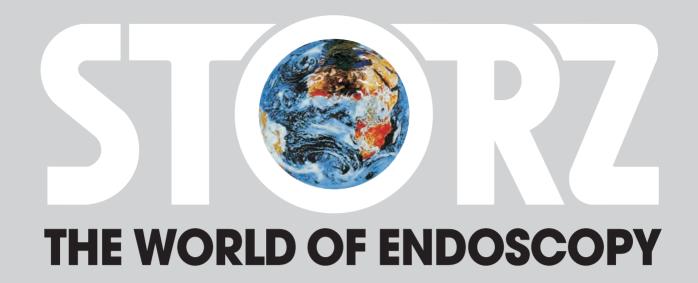


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Information on events is available on the KARL STORZ website www.karlstorz.com

UROLOGY

10th EDITION 5/2015

Important Notes:

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

Endoscopes and accessories contained in this catalog have been designed in part with the cooperation of physicians and are manufactured by the KARL STORZ group. If subcontractors are hired to manufacture individual components, these are made according to proprietary KARL STORZ plans or drawings. Furthermore, these products are subject to strict quality and control guidelines of the KARL STORZ group. Both contractual and general legal provisions prohibit subcontractors from supplying components manufactured by order of KARL STORZ to competitors.

Any assumptions that competitors' endoscopes and accessories are acquired from the same suppliers as the KARL STORZ products are not correct. Moreover, endoscopes and instruments provided by competitors are not manufactured according to the design specifications of KARL STORZ. This means it cannot be assumed that these endoscopes and accessories – even if they look identical on the outside – are constructed in the same manner and have been tested according to the same criteria.

Standardized Design and Labeling

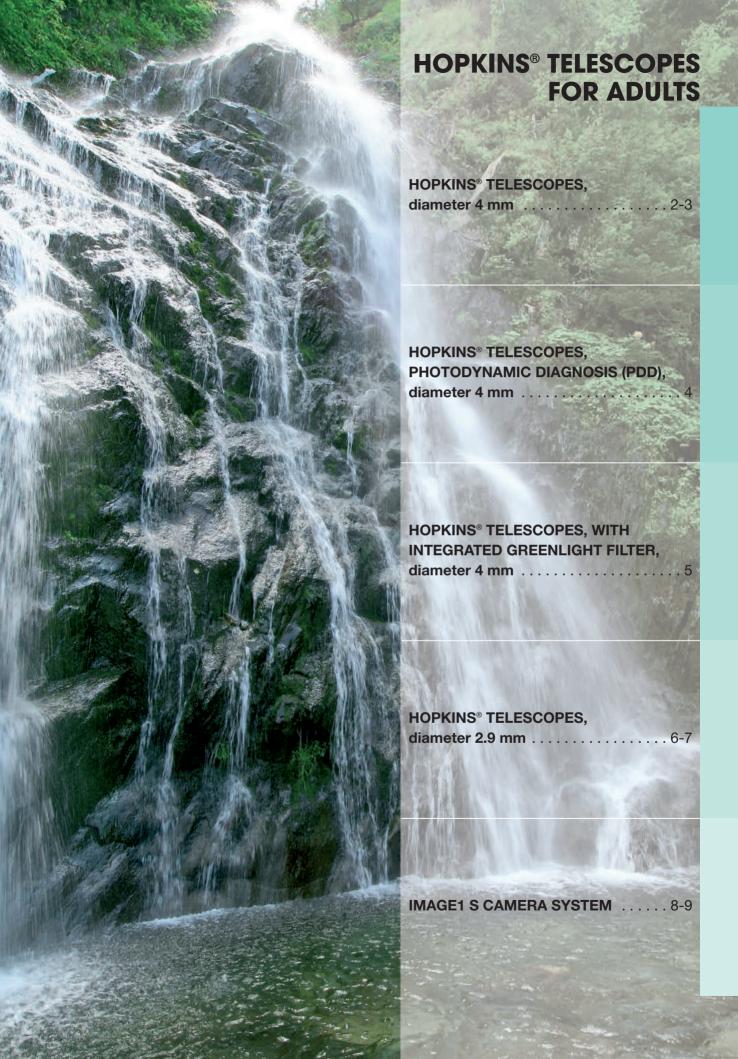
KARL STORZ participates both in national and international bodies involved in the development of standards for endoscopes and endoscopic accessories. Standardized design and development therefore have long been implemented consistently by KARL STORZ. The user can rest assured that all products by the KARL STORZ group have been designed and constructed not only in compliance with strict internal quality guidelines, but also with international standards. All data relevant for safe use, such as viewing direction, sizes and diameters, or notes regarding sterilization of telescopes, are applied to the instruments, have been formulated according to international standards, and therefore provide reliable information.

As we constantly seek to improve and modify our products, we reserve the right to make changes in design that vary from catalog descriptions.

Original or Counterfeit

KARL STORZ products are name brand articles renowned around the world and represent the state of the art in important areas of healthcare. A large number of "copy cat" products are currently being offered in many markets. These products are designed intentionally to resemble KARL STORZ products and use marketing strategies that at least point out their compatibility with KARL STORZ products. These products are by no means genuine products, since genuine KARL STORZ products are sold worldwide exclusively under the name of KARL STORZ, which appears on the packaging and the product. In the absence of such labeling, the product is not from KARL STORZ.

KARL STORZ, therefore, is unable to ensure that such products are actually compatible with genuine KARL STORZ products or can be used with them without injury to the patient.



Now with New Design



The KARL STORZ HOPKINS® telescopes will be available in a new design in the future.

The customary special features of the HOPKINS® telescopes will be maintained:

- Good depth of field
- Optimal light distribution
- High contrast and high resolution
- High-quality optical coating
- Scratch-resistant sapphire glass as cover glass for the eyepiece cup
- Anti-reflective coatings for brillant viewing
- Light cable coding on the telescope cube enables easier identification of the light cable according to the telescope size



Fiber Optic Light Transmission Incorporated



Diameter 4 mm, length 30 cm

For use with standard cystoscopes, optical forceps, resectoscopes, urethrotomes for adults and instruments for LASER surgery



27005 BA



27005 AA

HOPKINS® Straight Forward Telescope 0°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated. color code: green



27005 FA

HOPKINS® Telescope 12°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: black



27005 BA

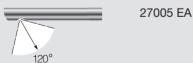
HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: red



27005 CA

HOPKINS® Lateral Telescope 70°,

enlarged view, diameter 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: yellow



HOPKINS® Retrospective Telescope 120°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated,

color code: white

Cystoscopes see pages 29-30 Optical Forceps see pages 31-45 Resectoscopes see pages 48-74 LASER Surgery see pages 77-89 Urethrotomes see pages 108-110

Light Cables see catalog TELEPRESENCE

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

HOPKINS® Telescopes for Photodynamic Diagnosis (PDD)

Fiber Optic Light Transmission Incorporated



Diameter 4 mm, length 30 cm

For use with standard cystoscopes, optical forceps, resectoscopes, urethrotomes for adults and instruments for LASER surgery





27005 BIA



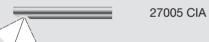
27005 FIA

HOPKINS® Telescope 12°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, for photodynamic diagnosis (PDD), fiber optic light transmission incorporated, special filter, color code: black



27005 BIA

HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, for photodynamic diagnosis (PDD), fiber optic light transmission incorporated, special filter, color code: red



HOPKINS® Lateral Telescope 70°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, for photodynamic diagnosis (PDD), fiber optic light transmission incorporated, special filter, color code: yellow

Recommended light cable, for use with HOPKINS® telescopes for photodynamic diagnosis (PDD):



495 FS

Fluid Light Cable, diameter 2 mm, length 220 cm

HOPKINS® Telescopes 27005 FIA/BIA/CIA can be combined with standard urological instruments from KARL STORZ. The eyepieces of all telescopes for photodynamic diagnosis are color-coded blue-white.

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE





Diameter 4 mm, length 30 cm

Special Features:

- Integrated greenlight filter to protect the camera
- No obtrusive filter between the camera and the eyepiece



27005 BGA



27005 BGA

Greenlight Filter HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, with integrated greenlight filter and fiber optic light transmission incorporated, color code: red

9-12

HOPKINS® Telescope 27005 BGA can be combined with standard urological instruments from KARL STORZ. The eyepieces of all telescopes with integrated greenlight filters are color-coded green-white.

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Fiber Optic Light Transmission Incorporated



Diameter 2.9 mm, length 30 cm



27020 BA



HOPKINS® Straight Forward Telescope 0°, diameter 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: green



HOPKINS® Telescope 12°, enlarged view, diameter 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: black



HOPKINS® Forward-Oblique Telescope 30°, diameter 2.9 mm, length 30 cm, autoclavable, fiber optic light transmission incorporated, color code: red

Cystoscopes for Adolescents see page 39
Resectoscopes see pages 48-74
Light Cables see catalog TELEPRESENCE
Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Fiber Optic Light Transmission Incorporated





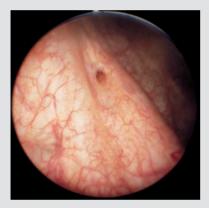
Bulbar stenosis



Bulbar stenosis with urethrotome knife visible



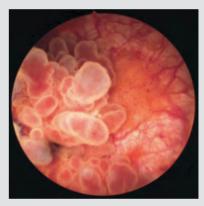
Prostatic urethra with verumontanum (at 6 o'clock) moderately enlarged prostatic lobes; right larger than left



Right ostium during urine ejection



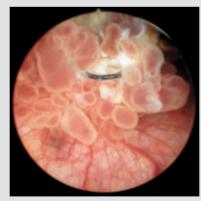
Small papillary bladder tumor



Bladder mucosa, papillary bladder tumor



Bladder mucosa, papillary bladder tumor



Papillary bladder tumor partially resected; electrode loop



Papillary bladder tumor partially resected; electrode loop

Prof. PFITZENMAIER, M. D., Singen/Hohentwiel, Germany

IMAGE1 S





With its new FULL HD camera platform IMAGE1 S, KARL STORZ once again sets a new milestone in endoscopic imaging, consolidating their reputation as an innovation leader in minimally invasive surgery.

Special Features

- Dashboard: Overview with intuitive user guidance
- Live menu: User-friendly and customizable menu bar
- Intelligent icons: The graphic representation changes as soon as settings are modified in the connected units
- Automatic light source control
- Side-by-side view: Parallel display of standard image and visualization mode possible
- Multiple source control: Picture-in-Picture function enables the simultaneous display of image information from two connected image sources, e.g., for hybrid procedures



Modular camera control system



IMAGE1 S camera heads



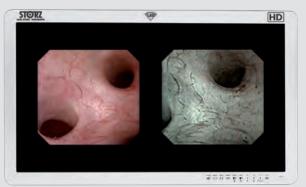
Dashboard







Live menu



Renal collecting system in side-by-side view

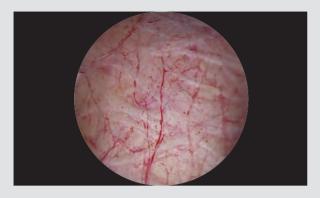
Intelligent icons

IMAGE1 S in Urology

Lower Urinary Tract







Brillant Imaging in FULL HD

IMAGE1 S delivers excellent imaging for both flexible and rigid endoscopy. The IMAGE1 S system provides true-to-life color reproduction and impresses with a natural color rendition.



CLARA and CHROMA

IMAGE1 S offers the possibility of combining both the CLARA and CHROMA technologies. In this mode, the image is uniformly illuminated by CLARA and the tissue structures are clearly defined by CHROMA.



SPECTRA A

In SPECTRA A, spectral filtering of the red hues takes place. The resulting color change is due to spectral color shifts. The contrast of structures, such as blood vessels in mucosa, is seen with a green-blue tint.



SPECTRA B

SPECTRA B reduces reds and intensifies the greenblue spectral component. The background appears greenish so that blood vessels and capillaries are highlighted. The user maintains a large amount of the natural color perception.

For further information on KARL STORZ Cold Light Fountains, Camera Systems and Monitors see catalog TELEPRESENCE





Intuitive Deflection Mechanism



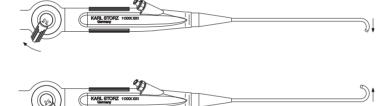
You wouldn't force someone who is left-handed to write with his right hand. Yet many flexible endoscopes impose exactly this type of limitation by forcing their operators to use counter-intuitive deflection mechanisms.

KARL STORZ answers this challenge by offering a choice of deflection mechanisms: either positive or contrapositive. With positive (or "logical") deflection, a downward movement of the lever mechanism causes an upward movement of the endoscope tip, and vice versa. Reverse this orientation by choosing the contra-

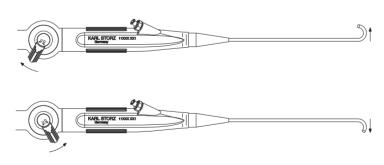
positive mechanism: a downward movement of the lever mechanism now causes a downward movement of the endoscope tip.

Either way, a simple flexion of the thumb on the deflection lever sweeps the endoscope tip into some of the most challenging areas of the anatomy, such as the neck of the bladder and the bladder diverticulum. And the intuitive design means you will never have to struggle to distinguish up from down – or down from up.

Choose the active tip deflection mechanism you are most comfortable with



Positive deflection mechanism



Contrapositive deflection mechanism

with CCD chip technology





Excellent Image Quality

- High-resolution chip technology
- Optimal overview due to full-frame display
- Automatic exposure control



Optimal Patient Comfort

- Sheath circumference of only 16 Fr.
- Smooth surface for gentle introduction
- 210° up and 140° down deflection



Convenient to Use

- Lightweight, ergonomic handle
- No focusing necessary
- 6.5 Fr. working channel
- Diverse accessories (forceps, stone-grasping instruments, HF probes etc.) offer the correct instrument for each intervention



Also available as PDD version

- Early detection of bladder tumors
- Possibility to evaluate tumor margins after resection
- With integrated suction unit for rapid drainage of the bladder

2-08

FLEX-CYST 1 13

with CCD chip technology



Special Features:

- 6.5 Fr. working channel
- Sterilizable via EtO and FO gas, Steris[®] and Sterrad[®]
- Easy to handle without requiring an additional light cable and camera head

Expanded PDD version 11272 VPI/VNIU:

- Equipped with special PDD filter for use in white light mode as well as photodynamic diagnosis
- Early recognition of tumors due to better visualization of, among others, carcinoma in situ
- Integrated suction unit drains the bladder faster
- For use with the high-performance light source D-LIGHT C/AF





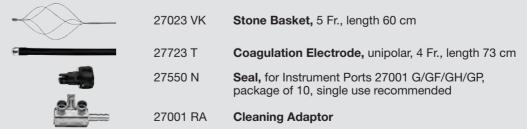


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Order no.	Video Cysto. Urethroscopes	Deflection of distal tip	Direction of view	Angle of view	Working length	Working channel inner diameter	Sheath size
andard whi	te light version						
11272 VP PAL	with positive deflection	210°	0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VN NTSC	with positive deflection		0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNU NTSC	with contrapositive deflection	140°	0°	120°	37 cm	6.5 Fr.	16 Fr.
xpanded PD	D version						
11272 VPI PAL	for Photodynamic Diagnosis (PDD) and with positive deflection	210°	0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNI NTSC	for Photodynamic Diagnosis (PDD) and with positive deflection	210°	0°	120°	37 cm	6.5 Fr.	16 Fr.
1272 VNIU NTSC	for Photodynamic Diagnosis (PDD) and with contrapositive deflection	140°	0°	120°	37 cm	6.5 Fr.	16 Fr.

Following accessories are included in delivery:

	27677 VC	Case
WINNING.	27023 FE	Grasping Forceps for small fragments, single action jaws, flexible, 5 Fr., length 73 cm
	27023 ZE	Biopsy Forceps, single action jaws, flexible, 5 Fr., length 73 cm
	11025 E	Pressure Compensation Cap, for ventilation during gas and plasma sterilization
	13242 XL	Leakage Tester, with bulb and manometer
e-ffffffffffffffffffffffffffffffffffff	27651 B	Cleaning Brush, round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm
TANK AND THE PARTY OF THE PARTY	27014 Y	LUER-Adaptor, with seal
	20 2130 70	Video Connecting Cable

Optional accessories:

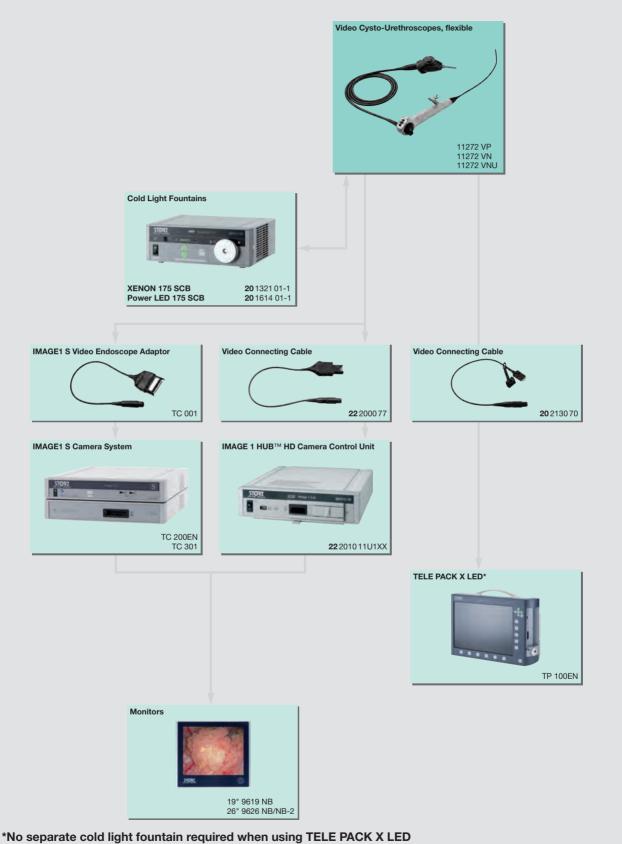


CALCULASE II SCB Laser System for Endoscopic Treatment of Bladder, Ureter and Kidney Stones see chapter 15, UNITS

-08%

Overview





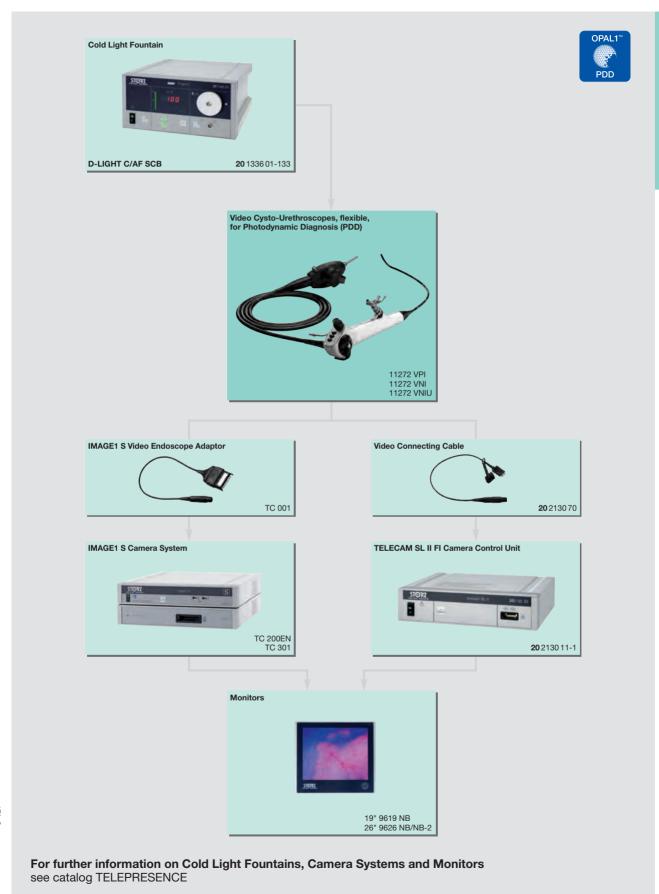
9-12

*No separate cold light fountain required when using TELE PACK X LED For further information on Cold Light Fountains, Camera Systems and Monitors see catalog TELEPRESENCE

Video Cysto-Urethroscopes, for Photodynamic Diagnosis (PDD)



Overview



Mobile Video Cystoscopy

with CMOS chip technology





Cystoscopy plays a central role in urological diagnosis; early detection and precise diagnosis are essential for effective and successful treatment. This requires the best possible image quality and optimal instrument functionality.

