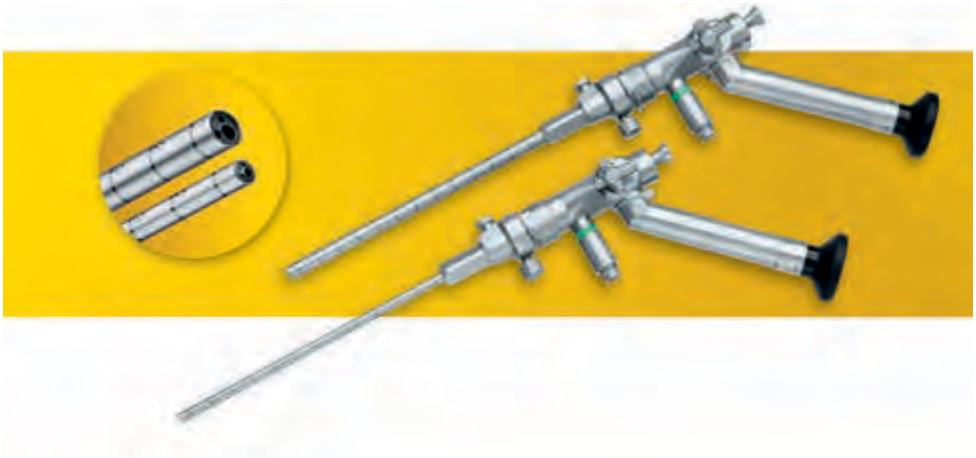
ENDOWORLD®
NEURO 12 11.0 10/2017-E

The LOTTA® System for
Intracranial Neuroendoscopy



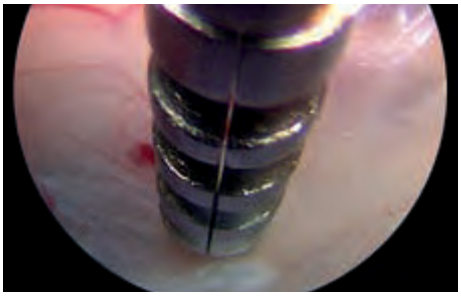
KARL STORZ — ENDOSKOPE

The SCHROEDER **LOTTA® System for Intracranial Neuroendoscopy**

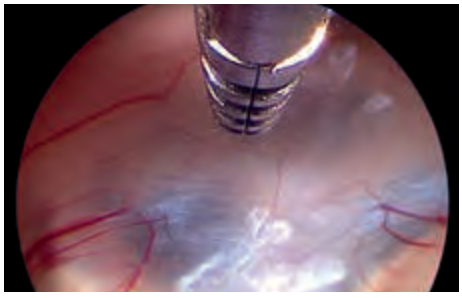
The LOTTA® system has been designed to perform the full range of endoscopic intracranial interventions in adults and children. The cornerstone of the system is based on the two ventriculoscopes Little LOTTA® and LOTTA®. These enable the treatment of all forms of obstructive hydrocephalus, intraventricular tumors and cysts as well as arachnoid and intraparenchymal cysts. An all-round solution, the LOTTA® system offers a free choice between the Little LOTTA® with its smaller diameter, more convenient handling and use in a wide range of applications such as ventriculostomies, septostomies, tumor biopsies and cyst fenestrations and the LOTTA® with its larger dimensions, which is not only suitable for the therapies mentioned above but is also particularly effective for the removal of colloid cysts, tumor resections, stent implantations as well as aqueductoplasties with subsequent stenting.

The somewhat larger diameter of the LOTTA® ventriculoscope allows the surgeon to perform bimanual dissection using two instruments. These can be used simultaneously in separate channels to enable more technically sophisticated procedures. Furthermore, the resection of larger tissue samples is possible, which benefits therapies such as tumor resection or cyst removal.

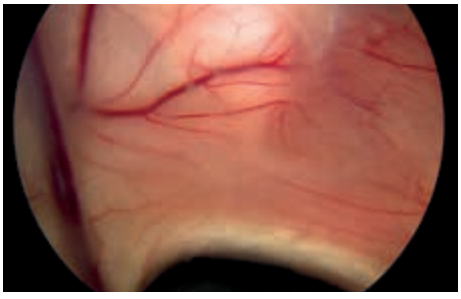
All intracranial procedures can thus be carried out. However, there are situations where a 30° viewing angle proves useful. A 30° viewing angle directed on the working channel allows earlier visualization of instruments. Therefore, the use of the LOTTA® 30° in narrow structures is beneficial. In addition, neighboring structures can easily be viewed during resections of cysts or tumors, for example, during the treatment of colloid cyst of the attachment point at the tela choroidea in the roof of the 3rd ventricle.



