x 180
- WT513203 Punch forceps, acc. to Kerrison, 90 cutting upward,  
size 3.0 x 180
- WT513302 Punch forceps, acc. to Kerrison, 90 cutting downward,  
size 2.0 x 180
- WT513303 Punch forceps, acc. to Kerrison, 90 cutting downward,  
size 3.0 x 180

### Punch forceps, acc. to Kerrison

cutting up 40°,  
18 cm working length,  
2.0 mm cutting width

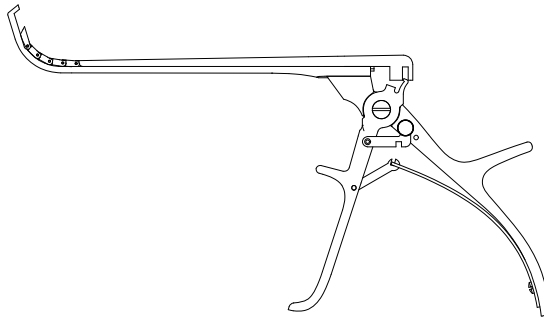


- WT513402 Punch forceps, acc. to Kerrison,  
40 cutting upward, size 2.0 x 180



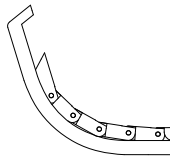


## Frontal Sinus Punch



### Punch forceps

shaft 70° upturned,  
2.0 or 3.5 mm jaws size,  
18 or 17.5 cm working length



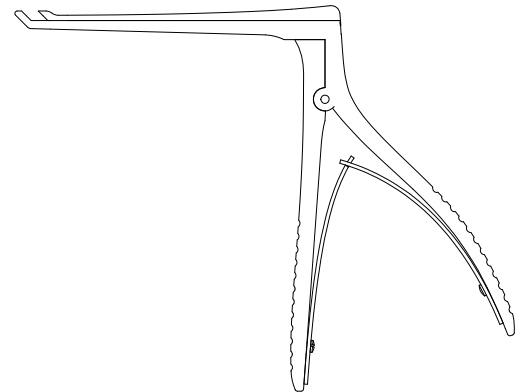
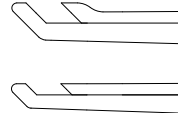
- WT512602 Punch forceps, curved up, size 2.0 x 180
- WT512603 Punch forceps, curved up 70, size 3.5 x 175

## Hajek-Kofler Sphenoid Punches

### Punch forceps, acc. to Hajek-Kofler

forward cutting, up 45°,  
14 cm working length, various cutting widths (mm)

- WT512301 Punch forceps, acc. to Hajek-Kofler,  
upcutting forward, size 4.0 x 140
- WT512302 Punch forceps, acc. to Hajek-Kofler,  
upcutting forward, size 2.0 x 140

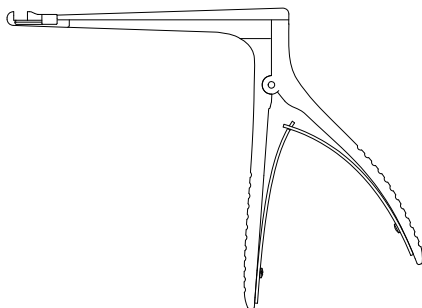
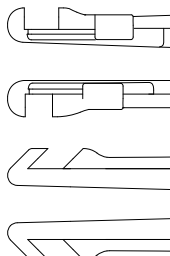


## Hajek Sphenoid Punches

### Punch forceps, acc. to Hajek

4 mm width,  
various working lengths (mm), various types

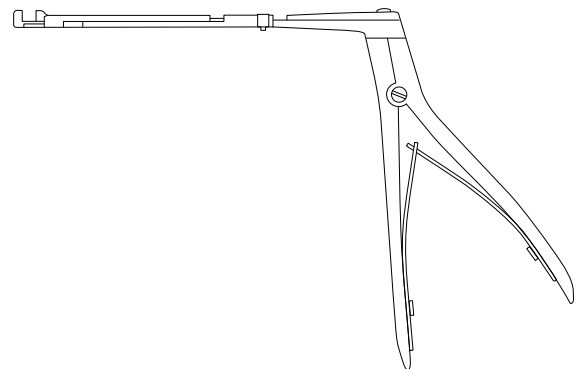
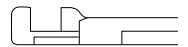
- WT512001 Punch forceps, acc. to Hajek,  
cutting upward 90, size 4.0 x 120
- WT512002 Punch forceps, acc. to Hajek,  
cutting upward 90, size 4.0 x 140
- WT512201 Punch forceps, acc. to Hajek,  
upcutting backward 90, size 4.0 x 140
- WT512202 Punch forceps, acc. to Hajek,  
downcutting backward 90, size 4.0 x 140



### Punch forceps, acc. to Hajek-Kofler

slender, 360° rotatable,  
15.5 cm working length

- WT513000 Punch forceps, acc. to Hajek-Kofler,  
rotatable, size 155



## Sphenoid Punches

- With deposit to pick up and collect bone material.
- Enables to work continuously.

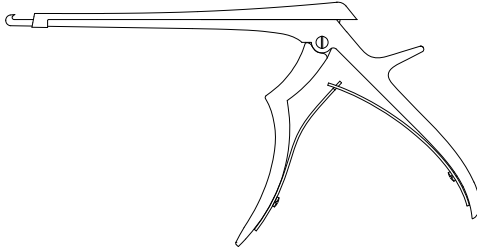
### Punch forceps

with guide wire, through-cutting,  
15 cm working length, various cutting widths (mm)



WT512402 Punch forceps, through-cutting,  
upward 90, size 2.0 x 150

WT512403 Punch forceps, through-cutting,  
size 3.0 x 150



WT512410 Guide wire, for punch forceps



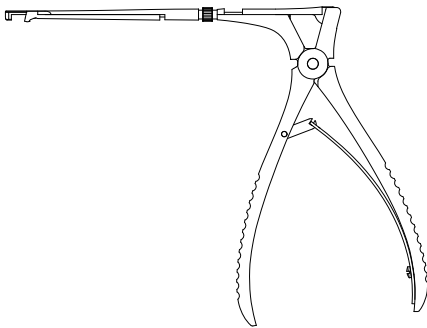
## McKenty Sphenoid Punches

### Punch forceps, acc. to McKenty

through-cutting, slender,  
rotatable 360°, 2 mm cutting width,  
14.5 cm working length



WT513100 Punch forceps, acc. to McKenty, rotatable,  
through-cutting, size 2.0 x 14.5





- Models with shortened, serrated blade and set-screw
- Models for adults and children

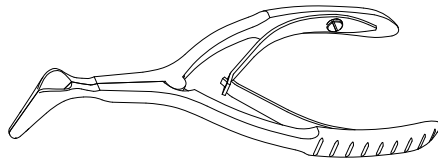
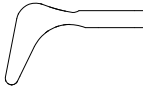
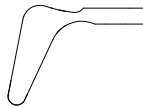
## Hartmann Nasal Specula

### Nasal Speculum, acc. to Hartmann

13.5 cm total length for adults,  
13.0 cm total lengths for children,  
various diameters (mm)

WT143001 Nasal Speculum,  
acc. to Hartmann,  
for adults, size 33.5 x 135

WT143002 Nasal Speculum,  
acc. to Hartmann,  
for children, size 27 x 130



## Killian-Struycken Nasal Specula

### Nasal speculum, acc. to Killian-Struycken

adaption to articulated arm 218800,  
serrated, shortened blade, with set screw,  
15 cm total length, various blade sizes (mm)

WT497601 Nasal speculum, acc. to Killian-Struycken,  
for articulated arm,  
left blade, size 55, 150

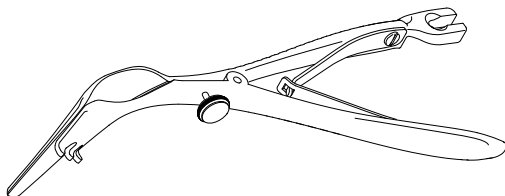
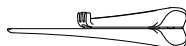
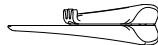
WT497602 Nasal speculum, acc. to Killian-Struycken,  
for articulated arm,  
right blade, size 55, 150

WT497603 Nasal speculum, acc. to Killian-Struycken,  
for articulated arm,  
left blade, size 65, 150

WT497604 Nasal speculum, acc. to Killian-Struycken,  
for articulated arm,  
right blade, size 65, 150

WT497605 Nasal speculum, acc. to Killian-Struycken,  
for articulated arm,  
left blade, size 75, 150

WT497606 Nasal speculum, acc. to Killian-Struycken,  
for articulated arm,  
right blade, size 75, 150



## Sinus Specula

### Nasal speculum

adaption to articulated arm 218800,  
blades without teeth, with set screw,  
15 cm total length, various blade sizes (mm)



WT497801 Nasal speculum, for articulated arm,  
without teeth, left blade, size 55, 35 x 150

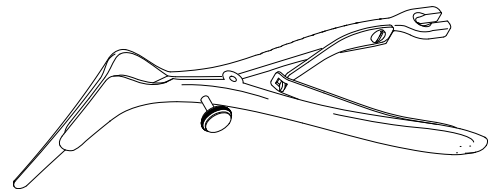
WT497802 Nasal speculum, for articulated arm,  
without teeth, right blade, size 55, 35 x 150

WT497803 Nasal speculum, for articulated arm,  
without teeth, left blade, size 75, 35 x 150

WT497804 Nasal speculum, for articulated arm,  
without teeth, right blade, size 75, 35 x 150

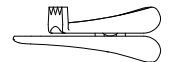
WT497805 Nasal speculum, for articulated arm,  
without teeth, left blade, size 75, 52 x 150

WT497806 Nasal speculum, for articulated arm,  
without teeth, right blade, size 75, 52 x 150



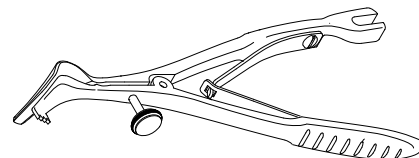
### Nasal speculum "Würzburg"

adaption to articulated arm 218800,  
serrated, shortened blade,  
13 cm total length, various blade sizes (mm)



WT498001 Nasal speculum "Würzburg",  
for articulated arm, left blade, size 25, 18 x 130

WT498002 Nasal speculum "Würzburg",  
for articulated arm, right blade, size 25, 18 x 130



### Nasal speculum, with light carrier

13,5 cm total length, various blade sizes (mm)

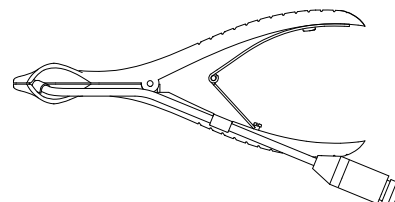


WT497740 Nasal speculum, with light carrier, size 40 x 135

WT497755 Nasal speculum, with light carrier, size 55 x 135

WT497775 Nasal speculum, with light carrier, size 75 x 135

WT497790 Nasal speculum, with light carrier, size 90 x 135





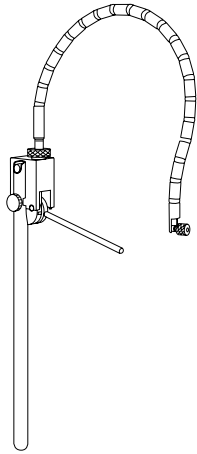
- Complete with holding rod for attachment to operating table
- Optional clamp and adapter

## Flexible Tension Arm

### Articulated arm

complete with holding rod  
for attachment to operating table

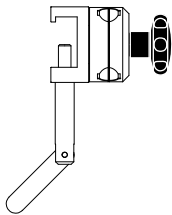
WT218800 Articulated arm, flexible, with holding rod



### Clamp socket

attachable to operating table

WT218801 Clamp socket, for articulated arm WT218800

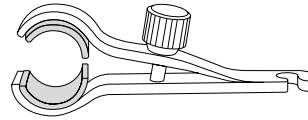


## Instruments for Flexible Tension Arm

### Adapter

for attachment to sinuscope

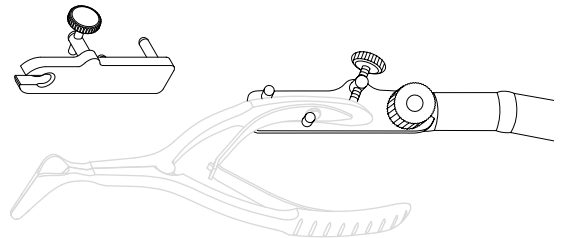
WT218803 Adapter, endoscope to articulated arm WT218800,  
size 80



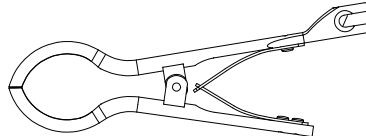
### Adapter

for articulated arm WT218800,  
for Cottle nasal specula with set screw

WT218804 Adapter, nasal speculum to articulated arm WT218800



WT218802 Adapter, ear speculum to articulated arm WT218800,  
size 120



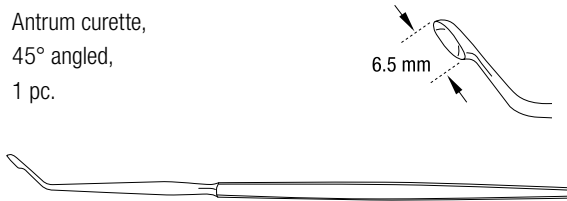






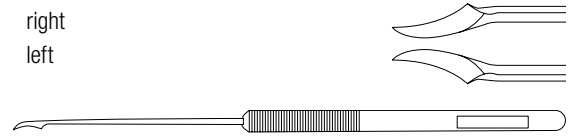
## Curette

70230757 Antrum curette,  
45° angled,  
1 pc.



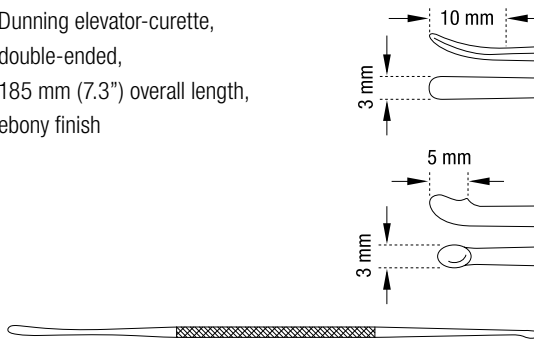
## Reusable Knives

Synechia knife,  
curved blade, sharp,  
4 pcs.,  
70130978 right  
70130979 left

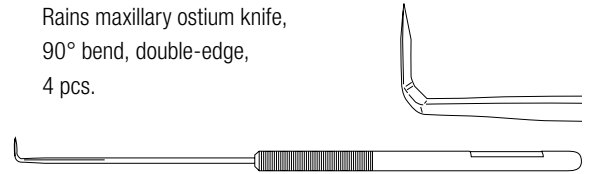


## Elevator

270202 Dunning elevator-curette,  
double-ended,  
185 mm (7.3") overall length,  
ebony finish



70130981 Rains maxillary ostium knife,  
90° bend, double-edge,  
4 pcs.



## Needle

230666 Septal needle (not shown),  
with Luer-lock

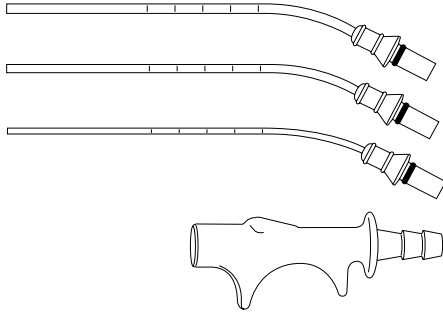
## Single Use Knife

130801 Sickle knife,  
for sinus endoscopy,  
stainless steel,  
sterile, single use,  
6 pcs.



## Fergusson Frazier Suction Kit

130804 Fergusson Frazier suction kit,  
sterile, single use,  
6 units



Each unit includes:

6 Fr. (2 mm) suction tube,  
9 Fr. (2.8 mm) suction tube,  
11 Fr. (3.6 mm) suction tube,  
handle with bypass

## Post-Op Suction Tube

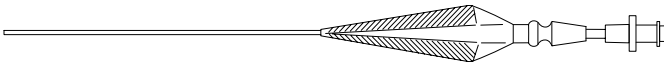
Suction tube (not shown),  
14 gauge,  
green finish,  
4 pcs.,

70130987 curved left

70130995 frontal

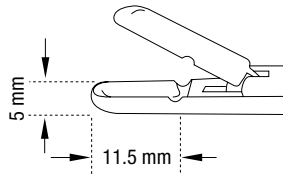
## Rains Malleable Irrigation

70131011 Irrigation tube,  
stainless steel,  
387 mm (15.2") overall length,  
sterile, single use,  
6 pcs.

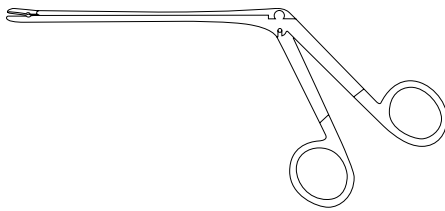
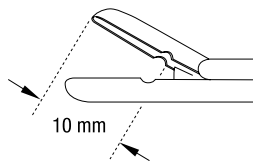


## Takahashi Forceps

230676 Takahashi forceps,  
100 mm shaft length,  
straight, large

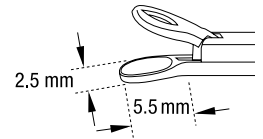
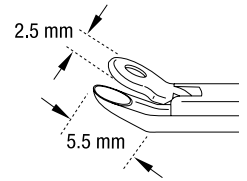


270155 Takahashi nasal forceps,  
straight, cupped,  
2.5 mm jaws width,  
120 mm (4.7") shaft length,  
ebony finish

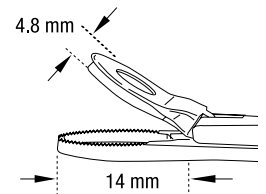
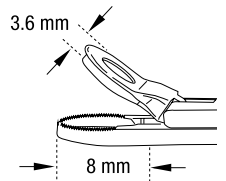
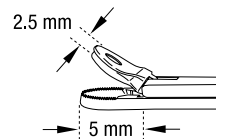


## Weil Blakesley Forceps

230732 Weil Blakesley forceps,  
2.5 mm jaws width,  
curved right 30°  
230733 curved left 30°



230726 Forceps,  
through-cutting,  
straight,  
105 mm (4.1") shaft length,  
2.5 mm jaws width, pediatric  
230728 3.6 mm jaws width  
230730 4.8 mm jaws width





FK-WO TORS Laryngo-Pharyngoscope Retractor	341
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**Manufacturer (FK-WO TORS) (page 343-348)**

Olympus Surgical Technologies Europe  
Olympus Winter & Ibe GmbH  
Kuehnstr. 61  
22045 Hamburg, Germany

**Manufacturer (EXPLORENT) (page 349-400)**

evonos GmbH & Co.KG  
Stockacher Str. 134  
78532 Tuttlingen, Germany

**Distributor**

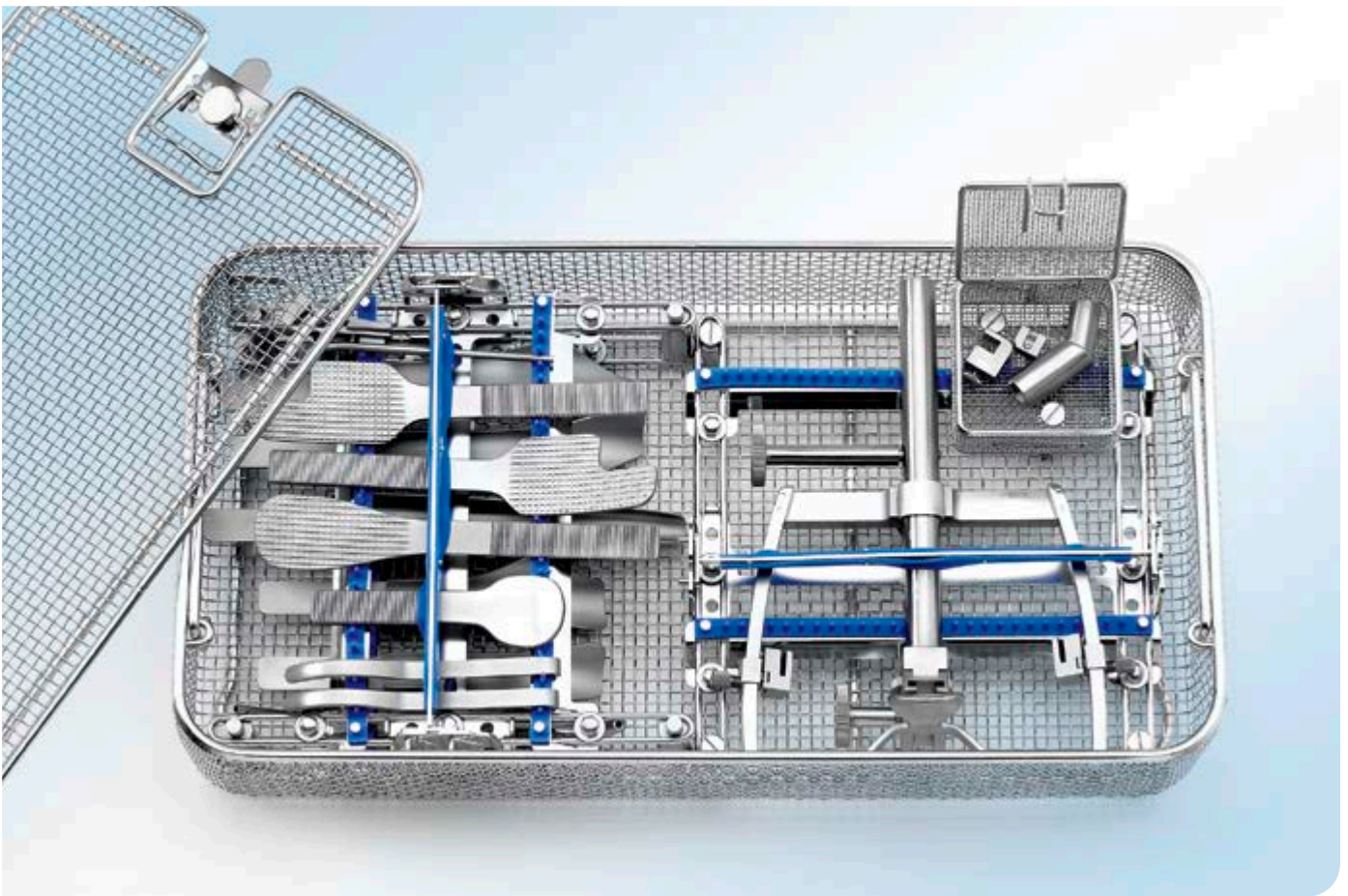
Olympus Surgical Technologies Europe  
Olympus Winter & Ibe GmbH  
Kuehnstr. 61  
22045 Hamburg, Germany





## Design

- Non-tubular design
- Frame construction with wide aperture
- Large variety of blades
- Adjustable angles of the blades moving upwards and downwards
- Attachment of assisting tools
- Connection for flexible tension arm



## Exposure of operating fields for applications

- Transoral robotic surgery (TORS): Oropharynx, larynx and hypopharynx, oral cavity, base of tongue, supraglottic larynx and piriform sinuses
- Laser surgery: Oropharynx, hypopharynx, larynx
- Micro-laryngeal surgery: Oropharynx, hypopharynx, larynx, upper esophagus, Zenker diverticulum

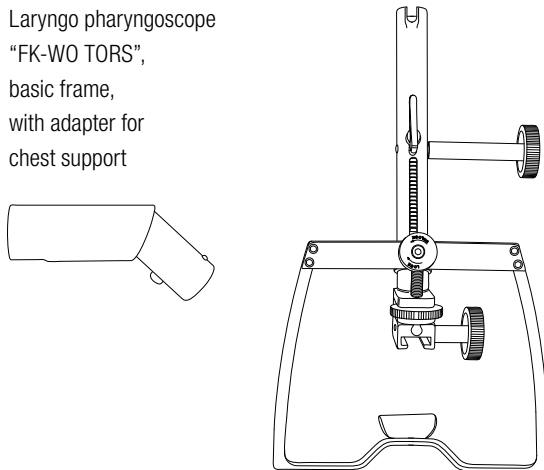


### FK-WO TORS Set

- WT645000 Laryngo-pharyngoscope "FK-WO TORS", set, with instrument basket
- Delivery includes:  
 basic frame WT645001, adapters WT640003/-21, WT645010, TORS blades WT645030/-31/-32/-33, tongue blades WT645013/-16/-17, laryngeal blade WT645019, mandible blade WT645020, light clip WT645006, cheek retractor WT645011, suction tube WT645025, container WT806450

### FK-WO TORS Set Components (1)

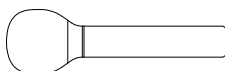
- WT645001 Laryngo pharyngoscope "FK-WO TORS", basic frame, with adapter for chest support



- WT645019 Retractor blade, "FK-WO TORS", for larynx retraction, concave, curved, 17 cm



- WT645020 Retractor blade, "FK-WO TORS", for mandible retraction

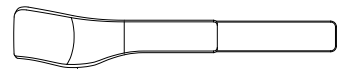
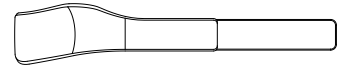


### FK-WO TORS Set Components (2)

#### TORS blade

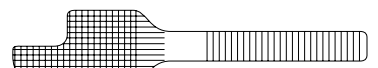
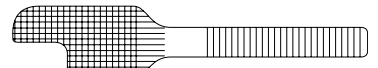
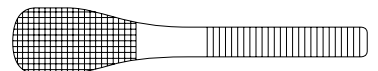
acc. to Weinstein-O'Malley

- WT645030 TORS blade "FK-WO TORS", acc. to Weinstein-O'Malley, S, left
- WT645031 TORS blade "FK-WO TORS", acc. to Weinstein-O'Malley, S, right
- WT645032 TORS blade "FK-WO TORS", acc. to Weinstein-O'Malley, L, left
- WT645033 TORS blade "FK-WO TORS", acc. to Weinstein-O'Malley, L, right

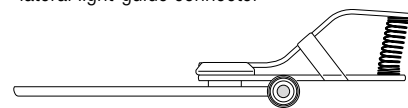


#### Tongue blade

- WT645013 Retractor blade, "FK-WO TORS", for tongue retraction, curved
- WT645016 Retractor blade, "FK-WO TORS", for tongue retraction, curved, cut-out right
- WT645017 Retractor blade, "FK-WO TORS", for tongue retraction, curved, cut-out left

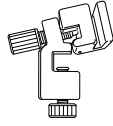


- WT645006 Light clip "FK-WO TORS", lateral light-guide connector



## FK-WO TORS Set Components (3)

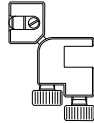
WT645010 Adapter, for retractor blade for cheek retraction, 2 pcs.



WT645011 Retractor blade "FK-WO Tors", for cheek retraction, curved, 2 pcs.



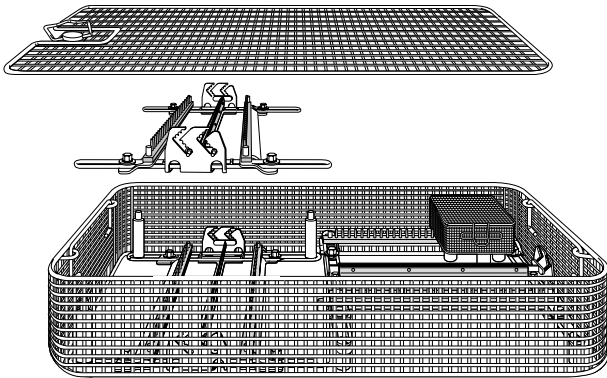
WT640021 Adapter, 4 mm instrument to FK-WO TORS



WT645025 Suction tube "FK-WO TORS", 4 mm, angled



WT806450 Instrument basket, 480 x 450 x 100 mm, with lid, for FK-WO TORS

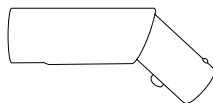


## Accessories

WT645050 Retractor blade "FK-WO TORS", for diverticuloscopy, 22 cm



WT640003 Spare adapter, FK-WO TORS to chest support

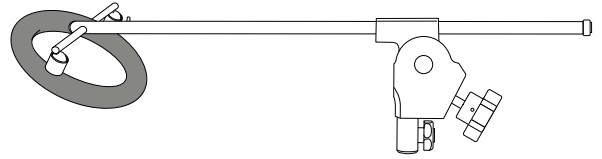


## Chest Supports

### Laryngoscope holder and chest support

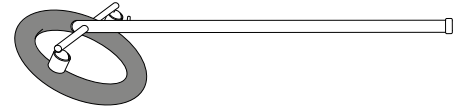
with rod for adults, with rod fixation screw, for use with the laryngoscopes, 34 cm rod length, 9.5 cm diameter of ring

WT630400 Chest support, 340 mm support rod, 95 mm ring



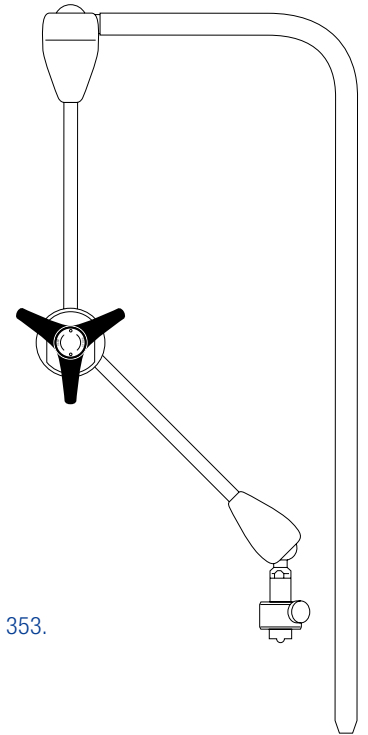
WT630500 Support rod, 240 mm, 95 mm ring

• for children



## Flexible Tension Arm System

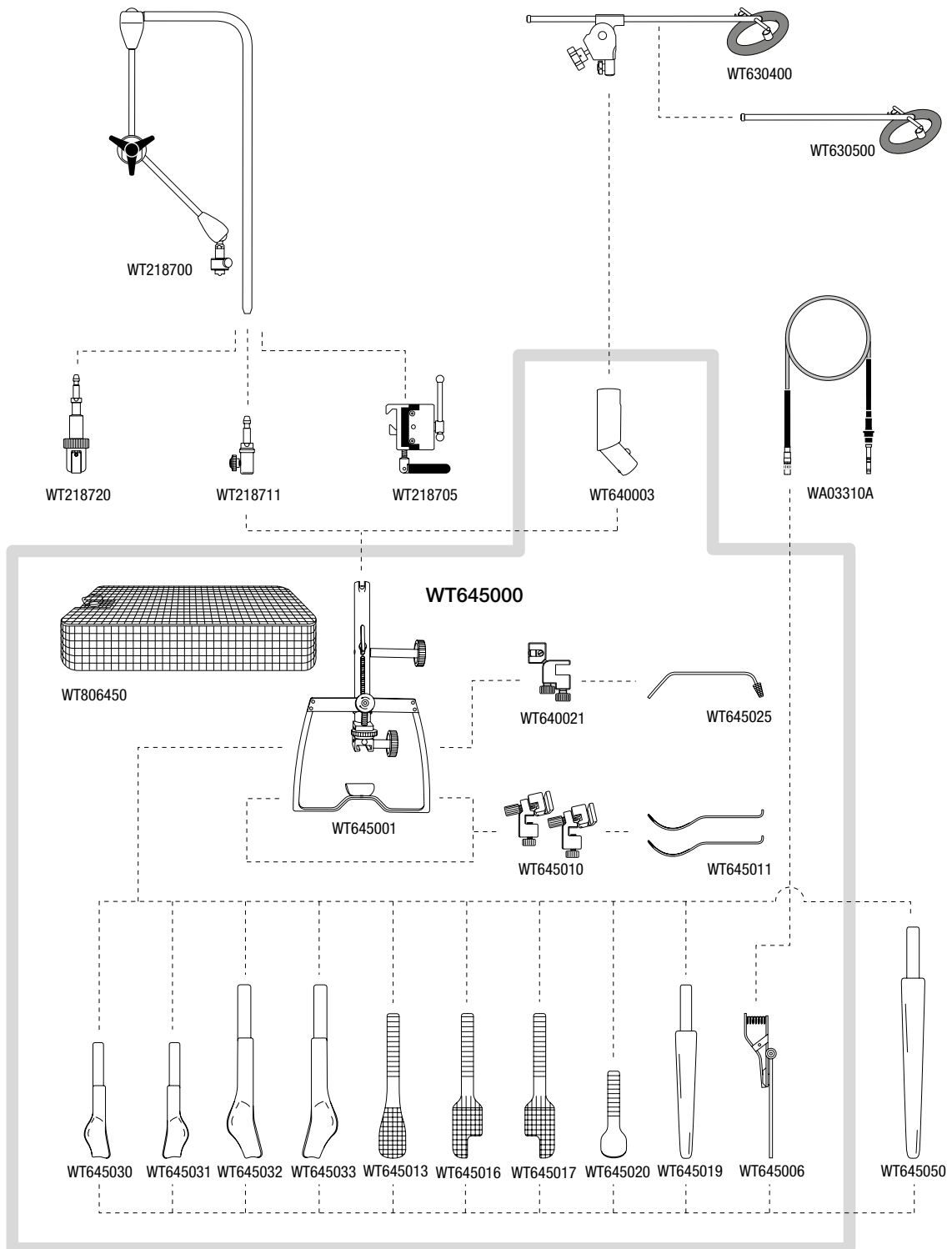
WT218700 Articulated arm, L shaped stand, 470 x 170 mm



For details, see page 353.



#### System Chart

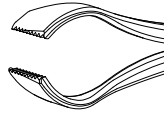
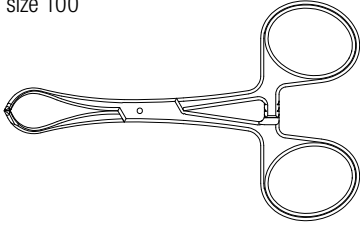


## Recommended Instruments

### Towel forceps

non penetrating, 10 cm total length

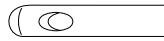
WT550081 Towel forceps, non-perforating,  
size 100



### Suction tube "Velvet Eye"

velvet eye, 4mm diameter,  
22 cm working length

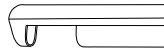
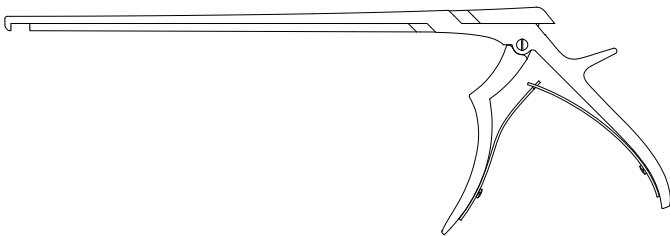
WT841020 Suction tube "Velvet Eye",  
tip closed, with 2 lateral holes, size 220



### Punch forceps, acc. to Kerrison

90° down bite, 5mm width,  
working length 23 cm

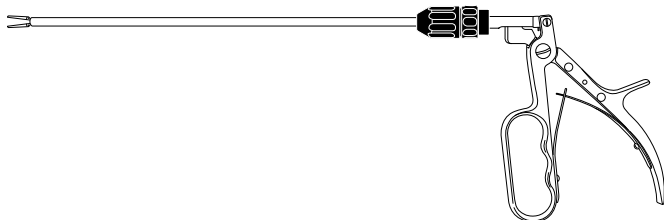
WT513523 Punch forceps, acc. to Kerrison,  
90 cutting downward, size 2.0 x 230



### Clip applier

working length 23 cm, 5 mm

WT640550 Clip applier, for medium clips,  
rotatable, size 230

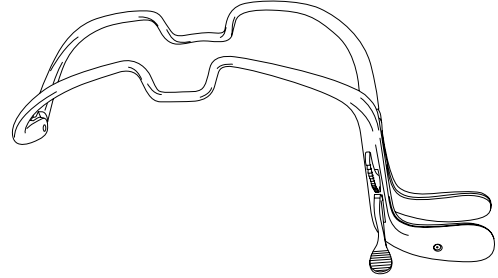


## Recommended Instruments (cont.)

### Mouth gag, acc. to Jennings

standard pattern, 15 cm working length

WT523015 Mouth gag, acc. to Jennings,  
size 150

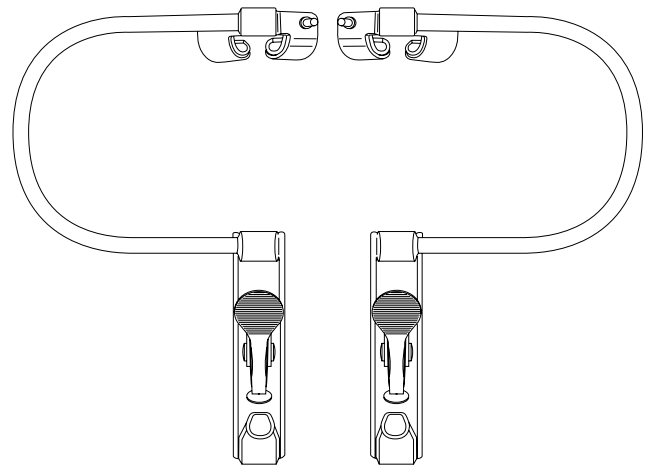


### Mouth gag

17 cm total length

WT528350 Mouth gag, right

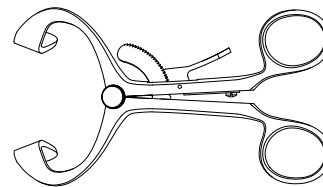
WT528351 Mouth gag, left



### Mouth gag, acc. to Sluder Jansen

55 mm opening, 13.5 cm total length

WT528360 Mouth gag, acc. to Sluder Jansen, size 55



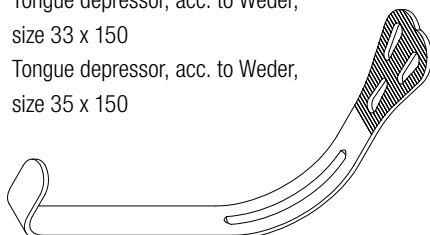
#### Recommended Instruments (cont.)

##### Tongue depressor, acc. to Weder

15 cm total length, various sizes (mm)

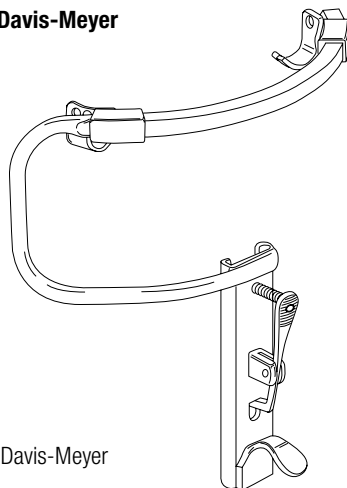
WT151601 Tongue depressor, acc. to Weder,  
size 33 x 150

WT151602 Tongue depressor, acc. to Weder,  
size 35 x 150



##### Mouth gag, acc. to Davis-Meyer

WT528400 Mouth gag,  
acc. to Davis-Meyer,  
frame only, right



WT528411 Spare hook,  
for teeth, set,  
for mouth gag acc. to Davis-Meyer

##### Tongue depressor, acc. to Davis-Meyer

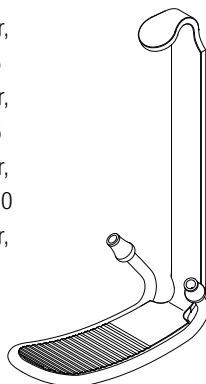
various sizes (mm)

WT528404 Tongue depressor, acc. to Davis-Meyer,  
with anaesthesia tubes, size 32.5 x 85

WT528405 Tongue depressor, acc. to Davis-Meyer,  
with anaesthesia tubes, size 33.5 x 95

WT528406 Tongue depressor, acc. to Davis-Meyer,  
with anaesthesia tubes, size 33.5 x 100

WT528407 Tongue depressor, acc. to Davis-Meyer,  
with anaesthesia tubes, size 34 x 105

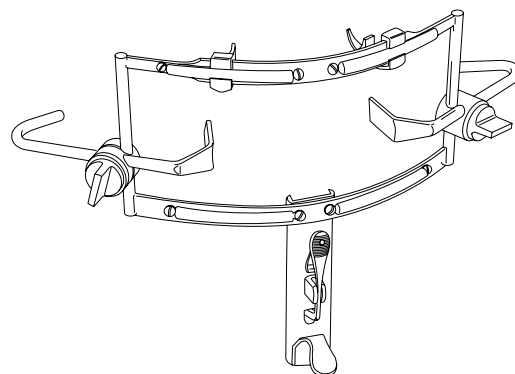


#### Recommended Instruments (cont.)

##### Mouth gag, acc. to Dingmann

frame 15 x 7.5 cm

WT527600 Mouth gag, acc. to Dingmann,  
frame only



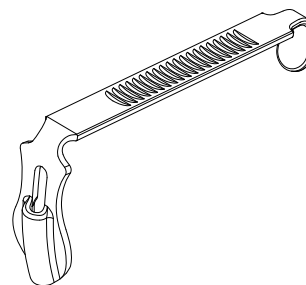
##### Tongue depressor, acc. to Dingmann

various sizes (mm)

WT527601 Tongue depressor, acc. to Dingmann, size 26 x 65

WT527602 Tongue depressor, acc. to Dingmann, size 29 x 70

WT527603 Tongue depressor, acc. to Dingmann, size 32 x 82



**Recommended Instruments (cont.)**

**Dissection scissors, acc. to Metzenbaum**

straight, 18 cm total length



WT541818 Dissection scissors,  
acc. to Metzenbaum,  
straight, size 180

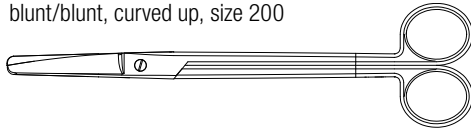


**Scissors, acc. to Sims**

curved, blunt/blunt,  
20 cm total length



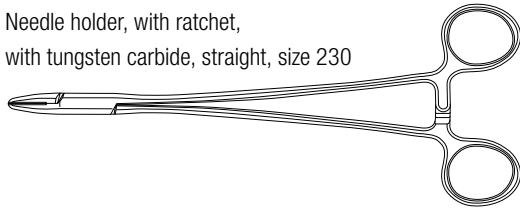
WT541860 Scissors, acc. to Sims,  
blunt/blunt, curved up, size 200



**Needle holder**

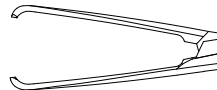
with tungsten carbide inserts, 23 cm total length

WT640440 Needle holder, with ratchet,  
with tungsten carbide, straight, size 230

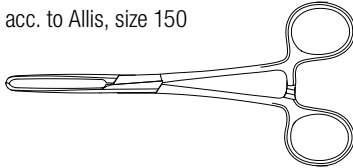


**Grasping forceps, acc. to Allis**

15 cm total length

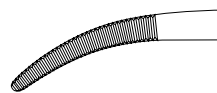


WT187015 Grasping forceps,  
acc. to Allis, size 150

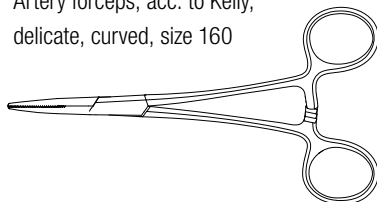


**Artery forceps, acc. to Kelly**

delicate, curved, serrated jaws,  
16 cm total length



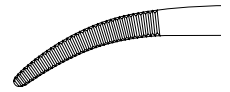
WT186316 Artery forceps, acc. to Kelly,  
delicate, curved, size 160



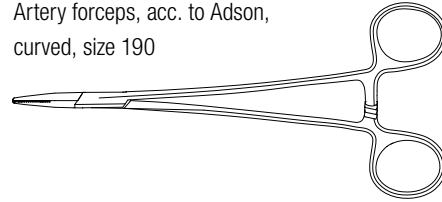
**Recommended Instruments (cont.)**

**Artery forceps, acc. to Adson**

curved, serrated jaws,  
19 cm total length

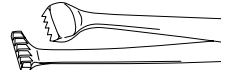


WT186518 Artery forceps, acc. to Adson,  
curved, size 190

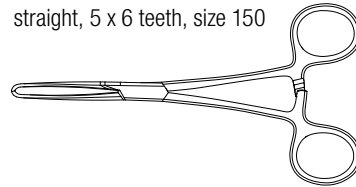


**Grasping forceps, acc. to Allis**

straight, 5 x 6 teeth,  
15 cm total length

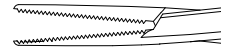


WT186815 Grasping forceps, acc. to Allis,  
straight, 5 x 6 teeth, size 150

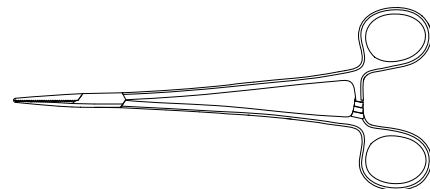


**Artery forceps**

serrated, 18 cm total length



WT565018 Artery forceps, serrated, straight, size 180  
WT565218 Artery forceps, serrated, 1x2 teeth, straight, size 180  
WT565318 Artery forceps, serrated, curved, size 180  
WT565518 Artery forceps, 1x2 teeth, curved, size 180

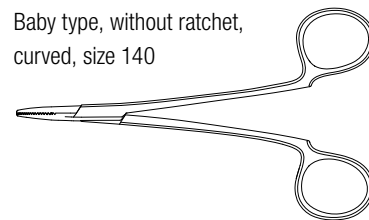


**Artery forceps, acc. to Mixer**

14 cm total length



WT186714 Artery forceps, acc. to Mixer,  
Baby type, without ratchet,  
curved, size 140





- Height-adjustable chest supports
- Models for children and adults
- Bipod for mouth gag suspension
- Chain with ring for mouth gag suspension

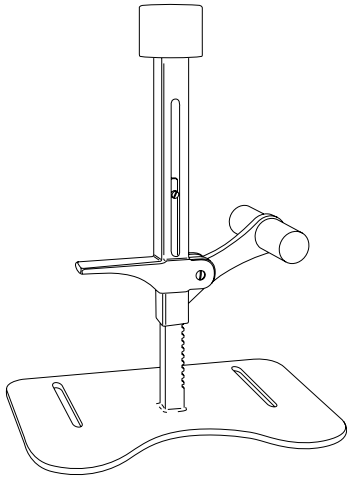
## Chest Supports

### Chest support, acc. to Negus

with band WT529001,  
various rod length (cm)

WT529000 Chest support, acc. to Negus,  
with band, for adults, size 140

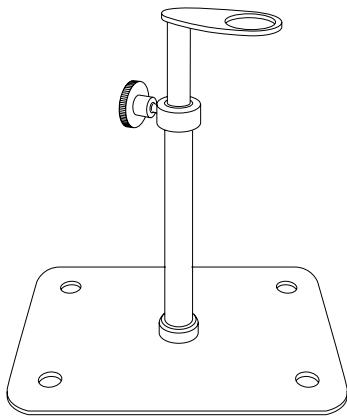
WT529100 Chest support, acc. to Negus,  
with band, for children, size 85



### Chest support, Wuerzburg type

rod length 10 cm

WT529200 Chest support, Wuerzburg type

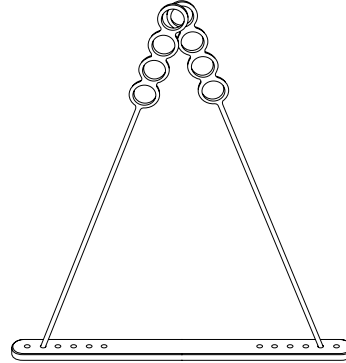


## Suspension Apparatus

### Suspension apparatus, bipod, acc. to Draffin

for tongue depressor, WT525001 – WT528407  
and mouth gags WT525000 – WT528400

WT524820 Suspension apparatus, bipod, acc. to Draffin,  
for mouth gags and blades







- Left and right open frame models
- Frames with support for toothless patients
- Tongue depressors with central channel, lateral outlet or anaesthetic tube

## Mouth gag, acc. to Mclvor

### Mouth gag, acc. to Mclvor (not shown)

set

Delivery includes:

Frame WT525000, tongue depressors WT525001, WT525002, WT525003

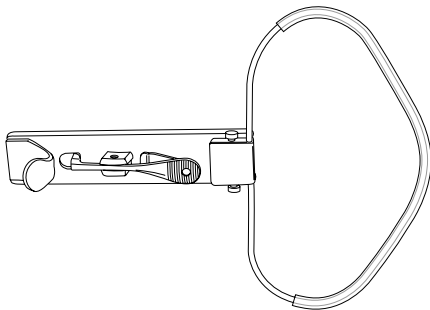
WT525010 Mouth gag, acc. to Mclvor, set with blades WT525001-03

### Mouth gag, acc. to Mclvor

frame, 15 cm total length

for tongue depressors WT525001 – WT528605

WT525000 Mouth gag, acc. to Mclvor, frame only



## Mouth gag, acc. to Davis-Boyle

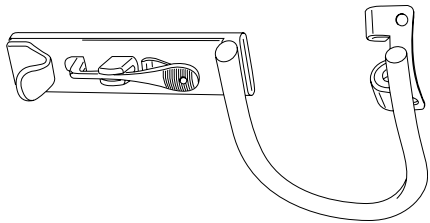
### Mouth gag, acc. to Davis-Boyle

for tongue depressors WT525001 – WT528605

WT526000 Mouth gag, acc. to Davis-Boyle, opening left, without blade

WT526200 Mouth gag, acc. to Davis-Boyle, opening right, without blade

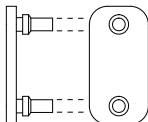
WT526300 Mouth gag, acc. to Davis-Boyle, frame only, for children, left



### Bite liner

removable, for WT526000 – WT526300 (not shown)

WT526010 Bite liner, silicone, for mouth gag, blue, exchangeable, in pairs



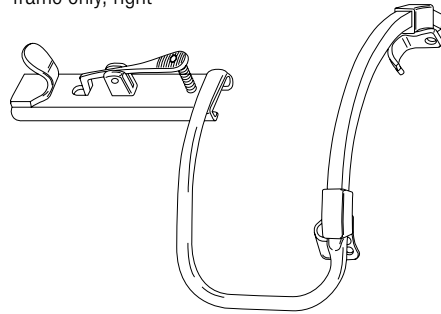
## Mouth gag, acc. to Davis-Meyer

### Mouth gag, acc. to Davis-Meyer

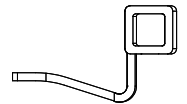
right frame, 15 cm total length,

for tongue depressors WT525001 – WT528503

WT528400 Mouth gag, acc. to Davis-Meyer, frame only, right



WT528411 Spare hook, for teeth, set, for mouth gag acc. to Davis-Meyer



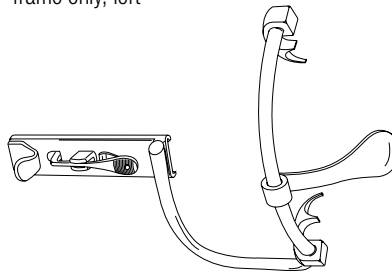
## Mouth gag, acc. to Kilner-Doughty

### Mouth gag, acc. to Kilner-Doughty

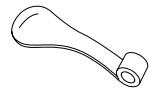
left frame, 15 cm total length,

for tongue depressors WT525001 – WT528605

WT527000 Mouth gag, acc. to Kilner-Doughty, frame only, left



WT527010 Spare support for palate, for mouth gag acc. to Kilner-Doughty  
• for toothless patients



WT527020 Spare hook, for teeth, for mouth gag, acc. to Kilner-Doughty



### Mouth gag, acc. to Dingmann

#### Mouth gag, acc. to Dingmann

set

Delivery includes:

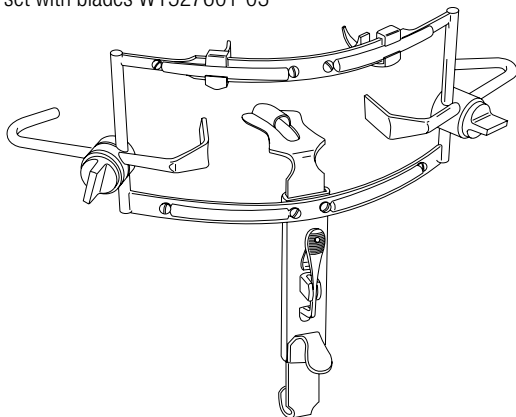
WT527600 frame (with accessories),

WT527601 tongue depressor size 1 = 26 x 62 mm,

WT527602 tongue depressor size 2 = 29 x 65 mm,

WT527603 tongue depressor size 3 = 32 x 75 mm

WT527610 Mouth gag, acc. to Dingmann,  
set with blades WT527601-03



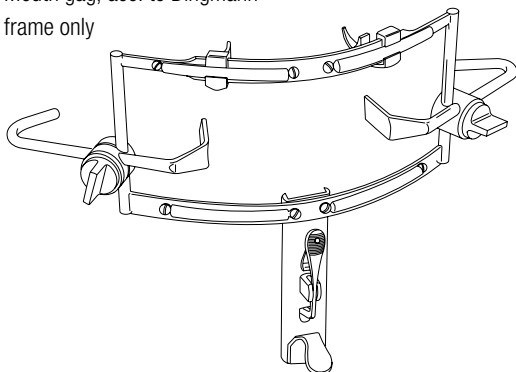
#### Mouth gag, acc. to Dingmann

frame only

Delivery includes:

Frame with two suture holders (spiral springs), two tooth hooks, two cheekholders, two screw joints

WT527600 Mouth gag, acc. to Dingmann  
frame only



### Mouth gag, acc. to Dingmann (cont.)

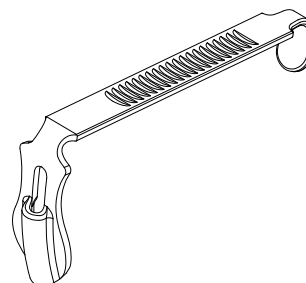
#### Tongue depressor, acc. to Dingmann

in various sizes (mm)

WT527601 Tongue depressor, acc. to Dingmann, size 26 x 65

WT527602 Tongue depressor, acc. to Dingmann, size 29 x 70

WT527603 Tongue depressor, acc. to Dingmann, size 32 x 82



### Tongue depressor, acc. to Mclvor

#### Tongue depressor, acc. to Mclvor

smooth,

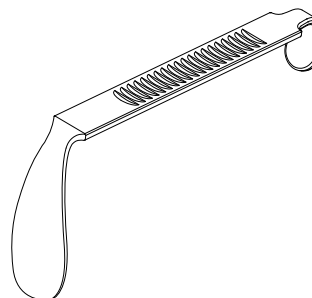
for frame WT525000,

in various sizes (mm)

WT525001 Tongue depressor, acc. to Mclvor, smooth, size 23 x 70

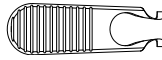
WT525002 Tongue depressor, acc. to Mclvor, smooth, size 25 x 91






WT525003 Tongue depressor, acc. to Mclvor, smooth, size 26 x 103

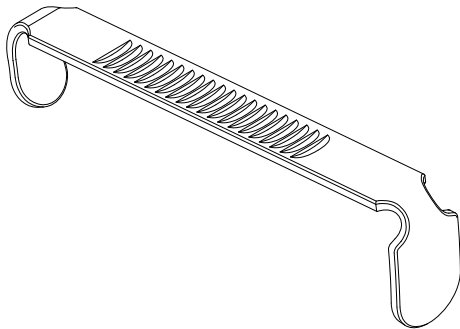


**Tongue depressor, acc. to Davis-Boyle**

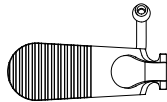
**Tongue depressor, acc. to Davis-Boyle**  
smooth blades,  
13.5 cm total length,  
in various sizes (mm)



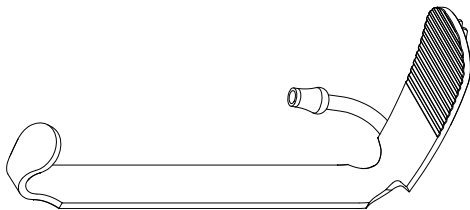
- WT526001 Tongue depressor, acc. to Davis-Boyle, smooth, size 24 x 35 
- WT526002 Tongue depressor, acc. to Davis-Boyle, smooth, size 23 x 70 
- WT526003 Tongue depressor, acc. to Davis-Boyle, smooth, size 24 x 85 
- WT526004 Tongue depressor, acc. to Davis-Boyle, smooth, size 25 x 96 
- WT526005 Tongue depressor, acc. to Davis-Boyle, smooth, size 26 x 109 



**Tongue depressor, acc. to Davis-Boyle**  
with anaesthetic tube,  
in various sizes (mm)

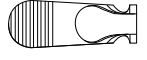







- WT526102 Tongue depressor, acc. to Davis-Boyle, with anaesthesia tube, size 23 x 65
- WT526103 Tongue depressor, acc. to Davis-Boyle, with anaesthesia tube, size 24 x 80
- WT526104 Tongue depressor, acc. to Davis-Boyle, with anaesthesia tube, size 25 x 93
- WT526105 Tongue depressor, acc. to Davis-Boyle, with anaesthesia tube, size 26 x 108

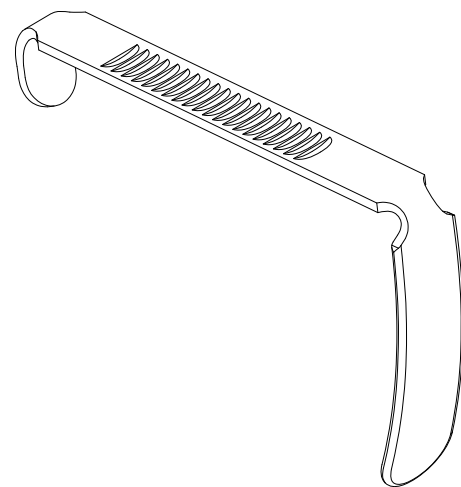


**Tongue depressor, acc. to Davis-Boyle (cont.)**

**Tongue depressor, acc. to Davis-Boyle**  
for children, smooth blades,  
only for mouth gag WT526300,  
in various sizes (mm)

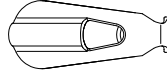


- WT526301 Tongue depressor, acc. to Davis-Boyle, for children, smooth, size 17 x 32 
- WT526302 Tongue depressor, acc. to Davis-Boyle, for children, smooth, size 19 x 48 
- WT526303 Tongue depressor, acc. to Davis-Boyle, for children, smooth, size 20 x 60 
- WT526304 Tongue depressor, acc. to Davis-Boyle, for children, smooth, size 22 x 72 
- WT526305 Tongue depressor, acc. to Davis-Boyle, for children, smooth, size 22 x 80 

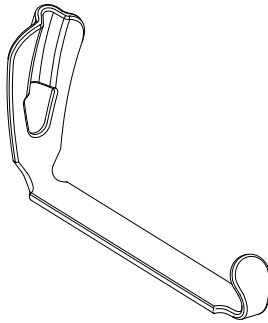


## Tongue depressor, acc. to Russel-Davis

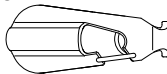
**Tongue depressor, acc. to Russel-Davis**  
with central channel,  
in various sizes (mm)



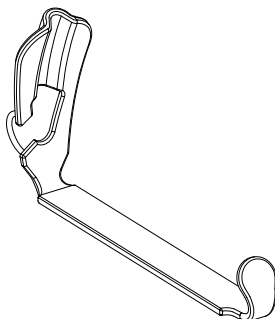
- WT527001 Tongue depressor, acc. to Russel-Davis, with central channel, size 30 x 70
- WT527002 Tongue depressor, acc. to Russel-Davis, with central channel, size 34 x 80
- WT527003 Tongue depressor, acc. to Russel-Davis, with central channel, size 39 x 85
- WT527004 Tongue depressor, acc. to Russel-Davis, with central channel, size 42 x 98
- WT527005 Tongue depressor, acc. to Russel-Davis, with central channel, size 47 x 107



**Tongue depressor, acc. to Russel-Davis**  
with central channel and lateral outlet,  
in various sizes (mm)

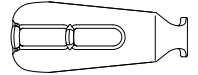


- WT528601 Tongue depressor, acc. to Russel-Davis, size 30 x 65
- WT528602 Tongue depressor, acc. to Russel-Davis, size 34 x 75
- WT528603 Tongue depressor, acc. to Russel-Davis, size 39 x 80
- WT528604 Tongue depressor, acc. to Russel-Davis, size 42 x 94
- WT528605 Tongue depressor, acc. to Russel-Davis, size 47 x 104

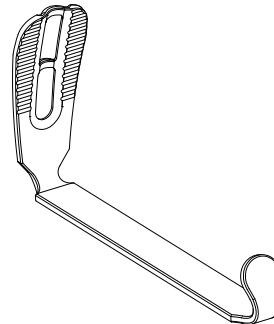


## Tongue depressor, acc. to Würzburg

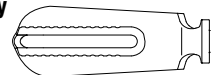
**Tongue depressor, acc. to Würzburg**  
in various sizes (mm)



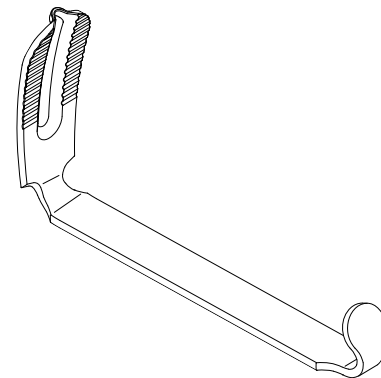
- WT528001 Tongue depressor, acc. to Würzburg, size 28 x 70
- WT528002 Tongue depressor, acc. to Würzburg, size 32 x 78
- WT528003 Tongue depressor, acc. to Würzburg, size 34 x 85
- WT528004 Tongue depressor, acc. to Würzburg, size 37 x 100
- WT528005 Tongue depressor, acc. to Würzburg, size 38 x 106



**Tongue depressor, acc. to Doughty**  
in various sizes (mm)



- WT528701 Tongue depressor, acc. to Doughty, with slot for intubation tube, size 65
- WT528702 Tongue depressor, acc. to Doughty, with slot for intubation tube, size 75
- WT528703 Tongue depressor, acc. to Doughty, with slot for intubation tube, size 90



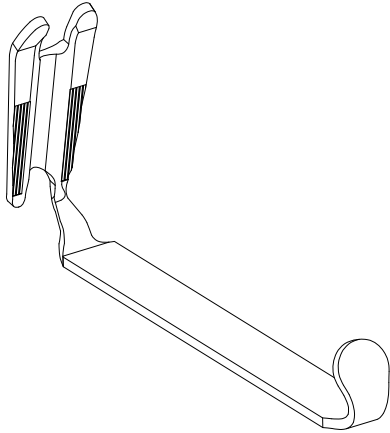
## Tongue depressor, acc. to Ring

### Tongue depressor, acc. to Ring

left side,  
in various sizes (mm)



- WT528202 Tongue depressor, acc. to Ring, left, size 24 x 65
- WT528203 Tongue depressor, acc. to Ring, left, size 28 x 75
- WT528204 Tongue depressor, acc. to Ring, left, size 34 x 91
- WT528205 Tongue depressor, acc. to Ring, left, size 37 x 102

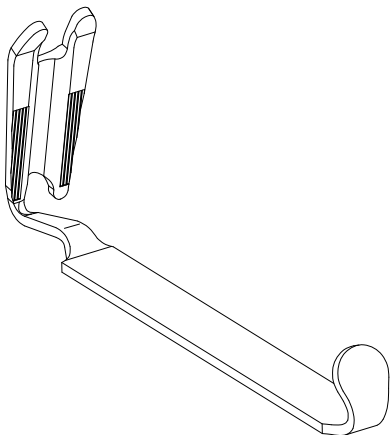


### Tongue depressor, acc. to Ring

right side,  
in various sizes (mm)



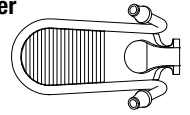
- WT528302 Tongue depressor, acc. to Ring, right, size 24 x 65
- WT528303 Tongue depressor, acc. to Ring, right, size 28 x 78
- WT528304 Tongue depressor, acc. to Ring, right, size 34 x 91
- WT528305 Tongue depressor, acc. to Ring, right, size 37 x 102



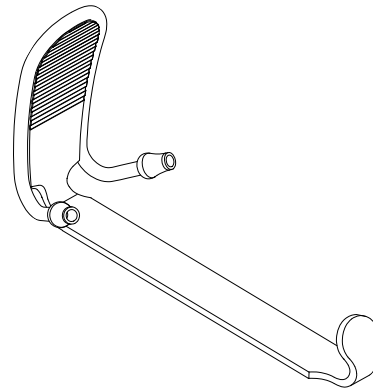
## Tongue depressor, acc. to Davis-Meyer

### Tongue depressor, acc. to Davis-Meyer

with anaesthetic tubes on both sides,  
in various sizes (mm)



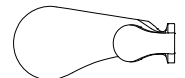
- WT528401 Tongue depressor, acc. to Davis-Meyer, with anaesthesia tubes, size 29 x 70
- WT528402 Tongue depressor, acc. to Davis-Meyer, with anaesthesia tubes, size 30.5 x 75
- WT528403 Tongue depressor, acc. to Davis-Meyer, with anaesthesia tubes, size 31.5 x 80
- WT528404 Tongue depressor, acc. to Davis-Meyer, with anaesthesia tubes, size 32.5 x 85
- WT528405 Tongue depressor, acc. to Davis-Meyer, with anaesthesia tubes, size 33.5 x 95
- WT528406 Tongue depressor, acc. to Davis-Meyer, with anaesthesia tubes, size 33.5 x 100
- WT528407 Tongue depressor, acc. to Davis-Meyer, with anaesthesia tubes, size 34 x 105



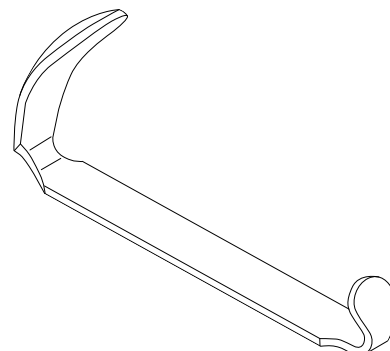
## Tongue depressor, acc. to Herberhold

### Tongue depressor, acc. to Herberhold

in various sizes (mm)



- WT528501 Tongue depressor, acc. to Herberhold, size 29 x 63
- WT528502 Tongue depressor, acc. to Herberhold, size 33 x 73
- WT528503 Tongue depressor, acc. to Herberhold, size 38 x 80
- WT528504 Tongue depressor, acc. to Herberhold, size 42 x 95



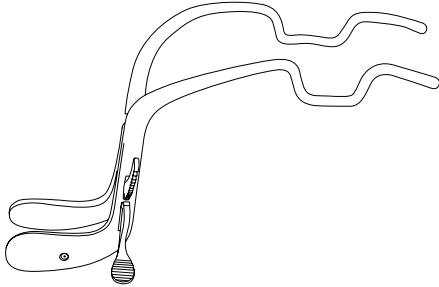


## Mouth gag, acc. to Seemann-Seiffert

### Mouth gag, acc. to Seemann-Seiffert

self retaining,  
in various sizes (mm)

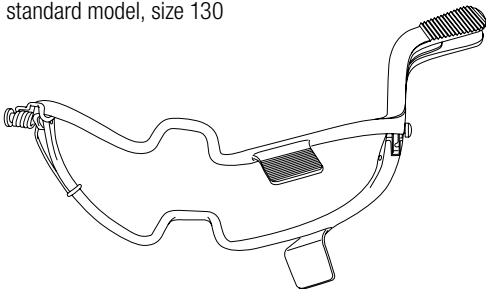
- WT522009 Mouth gag, acc. to Seemann-Seiffert, size 90
- WT522011 Mouth gag, acc. to Seemann-Seiffert, size 110
- WT522013 Mouth gag, acc. to Seemann-Seiffert, size 130



### Mouth gag, acc. to Seemann-Seiffert

standard model,  
in various sizes (mm)

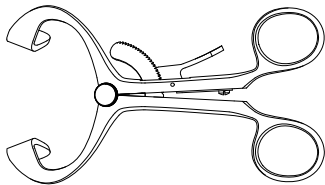
- WT524011 Mouth gag, acc. to Seemann-Seiffert, standard model, size 110
- WT524013 Mouth gag, acc. to Seemann-Seiffert, standard model, size 130



### Mouth gag, acc. to Sluder Jansen

size 55 mm

- WT528360 Mouth gag, acc. to Sluder Jansen, size 55

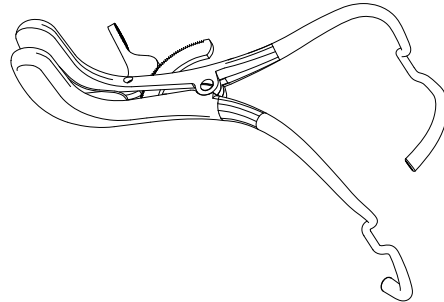


## Mouth gag, acc. to Jennings

### Mouth gag, acc. to Jennings

open type,  
in various sizes (mm)

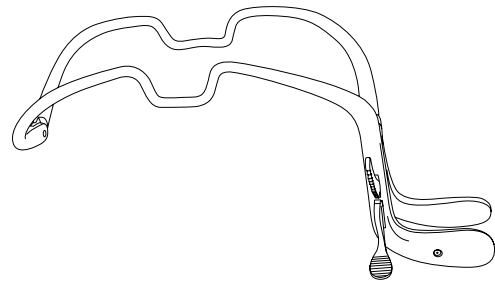
- WT520009 Mouth gag, acc. to Jennings, open model, size 95
- WT520011 Mouth gag, acc. to Jennings, open model, size 110
- WT520013 Mouth gag, acc. to Jennings, open model, size 130



### Mouth gag, acc. to Jennings

standard type,  
in various sizes (mm)

- WT523009 Mouth gag, acc. to Jennings, size 90
- WT523011 Mouth gag, acc. to Jennings, size 110
- WT523013 Mouth gag, acc. to Jennings, size 130
- WT523015 Mouth gag, acc. to Jennings, size 150

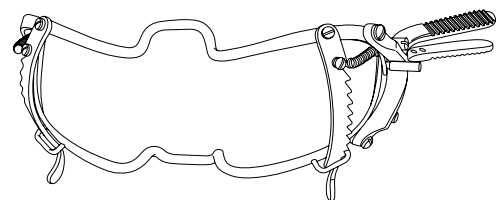


## Mouth gag, acc. to Whitehead

### Mouth gag, acc. to Whitehead

in various sizes (mm)

- WT521009 Mouth gag, acc. to Whitehead, size 90
- WT521011 Mouth gag, acc. to Whitehead, size 110
- WT521013 Mouth gag, acc. to Whitehead, size 130

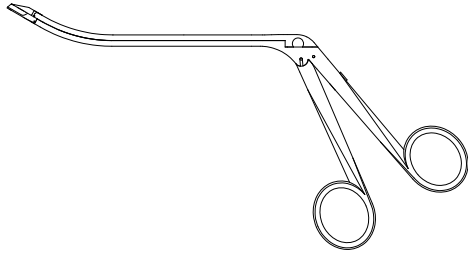






- Through-cutting, cupped jaws models
- Shaft and jaws upcurved models
- Ring-shaped jaws conchotome
- Delicate models

**EXPLORENT**



**Punch forceps, acc. to Moriyama**

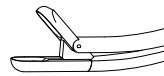
fig. 3, shaft upcurved, delicate,  
1.5 mm cutting width,  
12.5 cm working length



WT326803 Punch forceps, acc. to Moriyama,  
through-cutting, sheath curved up,  
size 1.5 x 125

**Nasal forceps, acc. to Moriyama**

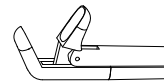
fig. 6, oval cups,  
shaft upcurved, delicate, oval jaws,  
14 cm working length,  
2.9 mm jaw width



WT326806 Nasal forceps, acc. to Moriyama  
with oval cups, fine, sheath curved up,  
size 140

**Punch forceps, acc. to Moriyama**

fig. 15, shaft and jaws upcurved,  
delicate, 1.3 mm cutting width,  
12.5 cm working length



WT326815 Punch forceps, acc. to Moriyama,  
through-cutting, straight,  
size 1.3 x 125



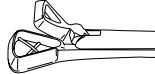
- Triangular and round basket models
- Upcurved and straight shaft models

**EXPLORENT**

## Grasping forceps

### Grasping forceps, acc. to Ronis

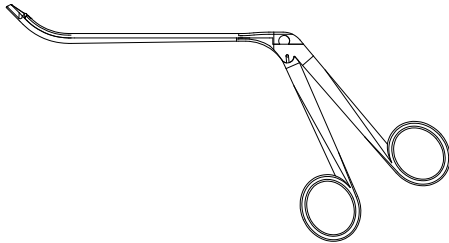
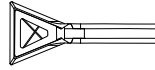
triangular basket, upturned shaft,  
13 cm working length,  
various sizes (mm)



WT502201 Grasping forceps, acc. to Ronis,  
for biopsies, curved up, size 7.0 x 130

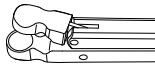


WT502202 Grasping forceps, acc. to Ronis,  
for biopsies, curved up, size 8.0 x 130

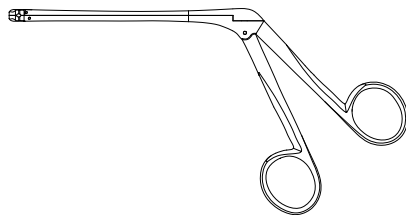
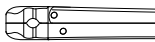


### Grasping forceps, acc. to Hildyard

12 cm working length



WT336101 Grasping forceps, acc. to Hildyard,  
for biopsies, with cupped jaws, size 120

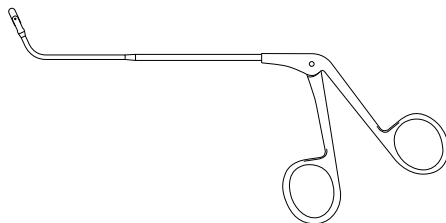


### Biopsy forceps

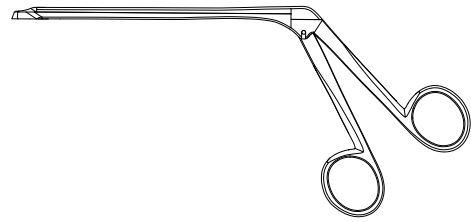
12 cm working length



WT335181 Biopsy forceps, cupped jaws,  
vertical opening, curved up, size 120

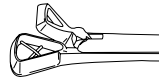


## Punch forceps

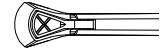


### Punch forceps, acc. to Meltzer

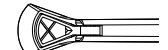
triangular jaw, straight shaft,  
14 cm working length,  
various sizes (mm)



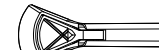
WT502300 Punch forceps, acc. to Meltzer,  
with triangular basket, size 6.0 x 140



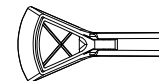
WT502301 Punch forceps, acc. to Meltzer,  
with triangular basket, size 7.0 x 140



WT502302 Punch forceps, acc. to Meltzer,  
with triangular basket, size 8.0 x 140

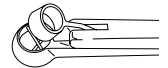


WT502303 Punch forceps, acc. to Meltzer,  
with triangular basket, size 10.0 x 140

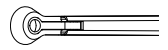


### Punch forceps, acc. to Meltzer

straight,  
14 cm working length,  
various sizes (mm)



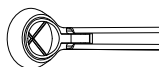
WT502310 Punch forceps, acc. to Meltzer,  
with round basket, size 5.0 x 140



WT502311 Punch forceps, acc. to Meltzer,  
with round basket, size 7.0 x 140

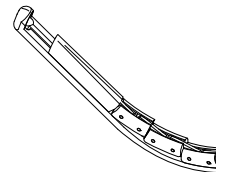


WT502312 Punch forceps, acc. to Meltzer,  
with round basket, size 8.0 x 140



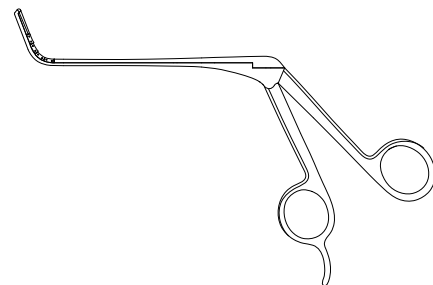
### Punch forceps, acc. to Bachert

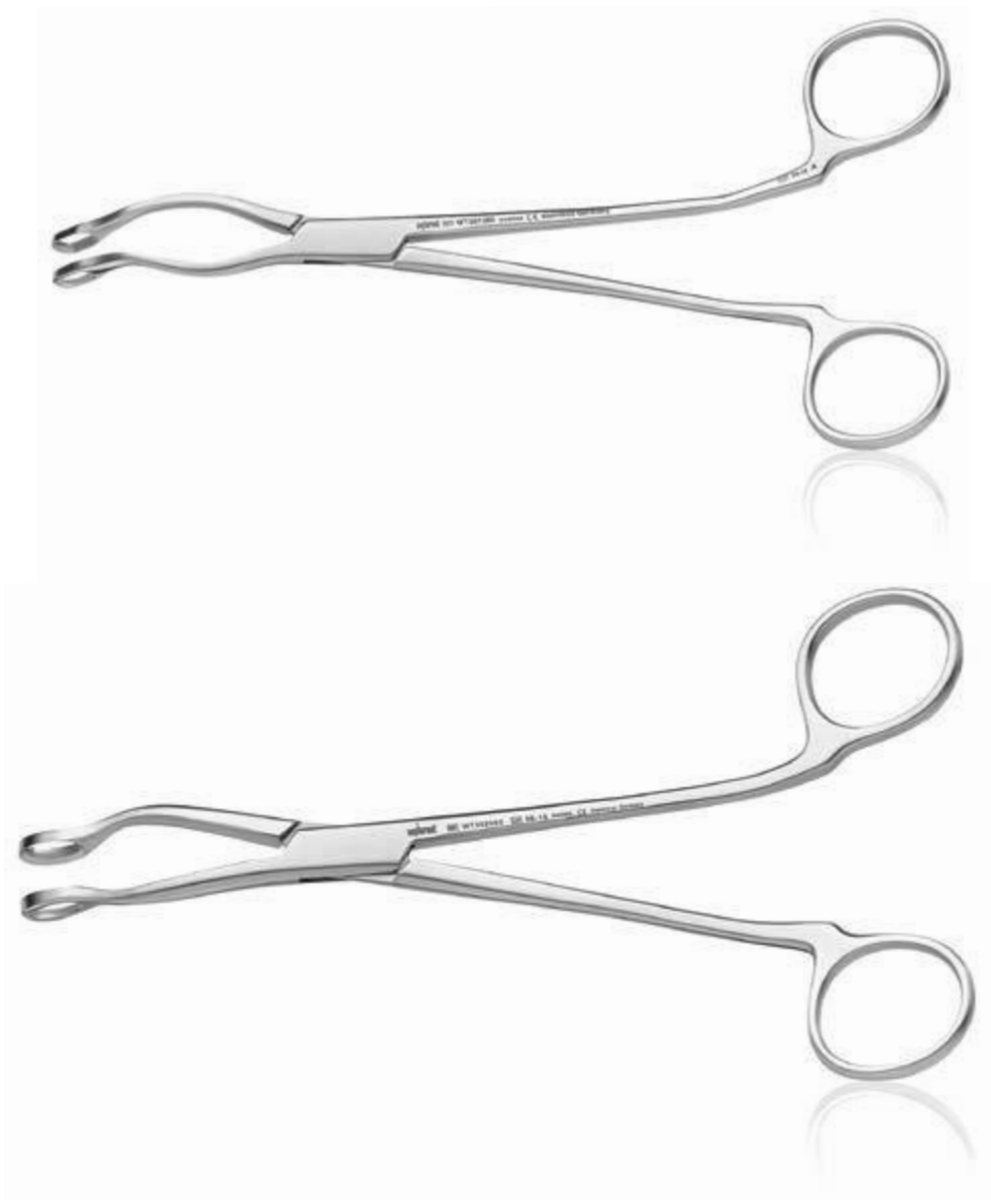
various sizes (mm)