Flexible cystoscopes make it possible to treat patients with as little discomfort as possible. For male patients in particular, an examination of the urethra using flexible cystoscopy is associated with less pain than rigid cystoscopy.

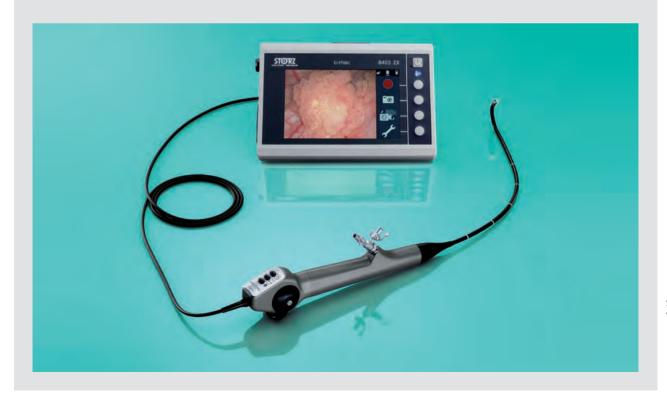
Following in the footsteps of flexible cysto-urethrofiberscopes, today's digital video-cystoscopes are the most technologically advanced instruments for urological diagnostic procedures of the urinary bladder. The innovative video cystoscopes from KARL STORZ offer both the physician and the patient maximum diagnostic accuracy. Excellent mechanical properties allow a particularly precise and atraumatic examination of the urinary bladder.

The new CMOS video cysto-urethroscope from KARL STORZ represents a cost-efficient start to digital image technology and offers the urologist a wider range of diagnostic possibilities. Combined with the portable monitor, the complete system with integrated LED illumination is ideally suited for mobile patient treatment, e.g. in a nursing home or in the doctor's office – thanks to its autonomous power supply and integrated video and documentation technology.

The video-cystoscope, therefore, provides a compact and complete solution for both medical practices and outpatient settings.

Special Features:

- Cost-effective, complete system with integrated LED illumination: Mobile and compact solution for office and outpatient settings
- Portable monitor with SD memory card and rechargeable lithium-ion batteries: For mobile use and documentation of patient images and videos
- Optional connection to an additional, external monitor: For a better overview
- Efficient system extension: Additional use of the C-HUB® II platform for existing rigid telescopes or cysto-urethro-fiberscopes with the C-CAM® camera head
- Optional application with a laptop or PC via the C-HUB[®] II platform: For enhanced documentation and data management



9-121

18 FLEX-CYST 6 A

Mobile Video Cystoscopy

with CMOS chip technology





The new video cysto-urethroscope in combination with the portable monitor offers a mobile "all-in-one" solution and enables easy installation for rapid use in everyday practice or clinical routine.

The new C-VIEW™ CMOS video cysto-urethroscope at a glance:

- Digital imaging with CMOS chip technology for clear visualization of the urinary bladder
- Integrated LED illumination for optimal handling without requiring an additional light cable
- Sensitive yet robust control thanks to ergonomic handle
- Large 210°/140° deflection for patient-friendly treatment
- Wide viewing angle for optimal orientation in the urinary bladder
- Waterproof and fully immersible in solution for thorough cleaning and disinfection
- Suitable for sterilization with gas and hydrogen peroxide (Sterrad®)

Portable C-MAC® monitor at a glance:

- Space-saving, complete system with documentation function
- Quick installation without requiring a separate light source
- Rechargeable lithium-ion batteries for flexible use independent of the power supply
- SD memory card for image and video documentation
- USB flash drive for enhanced data transfer

- HDMI output for connection to an external monitor for a better overview
- Portable design with 7" wide viewing angle display with 1280 x 800 pixel resolution
- Compact, portable and space-saving design for use in outpatient and office settings
- Impact-resistant ABS plastic housing suitable for wipe disinfection



11272 V

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FLEX-CYST 7

Mobile Video Cystoscopy

with CMOS chip technology



16 Fr.

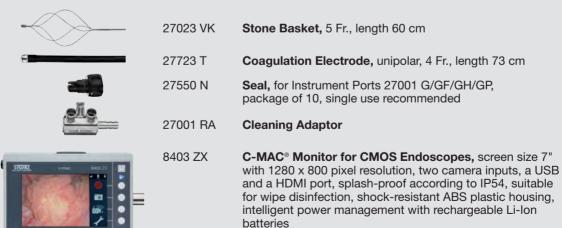


Order no.	C.VIEW™ CMOS Video Cysto. Urethroscope	Deflection distal tip	Direction of view	Angle of view	Working length	Working channel inner diamete	Sheath size
11272 VK	with positive deflection	210°	0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VUK	with contrapositive deflection	140°	0°	120°	37 cm	6.5 Fr.	16 Fr.

Following accessories are included in delivery:

	27677 FV	Case
шини	27023 FE	Grasping Forceps for small fragments, single action jaws, flexible, 5 Fr., length 73 cm
	27023 ZE	Biopsy Forceps, single action jaws, flexible, 5 Fr., length 73 cm
	11025 E	Pressure Compensation Cap, for ventilation during gas and plasma sterilization
	13242 XL	Leakage Tester, with bulb and manometer
6-{\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	27651 B	Cleaning Brush, round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm
Mg_AND	27014 Y	LUER-Adaptor, with seal

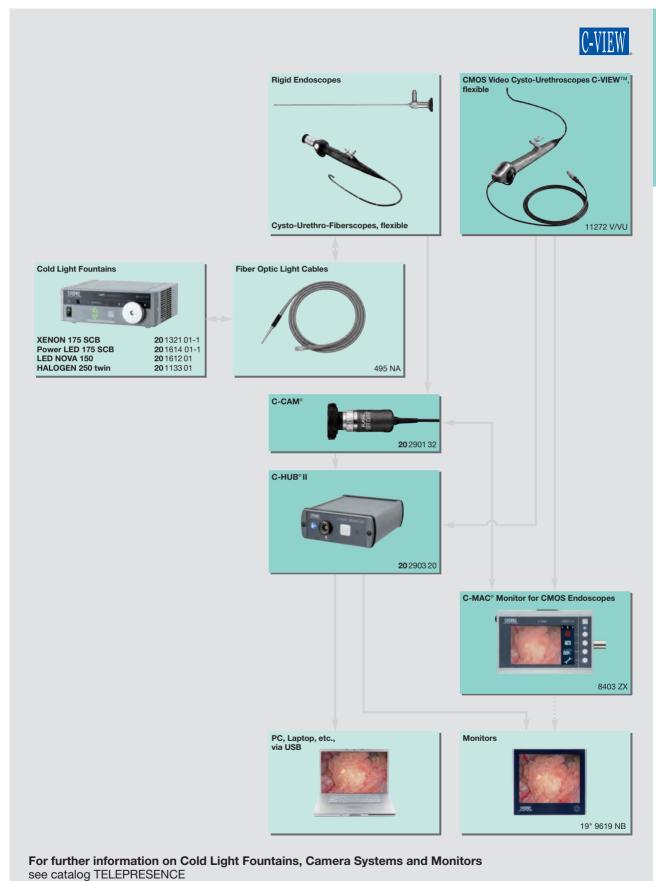
Optional accessories:



CMOS Office Platform

Overview





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FLEX-CYST 9 21

C-HUB® II and C-CAM® NEW



How can a standard doctor's office with table, chair and computer be converted into a modern examination room with an endoscope and a camera? The solution is simple: KARL STORZ C-HUB® II. The portable camera control unit can be directly connected to a medical PC via a USB port. This allows easy archiving and further processing of endoscopic image material.

As a plug & play unit, the camera control unit is easy to use and inexpensive to acquire. The C-HUB® II is therefore popular for use in further education and training courses. If videos or images need to be displayed on a monitor during an examination, the

camera control unit can be directly connected to an external monitor via the HDMI and S-Video outputs on the rear of the unit.

The most important benefit of the camera control unit is that it is compatible with numerous rigid as well as semiflexible and flexible endoscopes. These can be connected directly to the control unit via the camera connection on the front of the unit or via the C-CAM® camera head. The C-CAM® camera head features a coupling mechanism for endoscopes with standard eyepieces and delivers a clear endoscopic image.



C-HUB® II and C-CAM®

20 2903 01





C-HUB® II Camera Control Unit, for use with C-CAM® Camera Head 20 2901 32, Electronic Module 8402 X or compatible CMOS video endoscopes, Interfaces: USB 2.0, S-Video output (NTSC), HDMI output, power socket including:

C-HUB® Power Supply S-Video (Y/C) Connecting Cable **USB Connecting Cable** Video Editor



20 2901 32 C-CAM® Camera Head, 8-pin, one-chip CMOS camera head, resolution 640 x 480, focal length f = 20 mm, compatible with C-HUB® 20 2901 01 and 20 2903 20 as well as C-MAC® 8402 ZX and 8403 ZX



8403 ZX

8403 ZX

C-MAC® Monitor for CMOS Endoscopes, screen size 7" with 1280 x 800 pixel resolution, two camera inputs, a USB and a HDMI port, splash-proof according to IP54, suitable for wipe disinfection, shock-resistant ABS plastic housing, intelligent power management with rechargeable Li-Ion batteries

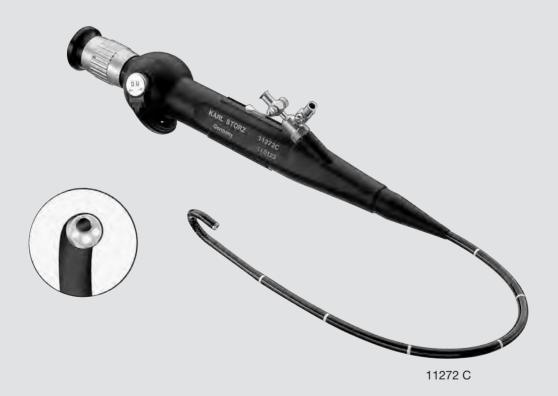
Equipment Carts see chapter 15, UNITS Components/Spare Parts see chapter 16

Cysto-Urethro-Fiberscopes



Special Features:

- Large angle of view and deflectable distal tip for better orientation
- 7 Fr. working channel
- Waterproof, fully immersible for cleaning and disinfection
- Sterilizable via EtO and FO gas, Steris® and Sterrrad®
- Recommended for video endoscopy in conjunction with the ENDOVISION® TELECAM system, IMAGE1 S platform or the C-MAC®/C-HUB® combination
- First-class optical quality offered by both objective lens system and fiber optic image transmitting bundle
- Superior life span due to robust mechanical design





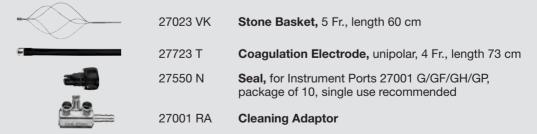
Cysto-Urethro-Fiberscopes

Order no.	Cysto-Urethro. Fiberscopes	Deflection distal tip	Direction of view	Angle of view	Working length	Working channel	Sheath Size
11272 C	with positive deflection	210°	0°	110°	37 cm	7 Fr.	15.5 Fr.
11272 CU	with contrapositive deflection	140°	0°	110°	37 cm	7 Fr.	15.5 Fr.

Following accessories are included in delivery:

27677 A	Case
27023 FE	Grasping Forceps for small fragments, single action jaws, flexible, 5 Fr., length 73 cm
27023 ZE	Biopsy Forceps, single action jaws, flexible, 5 Fr., length 73 cm
11025 E	Pressure Compensation Cap, for ventilation during gas and plasma sterilization
13242 XL	Leakage Tester, with bulb and manometer
27651 B	Cleaning Brush, round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm
27014 Y	LUER-Adaptor, with seal

Optional accessories:



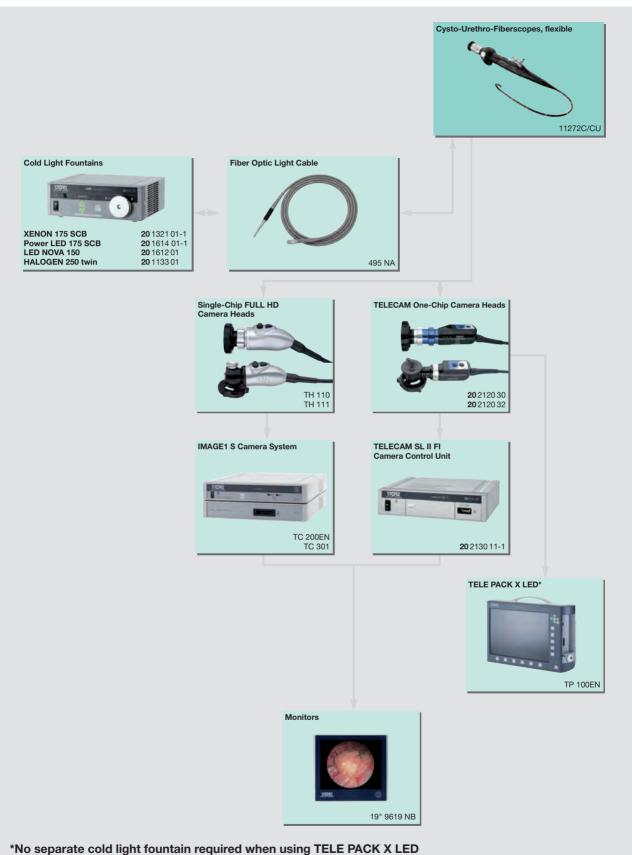
CALCULASE II SCB Laser System for Endoscopic Treatment of Bladder, Ureter and Kidney Stones see chapter 15, UNITS

FLEX-CYST 13 25

Cysto-Urethro-Fiberscopes

Overview





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For further information on Cold Light Fountains, Camera Systems and Monitors see catalog TELEPRESENCE

Plastic Containers for the Sterilization and Storage of Flexible Cysto-Urethroscopes



For use with Video Cysto-Urethroscopes 11272 VN/VNU/VNI/VNIU and 11272 VP/VPU/VPI



39403 AS

Plastic Container for Sterilization, specially suited for gas and hydrogen peroxide (Sterrad®) sterilization and storage, perforated, with lid, for use with flexible video cysto-, rhino- and bronchoscopes, external dimensions (w x d x h): 550 x 260 x 90 mm

For use with C-VIEW™ CMOS Video Cysto-Urethroscopes 11272 V/VU



39406 AS Plastic Container for Flexible Endoscopes, specially suited for gas and hydrogen peroxide (Sterrad®) sterilization and storage, for use with one flexible endoscope, external dimensions (w x d x h): 550 x 260 x 90 mm

Please note: Fiberscopes can only be sterilized with gas and plasma in these containers. The instruments displayed are not included in the plastic containers.

Plastic Containers for the Sterilization and Storage of Flexible Cysto-Urethroscopes



For use with Cysto-Urethro-Fiberscopes 11272 C/CU



39401 AS

Plastic Container for Sterilization, specially suited for gas and hydrogen peroxide (Sterrad®) sterilization and storage, perforated, with lid, for use with flexible endoscopes up to max. 39 cm working length, external dimensions (w x d x h): 690 x 170 x 92 mm

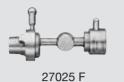


Cystoscope-Urethroscope Sheaths

17 - 25 Fr., working length 22 cm for use with 4 mm telescopes 27026 B 27026 A Cystoscope-Urethroscope Sheath, 25 Fr., with Obturator 27026 AO and 2 LUER-Lock cones, color code: white Cystoscope-Urethroscope Sheath, 22 Fr., 27026 B with Obturator 27026 BO and 2 LUER-Lock cones, color code: blue 27026 C Cystoscope-Urethroscope Sheath, 20 Fr., with Obturator 27026 CO and 2 LUER-Lock cones, color code: red 27026 D Cystoscope-Urethroscope Sheath, 19 Fr., with Obturator 27026 DO and 2 LUER-Lock cones, color code: green 27026 U Cystoscope-Urethroscope Sheath, 17 Fr., with Obturator 27026 UO and 2 LUER-Lock cones, color code: yellow With slot, no slip-off of flexible instruments 27026 BB 27026 AB Cystoscope-Urethroscope Sheath, 25 Fr., with slot and Obturator 27026 AO, with 2 LUER-Lock cones, color code: white 27026 BB Cystoscope-Urethroscope Sheath, 22 Fr., with slot and Obturator 27026 BO, with 2 LUER-Lock cones, color code: blue 27026 CB Cystoscope-Urethroscope Sheath, 20 Fr., with slot and Obturator 27026 CO, with 2 LUER-Lock cones, color code: red 27026 DB Cystoscope-Urethroscope Sheath, 19 Fr., with slot and Obturator 27026 DO. with 2 LUER-Lock cones, color code: green

Telescope Bridges, Catheter Deflecting Mechanisms





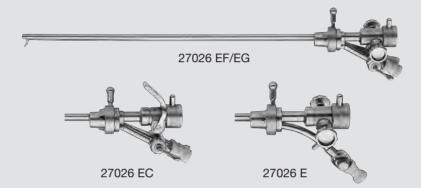




27025 F

Telescope Bridge

27025 G Same, with 1 lockable channel Same, with 2 lockable channels



27026 EF

Catheter Deflecting Mechanism, with 2 lockable channels,

with ratchet, Rod 27021 O is included in delivery

27026 EG Same, without ratchet Same, with quick control

27026 E Catheter Deflecting M

Catheter Deflecting Mechanism, with ALBARRAN lever, with 1 lockable channel, with ratchet, Rod 27021 O is

included in delivery

For exploration with Sheath 27026 U the Telescope Bridge 27025 G is used instead of Catheter Deflecting Mechanisms 27026 E/EC/EF/EG.