LOTTA® 30°



LOTTA® 6°

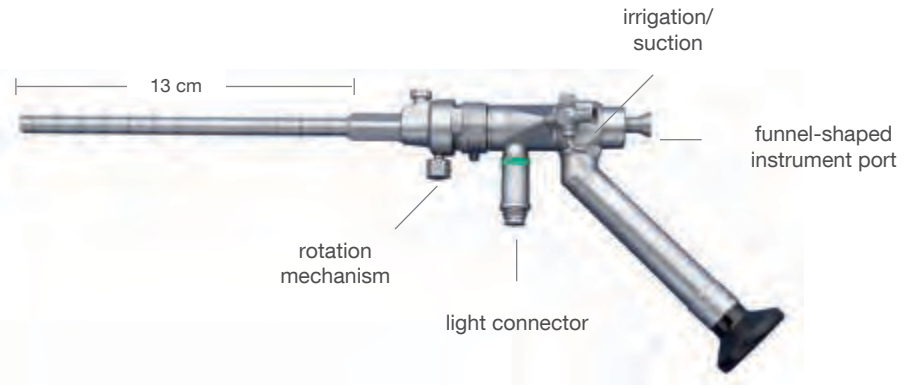


LOTTA® 30°

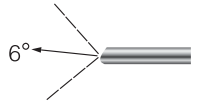
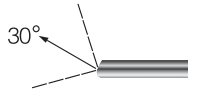
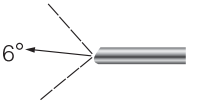
LOTTA® 6°

The LOTTA® 30° is particularly recommended for the resection of colloid cysts and intraventricular tumors. It can also be used for all other endoscopic procedures such as ventriculostomies, septostomies, tumor biopsies, cyst fenestrations and stent placements.

With a similar, yet more slender design, the Little LOTTA®, with the same viewing angle of 6° as the LOTTA®, proves to be particularly valuable for treating patients with a narrow foramen of Monro. In ventriculostomies in both children and adults, the prepontine cistern can be reached directly through the ventriculostomas and, if necessary, the arachnoid membranes can be transected to establish the cerebrospinal fluid (CSF) flow. Although too slender for the simultaneous use of two instruments, the Little LOTTA® offers the same range of functions as its two larger counterparts.

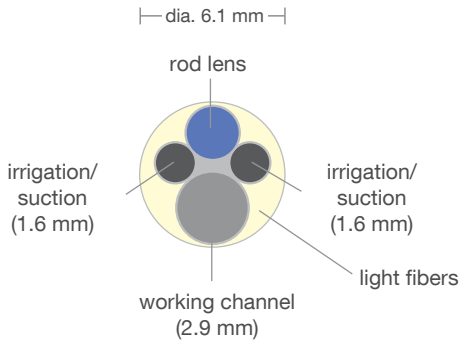


Viewing Angle

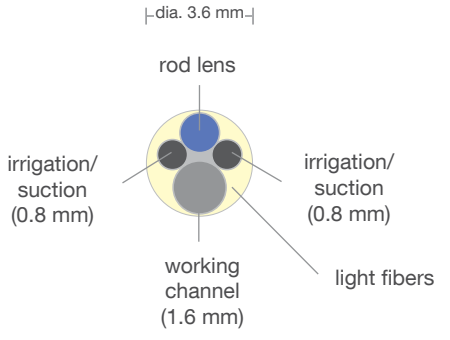
LOTTA®	LOTTA® 30°	Little LOTTA®
		

Cross-section of the Ventriloscope

LOTTA® and LOTTA® 30°



Little LOTTA®



The ventriculoscopes are equipped with a HOPKINS® wide-angle straight forward telescope with a high light-transmitting capacity which delivers unsurpassed image quality and safe orientation, even in protein-rich or bloody CSF fluid. The central working channel is flanked on both sides with two side channels with a smaller diameter. One is used for irrigation/suction and the other for the use of a second instrument.

The irrigation function ensures that continuous cleaning is maintained in the area in front of the endoscope, even when visibility is hindered (cloudy CSF in the case of ventriculitis and/or ventricle bleeding). The drainage channel always remains open to prevent critical intracranial pressure increase caused by excessive irrigation. To facilitate insertion of the instruments into the working channel, a funnel-shaped enlargement has been integrated at the entrance to the working channel. Thanks to this stable construction, both ventriculoscopes are less susceptible to damage during cleaning, sterilization and storage.

All ventriculoscopes have operating sheaths featuring rotational stability so that they can be fixed to the holding arm to prevent the telescope from sliding down and/or undesired rotational movements where the angle ratios are unfavorable.

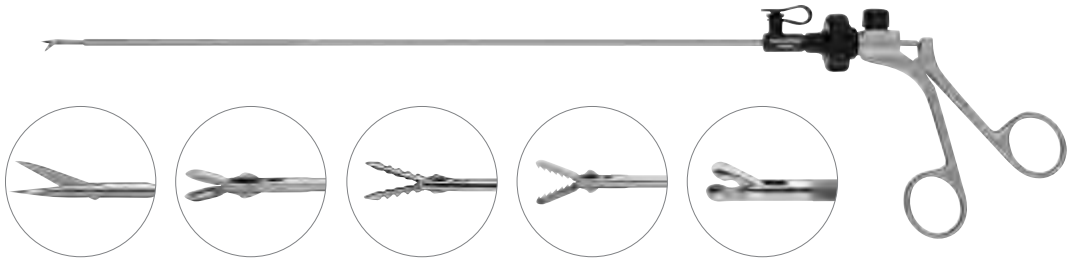
However, the ventriculoscopes can still be rotated inside the sheath without having to alter the position on the holding arm – a considerable advantage for bimanual dissection. Furthermore, the operating sheaths can be taken apart for cleaning and sterilization. The LOTTA® system can, of course, be used “freehand”.