WT512612 Punch forceps, acc. to Bachert,  
small, curved up, size 2.0

WT512615 Punch forceps, acc. to Bachert,  
large, curved up, size 5.0





- Sharp jaws forceps
- Special-shaped

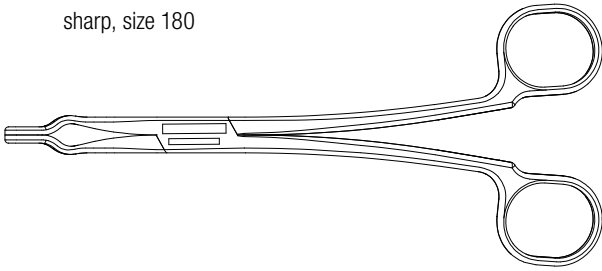
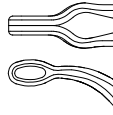
**EXPLORENT**

## Pharyngeal forceps

### Pharyngeal forceps, acc. to Juracz

slender type, sharp, 18 cm total length

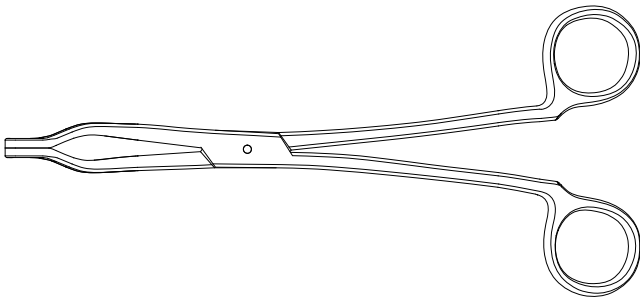
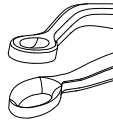
WT501900 Pharyngeal forceps, acc. to Juracz,  
sharp, size 180



### Adenoid forceps, acc. to St Claire-Thomson

sharp, 19 cm total length

WT502000 Adenoid forceps, acc. to St Claire-Thomson,  
sharp, size 190





- Models for infants, children and adults
- Models with and without basket

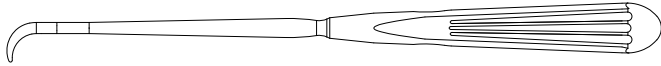
## Adenoid curette, acc. to Beckmann

### Adenoid curette, acc. to Beckmann

straight, 22 cm total length,  
various sizes (mm)

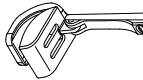


- WT540000 Adenoid curette, acc. to Beckmann, straight, size 10.5 x 220
- WT540001 Adenoid curette, acc. to Beckmann, straight, size 12.5 x 220
- WT540002 Adenoid curette, acc. to Beckmann, straight, size 14 x 220
- WT540003 Adenoid curette, acc. to Beckmann, straight, size 16 x 220
- WT540004 Adenoid curette, acc. to Beckmann, straight, size 17.5 x 220
- WT540005 Adenoid curette, acc. to Beckmann, straight, size 20.5 x 220

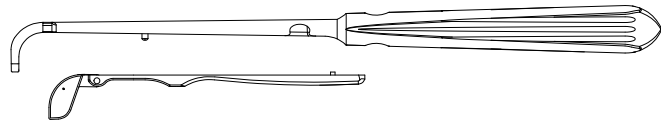
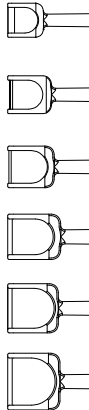


### Adenoid knife, acc. to Beckmann

straight, 22 cm total length,  
with detachable basket,  
(with two sharp pins inside the basket),  
various sizes (mm)



- WT540100 Adenoid knife, acc. to Beckmann, with basket, size 9.0 x 220
- WT540101 Adenoid knife, acc. to Beckmann, with basket, size 10 x 220
- WT540102 Adenoid knife, acc. to Beckmann, with basket, size 11 x 220
- WT540103 Adenoid knife, acc. to Beckmann, with basket, size 12 x 220
- WT540104 Adenoid knife, acc. to Beckmann, with basket, size 13 x 220
- WT540105 Adenoid knife, acc. to Beckmann, with basket, size 15 x 220

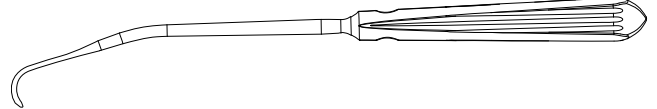
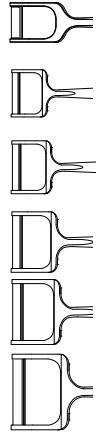


## Adenoid curette, acc. to Negus

### Adenoid curette, acc. to Negus

reverse curved, 21 cm total length  
various sizes (mm)

- WT540200 Adenoid curette, acc. to Negus, reverse curved, size 10.5 x 210
- WT540201 Adenoid curette, acc. to Negus, reverse curved, size 12.5 x 210
- WT540202 Adenoid curette, acc. to Negus, reverse curved, size 14 x 210
- WT540203 Adenoid curette, acc. to Negus, reverse curved, size 16 x 210
- WT540204 Adenoid curette, acc. to Negus, reverse curved, size 17.5 x 210
- WT540205 Adenoid curette, acc. to Negus, reverse curved, size 20 x 210

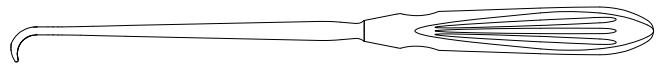
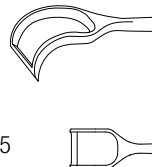


## Adenoid curette, acc. to Barnhill

### Adenoid curette, acc. to Barnhill

21.5 cm total length,  
various sizes (mm)

- WT540400 Adenoid curette, acc. to Barnhill, size 11 x 215
- WT540401 Adenoid curette, acc. to Barnhill, size 12 x 215
- WT540402 Adenoid curette, acc. to Barnhill, size 15 x 215
- WT540403 Adenoid curette, acc. to Barnhill, size 17 x 215
- WT540404 Adenoid curette, acc. to Barnhill, size 20 x 215

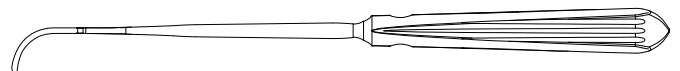
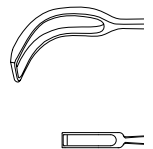


## Adenoid curette, acc. to Jones

### Adenoid curette, acc. to Jones

22.5 cm total length, narrow tip,  
various sizes (mm)

- WT540701 Adenoid curette, acc. to Jones, for infants, straight, size 4.0 x 225
- WT540702 Adenoid curette, acc. to Jones, for children, straight, size 6.0 x 225
- WT540703 Adenoid curette, acc. to Jones, for adults, curved, size 8.0 x 225



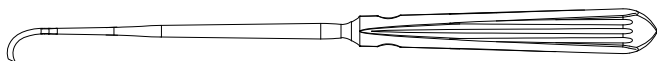
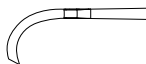


### Adenoid curette, acc. to Vogel

#### Adenoid curette, acc. to Vogel

21.5 cm total length, infant size, 7 mm

WT540800 Adenoid curette, acc. to Vogel,  
for infants, curved, size 7.0 x 215

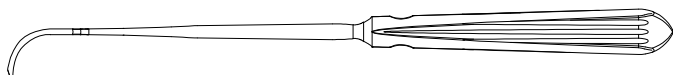
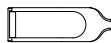
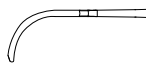


### Adenoid curette, acc. to Middleton

#### Adenoid curette, acc. to Middleton

22.5 cm total length,  
long narrow tip, size 7 mm

WT540850 Adenoid curette, acc. to Middleton,  
size 7.0 x 225



### Adenoid curette, acc. to Stubbs

#### Adenoid curette, acc. to Stubbs

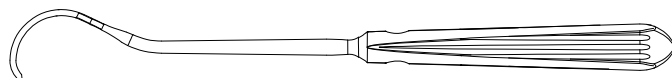
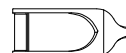
22 cm total length, shaft angled,  
available in various sizes (mm)

WT540900 Adenoid curette, acc. to Stubbs,  
curved, size 11 x 225

WT540901 Adenoid curette, acc. to Stubbs,  
curved, size 14 x 225

WT540902 Adenoid curette, acc. to Stubbs,  
curved, size 16 x 225

WT540903 Adenoid curette, acc. to Stubbs,  
curved, size 18 x 225



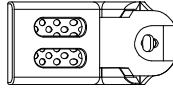




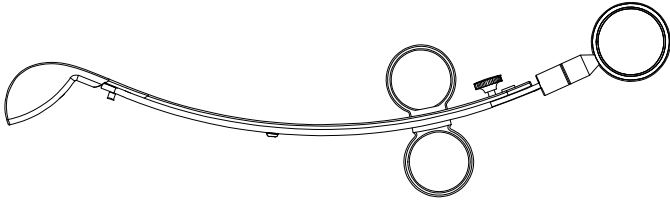
## Adenotome, acc. to La Force

### Adenotome, acc. to La Force

simplified model, easy detachable,  
various sizes (mm), 23 cm total length

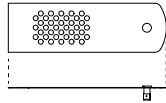


- WT540501 Adenotome, acc. to La Force,  
simplified model, size 14 x 230
- WT540502 Adenotome, acc. to La Force,  
simplified model, size 11.5 x 230
- WT540503 Adenotome, acc. to La Force,  
simplified model, size 8.5 x 230



### Blade

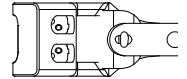
spare for adenotomes,  
various widths (mm)



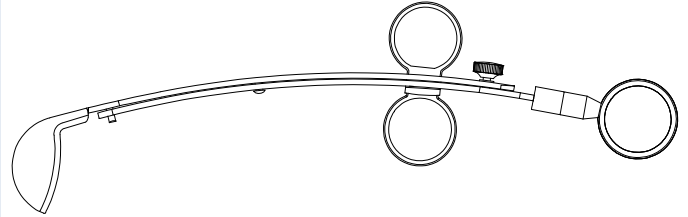
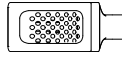
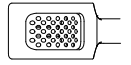
- WT540511 Blade, for Adenotomes WT540501 and WT540601
- WT540512 Blade, for Adenotomes WT540502 and WT540602
- WT540513 Blade, for Adenotomes WT540503 and WT540603

## Adenotome, acc. to Shambough

Adenotome, acc. to Shambough  
various sizes (mm), 23 cm total length



- WT540601 Adenotome, acc. to Shambough,  
simplified model, size 18 x 230
- WT540602 Adenotome, acc. to Shambough,  
simplified model, size 16 x 230
- WT540603 Adenotome, acc. to Shambough,  
simplified model, size 12 x 230



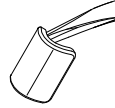


- Hook for arch palate
- Retractors for pillar and uvula
- Retractors for thymus and trachea
- Single- and double-ended models with blunt and sharp prongs

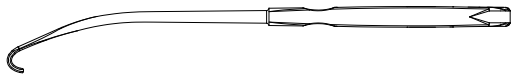
## Adenotomy Retractors

### Retractor, acc. to Nager

upcurved, width 15 mm, 21 cm total length



WT543000 Retractor, acc. to Nager, for soft palate, size 15 x 210

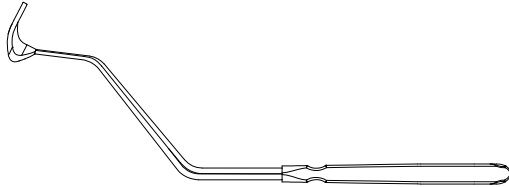


### Retractor, acc. to Hofer

width max. 25 mm, 23 cm total length



WT543500 Retractor, acc. to Hofer, for soft palate, size 25 x 230

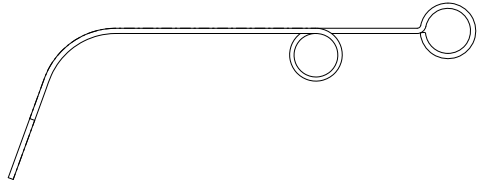


## Cotton Applicators

### Cotton applicator, acc. to Fein

23.5 cm total length, 2.5 mm diameter

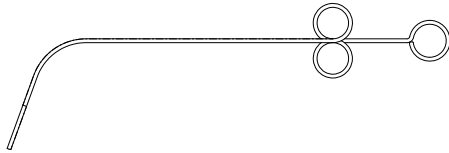
WT156000 Cotton applicator, acc. to Fein, size 260



### Cotton applicator, acc. to Pelteson

30 cm total length, 2.5 mm diameter

WT156100 Cotton applicator, acc. to Pelteson, size 235



## Uvula retractors

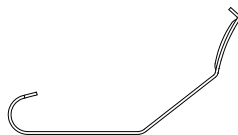
### Retractor, acc. to Love

15 cm total length, various diameters (mm)



WT543618 Retractor, acc. to Love, for uvula, size 18 x 150

WT543620 Retractor, acc. to Love, for uvula, size 20 x 150

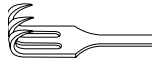


## Neck Dissection Retractors

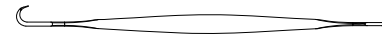
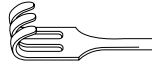
### Hook, acc. to Senn-Miller

16 cm total length

WT564000 Hook, acc. to Senn-Miller, sharp, size 160



WT564100 Hook, acc. to Senn-Miller, 3 prongs, sharp, size 160

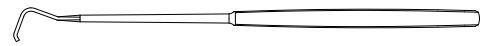


### Retractor, acc. to Schoenborn

21 cm total length



WT566900 Retractor, acc. to Schoenborn, for thyroid glands, size 210



### Tracheal hook

16 cm total length

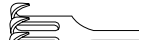
WT567001 Tracheal hook, 1 prong, sharp, size 160



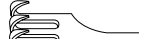
WT567002 Tracheal hook, 2 prongs, sharp, size 160



WT567003 Tracheal hook, 3 prongs, sharp, size 160



WT567004 Tracheal hook, 4 prongs, sharp, size 160



### Tracheal hook

16 cm total length

WT568001 Tracheal hook, 1 prong, blunt, size 160



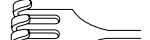
WT568002 Tracheal hook, 2 prongs, blunt, size 160



WT568003 Tracheal hook, 3 prongs, blunt, size 160



WT568004 Tracheal hook, 4 prongs, blunt, size 160





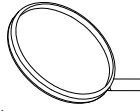
## EXPLORENT

- Set for precise adenoidectomy under vision

## Mirrors

### Laryngeal mirror

stainless steel, autoclavable,  
with fixed handle,  
19 cm total length, various diameter sizes (mm)



WT153906 Mirror, with handle, size 22

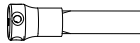
WT153907 Mirror, with handle, size 24



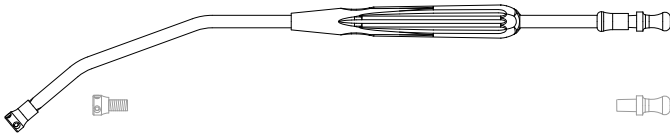
## Suction Tubes and Curettes

### Suction tube, acc. to Yankauer

27 cm total length, detachable tip,  
19.5 cm working length, 6 mm outer diameter,  
4.5 mm inner diameter



WT534000 Suction tube, acc. to Yankauer, detachable tip, size 270



### Adenoid curette, acc. to Negus

21 cm total length, reverse curved,  
various sizes (mm)

WT540200 Adenoid curette, acc. to Negus,  
reverse curved, size 10.5 x 210

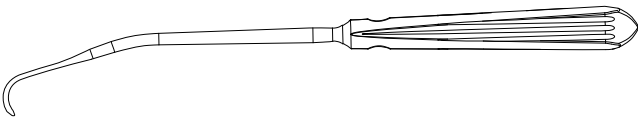
WT540201 Adenoid curette, acc. to Negus,  
reverse curved, size 12.5 x 210

WT540202 Adenoid curette, acc. to Negus,  
reverse curved, size 14 x 210

WT540203 Adenoid curette, acc. to Negus,  
reverse curved, size 16 x 210

WT540204 Adenoid curette, acc. to Negus,  
reverse curved, size 17.5 x 210

WT540205 Adenoid curette, acc. to Negus,  
reverse curved, size 20 x 210

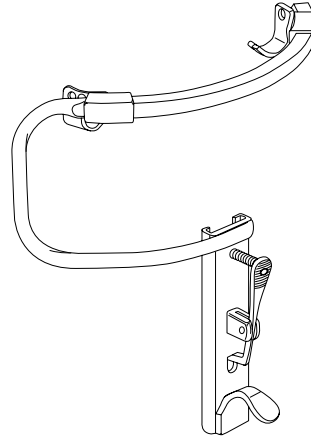


## Mouth gag, acc. to Davis-Meyer

### Mouth gag, acc. to Davis-Meyer

right frame, for tongue depressors  
WT525001–WT528503, 15 cm total length

WT528400 Mouth gag, acc. to Davis-Meyer, frame only, right



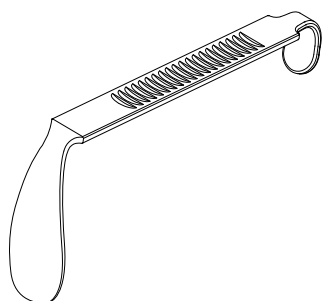


### Tongue depressor, acc. to McIvor

**Tongue depressor, acc. to McIvor**  
smooth, for frame 525000,  
various widths (mm) and lengths (mm)



- WT525001 Tongue depressor, acc. to McIvor, smooth, size 23 x 70
- WT525002 Tongue depressor, acc. to McIvor, smooth, size 25 x 91
- WT525003 Tongue depressor, acc. to McIvor, smooth, size 26 x 103



### Forceps

#### Thumb forceps

serrated, delicate, 14.5 cm total length

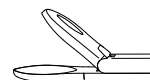


- WT209001 Thumb forceps, narrow, straight, size 145

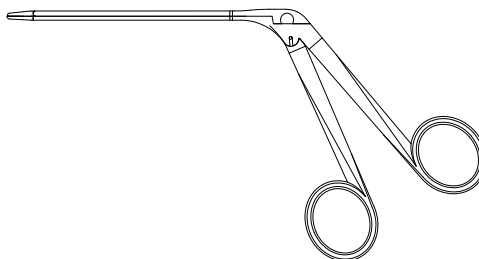


#### Nasal forceps, acc. to Blakesley,

straight, 11.5 cm working length,  
size 2, 4.0 mm jaws width



- WT330002 Nasal forceps, acc. to Blakesley, straight, size 4.0 x 115







- Models with flat light handle and solid handle
- Models for children and adults
- Straight, s-shaped and angled models

### Tongue depressor, acc. to Brünings

#### Tongue depressor, acc. to Brünings

double-ended, width 18/14 mm,  
stainless steel, 19 cm total length

WT151000 Tongue depressor, acc. to Brünings, size 18 x 14 190

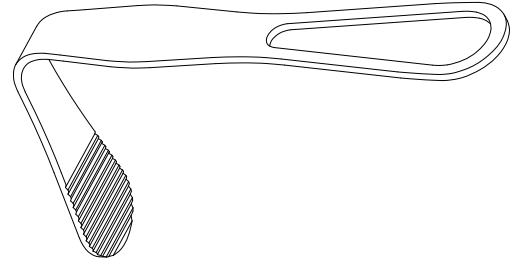


### Tongue depressor, acc. to Hartmann

#### Tongue depressor, acc. to Hartmann

width 25 mm, stainless steel, 15 cm blade length

WT152500 Tongue depressor, acc. to Hartmann, size 25 x 150

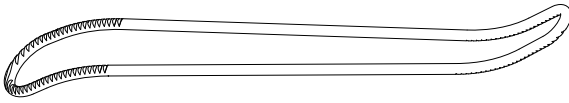


### Tongue depressor, acc. to Frenzel

#### Tongue depressor, acc. to Frenzel

double-ended, width 12/23 mm,  
stainless steel, 17 cm total length

WT151100 Tongue depressor, acc. to Frenzel, size 12 x 23 170

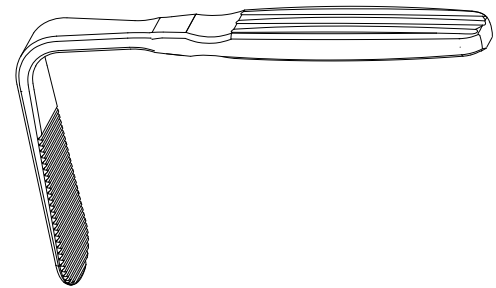


### Tongue depressor, acc. to Tobold

#### Tongue depressor, acc. to Tobold

width 25 mm, stainless steel, solid, 14.5 cm total length,  
8.8 cm blade length

WT152600 Tongue depressor, acc. to Tobold, size 25 x 145

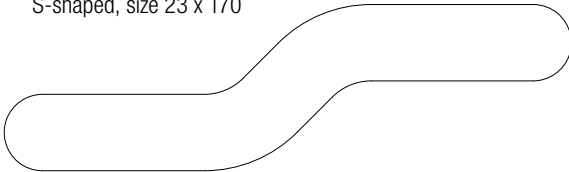


### Tongue depressor, Explorent type

#### Tongue depressor, Explorent type

double-ended, width 23 mm,  
stainless steel, 17 cm total length

WT152000 Tongue depressor, Explorent type,  
S-shaped, size 23 x 170



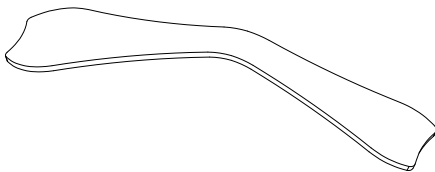
### Tongue depressor, acc. to Doyen

#### Tongue depressor, acc. to Doyen

double-ended, stainless steel,  
total length (mm), widths 24 mm and 30 mm

WT152100 Tongue depressor, acc. to Doyen,  
for children, size 24 x 30 130

WT152200 Tongue depressor, acc. to Doyen,  
for adults, size 30 x 34 160





- Scalpels:  
with long handles, sterile scalpel blades
- Tonsil knives:  
with curved blades, knife and dissector model

## Scalpels

### Scalpel handle

No. 7, 16.5 cm total length

WT429007 Scalpel handle, no. 7, solid, long, size 165



### Scalpel handle

No. 3 L, 21.5 cm total length

WT429103 Scalpel handle, no. 3L, solid, straight, size 215



## Tonsil Knives

### Tonsil knife, acc. to Abraham

slightly curved tip, 21 cm total length

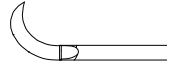


WT548000 Tonsil knife, acc. to Abraham, size 210



### Tonsil knife, acc. to Bruenings

strongly curved tip, 23 cm total length

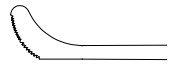


WT549000 Tonsil knife, acc. to Bruenings, size 230



### Tonsil knife, acc. to Colver (Fisher)

22.5 cm total length, serrated blade



WT549100 Tonsil knife, acc. to Colver (Fisher), size 225



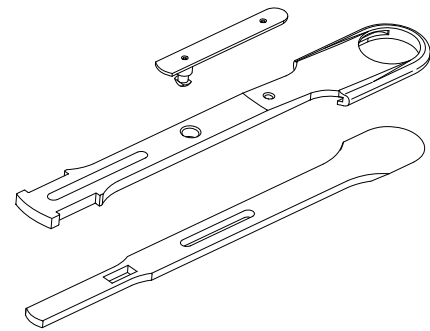
### Knife, acc. to Sluder-Ballenger

WT531100 Knife, acc. to Sluder-Ballenger, Simal type, size 0

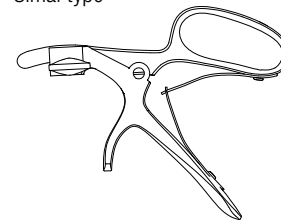
WT531101 Knife, acc. to Sluder-Ballenger, Simal type, size 1

WT531102 Knife, acc. to Sluder-Ballenger, Simal type, size 2

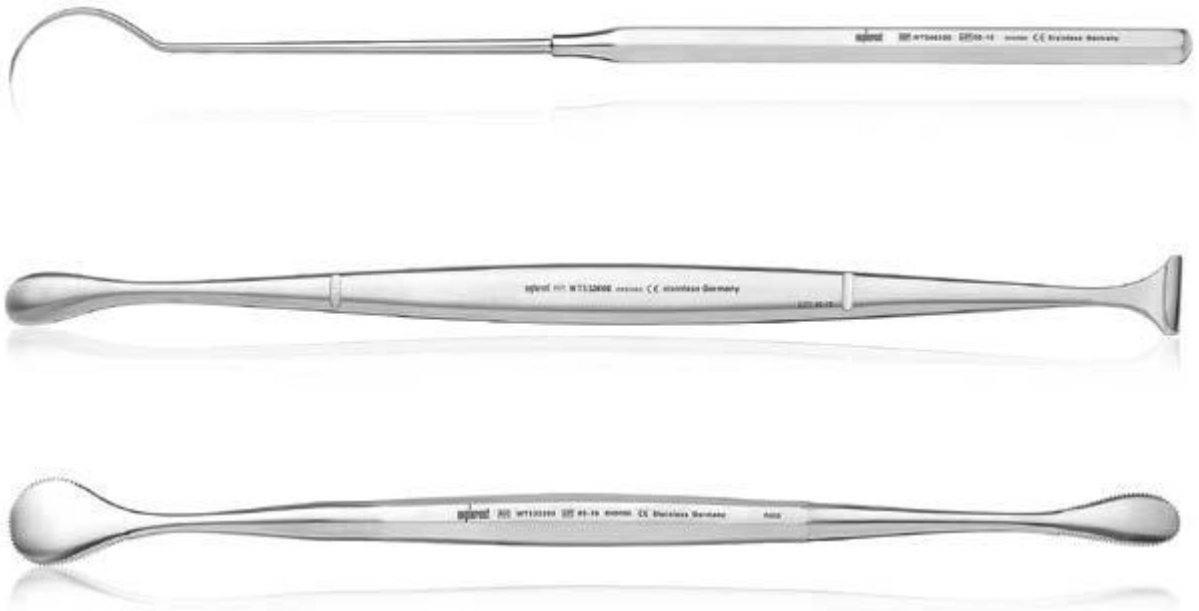
WT531103 Knife, acc. to Sluder-Ballenger, Simal type, size 3



WT531000 Handle, acc. to Sluder Ballenger,  
Simal type



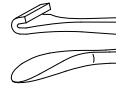
WT531110 Spare screw,  
for handle acc. to Sluder (not shown)



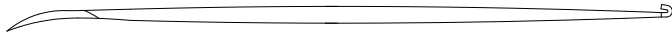
- Double-ended with dissector and separator/retractor
- Models with serrated dissector-blades
- Models with suction dissector
- Curved tonsil needle
- Fork-shaped and blunt knot tier

## Tonsil Dissectors

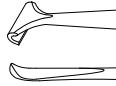
**Tonsil dissector and retractor, acc. to Hurd**  
width 14/10 mm, 23 cm total length



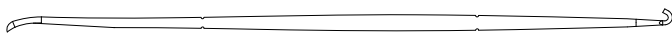
WT533000 Tonsil dissector and retractor, acc. to Hurd,  
size 14/10 x 230



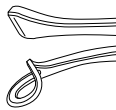
**Tonsil dissector and retractor, acc. to Hurd**  
width 6.0 mm, 22.5 cm total length



WT533001 Tonsil dissector and retractor, acc. to Hurd,  
size 6.0 x 225



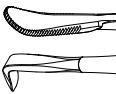
**Elevator, according to Hurd**  
tonsil elevator  
with fenestrated hook, 23 cm,  
width 11.5/14.5 mm



WT533100 Elevator, according to Hurd, double-ended,  
with hook, size 11.5/14.5 x 230



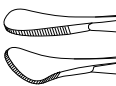
**Elevator, acc. to Henke**  
tonsil dissector and separator,  
23 cm total length, small, 12 mm width



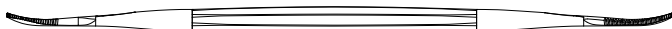
WT532001 Elevator, acc. to Henke, small,  
size 12 x 230



**Raspatory, acc. to Henke**  
tonsil dissector, double-ended,  
24 cm total length, width 12 mm/18 mm



WT532200 Raspatory, acc. to Henke, double-ended,  
size 12/18 x 240



**Elevator, acc. to Stierlen**  
24 cm total length, width 13.5 mm

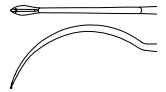


WT532501 Elevator, acc. to Stierlen, with suction channel

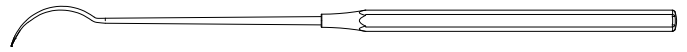


## Tonsil needle, acc. to Nager

**Tonsil needle, acc. to Nager**  
24 cm total length, curved



WT546500 Tonsil needle, acc. to Nager,  
for suture, size 240



## Knot pusher

**Knot pusher**  
fork shaped, blunt, 20.5 cm total length

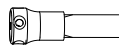


WT547100 Knot pusher, blunt, size 205

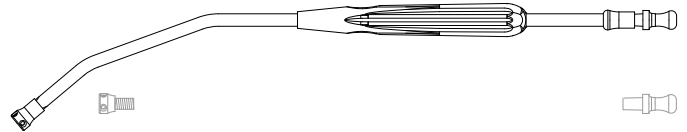


## Suction Tube

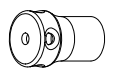
**Suction tube, acc. to Yankauer**  
with tip and Luer connector,  
19.5 cm working length, detachable tip,  
6 mm outer diameter, 4.5 mm inner diameter,  
27 cm total length



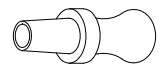
WT534000 Suction tube, acc. to Yankauer, detachable tip, size 270



WT534001 Suction connector,  
for suction tube WT534000



WT534002 Spare connector,  
for suction tube acc. to Yankauer





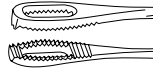


- Straight and curved with slender and very delicate jaws
- Tweezer type models

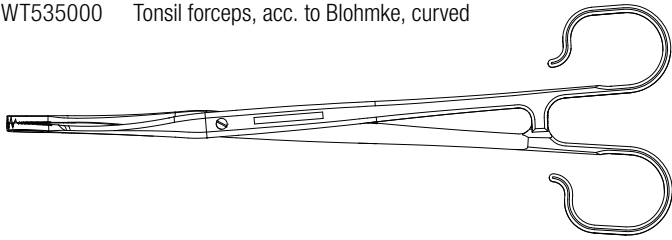
**EXPLORENT**

## Tonsil Forceps with Ratchet

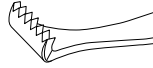
**Tonsil forceps, acc. to Blohmke**  
curved, 21 cm total length



WT535000 Tonsil forceps, acc. to Blohmke, curved

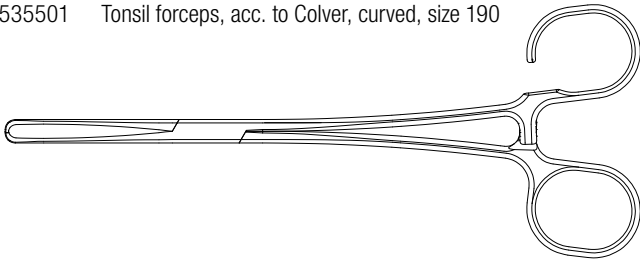


**Tonsil forceps, acc. to Colver**  
19 cm total length

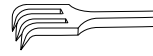


WT535500 Tonsil forceps, acc. to Colver, straight, size 190

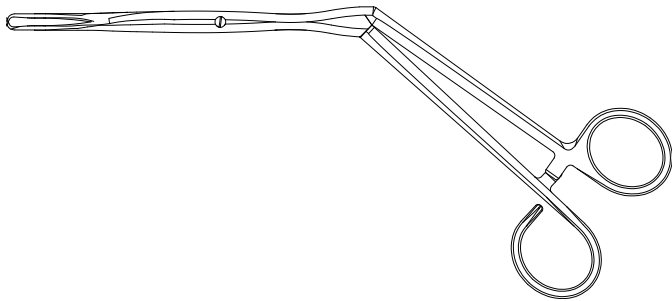
WT535501 Tonsil forceps, acc. to Colver, curved, size 190



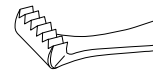
**Tonsil forceps, acc. to Tivnen**  
3 x 3 teeth, 8 mm width, 21 cm total length



WT536100 Tonsil forceps, acc. to Tivnen, size 210

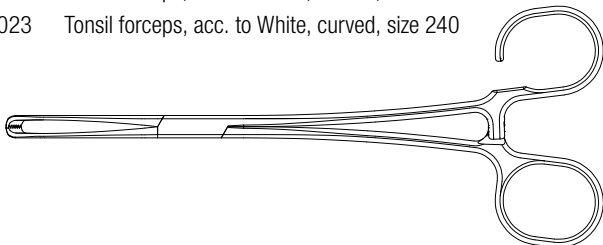


**Tonsil forceps, acc. to White**  
various sizes (cm), curved,  
7 mm, serrated tips



WT537018 Tonsil forceps, acc. to White, curved, size 180

WT537023 Tonsil forceps, acc. to White, curved, size 240



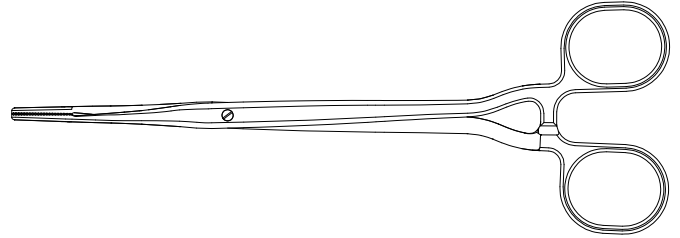
## Tonsil Forceps with Ratchet (cont.)

**Dressing forceps**

curved, with ratchet, 20 cm total length



WT549500 Dressing forceps, with ratchet, curved up, size 200



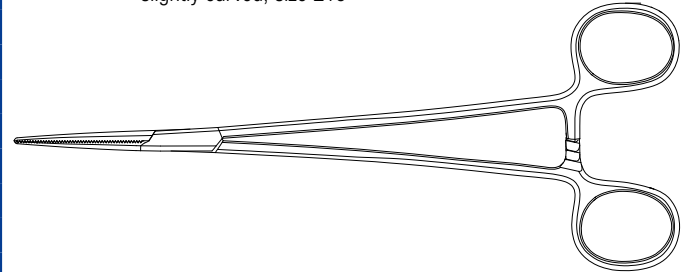
**Tonsil forceps, acc. to Heiss**

slender, straight, length 21 cm total length

WT550000 Tonsil forceps, acc. to Heiss,  
straight, size 210



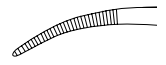
WT550100 Tonsil forceps, acc. to Heiss,  
slightly curved, size 210



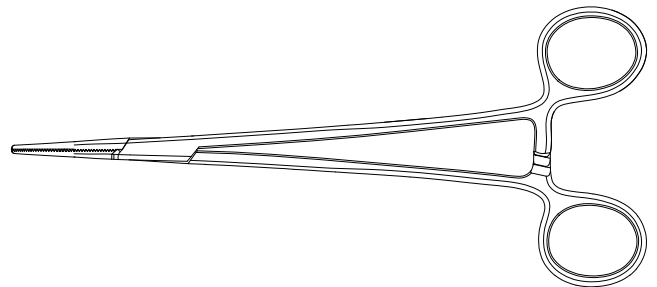
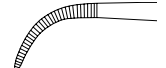
**Tonsil forceps, acc. to Schmidt**

slender, 19 cm total length

WT551000 Tonsil forceps, acc. to Schmidt,  
slightly curved, size 190



WT551100 Tonsil forceps, acc. to Schmidt,  
strong curved, size 190



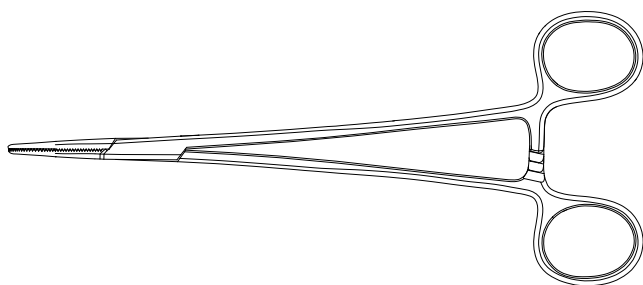
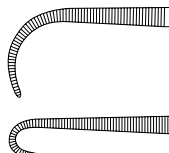
### Tonsil Forceps with Ratchet (cont.)

#### Tonsil forceps, acc. to Negus

slender, 19 cm total length

WT552000 Tonsil forceps, acc. to Negus, slightly curved, size 190

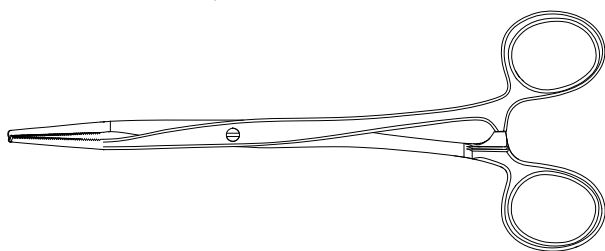
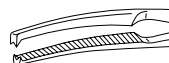
WT552100 Tonsil forceps, acc. to Negus, strong curved, size 190



#### Dissection forceps, acc. to Mikulicz

1 x 2 teeth, slender, length 18 cm

WT552218 Dissection forceps, acc. to Mikulicz, slender, curved up, size 180



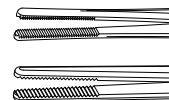
### Thumb forceps

#### Thumb forceps

serrated, straight, delicate, 20 cm total length

WT209003 Thumb forceps, narrow, straight, size 200

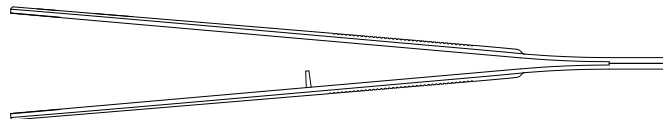
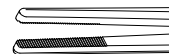
WT209020 Thumb forceps, straight, size 200



#### Thumb forceps, acc. to Brophy

straight, 20 cm total length

WT551520 Thumb forceps, acc. to Brophy, straight, size 200



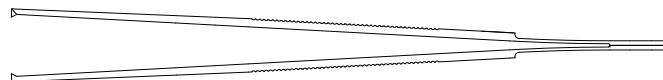
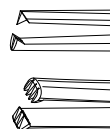
#### Thumb forceps

straight, 20 cm total length

WT209103 Thumb forceps, for dissection, narrow, size 200

WT209120 Thumb forceps, for dissection, straight, size 200

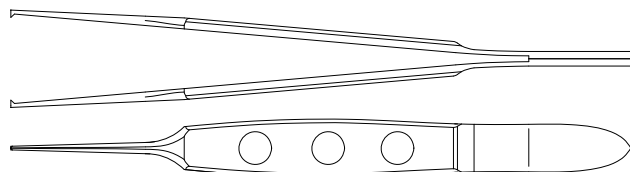
WT209124 Thumb forceps, for dissection, straight, 3 x 4 teeth, size 200



#### Thumb forceps, acc. to Bishop-Harmon

18.5 cm total length

WT550608 Thumb forceps, for dissection, acc. to Bishop-Harmon, 1 x 2 teeth, size 185



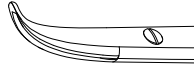




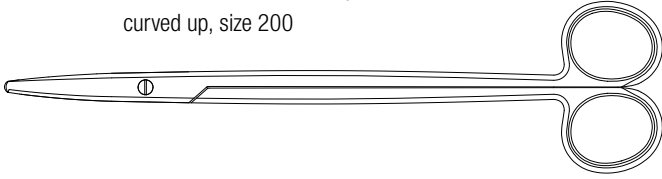
- With tungsten carbide cutting edges for extremely high durability
- Rhombic blade models
- Wire cutter with serrated blades
- Sharp and ball end tips for salivary duct

## Scissors

**Tonsil scissors, acc. to Lilly**  
curved, 20 cm total length



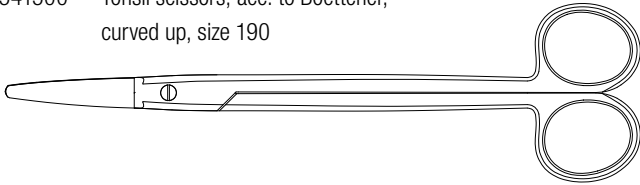
WT541400 Tonsil scissors, acc. to Lilly,  
curved up, size 200



**Tonsil scissors, acc. to Boettcher**  
curved, 19 cm total length



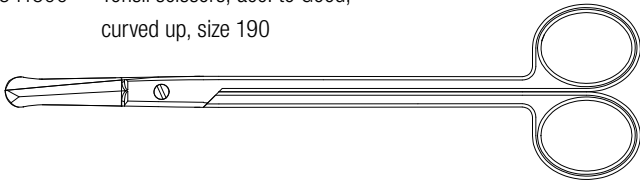
WT541500 Tonsil scissors, acc. to Boettcher,  
curved up, size 190



**Tonsil scissors, acc. to Good**  
curved, 19 cm total length



WT541800 Tonsil scissors, acc. to Good,  
curved up, size 190



**Dissection scissors, acc. to Metzenbaum**  
various sizes (mm)

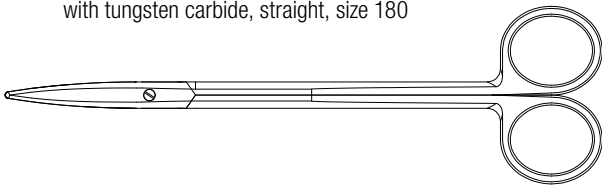
WT542018 Dissection scissors, acc. to Metzenbaum,  
curved up, size 180

WT542020 Dissection scissors, acc. to Metzenbaum,  
curved up, size 205

WT542218 Dissection scissors, acc. to Metzenbaum,  
with tungsten carbide, curved up, size 180

WT542223 Dissection scissors, acc. to Metzenbaum,  
with tungsten carbide, curved up, size 230

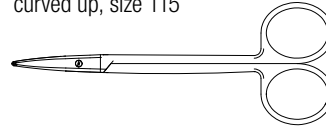
WT542318 Dissection scissors, acc. to Metzenbaum,  
with tungsten carbide, straight, size 180



## Scissors (cont.)

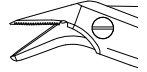
**Dissection scissors, acc. to Metzenbaum-Fino**  
17 cm total length

WT542112 Dissection scissors, acc. to Metzenbaum-Fino,  
curved up, size 115

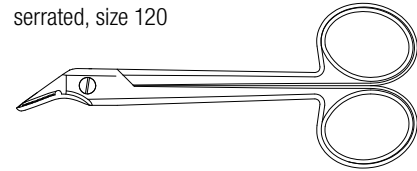


**Wire cutting scissors**

saw edge, 12 cm total length, standard blades



WT277901 Wire cutting scissors, universal,  
serrated, size 120



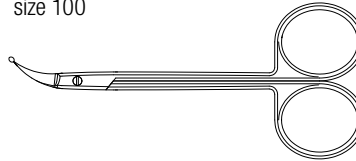
**Scissors, acc. to Perwitschky**

for salivary duct, 10 cm total length



WT543010 Scissors, acc. to Perwitschky,  
for salivary duct, size 100

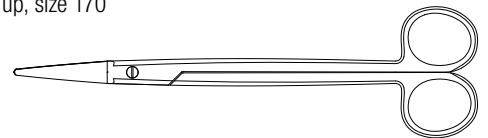
WT543011 Scissors, acc. to Perwitschky,  
sharp/sharp, for salivary duct,  
size 100



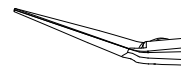
**Tonsil scissors, acc. to Prince**  
17 cm total length



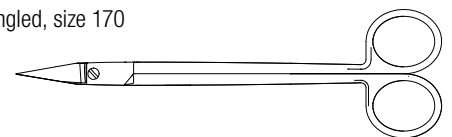
WT541600 Tonsil scissors, acc. to Prince,  
curved up, size 170



**Tonsil scissors, acc. to Dean**  
17 cm total length



WT541700 Tonsil scissors, acc. to Dean,  
serrated, angled, size 170





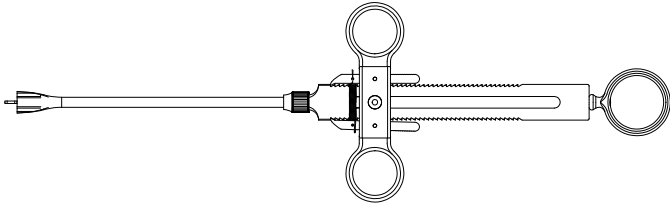
- Different types of tonsil snares
- Snare wires formed and closed
- Snare wires open and coils

## Snares

### Snare, acc. to Bruenings

for closed tonsil wire, 29 cm total length

WT546000 Snare, acc. to Bruenings, size 28



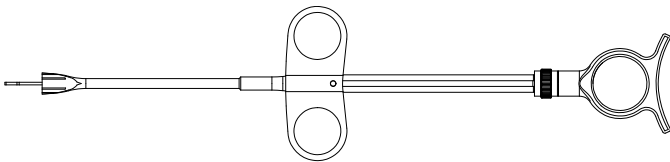
WT546001 Wire, for snare acc. to Bruenings (not shown)

WT546002 Spare screw, for tonsil snare acc. to Bruenings (not shown)

### Snare, acc. to Eves

with Bruenings-tip, 29 cm total length,  
for closed and open tonsil wire loops

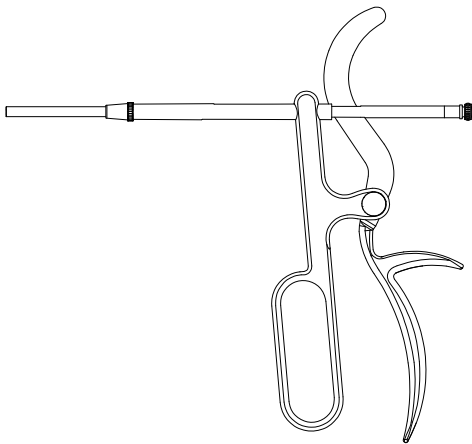
WT546100 Snare, acc. to Eves,  
guide tube acc. to Bruenings, size 29



### Snare, acc. to Tyding

with straight tip, for open tonsil wire, detachable

WT546300 Snare, acc. to Tyding, guide tube, straight, size 270



WT546302 Spare attachment, straight, for tonsil snare

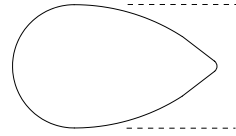


## Snare Wires

### Wire loop

stainless steel, closed,  
0.4 mm Ø, 50 mm length, 100 pcs.

WT546200 Wire loop, closed, 100 pcs., size 0.4 x 50



### Wire

open, with bended ends, 0.3 mm Ø, 12 pcs.,  
cut and formed, standard size, 10 cm length

WT311000 Wire, for nasal snare, size 0.3 x 100, 12 pcs.



### Wire

open, with bended ends, 0.3 mm Ø, 100 pcs.

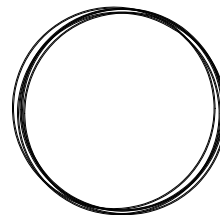
WT311103 Wire, for nasal snare, size 0.3 x 100, 100 pcs.



### Wire

0.4 mm Ø, coil of 10 m

WT311100 Wire, for nasal snare, size 0.4, coil







- Sialography cannulas with very thin diameter and Luer-lock connectors
- Dilators for infants plus very delicate models, different sizes
- Probes for salivary and lacrimal duct, silver-plated, double-ended models, extra-delicate silver model and protection tube
- Scissors with ball end or pointed tips

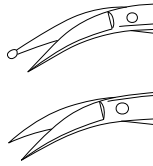
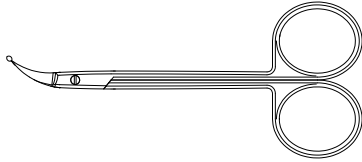
## Scissors, acc. to Perwitschky

### Scissors, acc. to Perwitschky

for salivary duct, 10 cm total length

WT543010 Scissors, acc. to Perwitschky,  
for salivary duct, size 100

WT543011 Scissors, acc. to Perwitschky,  
sharp/sharp, for salivary duct,  
size 100

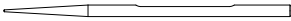


## Dilators

### Dilator, acc. to Ruedemann

for salivary duct, for infants,  
tip 0.5 mm, 8 cm total length

WT543300 Dilator, acc. to Ruedemann, for salivary duct,  
for children, size 0.5 x 80



### Dilator, acc. to Wilde

4 mm diameter, 11 cm total length

WT543301 Dilator, acc. to Wilde, for salivary duct,  
size 1, 4 x 110



## Probes

### Probe, acc. to Bowman

silver plated,  
total length 13 cm

WT543430 Probe, acc. to Bowman,  
cylindrical, silver plated, size 000/0000

WT543400 Probe, acc. to Bowman,  
cylindrical, silver plated, size 00/0

WT543401 Probe, acc. to Bowman,  
cylindrical, silver plated, size 0/1

WT543402 Probe, acc. to Bowman,  
cylindrical, silver plated, size 1/2

WT543404 Probe, acc. to Bowman,  
cylindrical, silver plated, size 3/4

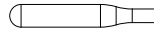
WT543406 Probe, acc. to Bowman,  
cylindrical, silver plated, size 5/6

WT543408 Probe, acc. to Bowman,  
cylindrical, silver plated, size 7/8



### Probe, acc. to Seiffert

extra delicate, silver, 18 cm total length



WT543518 Probe, acc. to Seiffert, silver, size 180



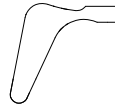
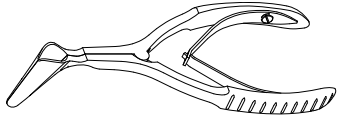


- Lacrimal duct basic set, selection of recommended instruments
- Complementary sets for “Septum” and “Paranasal Sinuses”

## Basic Set

**Nasal speculum, acc. to Hartmann**  
14 cm total length, 34 mm blade length

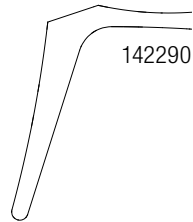
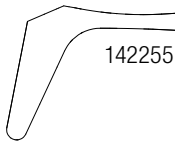
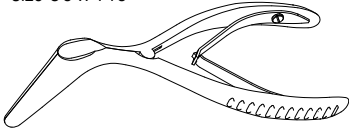
WT143001 Nasal speculum, acc. to Hartmann,  
for adults, size 33.5 x 135



**Nasal speculum, acc. to Killian-Struycken**  
14 cm total length, various blade length (mm)

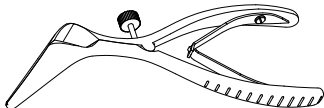
WT142255 Nasal speculum, acc. to Killian-Struycken,  
size 55 x 140

WT142290 Nasal speculum, acc. to Killian-Struycken,  
size 90 x 140



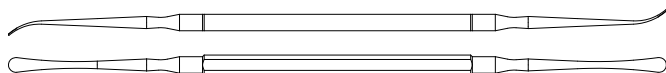
**Nasal speculum, acc. to Cottle**  
13,5 cm total length, with set screw,  
55 mm blade length

WT400002 Nasal speculum, acc. to Cottle, size 50 x 135



**Elevator, acc. to Freer**  
20 cm, double-ended, 20 cm total length,  
USA model, sharp/blunt, 4.5 mm width

WT315000 Elevator, acc. to Freer,  
double-ended, american type, size 200



## Basic Set (cont.)

**Probe, acc. to Bowman**  
silver plated,  
total length 13 cm

WT543430 Probe, acc. to Bowman, cylindrical,  
silver plated, size 000/0000

WT543400 Probe, acc. to Bowman, cylindrical,  
silver plated, size 00/0

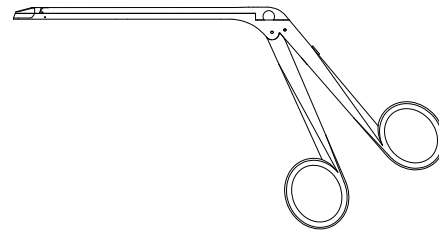
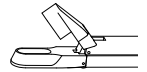
WT543402 Probe, acc. to Bowman, cylindrical,  
silver plated, size 1/2

WT543404 Probe, acc. to Bowman, cylindrical,  
silver plated, size 3/4



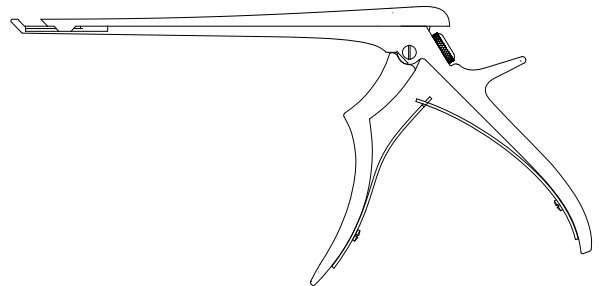
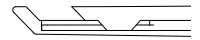
**Punch forceps, acc. to Moriyama**  
through-cutting, 4.5 mm jaw width,  
10.5 cm working length

WT326810 Punch forceps, acc. to Moriyama, through-cutting,  
straight, size 105



**Punch forceps, acc. to Kerrison**  
bite 2 mm, 40° upbiting,  
18 cm working length, detachable

WT512922 Punch forceps, acc. to Kerrison, 40 cutting upward,  
detachable, size 2.0 x 180



### Basic Set (cont.)

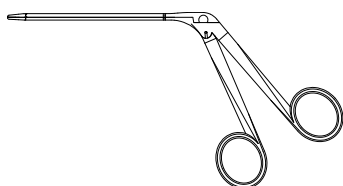
#### Nasal forceps, acc. to Blakesley

4.0 mm jaws width, 11.5 cm working length



WT330002 Nasal forceps, acc. to Blakesley, straight, size 4.0 x 115

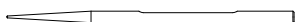
WT330102 Nasal forceps, acc. to Blakesley, curved up 45, size 4.0 x 115



#### Dilator, acc. to Ruedemann

for infants, tip 0.5 mm, 8 cm total length

WT543300 Dilator, acc. to Ruedemann, for salivary duct, for children, size 0.5 x 80



#### Suction tube

angled, Luer-lock, 10.5 cm working length, various diameter sizes (mm)

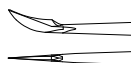
WT136530 Suction tube, curved, with Luer conus, size 3.0 x 105

WT136540 Suction tube, curved, with Luer conus, size 4.0 x 105



#### Sickle knife

pointed, 19 cm total length, double cutting



WT518301 Sickle knife, pointed, size 190



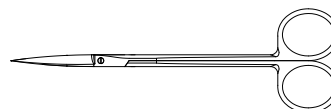
### Complementary Set "Septum"

#### Scissors, acc. to Joseph

14 cm total length, curved



WT276614 Scissors, acc. to Joseph, curved up, size 140

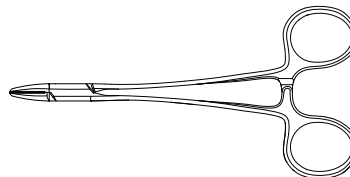


#### Needle holder, acc. to Crile-Wood

straight, 15 cm total length, tungsten carbide

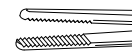


WT213015 Needle holder, acc. to Crile-Wood, with tungsten carbide, size 150



#### Thumb forceps

straight, serrated, 14.5 cm total length



WT209014 Thumb forceps, straight, size 145



#### Thumb forceps

1 x 2 teeth, straight, 14.5 cm total length

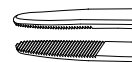


WT209114 Thumb forceps, for dissection, straight, size 145

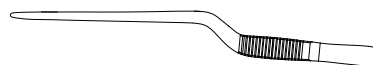


#### Thumb forceps, acc. to Lucae

bayonet, serrated, 16 cm total length, slender



WT132316 Thumb forceps, acc. to Lucae, bayonet shaped, size 160



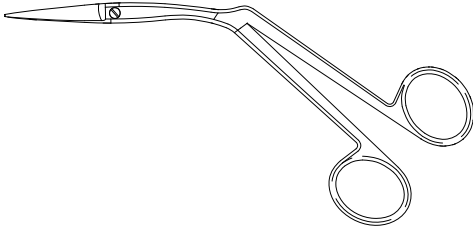
## Complementary Set "Septum" (cont.)

### Nasal scissors, acc. to Heymann

smooth blades, straight,  
9.5 cm working length

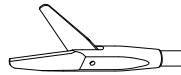


WT326000 Nasal scissors, acc. to Heymann, standard, size 95

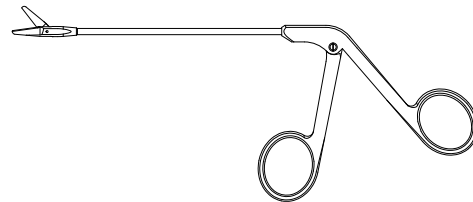


### Nasal scissors

serrated blades, straight,  
13 cm working length



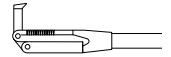
WT326200 Nasal scissors, serrated, straight, size 130



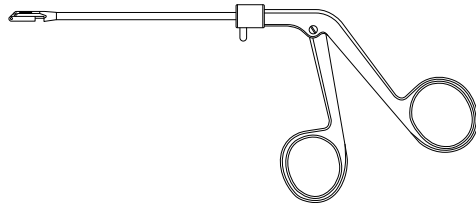
## Complementary Set "Paranasal Sinuses"

### Punch forceps

finger post facilitates 360° rotation,  
10 cm working length,  
adult size: 2.5 mm cutting width



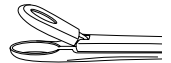
WT335025 Punch forceps, rotatable, backward cutting,  
size 2.5 x 100



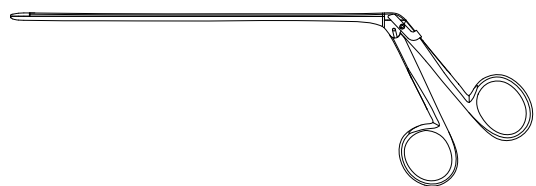
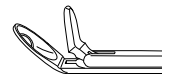
### Nasal forceps, acc. to Draf

very delicate, 2.4 mm width, straight,  
16 cm working length

WT338416 Nasal forceps, acc. to Draf,  
straight, size 2.4 x 160



WT338516 Nasal forceps, acc. to Draf,  
curved up, size 2.4 x 160

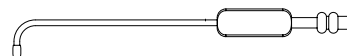


### Cannula, acc. to Eicken

short curved, 14.5 cm working length,  
various diameters (mm)

WT149612 Cannula, acc. to Eicken, with Luer-lock,  
short curved, size 2.5 x 145

WT149613 Cannula, acc. to Eicken, with Luer-lock,  
short curved, size 3 x 145



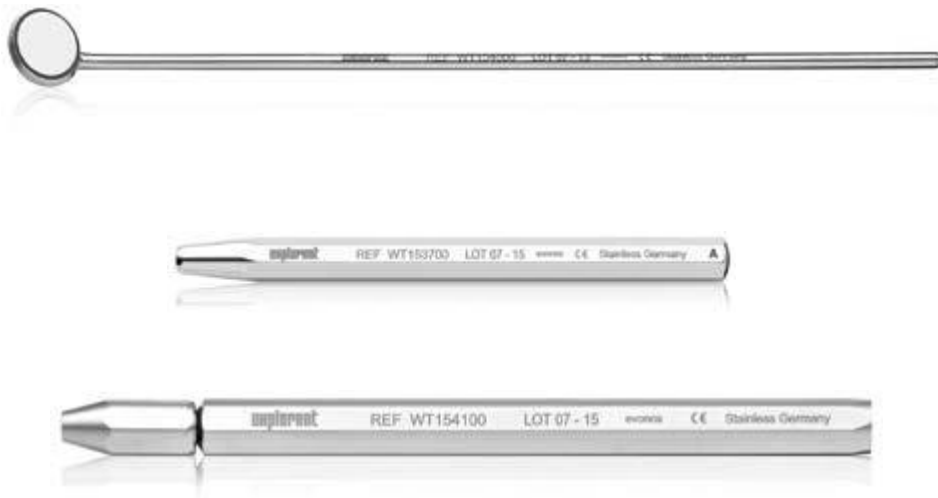
### Cannula, acc. to Eicken

long curved, various diameters (mm)

WT149602 Cannula, acc. to Eicken, with Luer-lock,  
long curved, size 2.5 x 145

WT149603 Cannula, acc. to Eicken, with Luer-lock,  
long curved, size 3 x 145





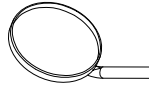
- Mirrors with fixed handle
- Detachable models with separate handles
- Different-sized mirrors

## EXPLORENT

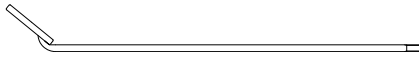
## Laryngeal Mirrors with Unscrewable Handle

### Mirror

stainless steel, autoclavable,  
shaft with thread, for handle WT153700,  
various diameters (mm), 12.5 cm total length



WT153620	Mirror, with thread, without handle, size 8
WT153600	Mirror, with thread, without handle, size 10
WT153601	Mirror, with thread, without handle, size 12
WT153602	Mirror, with thread, without handle, size 14
WT153603	Mirror, with thread, without handle, size 16
WT153604	Mirror, with thread, without handle, size 18
WT153605	Mirror, with thread, without handle, size 20
WT153606	Mirror, with thread, without handle, size 22
WT153607	Mirror, with thread, without handle, size 24
WT153608	Mirror, with thread, without handle, size 26
WT153609	Mirror, with thread, without handle, size 28
WT153610	Mirror, with thread, without handle, size 30



### Handle

for WT153600 – WT153620, 7.5 cm length

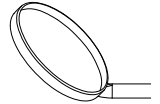
WT153700	Handle, hexagonal, for mirror with thread, size 75
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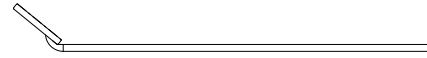
## Standard Laryngeal Mirrors

### Mirror

stainless steel, autoclavable,  
shaft without thread, 12.5 cm total length,  
various diameters (mm)



WT154020	Mirror, without thread, without handle, size 8
WT154000	Mirror, without thread, without handle, size 10
WT154001	Mirror, without thread, without handle, size 12
WT154002	Mirror, without thread, without handle, size 14
WT154003	Mirror, without thread, without handle, size 16
WT154004	Mirror, without thread, without handle, size 18
WT154005	Mirror, without thread, without handle, size 20
WT154006	Mirror, without thread, without handle, size 22
WT154007	Mirror, without thread, without handle, size 24
WT154008	Mirror, without thread, without handle, size 26
WT154009	Mirror, without thread, without handle, size 28
WT154010	Mirror, without thread, without handle, size 30



### Handle

for laryngeal mirrors without thread,  
with set screw, 10.5 cm total length

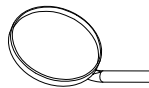
WT154100	Handle, for Mirror without thread, size 110
----------	---



## Laryngeal Mirrors with Fixed Handle

### Mirror

stainless steel, autoclavable,  
with fixed handle, 18 cm total length,  
various diameters (mm)



WT153920	Mirror, with handle, size 8
WT153900	Mirror, with handle, size 10
WT153901	Mirror, with handle, size 12
WT153902	Mirror, with handle, size 14
WT153903	Mirror, with handle, size 16
WT153904	Mirror, with handle, size 18
WT153905	Mirror, with handle, size 20
WT153906	Mirror, with handle, size 22
WT153907	Mirror, with handle, size 24
WT153908	Mirror, with handle, size 26
WT153909	Mirror, with handle, size 28
WT153910	Mirror, with handle, size 30

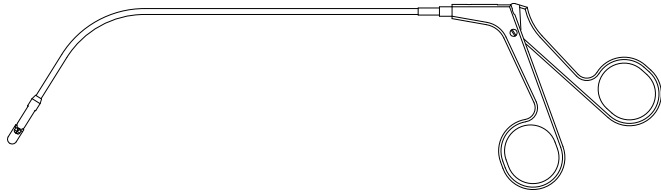






- Standard laryngeal forceps:  
Double-action jaws, open vertically or horizontally,  
alligator forceps with serrated jaws for removal of foreign  
bodies, round and oval cupped jaws
- Tracheal dilators:  
Twin-bladed and three-bladed models

## Laryngeal Forceps



### Laryngeal forceps

tube shaft,  
with double-action jaws,  
oval cupped spoon, 19 cm working length

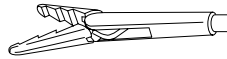


WT157201 Laryngeal forceps, for polyps,  
oval spoons, vertical opening, size 190

WT157202 Laryngeal forceps, for polyps,  
oval spoons, horizontal opening, size 190

### Laryngeal forceps

tube shaft,  
with double-action jaws,  
for foreign bodies, serrated, 19 cm working length



WT157203 Laryngeal forceps, alligator type,  
for foreign bodies, vertical opening, size 190

WT157204 Laryngeal forceps, alligator type,  
for foreign bodies, horizontal opening, size 190

### Laryngeal forceps

tube shaft,  
with round cupped jaws 4 mm Ø,  
17 cm working length



WT157400 Laryngeal forceps, for biopsy,  
with cupped jaws, straight, size 4 x 17

WT157401 Laryngeal forceps, for biopsy,  
with cupped jaws, upcurved, size 4 x 17

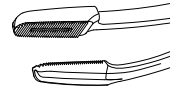
WT157402 Laryngeal forceps, for biopsy,  
with cupped jaws, curved right, size 4 x 17

WT157403 Laryngeal forceps, for biopsy,  
with cupped jaws, curved left, size 4 x 17

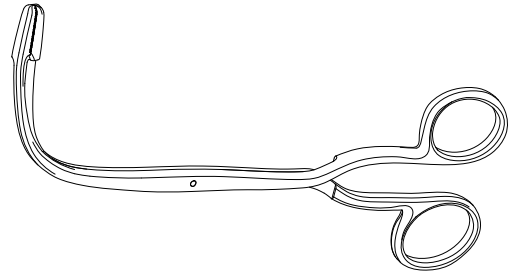
## Laryngeal Forceps (cont.)

### Laryngeal forceps, acc. to Fränkel

19 cm total length



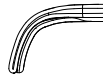
WT158000 Laryngeal forceps, acc. to Fränkel,  
for polyps, size 190



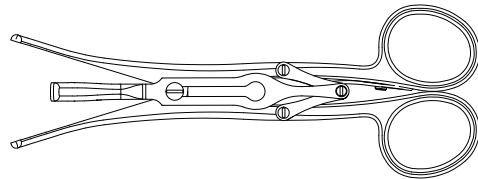
## Dilator

### Dilator, acc. to Laborde

three-bladed, 14 cm total length,  
3.5 cm opening



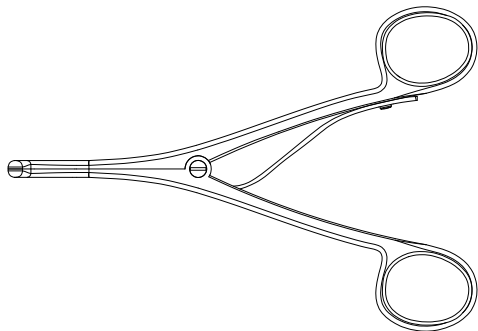
WT563000 Dilator, acc. to Laborde, three blades, size 140



### Dilator, acc. to Trousseau,

twin-bladed, 14 cm total length

WT563100 Dilator, acc. to Trousseau, two blades, size 140



Operating Laryngoscopes	403
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Injection Needles, Cotton Applicator	419
Needle Holders and Vocal Cord Retractors	421
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Laser Protectors	425

## EXPLORENT INSTRUMENTS

### **Manufacturer**

evonos GmbH & Co.KG  
Stockacher Str. 134  
78532 Tuttlingen, Germany

### **Distributor**

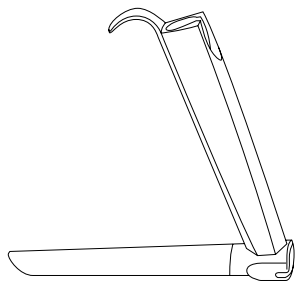
Olympus Surgical Technologies Europe  
Olympus Winter & Ibe GmbH  
Kuehnstr. 61  
22045 Hamburg, Germany





## EXPLORENT

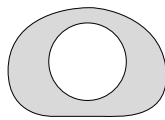
## Operating Laryngoscopes



### Operation laryngoscope

18 cm working length, for adults

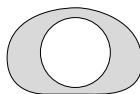
WT630001 Operation laryngoscope, large, size 180



### Operation laryngoscope

18 cm working length,  
most commonly used laryngoscope

WT630002 Operation laryngoscope, medium, size 180  
WT000872 Operation laryngoscope, matt finish, medium, size 180



### Operation laryngoscope

18 cm working length,  
for difficult anatomical circumstances

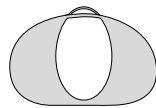
WT630003 Operation laryngoscope, small, size 180  
WT000873 Operation laryngoscope, matt finish, small, size 180



### Operation laryngoscope

18 cm working length,  
anterior commissure

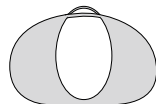
WT630004 Operation laryngoscope,  
for anterior commissure, size 180



### Operation laryngoscope

22 cm working length, for long neck

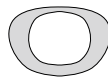
WT630005 Operation laryngoscope, size 220  
WT000874 Operation laryngoscope, matt finish, size 220



### Operation laryngoscope

15 cm working length, for children

WT630006 Operation laryngoscope, for children, size 150  
WT000875 Operation laryngoscope, matt finish,  
for children, size 150  
WT000876 Operation laryngoscope, matt finish,  
for children, size 130



### Operation laryngoscope

13 cm working length, for children

WT630007 Operation laryngoscope, for children, size 130



## Fibre Optic Light Carriers

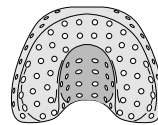


### Fibre optic light carrier

for use with laryngoscopes

WT630010 Light carrier, fiber optic,  
for operation laryngoscopes WT630001-04  
WT000877 Light carrier, fiber optic, matt,  
for operation laryngoscopes WT630001-05  
WT630014 Light carrier, fiber optic,  
for operation laryngoscope WT630005  
WT630011 Light carrier, fiber optic,  
for operation laryngoscopes WT630006-07

## Teeth Protectors



### Teeth protector

metal, various sizes,  
size 0 for children

WT996100 Teeth protector, metal, without handle, size 0  
WT996101 Teeth protector, metal, without handle, size 1  
WT996102 Teeth protector, metal, without handle, size 2  
WT996103 Teeth protector, metal, without handle, size 3

## Suction Tubes



### Suction tube

for smoke evacuation,  
working lengths 12 and 15 cm

WT630110 Suction tube, for smoke evacuation,  
for laryngoscopes WT630001-05, size 150  
WT630111 Suction tube, for smoke evacuation,  
for laryngoscopes WT630006-07, size 120

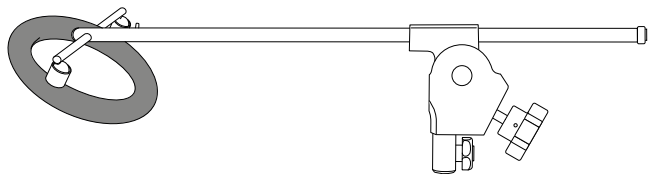


- Models for adults and children
- Laryngoscope holder
- Models with rubber ring for soft brace

### Laryngoscope holder and chest support

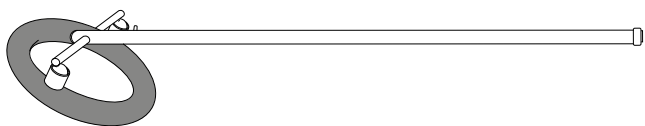
with rod for adults, with rod fixation screw,  
for use with the laryngoscopes,  
9.5 cm diameter of ring, rod length 34 cm

WT630400 Chest support, 340 mm support rod, 95 mm ring



WT630500 Support rod, 240 mm, 95 mm ring

- for children







- Fast and stable fixing
- Only one central set screw
- Powerful holding force
- Fully autoclavable
- Universally applicable

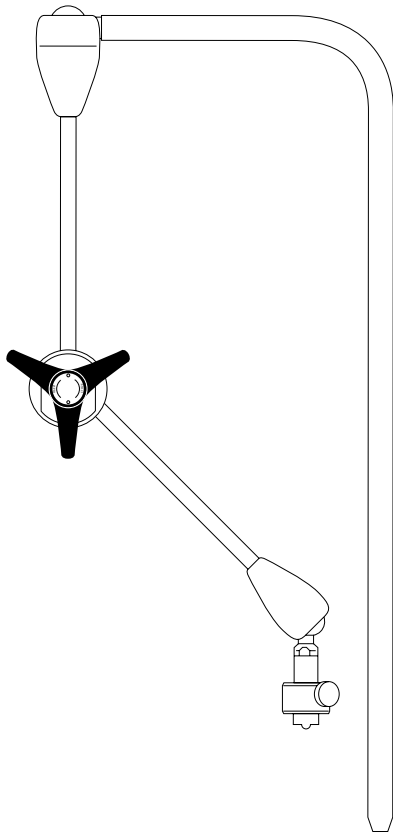
## EXPLORENT

## Arm System

### Articulated arm

18.5" x 6.7" with lock

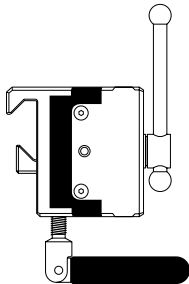
WT218700 Articulated arm, L shaped stand,  
470 x 170 mm



### Clamp socket

for hinged arm support,  
electrical isolated,  
up to 4.5 KV AC for Rail 25/35 x 8/10 mm,  
1/1.4 x 0.3/0.4"

WT218705 Clamp socket, for articulated arm

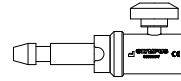


## Arm System (cont.)

### Adapter

for retractor/laryngoscope

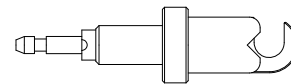
WT218711 Adapter, for basic frame



### Adapter

for retractor/optic/mouth gag

WT218720 Adapter, for retractor, endoscope or mouth gag





- Full 360° rotation
- For endolaryngeal microsurgery
- Models with double-action jaws

**EXPLORENT**

## Rotatable Laryngeal Forceps



### Laryngeal forceps

round cupped jaws,  
2 mm diameter,  
working length 22 cm

WT632203 Laryngeal forceps,  
cupped jaws, rotatable,  
double-action, curved, size 220



### Laryngeal forceps

serrated jaws,  
double-action jaws, curved,  
working length 22 cm

WT632206 Laryngeal forceps,  
alligator type, rotatable,  
double-action, curved, size 220



### Laryngeal forceps

triangular jaws,  
straight, working length 22 cm

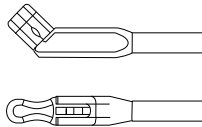
WT632207 Laryngeal forceps,  
triangular jaws, rotatable,  
double action, size 220



### Laryngeal forceps

cupped jaws,  
working length 22 cm

WT000847 Laryngeal forceps,  
cupped jaws, rotatable,  
vertical opening, curved,  
size 2 x 22



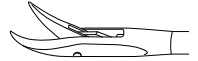
## Rotatable Laryngeal Scissors

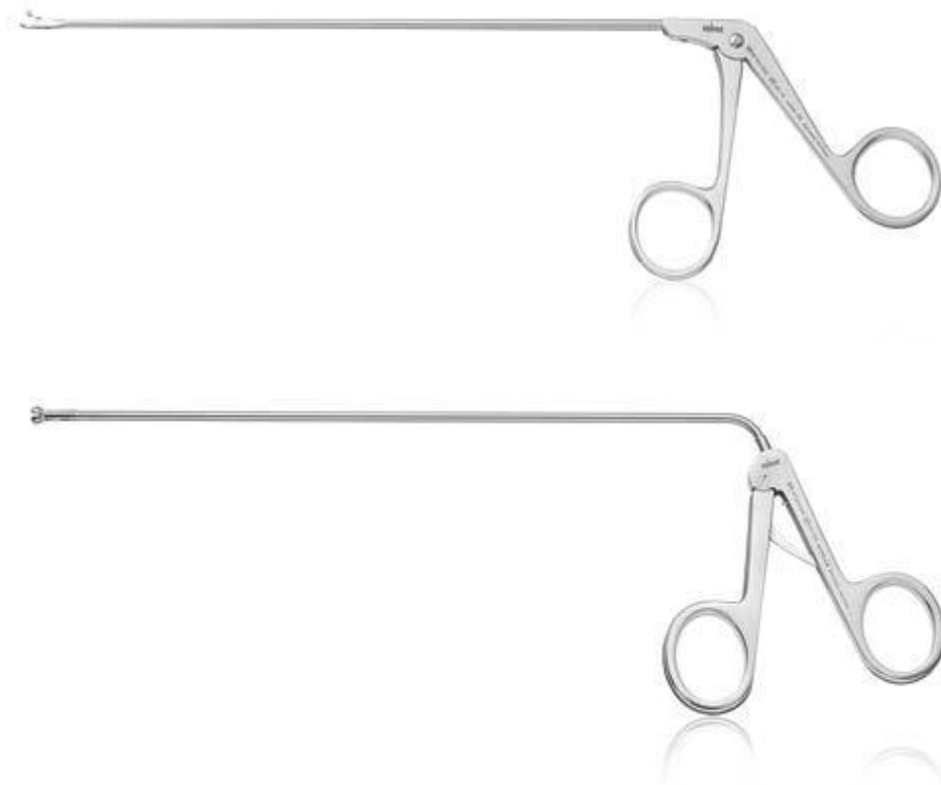


### Laryngeal scissors

curved, working length 22 cm

WT632210 Laryngeal scissors, micro,  
rotatable, size 220





- For endolaryngeal microsurgery, for adults and children
- Single and double-action jaws, cupped jaws model with malleable distal end
- Straight and curved jaws, conical shaft for high stability and optimal view
- Models with 10° upcurved distal end, facilitating access to the anterior commissure

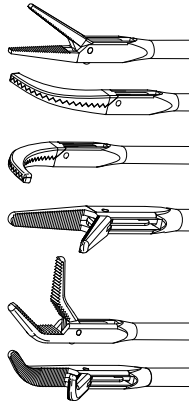
## Laryngeal Forceps for Adults



### Laryngeal forceps

serrated, 23 cm working length

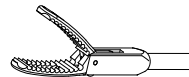
- WT632005 Laryngeal forceps, alligator type, serrated, straight, size 2 x 23
- WT632006 Laryngeal forceps, alligator type, serrated, turned to the right, size 230
- WT632007 Laryngeal forceps, alligator type, serrated, turned to the left, size 230
- WT632215 Laryngeal forceps, alligator type, horizontal opening, straight, size 230
- WT632054 Laryngeal forceps, alligator type, serrated, curved up, size 230
- WT632154 Laryngeal forceps, alligator type, horizontal opening, curved up, size 230



### Grasping forceps

serrated, 23 cm working length

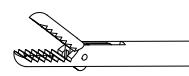
- WT632032 Grasping forceps, serrated, straight, size 230