Ob a ath a		hannel with ting Mechanism	Working with Telesc		
Sheaths with Obturator	27026 E	27026 EC 27026 EF 27026 EG	27025 G	27025 GF	Color Code
27026 A 25 Fr. 27026 AB	1x 10 Fr.	2x 8 Fr. 1x 10 Fr.	1x 12 Fr.	2x 8 Fr. 1x 12 Fr.	white
27026 B 22 Fr. 27026 BB	1x 9 Fr.	2x 6 Fr. 1x 9 Fr.	1x 10 Fr.	2x 7 Fr. 1x 10 Fr.	blue
27026 C 20 Fr. 27026 CB	1x 6 Fr.	2x 5 Fr. 1x 6 Fr.	1x 7 Fr.	2x 6 Fr. 1x 7 Fr.	red
27026 D 19 Fr. 27026 DB	1x 5 Fr.	2x 4 Fr. 1x 5 Fr.	1x 6 Fr.	2x 5 Fr. 1x 6 Fr.	green
27026 U 17 Fr.	-	-	1x 5 Fr.	1x 5 Fr.	yellow

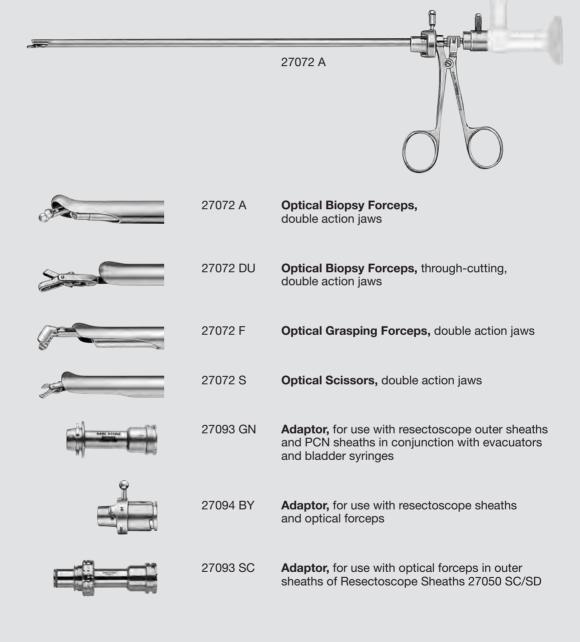
2-924

30





The robust construction of these rigid forceps provides a number of advantages as compared with a conventional flexible miniature forceps. The specially designed sharp cutting jaws are close to the telescope, therefore specimens can be taken under accurate visual control. These forceps have also been found valuable for the removal of foreign bodies and pieces of tissue. Sufficient irrigation is still provided when a forceps is introduced into the sheath.



Adaptors see table on page 32

Optical Forceps and Scissors



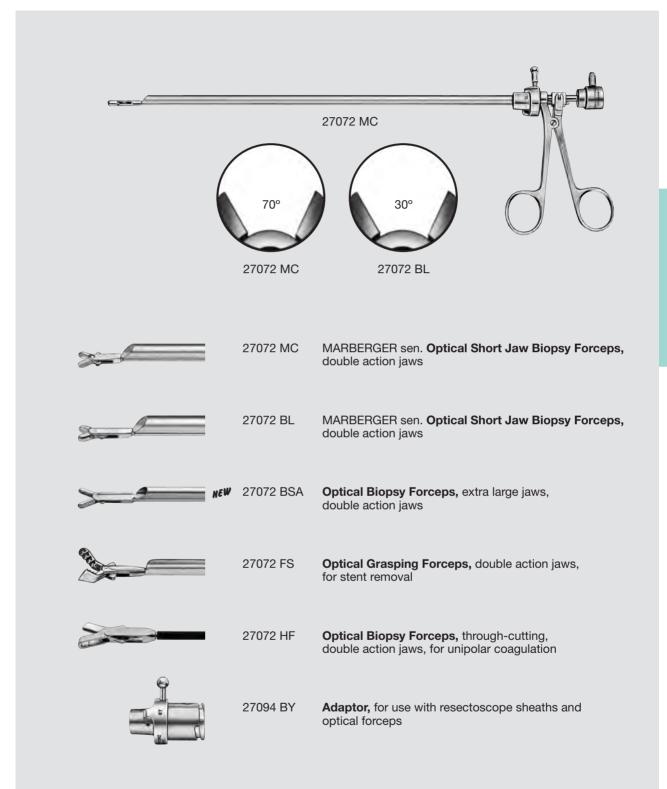


Optical Forceps, Scissors	Recommended Telescopes	Recommended Cystoscope- Urethroscope Sheaths (without adaptor)	Recommended Resectoscope Sheaths	Adaptor for use with Resectoscope Sheaths
27072 A	27005 AA 27026 A 27005 FA 27026 B 27005 FIA 27026 C		27040 SM (without inner sheath)	27093 GN
	27005 BA 27005 BIA	2,0207.2	27050 SD (without inner sheath)	27093 SC
27072 DU	27072 DU 27005 AA 27026 A 27005 FA 27026 B 27005 FIA 27026 C 27026 AB 27026 BB 27026 CB	27040 AO 27241 AO 27040 SM 27050 SM	27094 BY	
			27040 SD (without inner sheath)	27093 GN
			27050 SD (without inner sheath)	27093 SC
27072 F	27005 AA 27005 FA 27005 FIA	27026 A 27026 B 27026 C	27040 SM (without inner sheath)	27093 GN
		27026 AB 27026 BB 27026 CB	27050 SD (without inner sheath)	27093 SC
27072 S	27005 AA 27005 FA 27005 FIA	27026 A 27026 B 27026 C 27026 AB 27026 BB 27026 CB	-	-

HOPKINS® Telescopes see pages 3-5 Cystoscope-Urethroscope Sheaths see page 29 Resectoscope Sheaths see pages 61-64



Optical Short Jaw Biopsy Forceps



-92°

Further information on 27072 HF see pages 34-35 High Frequency Cords see page 42 Adaptors see table on page 32

Optical HF Biopsy Forceps

27072 HF



Successful therapy of any kind necessitates precise diagnostics. Only when the nature and extent of the illness has been identified exactly can an appropriate course of therapy be planned and realized.

The main pillars in the diagnostics of urothelial bladder carcinoma are cytology and endoscopy.

Cytology has proven to be extremely sensitive for G3 carcinomas and carcinomas in situ (CIS). However, in the case of highly differentiated tumors, diagnosis is only successful in about a third of all cases. Endoscopy is able to identify the presence of papillary tumors in almost all cases. Sadly, this is not the case for CIS, where visual detectability of the tumor not only varies greatly, but is often very difficult.

Once a bladder tumor has been diagnosed, it is vital that staging is correctly performed. Only by doing this is it possible to ensure that the correct and appropriate therapy is chosen.

The standard method is the transurethral removal of the tumor (TUR-B). When doing this it is important to ensure that adhering muscles of the bladder are removed together with the tumor to allow a correct histopathologic diagnosis to be made. Unfortunately, to date, no standardized resection technique was able to meet all these requirements.

Frequently, a correct histopathologic diagnosis is not possible due to coagulation and fulguration artifacts. Tissue char formation forms in the electric arc of the resection loop, which all too often compromises the usefulness of the resected material in terms of making an assessment.

Cold biopsy plays a very important, and in some cases, decisive role in diagnostics. This form of biopsy offers the advantage of not causing thermal changes, thus making it an excellent way of clarifying uncertainties.

A further advantage of this technique is that a smaller lesion is created with the biopsy forceps compared with the resection loop. This is particularly beneficial for quadrant and repeat biopsies.

The cold biopsy forceps are ideal for the following applications:

- Removal of small bladder papillomas
- Tumor base and tumor margin biopsies
- Quadrant biopsies for CIS
- Visual examination of therapy results following topical application of chemotherapeutical agents and immunomodulators

The following requirements must be met by biopsy forceps:

- easy and good operation
- wide field of view, thus allowing sufficient inspection of the mucosa of the bladder
- easily visible jaws, thus allowing precise positioning during the biopsy
- the tips of the forceps must have excellent cutting properties to prevent morcellization artifacts
- when extending the forceps endoscopically, the tips should move toward the middle of the image in order to allow precise optical control
- option of coagulation using the biopsy forceps to prevent unnecessary instrument changing

The HF Biopsy Forceps 27072 HF are simple to use. When examining the bladder they offer an outstanding overview and produce good histologic results thanks to their excellent maneuverability. The coagulation option means that needless and time-consuming instrument changes are avoided, making the intervention simpler and shorter. The robust and straightforward design make these biopsy forceps particularly durable.

Prof. A. PYCHA, M.D., Bozen, Italy

Optical HF Biopsy Forceps





Fig. 1: Small papillary tumor on the posterior wall of the bladder



Fig. 2: The small papillary lesion is grasped with the open biopsy forceps

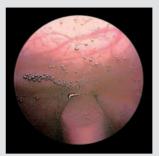


Fig. 3: The entire lesion is grasped with the biopsy forceps



Fig. 4: The lesion is removed from the mucous membrane



Fig. 5: Following recovery of the biopsy, the biopsy wound is coagulated



Fig. 6: Biopsy of a so-called "red spot", in a case of positive cytology and suspected CIS

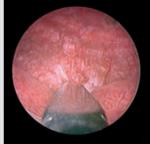


Fig. 7: Closed biopsy forceps



Fig. 8: At the end, precise coagulation is carried out with the biopsy forceps



Fig. 9: On conclusion of the TURB, a biopsy of the base of the base of the tumor the tumor is performed

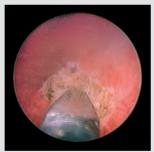


Fig. 10: Completed biopsy of



Fig. 11: The margins of the resected area are examined by means of cold biopsy



Fig. 12: Completed biopsy of the tumor margins

Optical Forceps and Scissors





Optical Forceps, Scissors	Recommended Telescopes	Recommended Cystoscope- Urethroscope Sheaths (without adaptor)	Recommended Resectoscope Sheaths	Adaptor for use with Resectoscope Sheaths
27072 MC	27005 CA 27005 CIA	27026 A 27026 B 27026 C 27026 AB 27026 BB 27026 CB	27040 AO/27040 BO 27241 AO/27241 BO 27040 SL/27040 SM 27040 SD 27050 SL/27050 SM 27050 SC/27050 SD	27094 BY
27072 BL	27005 FA 27005 FIA 27005 BA 27005 BIA	27026 A 27026 B 27026 C 27026 AB 27026 BB 27026 CB	27040 AO/27040 BO 27241 AO/27241 BO 27040 SL/27040 SM 27040 SD 27050 SL/27050 SM 27050 SC/27050 SD	27094 BY
27072 BSA	27005 FA 27005 FIA 27005 BA 27005 BIA	27026 A 27026 B 27026 AB 27026 BB	27040 AO/27040 BO 27241 AO 27040 SL/27040 SM 27040 SD 27050 SL/27050 SM 27050 SC/27050 SD	27094 BY
27072 FS	27005 AA 27005 AIA	27026 A 27026 B 27026 AB 27026 BB	27040 AO/27040 BO 27241 AO 27040 SL/27040 SM 27040 SD 27050 SL/27050 SM 27050 SC/27050 SD	27094 BY
27072 HF	27005 AA 27005 BA 27005 BIA 27005 FA 27005 FIA 27005 AIA	27026 A 27026 B 27026 C 27026 AB 27026 BB 27026 CB	27040 BO/27040 BK 27241 BO/27241 BK 27040 SL/27040 SD 27050 SL 27050 SC/27050 SD	27094 BY

HOPKINS® Telescopes see pages 3-5 Cystoscope-Urethroscope Sheaths see page 29 Resectoscope Sheaths see pages 61-64



Visual Obturators, Cystoscope Adaptor

Visual Obturators for Cystoscope-Urethroscopes, for 19, 20, 22 and 25 Fr. Sheaths, for use with HOPKINS® Telescopes 27005 AA/BA





27028 A Visual Obturator, for 25 Fr. Cystoscope-Urethroscope-Sheaths 27026 A/AB,

color code: white

Visual Obturator, for 22 Fr. Cystoscope-27028 B Urethroscope-Sheaths 27026 B/BB,

color code: blue

27028 C Visual Obturator, for 20 Fr. Cystoscope-

Urethroscope-Sheaths 27026 C/CB,

color code: red

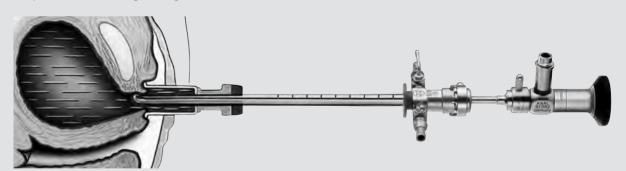
27028 D Visual Obturator, for 19 Fr. Cystoscope-

Urethroscope-Sheaths 27026 D/DB,

color code: green

Cystoscope Adaptor for female urethroscopy

The NICKELL Cystoscope Adaptor should be pressed against the urethra orifice after insertion of the cystoscope to avoid leaking of irrigation fluid and the collapse of the urethra. This also permits a full length urethroscopy in the female urethra.





27026 X

NICKELL Cystoscope Adaptor, for female urethroscopy, 27026 X for use with Cystoscope-Urethroscope Sheaths 27026 A - U, 27026 AB - DB and HOPKINS® Telescopes 27005 AA/BA/FA

CYST 13 D 37

Universal Cysto-Urethroscope

for Outpatient Cysto-Urethroscopy

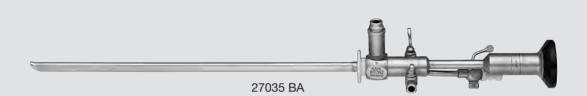


17 Fr., working length 22 cm

Special Features:

- Minimal discomfort for the patient
- Biopsies also for prostate region
- Foreign body retrieval
- Treatment of strictures and bladder stones
- Easy to use

- Atraumatic instrument tip
- High stability
- For use with semirigid and flexible forceps
- For inserting urethral splints



27035 BA

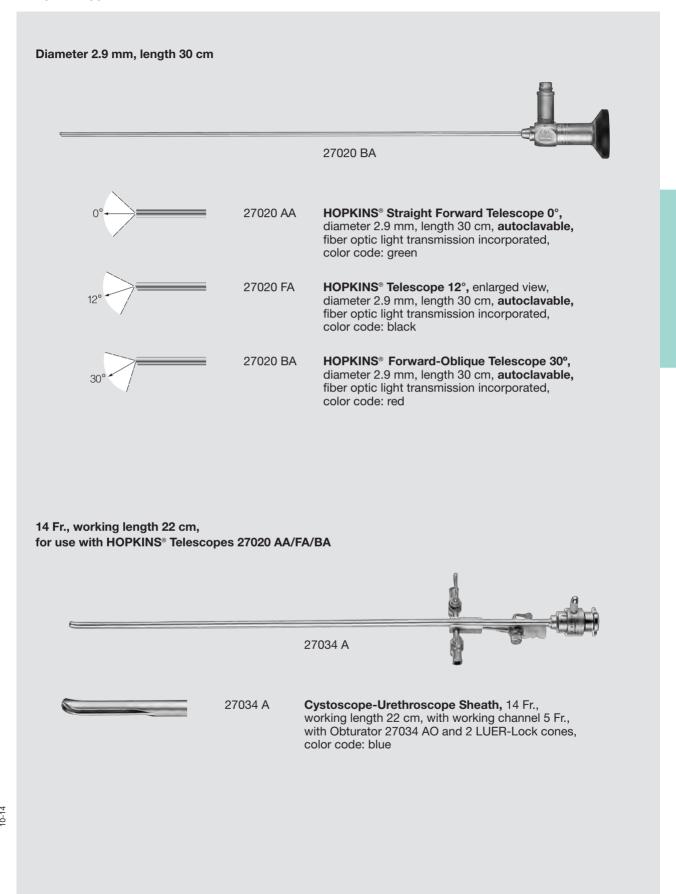
Universal Cysto-Urethroscope, with HOPKINS® forward-oblique telescope 30°, enlarged view, autoclavable, 17 Fr., fiber optic light transmission incorporated, 7 Fr. working channel and 2 LUER-Lock cones, color code: red-yellow

Semirigid and Flexible Instruments see pages 40-42

HOPKINS® Telescopes and Cystoscope-Urethroscope Sheaths

STORY—FNDOSKOPE

for Cystoscopy in Adolescents

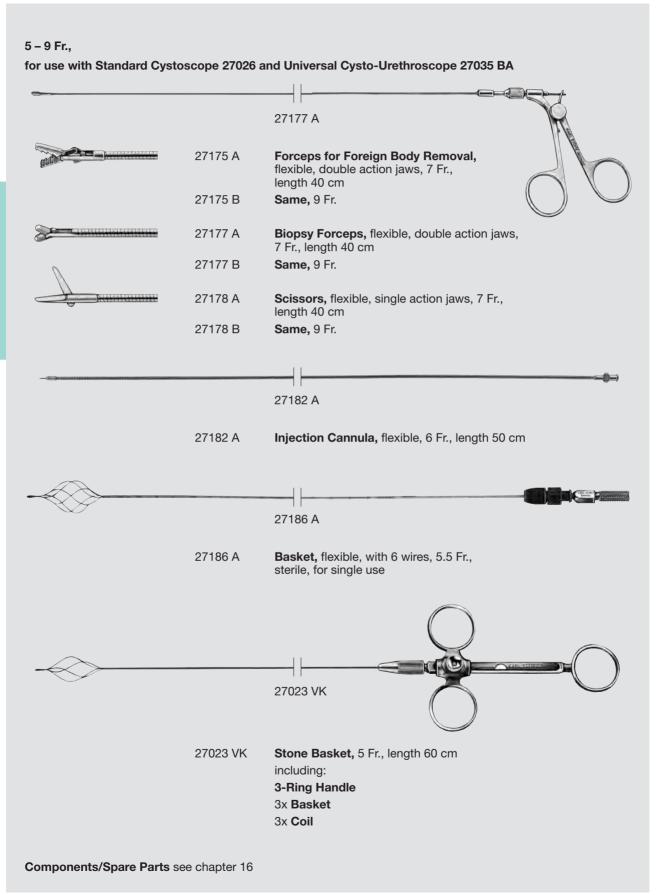


CYST 15 B 39

Flexible Instruments

Forceps, Injection Cannulas, Stone Baskets





Semirigid and Flexible Instruments



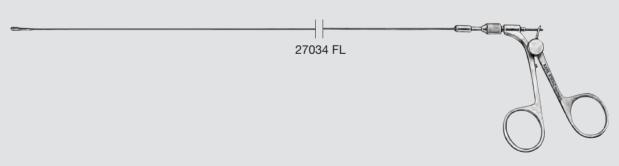




27035 F

27035 L	Biopsy Forceps, semirigid, double action jaws, 7 Fr., length 40 cm
27035 F	Grasping Forceps, semirigid, double action jaws, 7 Fr., length 40 cm
27035 D	Forceps, semirigid, through-cutting, single action jaws, 7 Fr., length 40 cm
27035 S	Hook Scissors, semirigid, serrated, double action jaws, 7 Fr., length 40 cm

5 Fr., length 40 cm, for use with Cysto-Urethroscope Sheath 27034 A



27034 FK	Forceps for Foreign Body Removal, flexible, double action jaws, 5 Fr., length 40 cm
27034 FL	Biopsy Forceps, flexible, double action jaws, 5 Fr., length 40 cm
27034 S	Scissors, flexible, single action jaws, 5 Fr., length 40 cm

Flexible Instruments

Electrodes, HF Cords



For use with Standard Cystoscope 27026 and Universal Cysto-Urethroscope 27035 BA



27770 AA

9	27770 AA	Button Electrode, unipolar, 3 Fr., length 53 cm
	27770 A	Same, 4 Fr.
	27770 B	Same, 5 Fr.
	27770 C	Same, 6 Fr.
	27770 D	Same, 7 Fr.
	27770 E	Same, 8 Fr.
	27770 F	Same, 10 Fr.
	27772 AA	Needle Electrode, unipolar, 3 Fr., length 53 cm
	27772 A	Same, 5 Fr.
	27772 B	Same, 7 Fr.
	27778 A	Loop Electrode, unipolar, 7 Fr., length 53 cm

Unipolar High Frequency Cords

KARL STORZ High Frequency Instrument Surgical Units

	26002 M	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord, with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord, with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab

Please note: All high frequency cords are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter $\bf L$ to the part number, e. g. 26002 M $\bf L$.