An obturator is inserted and locked into the working sheath before introduction. With its atraumatic distal tip, the obturator is required to facilitate introduction of the sheath into the ventricle or cysts. An optical obturator can also be used for this purpose, if necessary. A very slender HOPKINS® 0° telescope is introduced through the obturator in order to position the operating sheath under visual control.

28164 LS

28164 LLS

The LOTTA® system is equipped with very stable instruments that can be used through the central working channel. A further feature is the marking on the upper part of the sheath which shows when the distal tip emerges from the working channel. This minimizes the danger of unintentional and uncontrolled movements during instrument introduction. Furthermore, the jaws can be aligned by rotating the adjustment wheel, without having to rotate the entire instrument.



28164 LB 28164 LC 28164 LD 28164 LE 28164 LF

The instrument section of this brochure offers you a range of different sets containing all the instruments required for performing the most common endoscopic procedures such as, for example, ventriculostomies, aqueductoplasties, septostomies, foraminoplasties, tumor resections and cyst fenestrations. A full set configuration includes additional diagnostic telescopes with different angles of view that ensure better orientation in the ventricular system.

Customized sets can, of course, be arranged to suit individual requirements.

Prof. Dr. med. Henry W. S. SCHROEDER
Department of Neurosurgery
Universitätsmedizin Greifswald
Germany

Documentation of Findings
LOTTA® Neuroendoscope

Fig. 7: Foramen of Monro

Fig. 8: Foramen of Monro with suprasellar arachnoid cyst

Fig. 9: Tumor in foramen of Monro

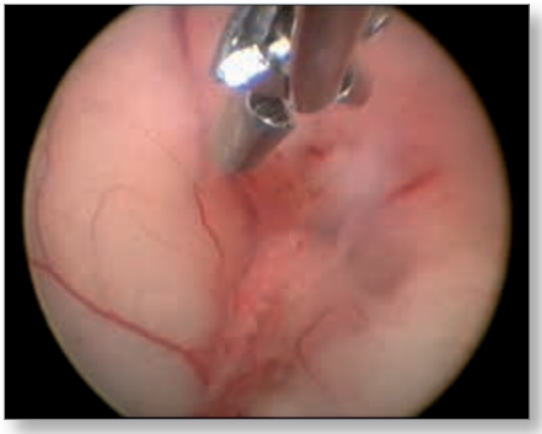


Fig. 10: Biopsy of a tumor in foramen of Monro

Fig. 11: Bimanual dissection by cutting into the membrane of a suprasellar arachnoid cyst with forceps and scissors