### Grasping forceps

alligator jaws, 23 cm working length

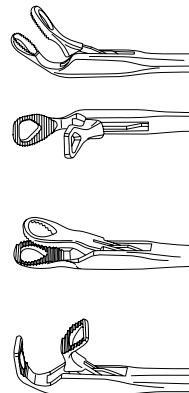
- WT632034 Grasping forceps, alligator jaws, size 230



### Laryngeal forceps

triangular jaws, 23 cm working length

- WT632055 Laryngeal forceps, triangular jaws, opening to the right, curved up, size 230
- WT632056 Laryngeal forceps, triangular jaws, opening to the left, curved up, size 230
- WT632058 Laryngeal forceps, triangular shaped jaws, serrated, straight, size 230
- WT632059 Laryngeal forceps, triangular shaped jaws, serrated, curved up, size 230

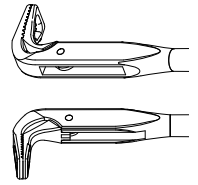


## Laryngeal Forceps for Adults (2)

### Laryngeal forceps

triangular jaws, 23 cm working length

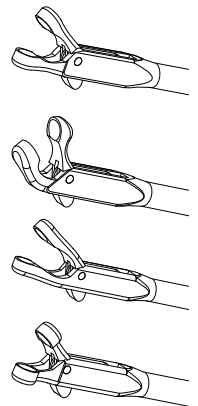
- WT632068 Laryngeal forceps, acc. to Arnold, triangular shaped jaws, curved up to right, size 230
- WT632069 Laryngeal forceps, acc. to Arnold, triangular shaped jaws, curved up to left, size 230



### Laryngeal forceps

round cupped jaws, 2 mm diameter, 23 cm working length, 10° upcurved

- WT632101 Laryngeal forceps, cupped jaws, tip curved up, size 2 x 23
- WT632102 Laryngeal forceps, cupped jaws, tip curved up, straight, size 2 x 23
- WT632103 Laryngeal forceps, cupped jaws, tip curved up, curved right, size 2 x 23
- WT632104 Laryngeal forceps, cupped jaws, tip curved up, curved left, size 2 x 23

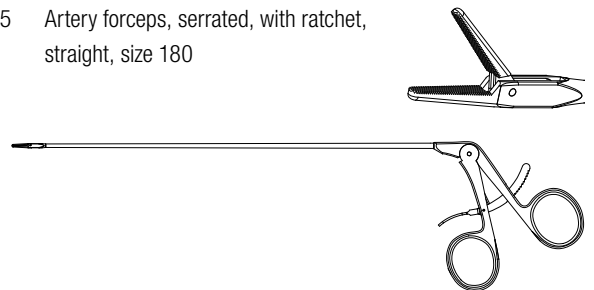


## Laryngeal Forceps With Ratchet

### Artery forceps

with ratchet, serrated, straight, 18 cm working length

- WT632105 Artery forceps, serrated, with ratchet, straight, size 180

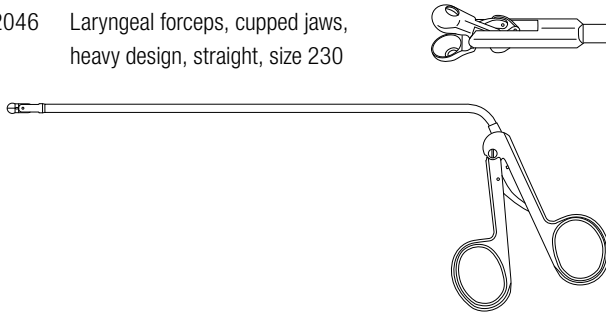


## Cutting Forceps, Double-Action Jaws

### Cutting forceps

round cupped jaws 5 mm diameter, double-action, straight, 23 cm working length

WT632046 Laryngeal forceps, cupped jaws, heavy design, straight, size 230



## Cutting Forceps

### Forceps

2 mm cupped jaws, standard, 23 cm working length

WT632001 Laryngeal forceps, cupped jaws, straight, size 2 x 23

WT632002 Laryngeal forceps, cupped jaws, curved up, size 2 x 23

WT632003 Laryngeal forceps, cupped jaws, curved to right, size 2 x 23

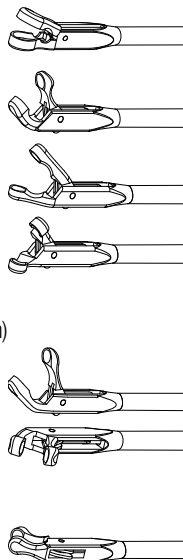
WT632004 Laryngeal forceps, cupped jaws, curved to left, size 2 x 23

WT632050 Laryngeal forceps, cupped jaws, curved up to right, size 2 x 23 (not shown)

WT632051 Laryngeal forceps, cupped jaws, curved up to left, size 2 x 23

WT632052 Laryngeal forceps, cupped jaws, horizontal opening, curved up right, size 2 x 23

WT632053 Laryngeal forceps, cupped jaws, horizontal opening, curved up left, size 2 x 23



## Cutting Forceps (2)

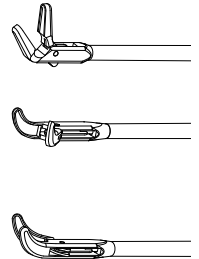
### Cutting forceps

long oval cupped jaws, 23 cm working length

WT632150 Laryngeal forceps, oval cups, curved up, opening upward, size 2 x 23

WT632151 Laryngeal forceps, oval cups, curved up, opening to the right, size 230

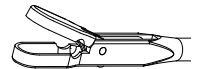
WT632152 Laryngeal forceps, oval cups, curved up, opening to the left, size 230



### Cutting forceps

oval cupped jaws 3 x 5 mm, heavy, conical shaft, 23 cm working length, straight

WT632040 Laryngeal forceps, oval cups, for biopsies, straight, size 230



### Cutting forceps

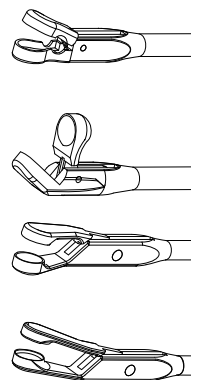
round cupped jaws 4 mm diameter, heavy, conical shaft, 23 cm working length

WT632041 Laryngeal forceps, cupped jaws, heavy design, straight, size 4 x 23

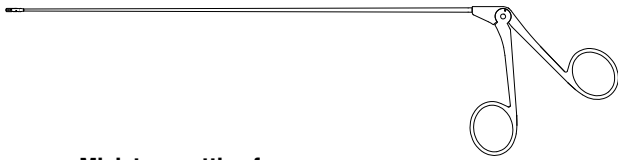
WT632042 Laryngeal forceps, cupped jaws, heavy design, curved up, size 4 x 23

WT632043 Laryngeal forceps, cupped jaws, heavy design, curved right, size 4 x 23

WT632044 Laryngeal forceps, cupped jaws, heavy design, curved left, size 4 x 23



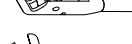


## Miniature Cutting Forceps



### Miniature cutting forceps

cupped jaws 1 mm diameter,  
very delicate, conical shaft,  
23 cm working length

- |          |  |   |
|----------|--|---|
| WT632060 | Laryngeal forceps, cupped jaws, miniature, straight, size 1 x 23           |  |
| WT632061 | Laryngeal forceps, cupped jaws, miniature, curved up, size 1 x 23          |  |
| WT632062 | Laryngeal forceps, cupped jaws, miniature, curved right, size 1 x 23       |  |
| WT632063 | Laryngeal forceps, cupped jaws, miniature, curved left, size 1 x 23        |  |
| WT632064 | Laryngeal forceps, cupped jaws, miniature, curved up to right, size 1 x 23 |  |
| WT632065 | Laryngeal forceps, cupped jaws, miniature, curved up to left, size 1 x 23  |  |

## Miniature Grasping Forceps



### Miniature grasping forceps

very delicate, conical shaft,  
serrated, 23 cm working length

- |          |   |   |
|----------|---|---|
| WT632070 | Laryngeal forceps, miniature, very delicate, serrated, straight, size 230     |  |
| WT632071 | Laryngeal forceps, miniature, very delicate, serrated, curved up, size 230    |  |
| WT632072 | Laryngeal forceps, miniature, very delicate, serrated, curved right, size 230 |  |
| WT632073 | Laryngeal forceps, miniature, very delicate, serrated, curved left, size 230  |  |

### Miniature grasping forceps

very delicate, conical shaft,  
triangular jaws, 23 cm working length


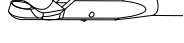
- |          |   |   |
|----------|---|---|
| WT632076 | Laryngeal forceps, miniature, very delicate, triangular, curved right, size 230 |  |
| WT632077 | Laryngeal forceps, miniature, very delicate, triangular, curved left, size 230  |  |

## Pediatric Laryngeal Forceps





### Forceps

cupped jaws, 2 mm diameter,  
working length 18 cm

- |          |   |   |
|----------|---|---|
| WT631902 | Forceps, with cupped jaws, micro, for children, straight, size 2 x 18       |  |
| WT631903 | Laryngeal forceps, cupped jaws, micro, for children, curved up, size 2 x 18 |  |



### Forceps

cupped jaws, 3 mm diameter,  
working length 18 cm

- |          |   |   |
|----------|---|---|
| WT631904 | Laryngeal forceps, cupped jaws, micro, for children, straight, size 3 x 18  |  |
| WT631905 | Laryngeal forceps, cupped jaws, micro, for children, curved up, size 3 x 18 |  |


### Forceps

cupped jaws, 1 mm diameter,  
working length 18 cm

- |          |   |   |
|----------|---|---|
| WT631906 | Laryngeal forceps, cupped jaws, micro, for children, straight, size 1 x 18  |  |
| WT631907 | Laryngeal forceps, cupped jaws, micro, for children, curved up, size 1 x 18 |  |


### Forceps

serrated, straight, working length 18 cm

- |          |   |   |
|----------|---|---|
| WT631910 | Laryngeal forceps, cupped jaws, micro, for children, straight, size 180 |  |
|----------|---|---|

### Laryngeal forceps

cupped jaws, working length 18 cm

- |          |  |   |
|----------|--|---|
| WT631930 | Laryngeal forceps, cupped jaws, for children, horizontal opening, size 180 |  |
|----------|--|---|





- For endolaryngeal microsurgery, for adults and children
- Straight and curved blades
- Models with 10° upcurved distal end for ideal entrance in the anterior commissure

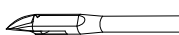
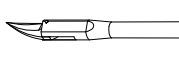
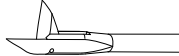
## Laryngeal Scissors for Adults



### Laryngeal scissors

standard model, conical shaft,  
23 cm working length

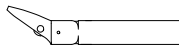
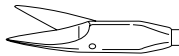
- WT632008 Laryngeal scissors, micro, straight, size 230
- WT632009 Laryngeal scissors, micro, curved up, size 230
- WT632115 Laryngeal scissors, micro, curved up 15, size 230
- WT632010 Laryngeal scissors, micro, curved to right, size 230
- WT632011 Laryngeal scissors, micro, curved to left, size 230
- WT632057 Laryngeal scissors, micro, horizontal cutting, straight, size 230



### Miniature scissors

very delicate, conical shaft,  
23 cm working length

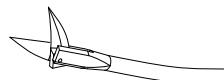
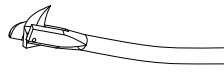
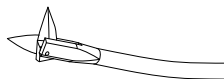
- WT632080 Laryngeal scissors, miniature, straight, size 230
- WT632081 Laryngeal scissors, miniature, curved up 45, size 230
- WT632082 Laryngeal scissors, miniature, curved to right, size 230
- WT632083 Laryngeal scissors, miniature, curved to left, size 230



### Scissors

23 cm working length

- WT632108 Laryngeal scissors, sheath curved up, straight, size 230
- WT632109 Laryngeal scissors, sheath curved up, curved up 45, size 230
- WT632110 Laryngeal scissors, sheath curved up, curved to right, size 230
- WT632111 Laryngeal scissors, sheath curved up, curved to left, size 230

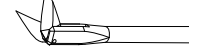
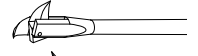
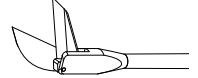
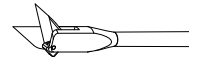


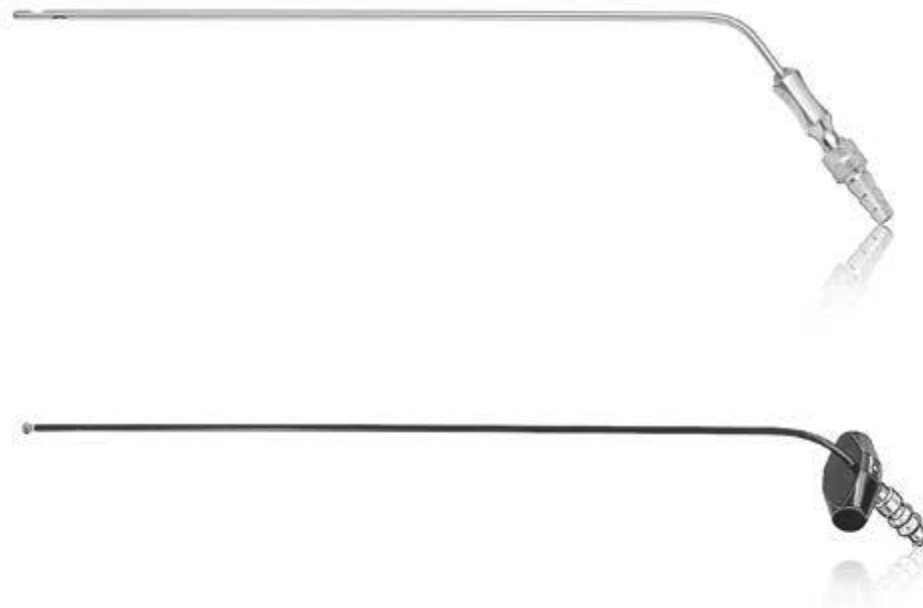
## Pediatric Laryngeal Scissors

### Laryngeal scissors

working length 18 cm

- WT631920 Laryngeal scissors, micro, straight, size 180
- WT631921 Laryngeal scissors, micro, curved up 45, size 180
- WT631922 Laryngeal scissors, micro, curved to right, size 180
- WT631923 Laryngeal scissors, micro, curved to left, size 180
- WT632012 Laryngeal scissors, curved up, size 230





- For endolaryngeal microsurgery
- Suction tubes with 10° upcurved distal end, tip ball-shaped, models for monopolar coagulation
- Aspiration tubes with closed, blunt end and smooth oval-shaped opening on each side
- Ebony-finished models for laser microsurgery

## Laryngeal Suction Tubes

### Suction tube

closed blunt end,  
smooth oval shaped opening on each side,  
working length 22 cm



WT632220 Suction tube, distal end closed,  
with 2 oval holes, size 3.0 x 220

WT632221 Suction tube, distal end closed,  
with 2 oval holes, size 4.0 x 220



### Suction tube

25 cm working length, various diameter sizes (mm)

WT632026 Suction tube, with cut-off,  
size 2.0 x 250

WT632027 Suction tube, with cut-off,  
size 2.5 x 250

WT632028 Suction tube, with cut-off,  
size 3.0 x 250

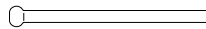
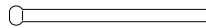


### Suction tube

ball tip, various diameter sizes (mm)  
working length 20 cm

WT631932 Suction tube, for children,  
ball shaped tip, size 2.0 x 200

WT631933 Suction tube, for children,  
ball shaped tip, size 3.0 x 200



### Suction tube

with cut-off, 23 cm working length, 2.5 mm diameter

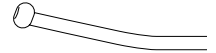
WT663923 Suction tube, with cut-off, size 2.5 x 230



## Laryngeal Suction Tubes (cont.)

### Suction tube

10° upcurved, ball tip,  
25 cm working length,  
various outer diameter sizes (mm)



WT632029 Suction tube, ball shaped tip,  
distal end upcurved, size 2.0 x 250

WT632039 Suction tube, ball shaped tip,  
distal end upcurved, size 4.0 x 250



### Suction tube

with interruption, ebony finish,  
23 cm working length, various diameter sizes (mm)

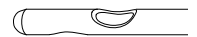
WT641025 Suction tube, black, with cut-off,  
size 2.5 x 230

WT641030 Suction tube, black, with cut-off,  
size 3.0 x 230



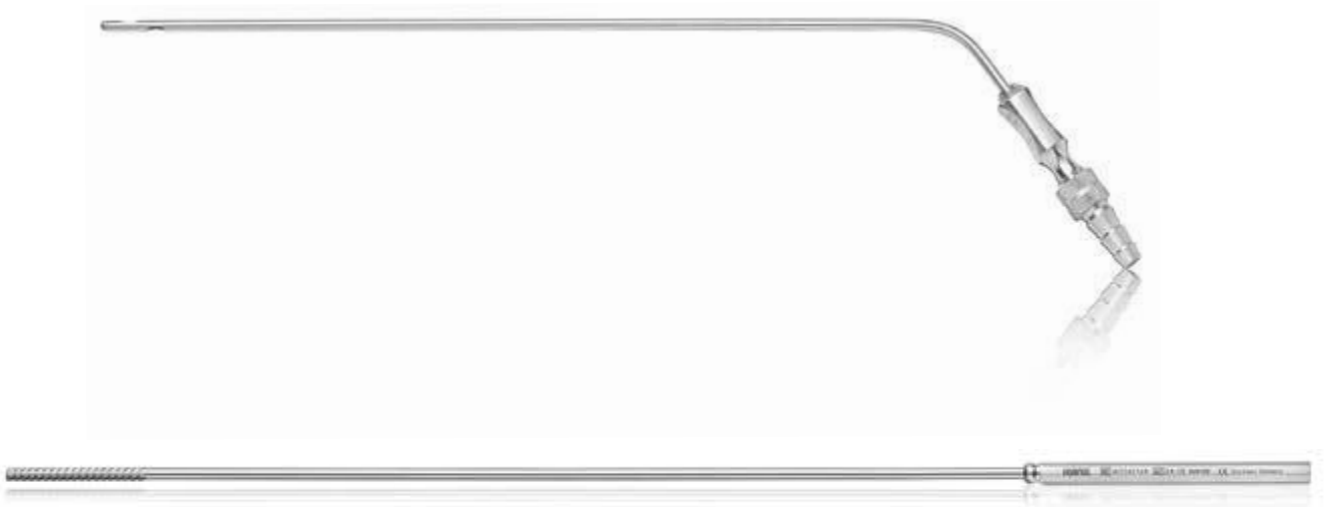
### Suction tube

ebony finish, closed blunt end,  
smooth oval shaped opening on each side,  
22 cm working length, 3 mm diameter



WT641033 Suction tube, black, distal tip closed,  
with 2 oval holes, size 3.0 x 230



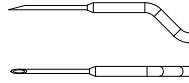


- Injection needles, with Luer-lock, curved and bayonet-shaped models
- Cotton applicators with twisted end, serrated

## Laryngeal Injection Needles

### Injection cannula

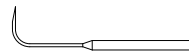
Luer-lock, 23 cm working length



WT632130 Injection cannula, with Luer-lock, bayonet shaped, size 230



WT632131 Injection cannula, with Luer-lock, curved, size 230



### Bouchayer injection cannula

WT637740 Injection cannula, acc. to Bouchayer, with Luer-lock, bayonet shape, 25G

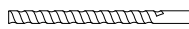


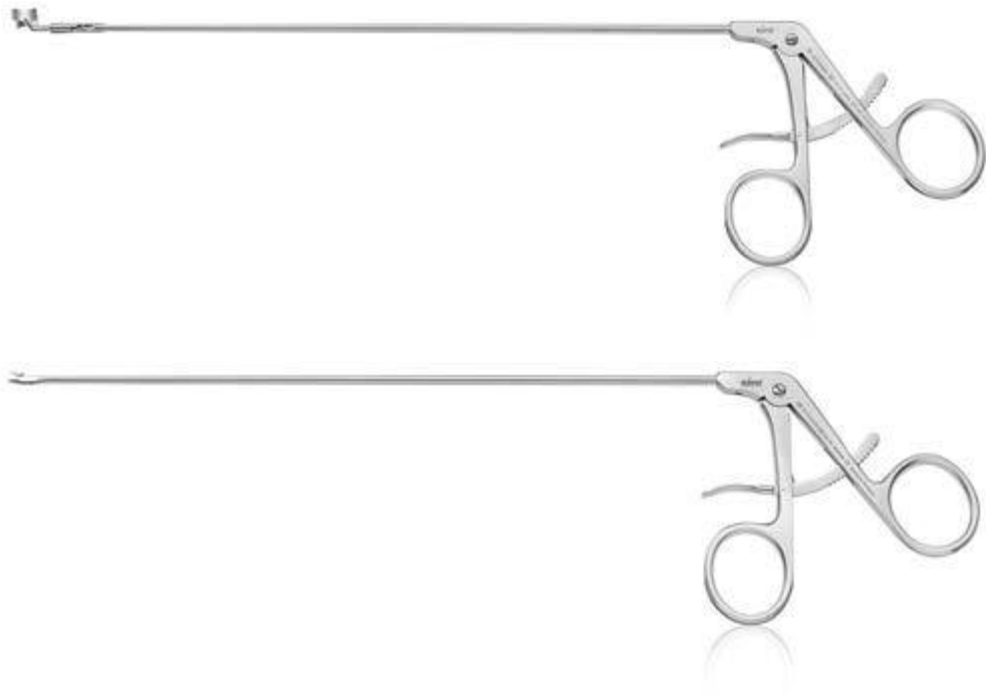
## Laryngeal Cotton Applicator

### Cotton applicator

twisted end, serrated,  
28 cm length, 2.5 mm diameter

WT632128 Cotton applicator, twisted end, serrated, size 2.5 x 280



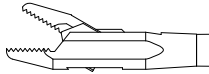


- Laryngeal needle holders:  
Conical and delicate models,  
with ratchet
- Vocal cord retractor:  
Atraumatic model,  
self-retaining, with ratchet

## Laryngeal Needle Holders

### Needle holder

with ratchet, conical shaft,  
23 cm working length



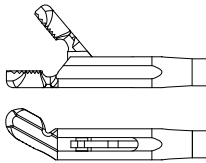
WT632036 Needle holder, with ratchet, size 230



### Needle holder

for endo-laryngoscopy,  
delicate, with teathed rounded jaws,  
1.6 mm diameter, upcurved, self retaining,  
with ratchet, 23 cm working length

WT632037 Needle holder, with ratchet,  
slender, with serrated jaws, size 230

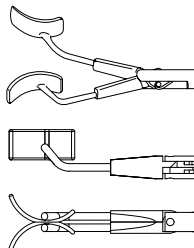


## Vocal Cord Retractor

### Atraumatic vocal cord retractor

self retaining, with ratchet,  
24 cm working length

WT632038 Retractor, atraumatic,  
for vocal cords,  
self retaining, size 240







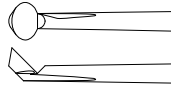
- For endolaryngeal microsurgery
- Individually rotatable
- Different type of handle

## EXPLORENT

## Laryngeal Knives

### Round knife

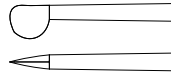
2.5 mm diameter, angled 45°,  
23 cm working length



WT632013 Round knife, angled 45,  
size 2.5 x 230

### Round knife

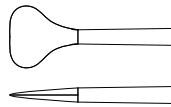
round, vertical cutting,  
23 cm working length



WT632014 Round knife, vertical cutting,  
size 230

### Knife

oval, straight,  
23 cm working length



WT632015 Knife, oval, straight, size 230

### Sickle knife

straight cutting,  
23 cm working length



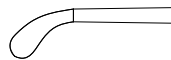
WT632016 Sickle knife, pointed, straight,  
size 230

WT632116 Sickle knife, pointed, curved,  
size 230



### Knife

golf club shaped,  
23 cm working length



WT632017 Knife, golfstick shape, size 230

### Laryngeal knife

lancet shape, 33 cm working length



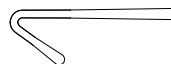
WT637570 Laryngeal knife, lancet shape,  
with grip plate, size 330

## Laryngeal Hooks

### Hook

23 cm working length

WT632018 Hook, with ball end, blunt,  
size 230



WT632019 Hook, sharp,  
size 230



WT632024 Hook, with ball end,  
angled 90, size 230



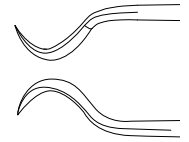
## Laryngeal Needles

### Needle

curved to right, 23 cm working length

WT632020 Needle, curved right,  
size 230

WT632021 Needle, curved left, size 250



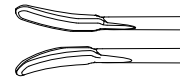
## Laryngeal Elevator, Knot Tier

### Elevator

22 cm working length

WT637560 Elevator, curved right, size 220

WT637561 Elevator, curved left, size 220



### Elevator

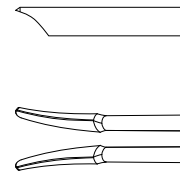
23 cm working length

WT632022 Elevator, with suction channel,  
size 230

WT632049 Elevator, curved, size 230

WT637710 Elevator, curved right 90, size 220

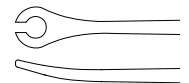
WT637711 Elevator, curved left 90, size 220



### Knot pusher

23 cm working length

WT632023 Knot pusher, size 230

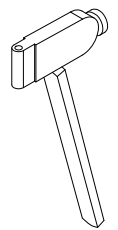


## Handles for Micro-Laryngeal Instruments

### Handle

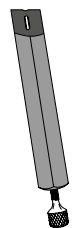
WT632025 Handle, for WT632013-WT632116

WT000805 Spare screw, for handle (not shown)

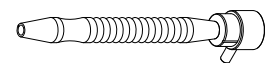


WT264100 Handle, acc. to Heermann,  
black, for Heermann gouges/  
micro larynx instruments

WT000804 Spare screw,  
for handle acc. to Heermann (not shown)



WT840212 Handle, round,  
for endoscopes, size 4.0





- For CO<sub>2</sub> micro-laryngeal laser surgery: protects lower regions of the mucous membrane from the laser beam
- Models with round, oval and corner-spaped protector tips, with smoke evacuation channel
- Ebony-finished tips and shaft

## EXPLORENT

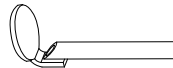
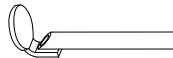
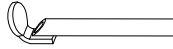
## Laser Protectors



### Laser protector

round, various diameters (mm), with smoke evacuation channel, 23 cm working length

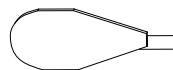
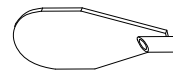
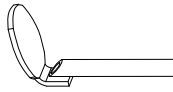
- WT641003 Protector, with suction channel, black, round, curved upward, size 3.0 x 230
- WT641004 Protector, with suction channel, black, round, curved upward, size 4.0 x 230
- WT641005 Protector, with suction channel, black, round, curved upward, size 5.0 x 230



### Laser protector

oval, straight, with smoke evacuation channel, various diameters (mm), 23 cm working length

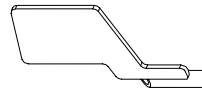
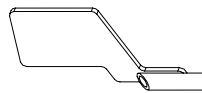
- WT641007 Protector, with suction channel, black, oval, curved upward, size 5.0 x 230
- WT641009 Protector, with suction channel, black, oval, suction hole left, size 6.0 x 230
- WT641010 Protector, with suction channel, black, oval, suction hole right, size 6.0 x 230



### Laser protector

corner shaped, 6 mm width, ebony finish, with smoke evacuation channel, 23 cm working length

- WT641011 Protector, with suction channel, black, angular, suction hole left, size 230
- WT641012 Protector, with suction channel, black, angular, suction hole right, size 230



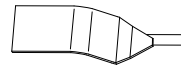
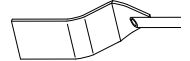
## Laser Protectors (cont.)



### Laser protector

bayonet shaped, 7 mm width, with smoke evacuation channel, 23 cm working length

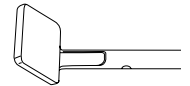
- WT641013 Protector, with suction channel, black, bayonet shaped, suction hole left, size 230
- WT641014 Protector, with suction channel, black, bayonet shaped, suction hole right, size 230



### Laser protector

10 x 10 mm, upcurved, for larynx and trachea, with smoke evacuation channel, 26 cm working length

- WT641016 Protector, with suction channel, black, curved upward, size 10 x 260



### Laser protector

slightly upcurved, 7 mm width, for hypopharyngeal diverticulum, with smoke evacuation channel, 28 cm working length

- WT641017 Protector, with suction channel, black, slightly curved upward, size 7.0 x 280



Illumination	429
Scissors	431
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Dressing and Tissue Forceps	437
Needle Holders	441
Artery Forceps	443
Dressing, Towel and Sponge Forceps	445
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Basic Accessories	449

## EXPLORENT INSTRUMENTS

### **Manufacturer**

evonos GmbH & Co.KG  
Stockacher Str. 134  
78532 Tuttlingen, Germany

### **Distributor**

Olympus Surgical Technologies Europe  
Olympus Winter & Ibe GmbH  
Kuehnstr. 61  
22045 Hamburg, Germany





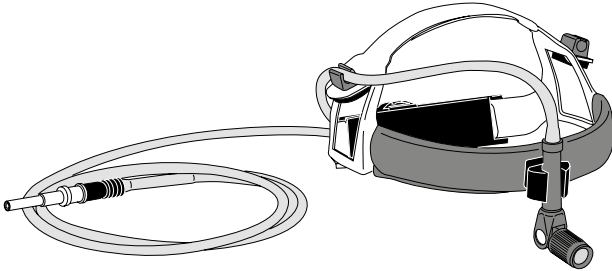
- Superspot head light
- Increased light transmission through latest fiber-optic technology; extremely light weight
- Stepless focusable lens for homogeneous light
- “Easy Click” by adjustable headband. Adjustable cable guide left, right and center

## EXPLORENT

## Superspot Head Light

### Head light "superspot"

- WT952305 Head light "superspot", with light-guide cable, adapter for Olympus light sources
- WT952300 Head light "superspot", with light-guide cable, adapter for Storz light sources



- WT952301 Spare head band, for head light

### Technical Data

#### Dimensions

Cable, length .....	2300 mm
Cable, diameter .....	35 mm
Weight, headband with optic .....	170 g

#### Optic

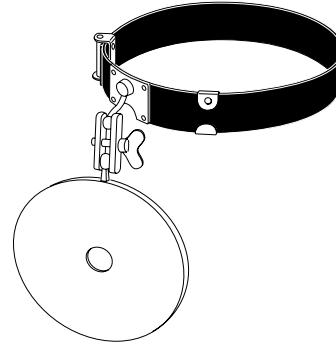
Spot diameter .....	10 – 80 mm
Working distance .....	250 – 300 mm

## Ziegler Head Mirrors

### Head mirror, acc. to Ziegler

with black plastic head band, various mirror diameters (mm)

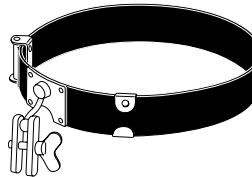
- WT950000 Head mirror, acc. to Ziegler, with band, size 90
- WT950001 Head mirror, acc. to Ziegler, with band, size 100



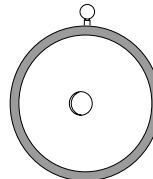
### Spare parts

for Ziegler head mirrors

- WT950100 Head band, plastic, black, with ball-joint



- WT950300 Head mirror, acc. to Ziegler, size 90
- WT950400 Head mirror, acc. to Ziegler, size 100



- WT950301 Head mirror, acc. to Ziegler, with adaption and joint (not shown)

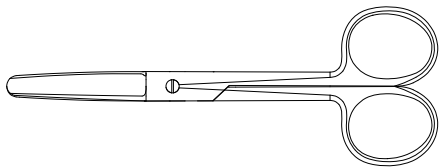




- Standard and delicate models
- “Golden Ring” models with tungsten carbide cutting edges for high durability
- Models with serrated blades

## EXPLORENT

## Operating Scissors



### Scissors

various total lengths (mm), various types

WT183001 Scissors, standard, blunt/blunt, straight, size 130



WT183002 Scissors, standard, sharp/blunt, straight, size 130



WT183102 Scissors, standard, sharp/blunt, straight, size 145

WT183003 Scissors, standard, sharp/sharp, straight, size 130



WT183103 Scissors, standard, sharp/sharp, straight, size 145

WT183202 Scissors, standard, sharp/blunt, curved up, size 130

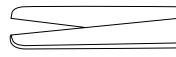


WT183302 Scissors, standard, sharp/blunt, curved up, size 145



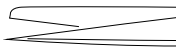
WT183212 Scissors, standard, with tungsten carbide, sharp/blunt, curved up, size 145

WT183401 Scissors, blunt/blunt, straight, size 130



WT183501 Scissors, blunt/blunt, straight, size 145

WT183402 Scissors, standard, sharp/blunt, curved up, delicate, size 130



WT183502 Scissors, sharp/blunt, straight, size 145

WT183403 Scissors, sharp/sharp, curved up, size 130



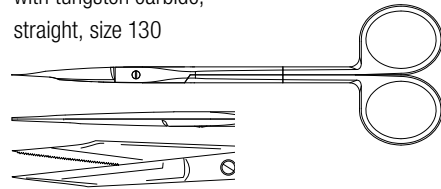
WT183503 Scissors, sharp/sharp, curved up, size 145

## Ligature Scissors

### Scissors, acc. to Goldman-Fox

with tungsten carbide edges, serrated blade, one sharp blade, 13 cm total length, various sizes (mm)

WT268413 Scissors, acc. to Goldman-Fox, with tungsten carbide, straight, size 130

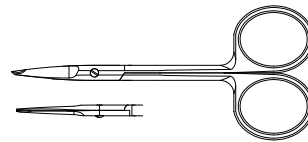


### Ligature scissors, acc. to Spencer

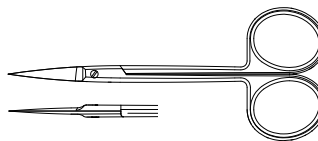
various total lengths (mm)

WT277809 Ligature scissors, acc. to Spencer, size 90

WT277900 Ligature scissors, acc. to Spencer, size 140

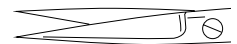


## Iris Scissors



### Iris scissors

delicate, 10.5 cm total length



WT277510 Iris scissors, sharp/sharp, straight, size 105

WT277610 Iris scissors, sharp/sharp, curved up, size 105

### Iris scissors

straight, 11.5 cm total length



WT277712 Iris scissors, sharp/sharp, straight, size 115

WT277512 Iris scissors, sharp/sharp, with tungsten carbide, straight, size 115

### Scissors

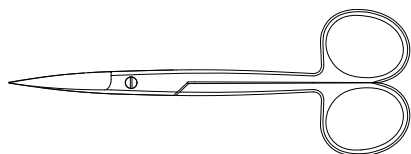
curved, 11.5 cm total length



WT277812 Scissors, sharp/sharp, curved up, size 115

WT277612 Iris scissors, sharp/sharp, with tungsten carbide, curved up, size 115

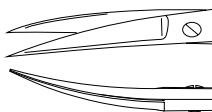
## Delicate Scissors



### Scissors

delicate, curved, sharp/sharp,  
12 cm total length

WT183312 Scissors, fine, sharp/sharp, curved up, size 120



### Scissors, acc. to Joseph

14 cm total length

WT276514 Scissors, acc. to Joseph, straight, size 140

WT276614 Scissors, acc. to Joseph, curved up, size 140



### Scissors, acc. to Joseph

14 cm total length,  
with tungsten carbide edges

WT276714 Scissors, acc. to Joseph, with tungsten carbide,  
straight, size 140

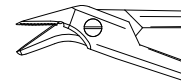
WT276814 Scissors, acc. to Joseph, with tungsten carbide,  
curved up, size 140



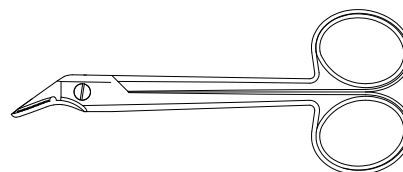
## Wire Cutting Scissors

### Wire cutting scissors

saw edge, standart blades,  
12 cm total length



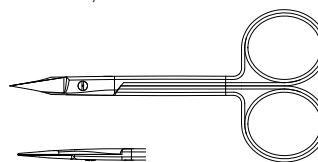
WT277901 Wire cutting scissors, universal, serrated, size 120



### Wire cutting scissors, acc. to Schuhknecht

saw edge, 10 cm total length

WT269500 Wire cutting scissors, acc. to Schuhknecht,  
serrated, size 100



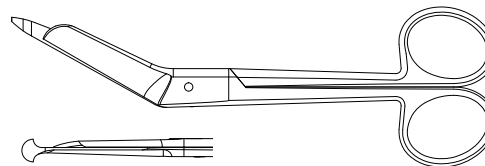
## Bandage Scissors

### Bandage scissors, acc. to Lister

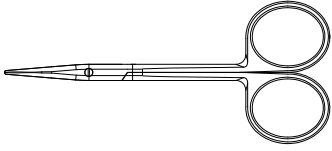
various total lengths (mm)

WT212614 Bandage scissors, acc. to Lister, angled, size 145

WT212618 Bandage scissors, acc. to Lister, angled, size 180



## Strabismus Scissors



### Strabismus scissors

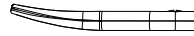
blunt, 10.5 cm total length



WT277010 Strabismus scissors, blunt/blunt,  
straight, size 105

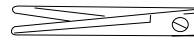


WT277110 Strabismus scissors, blunt/blunt,  
curved up, size 105



### Strabismus scissors

straight, 11.5 cm total length



WT277212 Strabismus scissors, blunt/blunt,  
straight, size 115



WT277012 Strabismus scissors, blunt/blunt,  
with tungsten carbide, straight, size 115



### Strabismus scissors

curved, 11.5 cm total length



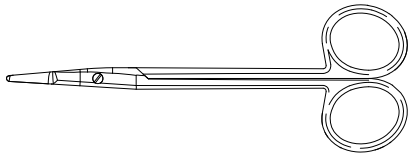
WT277312 Strabismus scissors, blunt/blunt,  
curved up, size 115



WT277112 Strabismus scissors, blunt/blunt,  
with tungsten carbide, curved up, size 115



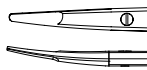
## Kilner Dissection Scissors



### Scissors, acc. to Kilner

for plastic surgery, curved, 12 cm total length

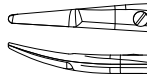
WT438712 Scissors, acc. to Kilner,  
curved up, size 120



### Dissection Scissors, acc. to Kilner

13.5 cm total length

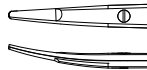
WT438714 Dissection scissors, acc. to Kilner,  
curved up, size 135



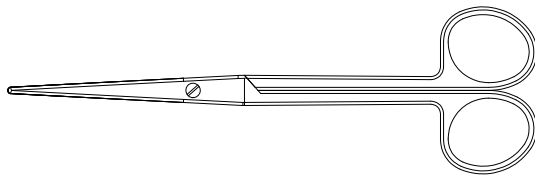
### Scissors, acc. to Kilner

13 cm total length

WT438813 Scissors, acc. to Kilner, with  
tungsten carbide, curved up, size 120



## Lexer-Fino Dissection Scissors



### Dissection scissors, acc. to Lexer-Fino

16.5 cm total length

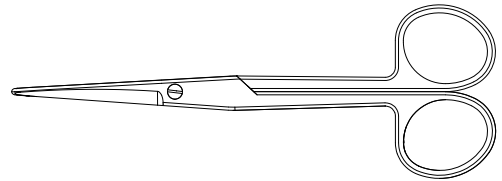
WT212216 Dissection scissors, acc. to Lexer-Fino,  
straight, size 165



WT212316 Dissection scissors, acc. to Lexer-Fino,  
curved up, size 165



## Mayo Dissection Scissors



### Dissection scissors, acc. to Mayo

straight,  
various total lengths (mm)



WT212014 Dissection scissors, acc. to Mayo,  
blunt/blunt, straight, size 145

WT212015 Dissection scissors, acc. to Mayo,  
blunt/blunt, straight, size 150

WT212017 Dissection scissors, acc. to Mayo,  
blunt/blunt, straight, size 170

WT212027 Dissection scissors, acc. to Mayo,  
with tungsten carbide,  
blunt/blunt, straight, size 170

### Dissection scissors, acc. to Mayo

curved,  
various total lengths (mm)

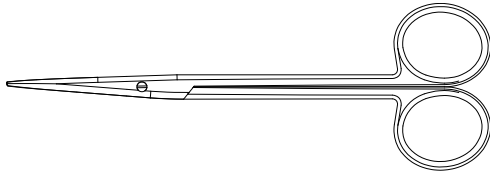


WT212114 Dissection scissors, acc. to Mayo,  
blunt/blunt, curved up, size 145

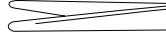
WT212115 Dissection scissors, acc. to Mayo,  
blunt/blunt, curved up, size 150

WT212117 Dissection scissors, acc. to Mayo,  
blunt/blunt, curved up, size 170

## Metzenbaum Dissection Scissors



**Dissection scissors, acc. to Metzenbaum**  
straight, various total lengths (mm)



- WT541814 Dissection scissors, acc. to Metzenbaum, straight, size 145
- WT541818 Dissection scissors, acc. to Metzenbaum, straight, size 180

**Dissection scissors, acc. to Metzenbaum**  
curved, various total lengths (mm)



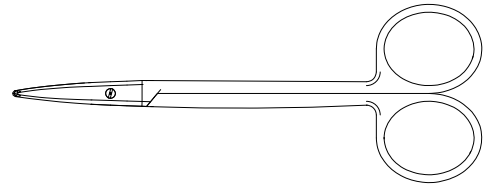
- WT542014 Dissection scissors, acc. to Metzenbaum, curved up, size 145
- WT542018 Dissection scissors, acc. to Metzenbaum, curved up, size 180
- WT542020 Dissection scissors, acc. to Metzenbaum, curved up, size 205

**Dissection scissors, acc. to Metzenbaum**  
with tungsten carbide edges, curved  
various total lengths (mm)



- WT542214 Dissection scissors, acc. to Metzenbaum, with tungsten carbide, curved up, size 145
- WT542218 Dissection scissors, acc. to Metzenbaum, with tungsten carbide, curved up, size 180
- WT542220 Dissection scissors, acc. to Metzenbaum, with tungsten carbide, curved up, size 200

## Metzenbaum-Fino Dissection Scissors



**Dissection scissors, acc. to Metzenbaum-Fino**  
curved, various total lengths (mm)



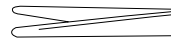
- WT542114 Dissection scissors, acc. to Metzenbaum-Fino, curved up, size 140
- WT542118 Dissection scissors, acc. to Metzenbaum-Fino, curved up, size 180
- WT542120 Dissection scissors, acc. to Metzenbaum-Fino, curved up, size 200

**Dissection scissors, acc. to Metzenbaum-Fino**  
with tungsten carbide edges,  
curved, various total lengths (mm)



- WT542414 Dissection scissors, acc. to Metzenbaum-Fino, with tungsten carbide, curved up, size 145
- WT542418 Dissection scissors, acc. to Metzenbaum-Fino, with tungsten carbide, curved up, size 180
- WT542420 Dissection scissors, acc. to Metzenbaum-Fino, with tungsten carbide, curved up, size 200

**Dissection scissors, acc. to Metzenbaum-Fino**  
straight, 14.5 cm total length



- WT541914 Dissection scissors, acc. to Metzenbaum-Fino, straight, size 145

## DeBakey Atraumatic Forceps

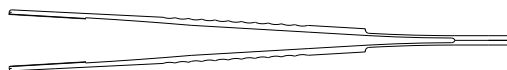


### Thumb forceps, atraumatic, acc. to DeBakey

15 cm total length, 1.5 mm tip width



WT209516 Thumb forceps, atraumatic, acc. to DeBakey, straight, size 1.5 x 150

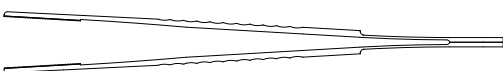


### Thumb forceps, atraumatic, acc. to DeBakey

15 cm total length, 2 mm tip width



WT209616 Thumb forceps, atraumatic, acc. to DeBakey, straight, size 2.0 x 150

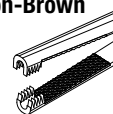


## Adson-Brown Thumb Forceps



### Thumb forceps, for dissection, acc. to Adson-Brown

12 cm total length, 1.8 mm tip width, 7 x 7 side grasping teeth

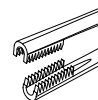


WT425012 Thumb forceps, for dissection, acc. to Adson-Brown, 7 x 7 teeth, size 120



### Thumb forceps, for dissection, acc. to Adson-Brown

12 cm total length, 1.8 mm tip width, with tungsten carbide inserts, 5 x 5 teeth



WT425512 Thumb forceps, for dissection, acc. to Adson-Brown, with tungsten carbide, size 120



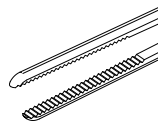
## Semken Thumb Forceps



### Thumb forceps, acc. to Semken

12.5 cm

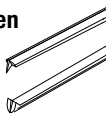
WT208612 Thumb forceps, acc. to Semken, delicate, size 125



### Thumb forceps, for dissection, acc. to Semken

12.5 cm, 1x2 teeth

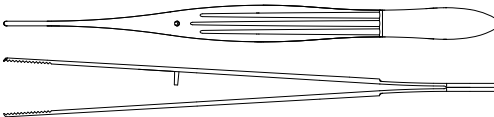
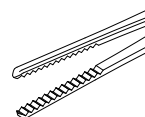
WT208712 Thumb forceps, for dissection, acc. to Semken, delicate, size 125



## McIndoe Thumb Forceps

Thumb forceps, acc. to McIndoe  
15 cm

WT208915 Thumb forceps, acc. to McIndoe, size 150

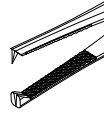


## Adson Thumb Forceps

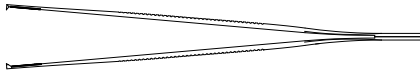


### Thumb forceps, for dissection, acc. to Adson

12 cm total length, 1.7 mm tip width,  
with tungsten carbide inserts, 1 x 2 teeth



- WT425712 Thumb forceps, for dissection, acc. to Adson,  
with tungsten carbide, size 125

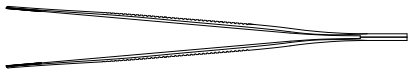


### Thumb forceps, for dissection, acc. to Adson

12 cm total length, 1.7 mm tip width,  
with tungsten carbide inserts

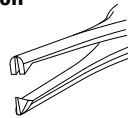


- WT425612 Thumb forceps, for dissection, acc. to Adson,  
with tungsten carbide, size 1.7 x 120

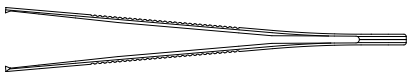


### Thumb forceps, for dissection, acc. to Adson

12 cm total length, 1.5 mm tip width

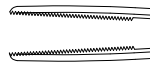


- WT425212 Thumb forceps, for dissection,  
acc. to Adson, size 120



### Thumb forceps, acc. to Adson

delicate, 12 cm, 1.2 mm tip



- WT425112 Thumb forceps, acc. to Adson, size 120

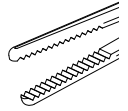


## Dressing and Tissue Forceps



### Thumb forceps

standard, various sizes (mm)

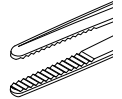


- WT209013 Thumb forceps, straight, size 130  
WT209014 Thumb forceps, straight, size 145  
WT209016 Thumb forceps, straight, size 160  
WT209020 Thumb forceps, straight, size 200



### Thumb forceps

narrow, various sizes (mm)

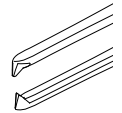


- WT209000 Thumb forceps, narrow, straight, size 130  
WT209001 Thumb forceps, narrow, straight, size 145  
WT209003 Thumb forceps, narrow, straight, size 200



### Thumb forceps

standard, 1x2 teeth,  
various sizes (mm)

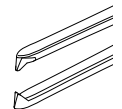


- WT209113 Thumb forceps, for dissection, straight, size 130  
WT209114 Thumb forceps, for dissection, straight, size 145  
WT209116 Thumb forceps, for dissection, straight, size 160  
WT209120 Thumb forceps, for dissection, straight, size 200

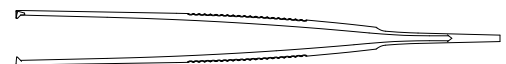


### Thumb forceps

narrow, 1x2 teeth,  
various sizes (mm)



- WT209101 Thumb forceps, for dissection, narrow, straight, size 145  
WT209103 Thumb forceps, for dissection, narrow, size 200



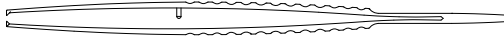
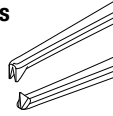


### Gillies Thumb Forceps

**Thumb forceps, for dissection, acc. to Gillies**

15 cm, 1x2 teeth

WT209415 Thumb forceps, for dissection,  
acc. to Gillies, size 150

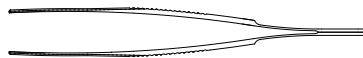
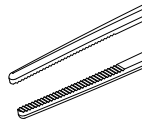


### Graefe Thumb Forceps

**Thumb forceps, acc. to Graefe**

10 cm

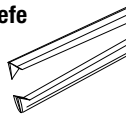
WT209210 Thumb forceps, acc. to Graefe,  
straight, size 100



**Thumb forceps, for dissection, acc. to Graefe**

10 cm, 1x2 teeth

WT209310 Thumb forceps, for dissection, acc. to Graefe,  
straight, size 100







- Standard and smooth models
- Tungsten carbide inserts for high durability

**EXPLORENT**

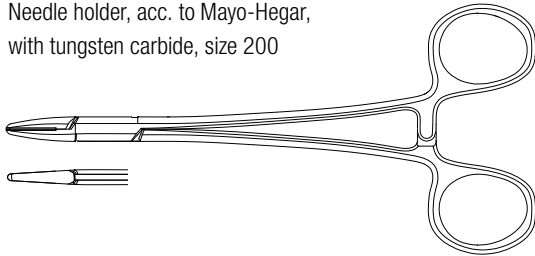
## Needle Holders

### Needle holder, acc. to Mayo-Hegar

with tungsten carbide inserts,  
various total lengths (mm)



- WT214016 Needle holder, acc. to Mayo-Hegar,  
with tungsten carbide, size 160
- WT214018 Needle holder, acc. to Mayo-Hegar,  
with tungsten carbide, size 180
- WT214020 Needle holder, acc. to Mayo-Hegar,  
with tungsten carbide, size 200

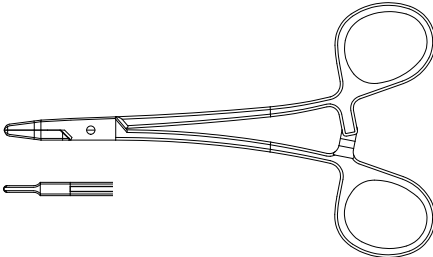


### Needle holder, acc. to Senning

with tungsten carbide inserts,  
various total lengths (mm)



- WT212930 Needle holder, acc. to Ryder,  
micro, with tungsten carbide, size 130
- WT467015 Needle holder, acc. to Senning,  
with tungsten carbide, slender, size 150
- WT467017 Needle holder, acc. to Ryder, delicate,  
with tungsten carbide, size 170



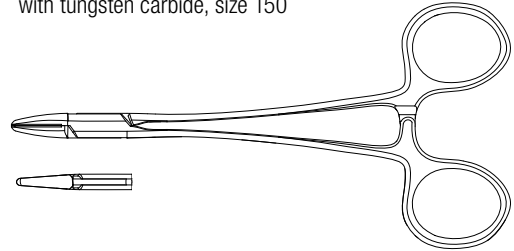
## Needle Holders (cont.)

### Needle holder, acc. to Crile-Wood

with tungsten carbide inserts,  
15 cm total length

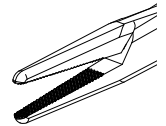


- WT213015 Needle holder, acc. to Crile-Wood,  
with tungsten carbide, size 150

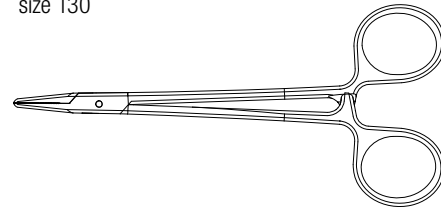


### Needle holder, acc. to Halsey

with tungsten carbide inserts,  
13 cm total length



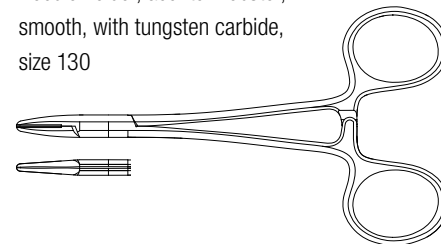
- WT213113 Needle holder, acc. to Halsey,  
with tungsten carbide,  
size 130



### Needle holder, acc. to Webster

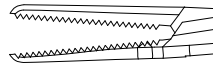
with tungsten carbide inserts,  
13 cm total length

- WT213013 Needle holder, acc. to Webster,  
smooth, with tungsten carbide,  
size 130

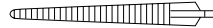


## Halstead-Mosquito Artery Forceps

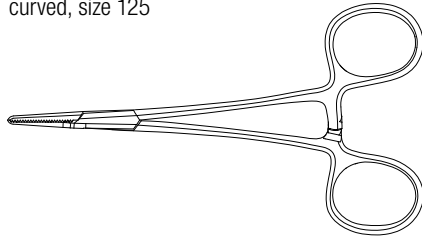
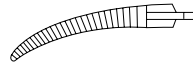
**Artery forceps,  
acc. to Halstead-Mosquito**  
12.5 cm total length



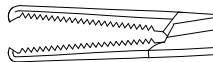
WT184412 Artery forceps,  
acc. to Halstead-Mosquito,  
straight, size 125



WT184512 Artery forceps,  
acc. to Halstead-Mosquito,  
curved, size 125



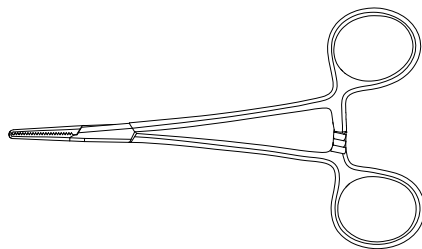
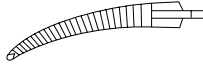
**Artery forceps,  
acc. to Halstead-Mosquito**  
1 x 2 teeth, 12.5 cm total length



WT184612 Artery forceps,  
acc. to Halstead-Mosquito,  
1 x 2 teeth, straight, size 125

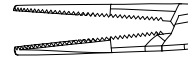


WT184712 Artery forceps,  
acc. to Halstead-Mosquito,  
1 x 2 teeth, curved, size 125



## Mosquito Artery Forceps

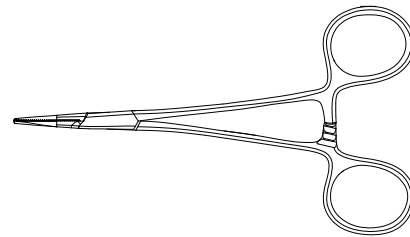
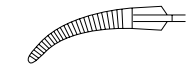
**Artery forceps, Mosquito type**  
12 cm total length



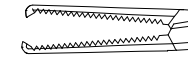
WT184812 Artery forceps, Mosquito type,  
micro, straight, size 120



WT184912 Artery forceps, Mosquito type,  
micro, curved, size 120



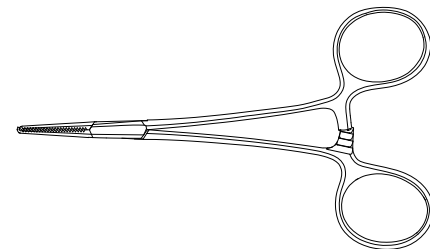
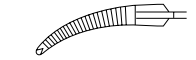
**Artery forceps, Mosquito type**  
1 x 2 teeth, 12.5 cm total length



WT185012 Artery forceps, Mosquito type, micro,  
1 x 2 teeth, straight, size 125

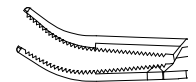


WT185112 Artery forceps, Mosquito type, micro,  
1 x 2 teeth, curved, size 125

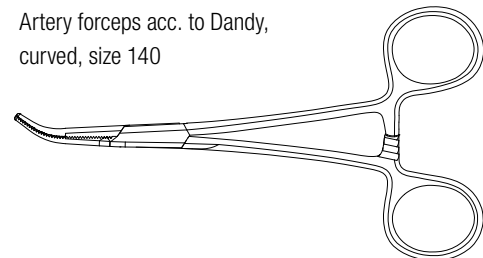


## Dandy Artery Forceps

**Artery forceps acc. to Dandy**  
lateral curved, 14 cm total length

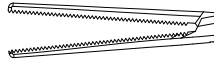


WT185214 Artery forceps acc. to Dandy,  
curved, size 140



## Pean Artery Forceps

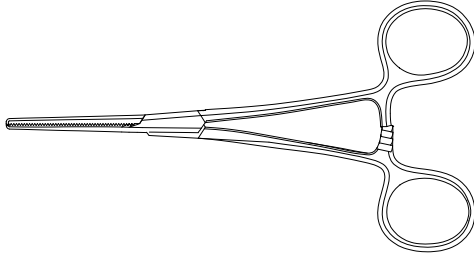
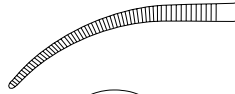
**Artery forceps, acc. to Pean**  
delicate, 14 cm total length



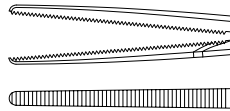
WT184014 Artery forceps, acc. to Pean,  
delicate, straight, size 140



WT184114 Artery forceps, acc. to Pean,  
delicate, curved, size 140

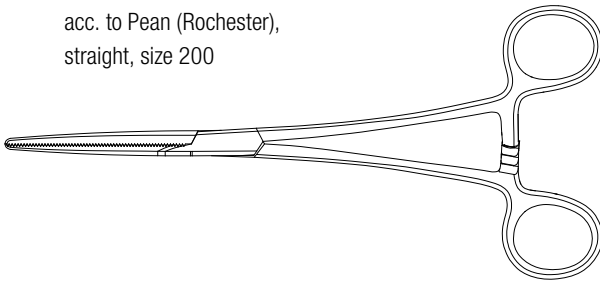


**Artery forceps,  
acc. to Pean (Rochester)**  
straight, various total lengths (mm)



WT185318 Artery forceps,  
acc. to Pean (Rochester),  
straight, size 180

WT185320 Artery forceps,  
acc. to Pean (Rochester),  
straight, size 200

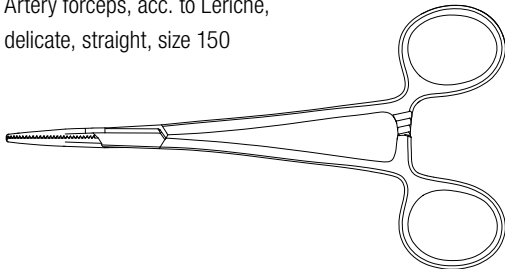


## Leriche Artery Forceps

**Artery forceps, acc. to Leriche**  
15 cm total length

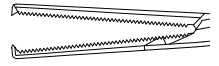


WT186515 Artery forceps, acc. to Leriche,  
delicate, straight, size 150



## Artery Forceps

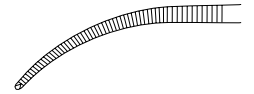
**Artery forceps, acc. to Kocher**  
1 x 2 teeth, various total lengths (mm)



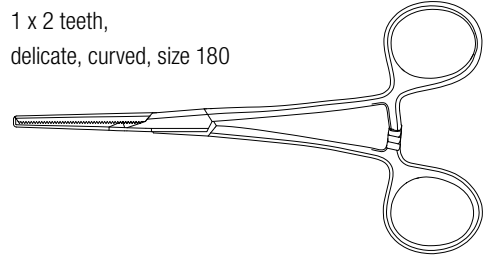
WT184214 Artery forceps, acc. to Kocher,  
1 x 2 teeth,  
delicate, straight, size 140



WT184314 Artery forceps, acc. to Kocher,  
1 x 2 teeth,  
delicate, curved, size 140



WT184318 Artery forceps, acc. to Kocher,  
1 x 2 teeth,  
delicate, curved, size 180



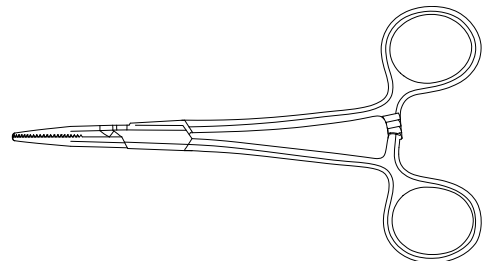
**Artery forceps, acc. to Kelly**  
14 cm total length



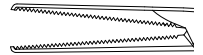
WT186214 Artery forceps, acc. to Kelly,  
delicate, straight, size 140



WT186314 Artery forceps, acc. to Kelly,  
delicate, curved, size 140



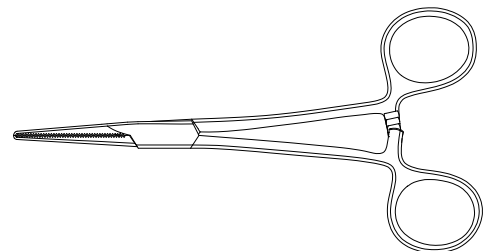
**Artery forceps, acc. to Crile**  
14 cm total length



WT186414 Artery forceps, acc. to Crile,  
delicate, straight, size 140



WT186514 Artery forceps, acc. to Crile,  
delicate, curved, size 140



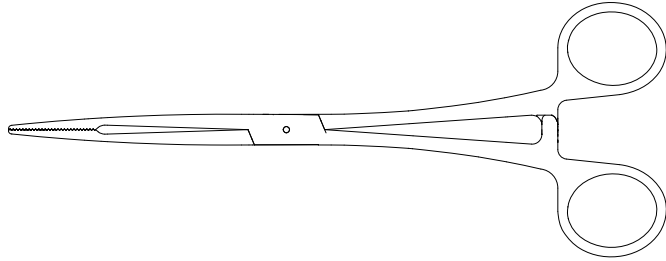
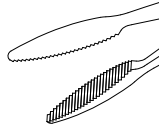


**EXPLORENT**

## Dressing Forceps

**Dressing forceps, acc. to Gross-Maier**  
20 cm total length

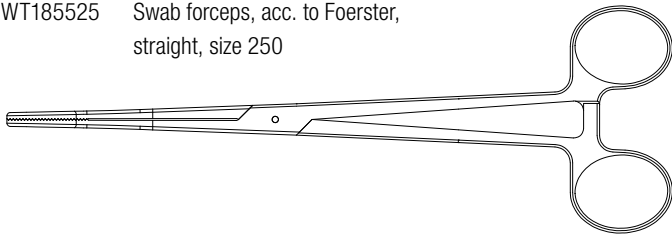
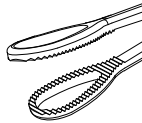
WT185420 Dressing forceps, acc. to Gross-Maier,  
with ratchet, straight, size 200



## Sponge Forceps

**Swab forceps, acc. to Foerster**  
various total lengths (mm), 13 mm jaw width

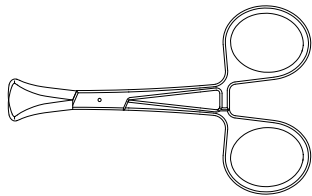
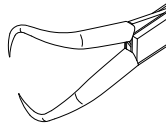
WT185520 Swab forceps, acc. to Foerster,  
straight, size 210  
WT185525 Swab forceps, acc. to Foerster,  
straight, size 250



## Towel Forceps

**Towel forceps, acc. to Backhaus**  
various total lengths (mm)

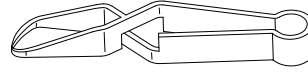
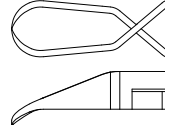
WT186008 Towel forceps, acc. to Backhaus, size 80  
WT186011 Towel forceps, acc. to Backhaus, size 110  
WT186013 Towel forceps, acc. to Backhaus, size 130



## Towel Forceps (cont.)

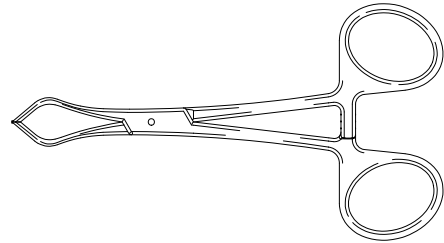
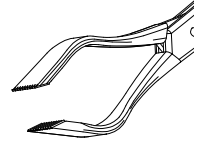
**Towel forceps, acc. to Schaedel**  
9 cm total lengths

WT186109 Towel forceps, acc. to Schaedel, size 90



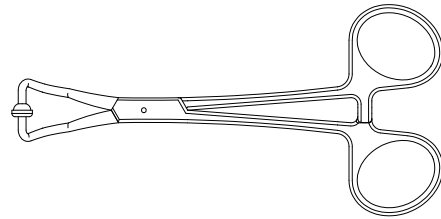
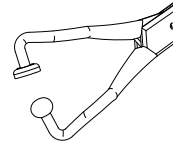
**Towel forceps, acc. to Lorna**  
13 cm total length

WT000848 Towel forceps, acc. to Lorna, size 130



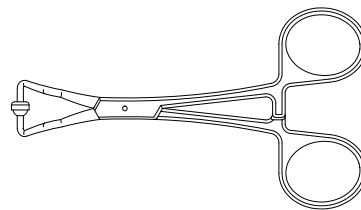
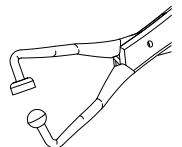
**Towel forceps**  
13 cm total length

WT186200 Towel forceps, size 130



**Towel forceps**  
11 cm total length

WT186211 Towel forceps, non-perforating, size 110







- Models with blunt and sharp prongs
- Double-ended models

**EXPLORENT**

## Retractors

### Retractor, acc. to Farabeuf

set of 2 pcs., 12 cm total length

WT564500 Retractor, acc. to Farabeuf, set, size 120

### Sizes

Retractor Fig. 1 .....	26 x 10 mm
	30 x 13 mm
Retractor Fig.2 .....	30 x 10 mm
	34 x 13 mm



### Retractor, acc. to Langenbeck

21 cm total length,  
various working length and width (mm)

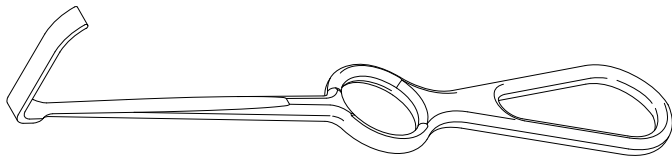
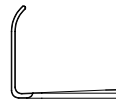
WT502501 Retractor, acc. to Langenbeck,  
size 35 x 7.0 210

WT502502 Retractor, acc. to Langenbeck,  
size 35 x 10 210

WT502503 Retractor, acc. to Langenbeck,  
size 35 x 15 210

WT502504 Retractor, acc. to Langenbeck,  
size 35 x 20 210

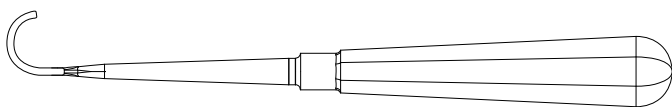
WT502505 Retractor, acc. to Langenbeck,  
size 40 x 11 210



### Retractor, acc. to Middeldorpf

21.5 cm total length, 14 x 17 mm

WT502101 Retractor, acc. to Middeldorpf, size 14 x 17 215



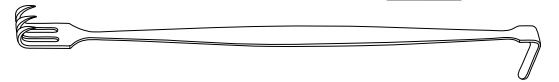
## Retractors (cont.)

### Hook, acc. to Senn-Miller

double-ended, 16 cm total length

WT564000 Hook, acc. to Senn-Miller,  
sharp, size 160

WT564100 Hook, acc. to Senn-Miller,  
3 prongs, sharp, size 160



### Tracheal hook

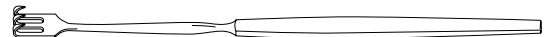
16 cm total length, sharp

WT567001 Tracheal hook, 1 prong,  
sharp, size 160

WT567002 Tracheal hook, 2 prongs,  
sharp, size 160

WT567003 Tracheal hook, 3 prongs,  
sharp, size 160

WT567004 Tracheal hook, 4 prongs,  
sharp, size 160



### Tracheal hook

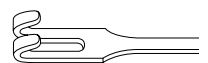
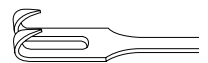
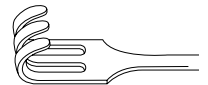
16 cm total length, blunt

WT568001 Tracheal hook, 1 prong,  
blunt, size 160

WT568002 Tracheal hook, 2 prongs,  
blunt, size 160

WT568003 Tracheal hook, 3 prongs,  
blunt, size 160

WT568004 Tracheal hook, 4 prongs,  
blunt, size 160



## Needles

### Septum cannula

Luer-lock, bayonet shaped,  
13 cm working length, 0.8 mm diameter

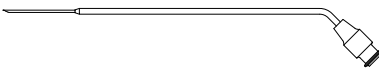
WT111700 Septum cannula, with Luer-lock,  
bayonet shaped, size 0.8 x 130



### Septum cannula

Luer-lock, angled,  
11 cm working length, 0.8 mm diameter

WT111800 Septum cannula, with Luer-lock,  
angled, size 0.8 x 110



## Scalpel Handles

### Scalpel handle

12.5 cm total length

WT429003 Scalpel handle, no. 3,  
solid, size 125



### Scalpel handle

21.5 cm total length

WT429103 Scalpel handle, no. 3L,  
solid, straight, size 215



### Scalpel handle

16.5 cm total length

WT429007 Scalpel handle, no. 7,  
solid, long, size 165



### Scalpel handle

12.5 cm total length

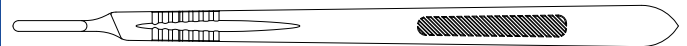
WT429004 Scalpel handle, no. 4,  
solid, size 125



### Scalpel handle

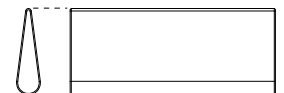
21.5 cm total length

WT429104 Scalpel handle, no. 4L,  
solid, straight, size 215



### Whetstone

WT403800 Whetstone, Arkansas type,  
wedge shaped

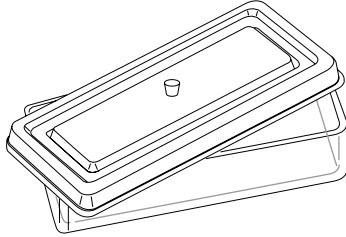


## Trays

### Glass tray

with stainless steel lid,  
various sizes (mm)

- WT813020 Glass tray, with stainless steel lid, size 200 x 100  
WT813022 Glass tray, with stainless steel lid, size 220 x 150

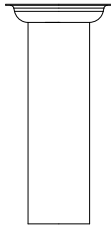


## Cups

### Jar

stainless steel,  
50 mm height, 180 mm diameter

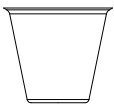
- WT810175 Jar, stainless steel,  
size 50 x 180



### Medicine cup

stainless steel,  
50 mm height,

- WT997000 Medicine cup, stainless steel,  
size 50

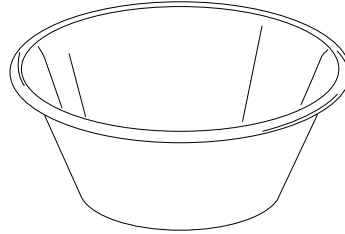


## Bowls

### Round bowl

stainless steel,  
various volumes (l), heights (cm) and diameters (mm)

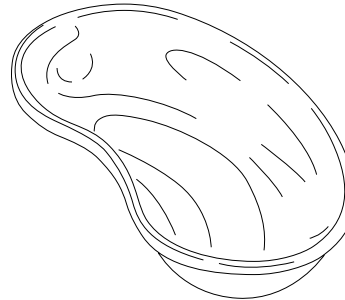
- WT997001 Round bowl, stainless steel, size 0.75 / 7.5 x 150  
WT997002 Round bowl, stainless steel, size 1.0 / 7.5 x 160  
WT997003 Round bowl, stainless steel, size 2.0 / 7.0 x 220  
WT997004 Round bowl, stainless steel, size 3.0



### Kidney bowl

stainless steel,  
various lengths (mm), widths (mm) and heights (mm)

- WT997008 Kidney bowl, stainless steel, size 170 x 100 x 35  
WT997010 Kidney bowl, stainless steel, size 250 x 140 x 40  
WT997020 Kidney bowl, stainless steel, size 275 x 150 x 45



### Round bowl

graduated, stainless steel  
various volumes (l), heights (cm) and diameters (mm)

- WT997030 Round bowl, stainless steel, size 0.03 / 2.5 x 50  
WT997050 Round bowl, stainless steel, size 0.05 / 4.5 x 50  
WT997100 Round bowl, stainless steel, size 0.1 / 3.5 x 80  
WT997150 Round bowl, stainless steel, size 0.2 / 5.5 x 90  
WT997408 Round bowl, stainless steel, size 0.5 / 5.5 x 140



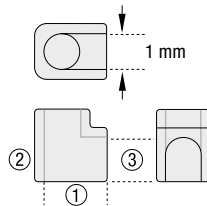
Prostheses	453
Mastoidectomy Hydroxylapatite Accessories	473
Accessories	475



## Applebaum Incudostapedial Joint Prostheses

- Reestablishes the ossicular chain when the incudostapedial joint is missing.
- Eliminates the need for a bone chip interposition or removal of the incus.

Applebaum incudostapedial joint prosthesis,  
dense hydroxylapatite,  
1 mm cannulated,  
140956 small, 2 x 2 x 1.2 mm  
140957 large, 2.5 x 2 x 1.2 mm



Dimensions: ① x ② x ③

Suggested by Edward L. Applebaum, M.D., Chicago, IL, USA

## Applebaum Incus Replacement System (I.R.S.)

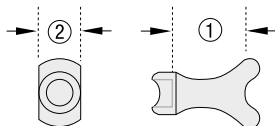
Designed to closely resemble a carved homograft/autograft incus interposition implant.

- Made of dense hydroxylapatite.
- Offered in 5 sizes, eliminating any need to trim.
- Partially cannulated to fit on the stapes capitulum, and the carved "notch" engages the malleus handle.
- Size is easily determined using the Applebaum measuring rod (#130976, [for details, see page 190](#)).

Applebaum incus replacement system,

140970 2 x 2.5 mm  
140971 2.25 x 2.5 mm  
140972 2.5 x 2.5 mm  
140973 3 x 2.5 mm  
140974 3.5 x 2.5 mm

Dimensions: ① x ②



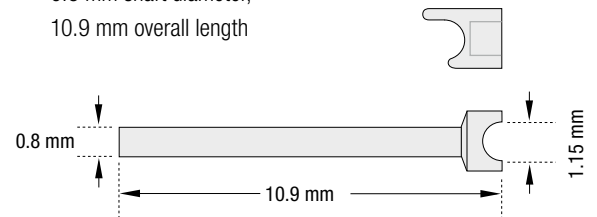
Developed by Edward L. Applebaum, M.D., Chicago, IL, USA

## Black Spanner Strut

The spanner strut represents a modular approach to incus and incus-stapes replacement.

- The hydroxylapatite head is designed to cradle the malleus handle and is partially cannulated to fit the shaft.
- The trimmable fluoroplastic shaft is designed with a cupped end to be positioned over the stapes capitulum when an incus replacement is necessary.
- For incus-stapes replacement, the cupped end is trimmed off. The remaining shaft is positioned on the stapes footplate and engages the hydroxylapatite cap and malleus.
- The fluoroplastic shaft is trimmed to fit patient anatomy and can be angled with forceps.

140923 Black spanner strut,  
hydroxylapatite/fluoroplastic,  
1.15 mm cup inner diameter,  
0.8 mm shaft diameter,  
10.9 mm overall length

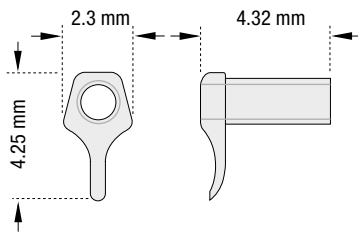


Developed by Bruce Black, M.D., Brisbane, Australia.

## Goldenberg Incus Prostheses

- Hydroxylapatite head designed with a “hook” to be rotated inferiorly or superiorly along the length of the malleus handle.
- Includes a centering hole to view the stapes capitulum.
- Plasti-Pore® shaft may be trimmed to exact length and notched for the stapedius tendon.

140912 Goldenberg incus prosthesis, hydroxylapatite/Plasti-Pore®, head dimensions: 4.25 x 2.3 mm, fully cannulated, 4.32 mm overall length

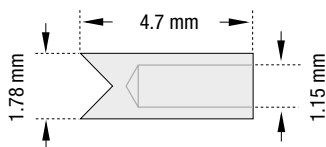


## Grote Malleus-to-Stapes Strut

This prosthesis is designed to meet the needs of ossicular reconstruction.

- The radiused upper portion conforms to the shape of the malleus and the hollow post seats firmly on the stapes superstructure.
- The malleus-to-stapes strut is made of Plasti-Pore® material, a porous, high-density polyethylene that allows soft tissue ingrowth.

140842 Grote malleus-to-stapes strut, Plasti-Pore®, 1.15 mm inner diameter, 1.78 mm outer diameter, 4.7 mm overall length



Designed for M.R. Grote, M.D., Tallahassee, FL, USA

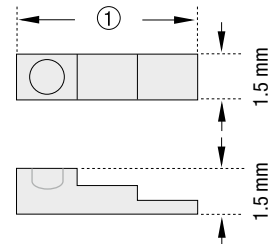
## Grote Incus Prostheses

The design of this incus prosthesis implant allows stable placement between the malleus and the capitulum of the stapes.

- The opening in the wide end of the prosthesis easily fits over the capitulum to aid in stabilization.
- The unique “stair-step” design allows the prosthesis to bridge the gap between the malleus handle and the capitulum of the stapes.
- The large flat surface of the prosthesis may rest directly against the tympanic membrane.
- The prosthesis can easily be shaped with a diamond burr using irrigation.

Grote incus prosthesis, hydroxylapatite, 1.5 mm height, 1.5 mm width, 0.83 mm partially cannulated,

140865 6 mm overall length ①  
70140990 7 mm overall length ①



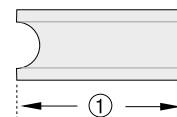
Designed by Jan J. Grote, Leiden, The Netherlands.

## Kartush Incus Strut Prostheses

- This dense hydroxylapatite strut was designed to bridge the gap between the malleus handle and capitulum of the stapes.
- Shaft is fully cannulated for improved visualization.

Kartush incus strut prosthesis, hydroxylapatite, 1.17 mm fully cannulated,

140853 short shaft, 2.75 mm overall length ①  
140854 medium shaft, 3.9 mm overall length ①  
140855 long shaft, 4.9 mm overall length ①



Designed by Jack M. Kartush, M.D., Michigan Ear Institute, Detroit, MI, USA



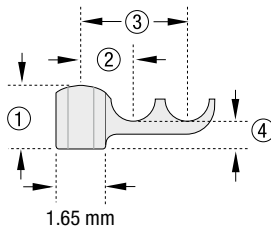
## Wehrs Incus Prostheses, Double Notch

- The double notch incus prosthesis is designed for use when the anatomic position of the stapedial head in relation to the malleus handle is between 1.2 and 2 millimeters, or between 3 and 4 millimeters.
- For the smaller dimension, the second notch may be removed with a diamond burr using irrigation.