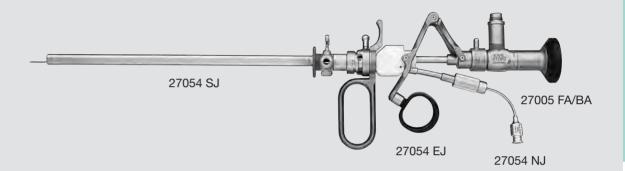
1

Instrument Set for Transurethral Viscous Fluid Injection



Special Features:

- Safe positioning of the injection needle
- Precise and gentle control of the needle
- Working Element 27054 EJ ensures maximum stability of semirigid injection needles
- Rotatable LUER-Lock connection of the 4 Fr. needle allows for easy handling by both right and left-handed persons
- Slender 20 Fr. operating sheath reduces the risk of urethral trauma to a minimum
- HOPKINS® telescopes with 12° and 30° directions of view complement the instrument set with high light transmission combined with excellent detailed resolution and high contrast





27054 EJ	Working Element, with channel for use with
	Injection Moodle 27054 N.I.

27054 SJ	Operating Sheath, 20 Fr., with Obturator 27054 JO
	and 2 LIER-Lock copes

27054 NJ	Injection Needle, semirigid, 4 Fr., distal end 2 Fr.,
	with rotatable LUER-Lock connection, for use with
	Working Element 27054 EJ (single use recommended)

27005 FA	HOPKINS® Telescope 12°, enlarged view,
	diameter 4 mm, length 30 cm, autoclavable,
	fiber optic light transmission incorporated,

fiber optic light transmission incorporated, color code: black

27005 BA HOPKINS® Forward-Oblique Telescope 30°,

enlarged view, diameter 4 mm, length 30 cm, **autoclavable**, fiber optic light transmission

incorporated, color code: red

Compact Cysto-Urethroscope





24 Fr., working length 9 cm, for use with Macroplastique®, for treating stress urinary incontinence in female patients

Special Features:

- For injecting Macroplastique® urethral bulking agent under visualization
- Use of injection needles up to 7 Fr.



27035 FA

27035 FA Compact Cysto-Urethroscope, with HOPKINS® telescope 12°, autoclavable, 24 Fr., fiber optic light transmission incorporated, working channel 9 Fr. and 2 LUER-Lock cones

9-12

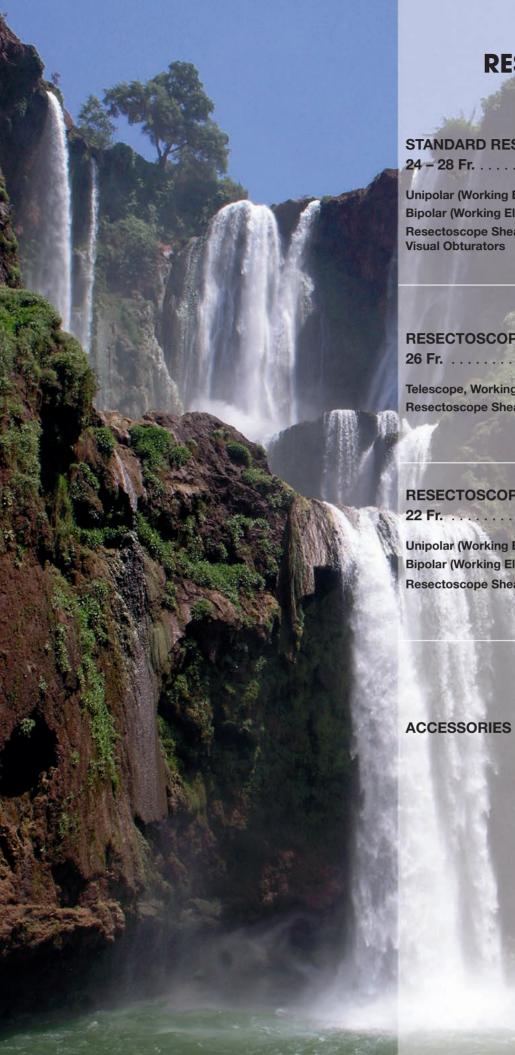
Units and Accessories for Cystoscopes see chapter 15, UNITS
Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Instruments for use with the UroLift® System



With the UroLift® system from the company Neotract®, KARL STORZ offers special instrumentation for the treatment of Benign Prostatic Hyperplasia (BPH). 27324 AA 27324 AA **HOPKINS® Straight Forward Telescope 0°,** diameter 2.9 mm, length 36 cm, autoclavable, fiber optic light transmission incorporated, color code: green 27026 C 27028 CN 27026 C Cystoscope-Urethroscope Sheath, 20 Fr., with Obturator 27026 CO and 2 LUER-Lock cones, color code: red 27028 CN Visual Obturator, for 20 Fr. Cystoscope-Urethroscope Sheath 27026 C and HOPKINS® Straight Forward Telescope 27324 AA, color code: red





RESECTOSCOPES FOR ADULTS

TOK AD	OLIC
STANDARD RESECTOSCOPES, 24 – 28 Fr	48-66
Unipolar (Working Elements, Electrodes) . Bipolar (Working Elements, Electrodes)	
Resectoscope Sheaths, Obturators, Visual Obturators	61-66
RESECTOSCOPES, EXTRA LONG,	
26 Fr	.67-69
Telescope, Working Elements Resectoscope Sheaths, Obturators	
RESECTOSCOPES, SLENDER,	
22 Fr	.70-72
Unipolar (Working Elements, Electrodes)	
Resectoscope Sheaths, Obturators	
	STANDARD RESECTOSCOPES, 24 – 28 Fr. Unipolar (Working Elements, Electrodes) Bipolar (Working Elements, Electrodes) Resectoscope Sheaths, Obturators, Visual Obturators RESECTOSCOPES, EXTRA LONG, 26 Fr. Telescope, Working Elements Resectoscope Sheaths, Obturators RESECTOSCOPES, SLENDER, 22 Fr. Unipolar (Working Elements, Electrodes) Bipolar (Working Elements, Electrodes)

Transurethral Resection (TUR)

Unipolar TUR





Today, Transurethral Resection (TUR) can be considered as the gold standard in the treatment of Benign Prostatic Hyperplasia (BPH) or resection of bladder tumors.

There are two commonly used modalities: unipolar and bipolar TUR.

Unipolar TUR Basic principles of unipolar TUR

In unipolar TUR, the required thermal effect in the tissue is achieved by means of cutting and/or coagulation due to increased current density between the conducting electrode and the tissue.

A large neutral electrode, which is positioned as close to the operating area as possible, returns the applied current via the tissue to the HF generator.

To ensure a complete circuit, a non-conducting irrigation fluid (as a rule Purisole) is required.

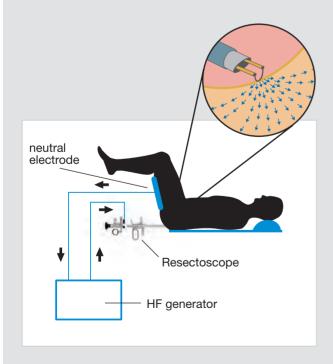
The use of a conducting irrigation solution, as utilized in bipolar TUR, would result in lower electric resistance between the conducting electrode and the irrigation fluid as opposed to the tissue. This again would cause an uncontrolled flow of current to pass through the patient's body via the irrigation fluid during energy transfer

Possible risks of unipolar TUR

Due to the current flow and depending on the amount of energy applied, nerve stimulation or reflex action can occur, which at worst may lead to perforation of the bladder with the instrument.

Furthermore, leakage current or incorrect neutral electrode placement can lead to the concentration of current density within a (very) small area. This increases heating in the tissue which may result in severe burns.

Modern HF generators, such as AUTOCON®II 400 SCB from KARL STORZ, include early warning systems which detect leakage current or incorrectly positioned neutral electrodes. These systems can deactivate power output and thereby increase patient safety.



2-08

48 RES 2 E

Transurethral Resection (TUR)

Bipolar TUR





Bipolar TUR Basic principles of bipolar TUR

Bipolar TUR was developed in recent years in order to reduce the electric current flowing through the patient to a minimum. In bipolar electrosurgery, a neutral electrode is positioned close to the conducting electrode.

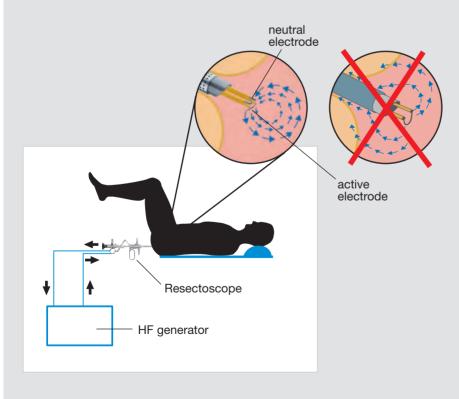
The irrigation fluid, and no longer the tissue, is the medium used to return the current to the neutral electrode. As the irrigation fluid (in the case of bipolar TUR, sodium chloride, NaCl 0.9%) shows far less resistance than tissue, the current would normally flow directly from the active towards the neutral electrode during energy transfer. A thermal effect does not occur.

Therefore, the main prerequisite for bipolar TUR is the formation of plasma in the irrigation fluid. This "insulation layer" around the cutting loop increases the electrical resistance between the active electrode and

irrigation fluid as opposed to tissue. A thermal effect can now occur in the area of tissue that is in contact with the loop before the current is returned via the irrigation fluid to the neutral electrode and furthermore to the HF generator.

The system can only be considered bipolar if the current flow is not returned through the tissue or via instruments that are in contact with the tissue (i.e. the sheath). All contact areas between the current and tissue present a risk of strictures and burns, with increasing intensity the smaller the contact surface is.

A proper current flow path is only possible via items that are totally isolated against the outer sheath of the resectoscope (i.e. the electrode), such as in systems available from KARL STORZ.



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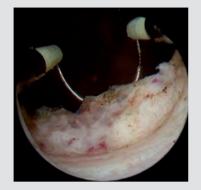
RES 3 E 49

Transurethral Resection (TUR)

Unipolar and Bipolar TUR

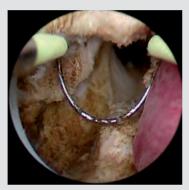


Unipolar TUR











Bipolar TUR











Electrotomes

for One-Stem Electrodes with Stabilizers



For use with HOPKINS® Forward-Oblique Telescopes 27005 BA/BIA/FA/FIA

Cutting Loop

Coagulation Electrode

High Frequency Cord Protection Tube



Cutting by means of a spring

27050 EH

Movable thumb ring

In rest position the electrode is inside the sheath.



280

2x 27050

2x 27050

2x 277

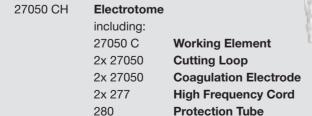
Cutting by means of a finger grip Movable thumb ring

In rest position the electrode is outside the sheath.



27050 C

Cutting by means of rack and pinion



High Frequency Cords see page 73 **High Frequency Surgical Units** see chapter 15, UNITS



RES 5 D 51

Electrodes

One-Stem Electrodes with Stabilizers, for Working Elements 27050 C/D/E



For use with 24 - 28 Fr. resectoscope sheaths





27050 G

The cutting loops are delivered with a wire diameter of 0.35 mm.

Distal Tip	24/26 Fr. color code: yellow	27/28 Fr. color code: brown	Instrument Description
	27050 G	27050 F	Cutting Loop, angled
	27050 GS	-	THOMAS Cutting Loop , angled, small
	27050 J	-	Cutting Loop, longitudinal
	27050 L	27050 K	Coagulation Electrode, pointed
	27050 S	-	Coagulation Electrode, conical
	27050 N	27050 M	Coagulation Electrode, ball-shaped, diameter 3 mm
9	27050 NK	27050 MK	Coagulation Electrode, ball-shaped, diameter 5 mm
	27050 NX	-	Coagulation Electrode, barrel-shaped, diameter 3 mm
	27050 NW	27050 MW	Coagulation Electrode, barrel-shaped, diameter 5 mm
	27050 GR	-	LOZZI Needle Electrode

Note: Electrodes, in sterile packaging, are also available for single use. Please contact:



High Frequency Cords see page 73

High Frequency Surgical Units see chapter 15, UNITS

4-96₅

Vaporization Electrodes



One-Stem Electrodes with Stabilizers, for Working Elements 27050 C/D/E

For use with 24/26 Fr. resectoscope sheaths





27050 DG

The cutting loops are delivered with a wire diameter of 0.35 mm.

Distal Tip	24/26 Fr. color code: yellow	Instrument Description
	27050 DG	Cutting Loop, diameter 0.8 mm
	27050 VG	Spike Electrode, diameter 5 mm
	27050 RG	Roller Electrode, diameter 5 mm
	27050 RK	Roller Electrode, diameter 3 mm
	27050 SG	VaporCut® Electrode, band width 1.2 mm
	27050 BG	VaporCut® Electrode, band width 0.6 mm
	27050 KG	Roller Cutting Electrode, single use recommended
5	27050 WG	VaporCut® Electrode



280

280

Protection Tube, for sterilization and storage of electrodes, loops, curettes and knives

Note: Electrodes, in sterile packaging, are also available for single use. Please contact:



High Frequency Cords see page 73

High Frequency Surgical Units see chapter 15, UNITS

9

RES 7 B

Electrode for Cold Enucleation





The author performed transurethral enucleation of the prostate (TUE) for the first time in 1983. In contrast to manual ablation in open surgery, the prostatic adenoma is enucleated along the false capsule through blunt detachment using a blade and the resectscope sheath tip.

Consequently, TUE causes less bleeding, perforation, and injury to venous structures as well as fewer recurrences and complications. Transurethral Holmium Laser Enucleation of the Prostate (HoLEP) made it

possible to deviate from the proper detachment plane along the false capsule as the holmium LASER has sharp incision elements.

This enables the total removal of adenoma; even large hypertrophic lesions can be enucleated safely.

> Y. HIRAOKA, Nippon Medical School Tama Nagayama Hospital, Japan

Special Features:

- Enucleation along the false capsule is easier than with HoLEP
- Coagulation, incision and vaporization are possible
- Very low incidence of recurrence

- Less bleeding, less urinary stress incontinence and fewer other complications
- Optimal solution, even for large prostates
- Cost-effective



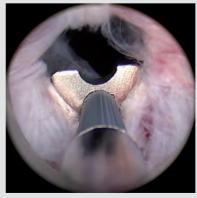
27050 CE

27050 CE **Electrode,** for cold enucleation, 24/26 Fr.,

color code: black



Membrane of the prostate capsule between the adenoma and the peripheral zone



Endoscopic view after penetration of the bladder mucosa at 12 o'clock

10-14

54 RES 8 D

Needle Electrode for En-bloc Resection of Papillary Bladder Tumors





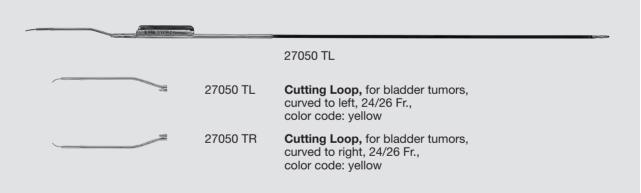
treatment of tumors in the bladder (particularly papillary tumors). The geometric shape of the cutting wire allows

The unipolar needle electrode can be used for the en-bloc resection of the tumor from the bladder wall. The special resection technique helps prevent the rupture of tumor cells and reduces the rate of recurrence.

Special Features:

- Enables en-bloc resection of papillary tumors
- En-bloc excision of papillary tumors reduces the risk of seeding
- Exact positioning of the needle electrode is possible thanks to new geometry
- Two designs: curved to left or curved to right in order to reach as much of the bladder walls as possible

For use with HOPKINS® Forward-Oblique Telescopes 27005 FA/BA and unipolar Working Elements 27050 E/D/C



The Bipolar System from KARL STORZ







New bipolar electrodes

- Can be used with 12° and 30° telescopes
- New neutral electrode design: Visible yet inconspicuous
- Very precise initial cut

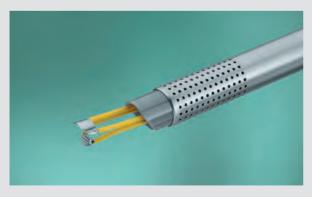


The right electrode for every indication

- Color-coded cutting loops for the bladder
- Wide range of electrodes



- Prolonged cutting loop service life
- Constant distance maintained between the active and neutral electrodes ensures a consistent cutting performance
- Minimized current flow for greater patient comfort



- Special ball electrode for efficient vaporization of the prostate
- Special design of the active electrode enables extensive and fast vaporization
- Excellent hemostasis
- Cost-effective and time-saving alternative to greenlight LASER vaporization



The Bipolar System from KARL STORZ





- New resection mode ensures perfect and easy cutting
- Performance: Resection speed faster than ever!
- Greater patient safety: with + for saline and + for bipolar!

- Automatic current regulation for enhanced safety
- Makes the bipolar system from KARL STORZ even more efficient
- Magnet plate on the unit enables easy and space-saving mount for resection box

Electrotomes

for Two-Stem Electrodes with Stabilizers

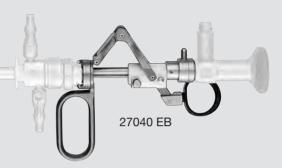


For use with HOPKINS® Forward-Oblique Telescopes 27005 BA/BIA/FA/FIA and AUTOCON® II 400 SCB



Cutting by means of a spring Movable thumb ring

In rest position the electrode is inside the sheath.



27040 EBH Electrotome

includina:

27040 EB Working Element 2x 27040 Cutting Loop, bipolar

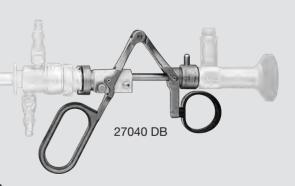
2x 27040 **Coagulation Electrode,** bipolar 27176 LEB **High Frequency Cord**

27176 LEB High Frequency Cord 280 Protection Tube

Cutting by means of a finger grip Movable thumb ring

In rest position the electrode is outside the sheath.