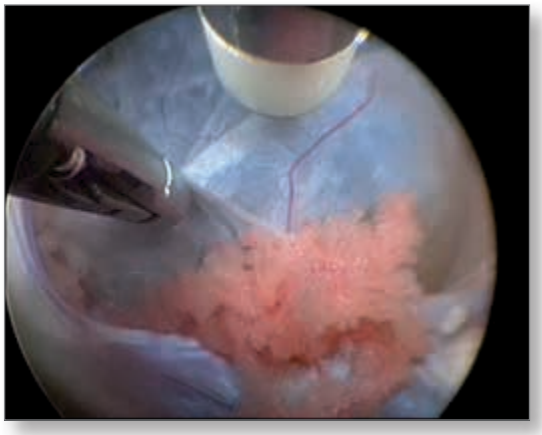


Fig. 12: Bimanual dissection using forceps and bipolar electrode

Fig. 13: Floor of the third ventricle

Fig. 14: Choroid plexus in the lateral ventricle

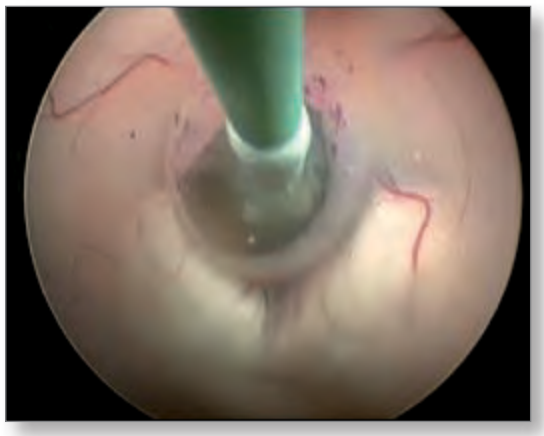


Fig. 15: Ventriculostomy with balloon catheter

Fig. 16: Pellucid septum

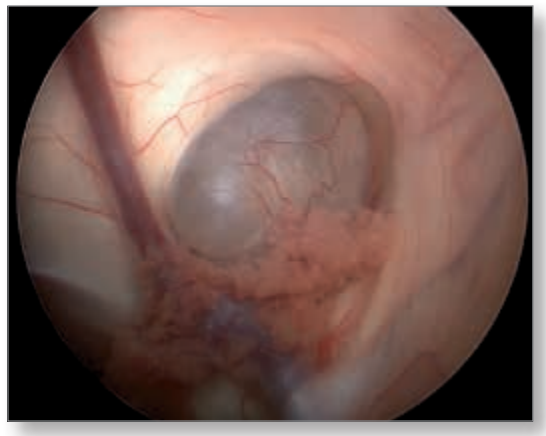


Fig. 17: Colloid cyst

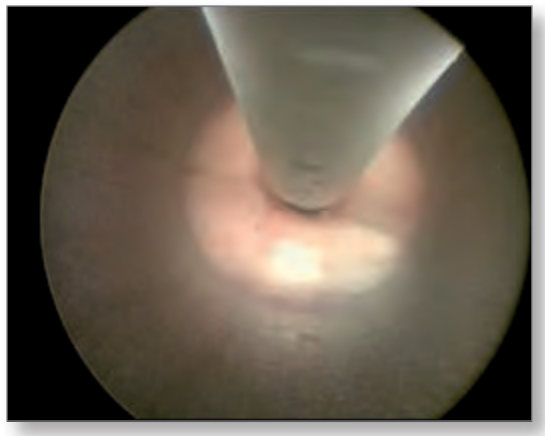


Fig. 18: Stent in the aqueduct

LOTTA® Neuroendoscope

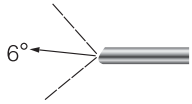
SCHROEDER **Recommended Set**

28164 LA/28164 LS

28164 LO

28164 LP

28008 AA

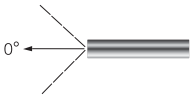


28164 LA **LOTTA® Ventriculoscope with HOPKINS® Wide Angle Straight Forward Telescope 6°,** angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6, **autoclavable,** fiber optic light transmission incorporated,
color code: green

28164 LS **Operating Sheath,** graduated, rotating, outer diameter 6.8 mm, working length 13 cm, for use with LOTTA® Ventriculoscope 28164 LA

28164 LO **Obturator,** for use with Operating Sheaths 28164 LS and 28164 LSB

28164 LP **Optical Obturator,** for positioning Operating Sheaths 28164 LS and 28164 LSB under visual control, for use with HOPKINS® Telescope 28008 AA



28008 AA **HOPKINS® Straight Forward Telescope 0°,** diameter 2 mm, length 26 cm, **autoclavable,** fiber optic light transmission incorporated,
color code: green

LOTTA® Neuroendoscope 30°

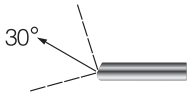
SCHROEDER **Recommended Set**

28164 LAB/28164 LSB

28164 LO

28164 LP

28008 AA

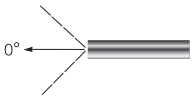


28164 LAB* **LOTTA® Ventriculoscope, HOPKINS® wide angle telescope 30°,** angled eyepiece, outer diameter 6.1 mm, length 18 cm, working channel diameter 2.9 mm, irrigation/suction channel diameter 1.6 mm, **autoclavable,** fiber optic light transmission incorporated, color code: red

28164 LSB **Operating Sheath,** graduated, rotating, outer diameter 6.8 mm, working length 13 cm, for use with LOTTA® Ventriculoscope 30° 28164 LAB

28164 LO **Obturator,** for use with Operating Sheaths 28164 LS and 28164 LSB

28164 LP **Optical Obturator,** for positioning Operating Sheaths 28164 LS and 28164 LSB under visual control, for use with HOPKINS® Telescope 28008 AA



28008 AA **HOPKINS® Straight Forward Telescope 0°,** diameter 2 mm, length 26 cm, **autoclavable,** fiber optic light transmission incorporated,
color code: green

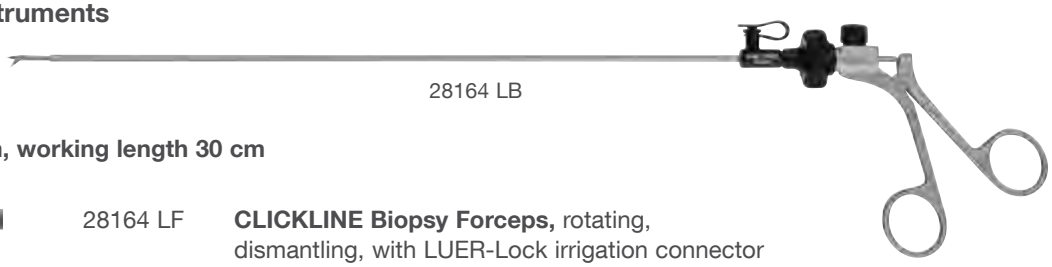
* Currently not available in CE markets

Neuroendoscope Operating Instruments

SCHROEDER **Recommended Set**

For use with LOTTA® Ventriculoscope 28164 LA/28164 LAB and Operating Sheath 28164 LS/28164 LSB

CLICKLINE Instruments



28164 LB

Diameter 2.7 mm, working length 30 cm

28164 LF **CLICKLINE Biopsy Forceps,** rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2.7 mm, working length 30 cm
including:
Metal Handle, without ratchet
Outer Sheath, with forceps insert