Wehrs incus prosthesis,  
double notch,  
hydroxylapatite,

140877	short, 2.1 x 0.9 x 1.6 x 3.5 mm
140941	average, 2.7 x 1.5 x 1.6 x 3.5 mm
140878	medium, 3.3 x 2.1 x 1.6 x 3.5 mm
140879	long, 4.5 x 3.3 x 1.6 x 3.5 mm

Dimensions: ① x ④ x ② x ③



Designed by Roger E. Wehrs, M.D., Tulsa, OK, USA

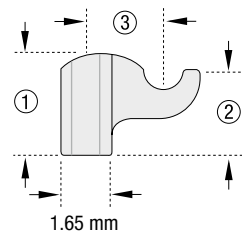
## Wehrs Incus Prostheses, Single Notch

- The single notch prosthesis is applicable when the "offset" from the head of the stapes to the malleus handle is estimated to be from 2 to 3 mm.
- Lesser or greater distances require the use of a double notch prosthesis.

Wehrs incus prosthesis,  
single notch,  
hydroxylapatite,

140874	short, 2.1 x 0.9 x 2.5 mm
140940	average, 2.7 x 1.5 x 2.5 mm
140875	medium, 3.3 x 2.1 x 2.5 mm
140876	long, 4.5 x 3.3 x 2.5 mm

Dimensions: ① x ② x ③



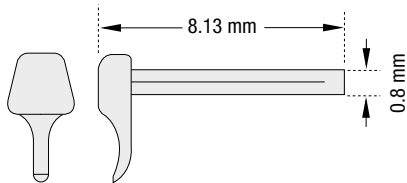
Designed by Roger E. Wehrs, M.D., Tulsa, OK, USA

## Goldenberg Incus-Stapes Prostheses

- Hydroxylapatite head designed with “hook” may be rotated inferiorly or superiorly along the length of the malleus handle.
- Wire reinforced Plasti-Pore® shaft is easily trimmed to length and provides stability and memory for bending to proper angulation.

140913

Goldenberg incus-stapes prosthesis,  
hydroxylapatite head, Plasti-Pore® shaft,  
0.8 mm shaft diameter,  
8.13 mm overall length



Developed with Robert Goldenberg, M.D., Dayton, OH, USA

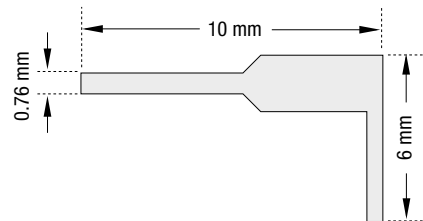
## Grote Incus-Stapes Prosthesis

This prosthesis is designed for use in case of a missing incus and stapes superstructure but a mobile footplate.

- Each implant is formed of dense hydroxylapatite, a highly biocompatible material with a chemical composition nearly identical to bone.
- This material may rest directly against the tympanic membrane with minimal risk of extrusion.

140869

Grote incus-stapes prosthesis,  
hydroxylapatite,  
0.76 mm shaft diameter,  
6 mm handle length,  
10 mm overall length



Designed by Jan J. Grote, Leiden, The Netherlands

### Use

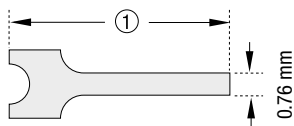
- Measure the distance from the footplate to the undersurface of the tympanic membrane.
- Measure the offset between the centerline of the footplate and the handle of the malleus.
- Use these measurements to trim the prosthesis to the proper dimensions using a diamond burr and irrigation.
- Form a pocket between the handle of the malleus and the tympanic membrane.
- Place the top of the prosthesis in this pocket, and align the shaft into the footplate.

## Kartush Incus-Stapes Strut Prostheses

- The dense hydroxylapatite strut was designed to bridge the gap between the malleus handle and stapes footplate.
- Length may be trimmed using a diamond burr with irrigation.

Kartush incus-stapes strut prosthesis,  
hydroxylapatite,  
0.76 mm shaft diameter,

- 140850 short, 5.3 mm overall length ①  
140851 medium, 7.3 mm overall length ①  
140852 long, 10.3 mm overall length ①



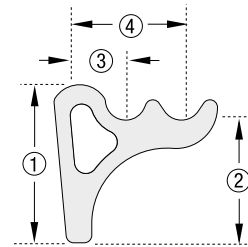
Designed by Jack M. Kartush, M.D., Michigan Ear Institute,  
Detroit, MI, USA

## Wehrs II Incus-Stapes Prostheses

- The Wehrs II features a cut-out in the head of the prosthesis which adds increased strength and handling characteristics.

Wehrs II incus-stapes prosthesis,  
double notch,  
hydroxylapatite,  
0.9 mm,

- 70140986 short, 5.3 x 4.1 x 1.6 x 3.5 mm  
70140987 average, 6.3 x 5.2 x 1.6 x 3.5 mm  
70140988 medium, 7.3 x 6.1 x 1.6 x 3.5 mm  
70140989 long, 10.2 x 9 x 1.6 x 3.5 mm

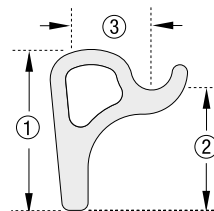


Dimensions: ① x ② x ③ x ④

Wehrs II incus-stapes prosthesis,  
single notch,  
hydroxylapatite,  
0.9 mm,

- 70140982 short, 5.3 x 4.1 x 2.5 mm  
70140983 average, 6.3 x 5.2 x 2.5 mm  
70140984 medium, 7.3 x 6.1 x 2.5 mm  
70140985 long, 10.2 x 9 x 2.5 mm

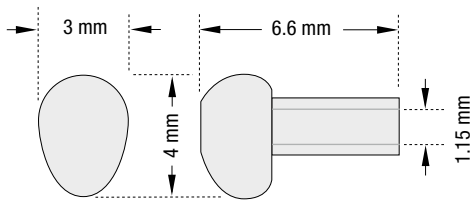
Dimensions: ① x ② x ③



## Black Oval-Top PORP® Prostheses

- Oval-top head is made of dense hydroxylapatite and designed to minimize extrusion by eliminating any sharp edges.
- Easily trimmable Plasti-Pore® or fluoroplastic shafts are cannulated to accommodate the stapes capitulum.

Black oval-top PORP® prosthesis,  
1.15 mm partially cannulated,  
head 4 x 3 mm,  
6.6 mm overall length,  
140859 hydroxylapatite/Plasti-Pore®  
140857 hydroxylapatite/fluoroplastic

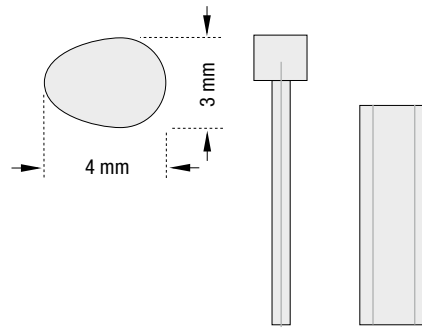


Developed with Bruce Black, M.D., Brisbane, Australia.

## Black Oval-Top Universal Prostheses

- This modular approach to prosthesis design minimizes O.R. inventory by including both a PORP® and TORP® shaft which can be assembled in the prosthesis head.
- Shafts may be trimmed to length as necessary.

Black oval-top universal prosthesis,  
hydroxylapatite/fluoroplastic,  
head 4 x 3 mm,  
6 mm/9.5 mm total length (PORP®/TORP®),  
1.15 mm PORP® shaft diameter,  
140861 0.8 mm (wire) TORP® shaft diameter  
140860 0.8 mm TORP® shaft diameter

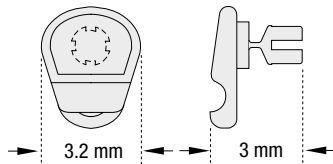


Requires O.R. assembly, only one shaft is actually used.  
U.S. Patent Nos. 4,597,764; D286,909; D286, 910  
Developed with Bruce Black, M.D., Brisbane, Australia.

## Dornhoffer Interpositional PORP® Prosthesis

- The titanium cradle provides added stability as it locks onto the stapes superstructure.
- The notch in the hydroxylapatite head accommodates the malleus.

70141014 Dornhoffer interpositional PORP® prosthesis, hydroxylapatite head/titanium shaft, 2 mm functional length with cradle, 3 mm overall length, 3.2 mm head diameter

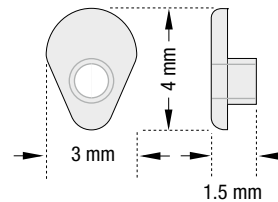


Designed for John Dornhoffer, M.D., Little Rock, AR, USA

## Goldenberg Cap Prosthesis

- Dense hydroxylapatite cap sold separately, to be used in shallow middle ear spaces.

140963 Goldenberg cap prosthesis, hydroxylapatite, fully cannulated, 1.5 mm overall length, head 4 x 3 mm

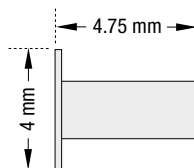


As developed in conjunction with Robert Goldenberg, M.D., Dayton, OH, USA

## Drum-to-Stapes Prosthesis PORP®

- Hollow post of prosthesis seats firmly on stapes.
- The thin, broad-faced flange seats against the tympanum with cartilage graft.
- Plasti-Pore® material construction invites tissue ingrowth to quickly stabilize the prosthesis.
- Can be trimmed to fit, as desired.

140059 Drum-to-stapes prosthesis PORP®, Plasti-Pore®, 1.17 mm partially cannulated, 4 mm flange diameter, 4.75 mm overall length

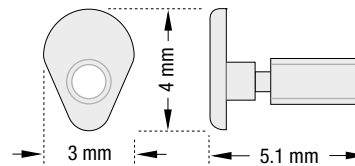


Designed for Ralph J. Caprosa, M.D., Pittsburgh, PA, USA

## Goldenberg Malleable PORP® Prostheses

- Wedge-shaped, hydroxylapatite head is versatile and may be used if malleus is present but rotated anteriorly. Malleable shaft allows proper angulation against the drum and can be easily trimmed to length.

140964 Goldenberg malleable PORP® prosthesis, hydroxylapatite head, Plasti-Pore® shaft, partially cannulated, 5.1 mm overall length, head 4 x 3 mm

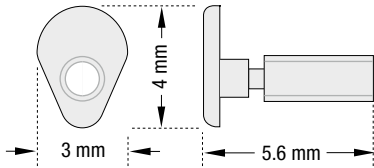


As developed in conjunction with Robert Goldenberg, M.D., Dayton, OH, USA

## Goldenberg PORP® Prosthesis

- Wedge-shaped hydroxylapatite head conforms to tympanic membrane.
- Cannulated to visualize the stapes capitulum.
- Plasti-Pore® shaft is trimmable and can be notched for stapedius tendon.

140916      Goldenberg PORP® prosthesis,  
hydroxylapatite head, Plasti-Pore® shaft,  
1.14 mm fully cannulated,  
head 4 x 3 mm,  
5.5 mm overall length

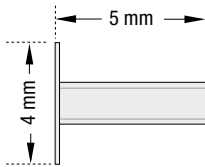


As developed in conjunction with Robert Goldenberg, M.D.,  
Dayton, OH, USA

## Modified PORP® Prosthesis

- The modified partial ossicular replacement prosthesis (PORP®) features a cannulation of the prosthesis stem which offers the surgeon visibility of the superstructure of the stapes during the entire surgical procedure.
- Made of Plasti-Pore® material, a porous high-density polyethylene which is well-tolerated in the body as an implant, the post of the prosthesis seats firmly on the stapes and replaces the malleus and the incus.
- The implant may be trimmed as desired.

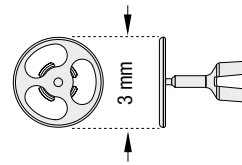
140084 Modified PORP® prosthesis, Plasti-Pore®, 1.17 mm fully cannulated, 4 mm flange diameter, 5 mm overall length



Designed for Leslie J. Block, M.D., Chicago, IL, USA

## Micron® All Titanium Monolithic PORP®

- The Monolithic PORPs® come pre-sized so that the surgeon does not need to trim the prosthesis.
- Additionally, the open-head design allows for good visualization.



Micron® All Titanium Monolithic PORP®, titanium, tiltable head, 3 mm head diameter, 1 mm cradle functional diameter,

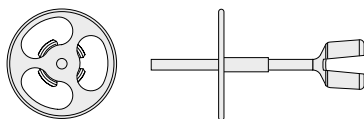
- 70142036 centered, 1.5 mm functional length
- 70142004 centered, 2 mm functional length
- 70142028 centered, 2.5 mm functional length
- 70142005 centered, 3 mm functional length
- 70142029 centered, 3.5 mm functional length
- 70142006 centered, 4 mm functional length
- 70142007 off-centered, 2 mm functional length
- 70142030 off-centered, 2.5 mm functional length
- 70142008 off-centered, 3 mm functional length
- 70142031 off-centered, 3.5 mm functional length
- 70142009 off-centered, 4 mm functional length

## Micron® Adjustable Titanium PORP® Prostheses

- The Micron® adjustable titanium PORP® features a large open-head design for good visualization.
- Its adjustable nature allows for minimal stocking levels.

Micron® adjustable titanium PORP® prosthesis, titanium, 2 – 5 mm dimension,

70141046 centered  
70141047 off-centered



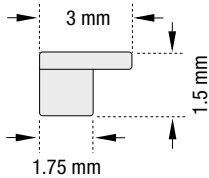
May be used with above products:

70135802 Micron titanium adjustable sizing block

## Off-Centered Cap Prosthesis

An off-centered version of the Shea Cap Prosthesis, used when anatomy does not permit a direct reconstruction.

140896 Off-centered cap prosthesis, hydroxylapatite, 1 mm partially cannulated, 3 mm flange diameter, 1.5 mm overall length

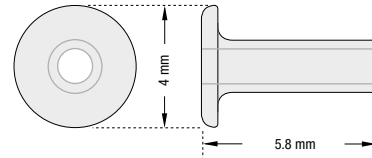


As developed in conjunction with John J. Shea, M.D., Memphis, TN, USA

## Richards Centered PORP® Prosthesis

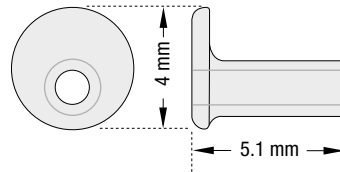
Fully cannulated hydroxylapatite partial ossicular replacement prosthesis.

140892 Richards centered PORP® prosthesis, hydroxylapatite, 1.17 mm fully cannulated, 4 mm flange diameter, 5 mm overall length



## Richards Off-Centered PORP® Prosthesis

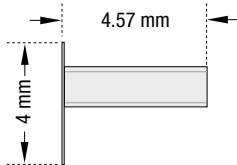
140893 Richards off-centered PORP® prosthesis, hydroxylapatite, 1.17 mm fully cannulated, 4 mm flange diameter, 5.1 mm overall length



## Off-centered PORP® Prosthesis

- The off-centered Plasti-Pore PORP® is completely cannulated, allowing the surgeon visibility of the superstructure of the stapes during surgery.
- The position of the shaft permits a direct, rather than angled, stapes to tympanum placement.
- Made of Plasti-Pore® material, a porous, high-density polyethylene which is well-tolerated in the body.
- May be trimmed as desired.

140051 Off-centered PORP® prosthesis, Plasti-Pore®, 1.17 mm fully cannulated, 4 mm flange diameter, 4.57 mm overall length

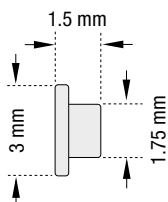




## Shea Cap Prosthesis

- This versatile prosthesis functions as a short PORP®-type prosthesis.
- Can also be used in conjunction with other available implants or materials to bridge ossicular defects.

140895 Shea cap prosthesis, hydroxylapatite, 1 mm partially cannulated, 1.75 mm base diameter, 3 mm flange diameter, 1.5 mm overall length

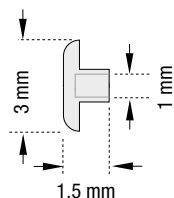


As developed in conjunction with John J. Shea, M.D., Memphis, TN, USA

## Shea Cap Prosthesis

- Dense hydroxylapatite cap sold separately to be used in shallow middle ear spaces.
- Cannulated to accommodate stapes capitulum.

140960 Shea cap prosthesis, hydroxylapatite, 1 mm partially cannulated, 3 mm head diameter, 1.5 mm overall length

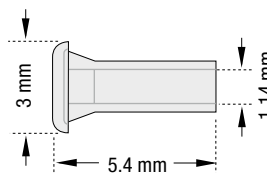


As developed in conjunction with John J. Shea, M.D., Memphis, TN, USA

## Shea HA/FP Prosthesis

- Designed to minimize extrusion by rounding edges of hydroxylapatite head.
- Fluoroplastic cannulated shafts can be trimmed to size, reducing inventory needs.

140962 Shea HA/FP prosthesis, hydroxylapatite head, fluoroplastic shaft, 1.14 mm partially cannulated, 3 mm head diameter, 5.4 mm overall length

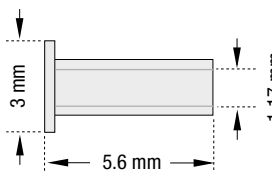


As developed in conjunction with John J. Shea, M.D., Memphis, TN, USA

## Shea PORP® Prosthesis

- The Shea PORP® prosthesis utilizes a hydroxylapatite head and an “easy-to-trim” Plasti-Pore® shaft.
- The small diameter head makes reduction in size unnecessary for most reconstructions.
- The Plasti-Pore® shaft provides a cannulated, trimmable length for placement over the capitulum of the stapes.

140898 Shea PORP® prosthesis, hydroxylapatite head, PlastiPore® shaft, 1.17 mm partially cannulated, 3 mm flange diameter, 5.6 mm overall length

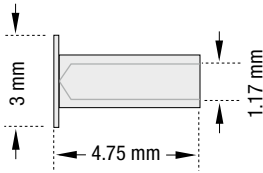


As developed in conjunction with John J. Shea, M.D., Memphis, TN, USA

## Sheehy Modified PORP® Prosthesis

- The Sheehy modified PORP® prosthesis features a smaller diameter flange than does the standard PORP® prosthesis, which allows ease of introduction and better visual contact with the stapes.
- The cannulated shaft of the prosthesis is designed to be firmly seated on the capitulum of the stapes, to aid in visualization of the stapes, and can be trimmed to the desired length.

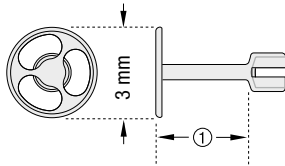
140053 Sheehy modified PORP® prosthesis, Plasti-Pore®, 1.17 mm partially cannulated, 3 mm flange diameter, 4.75 mm overall length



Designed for James Sheehy, M.D., Los Angeles, CA, USA

## PORP® Trials

- The intraoperative measuring devices assist the surgeon in determining the appropriate implant.

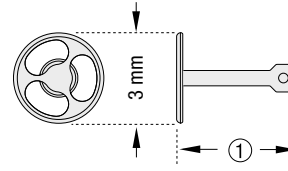


PORP® trials,  
3 mm head diameter,  
not for implantation,

70131321 2 mm functional length ①  
70131322 3 mm functional length ①  
70131323 4 mm functional length ①

## Ossicular Replacement Prostheses

### Measuring TORP® Trials



Ossicular replacement prosthesis measuring TORP® trials,  
not for implantation,

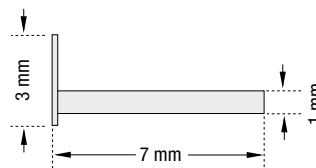
70131350 4 mm overall length ①  
70131352 5 mm overall length ①  
70131354 6 mm overall length ①  
70131356 7 mm overall length ①

70135060 May be used with above products:  
Sterilization case

## Austin Modified Off-Centered TORP® Prosthesis

- The Austin modification of the Plasti-Pore® material columella enables a direct, rather than angled, union between the footplate and the tympanic membrane. This modification aids the surgeon in better visualizing the footplate.
- The head should be covered with autogenous cartilage to inhibit extrusion.

140063 Austin modified off-centered TORP® prosthesis, Plasti-Pore®, 3 mm flange diameter, 1 mm shaft diameter, 7 mm overall length

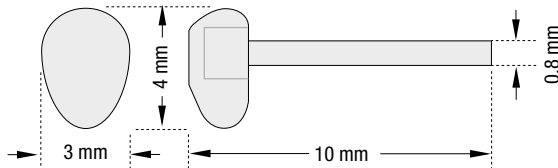


Designed for David F. Austin, M.D., Iowa City, Iowa, USA



## Black Oval-Top TORP® Prostheses

- Oval-top head is made of dense hydroxylapatite and is designed to minimize extrusion by eliminating any sharp edges.
- Easily trimmable Plasti-Pore® or fluoroplastic shafts reduce O.R. inventory needs.

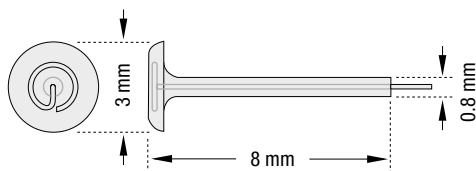


Black oval-top TORP® prosthesis,  
4 mm flange diameter,  
0.8 mm shaft diameter,  
10 mm overall length,  
hydroxylapatite head,  
140858 Plasti-Pore® shaft  
140856 fluoroplastic shaft

As developed in conjunction with Bruce Black, M.D.,  
Brisbane, Australia

## Brackman Modified TORP® Prosthesis

70140563 Brackman modified TORP® prosthesis,  
Plasti-Pore®/wire,  
0.8 mm shaft diameter,  
3 mm head diameter,  
8 mm overall length, trimmable

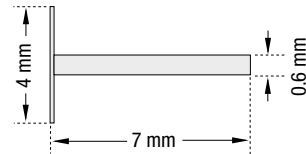


Designed for Daryl Brackman, M.D., Los Angeles, CA, USA

## Cause Modified TORP® Prosthesis

- Same unique features as the standard Plasti-Pore® TORP® but with a smaller diameter (0.6 mm) shaft.
- The smaller shaft makes positioning of the implant easier when obstructions are present.

140057 Cause modified TORP® prosthesis,  
Plasti-Pore®,  
4 mm flange diameter,  
0.6 mm shaft diameter,  
7 mm overall length

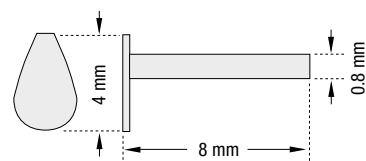


Designed for Jean-Bernard Cause, M.D., Béziers, France.

## Fisch-Type TORP® Prosthesis

- L-shaped modification of the TORP® implant offering a smaller head size and shaft to permit better visibility while the surgeon is positioning the implant.
- Made of Plasti-Pore® material, the Fisch TORP® prosthesis can be trimmed to desired length.

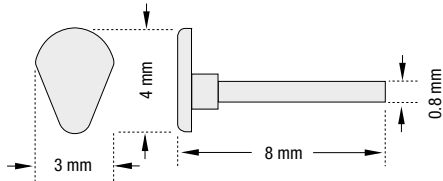
140087 Fisch-type TORP® prosthesis,  
Plasti-Pore®,  
4 mm flange diameter,  
0.8 mm shaft diameter,  
8 mm overall length



Designed for Ugo Fisch, M.D., Zurich, Switzerland.

- Wedge-shaped head may be used when the malleus is not present or is extremely anteriorly rotated.
- Plasti-Pore® shaft is easily trimmed and is wire-reinforced for increased stability.
- A tissue graft over the oval window may be used when the stapes footplate is not present.

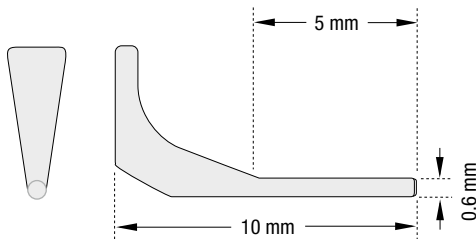
140917 Goldenberg TORP® prosthesis,  
hydroxylapatite/Plasti-Pore®,  
0.8 mm shaft diameter,  
8 mm overall length



As developed in conjunction with Robert Goldenberg, M.D.,  
Dayton, OH, USA

## Grote TORP® Prosthesis

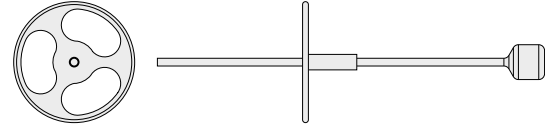
70140992 Grote TORP® prosthesis, hydroxylapatite, 5 mm handle length, 0.6 mm shaft diameter, 10 mm overall length



Designed for Jan J. Grote, M.D., Leiden, The Netherlands

## Micron® Adjustable Titanium TORP® Prostheses

- The Micron® adjustable titanium TORP® features an open-head design for optimal visualization.
- Its adjustable nature allows for minimal stocking levels.



Micron® adjustable titanium TORP® prosthesis, titanium, 2 – 10 mm,

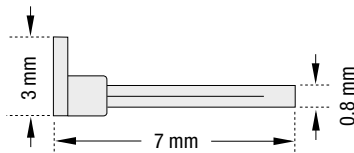
70141044 centered  
70141045 off-centered

70135802 May be used with above products:  
Sizing block

## McGee Malleable TORP® Prosthesis

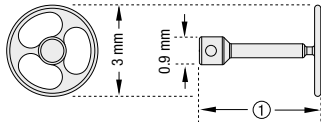
- This updated off-centered variety of TORP® prosthesis utilizes a hydroxylapatite head and a Plasti-Pore® wire-reinforced shaft.
- This combination of materials provides an implant “head” produced from a highly biocompatible material and a malleable, easy-to-trim shaft.

140897 McGee malleable TORP® prosthesis, hydroxylapatite head, Plasti-Pore® shaft, 3 mm flange diameter, 0.8 mm shaft diameter, 2 mm trimmable length, 7 mm overall length



Developed in conjunction with T. Manford McGee, M.D., Michigan Ear Institute, Detroit, MI, USA

- The monolithic TORPs® come pre-sized so that the surgeon does not need to trim the prosthesis.
- Additionally, the open-head design allows optimal visualization.



Micron® All Titanium Monolithic TORP®,  
titanium,

0.9 mm round footplate (shoe diameter),  
3 mm head diameter,  
centered, tiltable head,

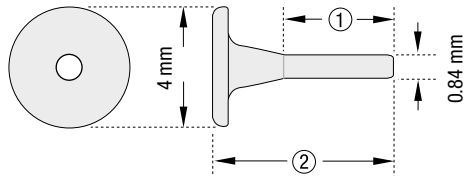
70142032	2 mm overall length ①
70142033	2.5 mm overall length ①
70142034	3 mm overall length ①
70142035	3.5 mm overall length ①
70142010	4 mm overall length ①
70142011	4.5 mm overall length ①
70142012	5 mm overall length ①
70142013	5.5 mm overall length ①
70142014	6 mm overall length ①
70142015	6.5 mm overall length ①
70142016	7 mm overall length ①
70142017	7.5 mm overall length ①
70142018	8 mm overall length ①

Micron® All Titanium Monolithic TORP®,  
titanium,

0.9 mm round footplate (shoe diameter),  
3 mm head diameter,  
off-centered, tiltable head,

70142019	4 mm overall length ①
70142020	4.5 mm overall length ①
70142021	5 mm overall length ①
70142022	5.5 mm overall length ①
70142023	6 mm overall length ①
70142024	6.5 mm overall length ①
70142025	7 mm overall length ①
70142026	7.5 mm overall length ①
70142027	8 mm overall length ①

## Richards Centered TORP® Prostheses

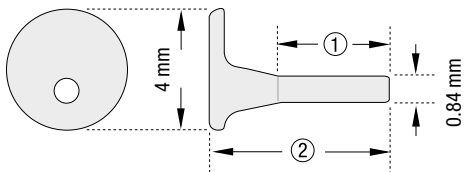


Richards centered TORP® prosthesis,  
hydroxylapatite,  
4 mm flange diameter,  
0.84 mm shaft diameter,  
4 mm head width,

- 140886 ① = 1.65 mm, ② = 4 mm
- 140887 ① = 3.67 mm, ② = 6 mm
- 140888 ① = 5.7 mm, ② = 8 mm

①: trimmable length  
②: overall length

## Richards Off-Centered TORP® Prostheses



Richards off-centered TORP® prosthesis,  
hydroxylapatite,  
4 mm flange diameter,  
0.84 mm shaft diameter,  
4 mm head width,

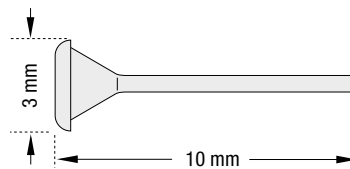
- 140889 ① = 1.65 mm, ② = 4 mm
- 140890 ① = 3.67 mm, ② = 6 mm
- 140891 ① = 5.7 mm, ② = 8 mm

①: trimmable length  
②: overall length

## Shea HA/FP TORP® Prosthesis

- Designed to minimize extrusion by rounding edges of hydroxylapatite head.
- Easily trimmable fluoroplastic shaft reduces O.R. inventory needs.

- 140961 Shea HA/FP TORP® prosthesis,  
hydroxylapatite head, fluoroplastic shaft,  
3 mm head diameter,  
10 mm overall length,  
trimmable

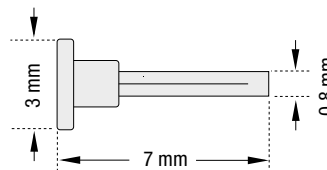


Developed in conjunction with John J. Shea, M.D., Memphis, TN, USA

## Shea Malleable TORP® Prosthesis

- This Shea TORP® prosthesis utilizes a hydroxylapatite head and a Plasti-Pore® wire-reinforced shaft.
- This combination of materials provides an implant “head” produced from a highly biocompatible material and a malleable, easy-to-trim shaft.

- 140894 Shea malleable TORP® prosthesis,  
hydroxylapatite head, Plasti-Pore® shaft,  
3 mm flange diameter,  
0.8 mm shaft diameter,  
7 mm overall length,

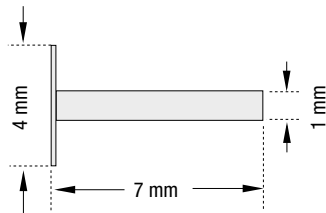


As developed in conjunction with John J. Shea, M.D., Memphis, TN, USA

## Shea TORP® Prosthesis

- A solid fluoroplastic shaft may be desired in those ears with only a small piece of living membrane vestibule exposed, or in those ears with obliterative otosclerosis in which the prosthesis is placed into the small oval window opening created without an interposed tissue graft.
- Flange is made of Plasti-Pore® material, which invites tissue ingrowth.

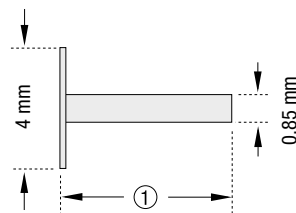
140003 Shea TORP® prosthesis,  
Plasti-Pore® head, fluoroplastic shaft,  
4 mm flange diameter,  
1 mm shaft diameter,  
7 mm overall length



Designed for John J. Shea, M.D., Memphis, TN, USA

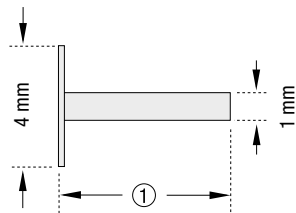
## Shea TORP® Prostheses

- The Shea TORP® prosthesis is a white porous plastic columella made of Plasti-Pore® material, a high-density polyethylene which is well tolerated in the body as an implant.
- Designed to replace the entire ossicular chain, the prosthesis is placed from the oval window to the drum.
- The shaft of the prosthesis can be angulated and can be cut off to the proper length by the surgeon.
- Broad-faced thinned surface resists tilting, and distributes pressure over a large drum area.
- Tissue grows into the end of the shaft to secure it to the footplate or other oval window seal. The shaft end may be cut by the surgeon to the desired length.



Shea TORP® prosthesis,  
Plasti-Pore®,  
4 mm flange diameter,  
0.25 mm flange thickness,  
0.85 mm shaft diameter,

- 140901 4 mm overall length ①  
140902 5 mm overall length ①  
140903 6 mm overall length ①  
140904 7 mm overall length ①  
140905 8 mm overall length ①



Shea TORP® prosthesis,  
Plasti-Pore®,  
4 mm flange diameter,  
0.25 mm flange thickness,  
1 mm shaft diameter,

- 140907 4 mm overall length ①  
140908 5 mm overall length ①  
140909 6 mm overall length ①  
140058 7 mm overall length ①  
140911 8 mm overall length ①

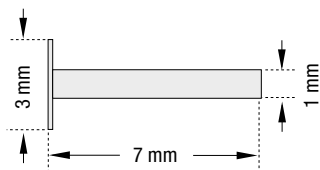
Designed for John J. Shea, M.D., Memphis, TN, USA



## Sheehy Modified TORP® Prosthesis

- Designed to replace the entire ossicular chain, the Sheehy modified TORP® prosthesis features a smaller diameter flange than does the standard TORP® prosthesis.
- Some practitioners find that the use of tragal cartilage between the flange of the prosthesis and tympanic membrane has diminished the necessity for the larger diameter flange.
- The entire TORP® prosthesis is made of Plasti-Pore® material.
- The prosthesis shaft can be angulated and trimmed to the desired length.

140089 Sheehy modified TORP® prosthesis,  
Plasti-Pore®,  
3 mm flange diameter,  
1 mm shaft diameter,  
7 mm overall length

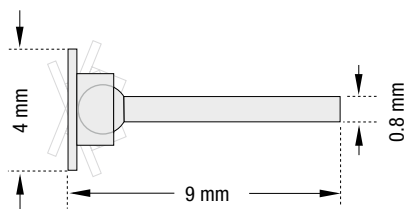


Designed for James Sheehy, M.D., Los Angeles, CA, USA

## Tilt-Top TORP® Prosthesis

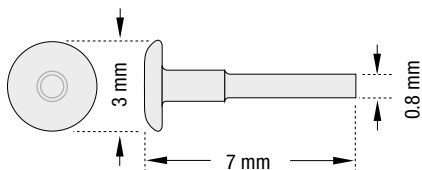
- The unique ball-and-socket of the tilt-top TORP® prosthesis allows the surgeon to precisely fit the flange to the underside of the tympanic membrane (using a cover of cartilage if desired) while maintaining a more correct anatomical relationship between the shaft of the prosthesis and the stapes footplate or the oval window.
- The positional variances in eardrum-oval window relationships that can occur from case to case are easily accommodated. The surgeon merely determines the best flange-to-shaft angle and rotates the flange into place.
- The prosthesis is inserted in the manner used with a regular TORP® prosthesis.

140915 Tilt-Top TORP® prosthesis,  
Plasti-Pore®,  
4 mm flange diameter,  
0.8 mm shaft diameter,  
9 mm overall length



## Sheehy TORP® (Improved) Prosthesis

70140933 Sheehy TORP® (improved) prosthesis,  
Plasti-Pore®,  
3 mm head diameter,  
0.8 mm shaft diameter,  
7 mm overall length

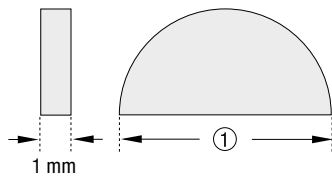


Designed for James Sheehy, M.D., Los Angeles, CA, USA



### Attic Defect Plates

- Designed to be used in reconstructing attic defects in cases of intact canal wall mastoidectomy.
- The semicircular implants are intended for use in sealing attic defects, and promoting complete obliteration of the site.
- Offered in 3 sizes, to accommodate individual patient needs.



Attic defect plate,  
porous hydroxylapatite,  
1 mm thick,

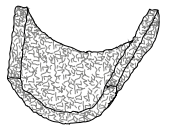
- 140862 small, 7 mm diameter ①  
140863 medium, 10 mm diameter ①  
140864 large, 14 mm diameter ①

As developed in conjunction with Bruce Black, M.D.,  
Brisbane, Australia.

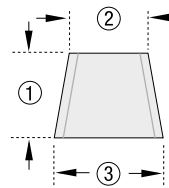
### Grote Canal Wall Prostheses

- The Grote canal wall prosthesis is designed for the reconstruction of the posterior bony ear canal wall.
- Available in three sizes to better fit individual patient needs.
- Can be shaped using an appropriate diamond burr and irrigation.

- Grote canal wall prosthesis,  
porous hydroxylapatite,  
140866 small, 13 x 12 x 16 mm  
140867 medium, 14 x 13 x 18 mm  
140868 large, 16 x 15 x 20 mm



Dimensions: ① x ② x ③



Designed by Jan J. Grote, M.D., Leiden, The Netherlands.

### Hydroxylapatite Granules

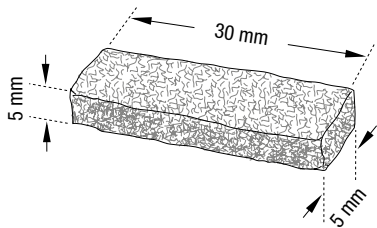
- Porous hydroxylapatite granules are small particle implants.
- Indicated for reconstruction of natural or surgically created defects of the mastoid. Rinsing with a sterile solution prior to insertion is recommended.
- The size of the prosthesis should be carefully assessed to ensure a proper fit. Once in position, the implant should be adequately covered with fascia or other material.

- 911101 Hydroxylapatite granules (not shown),  
porous hydroxylapatite,  
0.5–1 mm size of granules,  
3 pcs.,  
sterile, single use

## Porous Hydroxylapatite Reconstruction Blocks

- Porous hydroxylapatite implants for reconstruction of bony defects or augmentation of bony deficiencies.
- Made of highly biocompatible hydroxylapatite material, these blocks are useful in plastic surgery, and in oral and maxillofacial procedures where homograft and autograft bone is normally used.

140871 Porous hydroxylapatite reconstruction block, small, 5 x 10 x 30 mm

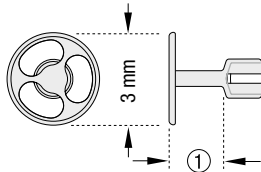


Properties Pore size range 150–350  $\mu\text{m}$

Porosity range 15–30 %

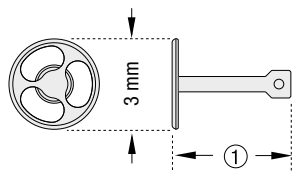
## Measuring Trials

- Stainless steel
- Not for implantation
- Used for customized sizing



Ossicular replacement prosthesis measuring PORP® trials,

- 70131321 2 mm functional length ①
- 70131322 3 mm functional length ①
- 70131323 4 mm functional length ①



Ossicular replacement prosthesis measuring TORP® trials,

- 70131350 4 mm functional length ①
- 70131352 5 mm functional length ①
- 70131354 6 mm functional length ①
- 70131356 7 mm functional length ①

Ossicular replacement prosthesis measuring trials accessories (not shown):

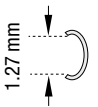
- 70135060 Sterilization case
- 70135801 Universal cutting block designed for use with HAPEX® shaft
- 70135802 Micron titanium adjustable sizing block

## Williams Microclips

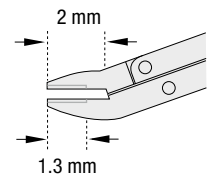
The Williams microclip offers another method for holding the tympanic graft securely in position.

- Reduces the possibility of dislodging the positioned anterior graft segment.
- Allows the surgeon to fasten down the graft in stages, one area at a time.
- Assures the surgeon that the graft remains securely in position even when visibility is obscured during placement of packing material.

- 145285 Microclip, stainless steel, 1.27 mm inner diameter, 0.13 mm wire diameter, sterile, single use, 3 pcs.



- 130830 Microclip inserter, stainless steel, 1.27 mm serrated jaws



Designed for J. David Williams, M.D., Anchorage, Alaska, USA

## OtoMimix®

- First hydroxylapatite bone cement indicated for middle ear use.
- OtoMimix® bridges the gap for incudostapedial joint discontinuity as well as offering stability with preformed prostheses.
- Designed specifically for Otolaryngologists, OtoMimix® is comprised of both a powder and liquid component that form a working paste when mixed together.
- The powder component is a hydroxylapatite (HA) based mixture of tetracalcium phosphate and the liquid component is a dilute citric acid.

7014-3266 OtoMimix®,  
2 g



### Indications for Use

- Augmentation or coupling of the middle ear ossicles
- Attachment of the middle ear ossicles to middle ear implants
- Mechanical stabilization of middle ear prostheses
- Reconstruction of the posterior canal wall

130725 Rosen needles,  
sharp,  
6 pcs.

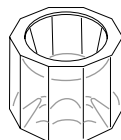


130726 Rosen needles,  
dull,  
6 pcs.



## Bowls

813505 Glass medicine cups,  
coloured,  
5 pcs.



Pistons Stapes Prostheses	479
SMart Pistons Stapes Prostheses	485
Loops Stapes Prostheses	487
Malleus Attached Pistons Stapes Prostheses	489
Bucket Handle Prostheses	491
Shea Cup Pistons Stapes Prostheses	493

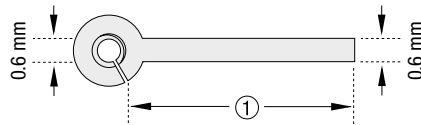




### Cause Piston

Loop is expanded with a pick to slip over the incus with smooth jaw alligator forceps. "Plastic memory" provides secure closure.

- 140457 Cause piston,  
fluoroplastic,  
0.4 mm piston diameter,  
0.6 mm loop inner diameter,  
6 mm functional length

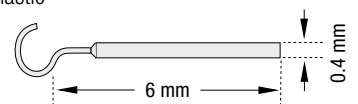


Developed with Jean-Bernard Causse, M.D., Béziers, France

### Fisch-Type Pistons

This adaptation of the piston prosthesis is designed for small fenestra techniques. The piston is available in a 6 mm length which can be conveniently trimmed to 3.5 mm using a sharp knife.

- 140443 Fisch-type piston,  
0.4 mm piston diameter,  
6 mm functional length,  
platinum ribbon/fluoroplastic  
140444 stainless steel/fluoroplastic

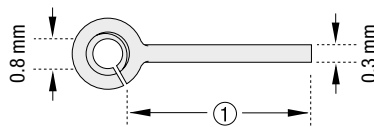


Designed for Ugo Fisch, M.D., Zürich, Switzerland

### Cawthorne Pistons

Incus attachment with a very slim 0.3 mm (0.012") diameter shaft.

- Cawthorne piston,  
fluoroplastic,  
0.3 mm piston diameter,  
0.8 mm loop inner diameter,  
140266-ENT 4.5 mm functional length ①  
140268-ENT 5 mm functional length ①

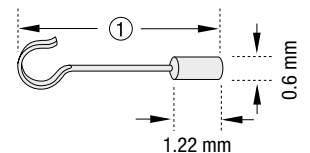


Designed for Sir Terrence Cawthorne, London, England

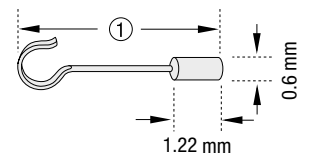
### De La Cruz Pistons

Shortened fluoroplastic shaft offers improved visibility during placement.

- De La Cruz piston,  
platinum ribbon/fluoroplastic shaft,  
0.6 mm piston diameter,  
70140730 3.5 mm piston length ①  
70140731 3.75 mm piston length ①  
70140732 4 mm piston length ①  
70140733 4.25 mm piston length ①  
70140734 4.5 mm piston length ①  
70140735 4.75 mm piston length ①  
70140736 5 mm piston length ①



- De La Cruz piston,  
stainless steel/fluoroplastic shaft,  
0.6 mm piston diameter,  
70140727 4 mm piston length ①  
70140728 4.25 mm piston length ①  
70140729 4.5 mm piston length ①

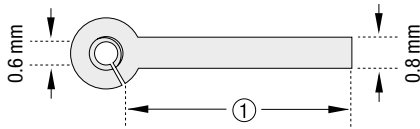


Designed for Antonio De La Cruz, M.D., Los Angeles, CA, USA

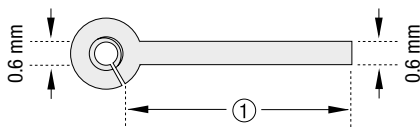
## Fluoroplastic Pistons

Loop is expanded with a pick to slip over the incus with smooth jaw alligator forceps. "Plastic memory" provides secure closure.

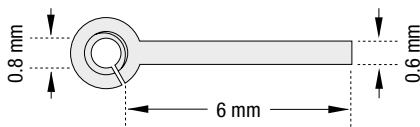
Fluoroplastic piston,  
 0.6 mm piston diameter,  
 0.6 mm loop inner diameter,  
 140074 3.5 mm functional length ①  
 140076 4 mm functional length ①  
 140078 4.5 mm functional length ①  
 140080 5 mm functional length ①  
 140082 6 mm functional length ①



Fluoroplastic piston,  
 0.8 mm piston diameter,  
 0.6 mm loop inner diameter,  
 140066 4 mm functional length ①  
 140068 4.5 mm functional length ①  
 140070 5 mm functional length ①  
 140072 6 mm functional length ①



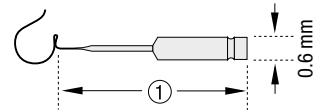
140456 Fluoroplastic piston,  
 0.6 mm piston diameter,  
 0.8 mm loop inner diameter,  
 6 mm functional length



## Mangham Pistons

The unique crimp in the wire loop coupled with the shepherd crook assists the surgeon in positioning and crimping the prosthesis onto the incus. 0.5 mm hash mark assists in proper seating into stapedotomy.

Mangham piston,  
 fluoroelastic/platinum,  
 0.6 mm piston diameter,  
 70145953 5 mm functional length ①  
 70145950 4 mm functional length ①  
 70145951 4.25 mm functional length ①  
 70145952 4.5 mm functional length ①

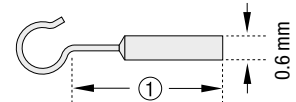


Designed by Charles Mangham, M.D., Seattle, WA, USA

## Mass. Eye and Ear Pistons

The round platinum shaft may be easily angulated. The flat ribbon crook maximizes surface contact with the incus while minimizing the chance of pressure necrosis of the long process.

Mass. Eye and Ear piston,  
 fluoroelastic/platinum,  
 0.6 mm piston diameter,  
 70140799 4 mm functional length ①  
 70140801 4.25 mm functional length ①  
 70140798 4.5 mm functional length ①



Designed by Michael J. McKenna, M.D., and Joseph B. Nadol, Jr., M.D., Boston, MA, USA

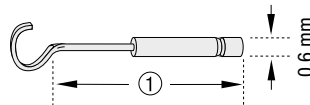
### McGee Pistons

The McGee Piston features a platinum ribbon loop attached to a stainless steel piston. Platinum offers good tissue tolerance and is easier to bend into shape. In its flattened form, it permits a greater area of surface contact with the incus, lessening the opportunity for pressure necrosis.

Each piston also includes a 0.5 mm depth groove to assist in visualization of footplate penetration. This groove is clearly visible at virtually any angle.

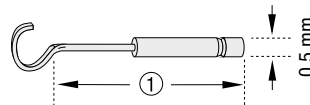
A choice of piston diameters is available.

McGee piston,  
platinum/stainless steel,  
0.5 mm piston diameter,



- 140336 3.75 mm functional length ①
- 140337 4 mm functional length ①
- 140338 4.25 mm functional length ①
- 140339 4.5 mm functional length ①
- 140340 4.75 mm functional length ①
- 140341 5 mm functional length ①

McGee piston,  
platinum/stainless steel,  
0.6 mm piston diameter,



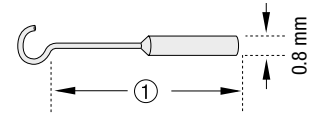
- 140330 3.75 mm functional length ①
- 140331 4 mm functional length ①
- 140332 4.25 mm functional length ①
- 140333 4.5 mm functional length ①
- 140334 4.75 mm functional length ①
- 140335 5 mm functional length ①

Designed for T. Manford McGee, M.D., Detroit, MI, USA

### McGee Pistons

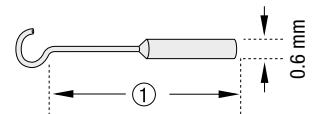
Use for obliterative otosclerosis and in cases where the prognosis is poor if the classical fat-wire technique is used. One-piece construction.

McGee piston,  
stainless steel,  
0.6 mm piston diameter,



- 140161 3.25 mm functional length ①
- 140162 3.5 mm functional length ①
- 140163 3.75 mm functional length ①
- 140164 4 mm functional length ①
- 140165 4.25 mm functional length ①
- 140166 4.5 mm functional length ①
- 140167 4.75 mm functional length ①
- 140168 5 mm functional length ①

McGee piston,  
stainless steel,  
0.8 mm piston diameter,



- 140143-ENT 3.75 mm functional length ①
- 140144-ENT 4 mm functional length ①
- 140145-ENT 4.25 mm functional length ①
- 140146-ENT 4.5 mm functional length ①
- 140147-ENT 4.75 mm functional length ①
- 140148-ENT 5 mm functional length ①
- 140149 5.25 mm functional length ①
- 140150-ENT 5.5 mm functional length ①

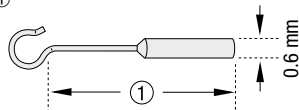
Designed for T. Manford McGee, M.D., Detroit, MI, USA

## Richards Platinum Fluoroplastic Pistons

This design incorporates the popular fluoroplastic piston shaft with a platinum ribbon loop. Platinum is a well-tolerated, "obedient" metal that is easy to crimp with virtually no "spring-back." The loop is a flat cross-section (rather than round), providing a wide area of contact to discourage point necrosis and to provide superior purchase.

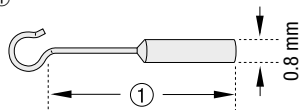
Platinum fluoroplastic piston,  
0.4 mm piston diameter,

- 141812 3.5 mm functional length ①
- 141813 3.75 mm functional length ①
- 141814 4 mm functional length ①
- 141815 4.25 mm functional length ①
- 141816-ENT 4.5 mm functional length ①
- 141817-ENT 4.75 mm functional length ①



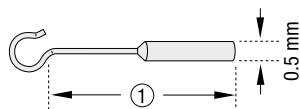
Platinum fluoroplastic piston,  
0.5 mm piston diameter,

- 140813 3.75 mm functional length ①
- 140814 4 mm functional length ①
- 140815 4.25 mm functional length ①
- 140816 4.5 mm functional length ①
- 140817 4.75 mm functional length ①



Platinum fluoroplastic piston,  
0.6 mm piston diameter,

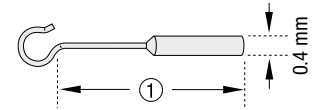
- 140781 3.5 mm functional length ①
- 140782 3.75 mm functional length ①
- 140783 4 mm functional length ①
- 140784 4.25 mm functional length ①
- 140785 4.5 mm functional length ①
- 140786 4.75 mm functional length ①
- 140787 5 mm functional length ①



## Richards Platinum Fluoroplastic Pistons (cont.)

Platinum fluoroplastic piston,  
0.8 mm piston diameter,

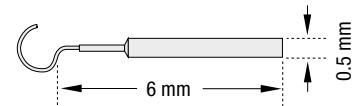
- 140790 3.5 mm functional length ①
- 140791 3.75 mm functional length ①
- 140792 4 mm functional length ①
- 140793 4.25 mm functional length ①
- 140794 4.5 mm functional length ①
- 140795 4.75 mm functional length ①
- 140796 5 mm functional length ①



## Sanna Piston

Trimmable to length.

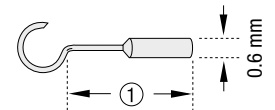
- 70140797 Sanna piston,  
fluoroplastic/platinum,  
0.5 mm piston diameter,  
6 mm functional length



## Scheer Pistons

Scheer piston,  
stainless steel/fluoroplastic,  
short, slim diameter piston,  
0.6 mm piston diameter,

- 140226 3.33 mm functional length ①
- 140227 3.58 mm functional length ①
- 140228-ENT 3.83 mm functional length ①
- 140229-ENT 4.08 mm functional length ①
- 140230-ENT 4.33 mm functional length ①
- 140231 4.58 mm functional length ①



Designed for Alan Scheer, M.D., New York, NY, USA

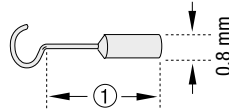


### Schuknecht Pistons

For incus attachment. Wire loop locks on long process of the incus. A graft may be placed around piston to seal the oval window.

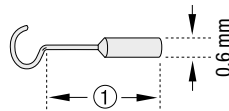
Schuknecht piston,  
stainless steel/fluoroplastic,  
0.6 mm piston diameter,

- 140120 3 mm functional length ①
- 140121 3.25 mm functional length ①
- 140122 3.5 mm functional length ①
- 140123-ENT 3.75 mm functional length ①
- 140124-ENT 4 mm functional length ①
- 140125-ENT 4.25 mm functional length ①
- 140126-ENT 4.5 mm functional length ①
- 140127 4.75 mm functional length ①
- 140128 5 mm functional length ①
- 140129-ENT 5.25 mm functional length ①
- 140130-ENT 5.5 mm functional length ①
- 140131-ENT 5.75 mm functional length ①



Schuknecht piston,  
stainless steel/fluoroplastic,  
0.8 mm piston diameter,

- 140102 3.5 mm functional length ①
- 140103 3.75 mm functional length ①
- 140104 4 mm functional length ①
- 140105 4.25 mm functional length ①
- 140106 4.5 mm functional length ①
- 140107-ENT 4.75 mm functional length ①
- 140108 5 mm functional length ①
- 140110-ENT 5.5 mm functional length ①



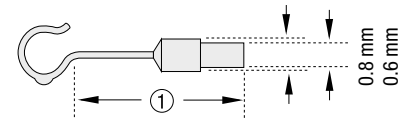
Designed by Harold F. Schuknecht, M.D., Boston, MA, USA

### Velegrakis Pistons

The flattened tab on the loop enables easier grasping and positioning. The fluoroplastic shaft has two different diameters to enhance visualization and reduce the chance of the implant protruding into the vestibule.

Velegrakis piston,  
platinum/fluoroplastic,  
dual diameter 0.8 to 0.6 mm,

- 70140392 4.25 mm functional length ①
- 70140393 4.5 mm functional length ①



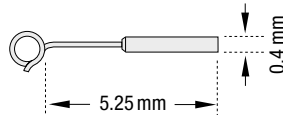
Developed with George Velegrakis, M.D., Heraklion Crete, Greece.



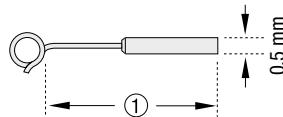
### Smart 360 Pistons

The SMart 360 piston is a completely encircling piston containing heat activated nitinol. MR conditional to 3T. Data on file.

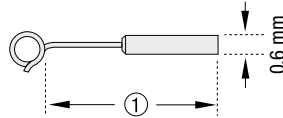
70143645 SMart 360 piston, nitinol/fluoroplastic, 0.4 mm piston diameter, 5.25 mm functional length



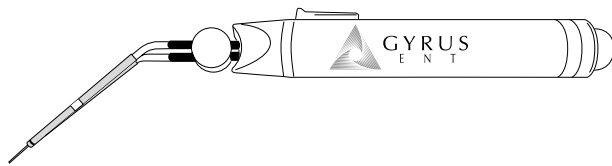
70143652 SMart 360 piston, nitinol/fluoroplastic, 0.5 mm piston diameter, 4.25 mm functional length ①  
70143655 4.50 mm functional length ①  
70143657 4.75 mm functional length ①



70143662 SMart 360 piston, nitinol/fluoroplastic, 0.6 mm piston diameter, 4.25 mm functional length ①  
70143665 4.50 mm functional length ①  
70143667 4.75 mm functional length ①



### Smart Piston Heating Device



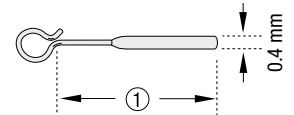
70131012 SMart thermal handle, with AA battery

70131013 SMart thermal tip and drape, 6 pcs.

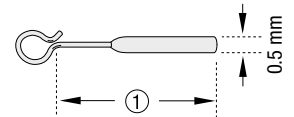
### Smart Pistons

For incus attachment. Piston wire safely and securely fashions itself around the long process when heat is applied, minimizing the potential for under-crimping or over-crimping.

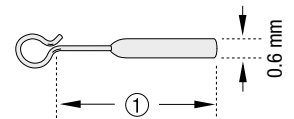
70142168 SMart piston, nitinol/fluoroplastic, 0.4 mm piston diameter, 3.5 – 5.25 mm functional length ①, trimmable



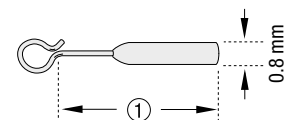
70145920 SMart piston, nitinol/fluoroplastic, 0.5 mm piston diameter, 3.75 mm functional length ①  
70145921 4 mm functional length ①  
70145922 4.25 mm functional length ①  
70145923 4.50 mm functional length ①  
70145924 4.75 mm functional length ①



70145925 SMart piston, nitinol/fluoroplastic, 0.6 mm piston diameter, 3.75 mm functional length ①  
70145926 4 mm functional length ①  
70145927 4.25 mm functional length ①  
70145928 4.50 mm functional length ①  
70145929 4.75 mm functional length ①



70145930 SMart piston, nitinol/fluoroplastic, 0.8 mm piston diameter, 3.75 mm functional length ①  
70145931 4 mm functional length ①  
70145932 4.25 mm functional length ①  
70145933 4.50 mm functional length ①  
70145934 4.75 mm functional length ①



## SMart De La Cruz Pistons

Shortened fluoroplastic shaft offers improved visibility during placement. Nitinol wire securely fashions around the incus when heat is applied.

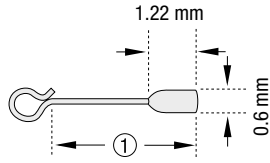
SMart De La Cruz piston,  
nitinol/fluoroplastic,  
0.6 mm piston diameter,

70142056 4 mm functional length ①

70142057 4.25 functional length ①

70142058 4.5 mm functional length ①

70142059 4.75 mm functional length ①



Designed for Antonio De La Cruz, M.D., Los Angeles, CA,  
USA

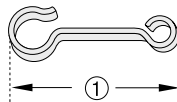


### Platinum Ribbon Loops

Platinum is well-tolerated by tissue. It is exceptionally malleable, retaining its formed shape without “spring-back”. Flattened band or “ribbon” permits a greater area contact point on the long process of the incus, lessening the possibility of point necrosis. There is also a wider contact point where the “ribbon” touches the incus.

Platinum ribbon loop,  
platinum,

140703	4 mm overall length ①
140704	4.25 mm overall length ①
140705	4.5 mm overall length ①
140706	4.75 mm overall length ①
140707	5 mm overall length ①
140708	5.25 mm overall length ①

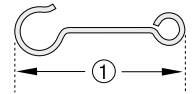


### Tantalum Wire Loops

A House-type wire loop made of tantalum, accepted for its property of being medically inert and its malleability, which permits a secure closing of the loop.

Tantalum wire loop,  
tantalum,  
0.13 mm wire diameter,  
4 mm overall length ①  
4.25 mm overall length ①

140721  
140722

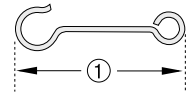


### House-Type Wire Loops

For incus attachment.

House-type wire loop,  
stainless steel,  
0.13 mm wire diameter,  
3 mm overall length ①  
3.25 mm overall length ①  
3.75 mm overall length ①  
4 mm overall length ①  
4.25 mm overall length ①  
4.5 mm overall length ①  
4.75 mm overall length ①  
5 mm overall length ①  
5.25 mm overall length ①  
5.75 mm overall length ①

140180  
140181  
140183  
140184  
140185  
140186  
140187  
140188  
140189  
140191

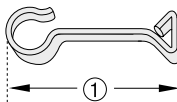


### Trapeze Ribbon Loops

Wide, flat base of the “trapeze” at the distal end of the loop provides greater contact area for improved position at the oval window. Flattened band or “ribbon” permits a greater area of contact point on the long process of the incus, lessening the possibility of point necrosis. There is also a wider contact point where the “ribbon” touches the graft.

Trapez ribbon loop,  
platinum,

140743	4.5 mm overall length ①
140744	4.75 mm overall length ①
140745	5 mm overall length ①



Designed for David Austin, M.D., Twin Falls, ID, USA

Designed by Howard P. House, M.D., Los Angeles, CA, USA

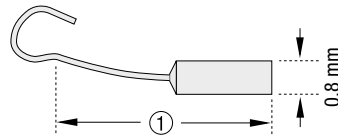


### Schuknecht Malleus Attached Pistons

Large, open hook for easy attachment  
Long curved wire for better angulation to oval window  
Available in two piston diameters.

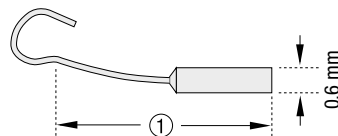
Schuknecht malleus attached piston,  
stainless steel/fluoroplastic,  
0.6 mm piston diameter,

- 140135-ENT 5.5 mm functional length ①
- 140136-ENT 5.75 mm functional length ①
- 140132-ENT 6 mm functional length ①



Schuknecht malleus attached piston,  
stainless steel/fluoroplastic,  
0.8 mm piston diameter,

- 140115-ENT 5.5 mm functional length ①
- 140116 5.75 mm functional length ①
- 140112-ENT 6 mm functional length ①
- 140113-ENT 6.25 mm functional length ①
- 140114-ENT 6.5 mm functional length ①



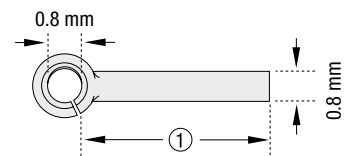
Designed by Harold F. Schuknecht, M.D., Boston, MA, USA

### Shea Malleus Attachment Pistons

This fluoroplastic piston has a large loop inner diameter to fit the incus. Opens with a pick for attachment; "plastic memory" provides secure closure.

Shea malleus attachment piston,  
fluoroplastic,

- 140432 0.8 mm piston diameter,  
0.8 mm loop inner diameter,  
4.5 mm functional length ①
- 140434 5 mm functional length ①



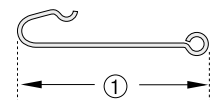
Designed for John J. Shea, M.D., Memphis, TN, USA

### Sheehy-Type Incus Replacement Struts

For malleus attachment using standard graft procedure in oval window.

Sheehy-type incus replacement struts,  
stainless steel,  
0.13 mm wire diameter,

- 140458 5 mm overall length ①
- 140460 5.5 mm overall length ①
- 140461 5.75 mm overall length ①
- 140462 6 mm overall length ①
- 140464 6.5 mm overall length ①
- 140465 6.75 mm overall length ①



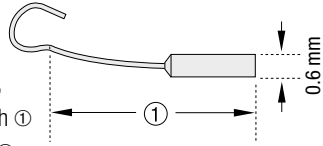
Designed for James L. Sheehy, M.D., and W. Hugh Powers, M.D., Los Angeles, CA., USA

## SMart Malleus

For Stapes revisions. Piston wire securely fashions itself around the malleus, minimizing the potential for over-crimping or under-crimping.

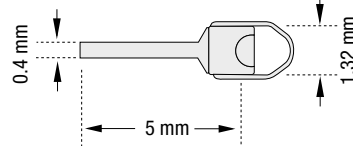
SMart malleus,  
fluoroplastic/nitinol,  
0.6 mm piston diameter,

- 70142037 5.5 mm functional length ①
- 70142038 6 mm functional length ①
- 70142039 6.5 mm functional length ①



## Cause Bucket Handle Prosthesis

70142140 Cause bucket handle prosthesis, fluoroplastic, 0.4 mm piston diameter, 1.32 mm well diameter, 5 mm functional length



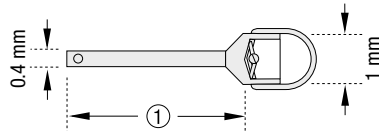
Developed with Jean-Bernard Causse, M.D., Béziers, France

## Lippy Modified Stapes Prostheses

Designed to be used when the lenticular process of the incus is missing. This modified prosthesis has a portion of the well removed, allowing the eroded long process to enter from the side.

Lippy modified stapes prosthesis, titanium, 0.4 mm piston diameter, 1 mm well diameter,

70142154 3.65 mm functional length ①  
 70142155 4.15 mm functional length ①  
 70142156 4.65 mm functional length ①  
 70142157 5.15 mm functional length ①



Designed by William N. Lippy, M.D., Warren, OH, USA

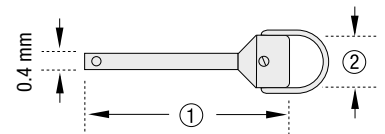
## Classic Stapes Prostheses

Equivalent to basic "Robinson"-type design.

① functional length  
 ② well diameter

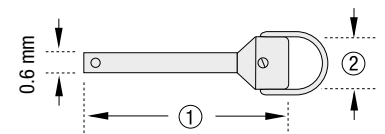
Classic stapes prosthesis, titanium, 0.4 mm piston diameter,

70142141 4 mm ①, 1 mm ②  
 70142142 4 mm ①, 0.9 mm ②  
 70142145 4.5 mm ①, 1 mm ②  
 70142146 4.5 mm ①, 0.9 mm ②  
 70142150 5 mm ①, 1 mm ②  
 70142151 5 mm ①, 0.9 mm ②



Classic stapes prosthesis, titanium, 0.6 mm piston diameter,

70142143 4 mm ①, 1 mm ②  
 70142144 4 mm ①, 0.9 mm ②  
 70142148 4.25 mm ①, 0.9 mm ②  
 70142147 4.5 mm ①, 1 mm ②  
 70142149 4.5 mm ①, 0.9 mm ②  
 70142152 5 mm ①, 1 mm ②  
 70142153 5 mm ①, 0.9 mm ②



## Richards Bucket Handle Titanium Prostheses

Titanium: A clinically proven piston design in a choice of well-tolerated material.

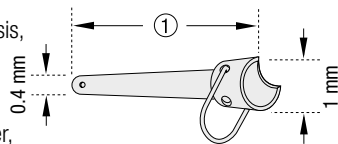
The opening in the “bucket” of the prosthesis is modified to allow the incus to assume its correct anatomical position minimizing the danger of pressure necrosis.

The bucket handle fits easily over the lenticular process eliminating any need for crimping and the postoperative chances of pressure necrosis.

The bucket handle prosthesis fits either the left or right ear. A hole in the posterior bucket allows for pick insertion to aid in positioning.

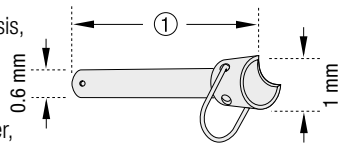
Two transaxial holes in the distal end of the prosthesis stem allow for tissue ingrowth to aid in the stabilization of the implant.

Bucket handle prosthesis,  
titanium,  
1 mm well diameter,  
0.4 mm piston diameter,



- 70142158 3.5 mm functional length ①
- 70142159 4 mm functional length ①
- 70142160 4.25 mm functional length ①
- 70142161 4.5 mm functional length ①
- 70142162 5 mm functional length ①

Bucket handle prosthesis,  
titanium,  
1 mm well diameter,  
0.6 mm piston diameter,



- 70142163 3.5 mm functional length ①
- 70142164 4 mm functional length ①
- 70142165 4.25 mm functional length ①
- 70142166 4.5 mm functional length ①
- 70142167 5 mm functional length ①

## Richards Bucket Handle Fluoroplastic Prostheses

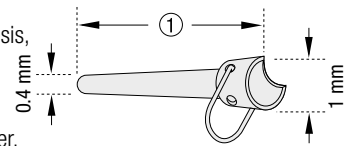
Fluoroplastic: A clinically proven piston design in a choice of well-tolerated material.

The opening of the “bucket” of the prosthesis is modified to allow the incus to assume its correct anatomical position minimizing the danger of pressure necrosis.

The bucket handle fits easily over the lenticular process eliminating any need for crimping and the postoperative chances of pressure necrosis.

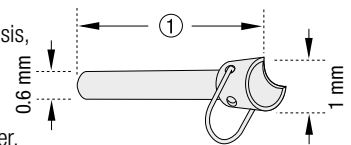
The Bucket Handle Prosthesis fits either the left or right ear. A hole in the posterior bucket allows for pick insertion to aid in positioning.

Bucket handle prosthesis,  
fluoroplastic,  
1 mm well diameter,  
0.4 mm piston diameter,



- 142148 3.5 mm functional length ①
- 142150 4 mm functional length ①
- 142152 4.5 mm functional length ①
- 142154 5 mm functional length ①

Bucket handle prosthesis,  
fluoroplastic,  
1 mm well diameter,  
0.6 mm piston diameter,



- 142132 3.5 mm functional length ①
- 142134 4 mm functional length ①
- 142136 4.5 mm functional length ①
- 142138 5 mm functional length ①

### Shea Cup Pistons

Reconstructing the sound-conducting mechanism of the middle ear with this precisely engineered fluoroplastic piston closely approximates the natural configuration of the ossicular chain with stable implant attachment in both the vertical and horizontal planes.

The unique "cupped" head accepts the lenticular process of the incus, directing the piston shaft downward at the proper angle to the oval window.

#### Shea Cup Pistons from Platinum/Fluoroplastic

The platinum arms are preformed to easily slip over the incus, and may be locked in place using only one hand with closing forceps.

Fits either left or right ear.

#### Shea Cup Pistons from Fluoroplastic

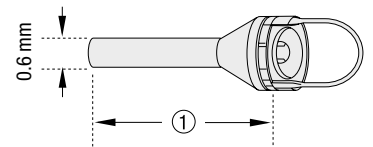
A special retaining loop behind the "cup" fits easily around the lower end of the incus to maintain the prosthesis securely in place.

Available for the left and for the right ear.

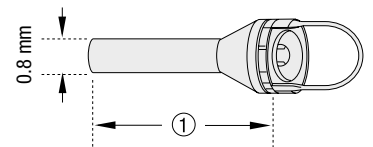
Designed for John J. Shea, M.D., Memphis, TN, USA

### Shea Cup Pistons from Platinum/Fluoroplastic

Shea cup piston,  
platinum/fluoroplastic,  
0.6 mm piston diameter,  
3.75 mm functional length ①  
140635  
4 mm functional length ①  
140636  
4.25 mm functional length ①  
140637  
4.5 mm functional length ①  
140638  
4.75 mm functional length ①  
140639  
5 mm functional length ①  
140640



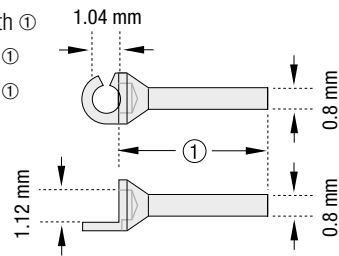
140648  
Shea cup piston,  
platinum/fluoroplastic,  
0.8 mm piston diameter,  
5 mm functional length ①



## Shea Cup Pistons from Fluoroplastic (Left)

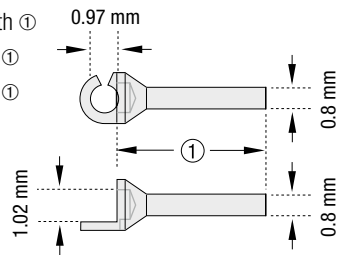
Shea cup piston,  
for the left ear,  
fluoroplastic,  
0.8 mm piston diameter,  
1.04 mm loop inner diameter,  
1.12 mm cup inner diameter,  
4 mm functional length ①  
4.5 mm functional length ①  
5 mm functional length ①  
6 mm functional length ①

140415  
140416  
140417  
140418



Shea cup piston,  
for the left ear,  
fluoroplastic,  
0.8 mm piston diameter,  
0.97 mm loop inner diameter,  
1.02 mm cup inner diameter,  
4 mm functional length ①  
4.5 mm functional length ①  
5 mm functional length ①  
6 mm functional length ①

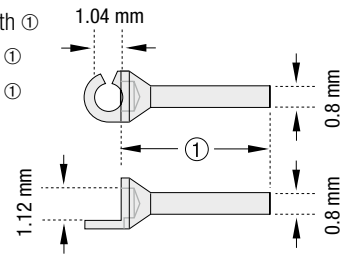
140410  
140411  
140412  
140413



## Shea Cup Pistons from Fluoroplastic (Right)

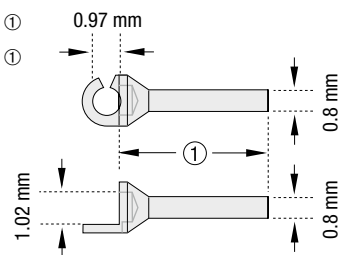
Shea cup piston,  
for the right ear,  
fluoroplastic,  
0.8 mm piston diameter,  
1.04 mm loop inner diameter,  
1.12 mm cup inner diameter,  
4 mm functional length ①  
4.5 mm functional length ①  
5 mm functional length ①  
6 mm functional length ①

140425  
140426  
140427  
140428



Shea cup piston,  
for the right ear,  
fluoroplastic,  
0.8 mm piston diameter,  
0.97 mm loop inner diameter,  
1.02 mm cup inner diameter,  
4 mm functional length ①  
4.5 mm functional length ①  
5 mm functional length ①  
6 mm functional length ①

140420  
140421  
140422  
140423





VoCoM  
Vocal Cord Medialization

497





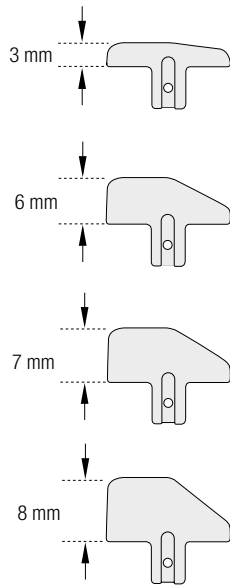
The VoCoM vocal cord medialization system is a prefabricated implant system for unilateral vocal cord paralysis.

The VoCoM system consists of three elements.

- **Implants:**  
Prefabricated hydroxylapatite, offering 3, 4, 5, 6, 7, or 8 mm displacement.
- **Shims:**  
Also from dense hydroxylapatite, allowing flexibility of implant positioning within the window.
- **Instruments:**  
Reusable patterns for window sizing, fenestra creation, implant selection, and implant insertion.

## VoCoM Implants

	VoCoM implant, sterile, dense hydroxylapatite,
143000	3 mm height
143003	6 mm height
143008	7 mm height
70143019	8 mm height



## VoCoM Instrument Set

According to Charles W. Cummings, M.D.,  
Paul Flint, M.D., Charles Ford, M.D.

Delivery includes:

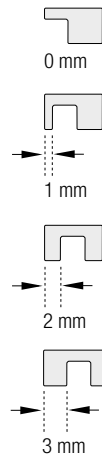
Sterilization case 134007 and one of each instruments  
134000, 134001, 134002, 134003, 134004, 134005,  
134008, 70134009, 70134011

134007

VoCoM instrument sterilization case  
(not shown)

## VoCoM Shims

	VoCoM shim, sterile, dense hydroxylapatite,
143007	0 mm offset
143004	1 mm offset
143005	2 mm offset
143006	3 mm offset



#### VoCoM Instruments

134004 Fenestra template,  
ebony finish



134005 Perichondrium elevator,  
overall length 187.5 mm,  
glass bead



70134009 Implant inserter,  
grip tip,  
matte finish



#### VoCoM Trials

134001 Trial,  
ebony finish,  
4 mm



134002 Trial,  
ebony finish,  
5 mm



134003 Trial,  
ebony finish,  
6 mm



134008 Trial,  
ebony finish,  
7 mm



70134011 Trial,  
ebony finish,  
8 mm





## VENTILATION TUBES

A	503
B, C	505
D, F, J	507
L, M	509
P	511
R	513
Sh	515
Sp-Su	517
T, V	519

## MYRINGOTOMY ACCESSORIES

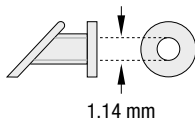
Tube Inserters Myringotomy Kits and Suction Tubes	521
Myringotomy Knives Handles and Blades	523
Myringotomy Knives and Tympanoplasty Blades	525





## Armstrong Beveled Grommets #1

- Beveled inner flange corresponds to the angle of the tympanic membrane.
- Resists premature extrusion.



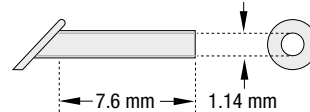
Armstrong beveled grommets #1,  
1.14 mm inner diameter,

140242-ENT	fluoroplastic, 6 pcs.
145700	fluoroplastic, 60 pcs., in twin packs
70145061	blue fluoroplastic, 6 pcs.
70143061	blue fluoroplastic, 30 pcs.
70145761	blue fluoroplastic, 60 pcs., in twin packs
70140267	pc coated fluoroplastic, 6 pcs.
70143067	pc coated fluoroplastic, 30 pcs.
70146067	pc coated fluoroplastic, 60 pcs., in twin packs

Designed by B.W. Armstrong, M.D., Charlotte, NC, USA

## Armstrong Beveled Plain End Ventilation Tubes

- Beveled inner flange corresponds to the angle of the tympanic membrane.
- Resists premature extrusion.



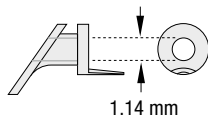
Armstrong beveled plain end ventilation tubes,  
1.14 mm inner diameter,  
7.6 mm length,

140244-ENT	fluoroplastic, 6 pcs.
145706	fluoroplastic, 60 pcs., in twin packs
240052	blue silicone, 6 pcs.
70241052	blue Ultrasil silicone, 6 pcs.
70140345	pc coated fluoroplastic, 6 pcs.
70140346	pc coated fluoroplastic, 30 pcs.
70140347	pc coated fluoroplastic, 60 pcs., in twin packs

Designed by B.W. Armstrong, M.D., Charlotte, NC, USA

## Armstrong Beveled Grommets #2

- Beveled inner flange corresponds to the angle of the tympanic membrane.
- Resists premature extrusion.
- Tab permits easy removal.



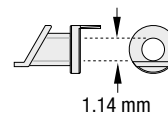
Armstrong beveled grommets #2,  
with tab,  
1.14 mm inner diameter,

240050	blue silicone, 6 pcs.
70241050	blue Ultrasil silicone, 6 pcs.
70241350	blue Ultrasil silicone, 30 pcs.
70245755	blue Ultrasil silicone, 60 pcs., in twin packs

Designed by B.W. Armstrong, M.D., Charlotte, NC, USA

## Armstrong V Beveled Grommets

- The Armstrong V grouping of ventilation tubes provides easy insertion and clear visualization of the incision.
- All tubes are blue, in color, and are PacifiC coated to help prevent biofilm formation.



Armstrong V beveled grommets,  
1.14 mm inner diameter,

70140395	pc coated fluoroplastic, 6 pcs.
70140396	pc coated fluoroplastic, 30 pcs.
70140397	pc coated fluoroplastic, 60 pcs., in twin packs

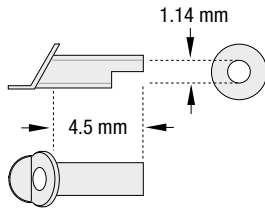
Designed by B.W. Armstrong, M.D., Charlotte, NC, USA

## Armstrong V Straight Ventilation Tubes

- The Armstrong V grouping of ventilation tubes provides easy insertion and clear visualization of the incision.
- All tubes are blue, in color, and are PacifiC coated to help prevent biofilm formation.