27040 DBH Electrotome

including:

27040 DB Working Element
2x 27040 Cutting Loop, bipolar
2x 27040 Coagulation Electrode, bipolar
27176 LEB High Frequency Cord

27176 LEB **High Frequency Cord** 280 **Protection Tube**

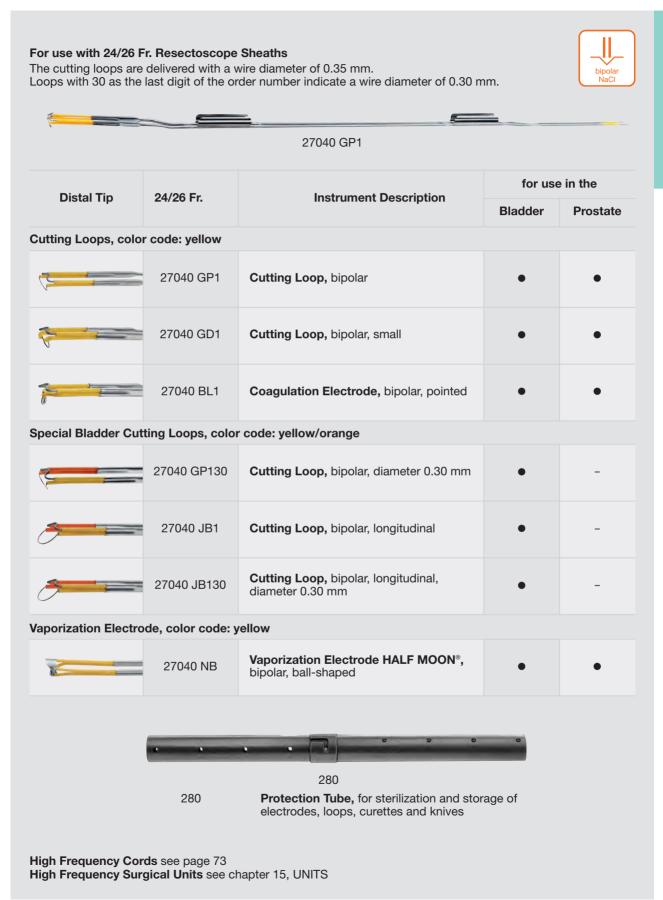
High Frequency Cords see page 73 High Frequency Surgical Units see chapter 15, UNITS 2-081

58 RES 12 D









10-14

RES 13 D 59

Needle Electrode for En-bloc Excision of Papillary Bladder Tumors



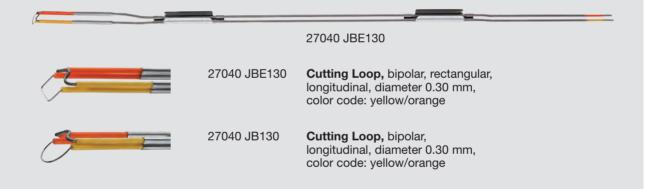


The bipolar en-bloc electrode can be used for the treatment of tumors in the bladder (particularly papillary tumors). The geometric shape of the cutting wire allows en-bloc resection of the tumor from the bladder wall.

The special resection technique helps prevent the rupture of tumor cells and reduces the rate of recurrence.

Special Features:

- Enables en-bloc resection of papillary tumors
- En-bloc excision of papillary tumors leads to a lower risk of seeding
- Exact positioning of the needle electrode possible
- Both loops enable "antegrade" resection
- Two models:
 - Longitudinal electrode
 - Rectangular electrode, longitudinal; the corners of the "rectangular" loop makes an optimal "resection boundary" possible



Resectoscope Sheaths



24 - 27 Fr., working length 20 cm

Special Features:

 Sheath can be combined with Working Elements 27040 and 27050

Resectoscope Sheaths with LUER-Lock stopcock, including connecting tube for inflow



27040 AO Resectoscope Sheath, 27 Fr., oblique beak, with Obturator 27040 OA, color code: black 27040 BO

Resectoscope Sheath, 24 Fr., oblique beak, with Obturator 27040 OC,

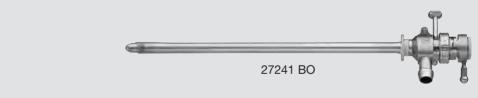
color code: yellow

27040 AK Resectoscope Sheath, 27 Fr., short beak, with Obturator 27040 OB. color code: black

27040 BK Resectoscope Sheath, 24 Fr., short beak, with Obturator 27040 OD,

color code: yellow

Resectoscope Sheaths with stopcock, including connecting tube for in- and outflow



27241 AO Resectoscope Sheath, 27 Fr., oblique beak, with Obturator 27040 OA, color code: black 27241 BO Resectoscope Sheath, 24 Fr., oblique beak, with Obturator 27040 OC, color code: yellow

> 27241 AK Resectoscope Sheath, 27 Fr., short beak, with Obturator 27040 OB, color code: black

> 27241 BK Resectoscope Sheath, 24 Fr., short beak, with Obturator 27040 OD,

color code: yellow

The resectoscope sheaths can be used with unipolar and bipolar working elements. Obturators see pages 65-66

Resectoscope Sheaths with Fixed Inner Sheath

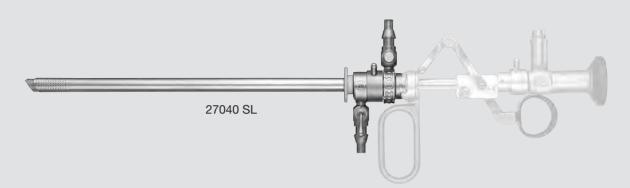
for Continuous Flow Irrigation and Suction



Special Features:

27040 XA

- Ceramic insulation on inner sheath for burn resistance
- Exchangeable inner sheath for easy handling
- Sheath can be used in combination with Working Elements 27040 and 27050
- Fixed inner sheath



27040 XB

27040 SL	Resectoscope Sheath, including connecting tube for in- and outflow, 26 Fr., oblique beak, fixed inner sheath with ceramic insulation,
	color code: yellow

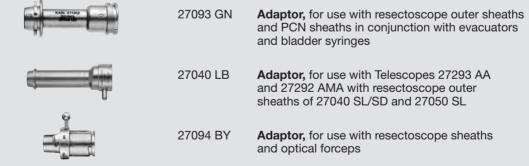
27040 SD Same, for special use with active Working Elements 27050 D and 27040 D/DB

Inner Sheath, fixed, with ceramic insulation, for use with resectoscope outer sheaths of 27040 SD/SL, 26 Fr.

27040 SM Resectoscope Sheath, including connecting tube for in- and outflow, 28 Fr., oblique beak, fixed inner sheath with ceramic insulation.

color code: black

Inner Sheath, fixed, with ceramic insulation, for use with resectoscope outer sheath of 27040 SM, 28 Fr.



The resectoscope sheaths can be used with unipolar and bipolar working elements. Obturators see pages 65-66

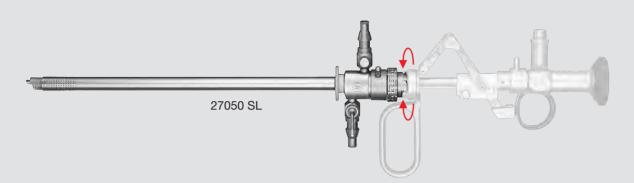
Resectoscope Sheaths with Rotating Inner Sheaths

for Continuous Flow Irrigation and Suction



Special Features:

- Ceramic insulation on inner sheath for burn resistance
- Exchangeable inner sheath for easy handling
- Sheath can be used in combination with Working Elements 27040 and 27050
- Rotating inner sheath



27050 SL Resectoscope Sheath, including

connecting tube for in- and outflow, **26 Fr.**, oblique beak, **rotating** inner sheath with ceramic insulation,

color code: yellow

27050 XA Inner Sheath, rotating, with ceramic insulation, for use with resectoscope outer sheath of

27050 SL, 26 Fr.

27050 SM

Resectoscope Sheath, including connecting tube for in- and outflow, 28 Fr., oblique beak, rotating inner sheath with ceramic insulation,

color code: black

27050 XB

Inner Sheath, rotating, with ceramic insulation, for use with resectoscope outer sheath of

27050 SM, 28 Fr.



27093 GN

Adaptor, for use with resectoscope outer sheaths and PCN sheaths in conjunction with evacuators and bladder syringes



27040 LB

Adaptor, for use with Telescopes 27293 AA and 27292 AMA with resectoscope outer sheaths of 27040 SL/SD and 27050 SL



27094 BY

Adaptor, for use with resectoscope sheaths

and optical forceps

000

The resectoscope sheaths can be used with unipolar and bipolar working elements. Obturators see pages 65-66

Resectoscope Sheaths with Rotating Inner Sheaths and Click Mechanism

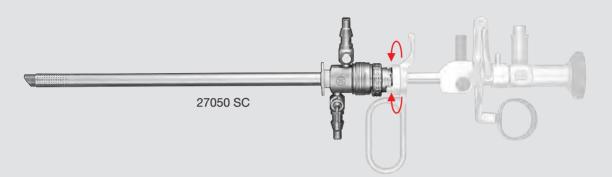
for Continuous Flow Irrigation and Suction



Special Features:

27050 CA

- Easier to handle thanks to stable click mechanism
- Sheath can be connected in any position
- Ceramic insulation on inner sheath for burn resistance
- Rotating inner sheath
- Exchangeable inner sheath for easy handling
- Sheaths can be used in combination with Working Elements 27040 and 27050



27050 SC	Resectoscope Sheath, including
	connecting tubes for in- and outflow,
	26 Fr., oblique beak, rotating inner
	sheath with ceramic insulation,
	quick-release lock,
	color code: yellow

Inner Sheath, rotating, with ceramic insulation, for use with resectoscope outer sheath of 27050 SC, 26 Fr.

27050 SD

27050 CB

Resectoscope Sheath, including connecting tubes for in- and outflow, 28 Fr., oblique beak, rotating inner sheath with ceramic insulation, quick-release lock, color code: black

Inner Sheath, rotating, with ceramic insulation, for use with resectoscope outer sheath of 27050 SD, 28 Fr.



The resectoscope sheaths can be used with unipolar and bipolar working elements. Obturators see pages 65-66

64 RES 18 E

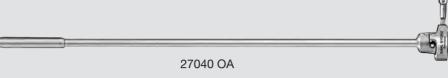
Accessories

Obturators



For use with 24 - 28 Fr. resectoscope sheaths

Standard Obturators



27040 OA Standard Obturator, for 27/28 Fr. Sheaths 27040 AO, 27241 AO, 27240 AO, 27040 SM, 27050 SM/SD,

color code: black

27040 OB Standard Obturator, for 27 Fr. Sheaths

27040 AK, 27241 AK, color code: black

27040 OC Standard Obturator, for 24/26 Fr. Sheaths 27040 BO,

27241 BO, 27240 BO, 27040 SD/SL, 27050 SL/SC,

color code: yellow

27040 OD Standard Obturator, for 24 Fr. Sheaths

27040 BK, 27241 BK, color code: yellow

Deflecting Obturators



27048 AK Deflecting Obturator, for 27 Fr. Sheaths

27040 AK, 27241 AK, color code: black

27048 CO Deflecting Obturator, for 27/28 Fr. Sheaths 27040 AO,

27241 AO, 27240 AO, 27040 SM, 27050 SM/SD,

color code: black

Deflecting Obturator, for 24 Fr. Sheaths 27048 BK

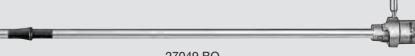
27040 BK, 27241 BK, color code: yellow

27048 CK Deflecting Obturator, for 24/26 Fr. Sheaths 27040 BO,

27241 BO, 27240 BO, 27040 SD/SL, 27050 SL/SC,

color code: vellow

LEUSCH Atraumatic Distending Obturators



27049 BO

LEUSCH Atraumatic Distending Obturator, 27049 AO

for 27/28 Fr. Sheaths 27040 AO, 27241 AO, 27240 AO, 27040 SM, 27050 SM/SD,

color code: black

27049 BO **LEUSCH Atraumatic Distending Obturator,**

for 24/26 Fr. Sheaths 27040 BO, 27241 BO, 27240 BO, 27040 SD/SL, 27050 SL/SC,

color code: yellow

RES 19 E

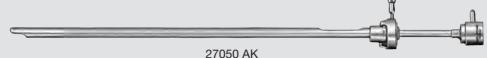
Accessories

Visual Obturators





SCHMIEDT Visual Obturators



27050 AK

SCHMIEDT Visual Obturator,

for 27/28 Fr. sheaths

SCHMIEDT Visual Obturator, 27050 BK

for 24/26 Fr. sheaths

SCHMIEDT Visual Obturators, with channel for flexible instruments



27051 A

SCHMIEDT Visual Obturator, with channel for flexible instruments, for 27/28 Fr. sheaths,

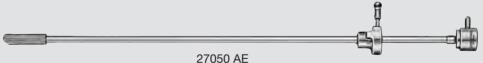
working channel 9 Fr.

27051 B

SCHMIEDT Visual Obturator, with channel for flexible instruments, for 24/26 Fr. sheaths,

working channel 6 Fr.

ESHGI Visual Obturators



27050 AE

ESHGI Visual Obturator,

for 27/28 Fr. sheaths

27050 BE

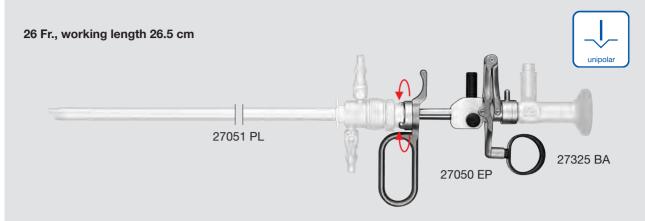
ESHGI Visual Obturator,

for 24/26 Fr. sheaths

Resectoscopes, extra long

Telescope, Working Element and Electrodes





27325 BA

HOPKINS® Forward Oblique Telescope 30°, diameter 3.5 mm, autoclavable, fiber optic light transmission incorporated, color code: red

Cutting by means of a spring Movable thumb ring

In rest position the electrode is inside the sheath.

27050 EDC	Electrotomo
27050 EPS	Electrotome

including:	
27050 EP	Working Element
2x 27050	Cutting Loop
2x 27050	Coagulating Electrode
2x 277	High Frequency Cord
280 L	Protection Tube

Cutting by means of a finger grip Movable thumb ring

In rest position the electrode is outside the sheath.

27050 DPS	Electrotome	
	including:	
	27050 DP	Working Element
	2x 27050 GP	Cutting Loop
	27050 LP	Coagulating Electrode
	27050 NP	Coagulating Electrode
	27224 A	Connector with Tube
	2x 277	High Frequency Cord
	280 L	Protection Tube



27050 GP

Distal Tip	24/26 Fr. color code: yellow-blue	Instrument Description
	27050 GP	Cutting Loop, angled
	27050 LP	Coagulation Electrode, pointed
6	27050 NP	Coagulation Electrode, ball-shaped, diameter 3 mm

High Frequency Cords see page 73

High Frequency Surgical Units see chapter 15, UNITS

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



We will gladly provide an extra long resectoscope on loan.

Please contact our customer services team to arrange an offer to suit your needs.

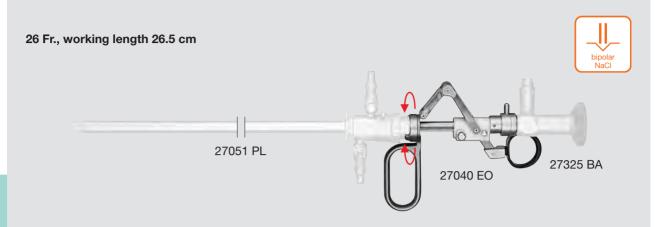
10-14

RES 21 E

Resectoscopes, extra long

Telescope, Working Element and Electrodes





27325 BA

HOPKINS® Forward Oblique Telescope 30°, diameter 3.5 mm, autoclavable, fiber optic light transmission incorporated, color code: red

Cutting by means of a spring Movable thumb ring

In rest position the electrode is inside the sheath.

27040 EOH **Electrotome,** bipolar, extended length

including: 27040 EO

27040 GPO1 Cutting Loop
 27040 BLO1 Coagulation Electrode
 27040 NBO Vaporization Electrode
 27176 LEB Bipolar High Frequency

Working Element

Cord

280 L Protection Tube

Cutting by means of a finger grip Movable thumb ring

In rest position the electrode is outside the sheath.

27040 DOH **Electrotome**, bipolar, extended length

including:

27040 DO Working Element
27040 GPO1 Cutting Loop
27040 BLO1 Coagulation Electrode

27040 NBO Vaporization Electrode
27176 LEB Bipolar High Frequency

Cord

280 L Protection Tube



27040 GPO1

Distal Tip	24/26 Fr. color code: yellow	Instrument Description
	27040 GPO1	Cutting Loop, bipolar, extended length
	27040 BLO1	Coagulation Electrode, bipolar, extended length, pointed
	27040 NBO	Vaporization Electrode HALF MOON®, bipolar, extended length, ball-shaped

High Frequency Cords see page 73

High Frequency Surgical Units see chapter 15, UNITS

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



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Please contact our customer services team to arrange an offer to suit your needs.

10-14

68 RES 22 E

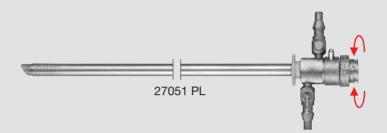
Resectoscope Sheath and Obturator



26 Fr., working length 26.5 cm

Resectoscope sheaths with rotating inner sheath

for continuous irrigation and suction



27051 PL Resectoscope Sheath, including connecting tubes

for in- and outflow, **26 Fr.**, oblique beak, **rotatable** inner sheath with ceramic insulation, for use with Working Elements 27050 EP/DP and 27040 EO/DO,

color code: yellow

27051 XA **Inner Sheath, rotating,** with ceramic insulation, for use

with resectoscope outer sheath of 27051 PL, 26 Fr.

27040 BB **Standard Obturator,** for Resectoscope Sheath 27051 PL,

color code: yellow

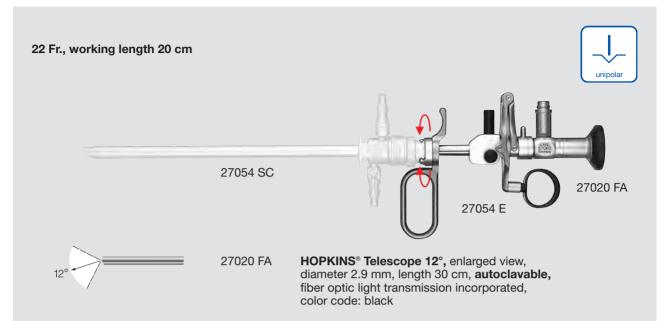


We will gladly provide an extra long resectoscope on loan. Please contact our customer services team to arrange an offer to suit your needs.

Resectoscopes, slender

Telescope, Working Element and Electrodes





Cutting by means of a spring Movable thumb ring

In rest position the electrode is inside the sheath.

27054 ES	Electrotome	
	including:	
	27054 E	Working Element
	2x 27054 G	Cutting Loop
	27054 L	Coagulation Electrode
	27054 N	Coagulation Electrode
	2x 277	High Frequency Cord
	280	Protection Tube



Distal Tip	19/22 Fr. color code: white	Instrument Description
	27054 G	Cutting Loop, angled
	27054 L	Coagulation Electrode, knife-shaped
	27054 N	Coagulation Electrode, ball-shaped

High Frequency Cords see page 73 High Frequency Surgical Units see chapter 15, UNITS

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Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



We will gladly provide a thin resectoscope on loan.

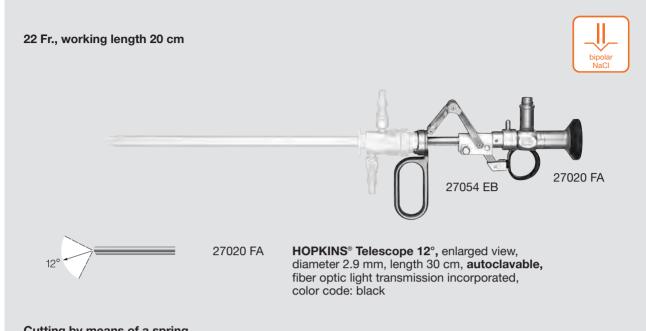
Please contact our customer services team to arrange an offer to suit your needs.