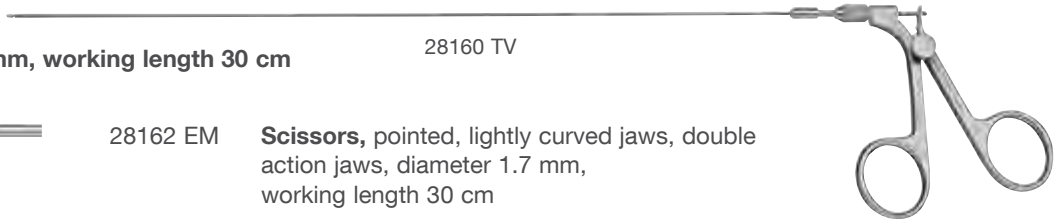
Diameter 2 mm, working length 30 cm

28164 LB **CLICKLINE Scissors,** pointed, rotating, dismantling, with LUER-Lock irrigation connector for cleaning, single action jaws, diameter 2 mm, working length 30 cm

28164 LC **CLICKLINE Biopsy Forceps,** rotating, dismantling, with LUER-Lock irrigation connector for cleaning, double action jaws, diameter 2 mm, working length 30 cm

28164 LD **CLICKLINE Ventriculostomy Forceps,** rotating, dismantling, with LUER-Lock irrigation connector for cleaning, diameter 2 mm, working length 30 cm

28164 LE **CLICKLINE Grasping Forceps,** rotating, dismantling, with LUER-Lock irrigation connector for cleaning, double action jaws, diameter 2 mm, working length 30 cm



28160 TV

Diameter 1.7 mm, working length 30 cm

28162 EM **Scissors,** pointed, lightly curved jaws, double action jaws, diameter 1.7 mm, working length 30 cm

Diameter 1.3 mm, working length 30 cm

28162 FP **Scissors,** pointed, single action jaws, diameter 1.3 mm, working length 30 cm

Diameter 1 mm, working length 30 cm

28160 TV **Forceps,** for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30 cm

28160 ZJ **Biopsy Forceps,** flexible, double action jaws, diameter 1 mm, working length 30 cm

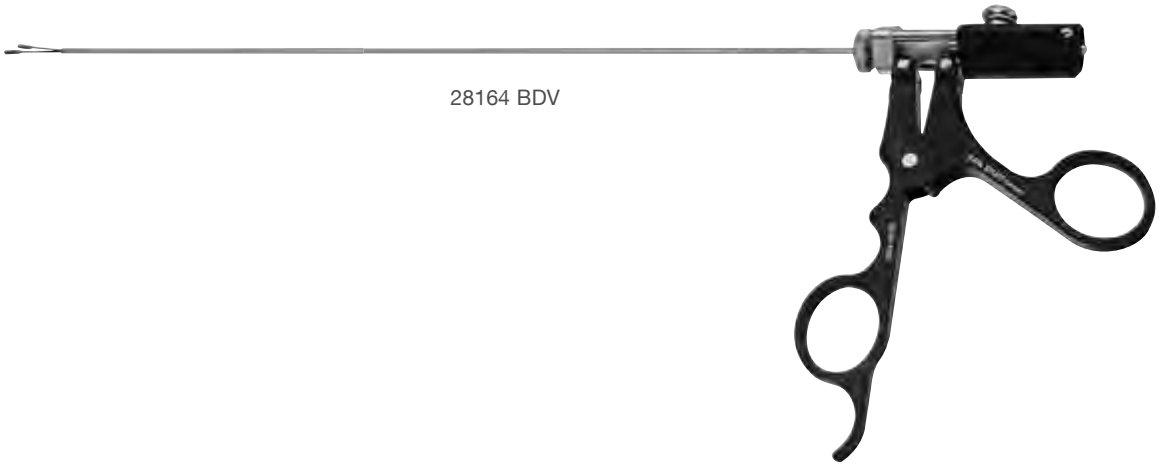
Neuroendoscope Operating Instruments

SCHROEDER **Recommended Set**

For use with LOTTA® Ventriculoscope 28164 LA/28164 LAB and Operating Sheath 28164 LS/28164 LSB

bipolar

Outer diameter 2.4 mm, working length 30 cm



28164 BDV

28164 BDV **TAKE-APART® Bipolar Forceps,**
long, flat jaws, outer diameter 2.4 mm,
including
Bipolar Ring Handle
Outer Sheath
Bipolar Insert, for single use, package of 5