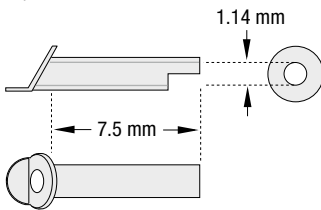
Armstrong V straight ventilation tubes,  
1.14 mm inner diameter,  
4.5 mm length,  
pc coated fluoroplastic,  
6 pcs.

70140398



Armstrong V straight ventilation tubes,  
1.14 mm inner diameter,  
7.5 mm length,  
pc coated fluoroplastic,  
6 pcs.

70140401



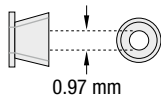
Designed by B.W. Armstrong, M.D., Charlotte, NC, USA

## Baxter Beveled Bobbin

- Designed to enhance retention and aeration.
- The tapered lumen assists the surgeon in cleaning if necessary.

Baxter beveled bobbins,  
0.97 mm inner diameter,  
pc coated blue fluoroplastic,  
6 pcs.

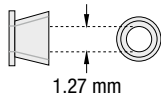
70140271



Baxter beveled bobbins,  
1.27 mm inner diameter,  
pc coated blue fluoroplastic,  
6 pcs.

70140270

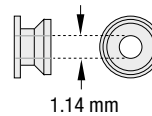
70140274 60 pcs., in twin packs



Designed by Dave Baxter, R.N., Boston, MA, USA

## Bevel Bobbin Ventilation Tubes

70143257 Bevel Bobbin ventilation tubes,  
1.14 mm inner diameter,  
blue fluoroplastic,  
6 pcs.



## Berger "V" Bobbin Ventilation Tubes

- Designed to help reduce the possibility of lumen clogging.
- Hourglass-shaped lumen widens on both sides of the tympanic membrane to shorten the interflange dimension. This helps to reduce the accumulation of residual draining, minimizing the potential for lumen clogging.
- "V"-shape facilitates insertion. Features Gyrus ENT's exclusive MICRON finish.

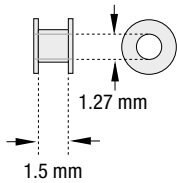
145282 Berger "V" Bobbin ventilation tubes,  
1.27 mm inner diameter,  
titanium,  
6 pcs.



Designed by Eric S. Berger, M.D., Aberdeen, WA.  
US Patent No. 4,080,171

## Collar Button Ventilation Tubes

- A “collar button” shaped ventilation tube for treatment of chronic, serious otitis media.

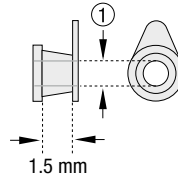


Collar button ventilation tubes,  
1.27 mm inner diameter,  
1.5 mm inner flange,

145214-ENT	fluoroplastic, 6 pcs.
145217-ENT	fluoroplastic, 6 pcs., with wire
145004-ENT	fluoroplastic, 30 pcs.
145705	fluoroplastic, 60 pcs., in twin packs
70145062	blue fluoroplastic, 6 pcs.
70145060	blue fluoroplastic, 60 pcs., in twin packs
70145314	pc coated fluoroplastic, 6 pcs.
70145316	pc coated fluoroplastic, 30 pcs.
70145317	pc coated fluoroplastic, 60 pcs., in twin packs
240014	blue silicone, 6 pcs.
70241014	blue Ultrasil silicone, 6 pcs.
70241314	blue Ultrasil silicone, 30 pcs.
70241060	blue Ultrasil silicone, 60 pcs., in twin packs

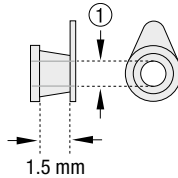
## Collar Bobbin Ventilation Tubes

- Unique thicker collar permits grasping from different angles while the tapered lumen resists clogging with a minimal incision of the tympanic membrane.



Collar Bobbin ventilation tubes,  
1.5 mm inner flange,  
titanium,  
6 pcs.,

145287	1.14 mm inner diameter ①
145297	1.27 mm inner diameter ①

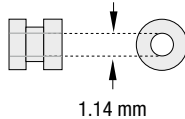


Collar Bobbin ventilation tubes,  
1.5 mm inner flange,  
fluoroplastic,  
6 pcs.,

145288	0.75 mm inner diameter ①
145289	1.14 mm inner diameter ①
145298	1.27 mm inner diameter ①

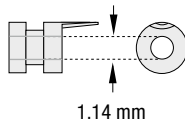
## Donaldson Ventilation Tubes

- Flanges resist migration and extrusion.
- Large lumen promotes good ventilation.



Donaldson ventilation tubes,  
1.14 mm inner diameter,

146043	fluoroplastic, 60 pcs.
240015	blue silicone, 6 pcs.
245702	blue silicone, 60 pcs., in twin packs
240060	blue soft silicone, 6 pcs.
70241015	blue Ultrasil silicone, 6 pcs.

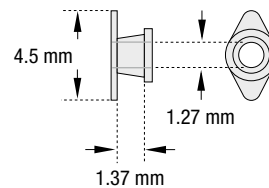


Donaldson ventilation tubes,  
with tab,

240016	blue silicone, 6 pcs.
70245012	blue silicone, 30 pcs.

## DuraVent Tubes

- Designed for long-term ventilation, the DuraVent combines a tapered lumen for increased ventilation with thin tapered flanges providing reduced mass behind the tympanic membrane.
- The thin, collapsible flanges allow easier insertion and removal with no special instrumentation requirements.



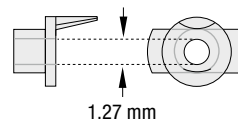
DuraVent tubes,  
1.27 mm inner diameter,  
1.37 mm inner flange,  
4.5 mm width,

240075	blue silicone, 6 pcs.
245775	blue silicone, 60 pcs., in twin packs
70241075	blue Ultrasil silicone, 6 pcs.
70241375	blue Ultrasil silicone, 30 pcs.

As developed in conjunction with Bruce Black, M.D.,  
Brisbane, Australia.

## Dutcher Ventilation Tubes with Tab

70240054	Dutcher ventilation tubes, with tab, 1.27 mm inner diameter, 4.3 mm medial flange, 3 mm internal flange, blue Ultrasil silicone, 6 pcs.
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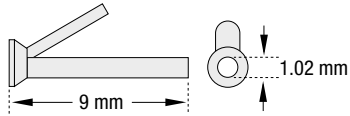


Designed for Paul Dutcher, M.D., Rochester, NY., USA

## Feuerstein Split Ventilation Tube

- Resists both extrusion and migration.

140248-ENT Feuerstein split ventilation tube,  
1.02 mm inner diameter,  
9 mm length,  
fluoroplastic,  
6 pcs.

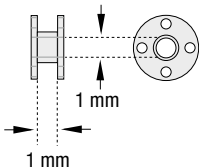


Designed for Sidney S. Feuerstein, M.D, New York, NY., USA

## Fluoroplastic/Titanium Ventilation Tubes

- Combines the advantages of biocompatible titanium and “clog” resistant properties of fluoroplastic.
- The tube features a fluoroplastic lumen insert and medial flange resists clogging.
- Only titanium contacts the tympanic membrane.
- Ideal for long-term ventilation.

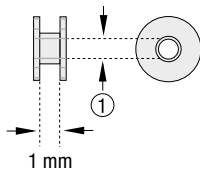
145220-ENT Fluoroplastic/titanium ventilation tubes,  
1 mm inner flange,  
1 mm inner diameter,  
with flange holes,  
fluoroplastic/titanium,  
6 pcs.



Fluoroplastic/titanium ventilation tubes,  
1 mm inner flange,  
fluoroplastic/titanium,  
6 pcs.,

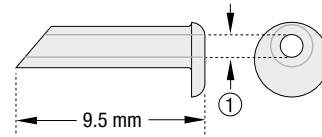
145271-ENT 1.27 mm inner diameter ①

145272-ENT 1.5 mm inner diameter ①



## Jahn HydroxylVent Tubes

- Highly biocompatible dense hydroxylapatite tube designed for subannular placement.
- Intended for use only when long-term ventilation is indicated.



Jahn HydroxylVent tubes,  
9.5 mm overall length,  
hydroxylapatite,  
6 pcs.,

140906 1 mm inner diameter ①

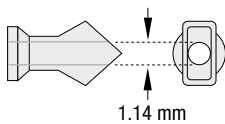
140926 1.27 mm inner diameter ①

Designed by Anthony F. Jahn, M.D., Newark, NJ., USA

## Lindeman-Silverstein Arrow Ventilation Tube

- Designed to be rotated after insertion to lock in place.

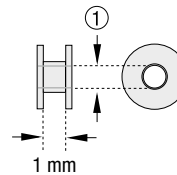
140240-ENT Lindeman-Silverstein arrow ventilation tube,  
1.14 mm inner diameter,  
fluoroplastic,  
6 pcs.



Designed for Roger Lindeman, M.D., Seattle, WA and Herbert Silverstein, M.D., Sarasota, FL., USA

## Micron Bobbin Ventilation Tubes

- Two standard bobbin designed titanium tubes featuring Gyrus ENT's exclusive MICRON finish that provides the necessary ultra-smoothness without the glare or reflection of ordinary polished finishes.
- The smooth finish of the lumen surface reduces the potential for clogging and unwanted tissue ingrowth.
- Design and biocompatibility of this tube make it well-suited for long-term ventilation.

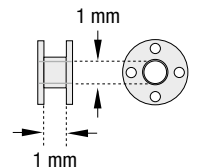


Micron Bobbin ventilation tubes,  
no flange holes, titanium,  
1 mm inner flange,

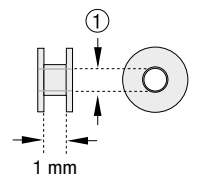
145221-ENT 0.76 mm inner diameter ①, 6 pcs.  
145280-ENT 1 mm inner diameter ①, 6 pcs.  
145279 1.14 mm inner diameter ①, 6 pcs.  
145281-ENT 1.27 mm inner diameter ①, 6 pcs.  
145781 1.27 mm inner diameter ①, 60 pcs., in twin packs

145273-ENT Micron Bobbin ventilation tubes (not shown),  
with spoon flange,  
1 mm inner flange,  
1.27 mm inner diameter,  
titanium, 6 pcs.

145215-ENT Micron Bobbin ventilation tubes,  
1 mm inner flange,  
1 mm inner diameter,  
titanium, 6 pcs.,  
with flange holes



70145381 Micron Bobbin ventilation tubes,  
no flange holes,  
blue titanium,  
1 mm inner flange,  
1.27 mm inner diameter, 6 pcs.



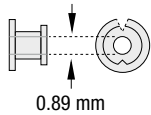
U.S. Patent No. 4,744,792

## Mini-Reversible Ventilation Tube

- This ventilation tube is characterized by its reversible insertion feature. The tube is notched on both flanges, in a style similar to Paparella-type tubes, for atraumatic insertion.
- The small flange (1.78 mm) may be inserted in the tympanic membrane to encourage early extrusion.
- When longer term ventilation is desired, the larger flange (2.16 mm) may be inserted to help delay extrusion.
- Each "V" notch is positioned 180° from the other to help the surgeon conceptualize the location of the inserted flange and notch behind the tympanic membrane.

240042

Mini-reversible ventilation tube,  
0.89 mm inner diameter,  
silicone,  
6 pcs.

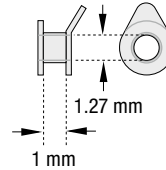


Designed for Burton J. Cohen, M.D., Louisville, KY., USA

## Moretz-Type Ventilation Tubes

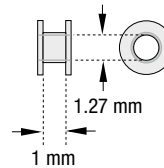
- Familiar bobbin-style ventilation tube is enhanced with an angled lateral tab.
- The angled tab not only provides an improved grasp with alligator forceps, but also improved visualization during insertion procedure.

145265-ENT Moretz-type ventilation tubes,  
angled tab,  
1.27 mm inner diameter,  
1 mm inner flange,  
titanium, 6 pcs.

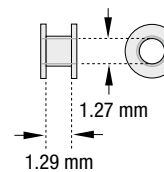


Moretz-type ventilation tubes,  
1.27 mm inner diameter,  
1 mm inner flange,  
blue polyethylene,  
6 pcs.

70145498



70142043 Moretz-type ventilation tubes,  
1.27 mm inner diameter,  
1.29 mm inner flange,  
pc coated fluoroplastic,  
6 pcs.



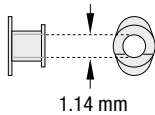
As developed by William Moretz, M.D., Augusta, GA., USA





## Paparella 2000 Ventilation Tubes

- This tube has been designed for moderate to long-term ventilation using the proven "T" flange.
- The lateral aspect of one of the medial wings has been notched to cradle the long arm of the malleus, giving the tube added stability and retention.
- The tabbed lateral flange helps in insertion and easy removal.
- The choice of silicone or soft silicone Ultrasil gives the surgeon more flexibility in choosing just the right tube.

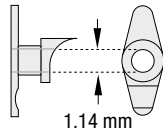


Paparella 2000 – Type 1 ventilation tubes, without tab,

1.14 mm inner diameter,

- 70140257 blue soft silicone Ultrasil, 6 pcs.  
 70140357 blue soft silicone Ultrasil, 30 pcs.  
 70145757 blue soft silicone Ultrasil, 60 pcs., in twin packs

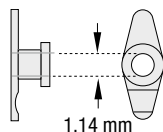
- 70140256 Paparella 2000 – Type 2 ventilation tubes, with tab,  
 1.14 mm inner diameter,  
 blue soft silicone Ultrasil, with tab, 6 pcs.



Paparella 2000 – Type 2 ventilation tubes, without tab,

1.14 mm inner diameter,

- 70241356 blue soft silicone Ultrasil, 30 pcs.

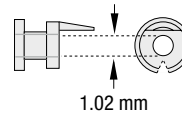
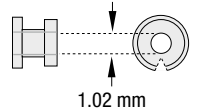


Designed for Michael Paparella, M.D., Minneapolis, MN., USA

## Paparella-Type Ventilation Tubes, Type #1

- Notched inner flange for "twist-in" insertion.
- Very stable for long-term implantation.

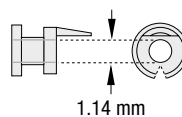
- 240043 Paparella-type – Type #1 ventilation tubes, without tab,  
 1.02 mm inner diameter,  
 blue silicone, 6 pcs.



Paparella-type – Type #1 ventilation tubes, with tab,

1.02 mm inner diameter,

- 140252-ENT fluoroplastic, 6 pcs.  
 240044 blue silicone, 6 pcs.  
 70245016 blue silicone, 30 pcs.  
 245701 blue silicone, 60 pcs., in twin packs  
 240058 blue soft silicone, 6 pcs.  
 70241044 blue Ultrasil silicone, 6 pcs.  
 70241344 blue Ultrasil silicone, 30 pcs.



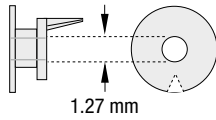
Paparella-type – Type #1 ventilation tubes, with tab,

1.14 mm inner diameter,

- 70140280 blue silicone, 6 pcs.  
 70240280 blue Ultrasil silicone, 6 pcs.  
 70240281 blue Ultrasil silicone, 30 pcs.  
 70240282 blue Ultrasil silicone, 60 pcs., in twin packs  
 70140281 blue Ultrasil soft silicone, 6 pcs.  
 70241380 blue Ultrasil soft silicone, 30 pcs.  
 70245780 blue Ultrasil soft silicone, 60 pcs., in twin packs

Designed for Michael Paparella, M.D., Minneapolis, MN., USA

## Paparella-Type Ventilation Tubes, Type #2



Paparella-type – Type #2 ventilation tubes,  
with tab,

1.27 mm inner diameter,

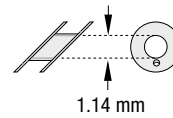
140254-ENT	fluoroplastic, 6 pcs.
240046	blue silicone, 6 pcs.
70243046	blue silicone, 30 pcs.
70241046	blue Ultrasil silicone, 6 pcs.

Designed for Michael Paparella, M.D., Minneapolis, MN., USA

## Pope Beveled Grommet Ventilation Tubes

This ventilation tube offers advantages during insertion and for postoperative inspection.

- Easily introduced with alligator forceps, the grommet will pass through a very small speculum.
- The elongated flanges and length of the tube help to prevent premature extrusion. The 45° bevel on the flange approximates the angle of the tympanic membrane, allowing the physician to see straight through the lumen.
- Such problems as fluid reoccurrence and plugging of the lumen are easily recognized and corrected.
- The good visibility also makes postoperative evaluation of middle ear aeration much easier.



Pope beveled grommet ventilation tubes,  
blue,

1.14 mm inner diameter,

145250-ENT	polyethylene, 6 pcs.
70143250	polyethylene, 30 pcs.
70145750	polyethylene, 60 pcs., in twin packs
70142047	PC fluoroplastic, 6 pcs.

Designed for T.H. Pope, Indianapolis, IN., USA

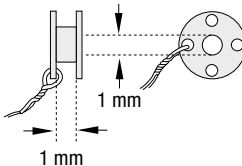
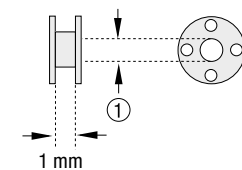
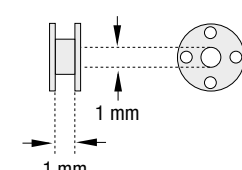


## Reuter Bobbin Ventilation Tubes

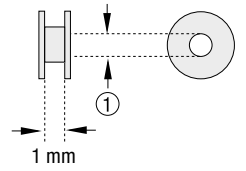
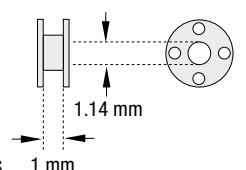
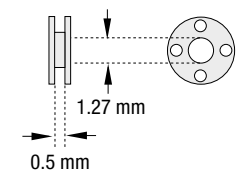
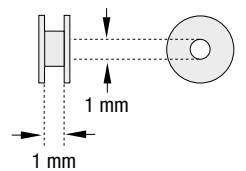
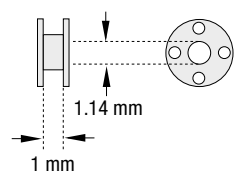
- The Reuter Bobbin Tube features a wide flange to help resist extrusion.
- Large lumen diameters for long-term ventilation available in various sizes, styles, and materials.

Designed for S. Harold Reuter, M.D., Houston, TX., USA

## Reuter Bobbin Ventilation Tubes (Metal)

<p>145211-ENT</p>	<p>Reuter bobbin ventilation tubes, with wire, 1 mm inner flange, 1 mm inner diameter, stainless steel, 6 pcs.</p>	
<p>145208-ENT 145209-ENT</p>	<p>Reuter bobbin ventilation tubes, 1 mm inner flange, stainless steel, 6 pcs., 1.14 mm inner diameter ① 1.27 mm inner diameter ①</p>	
<p>145210-ENT 145701 145218-ENT 145215-ENT</p>	<p>Reuter bobbin ventilation tubes, 1 mm inner flange, 1 mm inner diameter, stainless steel, 6 pcs. stainless steel, 60 pcs., in twin packs stainless steel (satin finish), 6 pcs. titanium (Micron finish), 6 pcs.</p>	

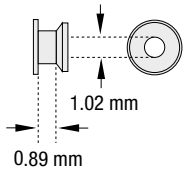
## Reuter Bobbin Ventilation Tubes (Fluoroplastic)

<p>145212-ENT 145213-ENT</p>	<p>Reuter bobbin ventilation tubes, without holes, 1 mm inner flange, fluoroplastic, 6 pcs., 1 mm inner diameter ① 1.14 mm inner diameter ①</p>	
<p>145225-ENT 145019-ENT 145710</p>	<p>Reuter bobbin ventilation tubes, 1 mm inner flange, 1.14 mm inner diameter, fluoroplastic, 6 pcs. fluoroplastic, 30 pcs., without holes fluoroplastic, 60 pcs., in twin packs</p>	
<p>145227-ENT</p>	<p>Reuter bobbin ventilation tubes, 0.5 mm inner flange, 1.27 mm inner diameter, fluoroplastic, 6 pcs.</p>	
<p>145709 70143255 70145319 70145320</p>	<p>Reuter bobbin ventilation tubes, without holes, 1 mm inner flange, 1 mm inner diameter, fluoroplastic, 6 pcs. blue fluoroplastic, 6 pcs. pc coated fluoroplastic, 6 pcs. pc coated fluoroplastic, 30 pcs.</p>	
<p>70145326 70145327 70145328</p>	<p>Reuter bobbin ventilation tubes, 1 mm inner flange, 1.14 mm inner diameter, pc coated fluoroplastic, 6 pcs. pc coated fluoroplastic, 30 pcs. pc coated fluoroplastic, 60 pcs., in twin packs</p>	

## Rock Pediatric Ventilation Tube

- A simple, short-term fluoroplastic “bobbin” tube for children.
- The larger flange 2.41 mm (0.095”) diameter is inserted through an incision in the tympanic membrane.

140086 Rock pediatric ventilation tube,  
1.02 mm inner diameter,  
0.89 mm inner flange,  
fluoroplastic, 6 pcs.



Designed for Erwin H. Rock, M.D., Yonkers, NY, USA

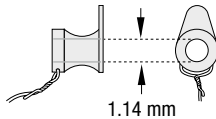
## Shah Ventilation Tubes

- “Shoehorn” flange enables smaller incision and easy insertion.

Shah ventilation tubes,  
with wire,  
1.14 mm inner diameter,  
fluoroplastic, 6 pcs.

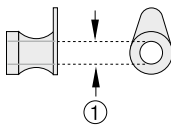
140005

145015-ENT fluoroplastic, 30 pcs.



Shah ventilation tubes,  
without wire,  
fluoroplastic,

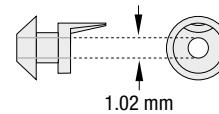
146044 1.14 mm inner diameter ①, 6 pcs.  
145001-ENT 1.14 mm inner diameter ①, 30 pcs.  
142230 0.76 mm inner diameter ①, 6 pcs.  
145020 0.76 mm inner diameter ①, 30 pcs.



Designed for Mr. N. Shah, F.R.C.S., D.L.O., London, England.

## Shea Parasol Ventilation Tubes

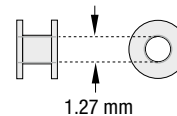
- Unique design of the collapsible “umbrella” allows easy insertion.
- The umbrella opens when placed through the incision.
- A simple pull on the removal tab inverts the umbrella for easy removal.



Shea parasol ventilation tubes,  
with tab,  
1.02 mm inner diameter,

240035 blue silicone, 6 pcs., small flange  
240036 blue silicone, 6 pcs.  
245703 blue silicone, 6 pcs., in twin packs  
70241036 blue Ultrasil silicone, 6 pcs.

## Sheehy Type Collar Button



Sheehy type collar button,  
1.27 mm inner diameter,

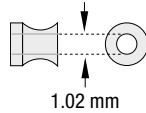
70145971 fluoroplastic, 6 pcs.  
70143071 fluoroplastic, 30 pcs.  
70145771 fluoroplastic, 60 pcs., in twin packs  
70141080 pc coated fluoroplastic, 6 pcs.  
70145780 pc coated fluoroplastic, 60 pcs., in twin packs  
70245781 blue silicone, 6 pcs.  
70245782 blue silicone, 60 pcs., in twin packs  
70241000 blue Ultrasil silicone, 6 pcs.  
70241001 blue Ultrasil silicone, 60 pcs., in twin packs

## Shepard Grommet Ventilation Tubes (1.02 mm)

- Various styles, colors, and sizes available.
- All are easily inserted with forceps or tube inserter through incision in drum.

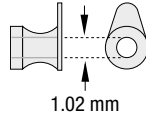
Shepard grommet ventilation tubes,  
1.02 mm inner diameter,

140029 fluoroplastic, 6 pcs.  
70141030 fluoroplastic, 6 pcs.  
70141031 fluoroplastic, 30 pcs.  
145002-ENT fluoroplastic, 30 pcs.  
145711 fluoroplastic, 60 pcs., in twin packs  
70141032 fluoroplastic, 60 pcs., in twin packs  
70241020 blue Ultrasil silicone, 6 pcs.



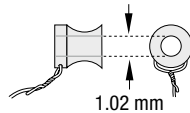
Shepard grommet ventilation tubes,  
with tab,  
1.02 mm inner diameter,

140007 fluoroplastic, 6 pcs.  
240020 blue silicone, 6 pcs.  
70245008 blue silicone, 30 pcs.



Shepard grommet ventilation tubes,  
with wire,  
1.02 mm inner diameter,

140028 fluoroplastic, 6 pcs.  
145009 fluoroplastic, 30 pcs.  
145702 fluoroplastic, 60 pcs., in twin packs

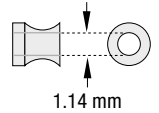


## Shepard Grommet Ventilation Tubes (1.14 mm)

- Various styles, colors, and sizes available.
- All are easily inserted with forceps or tube inserter through incision in drum.

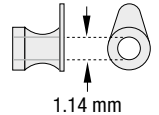
Shepard grommet ventilation tubes,  
1.14 mm inner diameter,

140027 fluoroplastic, 6 pcs.  
145003-ENT fluoroplastic, 30 pcs.  
70143256 blue fluoroplastic, 6 pcs.



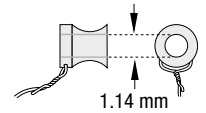
Shepard grommet ventilation tubes,  
with tab,  
1.14 mm inner diameter,

140008 fluoroplastic, 6 pcs.  
146031 blue polyethylene, 6 pcs.



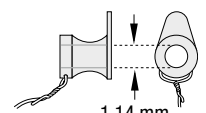
Shepard grommet ventilation tubes,  
with wire,  
1.14 mm inner diameter,

140030 fluoroplastic, 6 pcs.



Shepard grommet ventilation tubes,  
fluoroplastic,  
with tab and wire,  
1.14 mm inner diameter,

145010-ENT fluoroplastic, 30 pcs.  
146030 blue polyethylene, 6 pcs.



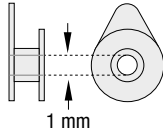
Designed for Marvin G. Shepard, M.D., Dallas, TX, USA



## Spoon Bobbin Ventilation Tubes

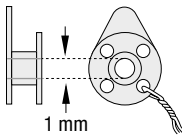
- This is the popular bobbin-style ventilation tube with the addition of an insertion flange.
- The spoon-shaped flange, inserted through the incision first, eases introduction and positioning of the tube.

70145224 Spoon bobbin ventilation tubes, without wire, without holes, 1 mm inner diameter, fluoroplastic, 12 pcs.

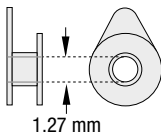


Spoon bobbin ventilation tubes, 1 mm inner diameter, stainless steel, 6 pcs., without wire

145240-ENT



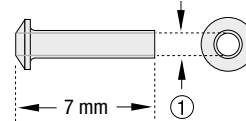
145273-ENT Spoon bobbin ventilation tubes, with wire, without holes, 1.27 mm inner diameter, titanium, 6 pcs.



Designed for Baldev K. Devgan, M.D., Malibu, CA, USA

## Straight Ventilation Tubes

- Small flange for easy insertion through small incision in the drum.
- May be cut to length.



140016 Straight ventilation tubes, 0.86 mm inner diameter ①, 7 mm overall length, clear polyethylene, 6 pcs.

140034 Straight ventilation tubes, 0.89 mm inner diameter ①, 7 mm overall length, fluoroplastic, 6 pcs.

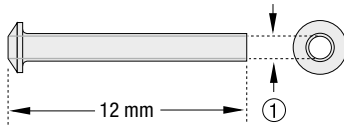
145707 fluoroplastic, 60 pcs., in twin packs  
70141035 pc coated fluoroplastic, 6 pcs.  
70141036 pc coated fluoroplastic, 30 pcs.

140035 Straight ventilation tubes, 1.14 mm inner diameter ①, 7 mm overall length, fluoroplastic, 6 pcs.

145708 fluoroplastic, 60 pcs., in twin packs  
70141039 pc coated fluoroplastic, 6 pcs.

## 12 mm Straight Ventilation Tubes

- Small flange for easy insertion through small incision in the drum.
- May be cut to length.

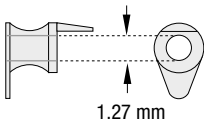


140032 Straight ventilation tubes,  
0.89 mm inner diameter ①,  
12 mm overall length,  
fluoroplastic, 6 pcs.

140033 Straight ventilation tubes,  
1.14 mm inner diameter ①,  
12 mm overall length,  
fluoroplastic, 6 pcs.

## Sultan Ventilation Tubes

- “Shoehorn” flange permits easy insertion into a smaller incision.
- Integral tab for removal.



Sultan ventilation tubes,  
with tab,  
1.27 mm inner diameter,

145230-ENT fluoroplastic, 6 pcs.

145005-ENT fluoroplastic, 30 pcs.

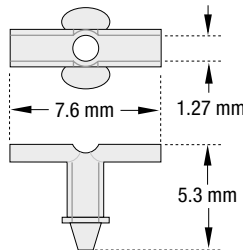
Designed for Andre A. Sultan, M.D., France



## T-Tubes, Butterfly

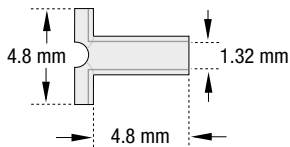
- This modified T-tube design is for the surgeon who prefers a grommet-style flange on the lateral end.
- The grommet is notched in a “butterfly” shape for added visibility during insertion.
- The flexible medial flanges are easily inserted through a small incision and permit long-term ventilation.
- The lumen features an 11% larger inner diameter than the standard T-Tube.

T-tubes, butterfly,  
blue silicone,  
1.27 inner diameter,  
blue silicone, 6 pcs.  
240073  
70245018 blue silicone, 30 pcs.  
70241073 blue Ultrasil silicone, 6 pcs.



## T-Tubes, Modified

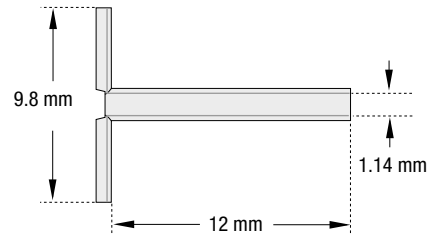
- This modification of the Gyrus ENT T-tube features shorter flanges to lessen the possibility of trauma to the tympanic membrane.
- Overall length is also reduced to eliminate need for trimming.
- The inner diameter has been increased to facilitate ventilation with less clogging.
- The outer diameter is the same as the original design.



T-Tubes, modified,  
1.32 mm inner diameter,  
blue silicone, 6 pcs.  
240072  
70245017 blue silicone, 30 pcs.  
245704 blue silicone, 60 pcs., in twin packs  
240074 blue soft silicone, 6 pcs.  
70241072 blue Ultrasil silicone, 6 pcs.

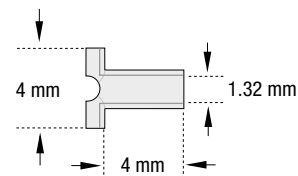
## T-Tubes, Richards

- Richards T-tubes offer the surgeon a long-term ventilation tube that is easily inserted through a smaller incision and is designed to remain firmly positioned in the tympanic membrane.
- Because the T-tube is designed with a long shaft and flexible flanges, it is easily extracted.
- The T-Tube is made of blue silicone and is easily trimmed to adapt to the surgeon's needs.



T-tubes, Richards,  
1.14 mm inner diameter,  
blue silicone, 6 pcs.  
240071  
70245014 blue silicone, 30 pcs.  
245706 blue silicone, 60 pcs., in twin packs  
240059 blue soft silicone, 6 pcs.  
70241071 blue Ultrasil silicone, 6 pcs.

## T-Tubes, Tiny



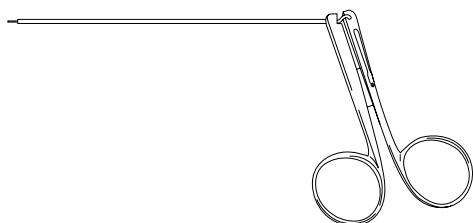
T-tubes, tiny,  
1.32 mm inner diameter,  
blue silicone, 6 pcs.  
70240076  
70241076 blue Ultrasil silicone, 6 pcs.



#### Morgan Ventilation Tube Inserters

130547

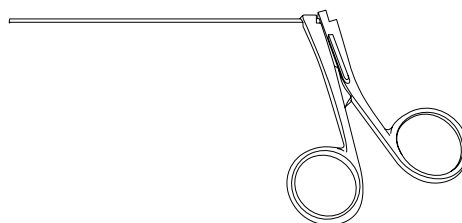
Morgan ventilation tube inserter, stainless steel, vapor blast finish, 106 mm (4.2") shaft length, medium, 1 mm (0.04")



#### T-Tube Inserter

130549

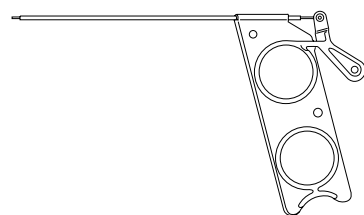
T-tube inserter, stainless steel, satin finish, 1.2 mm (0.047") shaft diameter, 96.5 mm (3.8") shaft length



#### Ventilation Tube Inserter

130710

Ventilation tube inserter, polypropylene handle, stainless steel shaft, 1.14 mm (0.45") inner diameter, 6 pcs., sterile, single-use

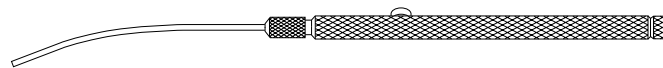


U.S. Patent No. 3,897,786

#### Universal T-Tube Inserter

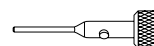
130550

Universal T-tube inserter, stainless steel, satin finish, 80 mm (3.15") shaft length, 200 mm (7.8") overall length



130551

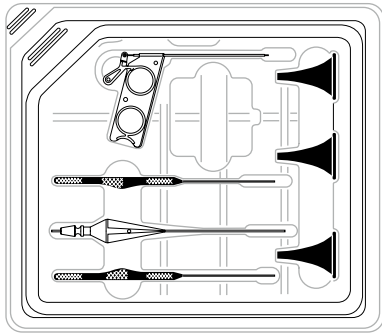
Inserter stylus, spare for 130550, handle style round, knurled, vapor blast finish, 11 mm (0.43") tip diameter, 26 mm (1.02") overall length



## Set-Up Myringotomy Kit

890205  
890206

Set-Up myringotomy kit,  
sterile, single-use,  
for children (3, 4, and 5 mm specula)  
for adults (4, 5 and 6 mm specula)



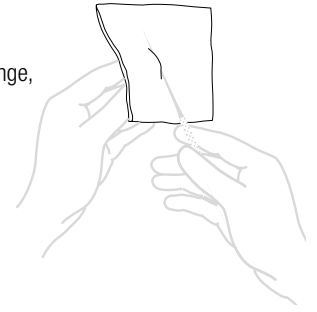
Delivery includes:

1 Billeau wax curette, 1 16 gauge suction needle with bypass,  
1 myringotomy knife, sickle blade, contoured handle,  
1 ventilation tube inserter (for 1.14 mm inner diameter tubes),  
3 specula

## Micro-Instrument Wipes

230030  
70230034

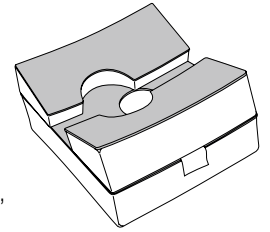
Micro-Instrument wipes,  
polyurethane ester foam,  
3.5" x 3.5" nonfibrous sponge,  
48 pcs.,  
sterile  
non-sterile



## Shea Foam Head Supports

150179  
150180

Shea foam head support,  
nonsterile,  
for children  
for adults

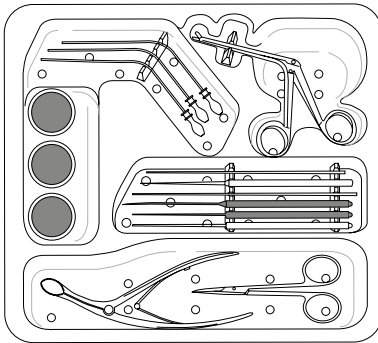


Designed for John J. Shea, M.D.,  
Memphis, TN, USA  
U.S. Patent No. 3,694,831.

## Myringotomy Case

131413

Myringotomy case,  
10" x 2.5" x 10.5",  
includes lid and finger mat,  
empty case, instruments not included



The case includes space for:

6 ear specula, 3 alligator forceps, 3 suction tubes, and  
6 picks.

Large pocket to hold larger, miscellaneous instruments.

## Disposable Ear Suction Tubes



130718  
130720  
130722  
130724

Ear suction tubes,  
polypropylene handles,  
without bypass,  
stainless steel shaft (3" long),  
sterile, single-use, 6 pcs.,  
red, 14 (9 Fr.) gauge  
yellow, 16 (7 Fr.) gauge  
black, 18 (5 Fr.) gauge  
green, 20 (3 Fr.) gauge

130783  
130785  
130787  
130789

Ear suction tubes,  
polypropylene handles,  
with bypass,  
stainless steel shaft (3" long),  
sterile, single-use, 6 pcs.,  
red, 14 (9 Fr.) gauge  
yellow, 16 (7 Fr.) gauge  
black, 18 (5 Fr.) gauge  
green, 20 (3 Fr.) gauge

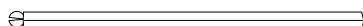
U.S. Patent No. D234,032



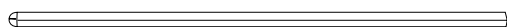
### Blade Handles

For blades with a flat shaft

- 130882 Blade handle, stainless steel, nonsterile, reusable, hexagonal wrench locking handle, 10 cm length



- 130883 Blade handle, stainless steel, nonsterile, reusable, hexagonal wrench locking handle, 15 cm length



- 130884 Blade handle, stainless steel, nonsterile, reusable, flat shaft blade handle, 10 cm length



- 130885 Blade handle, stainless steel, nonsterile, reusable, round knurled wrench locking handle, 10 cm length

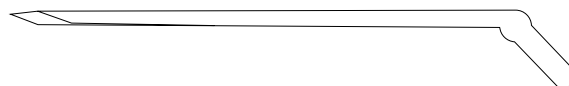
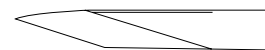


- 130886 Blade handle, stainless steel, nonsterile, reusable, round, self-locking handle, 13.5 cm length



### Myringotomy Blades with Flat Shaft

- 70130780 Myringotomy blades, lancet tip, flat shaft, stainless steel, sterile, 12 pcs.



- 70130781 Myringotomy blades, arrow tip, flat shaft, stainless steel, sterile, 12 pcs.



- 70130933 Myringotomy blades, lance juvenile, flat shaft, stainless steel, sterile, 12 pcs.



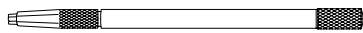
## Blade Handles

For blades with a round shaft

- 70130932 Blade handle, tapered, stainless steel, nonsterile, reusable, 10 cm length



- 70130934 Blade handle, round, stainless steel, nonsterile, reusable, 10 cm length

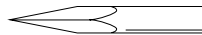


## Myringotomy Blades with Round Shaft

- 70130792 Myringotomy blades, round shaft, razor, straight, sterile, 12 pcs.



- 70130793 Myringotomy blades, round shaft, spear MicroPoint, straight, sterile, 12 pcs.

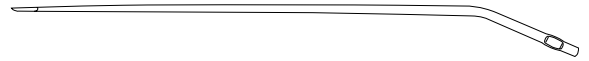
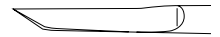


- 70130794 Myringotomy blades, round shaft, spear MicroPoint, angled, sterile, 12 pcs.

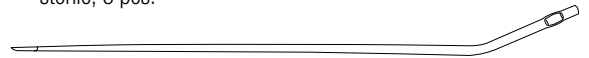


## Myringotomy Blades with Tapered Shaft

- 70130927 Myringotomy blades, tapered shaft, angled, straight edge, stainless steel, sterile, 6 pcs.



- 70130928 Myringotomy blades, tapered shaft, angled, straight edge, stainless steel, sterile, 6 pcs.



- 70130929 Myringotomy blades, tapered shaft, straight, straight edge, stainless steel, sterile, 6 pcs.



- 70130930 Myringotomy blades, tapered shaft, angled, spear tip, stainless steel, sterile, 6 pcs.




- 70130931 Myringotomy blades, tapered shaft, straight, spear tip, stainless steel, sterile, 6 pcs.




### Disposable Myringotomy Knives with Flat Handle

- Polypropylene handle
- Stainless steel shaft
- U.S. Patent No. D234,032

130715 Myringotomy knives, sickle blade, flat handle, sterile, single-use, 6 pcs.





130716 Myringotomy knives, lancet blade, flat handle, sterile, single-use, 6 pcs.

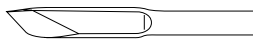



### Disposable Myringotomy Knives with Round Handle



130915 Myringotomy knives, sickle blade, round handle, sterile, single-use, 6 pcs.

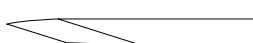
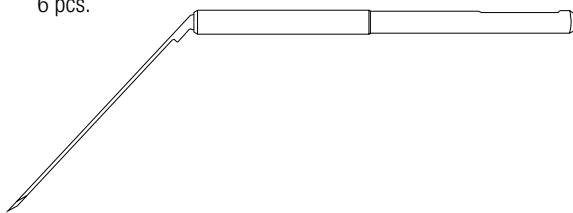
130916 Myringotomy knives, lancet blade, round handle, sterile, single-use, 6 pcs.

70130717 Myringotomy knives, arrow blade, round handle, sterile, single-use, 6 pcs.

70130790 Myringotomy knives, lance juvenile, round handle, sterile, single-use, 6 pcs.

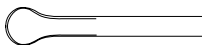
70130791 Myringotomy knives (not shown), spear juvenile, round handle, sterile, single-use, 6 pcs.

## Tympanoplasty Blades

70130925 Tympanoplasty blades,  
angled blade,  
flat shaft,  
stainless steel,  
sterile, 6 pcs.



70130926 Tympanoplasty blades,  
straight blade,  
flat shaft,  
stainless steel,  
sterile, 6 pcs.





### PACKING PRODUCTS

Nasal/Sinus Packs Bacteriostatic PVA Foam	529
Nasal Packs Rhino Rocket	531
Balloon Catheters	533
Otologic Packs	535

### SPLINTS AND STENTS

Nasal Splints	537
Stents and Buttons	539



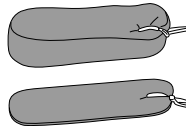
#### Blu and Blu Glide

Blu and Blu Glide contain a safe, patented bacteriostatic compound which inhibits the growth of infection and odor-causing micro-organisms on the sponge.

- Products are double compressed, in the width and height dimensions, for easy insertion.
- Blu Glide contains "glide surface" for easier insertion and removal.

#### Blu and Blu Glide Sinus Packs

Sinus packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
K-Style,  
3.5 cm x 0.9 cm x 1.2 cm (L x W x H),  
sterile,  
20 pcs., in twin packs,



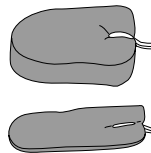
7089-0844

Blu

7089-0845

Blu Glide

Sinus packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
B-Style,  
2.5 cm x 0.9 cm x 2 cm (L x W x H),  
sterile,  
20 pcs., in twin packs,



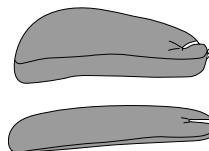
7089-0846

Blu

7089-0847

Blu Glide

Sinus packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
T-Style,  
4.5 cm x 0.9 cm x 2 cm (L x W x H),  
sterile,  
20 pcs., in twin packs,



7089-0848

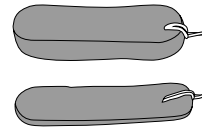
Blu

7089-0849

Blu Glide

#### Blu and Blu Glide Sinus Packs (cont.)

Sinus packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
K-Style slim,  
3.5 cm x 0.6 cm x 1.2 cm (L x W x H),  
sterile,  
20 pcs., in twin packs,



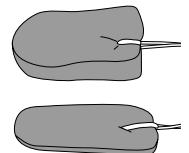
7089-0850

Blu

7089-0851

Blu Glide

Sinus packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
B-Style slim,  
2.5 cm x 0.6 cm x 2 cm (L x W x H),  
sterile,  
20 pcs., in twin packs,



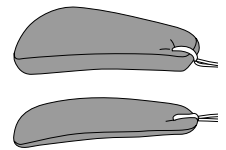
7089-0852

Blu

7089-0853

Blu Glide

Sinus packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
T-Style slim,  
4.5 cm x 0.6 cm x 2 cm (L x W x H),  
sterile,  
20 pcs., in twin packs,



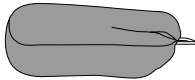

7089-0854



Blu



7089-0855



Blu Glide



## Blu and Blu Glide Nasal Packs

- Nasal packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
4.5 cm small,  
4.5 cm x 1.5 cm x 2 cm (L x W x H),  
sterile, 10 pcs.,
- 7089-0830 Blu 
- 7089-0831 Blu Glide 

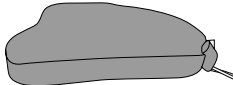

- Nasal packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
8 cm standard,  
8 cm x 1.5 cm x 2 cm (L x W x H),  
sterile, 10 pcs.,
- 7089-0832 Blu 
- 7089-0833 Blu Glide 



- Nasal packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
small with airway,  
4.5 cm x 1.5 cm x 2 cm (L x W x H),  
sterile, 10 pcs.,
- 7089-0834 Blu 
- 7089-0835 Blu Glide 

- Nasal packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
large with airway,  
8 cm x 1.5 cm x 2 cm (L x W x H),  
sterile, 10 pcs.,
- 7089-0836 Blu 
- 7089-0837 Blu Glide 



- Nasal packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
D-Style anatomical, 8 cm,  
8 cm x 1.5 cm x 3 cm (L x W x H),  
sterile, 10 pcs.,
- 7089-0838 Blu 
- 7089-0839 Blu Glide 



## Blu and Blu Glide Nasal Packs (cont.)

- Nasal packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
D-Style anatomical with airway,  
8 cm x 1.5 cm x 3 cm (L x W x H),  
sterile, 10 pcs.,
- 7089-0840 Blu 
- 7089-0841 Blu Glide 

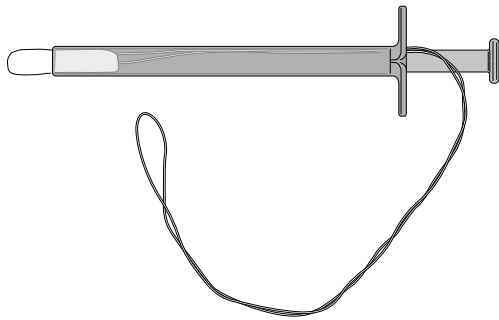
- Nasal packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
D-Style anatomical, slim,  
8 cm x 0.75 cm x 3 cm (L x W x H),  
sterile, 10 pcs.,
- 7089-0842 Blu 
- 7089-0843 Blu Glide 

## Blu Epistaxis Packs

- 7089-0856 Blu epistaxis packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
nasal,  
large, 10 cm x 1.5 cm x 2.5 cm (L x W x H),  
sterile, 10 pcs.
- 
- 

- 7089-0857 Blu epistaxis packs,  
polyvinyl alcohol (PVA) foam, bacteriostatic,  
nasal, D-Style anatomical with airway,  
small, 5.5 cm x 1.5 cm x 2.5 cm (L x W x H)  
sterile, 10 pcs.
- 
- 

#### Rhino Rocket Nasal Packs



Rhino Rocket nasal pack,  
polyvinyl alcohol (PVA) foam,  
slim line,  
0.7 x 0.2 cm (W x H) compressed size,  
2 x 1 cm (W x H) expanded size,  
sterile, 6 pcs.,

- 70890750 small, 3 cm length
- 70890751 medium, 5 cm length
- 70890752 large, 8 cm length
- 70890753 x-large, 10 cm length

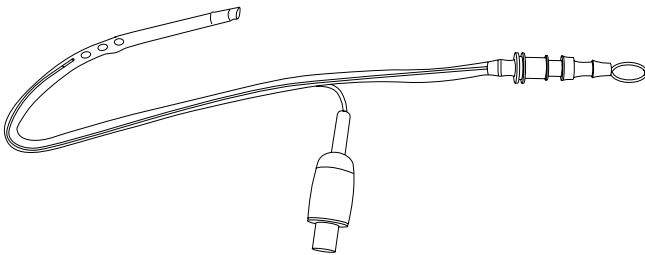
Rhino Rocket nasal pack,  
polyvinyl alcohol (PVA) foam,  
wide line,  
0.7 x 0.6 cm (W x H) compressed size,  
2 x 1.5 cm (W x H) expanded size,  
sterile, 6 pcs.,

- 70890754 small, 3 cm length
- 70890755 medium, 5 cm length
- 70890756 large, 8 cm length
- 70890757 x-large, 10 cm length

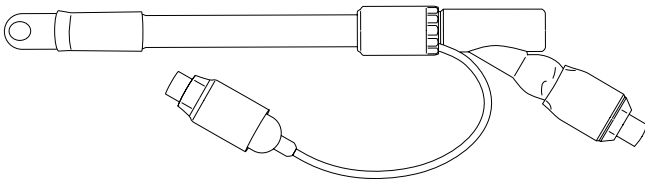


### Balloon Catheters

890922      Posterior nasal balloon catheter,  
silicone,  
sterile, single use, 6 pcs.,  
8 1/2" length



890911      Sliding cuff nasal balloon catheter,  
silicone,  
sterile, single use, 6 pcs.,  
sliding cuff, 5" length



### Balloon Catheter Kits

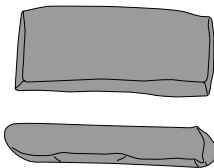
890912      Sliding cuff nasal balloon catheter kit (not shown),  
silicone,  
sterile

Delivery includes:  
one sliding balloon catheter (#890911),  
one syringe and one 4x4 gauze sponge





## Blu Ear Wick



7089-0858 Blu ear wick, polyvinyl alcohol (PVA) foam, bacteriostatic, 9.0 x 15 mm (dimension in hydrated state), sterile, 50 pcs.

7089-0859 Blu ear wick, polyvinyl alcohol (PVA) foam, bacteriostatic, 9.0 x 24 mm (dimension in hydrated state), sterile, 10 pcs.

## Ear Wick

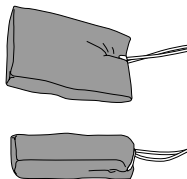
- The wick is a polyvinyl compressed sponge which is stiff when dry and permits easy, painless introduction into the external canal even if there is inflammatory stenosis of the canal.
- When liquid medication is applied, the wick expands to conform to the anatomy of the canal and provides gentle, wet pressure for an extended length of time. As the canal stenosis subsides, the wick expands to afford good circumferential application.

70140095 Ear wick, sterile, 48 pcs., 1.4 x 0.235 cm (approximate dry dimension), 1.5 x 0.9 cm (approximate wet dimension)



## Blu Ear Packing

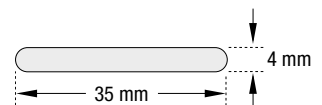
7089-0860 Blu ear wick packing, with drawstring, polyvinyl alcohol (PVA) foam, bacteriostatic, 12 x 15 mm (dimension in hydrated state), sterile, 10 pcs.



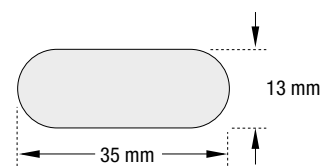
## Rosette Packing

- Rosette packing strips can be used to create a “rosebud” packing in the external auditory canal in association with tympanoplasty.
- The strips should be coated with an antibiotic ointment and dipped in Ringer’s solution to facilitate their introduction. Once the strips are in place, cotton soaked in antibiotic solution is used as packing.
- The strips are easily removed without discomfort and help prevent the formation of granulations on the surface of the tympanic graft.

140320 Rosette packing, silicone, 0.13 mm thick, 35 mm overall length, 4 mm width, 12 pcs.



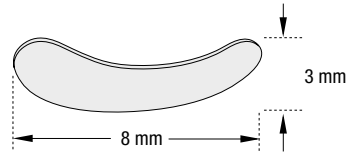
140322 Rosette packing, silicone, 0.13 mm thick, 35 mm overall length, 13 mm width, 6 pcs.



## Schuknecht Crescent

- The crescent is placed into the hypotympanum to prevent adhesions of tympanoplasty grafts and to aid in the creation of an air-containing cavum minor.
- May be trimmed to assure proper fit.
- May be left in place indefinitely.

140219-ENT Schuknecht crescent, fluoroplastic, 0.06 mm thick, 11 mm overall length, 1 pc.

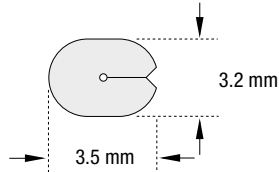


Designed for Harold F. Schuknecht, M.D., Boston, MA, USA.

## Schuknecht Oval Disc

- Designed to slip around a wire prosthesis to prevent adhesions.

145222 Schuknecht oval disc, 3.2 x 4.5 mm

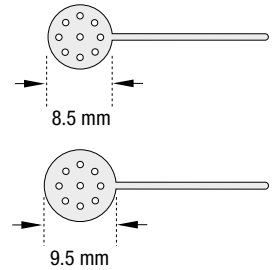


Designed for Harold F. Schuknecht, M.D., Boston, MA, USA.

## Shah Discs

- A graft will have been laid inside or outside the drum remnant, a suitable piece of material placed on the graft, and, usually, some packing applied in the ear canal. There is often a risk of disturbing the newly applied graft if there is fixation with the canal skin or packing.
- The Shah disc is positioned to cover the graft and resist adherence of packing.
- The disc and the packing are removed 7 to 10 days postoperatively.

Shah disc, silicone, 0.25 mm thick, 1 pc., small, 8.5 mm diameter large, 9.5 mm diameter



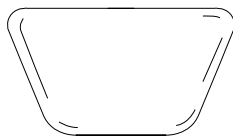
140175

140176

Designed for Mr. N. Shah, F.R.C.S., D.L.O., London, England

### External Nasal Splints

Universal external nasal splint,  
aluminium,  
sterile,  
6 pcs.,

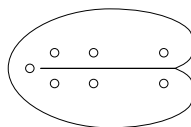


70890907 small/medium

70890908 large

### Bivalve Internal Nasal Splints

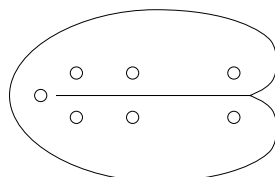
Bivalve splint,  
polyethylene,  
12 pcs.,  
42 mm x 26 mm (L x W),



890916 0.25 mm thick

890917 0.5 mm thick

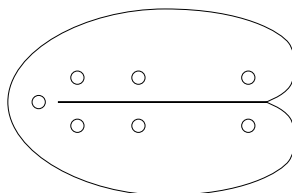
Bivalve splint,  
polyethylene,  
12 pcs.,  
60 mm x 38 mm (L x W),



890918 0.25 mm thick

890919 0.5 mm thick

Bivalve splint,  
polyethylene,  
12 pcs.,  
64 mm x 42 mm (L x W),

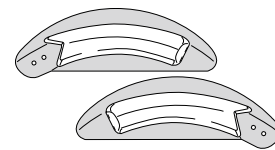


890920 0.25 mm thick

890921 0.5 mm thick

### Nasal Septal Splints

Nasal septal splints,  
silicone,  
with airway,  
sterile, 6 pairs, right and left,

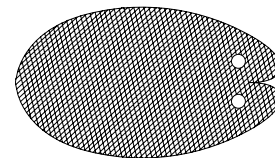


890914 standard, 2.77" x 0.93" x 0.27" (L x W x D)

890915 small, 2.71" x 0.92" x 0.25" (L x W x D)

Designed for Thad Pope, M.D., Crawfordsville, IN, USA.

140441 Neiman nasal septal splints,  
silicone,  
1.67" x 1.00" x 0.03" (L x W x D),  
sterile, 1 pair

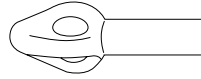


Designed for Leon Neiman, M.D., Akron, OH, USA.

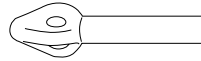


## Rains Frontal Sinus Stents

70890931 Rains frontal sinus stents, silicone, large, 5.2 mm shaft diameter, 3.7 mm shaft inner diameter, 39 mm shaft length, 52 mm stent length, sterile, single use, 6 pcs.



70890932 Rains frontal sinus stents, silicone, standard, 4 mm shaft diameter, 3.2 mm shaft inner diameter, 38 mm shaft length, 48 mm stent length, sterile, single use, 6 pcs.

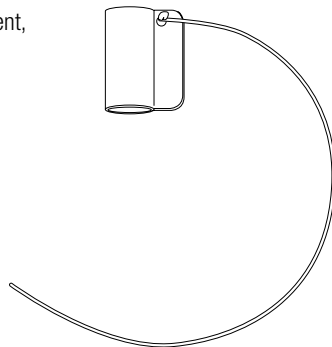


Designed for B. Manrin Rains III, M.D.

## Sinuspacer Turbinate Stent

A silicone stent designed to prevent postoperative adhesions between the middle turbinate and the lateral nasal wall following endoscopic or microscopic sinus surgery.

890913 Sinuspacer turbinate stent, sterile, single use, 6 pairs

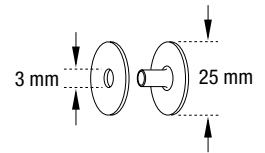


## Plasti-Pore Septal Button

- Used to close nasal septal perforations.
- The two-piece device can be trimmed to the designated size.
- The procedure can be done in the office using local anesthesia or in conjunction with some other intranasal surgery.
- The female flange accepts the post of the male flange component, and the attached components are sutured into place.

140840

Plasti-Pore septal button, 3 mm flange inner diameter, 25 mm flange outer diameter, 0.64 mm flange thickness, 1 pc.

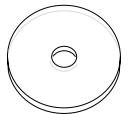


## Silicone Septal Button

- Allows for maximum biocompatibility. The characteristics of silicone reduce the chance of crusting around the implant.
- A popular septal button that is easy to insert and useful in reducing crusting, epistaxis, and other symptoms of septal perforations.
- Allows the surgeon to trim the button to best meet the patient's needs.

890924

Silicone septal button, medical grade silicone, one piece button, 1-1/4" outer diameter, 1/4" inner diameter, 0.035" wall thickness, 0.18" total thickness, 1 pc.





### ENDOALPHA CONTROL

ENDOALPHA CONTROL	543
UCES-3 Control Unit	545
Accessories for Control Unit UCES-3	547

### ENDOALPHA CONTROL AND VIDEO MANAGEMENT

VMC-3 Control Unit	549
Control and Display Panel ENDOALPHA Wall Components	551
Cables for VMC-3	553
Adapters for Ceiling Supply Units and Racks	555

### ENDOALPHA VIDEO MANAGEMENT

ENDOALPHA Video Management	557
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### ENDOALPHA DOCUMENTATION

ENDOALPHA Documentation	563
VMC-1 Documentation System	565
ENDOBASE Software Solution	567
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iPod is a trademark of Apple Inc., registered in the U.S. and other countries.







- Centralized and dynamic control of the entire OR from both the sterile and non-sterile field
- Control of medical and peripheral devices such as video processors, insufflators, electrosurgical products, surgical lights, room light and in-room video management
- Intuitive smartphone-like navigation via app buttons
- Harmonized OR functionalities on a single touch panel
- Customizable user interface

## SmartGuideENDOALPHA HomeScreen



- User-friendly touch panel interface reduces complexity of operating multiple devices from various manufacturers
- Close development with surgeons and nurses ensures maximum ease of use
- Intuitive and simple navigation leads to reduced training time
- Immediate identification of functions can help to avoid potential user errors
- Improves workflow and can lead to a less stressful working environment

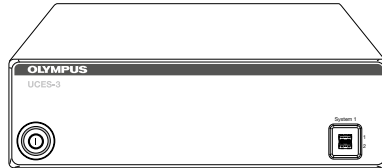
## ENDOALPHA SceneSelection



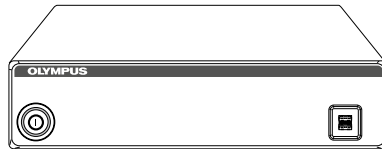
- Simultaneous control of multiple device settings following the procedure workflow – e.g. supports easy switch between minimally invasive and open surgery
- All the settings for each procedure phase are preprogrammed and accessible with a single click of the button
- Reduced preparation and set-up time since preferred settings can be saved and easily recalled
- Simplifies and streamlines workflow during surgery
- Supports standardization of OR procedures
- Customizable equipment settings

### ENDOALPHA Control Units

N3625940 Medical control unit for endosurgery  
UCES-3



N3626040 Extension unit for UCES-3  
MAJ-1827



#### Technical Data

##### Power supply

Voltage..... 100 – 240 V ~  
Frequency .....50/60 Hz  
Power consumption UCES-3..... 110 VA  
Power consumption MAJ-1827 .....80 VA  
Fuse.....2 A, 250 V

##### Size

Dimensions UCES-3..... width 372 mm  
height 113 mm  
depth 454 mm  
Dimensions MAJ-1827 ..... width 372 mm  
height 80 mm  
depth 335 mm

Weight UCES-3..... 6.9 kg  
Weight MAJ-1827 ..... 4 kg

##### Safety

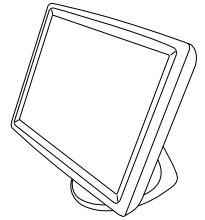
Directive 93/42/EEC .....class IIb

##### Ambient conditions

Operation .....temperature 10 – 40 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa  
Transport and storage ..... temperature -20 – 60 °C  
relative humidity 10 – 90 %  
atmospheric pressure 700 – 1060 hPa

### Touchscreen

N3626130 Touch panel for ENDOALPHA  
MAJ-1828



#### Technical Data

##### Power supply

Voltage..... 100 – 240 V ~  
Frequency .....50/60 Hz  
Power consumption .....30 VA

##### Size

Dimensions .....width 354.5 mm  
height 347.8 mm  
depth 203 mm

Weight ..... 6.9 kg

##### Safety

Directive 93/42/EEC .....class IIb

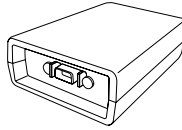
##### Ambient conditions

Operation .....temperature 10 – 40 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa  
Transport and storage ..... temperature -20 – 60 °C  
relative humidity 10 – 90 %  
atmospheric pressure 700 – 1060 hPa



## Interface Exchanger (1)

N3626230 Interface for Olympus RS-232C device, MAJ-1830



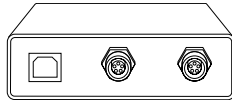
### Technical Data

Power supply  
Voltage..... 5 V =

Size  
Dimensions ..... width 60 mm  
height 27 mm  
depth 92 mm

Weight .....0.1 kg

N3626330 Interface for ESU (VIO series), MAJ-1831



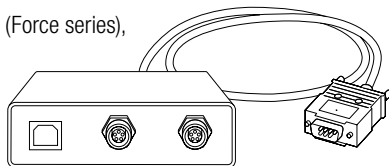
### Technical Data

Power supply  
Voltage..... 5 V =

Size  
Dimensions ..... width 101 mm  
height 32 mm  
depth 131 mm

Weight ..... 0.4 kg

N3626430 Interface for ESU (Force series), MAJ-1832



### Technical Data

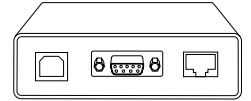
Power supply  
Voltage..... 5 V =

Size  
Dimensions ..... width 101 mm  
height 32 mm  
depth 121 mm

Weight ..... 0.5 kg

## Interface Exchanger (2)

N3626530 Universal interface MAJ-1834



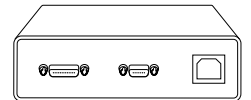
### Technical Data

Power supply  
Voltage..... 5 V =

Size  
Dimensions ..... width 101 mm  
height 32 mm  
depth 130 mm

Weight ..... 0.4 kg

N3831440 Interface for Olympus Link Device MAJ-1917



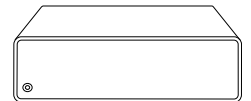
### Technical Data

Power supply  
Voltage..... 5 V =

Size  
Dimensions ..... width 101 mm  
height 32 mm  
depth 120 mm

Weight ..... 0.4 kg

N3626630 IR Interface for UCES-3 MAJ-1862



### Technical Data

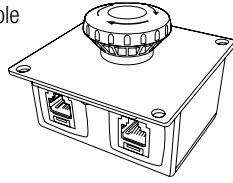
Power supply  
Voltage..... 12 V = + 5 V =

Size  
Dimensions ..... width 143 mm  
height 52 mm  
depth 98 mm

Weight ..... 0.6 kg

## Emergency Stop Switch

N3626830 ENDOALPHA stop switch for OR table  
MAJ-1882



### Technical Data

Size

Dimensions ..... width 81 mm  
height 81 mm  
depth 64 mm

Weight ..... 0.3 kg

## Microphone for Voice Control

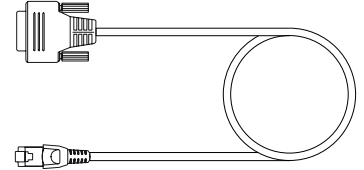
N1032200 Surgeon's microphone for ENDOALPHA  
MAJ-1177



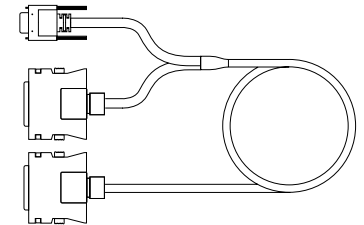
## Connecting Cables

Further cables are required (LAN, VGA, USB, RS232, 9pin).  
These have to be clarified project specifically by the  
OLYMPUS project management.

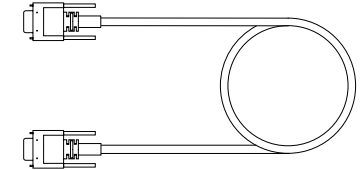
N3626700 UCR cable for UCES-3,  
MAJ-1877,  
2 m



N3646100 Light source cable with remote,  
MAJ-1913, 10 m  
N3647900 MAJ-1953, 1.8 m



N3647400 Communication cable,  
MAJ-1942, 0.7 m  
N3647600 MAJ-1948, 1.8 m



Further cables are required (LAN, VGA, USB, RS232, 9pin).  
These have to be clarified and defined project specifically by  
the Olympus project management.



- VMC-3 focuses on video management and communication in the OR
- Simple and intuitive app button navigation (provided by HomeScreen) leads to reduced training time
- When combined with control unit for endosurgery (UCES-3), the VMC-3 allows procedure-driven control of the entire OR
- Compatibility with Video Network Solution allows efficient and convenient collaboration, mentoring and teaching within the OR and beyond, providing access to real-time information and video anywhere in the hospital<sup>1</sup>

## SmartGuide navigation

- Simple, workflow-oriented SmartGuide navigation, featuring HomeScreen and SceneSelection
- HomeScreen app buttons allow quick identification of functions and can help to avoid potential user errors
- One-click adaptation of OR settings via SceneSelection improves the workflow according to procedure progress

<sup>1</sup> Video streaming solution required.







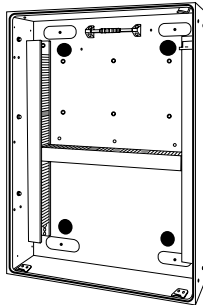
- Improved workflow and aesthetics
- Wall-mounted monitor housing
- Keyboard tray storage compartment
- Video in- and outputs
- In-wall installation of screens and control
- Gasket-sealed compartments: Integrated ergonomically designed keyboard for text input; integrated patch panel to connect temporarily available video sources; integrated storage compartment. Optional: integrated iPod® music player docking station

## Control Technical Panel

Integrated touch screen - 15 inch, integrated keyboard with mouse pad and optional iPod station, offers additional storage space for accessories, integrated in wall.

Smooth glass surfaces and flush compartments provide for easy cleaning. Docking station compartment to depositing the Apple iPod(TM) mobile digital device. Patch panel compartment for external A/V connections. Inside the storage compartment, accessory items can be stowed safely and cleanly. For convenient authoring of reports and text-based system interactions (i.e. patient queries), the embedded keyboard is accessible inside a flush drawer.

WD12025A Technical Panel, for touchscreen, installation box, depth 150 mm



### Technical Data

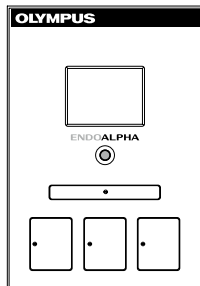
Dimensions ..... 718 (W) x 1068 (H) x 149 (D) mm  
 Safety  
 Directive 93/42/EEC ..... class I

WD12026A Door, glass, for WD12025A

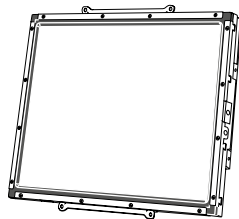
- includes keyboard (QWERTY) and stop-button

### Technical Data

Dimensions  
 Cover glass ..... 778 (W) x 1128 (H) x 21 (D) mm  
 Safety  
 Directive 93/42/EEC ..... class I



WD12024A Touchscreen "ELO 1537L", for WD12020A



## Display Technical Panel

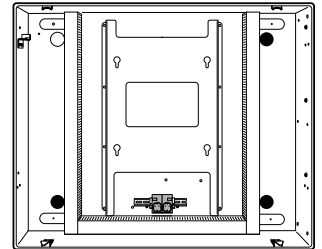
Integrated monitor of 42 inch for collaboration, mentoring, tele-teaching, procedure observation by guests etc., integrated in wall.

Smooth glass surface provide for easy cleaning.

The 42" display delivers crisp images in high-definition. The wide viewing angle results in an excellent viewing experience anywhere inside the operating theatre.

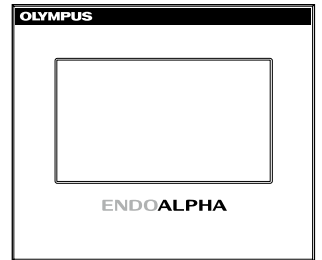
WD12035A Technical Panel, for 42" display, installation box, depth 150 mm

1268 x 1068 x 149 mm



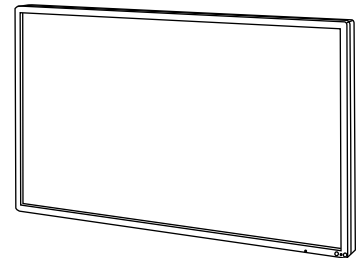
WD12036A Door, glass, for WD12035A

1328 x 1128 x 21 mm (cover glass)



WD12032B Monitor, LCD, 42"

for WD12030A



## Cables for VMC-3

**WD15092A** Cable,  
VMC to CSU,  
data/light

System cable to connect VMC-3 to adapter WD15088A.  
Affected functionalities:

- On-air light indicates active VNS broadcast
- Additional separate button to power unit on/off
- Connecting up to two touchscreens

Length ..... 0.7 m  
Compatibility ..... VMC-3, WD15088A

**WD15093A** Cable,  
VMC to CSU,  
system

System cable to connect VMC-3 to adapter WD15083A.  
Affected functionalities:

- Room camera control
- Keyboard/mousepad connection to technical panel WD12025A/WD12026A (optional)
- Headset(s) and microphone(s) for communication and talkback (in combination with VNS Session Manager licenses)
- Auxiliary audio input for ie. music players

Length ..... 0.7 m  
Compatibility ..... VMC-3, WD15083A

**WD15094A** Cable,  
VMC to CSU,  
for UCES

System cable to connect VMC-3 to adapter WD15084A.  
Affected functionalities:

- Shared touchscreen
- HomeScreen
- SceneSelection
- Shared status bar
- UCES-3 voice control
- UCES-3 voice feedback
- UCES-3 touch screen when VMC-3 is switched off

Length ..... 0.7 m  
Compatibility ..... VMC-3, WD15084A

## Cables for VMC-3 (cont.)

**WD15095A** Cable,  
VMC to UCES

System cable to connect VMC-3 to UCES-3.  
Affected functionalities:

- Shared touchscreen
- HomeScreen
- SceneSelection
- Shared status bar
- UCES-3 voice control
- UCES-3 voice feedback
- UCES-3 touchscreen when VMC-3 is switched off

Length ..... 0.7 m  
Compatibility ..... VMC-3, UCES-3

**WD15096A** Cable,  
VMC to CSU,  
audio

System cable to connect VMC-3 to adapter WD15086A.  
Affected functionalities:

- Auxiliary audio input amplification
- Recorder audio connection
- Wired inter-com audio connection

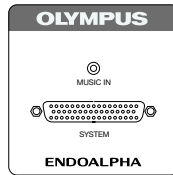
Length ..... 0.7 m  
Compatibility ..... VMC-3, WD15086A



### Adapters

Adapters for installation in ceiling supply units (CSU) or racks.  
 Size  
 Width ..... 80 mm  
 Height ..... 80 mm

WD15083A Adapter, VMC to CSU, system

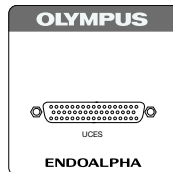


Splits system cable WD15093A into several standard connectors.  
 Affected functionalities:

- Room camera control
- Keyboard/mousepad connection to technical panel WD12025A/WD12026A (optional)
- Headset(s) and microphone(s) for communication and talkback (in combination with VNS Session Manager licenses)
- Auxiliary audio input for ie. music players

Delivery includes sealing gasket and cable protection case.

WD15084A Adapter, VMC to CSU, for UCES



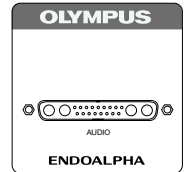
Splits system cable WD15094A into several standard connectors.  
 Affected functionalities:

- Shared touchscreen
- HomeScreen
- SceneSelection
- Shared status bar
- UCES-3 voice control
- UCES-3 voice feedback
- UCES-3 touchscreen when VMC-3 is switched off

Delivery includes sealing gasket and cable protection case.

### Adapters (cont.)

WD15086A Adapter, VMC to CSU, audio

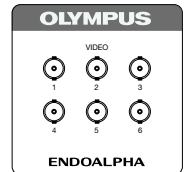


Splits system cable WD15096A into several standard connectors.  
 Affected functionalities:

- Auxiliary audio input amplification
- Recorder audio connection
- Wired inter-com audio connection

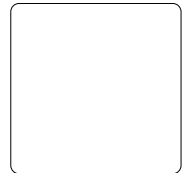
Delivery includes sealing gasket and cable protection case.

WD15087A Adapter, VMC to CSU, video



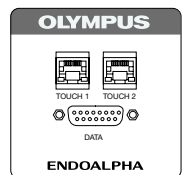
Passes through six SDI video signals.  
 Delivery includes sealing gasket.

WD15087B Adapter, VMC to CSU, blank



Covers unused cut-outs.  
 Delivery includes sealing gasket.

WD15088A Adapter, VMC to CSU, data

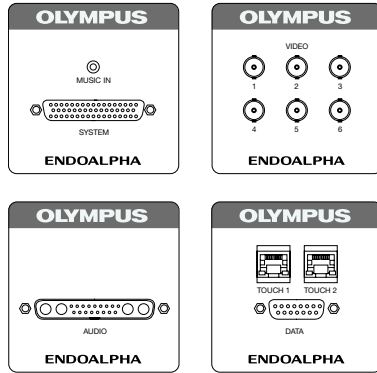


Splits system cable WD15092A into standard connectors.  
 Affected functionalities:

- On-air light indicates active VNS broadcast
- Additional separate button to power unit on/off
- Connecting up to two touchscreens

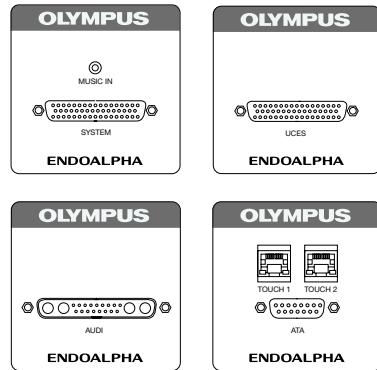
## Adapter Sets

WD15089A Adapter, set,  
VMC to CSU



Delivery includes:  
WD15088A (data), WD15083A (system), WD15086A (audio),  
WD15087A (video)

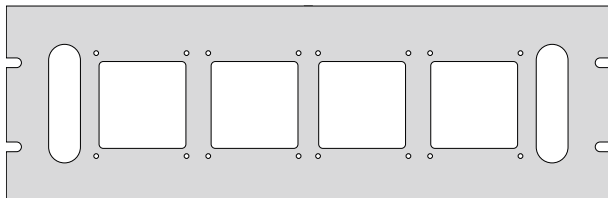
WD15089B Adapter, set,  
VMC to rack



Delivery includes:  
WD15088A (data), WD15083A (system), WD15086A (audio),  
WD15084A (UCES), mechanical 19" rack adapter

### Size

Width ..... 470 mm  
Height ..... 132.5 mm  
Depth ..... 100 mm



## VNS Hardware Components

WD15006A Adapter,  
VMC to VNS,  
mechanical

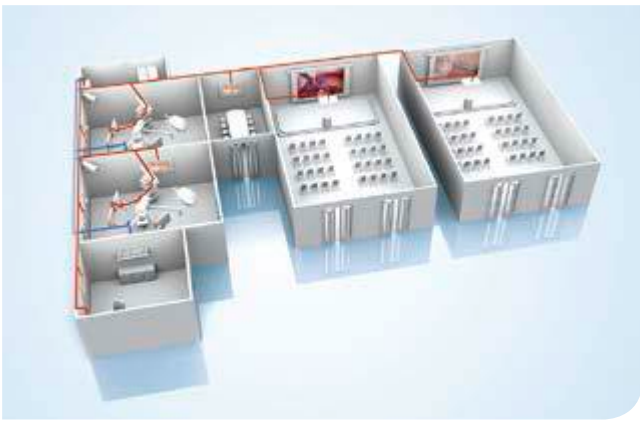
Mechanical adapter to integrate 1 to 3 encoders inside  
WD15003A. Includes 3 audio cables, 3 video cables,  
4 network cables, 1 I2C-LED cable, 1 VNS power cord.  
Compatible with WD15003A and WD18101C.

WD18101C Converter "VNS Encoder HD" (not shown),  
no housing

Encoder unit converting SDI image signals into an IP stream.  
Supports bi-directional audio streams.







## Video Network Solution<sup>1</sup>

- Provides and distributes live videos wherever needed in the IP network.
- Live or stored videos can be readily displayed anywhere within the hospital network.
- Ideal environment for teaching, mentoring and collaboration
- Ability to view multiple streams simultaneously on a single PC monitor (i.e. endoscopic, X-ray, pathology, room camera)

## The total VNS package includes:

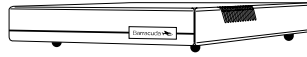
- VNS web-based viewer (Network Player), a completely web-based player which can be accessed from any PC in the hospital.
- Multi-Stream Viewer enables multiple images to be viewed simultaneously on one monitor.
- Session Manager coordinates the video network for the entire hospital.
- Recording Suite allows for real-time recording of any video source available on the network for teaching purposes and/or patient education. Recorded content can also be easily accessed via the VNS web-based viewer.
- Remote participation for medical students during live procedures, therefore reducing room traffic
- OR manager is able to monitor multiple room statuses on a single screen, facilitating planning and tracking of patients and resources
- Physician can easily reference and recall important procedure events by placing marker; video bookmarks embedded with meta data (recording).
- Opportunity to view procedure from any PC in the hospital network without installing specialized software

<sup>1</sup> Not intended for diagnostic purposes.