9

Resectoscopes, slender

Telescope, Working Element and Electrodes

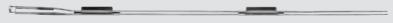




Cutting by means of a spring Movable thumb ring

In rest position the electrode is inside the sheath.

27054 EBH	Electrotome	
	including:	
	27054 EB	Working Element
	2x 27054 GP1	Cutting Loop
	27054 BL1	Coagulation Electrode
	27054 NB1	Vaporization Electrode
	27176 LEB	High Frequency Cord
	280	Protection Tube



27054 GP

Distal Tip	19/22 Fr. color code: white	Instrument Description
	27054 GP1	Cutting Loop, bipolar
	27054 BL1	Coagulation Electrode, bipolar, pointed
	27054 NB1	Vaporization Electrode HALF MOON®, bipolar, ball-shaped

High Frequency Cords see page 73

High Frequency Surgical Units see chapter 15, UNITS

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



We will gladly provide a thin resectoscope on loan.

Please contact our customer services team to arrange an offer to suit your needs.

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RES 25 71

Resectoscopes, slender

Resectoscope Sheaths and Obturators

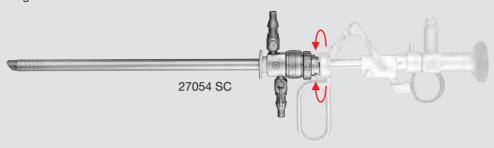


22 Fr., working length 20 cm

Sheaths can be combined with Working Element 27054

Resectoscope sheaths with rotating inner sheath and click mechanism

for continuous irrigation and suction



27054 SC Resectoscope Sheath, including connecting tubes

for in- and outflow, 22 Fr., oblique beak, **rotatable** inner sheath with ceramic insulation, quick-release lock, for use with Working Elements 27054xx,

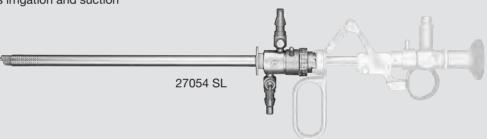
color code: white

27054 CB **Inner Sheath, rotating,** with ceramic insulation, for use

with resectoscope outer sheath of 27054 SC, 22 Fr.

Resectoscope sheaths with fixed inner sheath

for continuous irrigation and suction



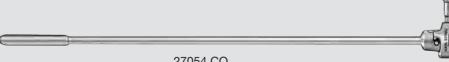
27054 SL Resectoscope Sheath, including connecting tube

for in- and outflow for continuous irrigation and suction, 22 Fr., oblique beak, **fixed** inner sheath with ceramic insulation, for use with Working Element 27054xx,

color code: white

27054 XB Inner Sheath, fixed, with ceramic insulation, for use

with resectoscope outer sheath of 27054 SL, 22 Fr.



27054 CO

27054 CO **Standard Obturator,** for use with

Resectoscope Sheath 27054 SC/SL,

color code: white



We will gladly provide a thin resectoscope on loan.

Please contact our customer services team to arrange an offer to suit your needs.

72 RES 26

High Frequency Cords



Unipolar High Frequency Cords, for use with Working Elements 27050 C/D/E/EP, 27054 E, 27053 E and 27033 E



KARL STORZ High Frequency Instrument Surgical Units

	277	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for use with models KARL STORZ and Erbe type T, older models
	277 A	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for use with Martin HF units
	277 KE	Unipolar High Frequency Cord, with 5 mm plug, length 300 cm, for use with AUTOCON®II 400 SCB (111, 115, 122, 125), AUTOCON®II 200, AUTOCON®II 80, AUTOCON® (50, 200, 350) and Erbe type ICC
	277 KB	Unipolar High Frequency Cord, with 8 mm plug, length 300 cm, for use with models AUTOCON® II 400 SCB system (112, 116) and Valleylab

Bipolare High Frequency Cords, for use with Working Elements 27040 DB/EB and 27054 EB



KARL STORZ High Frequency Instrument Surgical Units



27176 LEB

Bipolar High Frequency Cord, for AUTOCON®II 400 SCB system (high-end), length 300 cm, for use with bipolar resectoscopes

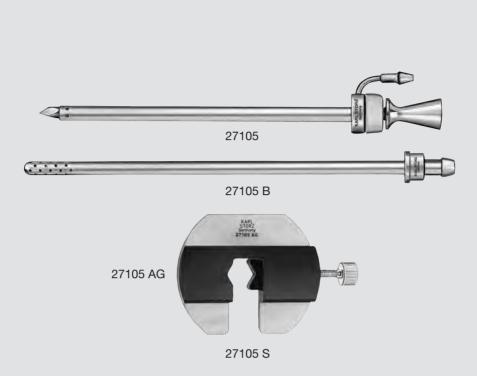
-033

Please note:

All high frequency cords are delivered with a length of 300 cm. If a length of 500 cm is requested please add the letter $\bf L$ to the part number, e. g. 277 KE $\bf L$

High Frequency Surgical Units see chapter 15, UNITS





27105 S REUTER **Trocar,** for suprapubic aspiration

including:

27105 REUTER **Trocar,** 18 Fr.

27105 AG Fixation Disc

27105 B Aspiration Insert Tube



27105 F REUTER **Sheath,** sides open, to insert catheters up to 14 Fr.







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100	WORKING ELEMENTS FOR PROSTATE VAPORIZATION	84-86
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LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment





20 Watt LASER Power

The brand CALCULASE II SCB stands for a cost-effective and efficient Holmium: YAG-LASER system for endoscopic LASER lithotripsy.



Soft Tissue Treatment

The system can be used for, among others, soft tissue treatment such as ureteropelvic junction stenosis and the ablation of urethral carcinoma.



Diverse LASER Fibers and Instruments

KARL STORZ offers LASER fibers in various sizes (230, 365 and 600 μm) for both single and multiple use. Together with its wide range of rigid and flexible uretero-renoscopes equipped with fiber optic and sensor technology as well as the MIP product family, KARL STORZ offers the ideal complete solution for stone therapy and soft tissue treatment.



Automatic Fiber Detection

This feature enables automatic adjustment of energy settings to the fiber sizes and, consequently, prevents damage to the fibers or the unit itself.



Mobility

Its compact design makes CALCULASE II SCB a very versatile and mobile system. Thanks to its innovative handles, the LASER system can easily be placed on the urological equipment cart and moved from one OR to the next.

Alternatively, the LASER system can be placed on an equipment cart specially designed for this purpose and transported as required.

LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment



LASER System for the Treatment of Bladder, Ureter and Kidney Stones and for opening stenoses/strictures as well as tumor ablations

Special Features:

- Extremely fast lithotripsy
 - High success rate independent of stone composition
 - Rapid stone destruction
 - Lithotripsy under endoscopic control
- 20 Watt for effective and precise treatment:
 Precise cutting effect in the case of stenoses
 - Individually selectable parameters (pulse frequency and intensity)
 - Least possible tissue damage
- Automatic fiber detection:
 - High user-friendliness
 - Automatically controlled energy output
 - Increased safety

- Special design:
 - Mobile desktop housing
 - Integrated low-noise cooling system
 - For use on endoscopic equipment carts
- Green pilot laser: Good visibility even in challenging situations
- For use with rigid, semiflexible and flexible endoscopes
- With connection possibilities to the KARL STORZ Communication Bus (KARL STORZ-SCB)



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URO-LAS 1 A 79

Holmium LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment, Recommended Standard Set Configuration





27 7502 01-1 CALCULASE II SCB, Holmium LASER system,

with KARL STORZ-SCB, power supply 230 VAC, 50/60 Hz

including:

Mains Cord

One-Pedal Footswitch

Key Set

Remote Interlock Connector

Safety Goggles Ho:YAG LASER, 2080 nm

SCB Connecting Cable, length 100 cm

Ion Exchanger

27 7502 01U1 Same, power supply 115 VAC, 50/60 Hz

Please note:

Each lithotripsy system requires a separate basic fiber set: 27 7502 87 or 27 7502 86.

Parameters for 230 µm Fibers

Enormy	Frequency				
Energy	4 Hz	6 Hz	8 Hz	10 Hz	15 Hz
0.5 J	2 W	3 W	4 W	5 W	-
0.8 J	3.2 W	4.8 W	6.4 W	8 W	-
1.2 J	4.8 W	7.2 W	9.6 W	12 W	_
1.7 J	-	_	-	_	-
2 J	-	_	-	_	_

Parameters for 365 μm and 600 μm Fibers

Energy	Frequency				
	4 Hz	6 Hz	8 Hz	10 Hz	15 Hz
0.5 J	2 W	3 W	4 W	5 W	7,5 W
0.8 J	3.2 W	4.8 W	6.4 W	8 W	12 W
1.2 J	4.8 W	7.2 W	9.6 W	12 W	18 W
1.7 J	6.8 W	10.2 W	13.6 W	17 W	-
2 J	8 W	12 W	16 W	20 W	-

Parameter settings are selected via the LASER fiber code.

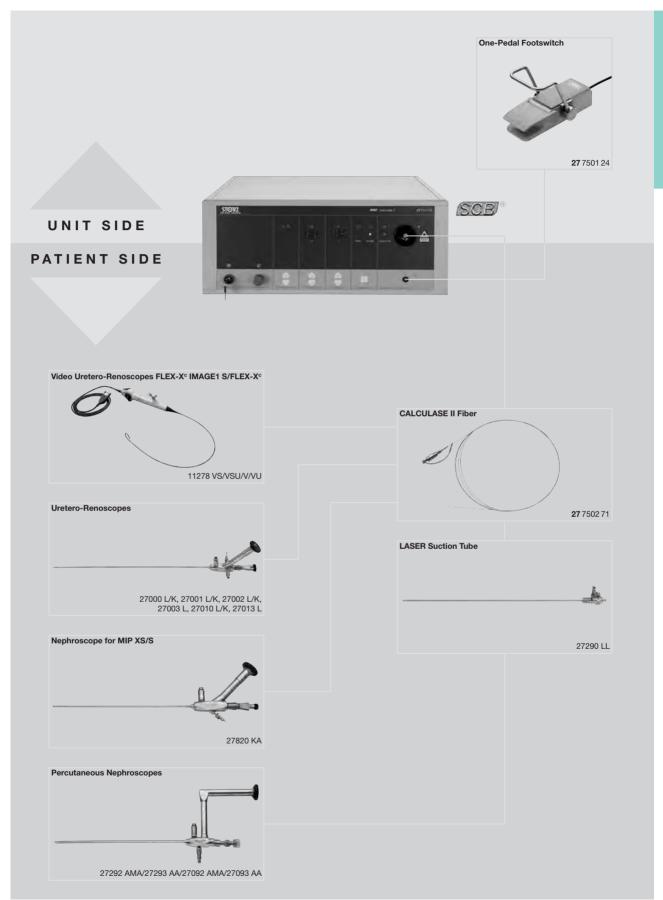
Components/Spare Parts see chapter 16

9-121

80 URO-LAS 2 B











Fiber Sets, reusable



27 7502 71-P6 **CALCULASE II Fiber 230 μm,** reusable,

sterile, length 300 cm, package of 6

27 7502 72-P6 **CALCULASE II Fiber 365 μm,** reusable, sterile, length 300 cm, package of 6

27 7502 73-P6 CALCULASE II Fiber 600 μm, reusable, sterile, length 300 cm, package of 6

27 7502 87 CALCULASE II Fiber Kit

including:

3x CALCULASE II Fiber 230 μm, reusable 3x CALCULASE II Fiber 365 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable

Fiber Sets, for single use



27 7502 77-P6 **CALCULASE II Fiber 230 μm,** for single use,

sterile, length 300 cm, package of 6

 $\boldsymbol{27}\,7502\,78\text{-P6}\,$ CALCULASE II Fiber 365 μm , for single use,

sterile, length 300 cm, package of 6

27 7502 79-P6 CALCULASE II Fiber 600 µm, for single use, sterile, length 300 cm, package of 6

27 7502 86 CALCULASE II Fiber Kit

including:

3x CALCULASE II Fiber 230 μm , for single use, sterile 3x CALCULASE II Fiber 365 μm , for single use, sterile 3x CALCULASE II Fiber 600 μm , for single use, sterile

Further accessories



27 7500 82 Fiber Cutter



27 7500 81

Fiber Stripper



27 7502 80

Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers

including:
Silicone Pad

Ceramic Knife

Fiber Strippers 230, 365 and 600 µm



27 7500 95

Safety Goggles Ho:YAG LASER, 2080 nm

The CALCULASE II fibers above are compatible with the previous model CALCULASE (27 7501 20-1).

Components/Spare Parts see chapter 16

Equipment Cart



Special Features:

- Flexible use of CALCULASE II SCB in various ORs
- Spacious storage room for accessories and expendable materials in two lockable drawers (LASER safety goggles or LASER fibers)
- Integrated cable winding and footswitch holder maintain an uncluttered OR
- Easy to transport due to large, smooth-running and antistatic dual wheels
- Powder-coated panels and shelves meet the most stringent quality and hygiene standards



UG 210

Equipment Cart, wide, small, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, energy beam with integrated electrical subdistributors with 6 sockets, grounding plugs,

Dimensions:

Equipment cart: 830 x 1265 x 730 mm (w x h x d),

Shelf: 630 x 25 x 510 mm (w x h x d),

Caster diameter: 150 mm

including:

Base Module, equipment cart, wide

Cover, equipment cart, wide

Beam Package, equipment cart, small

Shelf, wide

2x Drawer Unit with Lock, wide

2x Equipment Rail, long

Components/Spare Parts see chapter 16

HOPKINS® Telescope

with Integrated Greenlight Filter



Diameter 4 mm, length 30 cm

Special Features:

- Integrated greenlight filter to protect the camera
- No obtrusive filter between the camera and the eyepiece



27005 BGA



27005 BGA

Greenlight Filter HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, with integrated greenlight filter and fiber optic light transmission incorporated, color code: red

HOPKINS® Telescope 27005 BGA can be used in combination with standard urological instruments from KARL STORZ. The eyepieces of all telescopes with an integrated greenlight filter are color-coded greenwhite.

Light Cable see catalog TELEPRESENCE

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Continuous-Flow LASER Cystoscope 23 Fr.





Increasing our Commitment to Urology with a New LASER Cystoscope

The continuous-flow LASER cystoscope provides you with the benefits and the quality that you expect from KARL STORZ.

- The 23 Fr. sheath with rounded tip design provides easy, atraumatic access to the entire lower urinary tract
- The large 7.5 Fr. working channel allows the use of many catheters and instruments, including most side-firing LASER probes.
- Optimal continuous-flow design keeps the field of view clear, while providing cooling during LASER
- The use of a standard HOPKINS® telescope provides superb image clarity, accuracy and brightness.
- Sheath tip design protects LASER fibers from accidental tissue contact, while minimizing obstruction of view due to bubbles or particulates.

The continuous-flow LASER cystoscope is the ideal instrument for the use of LASER fibers in the urethra, bladder or prostrate or whenever the benefits of the continuous-flow system is desired in cystoscopy.



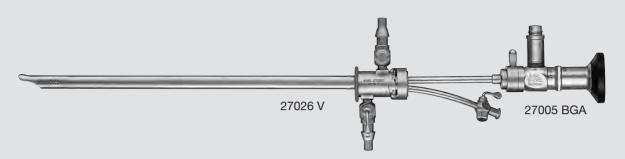
Continuous-Flow LASER Cystoscope

for Prostate Vaporization and Ablation of Bladder Tumors



23 Fr., working length 21 cm

For use with HOPKINS® Forward-Oblique Telescopes 27005 BA/BGA





27005 BGA Gree

Greenlight Filter HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm,

length 30 cm, **autoclavable**, with integrated greenlight filter and fiber optic light transmission incorporated,

color code: red



27026 V

LASER Cystoscope-Urethroscope Sheath, 23 Fr.,

with continuous irrigation, with 7.5 Fr. working channel,

color code: blue including:

27026 VA **Outer Sheath,** 23 Fr.

27026 VI Inner Sheath, with 7.5 Fr. working channel

27026 OV **Obturator**



27026 VS

Visual Obturator, for use with Outer Sheath 27026 VA

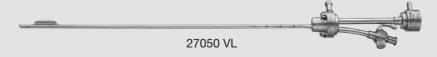


27026 VY

LASER Cystoscope Adaptor, for the fixation and mobilization of LASER fibers (greenlight LASER), for use with continuous-flow LASER cystoscopes

Special Features:

- Instrument port angled at the 4 o'clock position simplifies the manipulation of LASER fibers
- Suitable for use with LASER fibers up to an outer diameter of 7 Fr.
- Compatible with Adaptor 27026 VY, to protect telescopes and sheaths from damage (when using greenlight LASER fibers from the company AMS)



27050 VL

LASER Working Insert for Vaporization, with 7.5 Fr. working channel, for use with 24/26 and/or 27/28 Fr. resectoscope sheaths

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Working Element

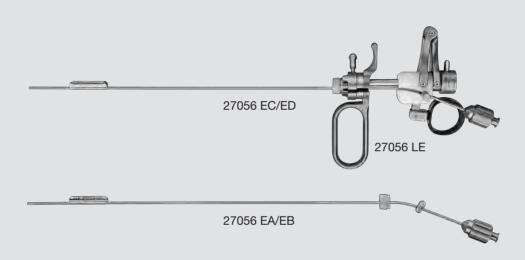
with Exchangeable LASER Probes, for Enucleation of the Prostate



For use with 24/26 and 27/28 Fr. resectoscope sheaths and HOPKINS® Telescopes 27005 BA/BGA/FA

Special Features:

- Manipulation of the LASER fibers via a working element as in standard prostate resection
- Various exchangeable LASER probes
- Ideal adaptation to the needs of the surgeon and to the LASER fibers used (various diameters)
- Significantly reduced repair and bridging times in the case of damaged LASER guide probes as these can be easily replaced on-site
- Optional: Retracting beaks can be used to hold back the prostrate tissue and guarantee a free field of view during enucleation
- Can be used with all existing KARL STORZ 24/26 and 27/28 Fr. resectoscope sheaths (system conversion, therefore, to a resectoscope is easily possible at any time)



27056 LE	LASER Working Element, for use with exchangeable LASER probes with 24/26 Fr. resectoscope sheaths
27056 EA	LASER Guide Probe, inner diameter 0.8 mm, exchangeable, for use with LASER Working Element 27056 LE
27056 EB	LASER Guide Probe, inner diameter 1.5 mm, exchangeable, for use with LASER Working Element 27056 LE
27056 EC	LASER Guide Probe, with retracting beaks, inner diameter 0.8 mm, exchangeable, for use with LASER Working Element 27056 LE
27056 ED	LASER Guide Probe, with retracting beaks, inner diameter 1.5 mm, exchangeable, for use with LASER Working Element 27056 LE

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URO-LAS 9 B 87

Working Insert

for Precise Guidance of LASER Probes, for Enucleation of the Prostate



For use with HOPKINS® Forward-Oblique Telescope 27005 BA

Working elements with a sliding carriage and fixation screw enables precise guidance of the LASER probes. This allows precise LASER therapy.

The working elements can be used with 24/26 Fr. Resectoscope Sheaths 27040 SL and 27050 SL.