28164 LG

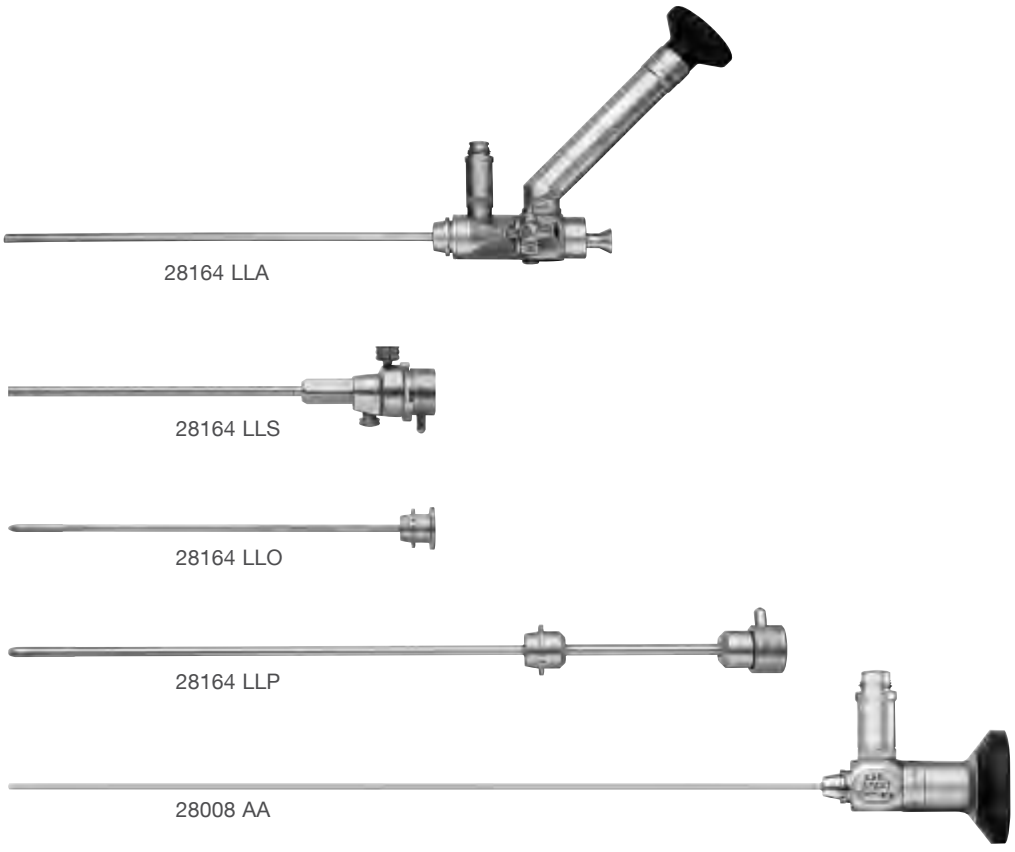
28164 LG **Guillotine Knife,** outer diameter 2.7 mm,
working length 30 cm,
including:
Handle
Guillotine Knife Insert

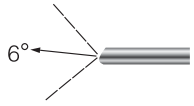
533 TVA **Adaptor, autoclavable,** permits telescope changing under sterile conditions

28762 KB **Bipolar Coagulation Electrode,**
diameter 1.7 mm, working length 30 cm

Little LOTTA® Neuroendoscope

SCHROEDER **Recommended Set**



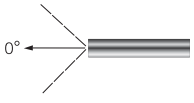


28164 LLA **Little LOTTA® Ventriculoscope, HOPKINS® Wide Angle Straight Forward Telescope 6°,** small, with angled eyepiece, outer diameter 3.6 mm, length 18 cm, working channel diameter 1.6 mm, with suction and irrigation channel diameter 0.8 mm, **autoclavable,** with irrigation adaptor, fiber optic light transmission incorporated, color code: green

28164 LLS **Operating Sheath,** small, outer diameter 4.5 mm, working length 13.3 cm, for use with SCHROEDER Ventriculoscope 28164 LLA

28164 LLO **Obturator,** for use with operating sheath 28164 LLS

28164 LLP **Optical Obturator,** for use with operating sheath 28164 LLS and HOPKINS® Telescope 28008 AA



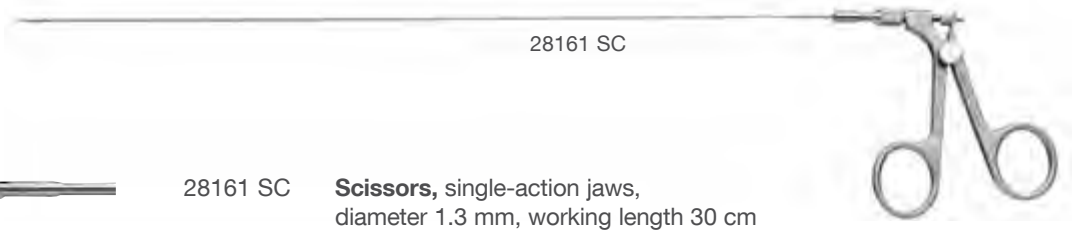
28008 AA **HOPKINS® Straight Forward Telescope 0°,** diameter 2 mm, length 26 cm, **autoclavable,** fiber optic light transmission incorporated, color code: green

Neuroendoscope Operating Instruments

SCHROEDER **Recommended Set**

For use with LOTTA® Ventriculoscope 28164 LLA and Operating Sheath 28164 LLS

CLICKLINE Instruments



28161 SC **Scissors,** single-action jaws, diameter 1.3 mm, working length 30 cm

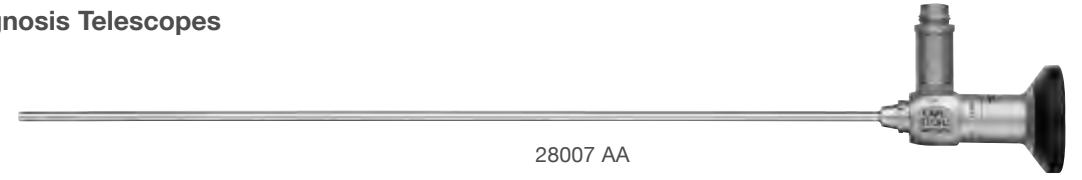
28161 SB **Biopsy Forceps,** double action jaws, diameter 1.3 mm, working length 30 cm