## VNS Encoder

WD18100A Converter "VNS Encoder SD"



Encoder unit:  
Encodes SD-SDI, S-Video or Composite image signal into IP stream. Supports bi-directional audio streams.

WD18101A Converter "VNS Encoder HD"



Encoder unit:  
Encodes HD-SDI, SD-SDI, S-Video or Composite image signal into IP stream. Supports bi-directional audio streams.

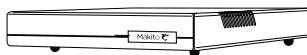
WD18102A Converter "VNS Encoder HD",  
DVI



Encoder unit:  
Encodes DVI, RGBHV or Component image signal into IP stream. Supports bi-directional audio streams.

## VNS Encoder

WD18111A Converter "VNS Decoder HD"



Decoder unit:  
Decodes H.264 encoded IP network stream into HD-SDI, SD-SDI, HDMI image output.

WD18121A Converter "VNS Set-Top-Box HD"



Decoding Set-Top-Box with integrated web player

- Operated with remote control
- Runs web player for access to live streams and stored content

## Technical Data

Power supply  
Voltage..... 100 – 240 V ~  
Frequency .....50/60 Hz  
Power consumption ..... 15 VA  
Size WD18100A/-01A/-02A/11A

Dimensions ..... width 149 mm  
height 24 mm  
depth 202 mm

Weight ..... 1.2 kg

Size WD18121A

Dimensions ..... width 205 mm  
height 44 mm  
depth 200 mm

Weight ..... 1.4 kg

Video

Inputs WD18100A .....SD-SDI,  
S-Video NTSC/PAL, Composite NTSC/PAL

Inputs WD18101A..... HD-SDI, SD-SDI,  
S-Video NTSC/PAL, Composite NTSC/PAL

Inputs WD18102A ..... DVI component digital,  
RGB component analog

Outputs WD18111A ..... HD-SDI, SD-SDI, HDMI

Outputs WD18121A.....HDMI, Composite NTSC/PAL,  
Component analog

Resolutions WD18100A ..... 720 x 480, 576i

Resolutions WD18101A/-02A ..... 1920x1080p,  
1920x1080i, 1280x720p, 720x480/576i

Resolutions WD18111A/-21A ..... 1920x1080p,  
1920x1080i, 1280x720p,

720x480/576i, 720x480/576p

Compression ..... H.264 (MPEG4 AVC Part 10),

150 kbps to 8 Mbps,

MPEG1<sup>1</sup>, MPEG2<sup>1</sup>

(<sup>1</sup>only WD18121A)



### VNS Session Manager

Licence kits with customized numbers of encoders in one installation:

- “Starter” with up to 5 encoders,
- “Basic” with up to 15 encoders,
- “Standard” with up to 25 encoders,
- “Premium” with up to 35 encoders,
- “Enterprise” with an unlimited number of encoders.

SD and HD versions:

- HD versions for high definition (HD) and standard definition (SD) live streams.
- SD versions for standard definition (SD) live streams.
- Web portal
- Zero-footprint web player
- Unlimited number of web players for single live streams
- Active directory / LDAP connectivity
- Bi-directional audio support
- Stream encryption AES 256 bit

Upgrades and extensions:

- Unicast extension available for multicast to unicast transcoding in networks without or limited multicast support
- SD to HD upgrades
- Version upgrade, upgrade licence for
  - Starter to Basic,
  - Basic to Standard,
  - Standard to Premium, or
  - Premium to Enterprise.

### VNS Session Manager Advanced Control

WD17160A Software “VNS Session Manager Advanced Control”

- Remote control of all web players and set-top-boxes
- Live message overlay over streams
- Set IP address of set-top-box
- Power on/off for set-top-box

Only one license per “installation” required.

### VNS Session Manager

Software “VNS Session Manager Starter...”  
 WD17100A ... SD”  
 WD17101A ... HD”  
 WD17102A ... Upgrade”, SD to HD  
 WD17103A ... Unicast Extension”

Software “VNS Session Manager Basic...”  
 WD17110A ... SD”  
 WD17111A ... HD”  
 WD17112A ... Upgrade”, SD to HD  
 WD17113A ... Unicast Extension”

Software “VNS Session Manager Standard...”  
 WD17120A ... SD”  
 WD17121A ... HD”  
 WD17122A ... Upgrade”, SD to HD  
 WD17123A ... Unicast Extension”

Software “VNS Session Manager Premium...”  
 WD17130A ... SD”  
 WD17131A ... HD”  
 WD17132A ... Upgrade”, SD to HD  
 WD17133A ... Unicast Extension”

Software “VNS Session Manager Enterprise...”  
 WD17140A ... SD”  
 WD17141A ... HD”  
 WD17142A ... Upgrade”, SD to HD  
 WD17143A ... Unicast Extension”

Software “VNS Session Manager...”  
 WD17150A ... SD Version Upgrade”  
 WD17151A ... HD Version Upgrade”

## VNS Recording Suite

WD17170A Software "VNS Recording Suite...  
... 1SD Channel"  
WD17171A ... 1HD Channel"  
WD17172A ... Channel Upgrade", SD to HD

### Functionalities:

- One concurrent recording channel on the network video recorder (NVR)

WD17170A can only be used in combination with  
WD17100A/-01A/-10A/-11A/-20A/-21A/-30A/-31A/-40A/  
-41A

WD17171A can only be used in combination with  
WD17101A/-11A/-21A/-31A/-41A

WD17180A Software "VNS Recording Suite Video Editor"

### Functionalities:

- Editing of videos recorded with WD17170A/-71A
- Adding and editing of meta data
- Frame accurate cutting
- Bookmarks for fast access to interesting scenes
- Merging of video files
- Copying of video files
- Export to local PC
- Recording of videos to local PC
- Upload of video files from local PC to video server

License can only be used in combination with WD17100A/  
-01A/-10A/-11A/-20A/-21A/-30A/-31A/-40A/-41A

WD17181A Software "VNS Recording Suite Replay Volume"

### Functionalities:

- 50 mbps of replay volume
- Licenses can incrementally be added
- On demand replay of recorded videos (video on demand)

Every access to a video file reduces the available replay  
bandwidth based on the recorded video bandwidth.  
Bandwidth is only used as long as a user watches a video.  
Afterwards the bandwidth is again available for other users.

License can only be used in combination with WD17170A/  
-71A/-80A

## VNS Multi-Stream-Viewer

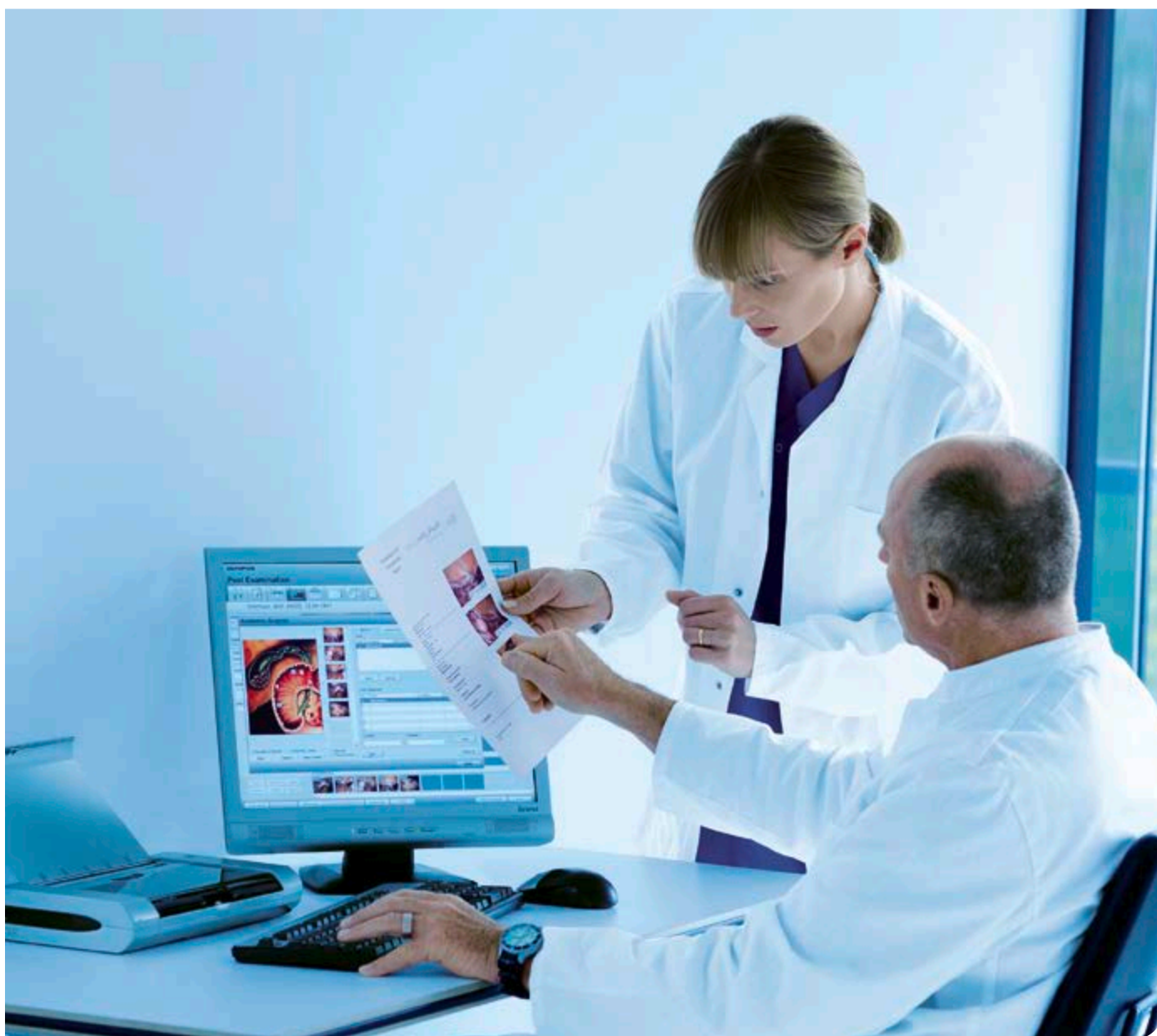
WD17190A Software "VNS Multi-Stream-Viewer"

### Functionalities:

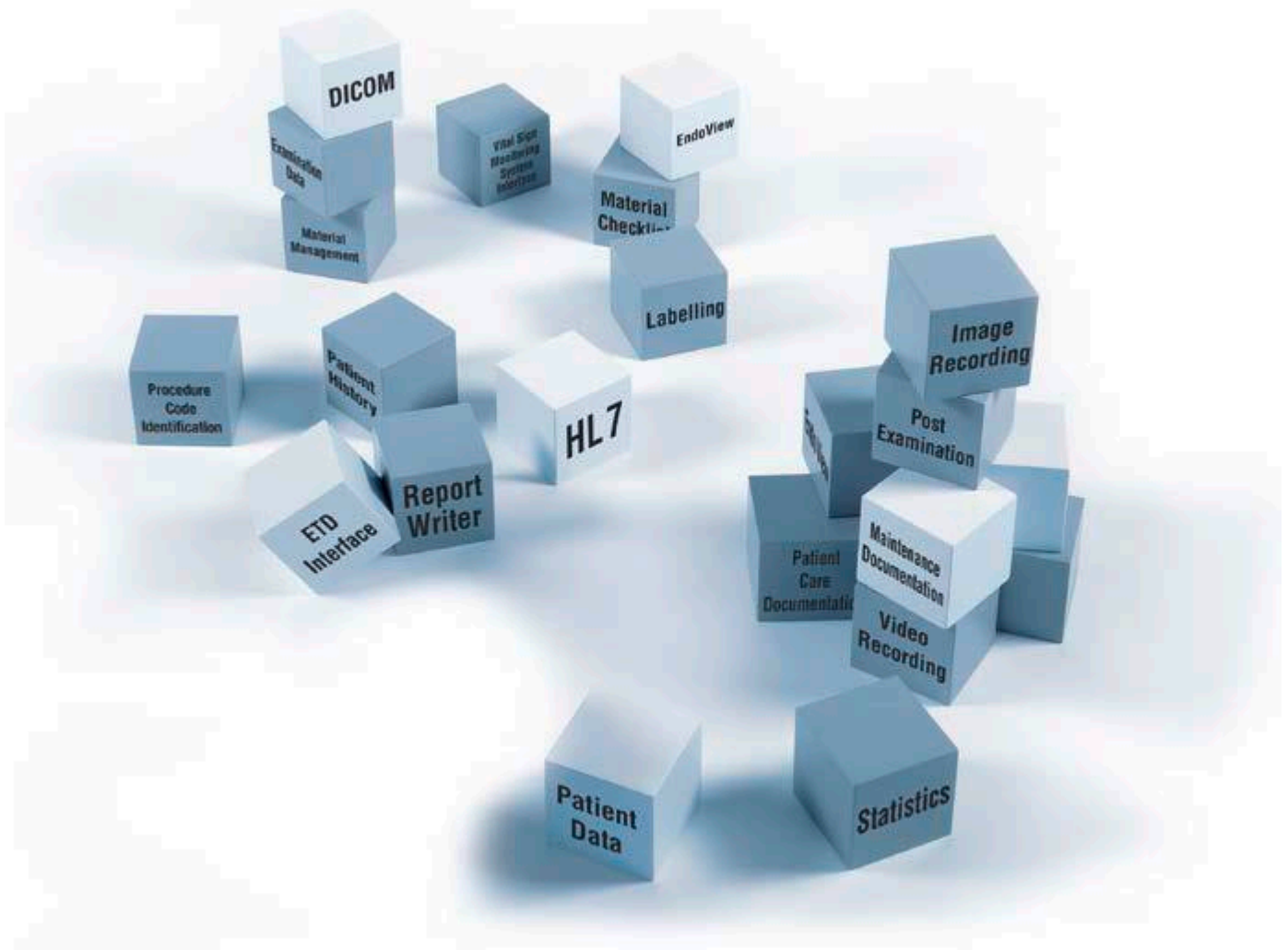
- Web based zerofootprint player
- Supports up to 7 high definition or 25 standard definition streams at full frame rate
- User configurable layouts
- Concurrent user license

License can only be used in combination with WD17100A/  
-01A/-10A/-11A/-20A/-21A/-30A/-31A/-40A/-41A





- ENDOALPHA documentation system captures all the information relevant to clinical procedures (such as patient data, video and still images, procedure data and material management data) in a centralized database.
- Still images and videos are readily available from anywhere in the hospital
- Covers a wide range of customer expectations, from stand-alone PCs to a hospital-wide solution
- Communication with hospital IT via HL7 and DICOM interface
- Easy access to clinical information for reference or statistical analysis
- Simplified reporting by utilization of structured terminology, text blocks and automatic links to accounting codes
- Drag and drop function allows convenient image integration into reports.





- All-in-one touch PC providing simple capturing and recall of patient data at a fingertip
- Touch-optimized navigation allows easy on-site patient documentation of HD images and videos as well as procedure milestones, consumable materials, scope status, reports, etc.
- Features full ENDOALPHA documentation software functionality set
- Simple key event labelling and documentation via milestones function
- Documentation of complete endoscope reprocessing cycle via interface to Olympus ETD family<sup>1</sup>
- Easy to disinfect: Fanless and smooth design as well as glass-encased front facilitate quick and reliable cleaning
- Can be operated stand-alone or as part of a network solution.
- Optional HL7 and/or DICOM interfaces for comprehensive HIS / PACS integration
- Image and video editing functionality including simple video cutting feature

**OLYMPUS** **ENDOALPHA**

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**Patient:** JORDAN, Michael      **Patient ID:** 55555555  
**Patient DOB:** 13/07/1955      **Date:** 5/05/2013

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**COLONOSCOPY REPORT**

**Examiner:** Dr. David Allen      **Referred By:** Dr. Harold Armstrong  
68 Myers Street, Geelong/3220

**Anaesthetist:** Dr. Steve Baker      **Nursing Staff:** Simon Donohoe Dr. Tim

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**Indication**  
Right lower quadrant abdominal pain.  
Screening due to a familial history of cancer (brother).

**Pre procedure**  
Informed consent was obtained after the risks and benefits were explained and the alternatives were outlined.  
Excellent quality preparation using Golytely with good views of bowel obtained.

**Scope insertion**  
Endoscope inserted to the transverse colon with no difficulty.

**Findings**  
Polypectomy performed with hot biopsy forceps. Polyp(s) completely resected, polyp(s) retrieved and tissue sent for histology.


**Interventions**  
The patient experienced a perforated bowel which was treated by haemostatic clips.

**Diagnosis**  
Colonic polyps.


**Follow Up**  
Follow up in private rooms in 2 weeks.

**Signed**  
**Dr. David Allen**


Copies To: Dr. Harold Armstrong



1. Transverse Colon - Polyp



2. Ascending Colon - Mass

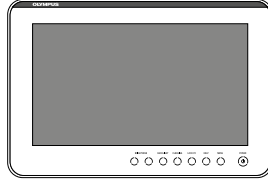


3. Ascending Colon

<sup>1</sup> ETD series only available in Europe.

## Documentation System VMC-1

WD11010A Documentation system "VMC-1", hardware and software, English



Delivery includes:  
VMC-1, power cable,  
galvanic isolator, ENDOBASE licence

### Technical Data

#### Power supply

Voltage..... 100 – 240 V ~  
Frequency .....50/60 Hz  
Power consumption ..... 150 VA

#### Size

Dimensions .....width 586 mm  
height 399 mm  
depth 90 mm

Weight ..... 13.4 kg  
Mounting..... VESA 100/200

#### System

Processor.....Intel Core i5-E2510E  
Video .....Intel HD Graphics  
Display resolution.....max. 1920 x 1600  
Operating system..... Windows 7 Ultimate

#### Integrated display

Type..... TFT-LCD  
Size (diagonal) .....21.5"  
Resolution ..... 1920 x 1080

#### Interfaces

COM ports ..... 1x RS232,  
2x RS232 (electrically isolated)  
USB ports.....3x USB 2.0, 2x USB 3.0  
Monitor ..... 1x VGA, 2x HDMI  
Network.....RJ45  
(1x GbE LAN with iAMT 7.0, 1x GbE LAN)

#### Safety

IP classification.....IP65

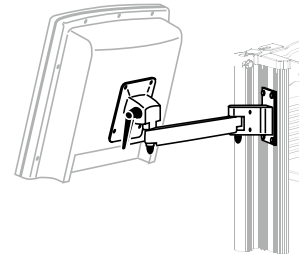
#### Ambient conditions

Operation .....temperature 0 – 35 °C  
relative humidity 10 – 90 %  
Transport and storage.....temperature -10 – 60 °C  
relative humidity 5 – 95 %

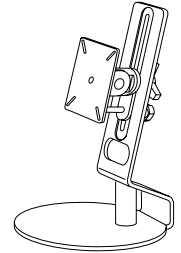
## Accessories

K10003563 LCD arm,  
for workstation WM-P1,  
"MAJ-1624"  
K10004881 "MAJ-1628", long

Maximum load: 12 kg



E0497465 Monitor stand,  
for ENDOBASE Imaging System and  
ENDOBASE DICOM System



For cables and other accessories, see page 569.





Powerful components for individual requirements

The flexibility and scalability of the ENDOBASE system allow straightforward compliance with differing customer requirements and installation scenarios. Whether it be stand-alone or HL7/DICOM-integrated solutions, limited or full functionality per network or per client – ENDOBASE suits all needs.

Different combinations of the versatile modules can be implemented, providing each department with the right software set-up.

## Stand-Alone Solutions

E0424750	Software "ENDOBASE", stand-alone, offline working, advanced imaging licence
E0424748	standard imaging licence
WD10011A	Software "ENDOBASE", upgrade network to stand-alone, advanced imaging licence
WD10010A	standard imaging licence

## Network Solutions

Requires one licence per workstation.

E0424751	Software "ENDOBASE", network, advanced imaging licence
E0424749	standard imaging licence
E0424747	non-imaging licence

## Concurrent Solutions

The number of concurrent licences defines the maximum number of users allowed in a network simultaneously.

WD10004A	Software "ENDOBASE", concurrent licence, advanced imaging licence
WD10003A	standard imaging licence
WD10002A	non-imaging licence
WD10009A	Software "ENDOBASE", upgrade network to concurrent, advanced imaging licence
WD10008A	standard imaging licence
WD10007A	non-imaging licence
WD10005A	Software "ENDOBASE", client access licence, one client required per workstation, 1 client
WD10006A	unlimited number of clients

## Optional Functionalites

E0424718	Software "EndoView" <ul style="list-style-type: none"><li>• Web browser based application that allows viewing of the complete patient file with all reports, images and videos throughout the hospital.</li><li>• EndoView can also be integrated in other applications e.g. programmes for a hospital-wide electronic patient file.</li><li>• 1 licence per installation</li></ul> EndoView requires one client access licence (WD10005A) per workstation or WD10006A.
E0424784	Software "ENDOBASE", ETD integration <ul style="list-style-type: none"><li>• Documentation of reprocessing cycle including ETD protocol and users</li><li>• Check of disinfection status before examination</li><li>• 1 licence needed per 32 ETD machines.</li></ul>
E0424725	Software "ENDOBASE", monitoring system interface <ul style="list-style-type: none"><li>• 1 license required per monitoring device</li></ul>
WD10001A	Software "ENDOBASE", PACS integration (DICOM version 3.0) <ul style="list-style-type: none"><li>• 1 licence per installation</li></ul>
E0424752	Software "ENDOBASE", HIS integration (HL7 version 2.3) <ul style="list-style-type: none"><li>• 1 licence per installation</li></ul>

## Accessories and Cables

For accessories and cables, see page 569.

## Documents

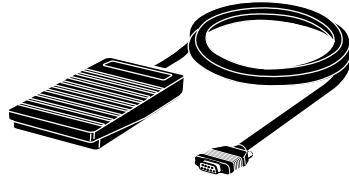
Refer to the Olympus website <http://www.endobase.com> for the most updated information on:

- ENDOBASE system requirements
- HL7 specifications
- DICOM conformance statement



### Footswitch

024722 Footswitch,  
for PC,  
cable length 10 m

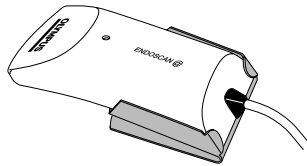


A single footswitch can be used either for still image capturing or for video capturing. Image capturing and video capturing requires two footswitches.

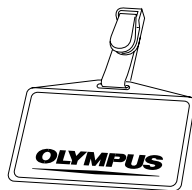
### Identification Systems

E0424420 Identification system "Endoscan@"

Connected via USB.



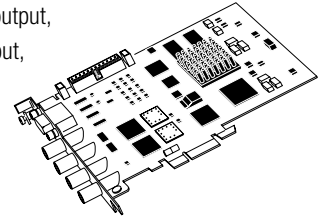
0424424 Transponder, set,  
for staff,  
10 pcs.



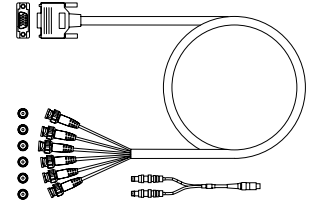
For endoscope transponder sets, see page 664.

### HD Video Grabbing

E0424794 Video capture board "Matrox Vio", HD,  
x4 PCIe short card,  
analog HD/SD input and output,  
SDI HD/SD input and output,  
128 MB DDR SDRAM



WD14005A Adapter,  
Vio I/O 15-pin,  
1.5 m



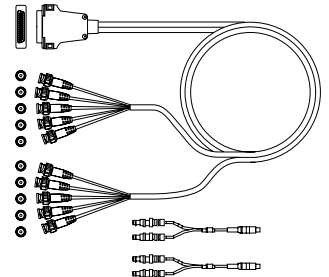
Consisting of two components:

- D-sub 15-pin to 6x BNC
- 2x BNC to Y/C

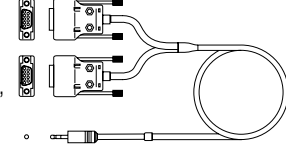
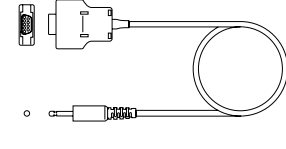
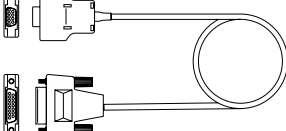
WD14006A Adapter,  
Vio I/O 44-pin,  
1.5 m,

Consisting of three components:

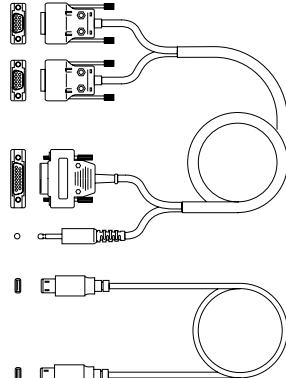
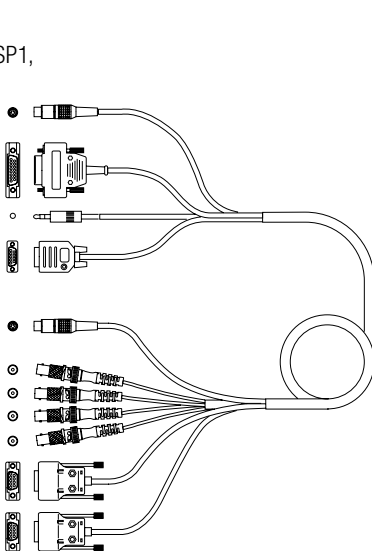
- D-sub 44-pin to 10x BNC
- 2x BNC to Y/C
- 2x BNC to Y/C



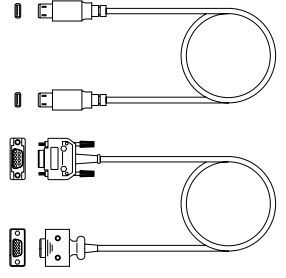
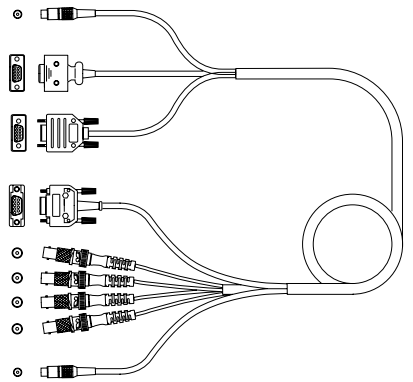
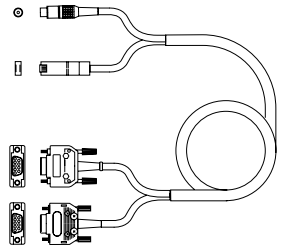
## Remote Cables

- WD14004A Remote cable, still image capturing, CV-180 combined with UCES, 5 m
- 
- E0424741 Remote cable, video capturing, OTV-S5/-S6/-S7/-SP1, 5 m
- 
- E0424766 Remote cable, still image capturing, OTV-S6/-S7/-SP1, 5 m
- 

## System Cables (1)

- E0424781 System cable, OTV-S7/-SP1, digital, 3 m
- 
- E0424777 System cable, OTV-S5/-S6/-S7/-SP1, analog, 3 m
- 

## System Cables (2)

- E0424776 System cable, CV-165/180, digital, 10 m
- 
- E0424771 System cable, CV-165/180, analog, 5 m
- 
- WD14001A System cable, CV-180 SDI, digital, 5 m
- 

## 4K ULTRA HIGH DEFINITION

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IMH-20 Image Management Hub	615
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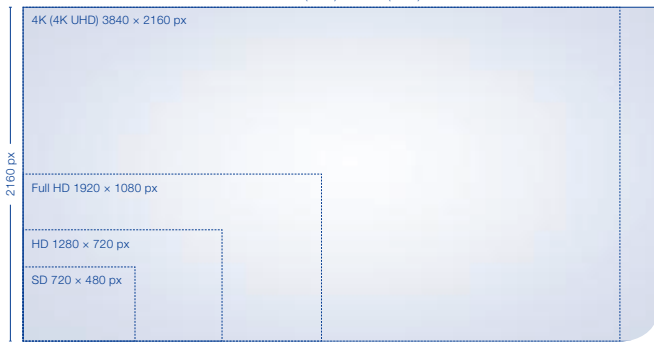
## TROLLEYS AND WORKSTATIONS

WM-NP2 Mobile Workstation	619
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# 4K





## Optimizing the entire 4K imaging chain

The fine-tuning of each layer of imaging and the ideal design of every function mean optimized images for surgery.

### ED glass lenses – razor-sharp images

- Optimized for high-resolution imaging
- High contrast at high spatial frequencies

### Exmor R sensor – clearer images in every condition

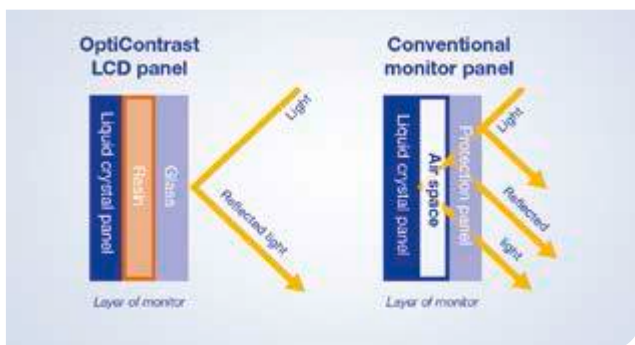
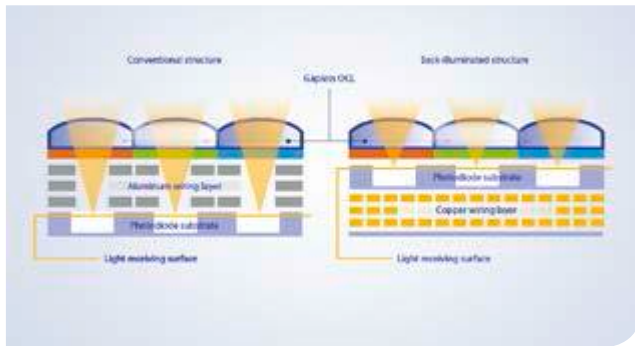
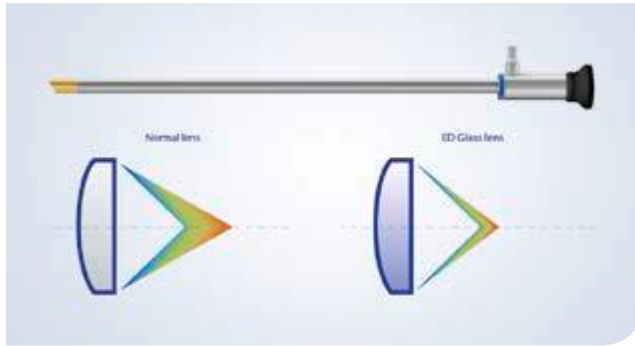
- Twice as sensitive as conventional sensors
- Higher image quality in low light conditions

### One-touch auto focus – fast and accurate

- Achieves the optimal view
- Immediate focus of the image center
- Simplified usability during surgery

### OptiContrast LCD panel – ideal contrasts

- Reduced reflections
- Unclouded images during surgery







## 4K high-quality image processing

- Wide color gamut
- 16-axial color-phase adjustment (more precise color setting based on surgeon's preference)
- Improved AE (automatic exposure) function

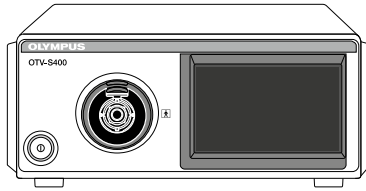
## Improved operability

- Touch panel enables adjustments during procedure
- Easy registrations and loading of user presets

# 4K

## VISERA 4K UHD Camera Control Unit

N5402150 OTV-S400 VISERA 4K UHD camera control unit



Delivery includes:  
Camera control unit, foot holder (4 pcs.), power cable,  
4K cable MAJ-2253

For light source and system chart, see page 578.  
For 4K monitors, see page 609.

## Technical Data

Power supply	
Voltage	220 – 240 V ~
Frequency	50/60 Hz
Power consumption	350 VA
Size	
Dimensions, standard	width 370 mm height 152 mm depth 476 mm
Dimensions, maximum	width 390 mm height 160 mm depth 506 mm
Weight	13.5 kg
Safety	
Type of protection against electric shock	class I
Degree of protection against electric shock of applied part	TYPE BF
Directive 93/42/EEC	class I
Observation	
Signal system	correspond to 4K and HD
Signal output	3G-SDI, HD-SDI
Resolution	4096 x 2160, 3840 x 2160, 1920 x 1080
Ambient conditions	
Operation	temperature 10 – 35 °C relative humidity 30 – 85 % atmospheric pressure 700 – 1060 hPa
Storage	temperature 5 – 40 °C relative humidity 10 – 95 % atmospheric pressure 700 – 1060 hPa
Transport	temperature -20 – 70 °C relative humidity 10 – 95 % atmospheric pressure 700 – 1060 hPa

## 4K Camera Head

N5401730 CH-S400-XZ-EB  
4K Camera Head



- Clamping endoscope mount for endoscopes with an eyepiece complying with DIN 58105:2000
- One touch auto focus switch
- Three remote control switches
- CMOS image sensor
- Narrow band imaging (NBI)

### Technical data

Weight	280 g
Cable	Ø 5.2 mm x 3 m
Focal length	f = 23.5 mm

## Accessories

	4K cable	
N5402200	3.0 m, MAJ-2253	
N5402300	8.5 m, MAJ-2254	
N5402400	22 m, MAJ-2255	
	3G-SDI cable	
N4491400	3.0 m, MAJ-2015	
N4491500	8.5 m, MAJ-2016	
	SDI cable	
N3647800	2.5 m, MAJ-1951	
N3646000	8.5 m, MAJ-1912	
N2486300	22 m, MAJ-1464	
A4933	VTR remote cable MAJ-438	
N2486000	Foot holder MAJ-1433, 4 pcs.	



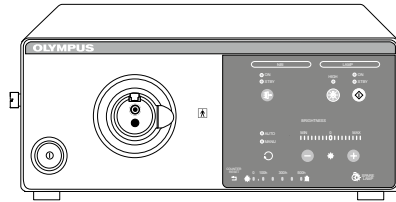
### Custom light source for the 4K system

- 300W xenon lamp
- Automatic light control
- NBI compatibility

# 4K

## VISERA 4K UHD Light Source

N5401550 CLV-S400 VISERA 4K UHD  
xenon light source



Delivery includes:  
Light source, light source cable MAJ-1942, foot holders  
MAJ-1205 (4 pcs.), power cable

## Technical Data

### Power supply

Voltage..... 220 – 240 V ~  
Frequency .....50/60 Hz  
Power consumption .....500 VA

### Size

Dimensions, ..... standard width 370 mm  
height 150 mm  
depth 474 mm  
Dimensions, maximum..... width 391 mm  
height 162 mm  
depth 521 mm

Weight ..... 15.5 kg

### Safety

Type of protection against electric shock..... class I  
Degree of protection against electric shock  
of applied part .....TYPE BF  
Directive 93/42/EEC ..... class I

### Illumination

Examination lamp ..... xenon short-arc lamp, 300 W  
Average lamp life ..... approx. 500 hours  
(on continuous use)

Brightness control..... light-path diaphragm  
Emergency lamp..... halogen lamp, 12 V, 35 W

### Ambient conditions

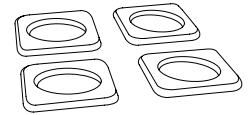
Operation ..... temperature 10 – 40 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa

Storage ..... temperature 5 – 40 °C  
relative humidity 10 – 95 %  
atmospheric pressure 700 – 1060 hPa

Transport..... temperature -20 – 70 °C  
relative humidity 10 – 95 %  
atmospheric pressure 700 – 1060 hPa

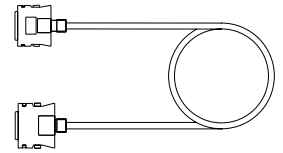
## Accessories

GL2553 Foot holder MAJ-1205  
4 pcs.

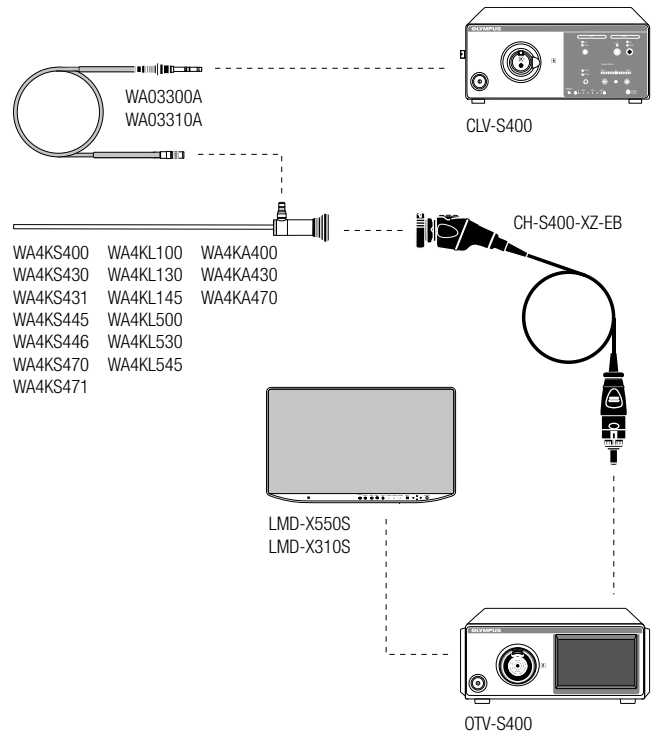


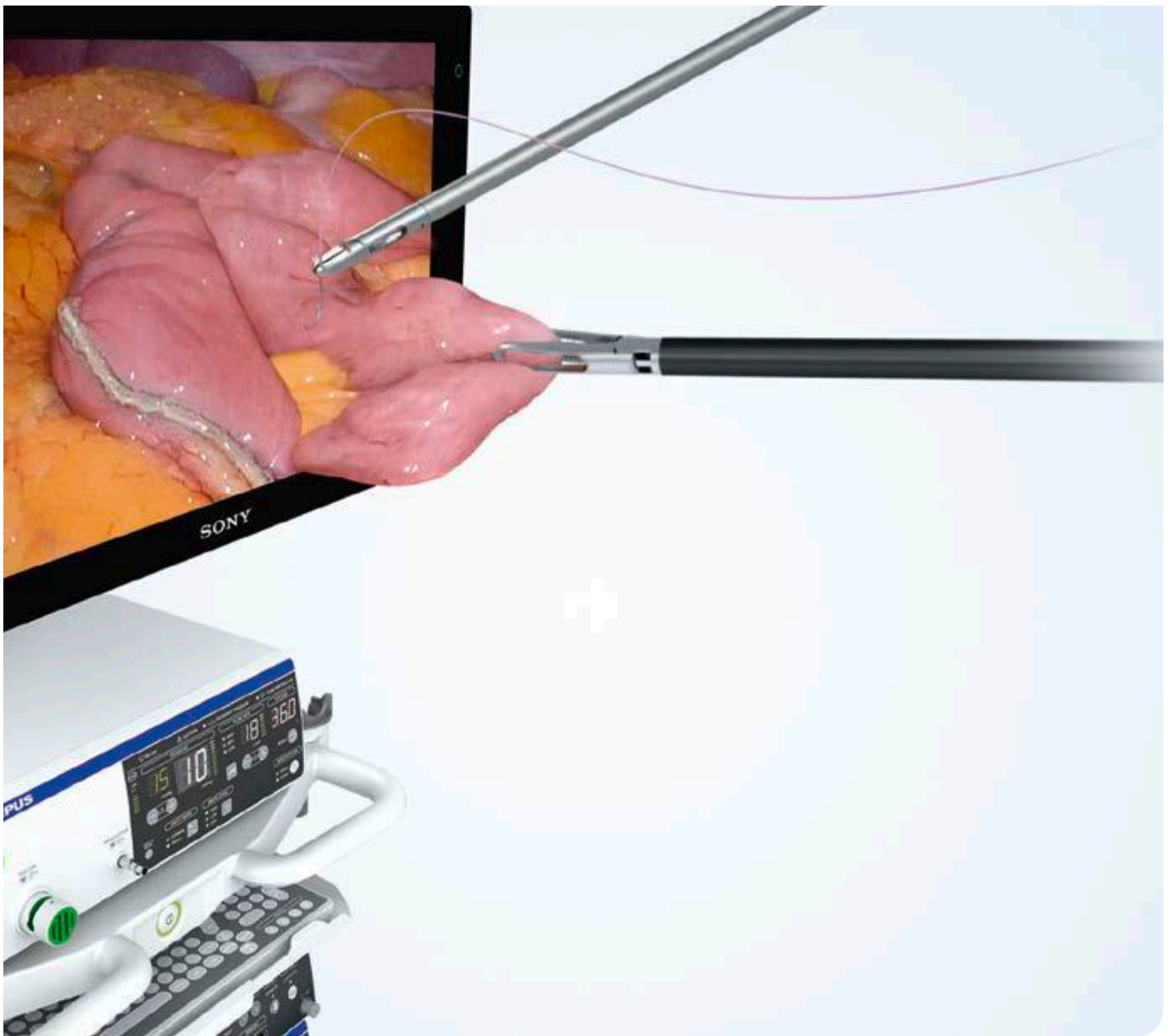
N3647300 Light source cable MAJ-1941

- Connects CLV-S400 to  
OTV-S400.



## System Chart





Introducing a new 3D imaging solution that provides depth perception and a precise spatial view of anatomy that cannot be achieved with traditional 2D systems. The OLYMPUS 3D solution is a fusion of advanced 3D technology which overcomes the limitations of conventional 3D systems, providing a new perspective on surgical imaging.

- Improved speed
- Greater accuracy and precision
- Shorter learning curve

## ENDOYEYE FLEX 3D

The only solution that can provide the critical clinical view while maintaining image orientation. A greater depth of field and the optimal amount of depth perception are also realized with the 3D HD image. We are proud to introduce this innovative solution for 3D imaging.

## Add 3D to Your Current System

Olympus 3D Imaging Solution ensures compatibility with our current 2D scopes to provide an economical means of upgrading your video system with minimal incremental cost. Our video platform supports over 100 different flexible and rigid camera heads, videoscopes and endoscopes.

## ENDOALPHA

With ENDOALPHA, Olympus offers visionary control, communication, video management and documentation solutions that integrate the complete range of medical equipment and peripheral systems in the operating and intervention rooms.

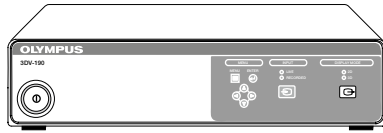




- The 3DV-190 integrates the left and right images provided by two CV-190 video system centers, and outputs the 3D signal to 3D monitors and recorders in an optimal format (two CV-190 units required).
- 3D output (3G-SDI, DVI-D) to multiple monitors is available.
- 2D and 3D observation modes can be switched easily by remote button.
- Several 3D formats (3G, LINE BY LINE, SIDE BY SIDE) are selectable.
- 3D SIDE BY SIDE image can be output to recorders through HD-SDI.
- NBI (Narrow Band Imaging) is easily available during surgery in both 2D and 3D.

## 3D Visualization Unit

N4491360 3D Visualization Unit "3DV-190"



Delivery includes:

Visualization unit, power cable, foot holder MAJ-2054 (4 pcs.), SDI cable MAJ-2014 (2 pcs.), SDI cable MAJ-2053 (2 pcs.), 3G-SDI cable MAJ-2015, remote cable MAJ-1919

## Technical Data

### Power supply

Voltage..... 100 – 240 V ~

Frequency .....50/60 Hz

Power consumption ..... 100 VA

### Size

Dimensions, ..... standard width 370 mm  
height 85 mm  
depth 454 mm

Dimensions, maximum ..... width 370 mm  
height 85 mm  
depth 478 mm

Weight ..... 7.7 kg

### Safety

Protection against electric shock ..... class I

Directive 93/42/EEC ..... class I

### Observation

Signal format.....HDTV signal

3D output..... 3G-SDI Level B, DVI-D

2D output.....HD-SDI, DVI-D

### Ambient conditions

Operation ..... temperature 10 – 40 °C

relative humidity 30 – 85 %

atmospheric pressure 700 – 1060 hPa

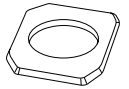
Transport and storage ..... temperature -25 – 70 °C

relative humidity 10 – 90 %

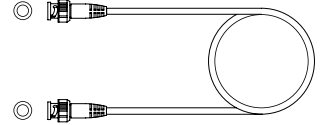
atmospheric pressure 700 – 1060 hPa

## Accessories

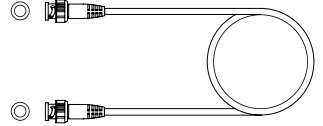
on request Foot holder "MAJ-2054"



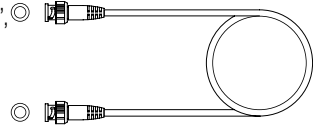
N4491600 SDI cable "MAJ-2014",  
for master,  
1.0 m



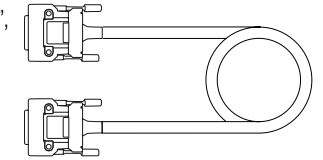
N4491700 SDI cable "MAJ-2053",  
for slave,  
1.0 m



N4491400 3G-SDI cable "MAJ-2015",  
3.0 m



N3646400 Remote cable "MAJ-1919",  
for CV-CV







The 3D ENDOEYE FLEX utilizes high-density image sensors at the distal end of the videoscope, providing 3D images in high definition.

- Bends up to 100 degrees in four directions.
- Focus-Free
- The 3D ENDOEYE FLEX provides improved speed, accuracy and precision regardless of skill level, while helping to shorten the learning curve for surgical tasks.
- The viewing mode is easily switched between 2D and 3D.
- NBI (Narrow Band Imaging) in 2D/3D



## HD ENDOEYE FLEX 3D

N4501750 Videoscope "LTF-190-10-3D"

Delivery includes:

Videoscope, sterilization cap MAJ-1538, leakage tester

## Technical Data

### Optical system

Field of view ..... 80°

Direction of view ..... 0°

Depth of field ..... 18 – 100 mm

### Insertion portion

Distal end outer diameter ..... Ø 10 mm

Rigid section outer diameter ..... Ø 10 mm

Working length ..... 370 mm

### Bending section

Angulation range ..... 100° up, 100° down  
100° right, 100° left

Total length ..... 3600 mm

### Compatibility

NBI observation mode ..... available

HF treatment ..... compatible

Laser treatment ..... not compatible

### Safety

Directive 93/42/EEC ..... class IIa

Protection against electric shock ..... type BF applied part

### Ambient conditions

Operation ..... temperature 10 – 40 °C

relative humidity 30 – 85 %

atmospheric pressure 700 – 1060 hPa

Transport and storage ..... temperature -47 – 70 °C

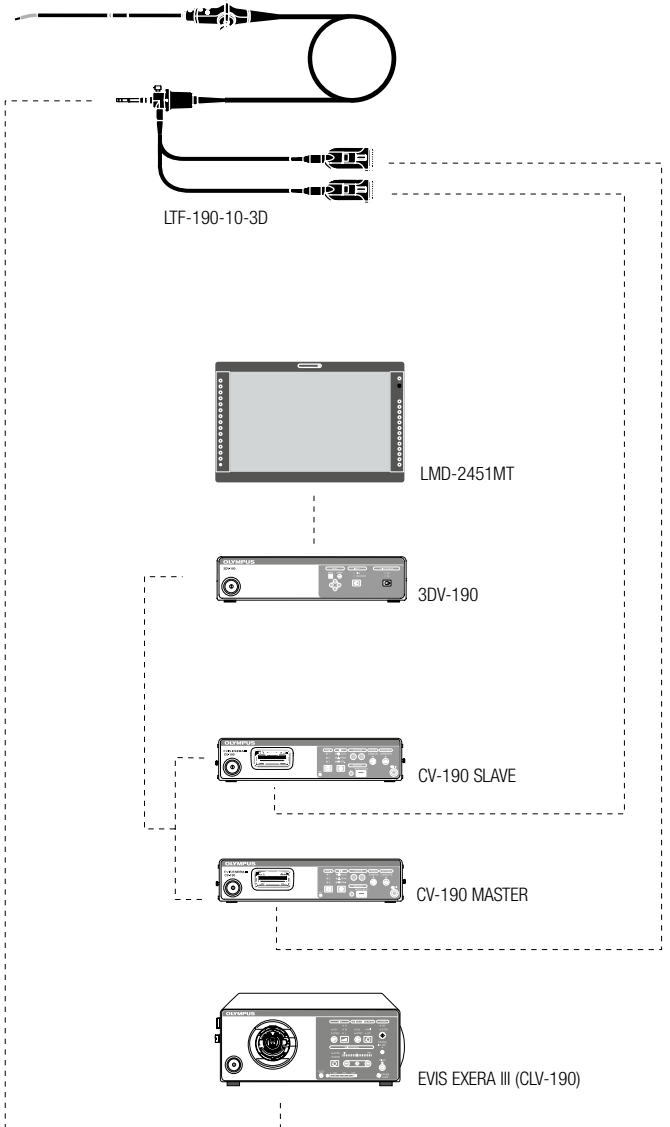
relative humidity 10 – 95 %

atmospheric pressure 700 – 1060 hPa

## Rigid Sheath

N4501830 Rigid sheath "MAJ-2079",  
for LTF-190-10-3D

## System Chart



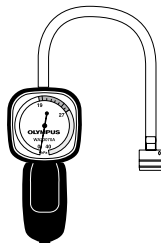
## Reprocessing

N2639830 Sterilization cap "MAJ-1538"



WA23070A Leakage tester,  
for flexible Olympus endoscopes

- For manual use
- With indicator
- For all Olympus surgical fiberscopes and videoscopes





## EVIS EXERA III



- Compatible with all 3D and 2D video endoscopes and camera heads
- NBI (Narrow Band Imaging) offers much greater contrast between blood vessels and mucosa.
- Improved image processing delivers enhanced color reproduction, minimised image noise and reduced halation
- The pre-freeze function automatically selects the clearest still image
- 16:9 and 16:10 output for an HDTV monitor are available; compatible with analogue, HD-SDI and DVI output
- Portable memory is compatible – standard for data management: simply connect and upload





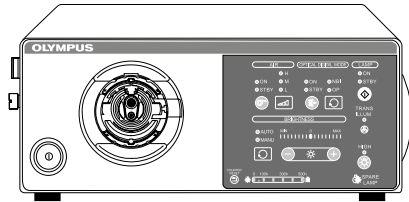
## EVIS EXERA III



- Compatible with all 3D and 2D video endoscopes and light-guide cables
- Improved NBI (Narrow Band Imaging) thanks to an improved lamp design and signal processing.
- Considerable reduction in operating noise thanks to a redesigned fan.
- Automatic light adjustment to achieve ideal illumination for observation with each scope.
- Optional: specially coated filters for PDD (Photodynamic Diagnosis)

## EVIS EXERA III Xenon Light Source

N3643350 EVIS EXERA III xenon light source "CLV-190"

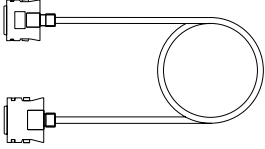
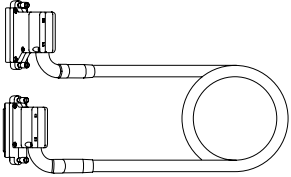

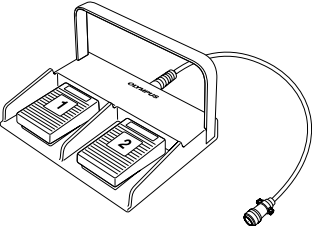
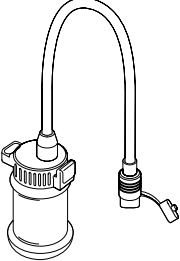
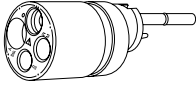


Delivery includes:  
Light source, light source cable MAJ-1941, foot holders MAJ-1205, power cable, water container MAJ-901

## Technical Data

Power supply	
Voltage.....	100 – 240 V ~
Frequency .....	50/60 Hz
Power consumption .....	600 VA
Size	
Dimensions, standard .....	width 370 mm
	height 150 mm
	depth 476 mm
Dimensions, maximum.....	width 390 mm
	height 162 mm
	depth 551 mm
Weight .....	19 kg
Illumination	
Examination lamp .....	Xenon short-arc lamp, 300 W
Average lamp life .....	approx. 500 hours (on continuous use)
Brightness adjustment .....	light-path diaphragm control
Cooling.....	forced-air
Intensity mode.....	normal or intensity
NBI observation .....	available
PDD observation.....	with special purpose filter
Color conversion.....	with special purpose filter
Emergency lamp.....	halogen lamp, 12 V, 35 W
Average emergency lamp life.....	approx. 500 hours
Ambient conditions	
Operation .....	temperature 10 – 40 °C
	relative humidity 30 – 85 %
	atmospheric pressure 700 – 1060 hPa
Transport and storage.....	temperature -25 – 70 °C
	relative humidity 10 – 90 %
	atmospheric pressure 700 – 1060 hPa

## Accessories

N3647300	Light source cable "MAJ-1941"	
	Connects CLV-190 to CV-190 or OTV-S190.	
N3647100	Digital light source cable "MAJ-1933"	
	Connects CLV-190 to CV-190.	
GL2553	Foot holder "MAJ-1205" 4 pcs.	
N2486200	Foot switch "MAJ-1391"	
GC7271	Water container "MAJ-901"	
N1052830	Light-guide adapter "MAJ-1200"	
	Contact Olympus for compatible light-guide cables.	
N2504640	PDD filter set "MAJ-1429" (not shown)	





The surgical imaging platform serves as a hub to connect rigid and flexible scopes across multiple specialties, thereby standardizing training, reprocessing and service to achieve OR efficiencies. It also links with a number of digital devices and networks to provide image, video management and documentation.

## OTV-S190

- Equipped with high-resolution HDTV imaging capability, even for 5 mm videoscopes.
- HD-SDI (for 1080i) and DVI (for 1080p) outputs are provided to suit your preference.
- Compatibility of user-friendly portable memory interface.

## ENDOALPHA

- With ENDOALPHA, Olympus offers visionary control, communication, video management and documentation solutions that integrate the complete range of medical equipment and peripheral systems in the operating and intervention rooms.

## TUR Camera Head

- Compact, lightweight 45g design camera head with improved maneuverability helps reduce stress during long procedures in TUR and rigid cystoscopy.

## PDD

- Unique filter-incorporated design specially made to maximize the performance of PDD observation.





- Equipped with high-resolution HDTV imaging capability (16:9 and 5:4) to provide the best possible image quality for flexible and rigid endoscopes. Enables comprehensive observation of different organs and tissue.
- Compatible with a wide range of endoscopes and camera heads, both for office and OR.
- NBI is a proprietary optical image enhancement technology that is only available on Olympus products. NBI enhances the visualization of vessels and other tissues on the mucosal surface and is 20% brighter than previous models.
- Two types of structure enhancement are available: Type A for observation of larger mucosal structures with high contrast, and Type B for observation of smaller structures such as capillaries.
- HD-SDI (for 1080i) and DVI (for 1080p) output for high-quality video image transfer.
- Convenient digital-to-digital recording of still images into portable memory.
- Pre-freeze function improves the quality of still image for flexible scopes.

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## HD Autoclavable Camera Heads

- Full HD 3CCD
- Enhanced resolution and control
- Autoclavability
- NBI (Narrow Band Imaging)
- Three fully programmable remote switches
- Optical zoom via remote control
- Focus via remote control

N3804860 Camera head "CH-S190-XZ-E",  
autoclavable,  
eyepiece type  
(clamping connector)



N3804760 Camera head "CH-S190-XZ-Q",  
autoclavable,  
quick-lock type  
(quick-lock connector)



### Technical Data

#### Size

Dimensions, CH-S190-XZ-E	width 50 mm
	height 63 mm
	depth 142 mm
Dimensions, CH-S190-XZ-Q	width 45 mm
	height 58 mm
	depth 161 mm
Weight	350 g
Cable	∅ 6.8 mm x 3 m

#### Safety

Protection against electric shock	class I
Degree of protection against electric shock	type BF

#### Observation

Magnification ratio	0.9x – 1.8x
Focal distance	f = 15.8 – 31.3 mm

#### Remote switches

Programmable	3x
Optical zoom adjustment	2x
Focus adjustment	2x

## HD Urology Camera Head

- Ultralight and easy to operate:  
Only 65 g – the weight of a fountain pen
- Crystal clear, brilliant and true-to-life
- Full HD camera head with NBI – a unique combination for bladder cancer resection
- Same color mode for NBI in flexible cystoscopy (CYF endoscope) and TUR (camera head plus resectoscope)

N4488560 Camera head "CH-S190-08-LB",  
L-shape,  
eyepiece type  
(clamping connector)



### Technical Data

#### Size

Dimensions	∅ 26 mm
	length 83 mm
Weight	65 g (head part)
	20 g (remote control part)
Cable	∅ 3.3 mm x 3.5 m

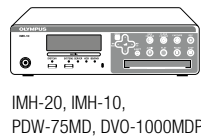
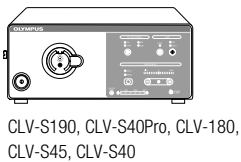
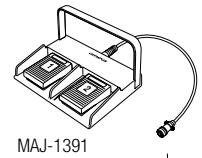
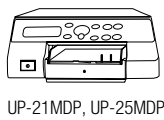
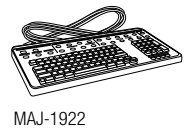
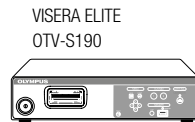
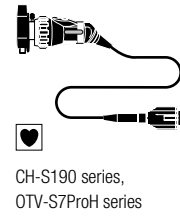
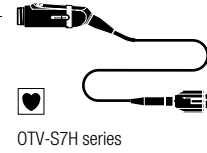
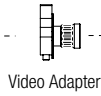
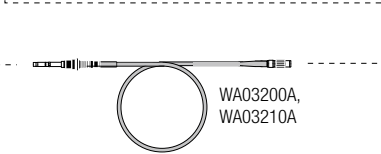
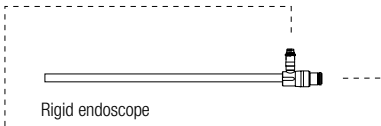
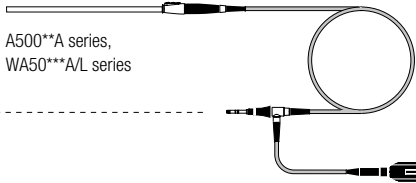
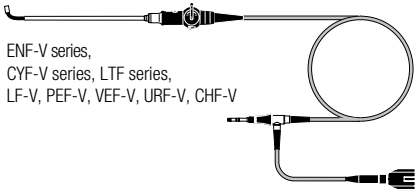
#### Safety

Directive 93/42/EEC	class I
Degree of protection against electric shock	type BF

#### Remote switches

Programmable	3x
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# System Chart





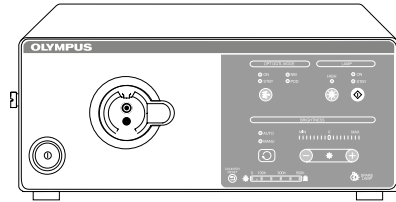
**VISERA  
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- Equipped with specially coated filters for NBI (Narrow Band Imaging).
- Optional specially coated filters for PDD (Photodynamic Diagnosis).
- Automatically adjusts light intensity to achieve ideal illumination for observation.
- Powerful 300-watt xenon lamp
- Backlit front panel indicators and controls improve operability.
- Automatic switching to emergency lamp

## VISERA ELITE Light Source CLV-S190

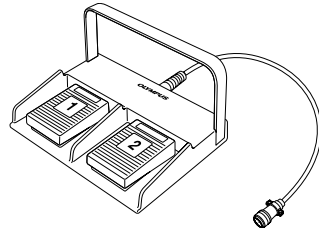
N3643950 Light source "CLV-S190"



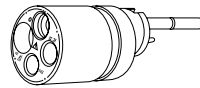
Delivery includes:  
Light source, 4 foot holders, light source cable MAJ-1959,  
power cable

## Accessories

N2486200 Foot switch "MAJ-1391"



N1052830 Light-guide adapter "MAJ-1200"



Contact Olympus for compatible light-guide cables.

N2504640 PDD filter set "MAJ-1429" (not shown)

## Spare Bulbs

028148 Spare bulb "MD-631" (not shown),  
xenon

028133 Spare emergency bulb (not shown),  
halogen

## Technical Data

### Power supply

Voltage ..... 100 – 240 V ~  
Frequency ..... 50/60 Hz  
Power consumption ..... 500 VA

### Size

Dimensions, standard ..... width 370 mm  
height 150 mm  
depth 474 mm  
Dimensions, maximum ..... width 383 mm  
height 162 mm  
depth 536 mm

Weight ..... 14.9 kg

### Safety

Protection against electric shock ..... class I  
Degree of protection against electric  
shock ..... depends on applied part  
Directive 93/42/EEC ..... class I

### Illumination

Examination lamp ..... xenon short-arc lamp, 300 W  
Average lamp life ..... 500 hours  
Brightness control ..... light-path diaphragm control  
Emergency lamp ..... halogen lamp 12 V, 35 W

### Ambient conditions

Operation ..... temperature 10 – 40 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa  
Transport and storage ..... temperature -25 – 70 °C  
relative humidity 10 – 90 %  
atmospheric pressure 700 – 1060 hPa

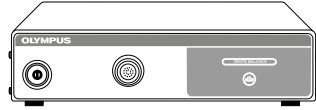




- Camera head with 1/4-inch CCD and built-in moiré reduction filter delivers clear images with its compact, lightweight and ergonomic design.
- Responding to the needs of outpatient facilities, the system is compatible with various types of endoscopes such as fiberscopes, telescopes and colposcopes.
- Simple, easy-to-use design focused on easier operation. Same width as the CLL-V1 LED light source.
- DVI output compatibility delivers improved connectability with almost all types of monitors, both analog and digital.

## OTV-SC2 Office Video System

N5401160 OTV-SC2 video system



Delivery includes:  
Video system, CH-SC2-1D camera head, foot holder (4 pcs.),  
MB-677 BNC cable, pattern sheet, power cable

## Technical Data

### Power supply

Voltage..... 220 – 240 V ~  
Frequency ..... 50/60 Hz  
Power consumption ..... 45 VA

### Size

Dimensions, ..... standard width 295 mm  
height 69 mm  
depth 376 mm  
Dimensions, maximum ..... width 312 mm  
height 80 mm  
depth 401 mm

Weight ..... 4.9 kg

### Output

Analog ..... 2x VBS composite, 1x Y/C  
Digital ..... 1x DVI

### Safety

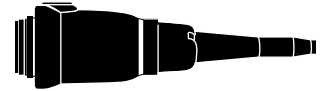
Type of protection against electric shock..... class I  
Degree of protection against electric shock  
of applied part ..... TYPE BF  
Directive 93/42/EEC ..... class I

### Ambient conditions

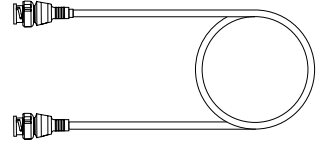
Operation ..... temperature 10 – 40 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa  
Storage ..... temperature 5 – 40 °C  
relative humidity 10 – 95 %  
atmospheric pressure 700 – 1060 hPa  
Transport..... temperature -20 – 70 °C  
relative humidity 10 – 95 %  
atmospheric pressure 700 – 1060 hPa

## Accessories

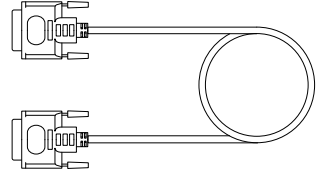
N5400860 CH-SC2-1D camera head



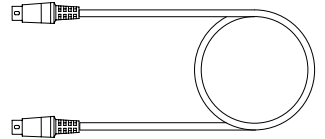
027913 BNC cable MB-677,  
1.5 m



N3647500 DVI cable MAJ-1945



E0482003 S-video cable MH-985



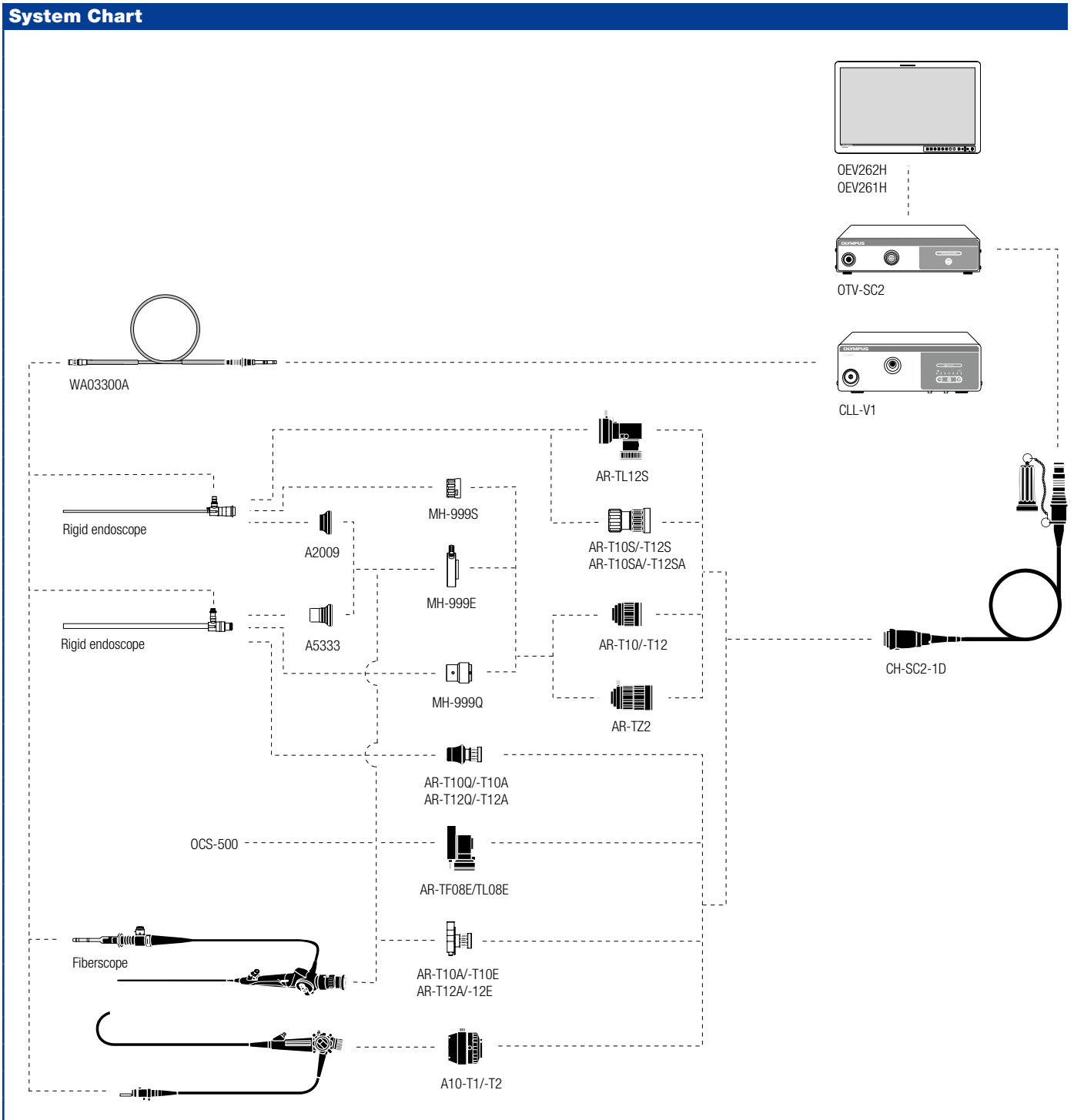
For a system chart, see page 599.

For video adapters, see page 600.

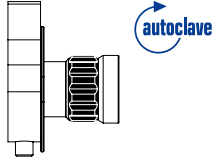

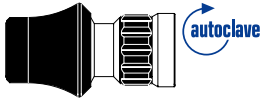




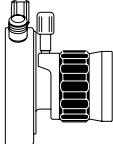
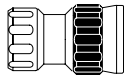
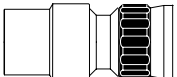

### System Chart



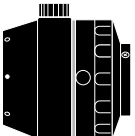
## Autoclavable Video Adapters

A4210A A4211A	Video adapter, eyepiece type, autoclavable, "AR-T10EA", 1.0x "AR-T12EA", 1.2x	
A4212A	Video adapter, screw type, autoclavable, "AR-T10SA", 1.0x	
A4214A A4215A	Video adapter, quick-lock type, autoclavable, "AR-T10QA", 1.0x "AR-T12QA", 1.2x	

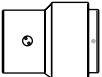
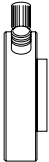

## Video Adapter

A8960 A8963	Video adapter, eyepiece type, "AR-T10E", 1.0x "AR-T12E", 1.2x	
A8961 A8964	Video adapter, screw type, "AR-T10S", 1.0x "AR-T12S", 1.2x	
A8962 A8965	Video adapter, quick-lock type, "AR-T10Q", 1.0x "AR-T12Q", 1.2x	
A4923 A4924	Video adapter, L-shape, eyepiece type, "AR-TF08E", 0.8x, with viewfinder "AR-TL08E", 0.8x	



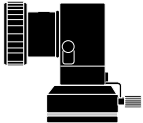
## Video Adapter for OES Fiberscopes

A4929 A4930	Video adapter, for OES fiberscopes (gastrosopes etc.), "A10-T1", 1.0x "A10-T2", 2.0x	
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## Video Couplers

A4925	Video coupler "MH-999Q", quick-lock type	
A4926	Video coupler "MH-999E", eyepiece type	
A4927	Video coupler "MH-999S", screw type	

## Video Adapters for Couplers

For use with video couplers MH-999Q/E/S.		
A4921 A4920	Video adapter, "AR-T10", 1.0x "AR-T12", 1.2x	
A4922	Video adapter "AR-TZ2", zoom type, 1.0–2.0x	
A4928	Video adapter "AR-TL12S", L-shape	

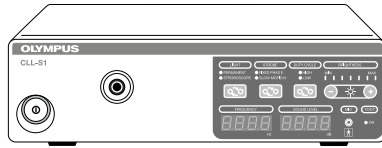


StrobeLED is the stroboscopy light source from Olympus that is specially designed for laryngologists and voice experts. It enables incredibly precise and noise-free examination and diagnosis of voice disorders.

- Reliable stroboscopy algorithm:  
No flickering in video, no blackouts
- Great illumination in permanent and stroboscopy mode
- Noise-free:  
No side tone distraction during examination
- Adjustable duty cycle:  
Choice between more resolution or more brightness, depending on the application
- Low energy consumption (< 55W):  
Low lifetime costs and environmentally friendly compared to conventional lamps

## StrobeLED

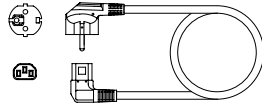
WA97010A Light source "OLYMPUS CLL-S1",  
for stroboscopy



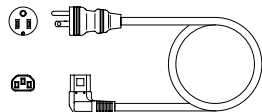
Delivery includes:

Light source, foot switch, microphone (incl. extension cable),  
2 BNC cables, 4 foot holders, 2 spare fuses

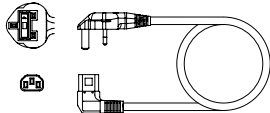
WA95621A Power cable,  
type E/F (CEE 7/7)



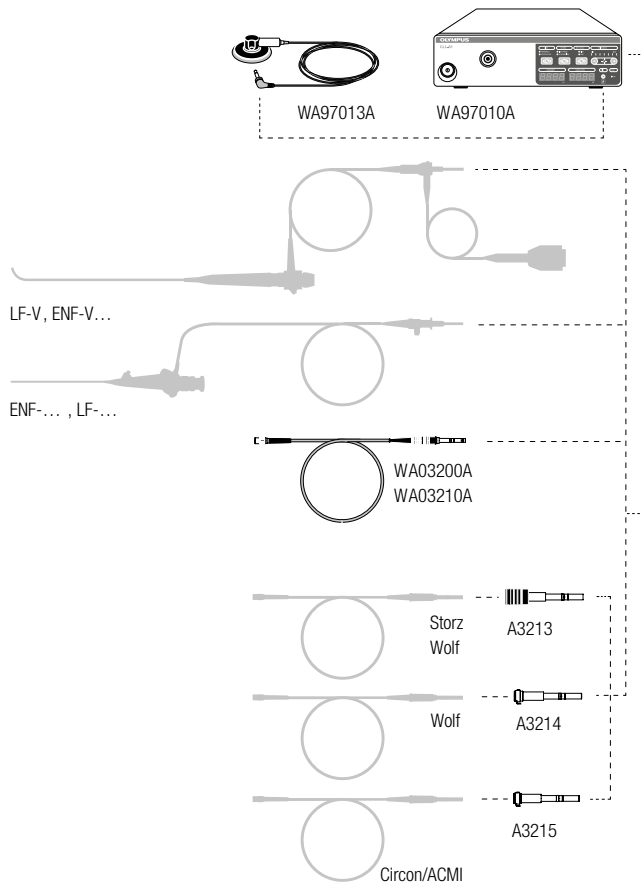
WA95622A Power cable,  
type B (NEMA 5-15)



WA95623A Power cable,  
type G (BS 1363)

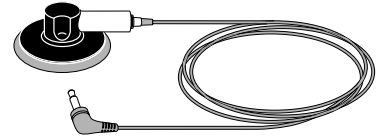


## System Chart



## Accessories

WA97013A Throat microphone



## Technical Data

### Power supply

Voltage..... 100 – 240 V ~  
Frequency .....50/60 Hz  
Power consumption ..... 100 VA  
Fuse..... T 3.15 A 250 V

### Size

Dimensions ..... width 370 mm  
height 111 mm  
depth 475 mm

Weight .....7.85 kg

### Safety

Protection class acc. to IEC 60601-1 .....BF  
Ingress protection rate ..... IPX0

### Illumination

Lamp .....LED  
Operating hours..... 2,000 hours

### Microphone

Cable length..... 1 m  
Length of extension cable..... 1 m  
Type.....electret condenser microphone  
Polar pattern ..... omnidirectional  
Frequency response..... 100 – 12,000 Hz  
Sensitivity..... -42 dB at 1 kHz  
Output impedance .....2.2 kΩ

### Audio/Video

AUDIO OUT ..... line-level audio output  
with  $V_{pp} < 1$  V  
VIDEO IN and VIDEO OUT..... 75 Ω composite  
video signal

### Ambient conditions

Operation ..... temperature 10 – 38 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa  
Storage ..... temperature 10 – 40 °C  
relative humidity 30 – 75 %  
atmospheric pressure 500 – 1060 hPa  
Transport temperature ..... -29 – 70 °C  
relative humidity 10 – 95 %  
atmospheric pressure 500 – 1060 hPa



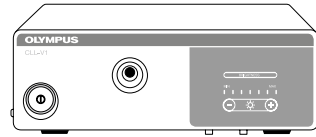


The CLL-V1 light source from Olympus is based on the latest LED technology and enables a bright examination with very low energy consumption.

- High brightness compared to conventional halogen light sources
- Homogeneous light distribution due to optimized lens design for a wide range of telescopes
- Constant light intensity over lifetime
- Low maintenance costs: No bulb exchanges required for at least 5,000 hours.
- Low lifetime costs due to low energy consumption of environmentally friendly LED technology

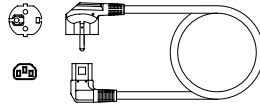
## Light Source CLL-V1

WA97020A Light source "OLYMPUS CLL-V1"

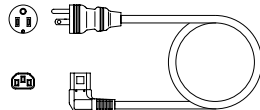


Delivery includes:  
Light source, 4 foot holders, 2 spare fuses

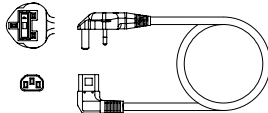
WA95621A Power cable,  
type E/F (CEE 7/7)



WA95622A Power cable,  
type B (NEMA 5-15)



WA95623A Power cable,  
type G (BS 1363)



## Technical Data

### Power supply

Voltage..... 100 – 240 V ~  
Frequency .....50/60 Hz  
Power consumption ..... 100 VA  
Fuse..... T 3.15 A 250 V

### Size

Dimensions .....width 295 mm  
height 111 mm  
depth 404 mm  
Weight ..... 6.3 kg

### Safety

Ingress protection rate ..... IPX0

### Illumination

Lamp .....LED  
Operating hours..... 2,000 hours

### Ambient conditions

Operation temperature ..... 10 – 38 °C  
relative humidity 30 – 85 %  
atmospheric pressure 700 – 1060 hPa  
Storage temperature ..... 10 – 40 °C  
relative humidity 30 – 75 %  
atmospheric pressure 500 – 1060 hPa  
Transport temperature ..... -29 – 70 °C  
relative humidity 10 – 95 %  
atmospheric pressure 500 – 1060 hPa

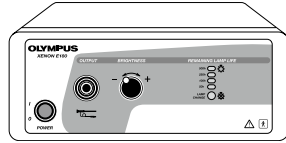


The Olympus Xenon E180 light source offers economical access to superior xenon technology.

- Bright image illumination by high intensity 180 W xenon lamp
- Excellent reliability due to lamp life counter
- Natural color recognition because daylight resembles xenon light

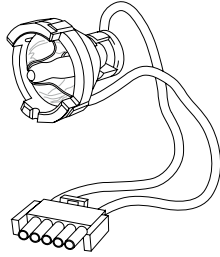
## Light Source Xenon E180

WA58675A Light source "Xenon E180",  
xenon,  
180 W



## Spare Lamp

WA58677A Lamp,  
xenon, 180 W,  
for WA58675A,  
2 pcs.



## Technical Data

Power supply	
Voltage .....	100 – 240 V
Frequency .....	50/60 Hz
Power consumption .....	220 W
Size	
Dimensions .....	275 (W) x 110 (H) x 327 (D) mm
Weight .....	6 kg
Classification	
Protection against electric shock .....	class 1 type BF
Lamp	
Type .....	Xenon
Power .....	180 W
Lamp life .....	at least 500 hrs. <sup>1</sup>

<sup>1</sup> in intermittent use test cycle (1 hr. on, 1 hr. off)








Mobility without compromise, brightness plus convenience: The Olympus EndoLED incorporates the latest LED technology, delivering unprecedented white light with excellent color reproduction.

- Color temperature similar to xenon light thanks to careful LED selection
- High brightness over the entire LED lifetime of 100,000 hrs
- Convenient battery concept using standard AA rechargeable batteries and a battery status indicator
- Ergonomic design for rigid and flexible endoscopes provides greater comfort
- Highest reprocessing standards: fully immersible, washer and disinfectant compatible, sterilizable with Sterrad

## EndoLED Light Source

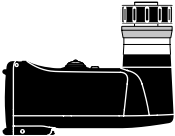
WA91500A Light source "EndoLED",  
for rigid endoscopes

for rechargeable batteries  
(requires 2 batteries of WA91505A),  
with battery status indicator (lasts up to 3 hrs.),  
includes 2 adapter 00332



WA91502A Light source "EndoLED",  
for flexible endoscopes

for rechargeable batteries  
(requires 2 batteries of WA91505A),  
with battery status indicator (lasts up to 3 hrs.)