Special Features:

- Cutting by means of a spring
- Eliminates the risks associated with the complex handling of manually guided probes up to now. Long cooling breaks are no longer necessary.
- Facilitates exact adjustment to the structures to be treated
- Enhanced user and patient safety



27056 LA

KUNTZ **Working Element,** for use with resectoscope sheaths 24/26 Fr. 27040 SL, 27050 SL and LASER probes up to 0.8 mm

27056 LB

Same, LASER probes up to 1.5 mm

For use with 24/26 and 27/28 Fr. resectoscope sheaths and HOPKINS® Telescopes 27005 BA/BGA/FA

Special Features:

- Instrument port angled at the 4 o'clock position simplifies the manipulation of LASER fibers
- Suitable for use with LASER fibers up to an outer diameter of 7 Fr.



27050 VL

LASER Working Insert for Enucleation, with 7.5 Fr. working channel, for use with 24/26 and/or 27/28 Fr. resectoscope sheaths

Curette, for use with Working Elements 27050



27050 KL

Curette for Tissue Ablation, 24/26 Fr., for use with Working Element 27050

9-12

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GILLING Holmium LASER Enucleation of the Prostate

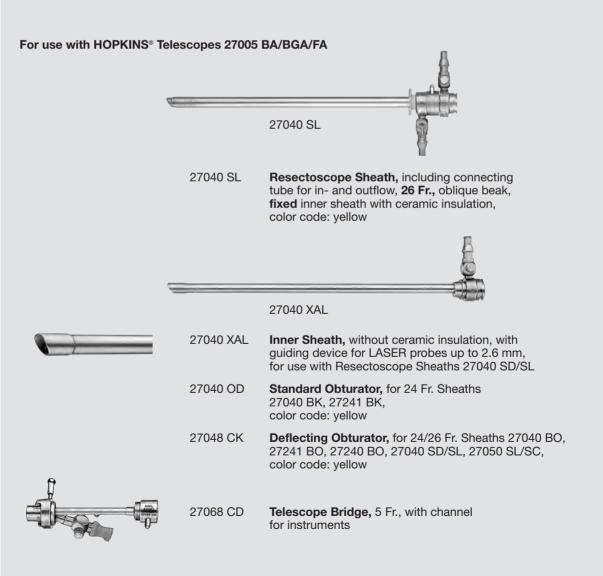


Holmium LASER Enucleation of the Prostate (HoLEP) is an emerging surgical treatment for Benign Prostatic Hyperplasia. The procedure involves triradiate bladder neck incisions and the retrograde enucleation of the median and both lateral lobes of the prostate using the existing surgical planes. The procedure is the endourological equivalent of open prostatectomy and surpasses standard transurethral electrocautery resection

(TURP) in the amount of tissue retrieved, intraoperative blood loss, catheter time and hospital stay. Urodynamically, it is superior to TURP for the relief of Bladder Outflow Obstruction (BOO). The equipment includes a modified inner sheath to stabilize the LASER fiber – generally placed within a ureteric catheter – a standard continuous-flow resectoscope sheath, telescope and bridge for the enucleation.

Special Features:

- Continuous-flow LASER Sheath for a precise guidance of flexible LASER probes
- Large 5 Fr. working channel allows the use of LASER probes up to 1.6 mm
- Guidance of the LASER probe up to the distal tip
- Optimal continuous flow design keeps field very clear, while providing cooling during LASER use



2-081

URO-LAS 11 A 89



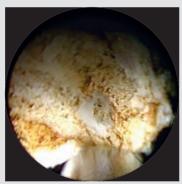


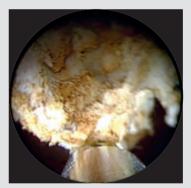
LASER surgery is a crucial part of today's urological treatment and an alternative to transurethral HF resection. Our instruments for the vaporization and enucleation of the prostrate provide the benefits and quality that you expect from KARL STORZ. With the morcellator, KARL STORZ has expanded its range of LASER products to provide an effective instrument for the removal of prostate tissue following enucleation of the prostate. Greater patient safety due to adjustable

constant pressure in the bladder during morcellation as well as effective suction of tissue fragments ensures fast and efficient reduction of the prostate tissue. Continuous removal of tissue fragments provides an unobstructed endoscopic view during morcellation. The combination of instruments and units offered by KARL STORZ makes it easier to perform successful minimally invasive procedures.











Handpiece 27 7020 50, for use with UNIDRIVE® S III SCB

Special Features:

- Ergonomic handpiece design, fits comfortably in the hand
- Detachable handle individual, ergonomic, flexible positioning
- Rapid coupling for blade fixation enables easy handling and rapid set-up
- Powerful motor

- Absolutely silent running
- Central, straight suction channel
- Easy hygienic processing, suitable for use in a cleaning machine and autoclavable at 134 °C
- Activation via the footswitch of the UNIDRIVE® S III motor system



27 7020 50 DrillCut-X® II Morcellator Handpiece URO, for use with UNIDRIVE® S III SCB



40 7120 90 **Handle,** adjustable, for use with DrillCut-X® II Morcellator Handpiece URO **27** 7020 50



Cleaning Adaptor, LUER-Lock, for cleaning DrillCut-X® II morcellator handpieces

For use with DrillCut-X®II Morcellator Handpiece URO

- Reusable
- Inner and outer blades can be cleaned separately
- Autoclavable
- With horizontal oscillation inner blade



27056 LM



27056 LM

41250 RA

Morcellator Blade, straight, sterilizable, drop-shaped cutting window, outer window serrated, inner window double fenestrated and serrated, diameter 4 mm, length 40 cm, for use with DrillCut-X® II Morcellator Handpiece URO **27** 7020 50



41200 RA

Cleaning Adaptor, LUER-Lock, for cleaning the inner and outer blades

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URO-LAS 13 A 91

UNIDRIVE® S III SCB



For use with DrillCut-X® II Morcellator Handpiece URO 27702050

Special Features:

- Maximum number of revolutions can be preset
- Consistently high motor performance over the entire range of revolutions
- Processor-controlled number of revolutions and motor torque
- Optimized user control
- Operating elements are simple and clear to read
- Automatic handpiece recognition
- Integrated control connection for KARL STORZ pump systems in combination mode
- For use with: DrillCut-X®II URO Morcellator Handpiece
- With connections to the KARL STORZ Communication Bus (KARL STORZ-SCB)



27 7010 01-1 **UNIDRIVE® S III SCB,** power supply 100 – 120/230 – 240 VAC, 50/60 Hz

including:

Mains Cord

One-Pedal Footswitch, two-stage

SCB Connecting Cable, length 100 cm

Specifications:

Operation mode	oscillating (morcellator)
Max. rpm	40,000 (rpm) Blade 500 – 5000 (rpm)
Power Supply	100-120/230-240 VAC, 50/60 Hz

Dimensions w x h x d	305 x 165 x 233 mm
Weight	4 kg
Certified to	IEC 601-1, CE acc. to MDD

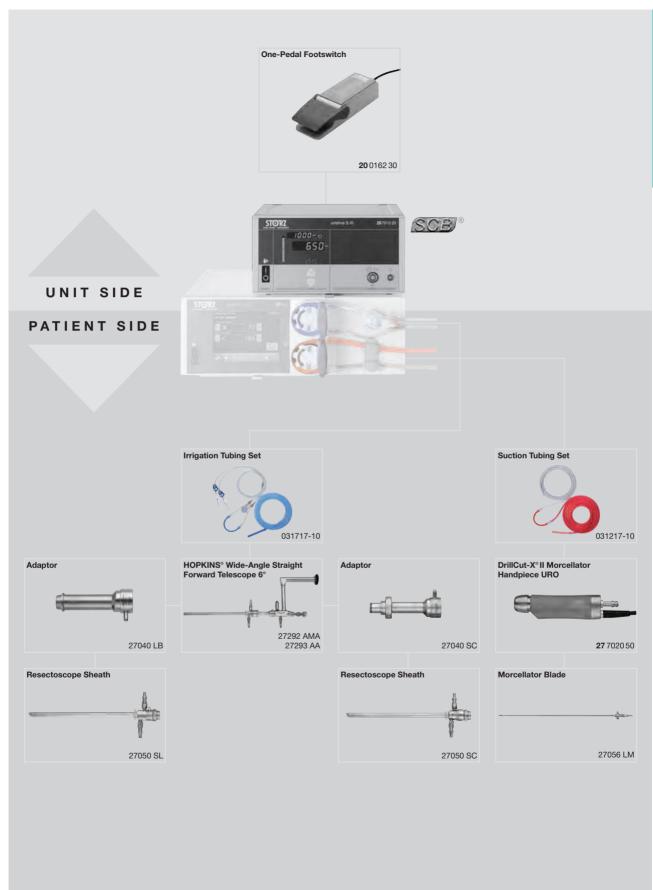
For further information see chapter 15, UNITS

Components/Spare Parts see chapter 16

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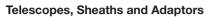




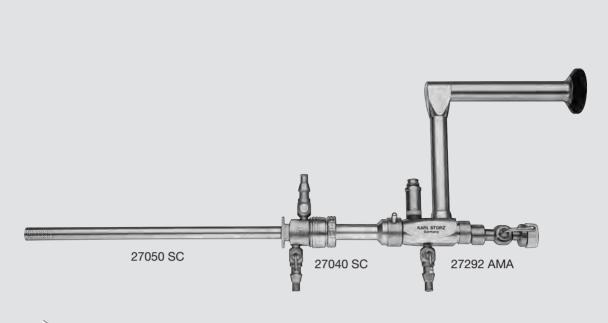


10-14

URO-LAS 15 A 93









27292 AMA

HOPKINS® Wide-Angle Straight Forward Telescope 6°, with parallel eyepiece, autoclavable, fiber optic light transmission incorporated with working channel, with LUER-Lock connection for inflow, color code: green-red

or

27293 AA

HOPKINS® Wide-Angle Straight Forward Telescope 6°, with angled eyepiece, autoclavable, fiber optic light transmission incorporated with working channel, with LUER-Lock connection for inflow, color code: green-red

Sheath		Adaptor			
27050 SC	Resectoscope Sheath, 26 Fr., with rotating inner sheath with ceramic insulation, quick-release lock	27040 SC	Adaptor, for use with Telescopes 27293 AA and 27292 AMA with resectoscope sheaths of 27050 SC/SD		
27050 SD	Resectoscope Sheath, 28 Fr., with rotating inner sheath, quick-release lock				
27050 SL	Resectoscope Sheath, 26 Fr., with rotating inner sheath with ceramic insulation	27040 LB	Adaptor, for use with Telescopes 27293 AA and 27292 AMA with resectoscope outer sheaths of 27040 SI /SD and 27050 SI		
27050 SM	Resectoscope Sheath, 28 Fr., with rotating inner sheath with ceramic insulation		21040 SL/SD and 21030 SL		

UROMAT E.A.S.I.® SCB



Special Features:

- Effective suction of tissue fragments
- Control/activation of both units via a one-pedal footswitch
 - 1. step = pump activation; suctioning of tissue fragments
 - 2. step = activation of morcellator while pump is activated
- Adjustable constant pressure inside the bladder during morcellation for greater patient safety
- With connection possibilities to KARL STORZ Communication Bus (KARL STORZ-SCB)



UP410 S1

UP410 S1 UROMAT E.A.S.I.® SCB, power supply 100 – 240 VAC,

50/60 Hz, UROMAT E.A.S.I.® SCB ready, compatible from

RUI Release 45

including:

SCB Connecting Cable, length 100 cm

Basic Tubing Set*, for single use

Control Cable

Accessories:

031717-10* Irrigation Tubing Set, with two puncture needles, for single use,

sterile, package of 10, for use with HYSTEROMAT E.A.S.I.® SCB

and UROMAT E.A.S.I.® SCB

031217-10* **Suction Tubing Set,** for single use, sterile, package of 10, for use

with HYSTEROMAT E.A.S.I.® SCB and UROMAT E.A.S.I.® SCB

031767-10* **Pump Tubing Day Set,** with two puncture needles, sterile,

package of 10, for use with HYSTEROMAT E.A.S.I.® SCB

and UROMAT E.A.S.I.® SCB in combination with

Patient Tube 031162-01

031162-10* **Patient Tube,** for single use, sterile, package of 10,

for use with Pump Tubing Day Set 031767-01

Specifications:

Flow-regulated Irrigation pressure	depending on mode adjustable 20-200 mmHg	Dimensions w x h x d	447 x 155 x 313 mm
Suction	100-1800 ml/min suction power	Weight	8.8 kg
Power supply	100-240 VAC, 50/60 Hz	Certified to	IEC 60601-1, CE acc. to MDD



For further information see chapter 15, UNITS

Components/Spare Parts see chapter 16

10-14

URO-LAS 17 A 95





Photodynamic Diagnosis (PDD)

	AND DESCRIPTION OF THE PERSON
HOPKINS® TELESCOPES	100
VIDEO CYSTO-URETHROSCOPES	
FOR PHOTODYNAMIC DIAGNOSIS	3 101-105
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Photodynamic Diagnosis (PDD) – Early Detection, Diagnosis, Therapy and Treatment of Bladder Carcinoma





The successful technology of photodynamic diagnosis and treatment of tumour cells has been under continuous development since the beginning of the 1980s.

The KARL STORZ portfolio provides urological outpatient clinics and doctor's offices with systems featuring both rigid and flexible endoscopes for PDD diagnosis and treatment.

Several prospective, randomized, multicenter studies have shown that fluorescence-guided procedures are indispensable to the transurethral resection of bladder tumors.

A higher detection rate and a significantly reduced recurrence rate in non-muscle-invasive bladder cancer, particularly in the hard-to-detect carcinoma in situ, demonstrate that PDD is a clear benefit for the patient [1] [2] [3].

National and international guidelines recommend the use of photodynamic diagnosis [4] [5].

The KARL STORZ PDD system is an affordable and easy-to-handle unit in the clinic with harmonized components:

A key element of the PDD system is the high-performance light source (D-LIGHT-C) in combination with a corresponding fluid light cable, special endoscopes, and a PDD-compatible camera unit that is characterized by a particularly high light sensitivity and very good color contrast.

In fluorescence mode, after instillation of hexaminolevulinate, tumor tissue can be distinguished from healthy tissue with a high level of contrast using the blue spectral range of the D-LIGHT-C system due to the significantly higher accumulation in the tumor cells.

Flat neoplastic lesions, such as dysplasia and carcinoma in situ that may be hidden in the normal or non-specifically inflamed mucosa, are easy to recognize. Visualization with pure white light does not permit such accurate differentiation.

The D-LIGHT-C system can be switched from fluorescence mode to white light mode at any time via a footswitch – universal use is therefore possible, even without fluorescence medications.

- Effective early detection, diagnosis, therapy and treatment of tumors
- Target tumor treatment and biopsy
- Enhanced visualization and marking of the tumor margins
- Component compatibility of the KARL STORZ instruments
- Universal application options of the system components
- Patient comfort
- Ease of use

Literature:

- [1] A. Stenzl, M. Burger, Y. Fradet, L. Mynderse, M. Soloway, J. Witjes, M. Kriegmair, A. Karl, Y. Shen and H. Grossman, "Hexaminolevulinate guided fluorescence cystoscopy reduces recurrence in patients with nonmuscle invasive bladder cancer," J Urol, pp. 184(5):1907-13, Nov 2010.
- [2] T. Karaolides, A. Skolarikos, A. Bourdoumis, A. Konandreas, V. Mygdalis, A. Thanos and C. Deliveliotis, "Hexaminolevulinate-induced fluorescence versus white light during transurethral resection of noninvasive bladder tumor: does it reduce recurrences?," Urology, pp. 80(2):354-9, Aug 2012.
- [3] J. Witjes, M. Babjuk, P. Gontero, D. Jacqmin, A. Karl, S. Kruck, P. Mariappan, J. Palou Redorta, A. Stenzl, R. van Velhoven and D. Zaak, "Clinical and cost effectiveness of hexaminolevulinate-guided

- blue-light cystoscopy: evidence review and updated expert recommendations," Eur Urol, pp. 66(5):863-71, Nov 2014.
- [4] M. Babjuk, M. Burger, R. Zigeuner, S. F. Shariat, B. W. van Rhijn, E. Compérat, R. J. Sylvester, E. Kaasinen, A. Böhle, J. P. Redorta and M. Roupret, "EAU guidelines on non-muscle-invasive urothelial carcinoma of the bladder: update 2013," Eur Urol, pp. 64(4):639-53, Oct 2013.
- [5] I. D. DGU, "S-3 Leitlinie Früherkennung, Diagnose, Therapie und Nachsorge des Blasenkarzinoms -AWMF RegNr: 032/038OL," Nov 2016. [Online]. Available: http://leitlinienprogrammonkologie.de/Harnblasenkarzinom.92.0.html. [Access April 2017].

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98 URO-PDD

Photodynamic Diagnosis (PDD) – Early Detection, Diagnosis, Therapy and Treatment of Bladder Carcinoma



Fluorescence endoscopy compared to white light endoscopy for early recognition of urinary bladder carcinomata



Fluorescent Excitation



Small papillary tumor without peritumoral fluorescence (pTaG1)

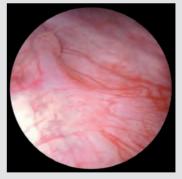


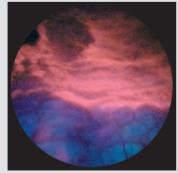
Exophytic tumors of various sizes (pTaG1)



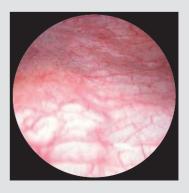


Small exophytic tumor with small satellite tumors





Carcinoma in situ



2-08

URO-PDD 1 A 99

HOPKINS® Telescopes for Photodynamic Diagnosis (PDD)

Fiber Optic Light Transmission Incorporated



Diameter 4 mm, length 30 cm





27005 BIA



27005 FIA

HOPKINS® Telescope 12°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, for photodynamic diagnosis (PDD), fiber optic light transmission incorporated, special filter, color code: black



27005 BIA

HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, for photodynamic diagnosis (PDD), fiber optic light transmission incorporated, special filter, color code: red



27005 CIA

HOPKINS® Lateral Telescope 70°, enlarged view, diameter 4 mm, length 30 cm, autoclavable, for photodynamic diagnosis (PDD), fiber optic light transmission incorporated, special filter, color code: yellow

Recommended light cable for use with HOPKINS® telescopes for photodynamic diagnosis (PDD):



495 FS

Fluid Light Cable, diameter 2 mm, length 220 cm

HOPKINS® Telescopes 27005 FIA/BIA/CIA can be combined with standard urological instruments from KARL STORZ. The eyepieces of all telescopes for photodynamic diagnosis are color-coded blue-white.

D-LIGHT system and cameras for photodynamic diagnosis see catalog TELEPRESENCE

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



for Access to the Entire Intrarenal Collection System through Larger Angles



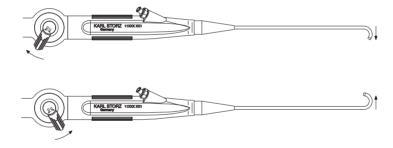
You wouldn't force someone who is left-handed to write with his right hand. Yet many flexible endoscopes impose exactly this type of limitation by forcing their operators to use counter-intuitive deflection mechanisms.