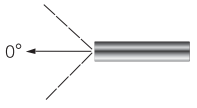
28161 SG **Grasping Forceps,** double-action jaws, diameter 1.3 mm, working length 30 cm

28161 SF **Bipolar Coagulation Electrode,** diameter 1.3 mm, working length 30 cm

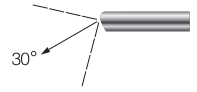
28160 TV **Forceps,** for ventriculostomy, flexible, double action jaws, diameter 1 mm, working length 30 cm

Diagnosis Telescopes

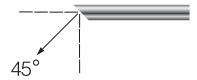




28007 AA **HOPKINS® Straight Forward Telescope 0°,** enlarged view, diameter 3.3 mm, length 25 cm, **autoclavable,** fiber optic light transmission incorporated, color code: green



28007 BA **HOPKINS® Forward-Oblique Telescope 30°,** diameter 3.3 mm, length 25 cm, **autoclavable,** fiber optic light transmission incorporated, color code: red



28007 FA **HOPKINS® Telescope 45°,** enlarged view, diameter 3.3 mm, length 25 cm, **autoclavable,** fiber optic light transmission incorporated, color code: black

POINT SETTER – Pneumatic Holding System

28172 WKS **POINT SETTER,** pneumatic holding arm, set
including:
POINT SETTER Arm
OR Table Adaptor
KSLOCK Adaptor, for KARL STORZ clamping jaws
KARL STORZ Clamping Jaw, large
KARL STORZ Clamping Jaw, small
KARL STORZ Clamping Jaw, for fiberscopes
Pressure Regulator, 7 bar
Cover*, elasticated, 42 x 164 cm, package of 20

Note: Compressed air tubing is required to operate the POINT SETTER arm.
Please select the appropriate tubing and add it to your order.

Compressed air tubing and accessories for the POINT SETTER:

28172 WA **Connecting Tube,** for POINT SETTER, Dräger,
max. pressure 8 bar/115 psi, length 600 cm

28172 WB **Connecting Tube,** for POINT SETTER, Dräger air motor,
max. pressure 8 bar/115 psi, length 600 cm

28172 WC **Connecting Tube,** for POINT SETTER, compressor,
max. pressure 8 bar/115 psi, length 600 cm

28172 WN **Connecting Tube,** for POINT SETTER, Schrader,
max. pressure 8 bar/115 psi, length 600 cm

28172 WO **Connecting Tube,** for POINT SETTER, with open end,
max. pressure 8 bar/115 psi, length 600 cm

28272 CN **Clamping Cylinder,** folding, for flexible mounting of 10 mm telescopes to telescope sheath, **autoclavable.** The clamping cylinder allows vertical movement and rotation of the telescope. For use with Clamping Jaw 28272 UGN and 28272 UGK and POINT SETTER universal adaptor 10-15 mm

041150-20* **Cover,** elasticated, 42 x 164 cm, sterile, for single use, STERILE
package of 20, for use with KARL STORZ holding arms

041150-80* **Same,** package of 80

* mtp

Mechanical Holding System

28272 RKB **Holding System, autoclavable,** with quick release coupling KSLOCK
including:
Rotation Socket, to clamp to the OR table, for European and US standard rails, with lateral clamp for height and angle adjustment of the articulated stand
Articulated Stand, reinforced version, L-shaped, with one central clamp for all five joint functions, height 48 cm, swivel range 52 cm, with quick release coupling KSLOCK (female)
Clamping Jaw, metal, clamping range 4.8 up to 12.5 mm, with quick release coupling KSLOCK (male), for use with instrument and telescope sheaths

28272 RKA **Holding System, autoclavable,** with quick release coupling KSLOCK
including:
Rotation Socket, to clamp to the OR table, for European and US standard rails, with lateral clamp for height and angle adjustment of the articulated stand
Articulated Stand, reinforced version, straight, with one central clamp for all five joint functions, height 30 cm, swivel range 37 cm, with quick release coupling KSLOCK (female)
Clamping Jaw, metal, clamping range 4.8 up to 12.5 mm, with quick release coupling KSLOCK (male), for use with instrument and telescope sheaths

It is recommended to check the suitability of the product for the intended procedure prior to use.