### Technical Data

#### Dimensions

WA91500A ..... 34 (W) x 112 (H) x 39 (D) mm

WA91502A ..... 70 (W) x 90 (H) x 35 (D) mm

#### Weight (without batteries)

WA91500A ..... 140 g

WA91502A ..... 119 g


WA91505A Battery,  
AA type,  
rechargeable,  
4 pcs.



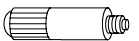
## Miniature Light Source

- Fully immersible waterproof design
- Powered by the same lithium battery normally used in cameras.
- Halogen lamp for sufficient power duration and light intensity

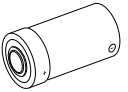
A9125 Light source "MAJ-524",  
for lithium batteries (not included),  
battery life cycle 60 min



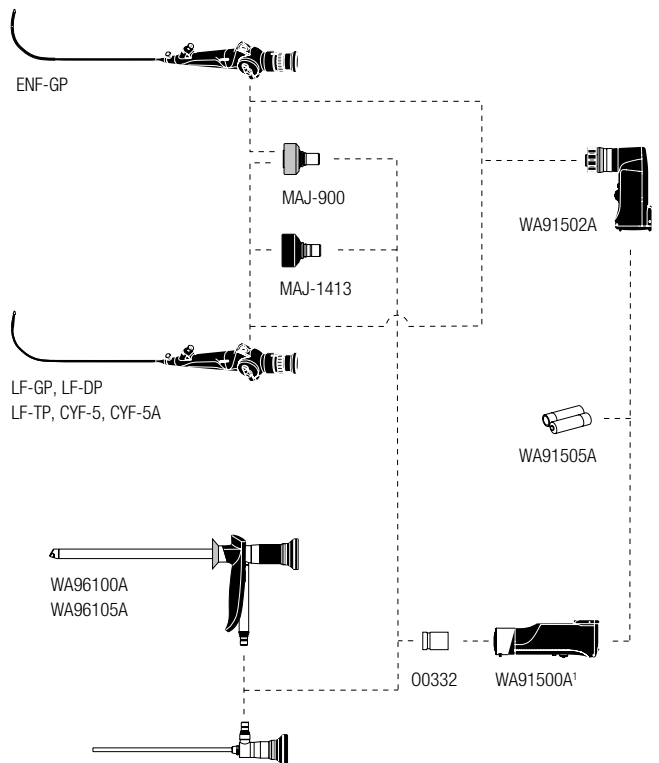
A9128 Spare lamp "MAJ-525",  
halogen, 5 pcs.,  
for light source MAJ-524,  
average life cycle 20 hrs.



A9126 Battery "CR123A/DL123A",



## System Chart



e.g. WA96203A  
WA96200A WA96204A  
WA96201A WA96205A  
WA96202A WA96206A

<sup>1</sup> Adapter MAJ-900 is recommended in case WA91500A is used with a flexible endoscope

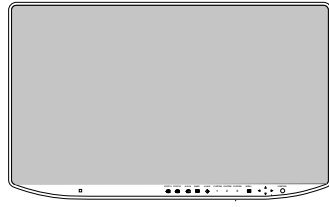


- Provides higher contrast with less color blurring thanks to OptiContrast™ panel technology
- Supports 4K resolution (4096 × 2160 / 3840 × 2160) and a wider color gamut
- Thinner and lighter compact design

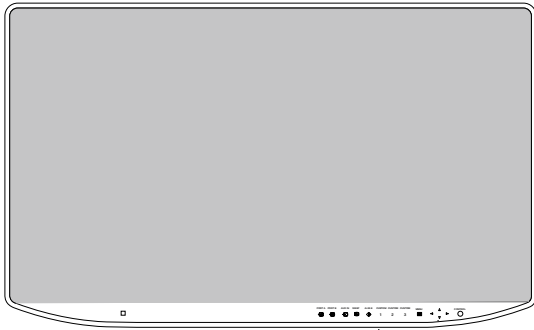
# 4K

## 4K LCD Monitors

E0497703 LMD-X310S  
Sony 31" 4K medical monitor



E0497704 LMD-X550S  
Sony 55" 4K medical monitor



For VISERA 4K UHD system,  
see page 573.

## Technical Data

### Power supply

Voltage IN..... 100 – 240 V ~  
(LMD-X310S via AC adapter AC-300MD)

Frequency .....50/60 Hz

Power consumption (LMD-X550S).....3.2 A – 1.3 A

Voltage OUT ..... 12 V =, 5.0 V =

### Size LMD-X310S

Dimensions ..... width 753.8 mm  
height 456.4 mm  
depth 69.3 mm

Weight (monitor) ..... 11.8 kg

### Size LMD-X550S

Dimensions ..... width 1,264.6 mm  
height 771.5 mm  
depth 85.5 mm

Weight (monitor) ..... 35.2 kg

### Display

Type.....a-Si TFT active matrix LCD

Resolution LMD-X310S..... 4,096 x 2160 pixels

Resolution LMD-X550S ..... 3,840 x 2160 pixels

Efficient size LMD-X310S..... 698 x 368 mm

Efficient size LMD-X550S ..... 1210 x 680 mm

Aspect ratio LMD-X310S ..... 17:9

Aspect ratio LMD-X550S ..... 16:9

### Input

HDMI ..... 1x HDMI

DVI-D..... 1x DVI

3G/HD/SD-SDI.....5x BNC

Serial remote..... 1x D-sub 9-pin (RS-232C)  
1x RJ-45

### Output

DVI-D..... 1x DVI

3G/HD/SD-SDI.....5x BNC

### Safety

Type of protection against electric shock..... class I

Ingress protection ..... IPx2

### Ambient conditions

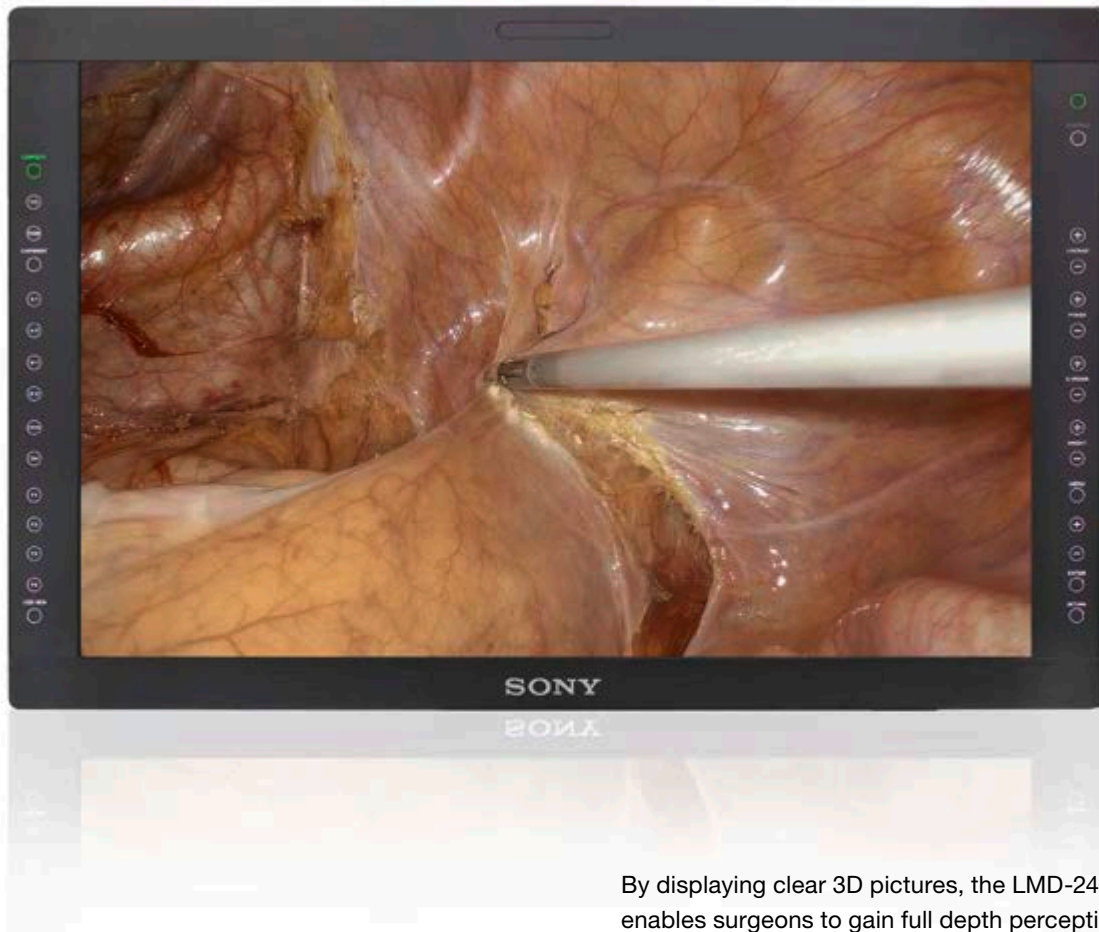
Operation ..... temperature 10 – 35 °C  
relative humidity 30 – 85 %

atmospheric pressure 700 – 1060 hPa

Transport and storage ..... temperature -20 – 60 °C

relative humidity 0 – 90 %

atmospheric pressure 700 – 1060 hPa

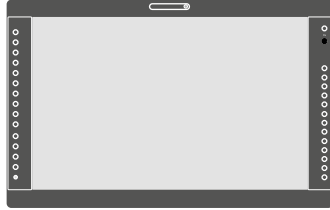


By displaying clear 3D pictures, the LMD-2451MT enables surgeons to gain full depth perception and spatial orientation during intricate procedures.

- Pioneering 3D quality with panel micro polarizer filter and passive glass technology.
- Extremely versatile, accepting various sources of 3D signal.
- Unique Sony color matching technology (ChromaTRU)
- The display utilizes super-wide aperture WUXGA (1920x1200) LCD panels.
- Key-inhibit function prevents inadvertent operation from the control panel.

## 3D LCD Monitor

E0497429 Monitor "Sony LMD-2451MT",  
LCD



Delivery includes:  
Monitor, AC adapter AC-110MD, power cable, plug holder  
(2 pcs.), 3D glasses (glasses-type, 1pc.), 3D glasses  
(clip-on type, 1 pc.)

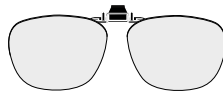
For EVIS EXERA III 3D visualization system,  
see page 579.

## Glasses

E0497608 3D glasses BKM-30G



E0497609 Clip-on 3D glasses BKM-31G



## Technical Data

### Power supply (AC adapter AC-110MD)

Voltage IN.....	100 – 240 V ~
Frequency .....	50/60 Hz
Power consumption .....	1.53 – 0.58 A
Voltage OUT .....	24 V, 5.0 A
	5 V, 0.06 A

### Size

Dimensions .....	width 602.4 mm
	height 386.2 mm
	depth 110 mm

Weight (monitor) ..... 8.8 kg

Weight (AC adapter)..... 1.2 kg

### Display

Type..... a-Si TFT active matrix LCD  
with an AR-coated protection panel

Resolution ..... 1920 x 1200 pixels (WUXGA)

Effective size ..... 518.4 x 324.0 mm

Diagonal..... 613.2 mm

Aspect ratio..... 16:10

Colors ..... approx. 16.7 million colors (8-bit)

### Input

Composite..... 1x BNC

Y/C..... Mini DIN 4-pin

RGB, component ..... 3x BNC

DVI-D..... 1x DVI

HD15 ..... 1x D-sub 15-pin

SDI ..... 2x BNC (3G SDI, HD SDI, SD SDI)

External sync..... 1x BNC

Options slots ..... 2 slots

Parallel remote ..... 1x 8-pin

Serial remote..... 1x D-sub 9-pin (RS-232C)  
1x RJ-45

### Output

Composite..... 1x BNC

Y/C..... 1x mini DIN 4-pin

RGB, component ..... 3x BNC

SDI ..... 2x BNC (3G SDI, HD SDI, SD SDI)

External sync..... 1x BNC

auto termination..... 75 Ω

### Ambient conditions

Operation ..... temperature 10 – 35 °C

relative humidity 30 – 85 %

atmospheric pressure 700 – 1060 hPa

Transport and storage ..... temperature -20 – 60 °C

relative humidity 0 – 90 %

atmospheric pressure 700 – 1060 hPa



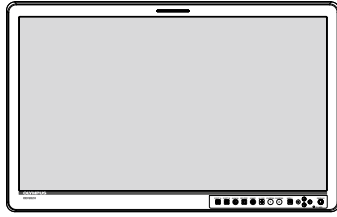


26-inch full-HD LCD panel with a 16:9 aspect ratio, high brightness, high contrast, and high gradation images.

- FLIP function (such as mirror and 180° rotation) which provides a suitable display pattern and monitor layout for the procedure.
- Multimodality display capability (picture-in-picture, picture-out-picture and clone out)
- Eco-friendly specifications thanks to low power consumption, various power-saving modes, and a lightweight and thin body.
- A.I.M.E (Advanced Image Multiple Enhancer) which provides support by enhancing the image quality of the Olympus endoscope system.

## High Definition LCD Monitor

N5374360 OEV262H  
26" HD monitor



Delivery includes:  
Monitor, power cable

## Technical Data

### Power supply

Voltage ..... 100 – 240 V ~  
Frequency ..... 50/60 Hz  
Power consumption ..... 0.96 A – 0.47 A

### Size

Dimensions ..... 626.8 (W) x 395.2 (H) x 79.6 (D) mm  
Weight ..... 8.4 kg

### Display Panel

LCD panel ..... a-Si TFT active matrix  
Screen size (diagonal) ..... 660.9 mm, 26.0"  
Aspect ratio ..... 16:9  
Resolution ..... 1920 x 1080 pixels  
Display colors ..... approx. 1,073,741,824  
View angle ..... 89°/89°/89°/89°  
(up/down/left/right)

### Signal input

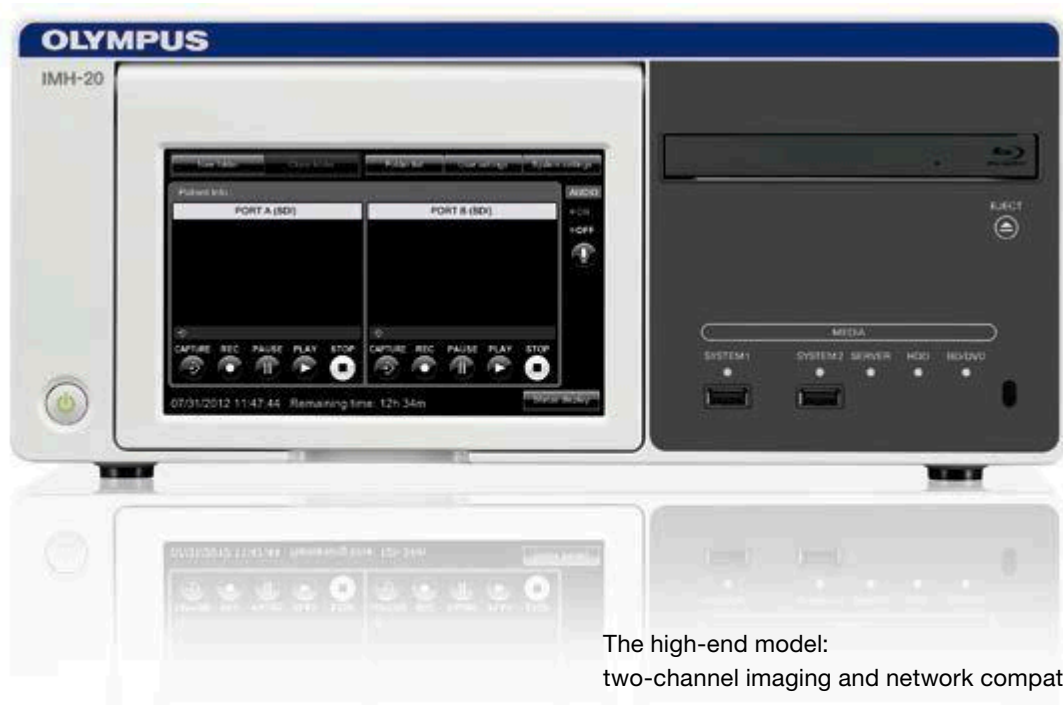
Composite video ..... BNC  
Y/C (S-Video) ..... 4-pin mini-DIN  
SDI ..... 2x BNC  
HD15 ..... D-Sub 15-pin  
DVI-I ..... 2x  
Serial remote ..... D-Sub 9-pin (RS-232C)

### Signal output

Composite video ..... BNC, loop-through,  
auto 75 Ω termination  
Y/C (S-Video) ..... 4-pin mini-DIN, active through out  
SDI ..... 2x BNC, active through out  
HD15 ..... D-Sub 15-pin  
DVI ..... 2x DVI-I, switched out







The high-end model:  
two-channel imaging and network compatibility

- **Touch-panel display**  
Touch-panel display on the hub lets you do what you want, when you want. While watching the monitor image, the touch panel allows you to record or capture in real time.
- **System connection**  
IMH-20 hubs will link to all Olympus systems. This reduces input time and helps make management more efficient.
- **Two-channel simultaneous recording**  
Two camera systems (e.g. 2D and 3D) can be fitted to a single IMH-20 hub in order to record videos and images from two separate sources at the same time. The images can be recorded as separate files or as a single file so they appear together on a display panel. The hub simultaneously records the image on its hard disk drive as well as external media.



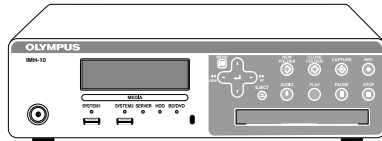


The standard model:  
easy to use, easy to understand

- Video and image storage at the same time, no matter whether it's 3D or 2D
- User-friendly management and search functions  
Just push the new folder button on the face of the unit to save the data from the operation or procedure in a single folder. Search data in any folder by patient ID, patient name, doctor, recording date, status. View thumbnails of the images in any folder to select the exact image you want printed or displayed.
- One-touch image record or capture  
Assign "Record" and "Capture" functions to the remote control buttons on the endoscope.
- Patient data is easy to input  
This hub can be linked to an Olympus video processor so patient data can be imported from the video processor and attached to the images being taken. This reduces input time and helps make management more efficient.

## Image Management Hub

N3808460 Image management hub "IMH-10"



Delivery includes:  
Hub, remote controller, blu-ray disc

## Technical Data

Power supply	
Voltage.....	100 – 240 V ~
Frequency .....	50/60 Hz
Input current.....	1.3 – 0.6 A
Size	
Dimensions .....	width 370 mm height 108.5 mm depth 413 mm
Weight .....	8.5 kg
Safety	
Protection against electric shock .....	class I
Input	
VIDEO .....	2x BNC
Y/C.....	2x 4 pin mini DIN
SDI .....	2x BNC
AUDIO.....	1x stereo mini pin
Control signals.....	3x stereo mini pin
Output	
VIDEO .....	1x BNC
Y/C.....	1x 4 pin mini DIN
SDI .....	1x BNC
Maintenance monitor .....	D-SUB 15 pin
AUDIO.....	1x stereo mini pin
Control signals.....	1x stereo mini pin
Interfaces for peripherals	
RS-232 input.....	2x D-SUB 9 pins
System.....	4x USB (USB 2.0)
SERVER .....	1x RJ-45 (1000Base-T/100Base-TX)
Ambient conditions	
Operation temperature .....	10 – 40 °C relative humidity 30 – 80 % atmospheric pressure 700 – 1040 hPa
Transport and storage .....	temperature -20 – 60 °C relative humidity 20 – 90 % atmospheric pressure 700 – 1040 hPa

## Recording

Recording media	
Built-in hard disk.....	320 GB
Blu-ray disc .....	BD-R (25 GB), BD-R DL (50 GB), BD-RE (25 GB), BD-RE DL (50 GB)
DVD .....	DVD-R (4.7 GB), DVD-R DL (8.5 GB)
USB .....	USB flash drive, USB hard disk
File formats	
Moving images .....	MPEG-4 AVC/H.264 (images) MPEG2 AAC (audio)
Still images.....	BMP/TIFF/JPEG
Recording time (built-in hard disk)	
Best (HDTV) .....	approx. 28 hours
High (HDTV) .....	approx. 40 hours
Standard (HDTV) .....	approx. 83 hours
Best (SDTV) .....	approx. 124 hours
High (SDTV) .....	approx. 200 hours
Standard (SDTV).....	approx. 333 hours
Number of recorded still images (built-in hard disk)	
BMP (HDTV).....	35,200 frames
BMP (SDTV).....	176,000 frames
TIFF (HDTV) .....	35,200 frames
TIFF (SDTV).....	176,000 frames
JPEG (Best HDTV) .....	140,800 frames
JPEG (High HDTV) .....	281,600 frames
JPEG (Standard HDTV) .....	563,200 frames
JPEG (Best SDTV) .....	704,000 frames
JPEG (High SDTV) .....	1,408,000 frames
JPEG (Standard SDTV).....	2,816,000 frames



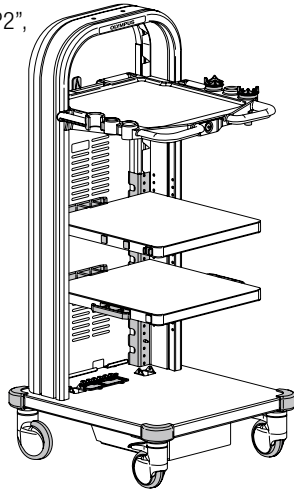


The second generation WM-NP2 series mobile workstation has been designed specifically for the Visera Elite video system, incorporating an innovative and practical design.

- **Storage**  
The WM-NP2 will accommodate a wide range of electro-medical devices to meet the requirements of either routine or advanced endoscopic surgery.
- **Monitor position**  
The LCD monitor arm allows the operator to optimize the viewing position with ease, due to the integral gas spring and tensioned joints providing excellent balance in use.
- **Drawer pack**  
The drawer pack facilitates safe storage of a variety of devices, providing a practical addition to the workstation. Multiple drawer packs can be fitted to a single workstation.
- **Cable management**  
Optimized cable management is achieved through a range of cable channels integral to the workstation hoop with the addition of dedicated cable winders at the rear of the workstation shelves.
- **Electrical safety**  
A separation transformer is fitted as standard providing the required level of electrical safety.

## WM-NP2 Mobile Workstation

	Mobile workstation "WM-NP2",
K10021765	standard set #1
K10021964	standard set #3
K10021613	standard set #5
K10021617	standard set #6
K23006796	standard set #7



### Standard Sets

All standard sets include:

separation transformer MAJ-1648, power cable

Additional components in set #1:

LCD monitor arm MAJ-1641, keyboard tray MAJ-1640,  
scope pole MAJ-1638,

Additional components in set #3: none

Additional components in set #5:

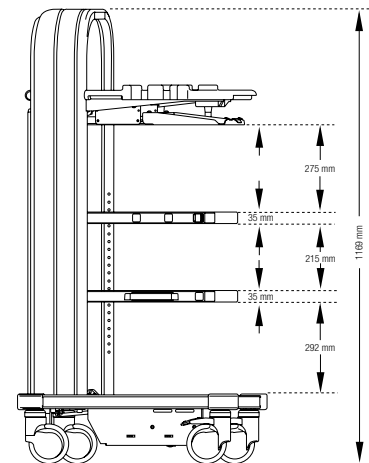
LCD monitor arm MAJ-1641, keyboard tray MAJ-1640

Additional components in set #6 (only for Europe and the UK):

LCD monitor arm MAJ-1641, keyboard tray MAJ-1640,  
drawer unit MAJ-1643

Additional components in set #7 (only for Europe and the UK):

LCD monitor arm MAJ-1641, keyboard tray MAJ-1640,  
extended monitor arm MAJ-1661 for small monitors



## Technical Data

### Dimensions

Height (endoscope in lowest position) .....	1370 mm
Height (endoscope in highest position) .....	2140 mm
Height (to top tray) .....	1169 mm
Height (26" monitor in highest position) .....	2073 mm
Width .....	650 mm
Depth .....	700 mm
Weight (incl. transformer) .....	85 kg (unladen)

### Load capacity

Top tray .....	20 kg
Intermediate shelves .....	30.5 kg each
Base panel .....	30 kg

Equipment stored on the mobile workstation should not exceed the size of the shelf.

Castors ..... 4 x 125 mm, 2 with brakes

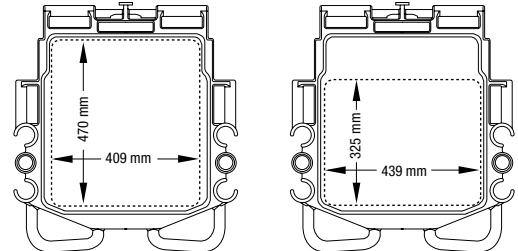
### Ambient conditions

Operation .....	temperature 10 – 40 °C
	relative humidity 95 % maximum
	atmospheric pressure 700 – 1060 hPa
Storage .....	temperature -40 – 70 °C
	relative humidity 95 % maximum
	atmospheric pressure 700 – 1060 hPa

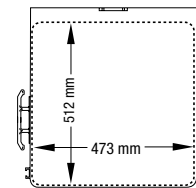
### Separation transformer MAJ-1648

Input voltage .....	220 – 240 V
Frequency .....	.50/60 Hz
Power input (max.) .....	1900 W
Circuit breakers .....	2x 9 A
Potential equalisation terminals .....	1

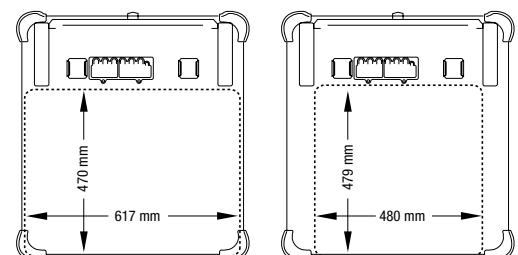
### Top shelf



### Middle shelf

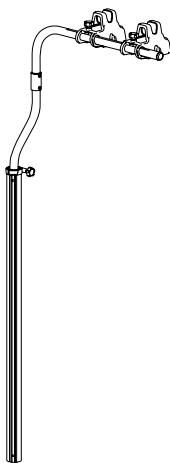


### Base shelf

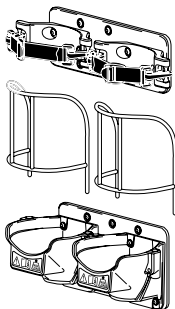


### Optional Accessories

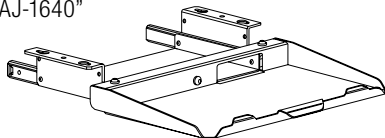
- Nurses control panel arm (not shown)
- K10021796 "MAJ-1662", short
- K10021798 "MAJ-1664", long
- K10021797 EUS arm mount kit "MAJ-1663" (not shown)
- K10016823 Scope pole kit "MAJ-1638"



- CO2 gas cylinder holder,
- K10021041 "MAJ-1639", single, up to 140 mm diameter (not shown)
- K10021042 "MAJ-1650", single, 140 – 205 mm diameter (not shown)
- K10021043 "MAJ-1653", double



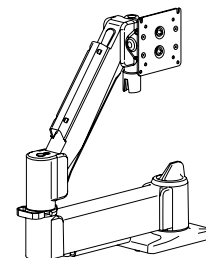
- K10021464 Keyboard tray "MAJ-1640"



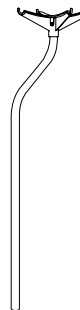
- K10021791 Keyboard arm "MAJ-1657", side mounted (not shown)

### Optional Accessories (cont.)

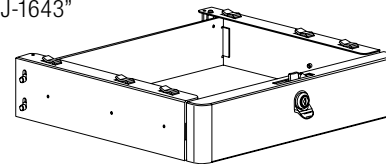
- K10016875 LCD monitor arm "MAJ-1641"



- K10016952 IV pole "MAJ-1642"



- K10016960 Drawer unit "MAJ-1643"



- K10021352 Equipotential terminal strip "MAJ-1654" (not shown)
- K10021654 OEV261H Monitor PSU holder "MAJ-1655" (not shown)
- K10021790 Footswitch holder "MAJ-1656" (not shown)
- K10021792 Universal stowage container "MAJ-1658" (not shown)
- K10021793 Equipment support rail "MAJ-1659" (not shown)
- K10021794 Cable retaining hook "MAJ-1660" (not shown)
- K10022056 Camera holder "MAJ-1665" (not shown)





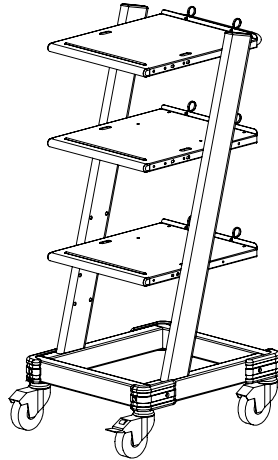


The TC-G2 is designed as a compact trolley for use in conjunction with the Olympus SonoSurg unit and associated equipment in the operating theatre environment.

- Adjustable shelf – the third shelf is fully adjustable to meet individual customers' equipment requirements.
- Cable management – simply and easily achieved using cable ties at the rear of the shelves
- Pushing handle – an integral pushing handle is located at the rear for easy and convenient manoeuvrability.
- IV pole – supplied as standard, can be attached to either side of the trolley
- Plug block kit – a multiway plug block kit is available, reducing the number of trailing cables to the mains supply.

## Energy Trolley TC-G2

K7504123 Trolley "TC-G2",  
for SonoSurg and UES



### Technical Data

#### Dimensions

Height .....	1169 mm
Height (with IV pole) .....	1390 mm
Width .....	483 mm
Depth .....	656 mm
Weight .....	28 kg (unladen)

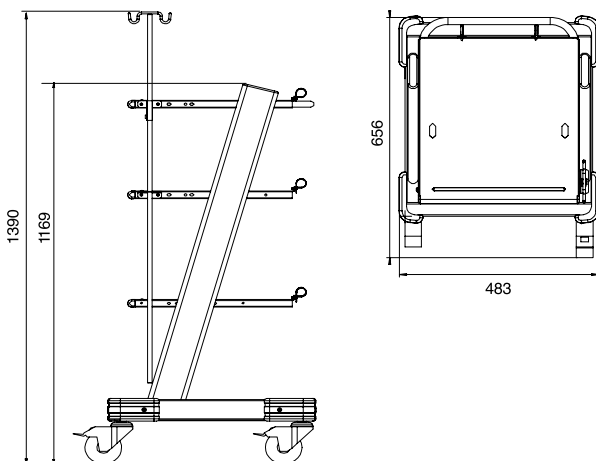
#### Load capacity

Top shelf .....	20 kg
Second shelf .....	25 kg
Third shelf .....	30 kg
Base tray .....	25 kg
IV pole .....	2 kg (2x 1 l bags)
Total load .....	102 kg

Castors ..... 4 x 100 mm, 2 with brakes

#### Delivery includes:

Trolley, IV pole, securing strap



## Optional Accessories

K7504082	Gas cylinder holder "MAJ-92"
K7504084	Adjustable fiberscope hanger "MAJ-94"
7500731	Adjustable IV pole kit "MH-775"
K7504080	Storage bay "MAJ-88"
K7504075	Back panel kit "MAJ-90"
K7504157	Multi socket block kit "MAJ-123"
K7503556	Mounting "MAJ-110", for KV-5 pump collection bottle
K7504079	Mounting "MAJ-89", for KV-5 pump
K10001078	LCD mount adapter kit "MAJ-197"

More accessories available on request.



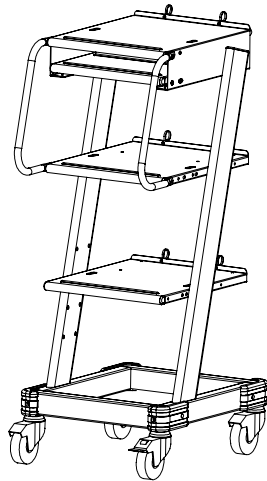


The TC-C2 is a compact trolley for use in conjunction with the Olympus VISERA system in the surgical and outpatient environment.

- Adjustable shelf – the third shelf is fully adjustable to meet individual customers' equipment requirements.
- Cable management – simply and easily achieved using cable ties at the rear of the shelves
- Pushing handle – an integral pushing handle is located at the rear for easy and convenient manoeuvrability.
- Scope hanger – an adjustable height scope hanger is provided as standard
- Protective bars – designed to prevent accidental contact with camera control unit connectors
- Plug block kit – a multiway plug block kit is available, reducing the number of trailing cables to the mains supply.

## Compact Trolley TC-C2

K7504124 Trolley "TC-C2",  
for VISERA system



### Technical Data

#### Dimensions

Height .....	1205 mm
Height (with monitor tray) .....	1467 mm
Width .....	563 mm
Depth .....	650 mm
Weight .....	33 kg (unladen)

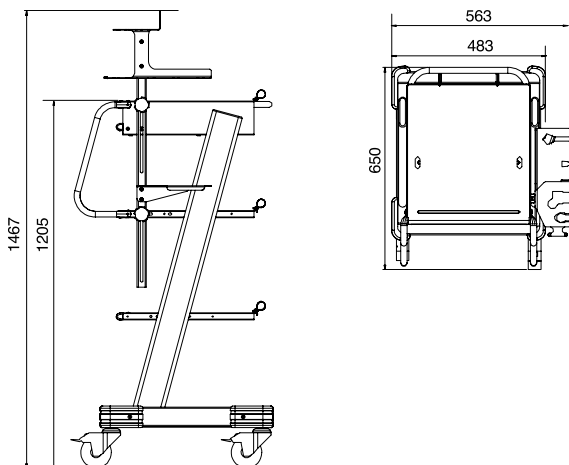
#### Load capacity

Top shelf .....	20 kg
Keyboard tray .....	2.2 kg
Second shelf .....	25 kg
Third shelf .....	26 kg
Base tray .....	25 kg
Scope pole .....	2.2 kg
Total load .....	100.4 kg

Castors ..... 4 x 100 mm, 2 with brakes

#### Delivery includes:

Trolley, guard rail, extending keyboard tray,  
adjustable scope hanger



## Optional Accessories

K7504082	Gas cylinder holder "MAJ-92"
K7504084	Adjustable fiberscope hanger "MAJ-94"
7500731	Adjustable IV pole kit "MH-775"
K7504080	Storage bay "MAJ-88"
K7504075	Back panel kit "MAJ-90"
K7504157	Multi socket block kit "MAJ-123"
K7503556	Mounting "MAJ-110", for KV-5 pump collection bottle
K7504079	Mounting "MAJ-89", for KV-5 pump
K10001078	LCD mount adapter kit "MAJ-197"

More accessories available on request.



### LIGHT-GUIDE CABLES AND ADAPTERS

Light-Guide Cables	629
Light-Guide Adapters for Other Applications	631
Light-Guide Adapters for Fiberscopes	633

### HF CABLES AND ADAPTERS

Monopolar HF Cables	635
HF Cables for Resectoscopes OES PRO, OES ELITE	637
HF Cables for Resectoscopes OES 4000, OES	639
Electrosurgical Unit Ancillaries Patient Plates and Cords	641
Bipolar HF Cables	643

### IRRIGATION

Stopcocks and Tubings	645
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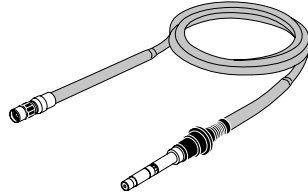
- Eco-friendly in terms of RoHS compliance
- CF applied part classification for use in cardiac surgery
- Optimal light transmission thanks to fused optical fibers
- Durability: Optimized tube and fused fiber bundles for extremely high durability against mechanical stress and autoclaving
- High temperature resistance
- Compatible with a wide variety of endoscopes if used with suitable adapters



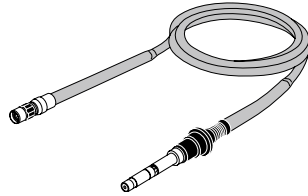
## Light-Guide Cables

Delivery of all light-guide cables includes light-guide adapter WA03320A.  
For light-guide adapters, see page 631.

WA03300A Light-guide cable,  
2.8 mm,  
3 m,  
CF type

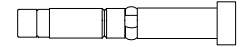


WA03310A Light-guide cable,  
4.25 mm,  
3 m,  
CF type

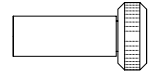


## Adapting Olympus Light-Guide Cables to Light Sources

WA03320A Spare light-guide adapter,  
Olympus light-guide cable  
to Olympus light source



A3199 Light-guide adapter,  
Olympus light-guide cable  
to Winter & Ibe light source

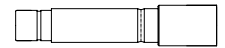


with screw-type connection

A3201 Light-guide adapter,  
Olympus light-guide cable  
to Storz light source

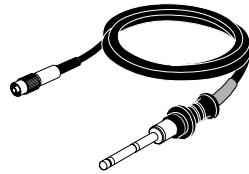


A3202 Light-guide adapter,  
Olympus light-guide cable  
to Wolf light source

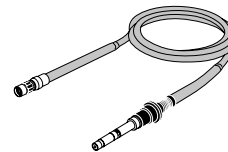


## PDD Light-Guide Cable

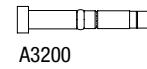
A93200A Light-guide cable,  
plug type,  
for fluorescence diagnosis,  
3.0 mm, fluid,  
not autoclavable



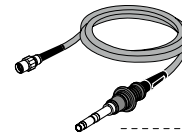
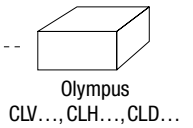
## System Chart



WA03300A  
WA03310A



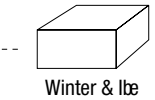
A3200



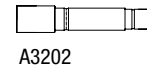
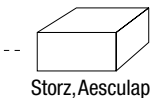
WA03200A  
WA03202A  
WA03210A  
WA03212A  
A03200A



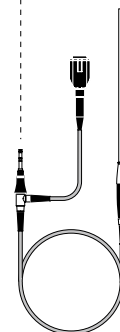
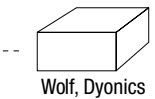
A3199



A3201



A3202

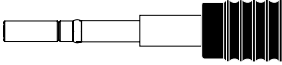
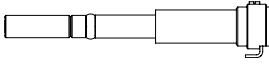
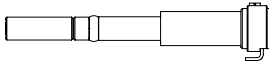


A50000A  
A50001A  
A50002A  
A50003A  
A50002L  
A50003L  
A50020A  
A50021A  
A50022A  
A50023A  
WA50120A  
WA50121A

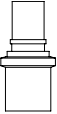




WA50010A  
WA50012A  
WA50012L  
WA50013T  
WA50014L  
WA50015L  
WA50020B  
WA50021B  
WA50022B  
WA50022S  
WA50023B  
WA50023S



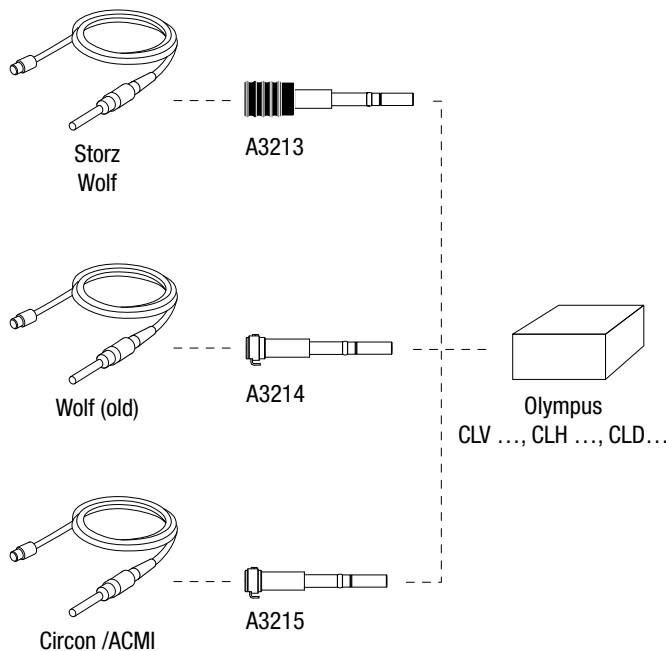
## Adapting Other Light-Guide Cables to Olympus Light Sources

A3213	Light-guide adapter, Storz/Wolf light-guide cable to Olympus light source	
A3214	Light-guide adapter, Wolf light-guide cable (old) to Olympus light source	
A3215	Light-guide adapter, Circon/ACMI light-guide cable to Olympus light source	

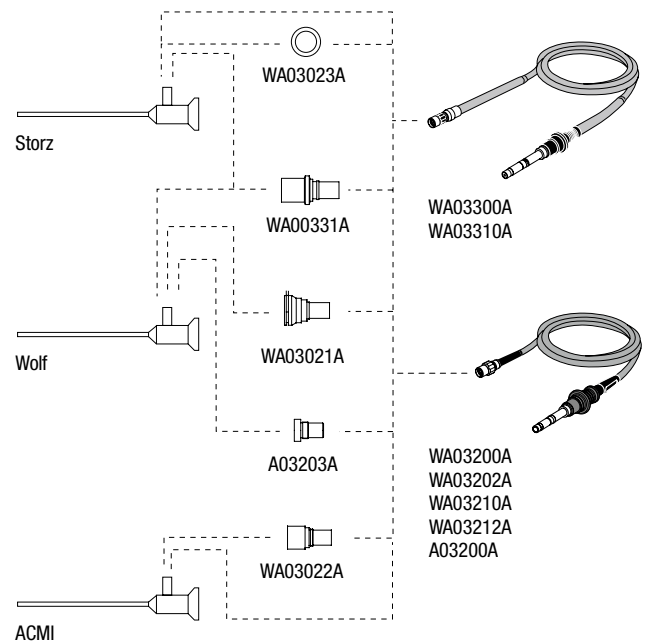
## Adapting Olympus Light-Guide Cables to Telescopes

WA00331A	Light-guide adapter, light-guide WA032xxA to Storz, Wolf telescope screw type (universal)	
WA03023A	Light-guide adapter, light-guide WA032xxA to Storz telescope screw type, rotatable	
WA03021A	Light-guide adapter, light-guide WA032xxA to Wolf telescope click type	
A03203A	Light-guide adapter, OES Pro light-guide to Wolf telescope screw type	
WA03022A	Light-guide adapter, light-guide WA032xxA to ACMI telescope click type	



### System Chart



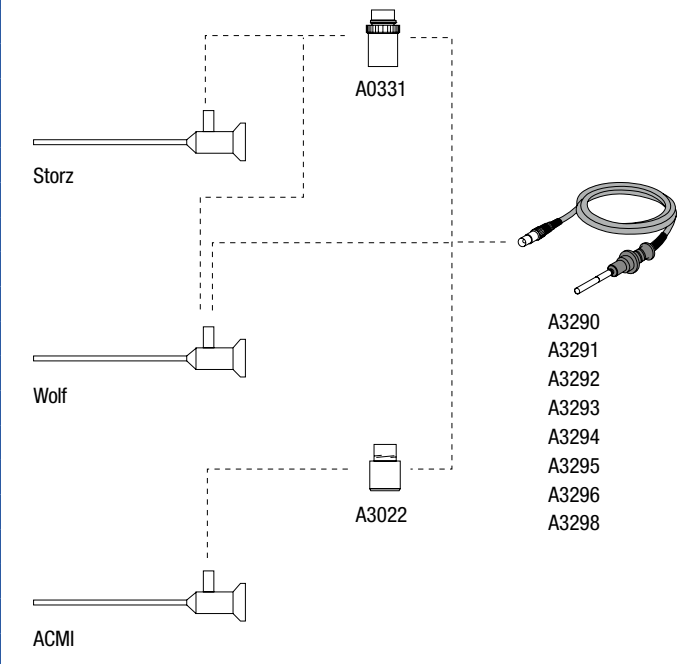
### System Chart



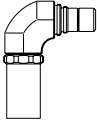


## Adapting Olympus OES 4000 Light-Guide Cables to Telescopes

A0331	Light-guide adapter, Storz telescope to OES light-guide cable with condensor screw type	
A3022	Light-guide adapter, ACMI telescope to OES light-guide cable with condensor click type	

### System Chart



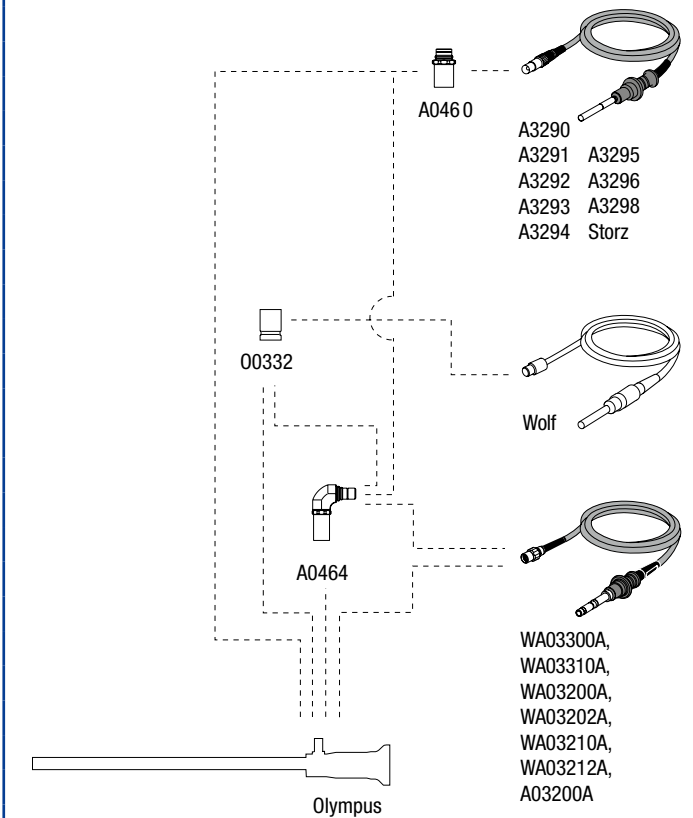
## Adapting Light-Guide Cables to Olympus Telescopes

A0464	Light-guide adapter, 90°, OES telescope to OES light-guide cable	
A0460	Light-guide adapter, OES telescope to Olympus light-guide cable	
00332	Light-guide adapter, OES telescope to Wolf light-guide cable	

### Please note:

Light-guide adapters allow telescopes to be connected to light-guide cables of various manufacturers. Olympus recommends the use of an Olympus light-guide cable and an Olympus light source. Only this combination will guarantee optimum illumination of the endoscopic image and excellent color reproduction.


### System Chart



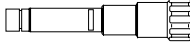
## Adapting Olympus Surgical Fiberscopes to Light Sources

These adapters connect all Olympus surgical fiberscopes with integrated light-guide cable (CHF, CYF, ENF, HYF, LF, URF series) to light sources of other manufacturers.

A3066 Light-guide adapter, OES light-guide cable to Storz light source



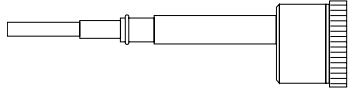
A3040 Light-guide adapter, OES light-guide cable to Wolf light source



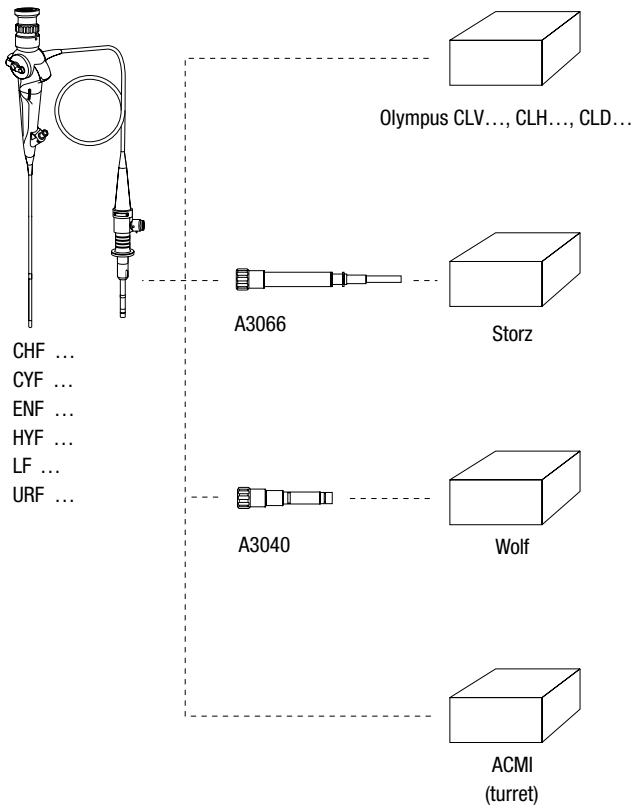
## Adapting Olympus Medical Fiberscopes to Light Sources

These adapters connect all Olympus medical fiberscopes (BF, CF, GIF, JF series) to light sources of other manufacturers. Only light transmission is supported.

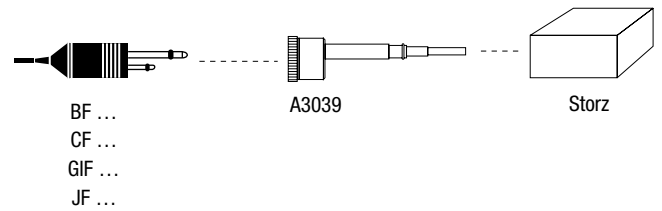
A3039 Light-guide adapter, fiberscope to Storz light source



## System Chart

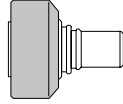


## System Chart

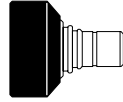


## Adapting Olympus OES Pro Light-Guide Cables to Fiberscopes

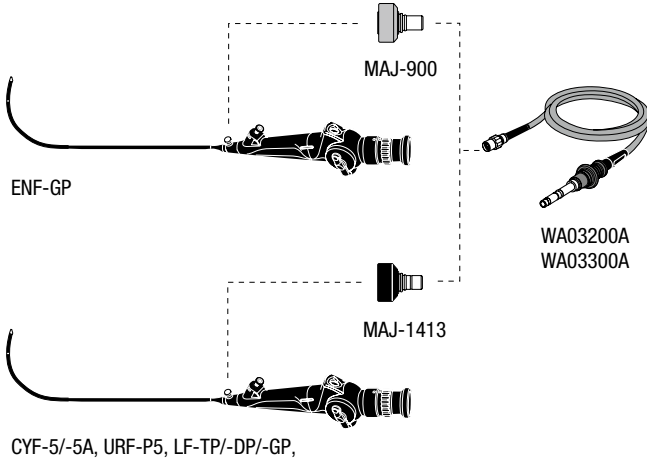
A70982A Light-guide adapter "MAJ-900",  
Olympus OES Pro light-guide cable  
to ENF-GP



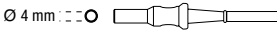
N1773930 Light-guide adapter "MAJ-1413",  
Olympus OES Pro light-guide cable  
to CYF-5/-5A, URF-P5, LF-TP/-DP/-GP

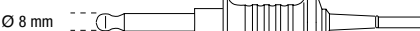


## System Chart

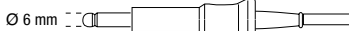


## Monopolar HF Cables for HICURA and HiQ+ Hand Instruments


Compatible instruments:  Surgical instruments for monopolar coagulation with 4 mm connector-pin (all Olympus HICURA and HiQ+ hand instruments)

A0358 HF cable,  monopolar, 3.5 m, UES-30, Erbe Intl. and Valleylab (new) HF unit to HiQ, HiQ+

Compatible HF units: Olympus UES-30/-40, Erbe International, new generation Valleylab, Bovie, Bowa

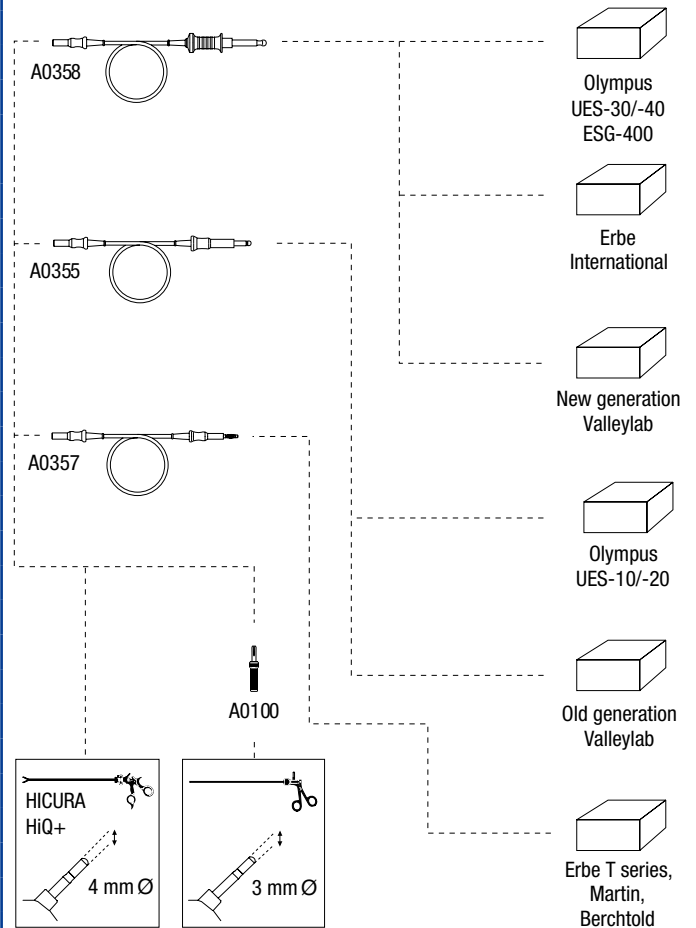
A0355 HF cable,  monopolar, 3.5 m, UES-10/20 and Valleylab (old) HF unit to HiQ, HiQ+

Compatible HF units: Olympus UES-10/-20, old generation Valleylab

A0357 HF cable,  monopolar, 3.5 m, Martin and Berchtold HF unit to HiQ, HiQ+

Compatible HF units: Erbe T series, Martin, Berchtold

## System Chart




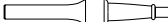
## Instrument Adapter



A0100 Adapter, for HF connector, 4 mm male, 3 mm female



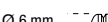
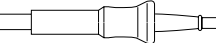
Connects HF cables A0355, A0357, A0358, A00503A, A00505A, A00506A to instruments with 3 mm connector-pin.

## Monopolar HF Cables for Instruments with 3 mm Pin

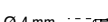

Compatible instruments:    
Surgical instruments for monopolar coagulation with 3 mm connector-pin (all Olympus instruments except HICURA and HiQ+ hand instruments)

A0335.1 HF cable,    
monopolar, 3.5 m, UES-30, Erbe Intl. and Valleylab (new) HF unit to 3 mm pin surgical instruments

Compatible HF units:  
Olympus UES-30/-40, Erbe International, new generation Valleylab, Bovie, Bowa

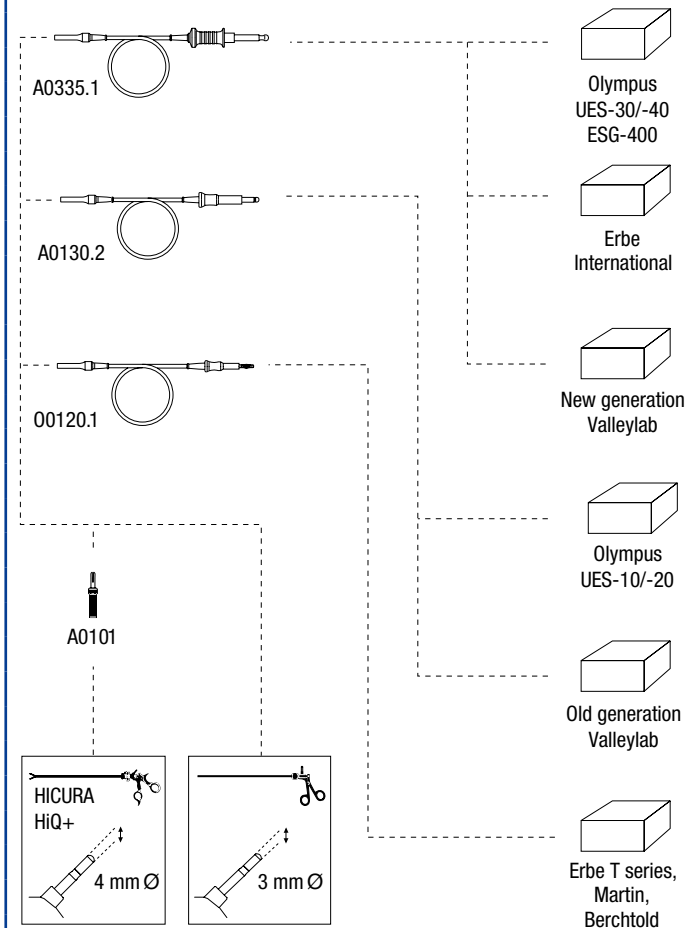
A0130.2 HF cable,    
monopolar, 3.5 m, UES-10/20 and Valleylab (old) HF unit to 3 mm pin surgical instruments

Compatible HF units:  
Olympus UES-10/-20, old generation Valleylab


00120.1 HF cable,    
monopolar, 3.5 m, Martin and Berchtold HF unit to 3 mm pin surgical instruments

Compatible HF units:  
Erbe T series, Martin, Berchtold

## System Chart



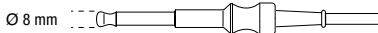
## Adapter

A0101 Adapter, HF connector, 3 mm male, 4 mm female   
Connects HF cables 00120.1, A0130.1, and A0335.1 to Olympus HiQ+ hand instruments.


## For Working Elements A22060A/-61A/-63A, A37014A

Compatible instruments:  
Working elements  
A22060A, A22061A,  
A22063A, A37014A




A00012A HF cable,   $\varnothing$  8 mm, 4 m, monopolar, UES-30, Erbe Intl. and Valleylab (new) HF unit to OES Pro resectoscope

Compatible HF units:  
Olympus UES-30/-40,  
Erbe International,  
new generation Valleylab,  
Bovie, Bowa

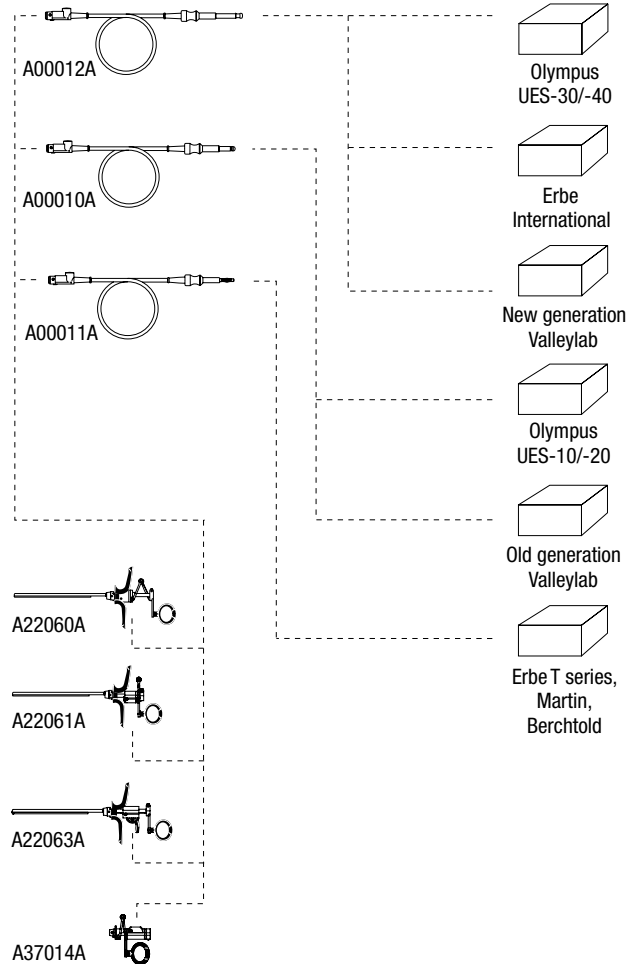
A00010A HF cable,   $\varnothing$  6 mm, monopolar, 4 m, UES-10/20 and Valleylab (old) HF unit to OES Pro resectoscope

Compatible HF units:  
Olympus UES-10/-20, old generation Valleylab

A00011A HF cable,   $\varnothing$  4 mm, monopolar, 4 m, Martin and Berchtold HF unit to OES Pro resectoscope

Compatible HF units:  
Erbe T series,  
Martin,  
Berchtold

## System Chart



## For Working Elements

### A22060B/-61B, WA22366A/-67A

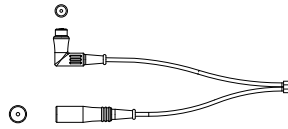
Bipolar cables for TURis and TCRis procedures.

Compatible instruments:

Working elements

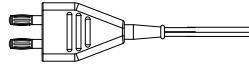
A22060B, A22061B,

WA22366A, WA22367A



WA00013A

HF cable,  
4 m,  
UES-40 HF unit  
to TURis resectoscope



Compatible HF unit:

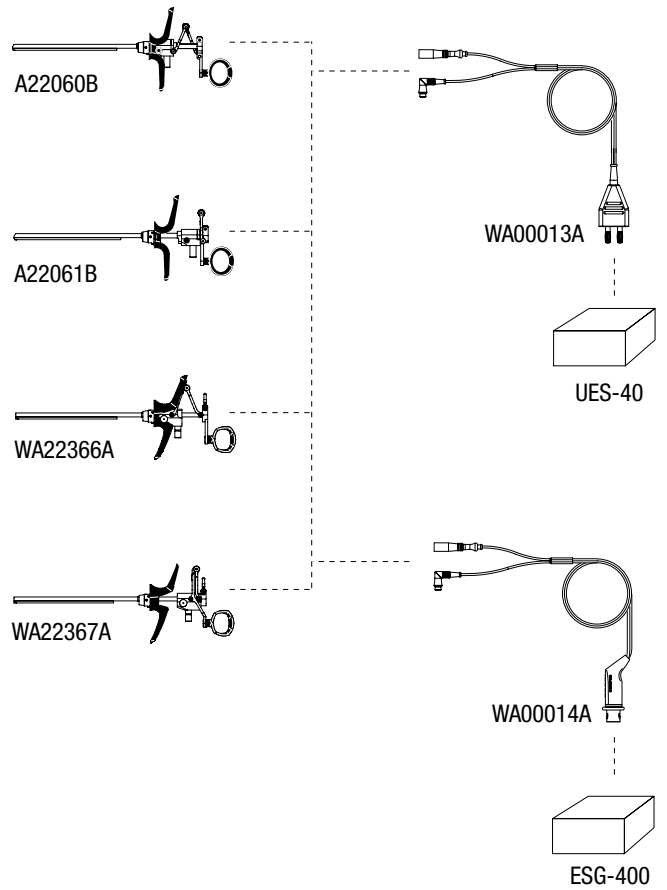
Olympus UES-40

WA00014A

HF cable,  
bipolar,  
4 m,  
for ESG-400 SALINE mode



## System Chart





## For Working Elements WA22066A/-67A, A2760/-61, A4744/-45

Compatible instruments:

Working elements

WA22066A, WA22067A,

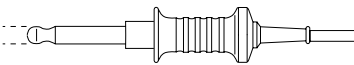
A2760A, A2761A,

A4744, A4745



A0393

HF cable,  $\varnothing 8$  mm monopolar, 4 m, UES-30, Erbe Intl. and Valleylab (new) HF unit to resectoscope



Compatible HF units:

Olympus UES-30/-40,

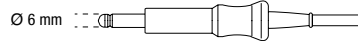
Erbe International,

new generation Valleylab,

Bovie, Bowa

A0391

HF cable,  $\varnothing 6$  mm monopolar, 4 m, UES-10/20 and Valleylab (old) HF unit to resectoscope

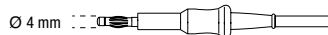


Compatible HF units:

Olympus UES-10/-20, old generation Valleylab

A0392

HF cable,  $\varnothing 4$  mm monopolar, 4 m, Martin and Berchtold HF unit to resectoscope



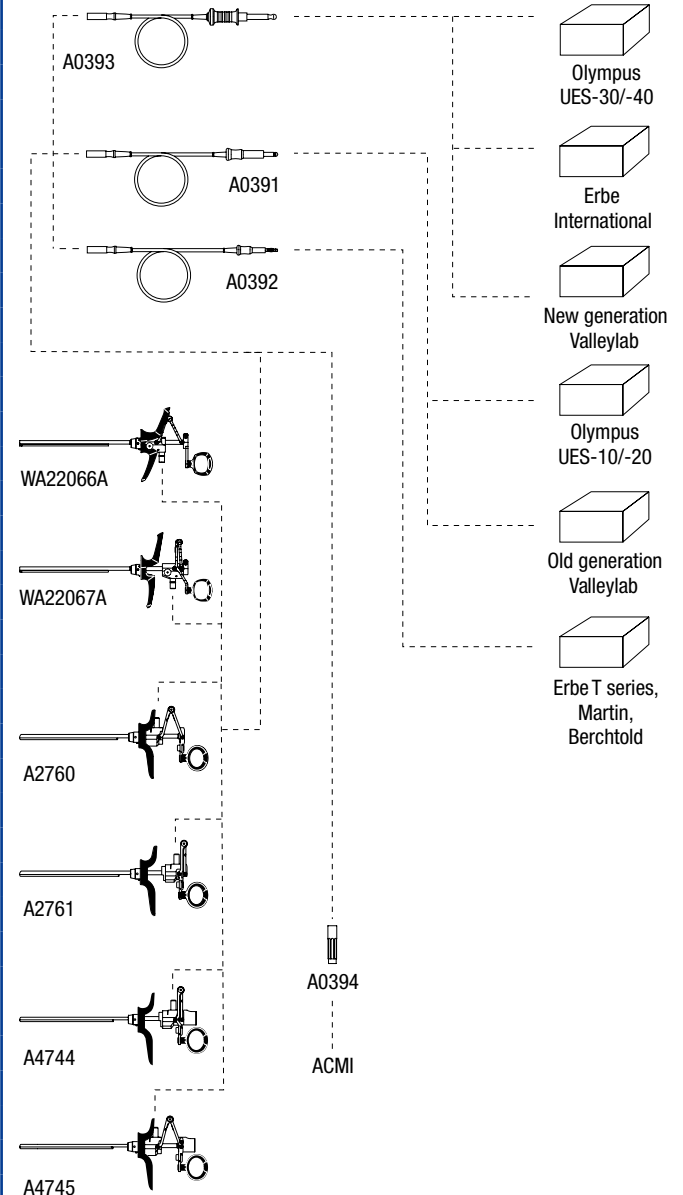
Compatible HF units:

Erbe T series,

Martin,

Berchtold

## System Chart



## For Working Elements

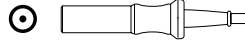
**A2749/-50/-51/-55, A3752, A4512**

Compatible instruments:

Working elements

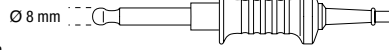
A2749, A2750, A2751,

A2755, A3752, A4512



A0336.1

HF cable,  
monopolar, 3,5 m,  
UES-30, Erbe Intl. and  
Valleylab (new) HF unit to resectoscope



Compatible HF units:

Olympus UES-30/-40,

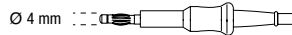
Erbe International,

new generation Valleylab,

Bovie, Bowa

00147.1

HF cable,  
monopolar, 3,5 m,  
Martin and Berchtold HF unit  
to resectoscope



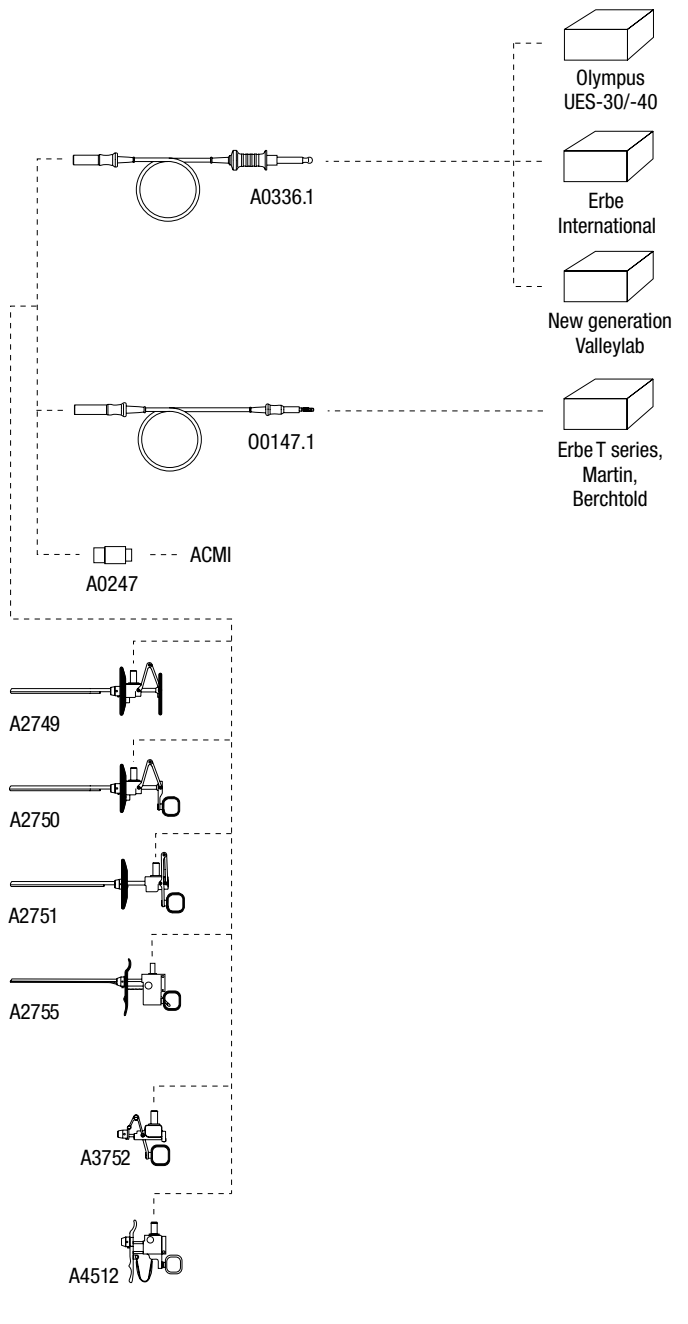
Compatible HF units:

Erbe T series,

Martin,

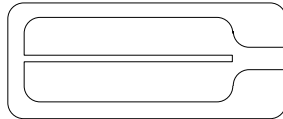
Berchtold

## System Chart

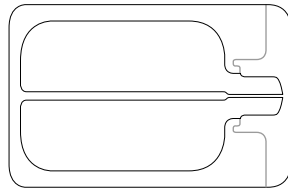


#### Single Use Neutral Electrode

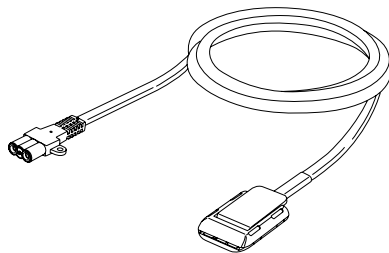
E0427245 Disposable split patient plate "MAJ-897",  
10 pcs.



E0427170 3M split patient plate "8180F",  
5 pcs.

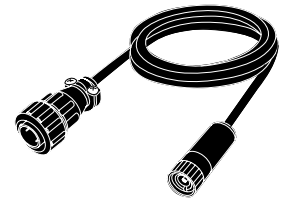


E0427213 P-cord for disposable plates "MAJ-814"



#### S-Cord for Fiberscopes

027162 S-cord "MH-470",  
for use with GI scope

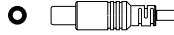


Compatible instruments:  
Fiberscopes with S-cord connector

Compatible HF units:  
Olympus UES-20/-30/-40

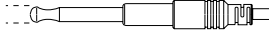
## HF Cables for ET Instruments

Compatible instruments:  
SD handle MH-264,  
HF electrode CD-6C-1



A02915A

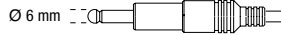
HF cable "MAJ-860",  $\varnothing$  8 mm  
3.5 m,  
for UES-30, -40, Erbe ICC International  
and new generation Valleylab HF units



Compatible HF units:  
Olympus UES-30/-40,  
Erbe International,  
new generation Valleylab,  
Bovie, Bowa

027215

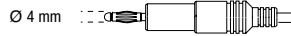
HF cable "MH-969",  
3 m,  
for UES-10, -20 and old generation  
Valleylab HF units



Compatible HF units:  
Olympus UES-10/-20, old generation Valleylab

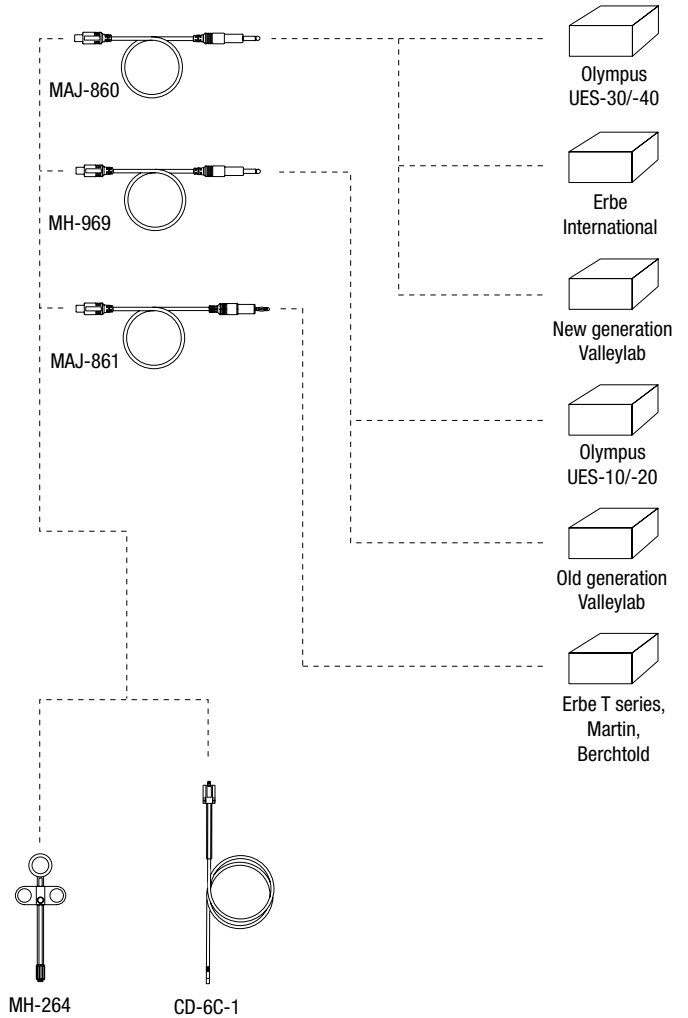
A02916A

HF cable "MAJ-861",  
3.5 m,  
for Martin and Berchtold HF units



Compatible HF units:  
Erbe T series,  
Martin,  
Berchtold

## System Chart

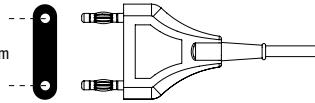


## For HICURA and HiQ+ Bipolar Hand Instruments

Compatible instruments:  
HICURA bipolar hand instruments  
HiQ+ Bipolar hand instruments

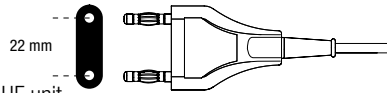


A60003C HF cable,  
bipolar, 3.5 m,  
28.58 mm  
for Valleylab HF units



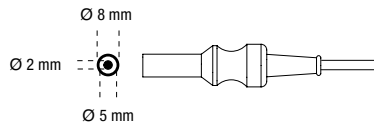
Compatible HF units:  
Olympus UES-20/-30/-40,  
Erbe VIO<sup>1</sup>,  
Valleylab

A60001C HF cable,  
bipolar, 3.5 m,  
22 mm  
for Olympus UES HF unit



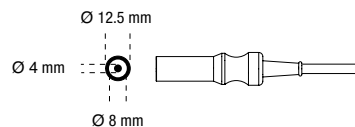
Compatible HF units:  
Erbe International

A60002C HF cable,  
bipolar, 3.5 m,  
for Martin,  
Berchtold HF unit



Compatible HF units:  
Martin,  
Berchtold

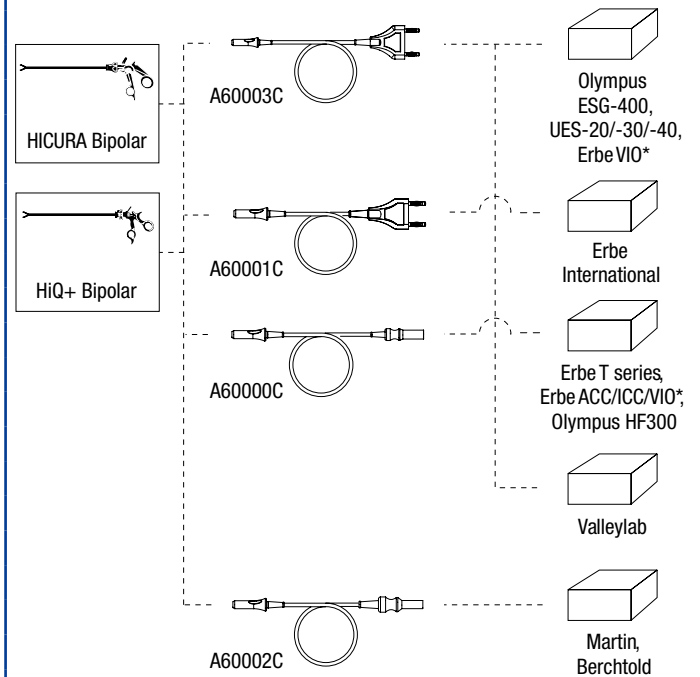
A60000C HF cable,  
bipolar, 3.5 m,  
for Erbe HF unit



Compatible HF units:  
Olympus HF300,  
Erbe T series,  
Erbe ACC/ICC/VIO<sup>1</sup>

<sup>1</sup> Depending on individual connector configuration

## System Chart



\* Depending on individual connector configuration

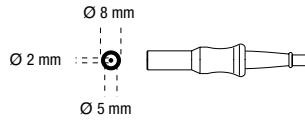
## For BiQ and BiQ+ Hand Instruments

Compatible instruments:  
BiQ and BiQ+  
bipolar instruments



A5378

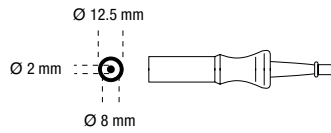
HF cable,  
bipolar, 3.5 m,  
Martin and Berchtold  
HF unit to BiQ, BiQ+



Compatible HF units:  
Martin, Berchtold

A5379

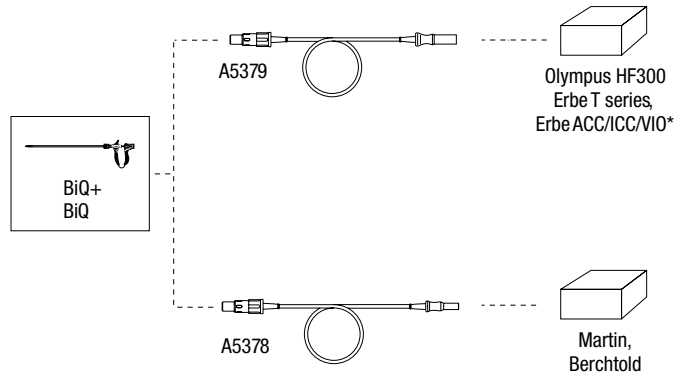
HF cable,  
bipolar, 3.5 m,  
HF-300 and  
Erbe Standard HF unit  
to BiQ, BiQ+



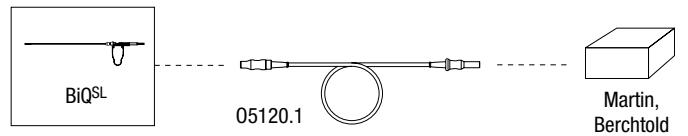
Compatible HF units:  
Olympus HF300,  
Erbe T series,  
Erbe ACC/ICC/VIO<sup>1</sup>

<sup>1</sup> Depending on individual connector configuration

## System Charts



\* Depending on individual connector configuration



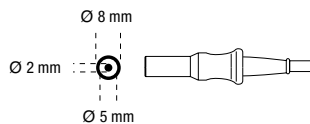
## Bipolar HF Cables for BiQ<sup>SL</sup> Hand Instruments

Compatible instruments:  
BiQSL bipolar instruments



05120.1

HF cable,  
bipolar, 3 m,  
Martin and Berchtold  
HF unit to BiQ-SL and  
bipolar tweezers



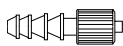
Compatible HF units:  
Martin,  
Berchtold

### Tubing Adapters, Luer-Lock

For instruments with Luer-lock connector

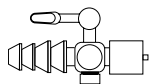
00103

Adapter,  
with Luer-lock male and x-mas tree



00102.1

Stopcock,  
Luer-lock male/X-mas tree,  
maintenance-free



### Tubing Adapters, Wide Lumen

For tubing sets and sterile water units

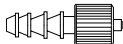
00322

Adapter,  
with Luer-lock female and x-mas tree,  
wide lumen



00323

Adapter, wide lumen,  
Luer-lock male, x-mas tree



A0104

Adapter,  
with male Luer-lock and  
wide lumen female Luer-lock



### Tubings

00314

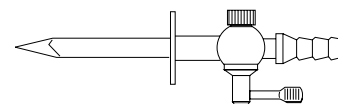
Tubing,  
5 x 8 mm,  
1 m,  
silicone



### Other Accessories

00321

Cannula,  
for water bag,  
with stopcock



00174

Reflux valve,  
glass



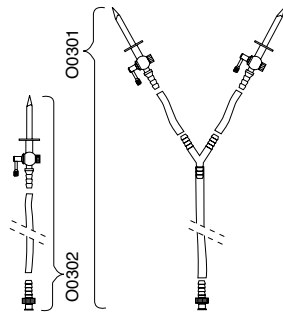
## Tubing Sets

00301 Tubing,  
set for two water bags

Consisting of: 2 cannulas 00321, adapter 00322,  
and tubing

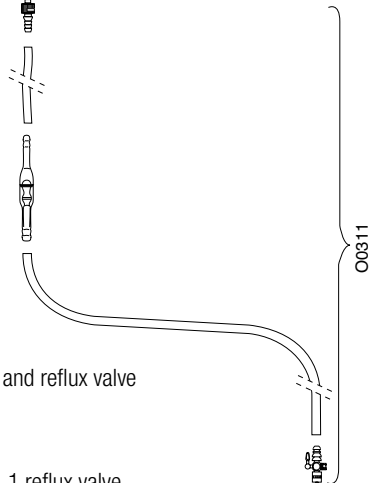
00302 Tubing,  
set for 1 water bag

Consisting of: 1 cannula 00321, adapter 00322,  
and tubing



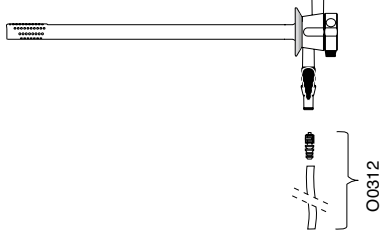
00311 Tubing,  
set with stopcock and reflux valve

Consisting of:  
1 adapter 00323, 1 reflux valve  
00174, 1 stopcock 00102, and tubing



00312 Tubing,  
set,  
0.6 m

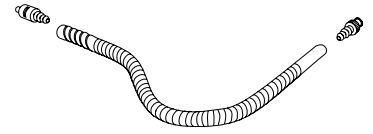
Consisting of:  
1 adapter 00103, 1 tubing 00314



## Kink Protected Tubing

A0435 Tubing, set,  
kink protection

Consisting of:  
adapter 00103,  
adapter A0436,  
tube with kink protection





## AUTOMATIC ENDOSCOPE REPROCESSING

ETD Double Advancing the Efficiency of Reprocessing	649
ETD4 Reliability in Endoscope Reprocessing	653
ETD4 Automatic Endoscope Reprocessor	655
miniETD2 Automatic Endoscope Reprocessor	661
ETD Accessories for ETD4, ETD3, miniETD2	663
ETD Adapters	665

## INSTRUMENT TRAYS AND BASKETS

Plastic Instrument Trays	669
Plastic Instrument Tray System	671
Instrument Baskets	675
Sterilization Trays for Sinus Endoscopy	677

## TOOLS AND ACCESSORIES

Manual Cleaning	679
Basic Accessories	681
Reprocessing Instruction Cards	683





With the ETD Double, Olympus has advanced its long tradition of ETD machines, enabling the strict, physical separation of clean from dirty.