UNIDRIVE® S III NEURO

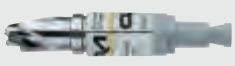
40701701-1 **UNIDRIVE® S III NEURO SCB,**
motor control unit with color display, touch screen,
two motor outputs, integrated irrigation pump and integrated SCB module,
power supply 100-240 VAC, 50/60 Hz
including:
Mains Cord
Irrigator Rod
Two-Pedal Footswitch
SCB Connecting Cable, length 100 cm
Single Use Tubing Set*, sterile, package of 3

High-Speed Mikro-Motor

High-Speed Micro-Motor

Perforator

252640 **Perforator Handpiece,** max. speed 1200 rpm, without perforator blade,
Hudson connector, for use with High-Speed Micro-Motor **20**712033

	**Disposable Cranial Perforator, with Hudson End, sterile for use with Perforator Handpiece 252640** STERILE	
size	14/11 mm	11/7 mm
	252641	252642

* mtp™

All items on this page are not available for sale in the USA

Craniotome

252645

252646 **Pediatric Dura Protector,**
for use with Craniotome Handpiece 252645

252646 **Duraschutz,** pädiatrisch, zur Verwendung mit Kraniotom-Handstück 252645

The medium dura protector is automatically delivered with the craniotome handpiece.

252647 **Medium Dura Protector,**
for use with Craniotome Handpiece 252645

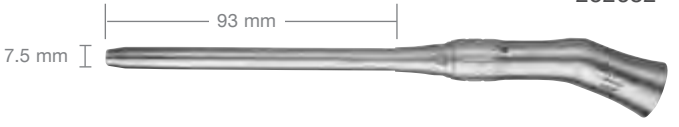
252648 **Large Dura Protector,**
for use with Craniotome Handpiece 252645

	**High-Speed Craniotome Burrs,** 60,000 rpm, sterile, **for single use,** package of 5 STERILE	
pediatric	**medium**	**long**
360000 S	360000 M	360000 L

High-Speed Handpieces – 100,000 rpm

252680 **High-Speed Handpiece,**
short, angled, 100,000 rpm,
for use with High-Speed
Micro-Motor **20**712033

252681 **High-Speed Handpiece,**
medium, angled, 100,000 rpm,
for use with High-Speed
Micro-Motor **20**712033



252682 **High-Speed Handpiece,**
long, angled, 100,000 rpm,
for use with High-Speed
Micro-Motor **20**712033

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Burrs
for High-Speed Handpieces

STERILE	short: 252680	medium: 252681	long: 252682
Standard Burrs			
1.0 mm	350110 S	350110 M	
2.0 mm	350120 S	350120 M	350120 L
3.0 mm	350130 S	350130 M	350130 L
4.0 mm	350140 S	350140 M	350140 L
5.0 mm	350150 S	350150 M	350150 L
6.0 mm	350160 S	350160 M	350160 L
7.0 mm	350170 S	350170 M	350170 L
Diamond Burrs			
0.6 mm			
1.0 mm	350210 S	350210 M	
1.5 mm			
2.0 mm	350220 S	350220 M	350220 L
3.0 mm	350230 S	350230 M	350230 L
4.0 mm	350240 S	350240 M	350240 L
5.0 mm	350250 S	350250 M	350250 L
6.0 mm	350260 S	350260 M	350260 L
7.0 mm	350270 S	350270 M	350270 L
Diamond Burrs, coarse			
2.0 mm			
3.0 mm	350330 S	350330 M	350330 L
4.0 mm	350340 S	350340 M	350340 L
5.0 mm	350350 S	350350 M	350350 L
6.0 mm	350360 S	350360 M	350360 L
7.0 mm	350370 S	350370 M	350370 L
Acorn			
7.5 mm	350675 S	350675 M	
9.0 mm	350690 S	350690 M	
Barrel Burrs			
6.0 mm	350960 S	350960 M	
9.1 mm	350991 S	350991 M	
NEURO Fluted Burrs			
1.8 mm	350718 S	350718 M	350718 L
3.0 mm	350730 S	350730 M	350730 L

Accessories

280053 **Universal Spray,** 6x 500 ml bottles – HAZARDOUS GOODS – UN 1950
including:
Spray Nozzle

031131-10* **Tubing Set,** for irrigation, for single use, sterile, package of 10 STERILE

* mtp

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Wire Trays for Cleaning, Sterilization and Storage

For ventriculoscopes

39501 XP **Wire Tray for Cleaning, Sterilization and Storage,** including cleaning adaptor for washer-disinfector, with lid, spare parts basket 39501 XS and silicone telescope holders, external dimensions (w x d x h): 460 x 150 x 80 mm, for instruments with up to 27 cm working length

39501 XRV **Multiport Bridge**

For instruments

39502 Z

39502 Z **Wire Tray,** for cleaning, sterilization and storage of instruments, stackable, including hole plate walls and foldaway handles, external dimensions (w x d x h): 480 x 250 x 66 mm

39502 L **Lid,** for use with 480 x 250 mm wire tray

39100 S **Silicone Grid Insert LARGE DIAMOND GRID,** blue, extra wide meshed, external dimensions (w x d): 470 x 240 mm

39100 PS **Fixation Pin,** iincluding screw and washer, to screw instruments into position in wire trays, height 38 mm, package of 12, for use with Silicone Tie-Downs 39360 AS

39360 AS **Silicone Tie-Downs,** package of 12, for use with Fixation Pins 39100 PS and 39360 AP

KARL STORZ — ENDOSKOPE

THE DIAMOND STANDARD

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