## Advancing Work Flow Efficiency

- Simultaneous reprocessing of up to three endoscopes
- Loading of baskets and connection of endoscope channels is done entirely outside the ETD Double.
- Easy placement and connection of endoscopes

## Advancing Safety

- Color- and mechanically coded adaptation principle
- Comprehensive leakage test functionality
- Ergonomic machine loading
- Real-value documentation
- Independent monitoring of process-critical parameters
- Compliance with EN ISO 15883

## Advancing Hygiene

- Detection of blockages at the individual channel level
- Effective self-disinfection
- Advanced cleaning results

## Customized Service And Support

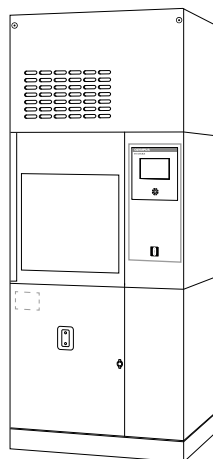
- Modular Olympus services
- Expert maintenance
- Essential validation
- Convenient remote service
- Expert help-desk support
- Focused training



## ETD Double Washer-Disinfector

WD00104A Washer-disinfector "ETD Double",  
PAA

Delivery includes:  
Washer-disinfector,  
3 baskets WD00117A



## Technical Data (1)

### Dimensions

Depth ..... 830 mm  
Height ..... 2130 mm (including cover)  
Weight ..... max. 570 kg

### Power supply

Voltage ..... 400 V AC 50 Hz  
Voltage fluctuation .....  $\pm 10\%$   
Power consumption ..... 10,5 kW

### Ambient operating conditions

Ambient temperature ..... 5 to 40 °C  
Installation location ..... Only for indoor use  
Relative humidity ..... 10 to 80% at max. 31 °C  
10 to 50% at max. 40 °C  
(linearly decreasing)

Maximum altitude ..... 1500 m above normal sea level  
2000 m above normal sea level  
in addition with special washing program

Overvoltage category ..... 2  
Pollution degree ..... 2  
Compressed air ..... Oil content: =0.1 mg/m<sup>3</sup>  
Atmospheric dew-point: ..... -22 °C  
(humidity ratio: =870 ppm)  
exception for drying  
according to EN ISO 15883-4: -46 °C  
(humidity ratio: =67 ppm)

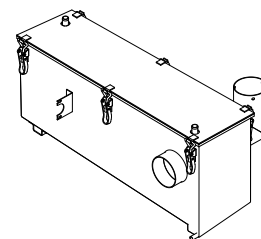
## Technical Data (2)

### Ambient operating conditions (cont.)

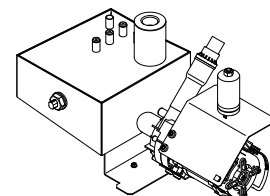
Noise level ..... 61 dB (A)  
Degree of ingress protection ..... IP20  
Regulatory status ..... This device complies with  
the requirements of Directive 93/42/EEC  
concerning medical devices.  
Classification ..... Class II

## Optional Components

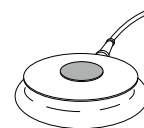
WD00158A Steam condenser,  
for ETD Double



WD00159A Pump,  
for drainage,  
for ETD Double



WD00161A Door switch,  
for ETD Double

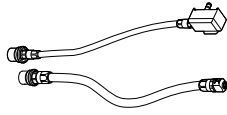


WD00114A Transfer trolley "ETD Double Trolley",  
for ETD Double



## Expansion Kits

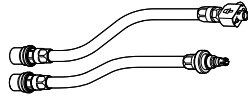
WD00163A Expansion kit "EUS",  
for adapter Olympus 2 & 3,  
for ETD Double



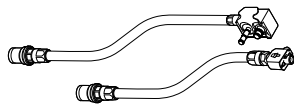
WD00164A Expansion kit "2T",  
for adapter Olympus 2 and 3,  
for ETD Double



WD00165A Expansion kit "BF",  
for adapter Olympus 1,  
for ETD Double

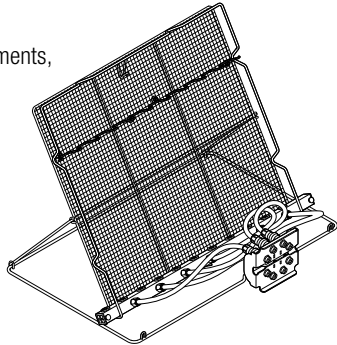


WD00166A Expansion kit "BF & EUS",  
for adapter Pentax 1,  
for ETD Double

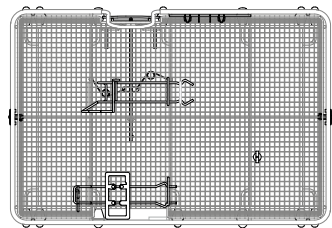


## Baskets

WD00115A Basket insert,  
for thermostable instruments,  
for ETD Double



WD00117A Basket,  
for flexible endoscopes,  
for ETD Double



Delivery includes:  
Basket, clamping pieces WD00152A

## Basket Accessories

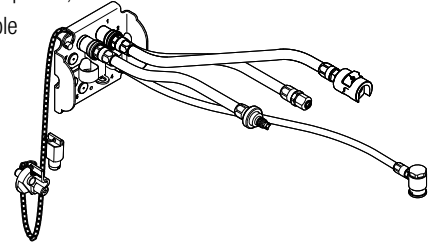
WD00152A Clamping pieces,  
for distal end of endoscopes,  
for ETD Double



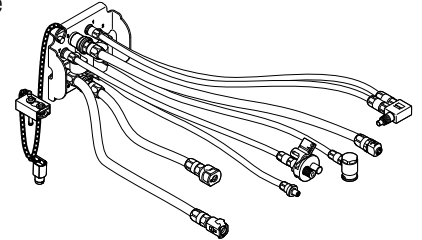
Delivery includes:  
5 small clamping pieces, 5 large clamping pieces

## Adapter for ETD Double

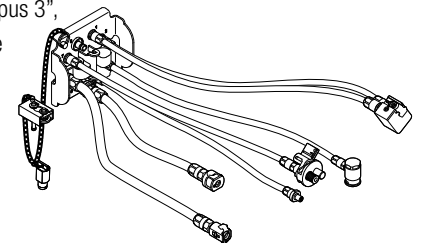
WD00120A Adapter "Olympus 1",  
for ETD Double



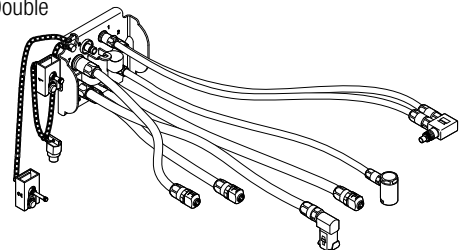
WD00121A Adapter "Olympus 2",  
for ETD Double



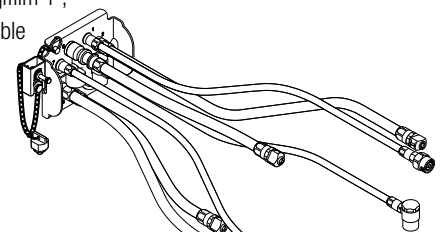
WD00122A Adapter "Olympus 3",  
for ETD Double



WD00123A Adapter "Pentax 1",  
for ETD Double



WD00124A Adapter "Fujifilm 1",  
for ETD Double



WD00129A Adapter "Multi-Use 1",  
for ETD Double (not shown)



## Features at a Glance

- **Proven process and efficacy**  
Endoscope reprocessing within the ETD4 is based on fully proven and well-established process conditions. Using the Olympus peracetic acid (PAA) or glutaraldehyde (GA) process, a powerful disinfection efficacy against microorganisms is achieved.
- **Reliability and safety**  
The ETD4 is equipped with a second-generation flow control device for endoscope channels. It monitors proper use of all the required endoscope channel connectors. ETD4 is also equipped with numerous process monitoring devices; all the relevant process parameters are watched. ETD4 will stop immediately in case of errors or any critical process condition.
- **Documentation and traceability**  
The ETD4 offers automatic scanning of RFID-based tags. Endoscope details and process data will be added and jointly printed in a written report or forwarded to the Olympus EndoAlpha Documentation System.
- **System compatibility**  
ETD4 is part of the Olympus system approach, and is compatible with ENDOALPHA DOCUMENTATION. Together with the endoscope drying cabinet (EDC) and the endoscope transport system (ETS) it enables a full set-up of products to be used in the reprocessing environment.





### Features

Fully automatic endoscope cleaning and disinfection machine

- Long time established system with full compatibility of reprocessing machine, process chemicals and Olympus endoscopes
- Choice between glutaraldehyde (GA) and peracetic acid process (PAA)
- Reprocessing of Fujifilm and Pentax endoscopes
- Full integration with Endo Alpha Documentation
- Special pump for elevator channel
- Thermal process for rigid endoscopes

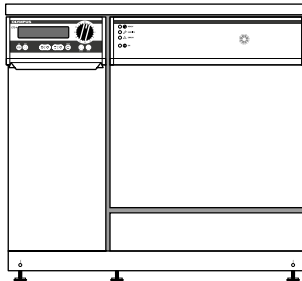
Additional features with ETD4 Plus models:

- Channel Flow Control
- EndoID, automatic endoscope identification by transponders
- Process documentation

Optional for ETD4 Basic PAA:

- Reprocessing of four ENT endoscopes

### ETD4 Main Machines

	Washer-disinfector	
WD00220A*	"ETD4 Plus GA"	
WD00221A*	"ETD4 Basic GA"	
WD00222A*	"ETD4 Plus PAA"	
WD00223A*	"ETD4 Basic PAA"	
WD00225A*	"ETD4 Basic 60 Hz PAA"	

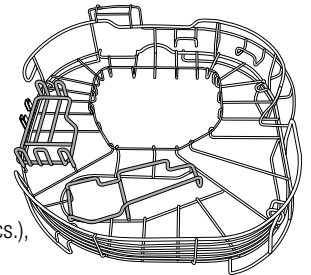
Delivery includes (all models):

Basket E600, basket E601, coarse sieve, fine filter, surface sieve/micro-fine sieve, coarse filter 1, adhesive label, small items basket E363, adapter 3STD-GI (2 pcs.), sealing ring set for 3STD-GI, 7 mm/10 mm socket wrench (2 pcs.)

### ETD4 Basic PAA Four Scope

WD00119A Expansion kit, for ETD4 Basic PAA, for 4 endoscopes

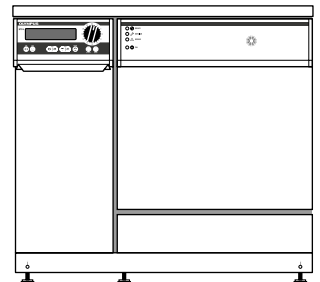
Delivery includes:  
basket E-607 (4 pcs.),  
leakage test Y-adapter (2 pcs.),  
reduction cap set (2 pcs.),  
bracket set E0424439, sticker



Compatible endoscopes:

ENF-10, ENF-GP, ENF-L3, ENF-P, ENF-P2, ENF-P3, ENF-P4, ENF-XP, ENF-V, ENF-V2, ENF-VQ, ENF-V3, ENF-VH

WD00224A\* Washer-disinfector "ETD4 Basic Pure PAA"



Delivery includes:

Basket E600, coarse sieve, fine filter, surface sieve/micro-fine sieve, coarse filter 1, adhesive label, small items basket E363

## Technical Data (1)

### Specifications

Type/versions .....	ETD4 Plus, ETD4 Basic, ETD4 Basic Pure
Capacity .....	2 flexible medical endoscopes or optionally 4 ENT endoscopes
Process .....	glutaraldehyde (GA) or peracetic acid (PAA)
Outer Casting .....	Stainless steel
Interfaces .....	ethernet (TCP/IP) printer port (parallel)
User interface .....	4 x 40 digits LCD

### Size

Dimensions .....	900 (W) x 850 (H) x 600 (D) mm
Weight .....	133.5 kg
Volume (washing chamber).....	165 l
Floor loading (max.) .....	2158 N

### Water supply

Process water.....	max. 4 °dH min. conductivity: 100 µS/cm (ETD4 Plus) pH: 6.5 – 9.5 max. temperature: 30 °C (GA), 25 °C (PAA)
Steam condenser.....	cold tap water (potable)
Pressure.....	100 – 1,000 kPa
Quality .....	acc. to EN ISO 15883-4
Plumbing.....	pipe size: 1/2" hose size: 3/8", 1.5 m hose coupling: 3/4"
Hose .....	Poly-Rex, 22 mm Ø, max. 4 m

### Power supply 400 V (not for WD00225A)

Voltage.....	400 V (±10 %), 3N~, 50 Hz
Fuses.....	3x 16 A
Power consumption .....	9.2 kW
Connecting cable.....	5 x 2.5 mm <sup>2</sup> , 1.8 m length

### Power supply 230 V

Voltage.....	230 V ~ (±10 %)
Frequency .....	50 Hz (WD00220A-24A), 60 Hz (WD00225A)
Fuse.....	1x 30 A
Power consumption .....	6.7 kW (WD00220A-24A), 6.2 kW (WD00225A)
Connecting cable.....	3 x 4 mm <sup>2</sup> , 1.8 m length

### Operation

Circulating pump capacity (Q <sub>max</sub> ) .....	400 l/min
---	-----------

### Noise level

WD00220A-24A .....	67.1 dB (A), stand alone 54.9 dB (A), integrated
WD00225A.....	67.1 dB (A) stand alone 63 dB (A), itegrated

## Technical Data (2)

### EndoID database

Max. number of users .....	200
Max. number of endoscopes .....	500
Max. number of endoscope types.....	400

### Remote access

Connection .....	ISDN telephone line (RJ45)
------------------	----------------------------

### Safety

Electrical safety .....	EN 61010-1, EN 61010-2-40
Electromagnetic compatibility .....	EN 61326, EN 50366
Directive 93/42/EEC .....	IIb
Safety of water supply.....	EN 61770

### Ambient conditions

Operation .....	temperature: 5 – 30 °C, briefly 35 °C relative humidity: 30 – 85 % max. altitude: 1,500 m a.s.l.
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### Program Packages Single Flow Control

	Program package, for ETD,
WD00240A	"PAA Standard 1"
WD00242A	"PAA Special 1"
WD00246A	"PAA Special 5"
	Program package, for ETD,
WD00260A	"GA Standard 1"
WD00262A	"GA Special 1"
WD00264A	"GA Special 3"

### Description of Program Packages

PAA Standard 1	
Process .....	Peracetic Acid (PAA)
Description .....	PAA, standard
Countries .....	Europe
Compatible ETD4 models .....	WD00222A/-23A/ -24A/-25A
Compatible ETD3 models .....	E0425502/-03/-04/-06
PAA Special 1	
Process .....	Peracetic Acid (PAA)
Description .....	PAA, UK, without PAA for final rinse 1
Countries .....	UK, Ireland
Compatible ETD3 models .....	E0425504
PAA Special 5	
Process .....	Peracetic Acid (PAA)
Description .....	PAA, France, Heating Final Rinse 1
Countries .....	France, Austria
Compatible ETD4 models .....	WD00222A/-23A/ -24A/-25A
Compatible ETD3 models .....	E0425502/-03/-04/-06
GA Standard 1	
Process .....	Glutaraldehyde (GA)
Description .....	GA, Standard
Countries .....	Europe
Compatible ETD4 models .....	WD00220A/-21A
Compatible ETD3 models .....	E0425500/-01
GA Special 1	
Process .....	Glutaraldehyde (GA)
Description .....	GA, Austria France 1
Countries .....	France, Austria
Compatible ETD4 models .....	WD00220A/-21A
Compatible ETD3 models .....	E0425500/-01
GA Special 3	
Process .....	Glutaraldehyde (GA)
Description .....	GA, Austria Special 1
Countries .....	Austria
Compatible ETD4 models .....	WD00220A/-21A
Compatible ETD3 models .....	E0425500/-01

## Program Packages Double Flow Control

	Program package, for ETD,
WD00241A	"PAA Standard 2"
WD00247A	"PAA Special 6"
	Program package, for ETD,
WD00261A	"GA Standard 2"
WD00263A	"GA Special 2"
WD00265A	"GA Special 4"

## Description of Program Packages

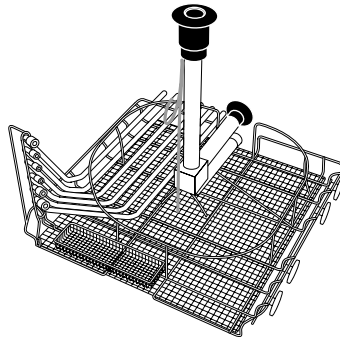
PAA Standard 2
Process..... Peracetic Acid (PAA)
Description..... PAA, standard (same as PAA Standard 1)
Countries..... Europe
Compatible ETD4 models.....WD00222A
PAA Special 6
Process..... Peracetic Acid (PAA)
Description.....PAA, France, Heating Final Rinse 1 (same as PAA Special 5)
Countries..... France, Austria
Compatible ETD4 models.....WD00222A
GA Standard 2
Process..... Glutaraldehyde (GA)
Description.....GA, Standard (same as GA Standard 1)
Countries..... Europe
Compatible ETD4 models.....WD00220A
GA Special 2
Process..... Glutaraldehyde (GA)
Description.....GA, Austria France 1 (same as GA Special 1)
Countries..... France, Austria
Compatible ETD4 models.....WD00220A
GA Special 4
Process..... Glutaraldehyde (GA)
Description..... GA, Austria Special 1 (same as GA Special 3)
Countries..... Austria
Compatible ETD4 models.....WD00220A



### Fiberscope Baskets

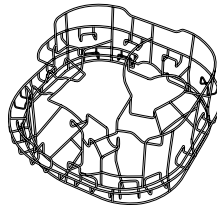
E0424470 Basket "E600",  
base module,  
for ETD4 and ETD3

Includes red adapter  
3XMB-109.



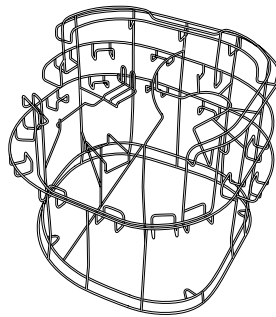
E0424472 Basket "E601",  
GI scope module,  
for ETD4 and ETD3

For GI and BF endoscope series.



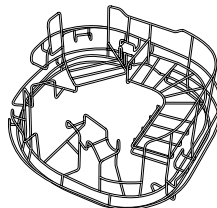
E0424428 Basket "E602",  
EUS scope module,  
for ETD4 and ETD3

For flexible ultrasound  
endoscopes.



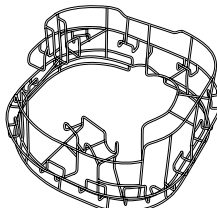
E0425553 Basket "E603",  
VISERA scope module,  
for ETD4 and ETD3

For CYF-V, ENF-V endoscope series.



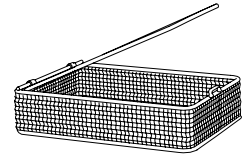
E0425543 Basket "E605",  
Pentax scope module,  
for ETD4 and ETD3

For endoscope adapters,  
see page 665.

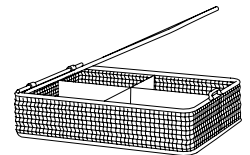


### Baskets for Small Instruments

028910 Instrument basket "E363",  
for small items,  
insert 1/6,  
outer dimensions:  
225 x 55 x 150 mm

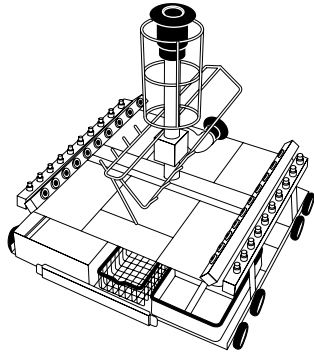


024371 Instrument basket "E451",  
for very small items,  
insert 1/6,  
removable interior divider,  
outer dimensions:  
225 x 55 x 150 mm

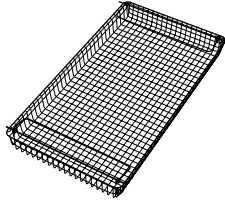


## Baskets for Surgical Endoscopy

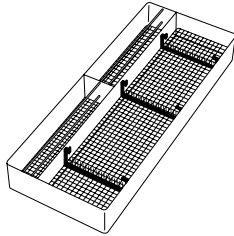
E0424427 Basket "E450",  
for MIS instruments,  
for ETD4 and ETD3



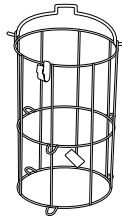
024359 Instrument basket "E142",  
for surgical endoscopy,  
insert 1/2 for basket E450,  
outer dimensions:  
480 x 45/55 x 255 mm



024368 Instrument basket "E457",  
for disassembled MIS instruments,  
insert 1/2 for basket E450,  
outer dimensions:  
490 x 62 x 192 mm



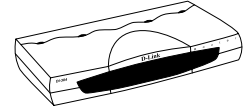
024363 Basket "E444",  
for 1 light-guide cable or 1 suction tube,  
for basket E450



For other instrument baskets, see page 675.

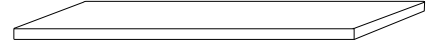
## Accessories

E0424449 ISDN router,  
set,  
for ETD4 and ETD3

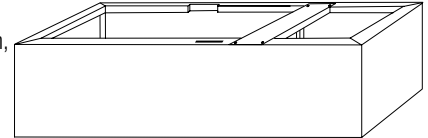


For remote update and operation of the ETD3 machine.

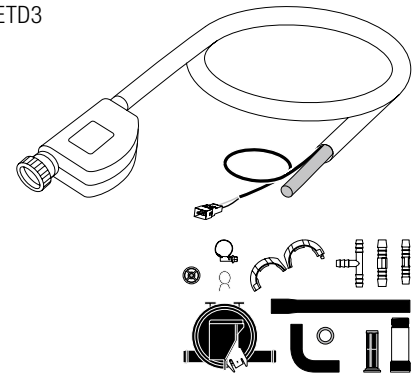
E0425549 Cover,  
70 (D) x 90 (W) cm,  
for ETD4 and ETD3



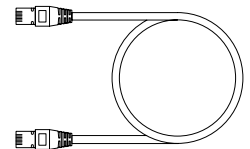
E0424473 Plinth,  
30/60/90 cm,  
for ETD4  
and ETD3



E0425547 Tubing,  
for connection to demineralized water supply,  
for ETD4 and ETD3

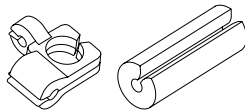


E0424416 Cable, LAN,  
for integration with ENDOBASE,  
10 m



## Brackets for CYF/HYF scopes

E0424439 Bracket set,  
for CYF/HYF series,  
10 pcs.,  
for ETD4 and ETD3



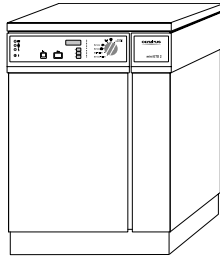
The fixation of one scope requires one bracket set.



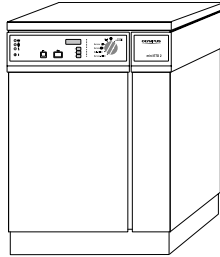
- Designed for smaller endoscopy units with the need to reprocess one endoscope at a time.
- The miniETD2 is compact in size. Only 60 cm in width, the miniETD2 saves space.
- The peracetic acid (PAA) process is also available for single endoscope reprocessing.
- The PAA process prevents any formation of biofilms, is not volatile, does not harm users' and patients' health, and the process runs faster and more effectively!
- Endoscan 2 option is available and provides comprehensive documentation for legal purposes.

## Reprocessors

E0425512\* Reprocessor "miniETD2",  
peracetic acid process (PAA)\*



E0425510\* Reprocessor "miniETD2",  
glutaraldehyde process (GA)\*



Delivery includes:  
main machine, basket E490, basket E363,  
adapter 3STD-GI with sealing set, adapter 3XMAJ-885, flow  
adapter basic tool set

## Technical Data

Power supply 400 V (double heater)  
Voltage..... 400 V, 2(3)N ~ 50 Hz  
Power consumption 6.3 kW

Power supply 230 V (single heater)  
Voltage.....230 V, ~ 50 Hz  
Power consumption .....3.3 kW

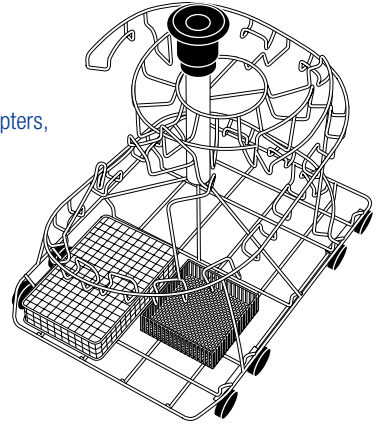
Size  
Dimensions ..... 600 (W) x 850 (H) x 600 (D) mm  
Weight ..... 80 kg  
Max. floor loading .....950 N (in operation)

Water supply  
Quality .....drinking water  
Pressure..... 1 – 10 bar  
Flow rate..... 4.9 l/min

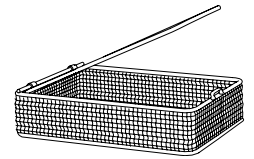
## Baskets for miniETD2

E0425550 Basket "E490",  
for miniETD2

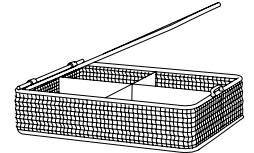
For endoscope adapters,  
see page 665.



028910 Instrument basket "E363"  
for small items,  
insert 1/6,  
outer dimensions:  
225 x 55 x 150 mm

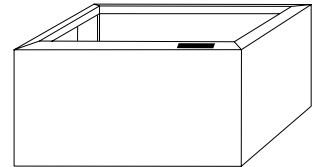


024371 Instrument basket "E451"  
for very small items,  
insert 1/6,  
removable interior divider,  
outer dimensions:  
225 x 55 x 150 mm

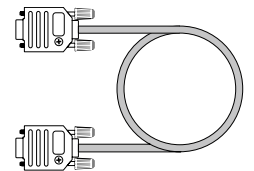


## Accessories

024265 Plinth,  
for miniETD2



E0424419 Cable,  
for Endoscan 2,  
5 m



For Endoscan 2, printer, and  
transponders, see page 664.



### Chemicals for Peracetic Acid (PAA) Process

E0420002\* Disinfectant "EndoDis",  
8.4 l

Color of containers: white  
3 containers of 2.8 l (= 8.4 l)



WD00212A\* Activator "EndoAct",  
15 l<sup>1</sup>

E0420004\* 12 l<sup>2</sup>

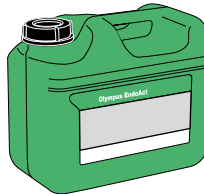
Color of containers: black  
<sup>1</sup> 3 containers of 5 l  
<sup>2</sup> 3 containers of 4 l



WD00211A\* Cleaner "EndoDet",  
15 l<sup>1</sup>

E0420001\* 12 l<sup>2</sup>

Color of containers: green  
<sup>1</sup> 3 containers of 5 l  
<sup>2</sup> 3 containers of 4 l



### Chemicals for Glutaraldehyde (GA) Process

WD00215A\* Disinfectant "DETD",  
15 l

Color of containers: blue  
3 containers of 5 l



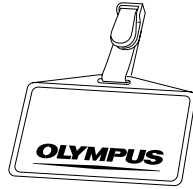
WD00216A\* Cleaner "CETD",  
15 l

Color of containers: white  
3 containers of 5 l



## RFID Tags for EndoID and Endoscan

E0424424 Transponder, set,  
for staff,  
10 pcs.



Transponder (not shown),  
set, 5 pcs.,

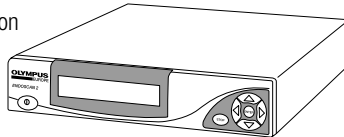
E0424404 for EVIS  
E0424405 for OES 30 lower GI  
E0424406 for OES 30 upper GI  
E0424407 for OES 40 GI  
E0424408 for BF-30  
E0424409 for BF-40  
E0424410 for CYF, HYF  
E0424432 for CYF-4

E0424431 Transponder, set  
  
Universal RFID tag for Fujifilm and  
Pentax endoscopes, CYF-VA,  
5 pcs. with 5 fixation ribbons



## Endoscan

024280 Endoscope identification  
unit "Endoscan 2"



- For ETD4 Basic,  
ETD3 Basic and miniETD2
- Each reprocessing protocol includes the reprocessing date,  
the process parameters, name and serial number of the  
endoscope and the ETD machine.

Delivery includes:  
Computing unit, RFID reader

### Technical Data

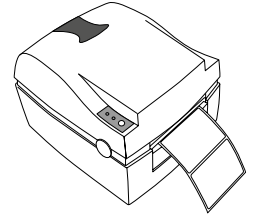
Power supply  
Voltage.....110 – 240 V ~  
Frequency .....50/60 Hz

Size  
Width .....370 mm  
Height .....75 mm  
Depth .....420 mm

Interfaces  
Connection of ETD systems..... 4x  
LAN ..... 10/100 MBit Ethernet  
others ..... parallel, keyboard, RS232

## Reprocessing Documentation

WD00113A\* Printer,  
thermotransfer,  
for ETD4, ETD3 and miniETD2



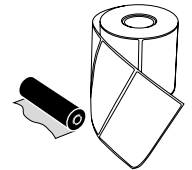
### Technical Data

Power supply  
Voltage.....110 – 240 V ~  
Frequency .....50/60 Hz

Size  
Dimensions .....226 (W) x 171 (H) x 285 (D) mm  
Weight .....2.72 kg

Interfaces.....serial, parallel, USB

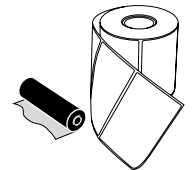
E0424400\* Label "EasyCoder",  
label length 105 mm,  
set of 525 labels on one roll  
and 1 inking ribbon



To be used with:

- ETD4
- ETD3 with EndoID (special prolonged programmes)

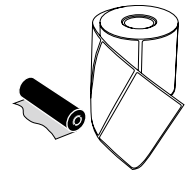
E0424415\* Label "EasyCoder",  
label length 75 mm,  
set of 750 labels on one roll  
and 1 inking ribbon



To be used with:

- Endoscan 2
- ETD3 with EndoID (standard programmes)

E0424463\* Label "EasyCoder",  
label length 60 mm,  
set of 900 labels on one roll  
and 1 inking ribbon



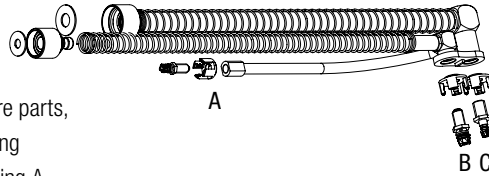
To be used with:

- Endoscan 1
- ETD2
- Endoscan 2



## ETD Adapters (1)

E0424448 Adapter "3STD-GI"



- Spare parts,
- mut00228 Tubing
- mut00235 Sealing A
- mut00324 Sealing B
- mut00323 Sealing C

E0424447 Adapter "3XMAJ-855"



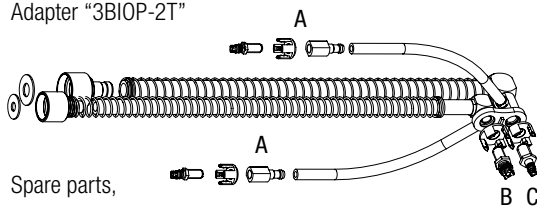
- Spare tubing,
- mut00237 for 3XMAJ-855

E0424446 Adapter "3XMB-109"



- Spare tubing,
- M5997080 for 3XMB-109

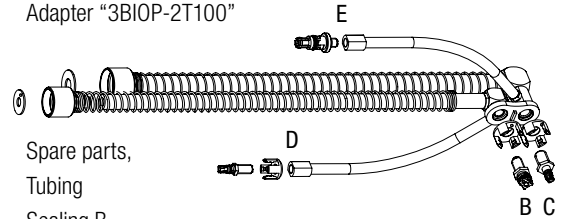
E0424444 Adapter "3BIOP-2T"



- Spare parts,
- mut00275 Tubing
- mut00235 Sealing A
- mut00324 Sealing B
- mut00323 Sealing C

## ETD Adapters (2)

E0424443 Adapter "3BIOP-2T100"

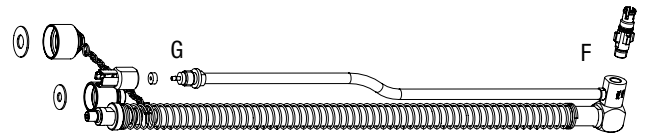


- Spare parts,
- mut00230 Tubing
- mut00324 Sealing B
- mut00323 Sealing C
- mut00336 Sealing D
- mut00335 Sealing E

E0424429 Adapter "3XMB-1"

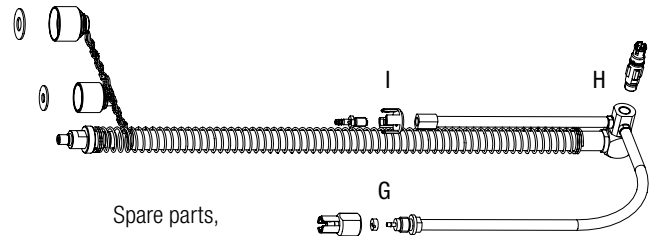


E0424441 Adapter "3BF-20"



- Spare parts,
- mut00233 Tubing
- mut00334 Sealing F
- mut00333 Sealing G

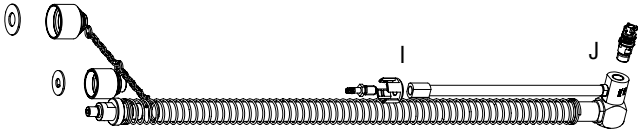
E0424440 Adapter "3BF-20D"



- Spare parts,
- mut00234 Tubing
- mut00333 Sealing G
- mut00332 Sealing H
- mut00327 Sealing I

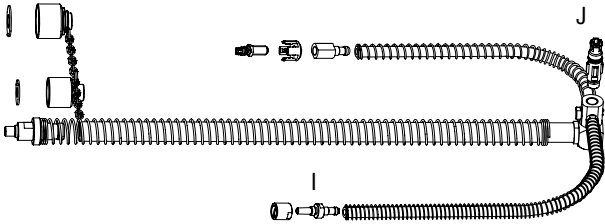
### ETD Adapters (3)

E0424445 Adapter "3BF-40"



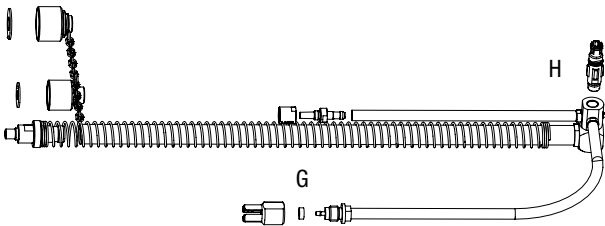
Spare parts,  
 mut00231 Tubing  
 mut00327 Sealing I  
 mut00326 Sealing J

E0425544 Adapter "3BF-UC160"



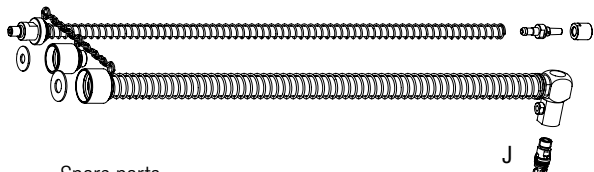
Spare parts,  
 mut00348 Tubing  
 mut00327 Sealing I  
 mut00326 Sealing J

E0424469 Adapter "3CHF"



Spare parts,  
 mut00291 Tubing  
 mut00333 Sealing G  
 mut00332 Sealing H

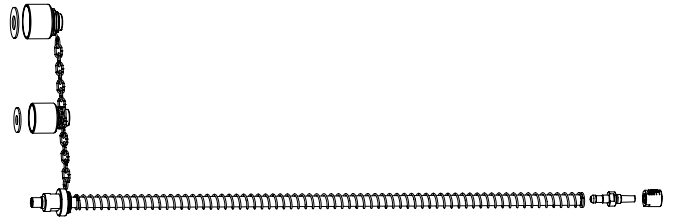
E0424468 Adapter "3CYF-A"



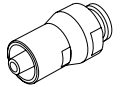
Spare parts,  
 mut00292 Tubing  
 mut00326 Sealing J

### ETD Adapters (4)

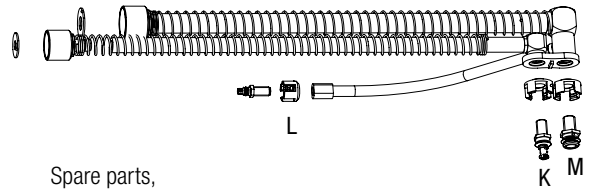
E0424464 Adapter "3LUER"



WD00100A Adapter "3XMAJ-350"

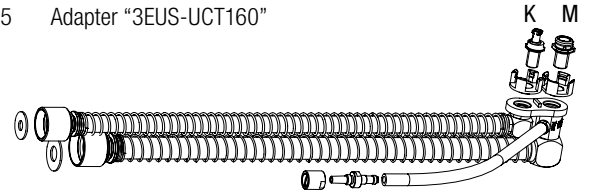


E0424442 Adapter "3EUS-40/160"



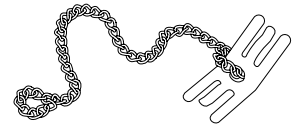
Spare parts,  
 mut00232 Tubing  
 mut00329 Sealing K  
 mut00330 Sealing L  
 mut00328 Sealing M

E0424465 Adapter "3EUS-UCT160"



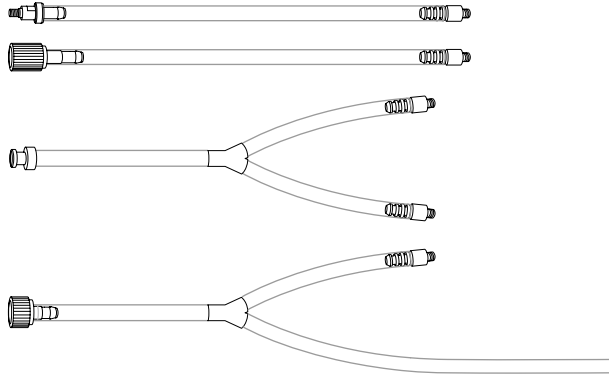
Spare parts,  
 mut00306 Tubing  
 mut00329 Sealing K  
 mut00328 Sealing M

M3099820 CO<sub>2</sub> clamp

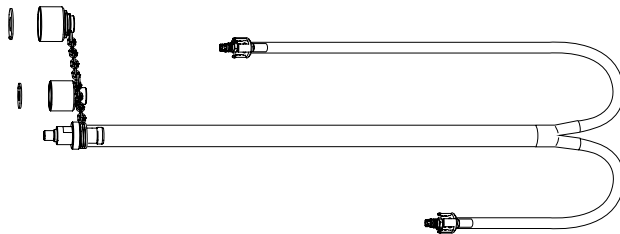


### ETD Adapters (5)

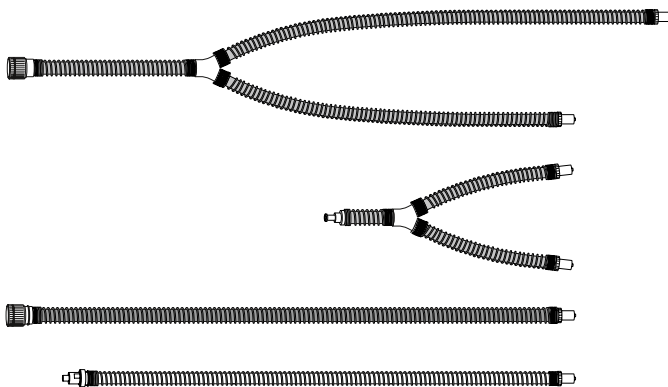
E0424437 Adapter "3Pentax"



E0425554 Adapter "3 Pentax Broncho"

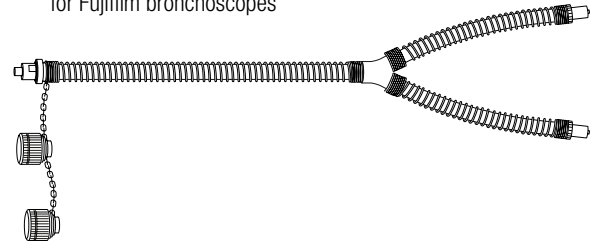


WD00108A Adapter,  
for ETD,  
for Fujifilm endoscopes



### ETD Adapters (6)

WD00109A Adapter,  
for ETD,  
for Fujifilm bronchoscopes



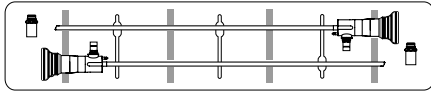




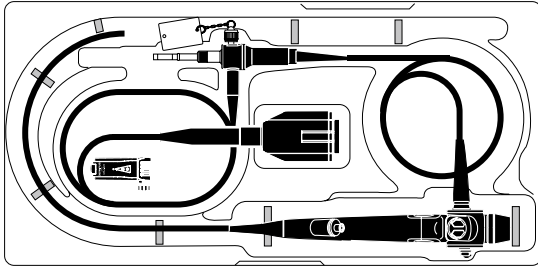
- Custom manufactured for single instruments and complete instrument sets
- Secure and cushioned fixture of the instruments through retainers
- Suitable for gas and steam sterilization, storage, and transportation
- Long service life due to high-performance plastic material (polyphenylsulfone)

## Instrument Trays (1)

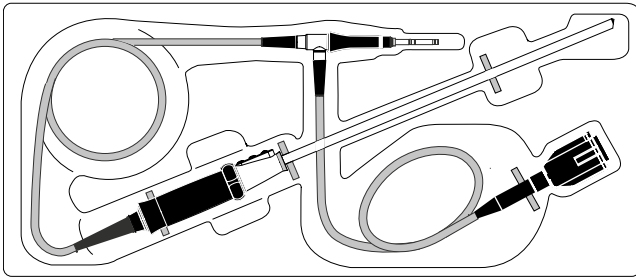
WA05990A Instrument tray,  
for telescopes



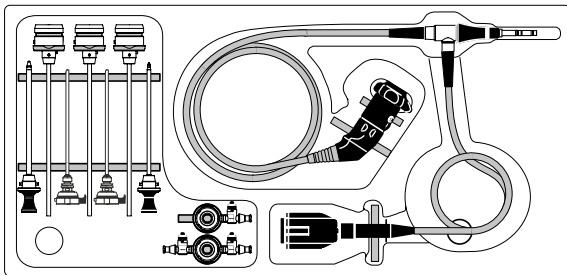
WA05991A Instrument tray,  
for flexible endoscopes of CHF, CYF, ENF, HYF, LF,  
and URF series



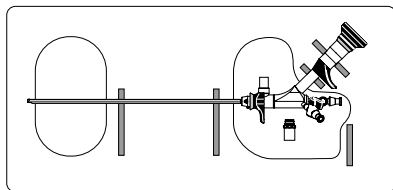
WA59381A Instrument tray,  
for long EndoEYE video telescopes



WA05954A Instrument tray,  
for TrueView Direct



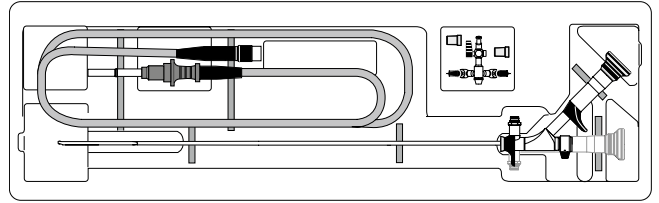
A05961A Instrument tray,



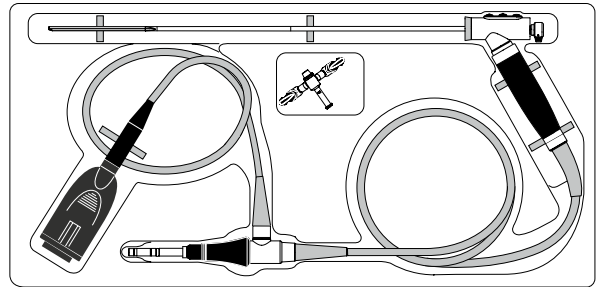
for compact cystoscope and compact hysteroscope

## Instrument Trays (2)

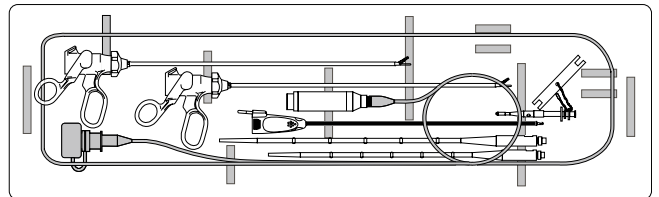
A5961 Instrument tray,  
for ureteroscope



WA59383A Instrument tray,  
for EndoEYE video ureteroscopes



A05952A Instrument tray,  
for SonoSurg instruments



## Outer Dimensions

Length x height x width

A05952A	.....	665 x 65 x 204 mm
A05961A	.....	405 x 95 x 200 mm
A5961	.....	665 x 52 x 204 mm
WA05991A	.....	531 x 79 x 255 mm
WA05954A	.....	665 x 52 x 204 mm
WA05990A	.....	446 x 49 x 88 mm
WA59381A	.....	690 x 60 x 295 mm
WA59383A	.....	595 x 51 x 295 mm

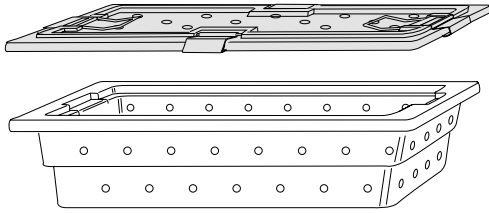




- Various system case configurations for individual needs
- Custom manufactured for specific and universal instrument arrangements
- Secure and cushioned fixture of the instruments through silicone mats and retainers
- Suitable for gas and steam sterilization, storage, and transportation
- Long service life due to high performance plastic material (polyphenylsulfone)

## Instrument Tray

WA05970A Instrument tray,  
with lid,  
with silicone mat WA05980A,  
outer dimensions: 537 x 139 x 268 mm

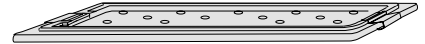


WA05980A Spare mat,  
nubby, silicone,  
dimensions: 420 x 176 mm,  
for WA05970A



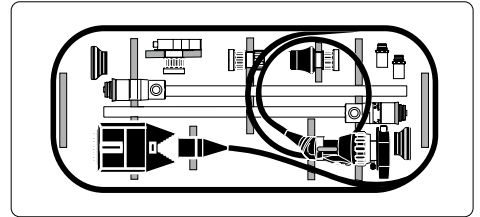
## Lid for Insert Trays

WA05974A Lid,  
for all insert trays,  
except for WA05973A



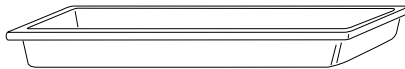
## Insert Tray for Telescopes

WA05994A Insert tray,  
for 2 telescopes, VISERA camera head, and  
video adapter

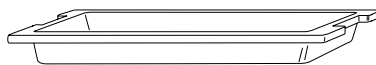


## Multi-Purpose Insert Trays

WA05971A Insert tray,  
for the upper part of WA05970A,  
with silicone mat WA05980A,  
outer dimensions:  
482 x 60 x 224 mm



WA05973A Insert tray,  
for the bottom part of WA05970A,  
with silicone mat WA05981A,  
outer dimensions:  
460 x 39 x 207 mm



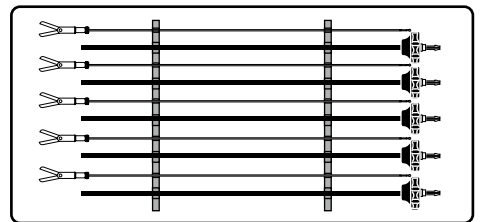
Spare mat,  
nubby, silicone,



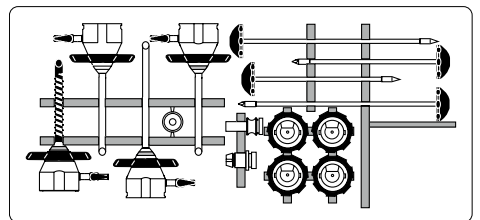
WA05980A for WA05971A, dimensions: 420 x 176 mm  
WA05981A for WA05973A, dimensions: 400 x 176 mm

## Insert Trays for Surgery/Laparoscopy

WA05972A Insert tray,  
for 5 HiQ+ shafts and jaws inserts,  
maximum length of instruments: 330 mm,  
outer dimensions: 480 x 47 x 224 mm

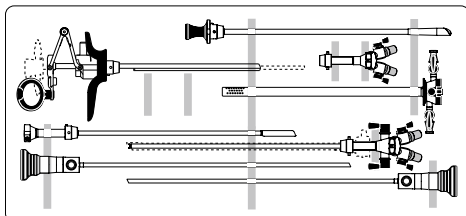


A5977 Insert tray,  
for 4 trocars,  
outer dimensions: 478 x 68 x 224 mm

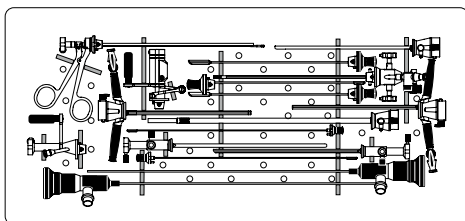


### Insert Trays for Urology

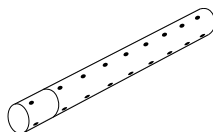
A5976 Insert tray,  
for resectoscope, cystoscope, or urethrotome set,  
outer dimensions: 478 x 68 x 224 mm



WA05995A Insert tray,  
for pediatric urology set,  
outer dimensions: 478 x 68 x 224 mm

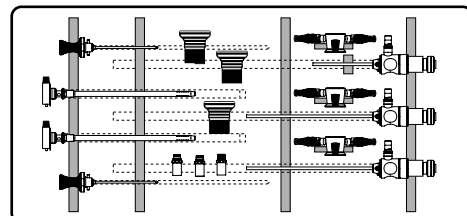


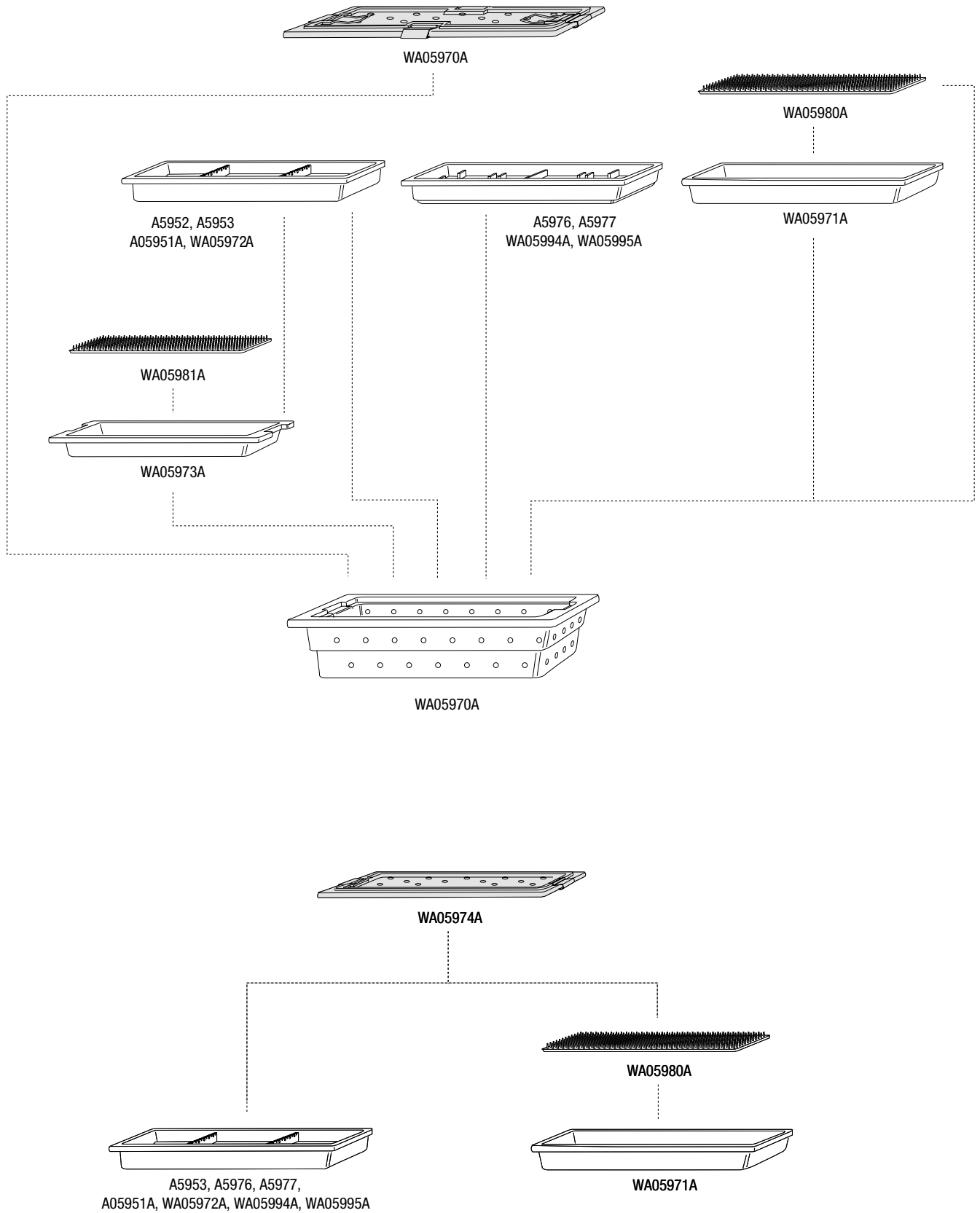
A0285 Sterilization container,  
stainless steel,  
for HF-resection electrodes



### Insert Trays for Arthroscopy

A05951A Insert tray,  
for TrueView II and Mini-TrueView telescopes,  
outer dimensions: 478 x 41 x 224 mm



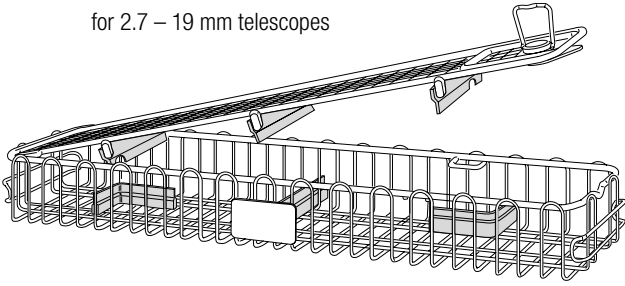




- Universal design for various instruments
- Suitable for the entire reprocessing procedure
- Long service life due to high quality stainless steel material

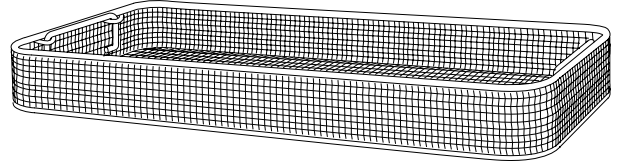
## Instrument Basket for Telescopes

A5940 Instrument tray,  
for 2.7 – 19 mm telescopes



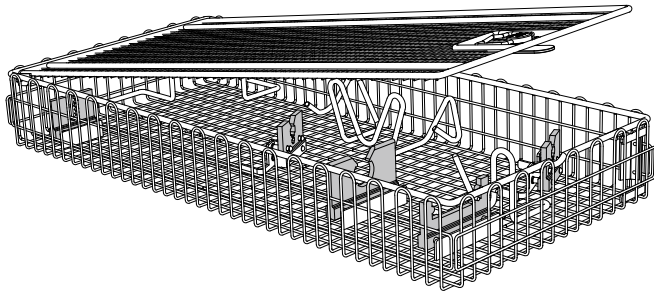
## Universal Instrument Baskets

A5942 Instrument tray,  
530 x 245 x 60 mm,  
for DIN container

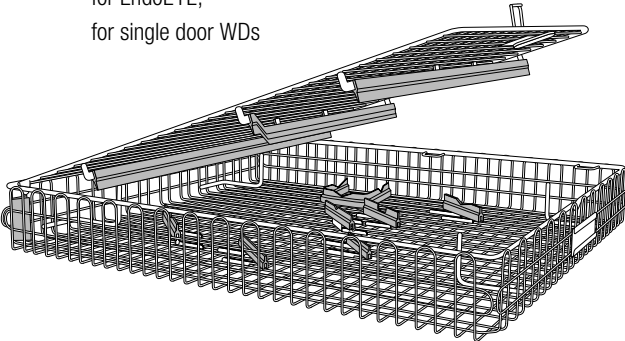


## Instrument Basket for Laparoscopy

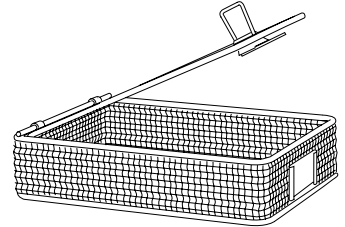
WA05938A Instrument tray,  
wire basket,  
for EndoEYE



WA05941A Instrument basket,  
wire,  
for EndoEYE,  
for single door WDs



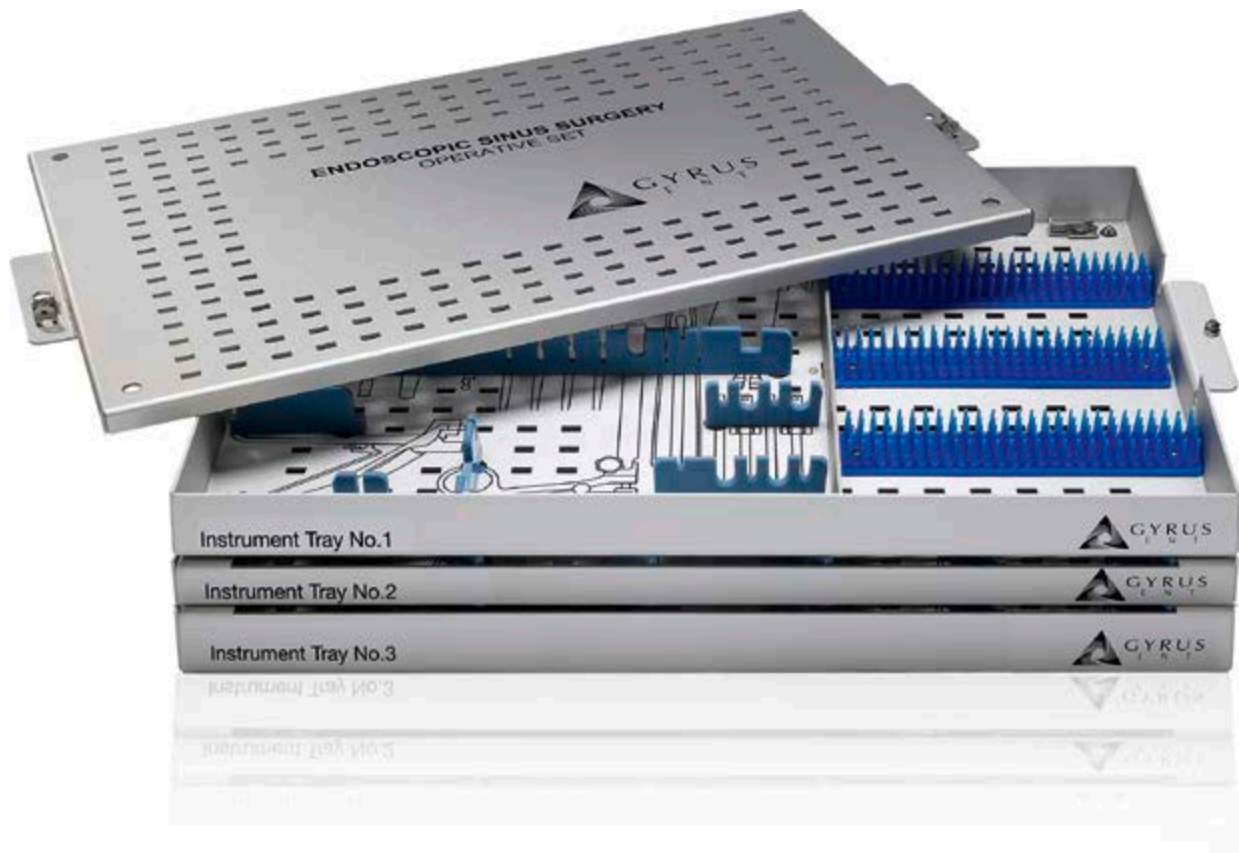
A5941 Instrument tray,  
for accessories



## Outer Dimensions

Length x height x width

A5940 .....	462 x 52 x 105 mm
A5941 .....	225 x 55 x 150 mm
A5942 .....	530 x 245 x 60 mm
WA05938A .....	580 x 77 x 270 mm
WA05941A .....	505 x 65 x 460 mm



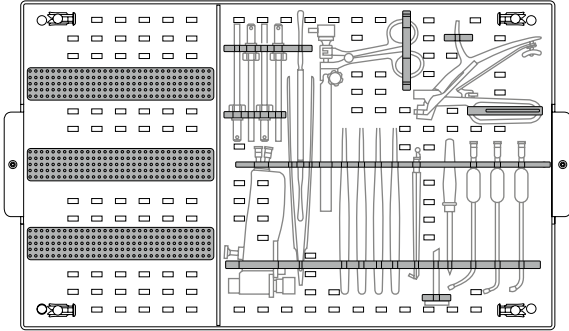
These instrument trays are designed specifically to meet the everyday needs of endoscopic sinus surgery. Individual trays are available to house instruments, forceps, as well as sinuscope and light guide cables.

- Heavy-gauge, stainless steel-construction
- Silicone inserts on the inside to house and protect the instruments
- Laser-etched outlines to identify instruments in place
- Convenient, stackable design
- Autoclavable

## Sterilization Trays

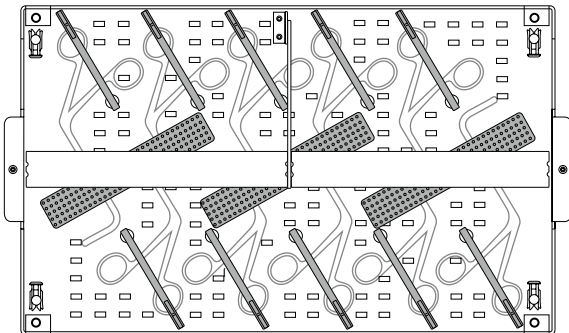
230570 Instrument sterilization case, No. 1,  
for sinus surgery

Outer dimensions:  
530 x 35 x 310 mm



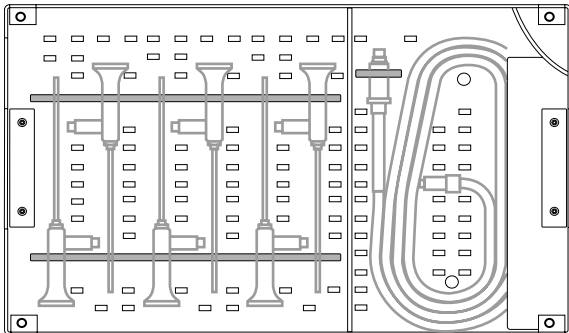
230571 Forceps sterilization case, No. 2,  
for endoscopic sinus surgery

Outer dimensions:  
530 x 35 x 310 mm



230569 Endoscopy sterilization case, No. 3,  
for sinusscopes and light-guide cable

Outer dimensions:  
530 x 35 x 310 mm

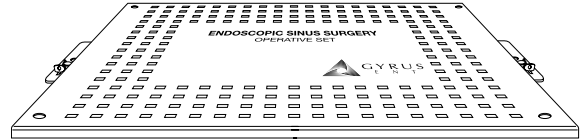


## Lid

230568 Lid for operative sterilization case

For use with 230569, 230570, 230571.

Outer dimensions:  
530 x 15 x 310 mm



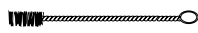








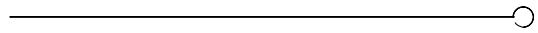


- Wide range of products for all occasions and most effective cleaning and disinfection

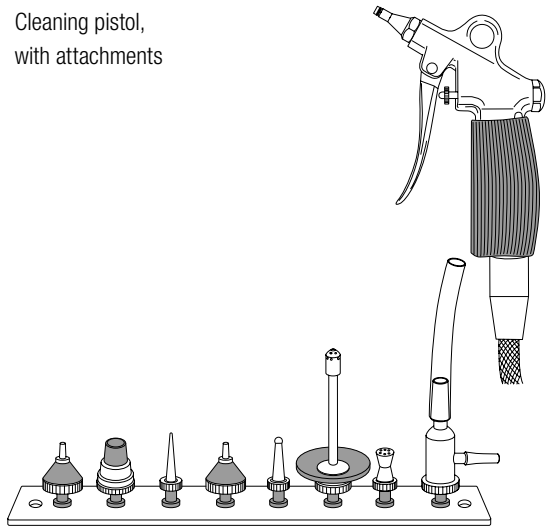
## Cleaning Brushes

	
	Cleaning brush, dimensions (brush diameter x total length):
A0441	2.5 x 360 mm
A0446	4.0 x 400 mm
A0444	4.0 x 500 mm
A0221	4.0 x 600 mm
A0443	6.0 x 360 mm
O0230	9.0 x 330 mm
A0445	9.0 x 360 mm
A0447	12.0 x 360 mm
O0231	14.0 x 330 mm
A0449	16.0 x 360 mm
A0450	20.0 x 360 mm
A0452	Cleaning brush, 1.0 x 700 mm, for uretero-renoscopes
	
A0448	Cleaning brush, 4 x 60 mm, for stopcocks
	
A0451	Cleaning brush, for surfaces
	
O26441	Cleaning brush "MH-507", for fiberscope attachments
	
	Cleaning brush, for instrument channel of fiberscopes,
	
O26799	"BW-15B"
O26447	"BW-7B"
O26439	Cleaning brush "BW-15SH", for channel opening of fiberscopes
	
WA90214A	Cleaning brush "MH-362" (not shown), 3.5 x 550 mm, 3 pcs. for SonoSurg hand instruments

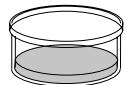

## Cleaning Rods And Wires

A0440	Cleaning wire, 0.6 x 500 mm	
	Cleaning rod (not shown), for LUS-2, A02956A "MB-727", for probes MAJ-984/985 A02957A "MB-728", for probes MAJ-981/982/983	

## Cleaning Pistol

O0190	Cleaning pistol, with attachments	
	① for syringes and cannulas with "Record"-connector ② for pipettes ③ for catheters, stopcocks, valves, and endoscopes ④ for syringes and cannulas with Luer-lock-connector ⑤ for drainage tubes ⑥ for glass jars ⑦ spray nozzle ⑧ water jet blast for suction	

## Lubricants

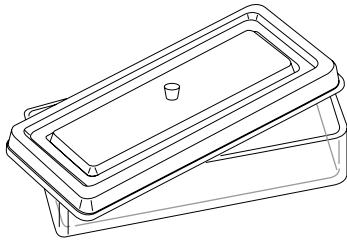
O0170	Grease, for stopcocks	
A0273	Oil, for care and maintenance, bottle, 20 ml	

## Trays

### Glass tray

with stainless steel lid,  
various sizes (mm)

- WT813020 Glass tray, with stainless steel lid, size 200 x 100  
WT813022 Glass tray, with stainless steel lid, size 220 x 150

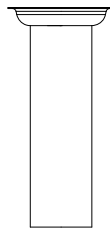


## Cups

### Jar

stainless steel,  
50 mm height, 180 mm diameter

- WT810175 Jar, stainless steel,  
size 50 x 180



### Medicine cup,

stainless steel,  
50 mm height,

- WT997000 Medicine cup, stainless steel,  
size 50

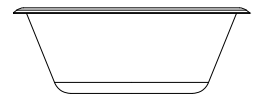
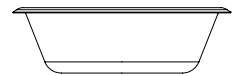
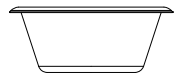
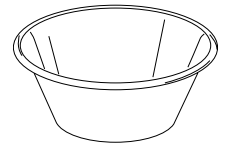


## Bowls

### Round bowl

stainless steel,  
various volumes (l),  
heights (cm) and diameters (mm)

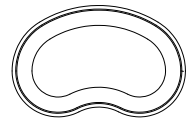
- WT997001 Round bowl,  
stainless steel,  
size 0.75 / 7.5 x 160  
WT997002 Round bowl,  
stainless steel,  
size 1.0 / 7.5 x 160  
WT997003 Round bowl,  
stainless steel,  
size 2.0 / 7.0 x 220  
WT997004 Round bowl,  
stainless steel,  
size 3.0



### Kidney bowl

stainless steel,  
various lengths (mm),  
widths (mm) and heights (mm)

- WT997008 Kidney bowl,  
stainless steel,  
size 170 x 100 x 35  
WT997010 Kidney bowl,  
stainless steel,  
size 250 x 140 x 40  
WT997020 Kidney bowl,  
stainless steel,  
size 275 x 150 x 45



## Bowls

### Round bowl

graduated, stainless steel  
various volumes (l),  
heights (cm) and diameters (mm)



WT997030 Round bowl,  
stainless steel,  
size 0.03 / 2.5 x 50



WT997050 Round bowl,  
stainless steel,  
size 0.05 / 4.5 x 50



WT997100 Round bowl,  
stainless steel,  
size 0.1 / 3.5 x 80

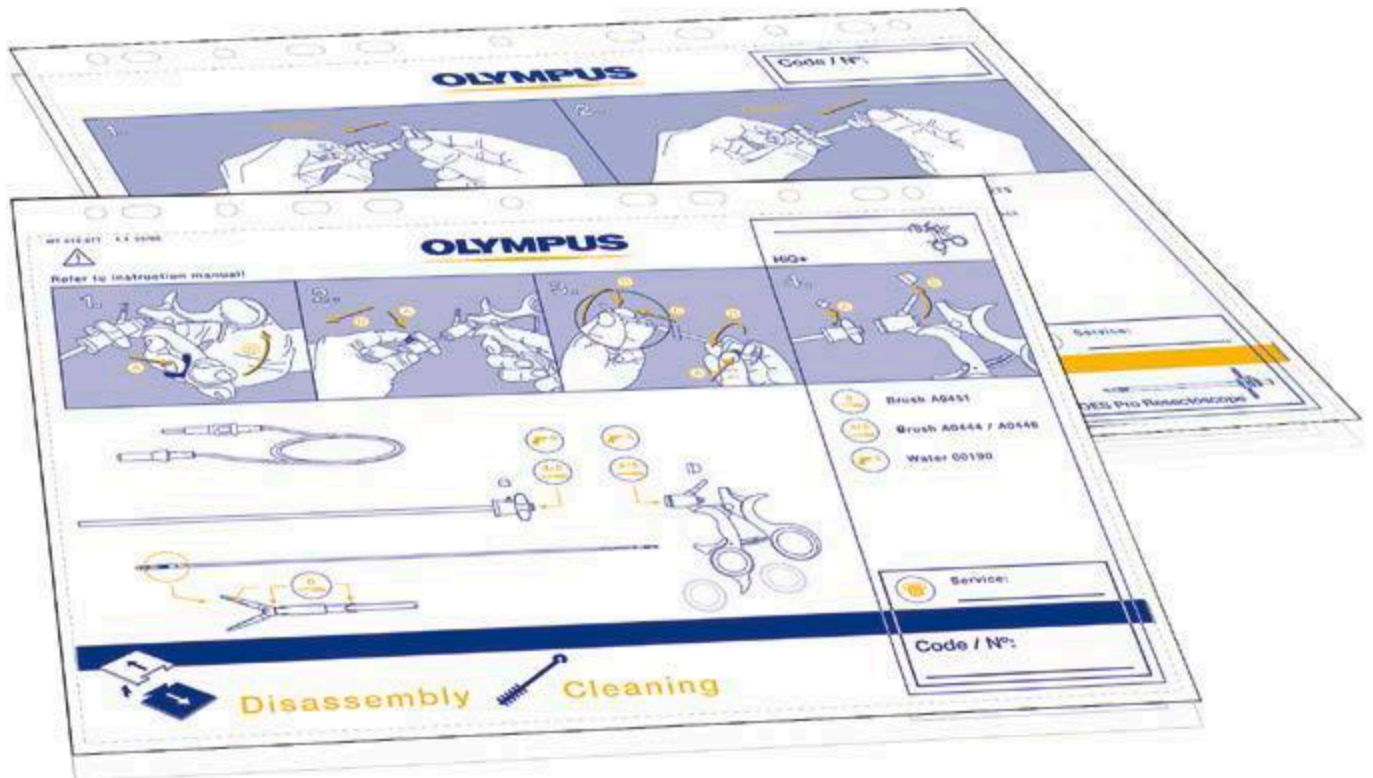


WT997150 Round bowl,  
stainless steel,  
size 0.2 / 5.5 x 90



WT997408 Round bowl,  
stainless steel,  
size 0.5 / 5.5 x 140





- Clear and handy design
- Resistant against dirt and water
- Short, graphic descriptions of how to disassemble, clean, maintain and reassemble Olympus surgical instruments
- Enable convenient ordering of accessories and spare parts

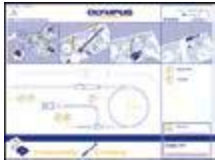
## Telescopes

W7018282 Reprocessing instruction card  
"Telescopes"



## Laparoscopy

W7018294 Reprocessing instruction card  
"EndoEye"



W7018277 Reprocessing instruction card  
"HiQ+ (Monopolar Hand Instruments)"



W7018295 Reprocessing instruction card  
"HiQ+ Needle Holder"



W7018296 Reprocessing instruction card  
"HiQ+ Suction/Irrigation"



W7018279 Reprocessing instruction card  
"BiQ (Bipolar Forceps)"



W7018280 Reprocessing instruction card  
"TroQSL (Trocars)"



W7018291 Reprocessing instruction card  
"TroQ (Trocars)"



## Urology

W7018284 Reprocessing instruction card  
"OES Pro  
Resection Sheaths"



W7018285 Reprocessing instruction card  
"OES Pro  
Working Elements"



W7018278 Reprocessing instruction card  
"OES 4000  
Optical Urethrotome"



W7018283 Reprocessing instruction card  
"OES Pro  
Pediatric Urology"



W7018293 Reprocessing instruction card  
"Punch A3661"



## Arthroscopy

W7018281 Reprocessing instruction card  
"TrueView II"



W7018298 Reprocessing instruction card  
"TrueView Direct"





**OLYMPUS SURGICAL TECHNOLOGIES EUROPE**

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