KARL STORZ answers this challenge by offering a choice of deflection mechanisms: either positive or contrapositive. With positive (or "logical") deflection, a downward movement of the lever mechanism causes an upward movement of the endoscope tip, and vice versa. Reverse this orientation by choosing the contra-

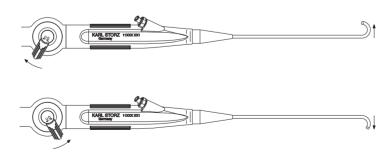
positive mechanism: a downward movement of the lever mechanism now causes a downward movement of the endoscope tip.

Either way, a simple flexion of the thumb on the deflection lever sweeps the endoscope tip into some of the most challenging areas of the anatomy, such as the neck of the bladder and the bladder diverticulum. And the intuitive design means you will never have to struggle to distinguish up from down – or down from up.

Choose the active tip deflection mechanism you are most comfortable with.



Positive deflection mechanism



Contrapositive deflection mechanism

0,0

URO-PDD 3 C 101







- Excellent image quality
- Ideally suited for both diagnosis and aftercare in the urology outpatient clinic or practice
- Optimal biopsy and coagulation options



- Greater patient comfort
 - Sheath circumference of only 16 Fr.
 - Smooth surface for gentle introduction
 - Deflection 210° up and 140° down



- Convenient handling
 - Lightweight, ergonomic handle
 - No focusing necessary
 - Large 6.5 Fr. working channel
 - Versatile accessories
 - Integrated suction unit for rapid draining of bladder



- Better overview due to full-screen display
- Fully automatic light intensity regulation
- Compact documentation terminal

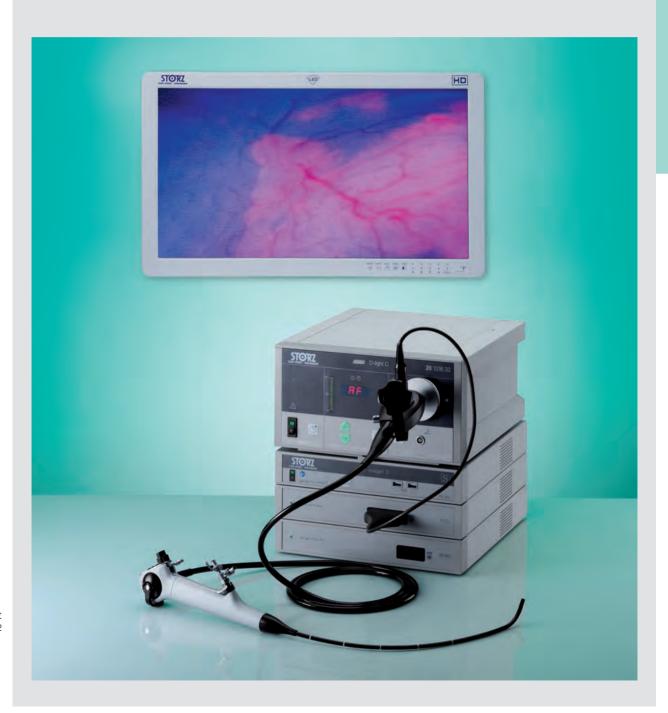


For use with high performance light source D-LIGHT C or D-LIGHT AF



Special Features:

- With additional PDD special filter for photodynamic diagnosis
- Allows use in white light or PDD mode
- 6.5 Fr. working channel
- With integrated suction unit for efficient draining of the bladder
- Sterilizable with EtO and FO gas, Steris® and Sterrad®
- Cysto-urethroscope with distal chip for use with KARL STORZ TELECAM SL II FI and IMAGE1 S



10-14

URO-PDD 5 F 103



6 Fr.							OPAL PDE
Order no.	Video Cysto. Urethroscopes	Deflection of distal tip	Direction of view	Angle of view	Working length	Working channel inner diameter	Sheath size
11272 VPI PAL	for photodynamic diagnosis (PDD) and with contrapositive deflection mechanism	210°	0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNI NTSC	for photodynamic diagnosis (PDD) and with contrapositive deflection mechanism	140°	0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNIU NTSC	for photodynamic diagnosis (PDD) and with contrapositive deflection mechanism		0°	120°	37 cm	6.5 Fr.	16 Fr.

Following accessories are included:

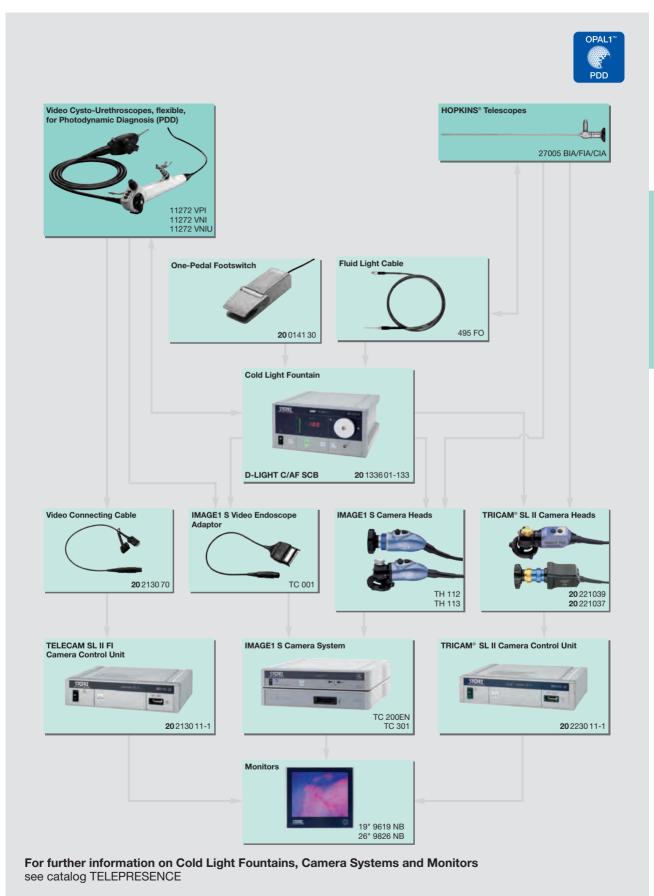
	27677 VC	Case
	27023 FE	Grasping Forceps for small fragments, single action jaws, flexible, 5 Fr., length 73 cm
20111112	27023 ZE	Biopsy Forceps, single action jaws, flexible, 5 Fr., length 73 cm
	11025 E	Pressure Compensation Cap, for ventilation during gas and plasma sterilization
	13242 XL	Leakage Tester, with bulb and manometer
→ (5000) (422111111111111111	27651 B	Cleaning Brush, round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm
	27014 Y	LUER-Adaptor, with seal
	20 2130 70	Video Connecting Cable
	13991 SS	Irrigation Tube, reusable, for the working channel of flexible video endoscopes
Optional accessories:		
	27023 VK	Stone Basket, 5 Fr./1.67 mm, length 60 cm
	27723 T	Coagulation Electrode, unipolar, 4 Fr., length 73 cm
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27001 RA	Cleaning Adaptor
	39403 AS	Plastic Container for Sterilization

D-LIGHT C Light System for use with 11272 VPI/VNI/VNIU see catalog TELEPRESENCE **CALCULASE II SCB LASER System for Endoscopic Treatment of Bladder, Ureter and Kidney Stones** see chapter 15, UNITS

Video Cysto-Urethroscopes, flexible and HOPKINS® Telescopes for Photodynamic Diagnosis (PDD)



Overview



9-1

URO-PDD 7 D 105

Accessories

PDD Test System



PDD Test System, for testing the functionality of rigid and flexible endoscopes, for use with TRICAM SL II camera system

With the KARL STORZ PDD-QAT (Quality Assurance Tool) the system's functionality and configuration as well as the correct components are checked before a surgical procedure.

The system is used to rapidly check all instruments and components (CCU, cold light fountains, fluid light cables, telescopes, camera heads) in a sterile environment immediately before the procedure to ensure that they are in proper working order:

- Automatic white balance
- Verification that the cold light fountain and telescope have the correct filters and spectral properties

- Light intensity test of the entire endoscopic "light chain"
- Internal SCB communication check
- Verification that correct components are used (camera head, light cable, cold light fountain, telescope)
- Verification of correct camera system and cold light fountain modes
- Immediate display of results
- Display of possible error sources
- Selection and display of system information (SN etc.)

PDD-QAT ensures that a fully functional PDD system is used for the planned intervention (diagnosis).



20 1336 51

20 1336 51 PDD Test System, for rigid endoscopes

including:

20 1336 40 Testbox, for PDD test system 20 1336 41 Reflector, for PDD testbox 20 1336 45 Sheath, for PDD test system



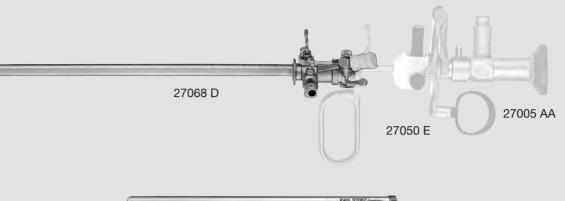


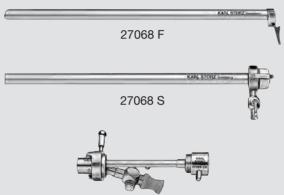
Optical Urethrotome

for Transurethral Treatment of Strictures, for use with One-Stem Knives with Stabilizer









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27068 D	SACHSE Urethrotome Sheath, 21 Fr., with channel for FILIFORM bougies and 2 LUER-Lock cones
27068 DO	Obturator, for Urethrotome Sheath 21 Fr., 27068 D
27068 CD	Telescope Bridge, 5 Fr., with channel for instruments
27068 F	Supplementary Sheath, sides open, for introduction of a balloon catheter, to slip on Urethrotome Sheath 27068 D
27068 S	Supplementary Sheath, for continuous irrigation and suction, to slip on Urethrotome Sheath 27068 D

Optical Urethrotome

for Transurethral Treatment of Strictures, for use with One-Stem Knives with Stabilizer







27050 EK Working Element Set

including:

27050 E Working Element

4x 27069 Knife

27069 K SACHSE **Knife**, straight

27069 KS Cold Knife, hook-shaped

27069 L Cold Knife, round

27069 M LUDVIK **Knife**, straight, serrated

27069 P Cold Knife, ring-shaped



280 **Protection Tube,** for sterilization and storage of electrodes, loops, curettes and knives

Please note: The knives listed above are not to be used with HF-current.

Urethrotome



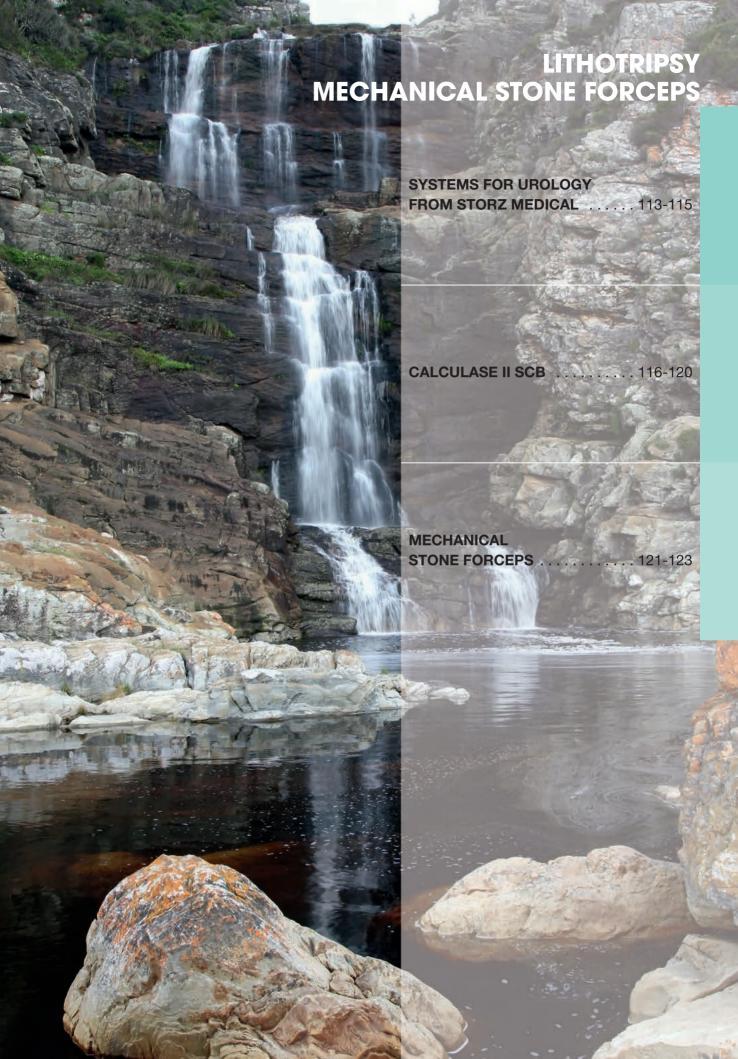


27578 A

OTIS-MAUERMAYER **Urethrotome**, parallel expanding, length of dilating surface 16 cm, with 2 knives

27578 AM Knife, for use with OTIS-MAUERMAYER

Urethrotome 27578 A



Systems for Urology from STORZ MEDICAL

MODULITH® SLX-F2 connect



ST RZ MEDICAL

The Complete Solution for Urology

The MODULITH® SLX-F2 connect sets new standards in the field of stationary, multifunctional systems for ESWL and Endourology. This is the only system on the market that offers the user the possibility to rotate the X-ray detector between the over- and undertable positions. This quickly and easily creates optimum ergonomics for performing all endourological interventions. A large, modern 17" X-ray flat-panel detector can be positioned close to the patient under the table. This provides an overview of the entire urogenital tract and practically makes table repositioning unnecessary during endourological interventions. Endoscopic and ultrasound images can be displayed on freely positioned monitors if required.

Alternatively, the proven electromagnetic STORZ MEDICAL with a penetration depth of max.180 mm enables the non-invasive treatment of severely overweight patients up to a maximum weight of 225 kg.

MODULITH® SLX-F2 connect combines a lithotripter and a urological examination table in one system. This enables the urologist to provide optimal treatment for each patient while utilizing the system at full capacity. State-of-the-art technology, flexibility and cost-effectiveness makes the MODULITH® SLX-F2 connect stand out as a unique multifunctional workstation for urology.



10-14

LITH 1 113

Systems for Urology from STORZ MEDICAL

MODULITH® SLK »inline«



ST RZ MFDICAL

Innovative solution for stone therapy with inline localization and intuitive use.

MODULITH® SLK »inline« features the proven STORZ MEDICAL cylinder source. Inline-localization brings all types of stones in the urinary tract into focus for safe and effective treatment. The over- and undertable positioning of the therapy source in combination with the wide radius of motion of the integrated table allows treatment without the need for patient repositioning. Even obese patients up to 225 kg can be safely positioned on the patient foil during treatment. This enables ideal coupling with the therapy head for transmitting shock waves without the formation of air bubbles. MODULITH® SLK »inline« makes it easy to perform endourological treatments such as URS and PCNL thanks to good access to the patient from all sides and a wide range of available accessories.

Thanks to the clearly arranged user interface, MODULITH® SLK »inline« is easy and intuitive to use. MODULITH® SLK »inline« can be configured according to budgetary or individual needs and requirements, ranging from the cost-effective version with a manual C-arm from the hospital inventory through to high-end configurations with a remote workstation and a motorized C-arm. The modular design allows a smooth upgrade of the MODULITH® SLK »inline« system at a later date.







10-14

114 LITH 2 B

Systems for Urology from STORZ MEDICAL

PRIMERA ST 360®



ST RZ MFDICAL

The PRIMERA ST 360[®] system is the result of a close cooperation between STORZ MEDICAL and KARL STORZ. The outcome is a unique equipment concept that perfectly combines X-ray diagnostics and endourology.

The system is equipped with state-of-the-art digital X-ray technology. The large 43×43 cm flat-panel detector can capture the entire urogenital tract with only one recording in excellent image quality. Applications range from urological examinations to diagnosis through to endourological interventions.

A special feature of the PRIMERA ST 360® system is the STORZ Communication Bus (SCB). This interface allows the networking of system components required for urological diagnosis and therapy in order to perform complex procedures in a safer and more effective manner. This contributes to a significant improvement in the workflow.

The central control concept enables all functions and parameters of the table, the digital X-ray system, endoscopic imaging and therapeutic units to be displayed on the touch screen during treatment. Depending on the specific situation, the entire OR team as well as the operating surgeon can easily and conveniently control all parameters.

The flexible positioning of the work monitors as well as free access to the patient table from all sides enable ergonomic treatment position and an optimal view of the monitors during all urological procedures.

The wide range of options range from the basic configuration with a monitor support arm through to a sophisticated ceiling mount solution with OR lights and radiation protection.





10-14

LITH 3 B 115

LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment





20 Watt LASER Power

The brand CALCULASE II SCB stands for a cost-effective and efficient Holmium: YAG-LASER system for endoscopic LASER lithotripsy.



Soft Tissue Treatment

The system can be used for, among others, soft tissue treatment such as ureteropelvic junction stenosis and the ablation of urethral carcinoma.



Diverse LASER Fibers and Instruments

KARL STORZ offers LASER fibers in various sizes (230, 365 and 600 μm) for both single and multiple use. Together with its wide range of rigid and flexible uretero-renoscopes equipped with fiber optic and sensor technology as well as the MIP product family, KARL STORZ offers the ideal complete solution for stone therapy and soft tissue treatment.



Automatic Fiber Detection

This feature enables automatic adjustment of energy settings to the fiber sizes and, consequently, prevents damage to the fibers or the unit itself.



Mobility

Its compact design makes CALCULASE II SCB a very versatile and mobile system. Thanks to its innovative handles, the LASER system can easily be placed on the urological equipment cart and moved from one OR to the next.

Alternatively, the LASER system can be placed on an equipment cart specially designed for this purpose and transported as required.

-121

116 LITH 4 B

Holmium LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment, Recommended Standard Set Configuration





27 7502 01-1 CALCULASE II SCB, Holmium LASER system,

with KARL STORZ-SCB, power supply 230 VAC, 50/60 Hz

including:

Mains Cord

One-Pedal Footswitch

Key Set

Remote Interlock Connector

Safety Goggles Ho:YAG LASER, 2080 nm

SCB Connecting Cable, length 100 cm

Ion Exchanger

27 7502 01U1 Same, power supply 115 VAC, 50/60 Hz

Please note:

Each lithotripsy system requires a separate basic fiber set: 27 7502 87 or 27 7502 86.

Parameters for 230 im Fibers

Enormy	Frequency					
Energy	4 Hz	6 Hz	8 Hz	10 Hz	15 Hz	
0.5 J	2 W	3 W	4 W	5 W	-	
0.8 J	3.2 W	4.8 W	6.4 W	8 W	-	
1.2 J	4.8 W	7.2 W	9.6 W	12 W	-	
1.7 J	-	-	-	_	-	
2 J	-	-	-	_	-	

Parameters for 365 im and 600 im Fibers

Energy	Frequency					
Ellergy	4 Hz	6 Hz	8 Hz	10 Hz	15 Hz	
0.5 J	2 W	3 W	4 W	5 W	7.5 W	
0.8 J	3.2 W	4.8 W	6.4 W	8 W	12 W	
1.2 J	4.8 W	7.2 W	9.6 W	12 W	18 W	
1.7 J	6.8 W	10.2 W	13.6 W	17 W	-	
2 J	8 W	12 W	16 W	20 W	-	

Parameter settings are selected via the LASER fiber code.

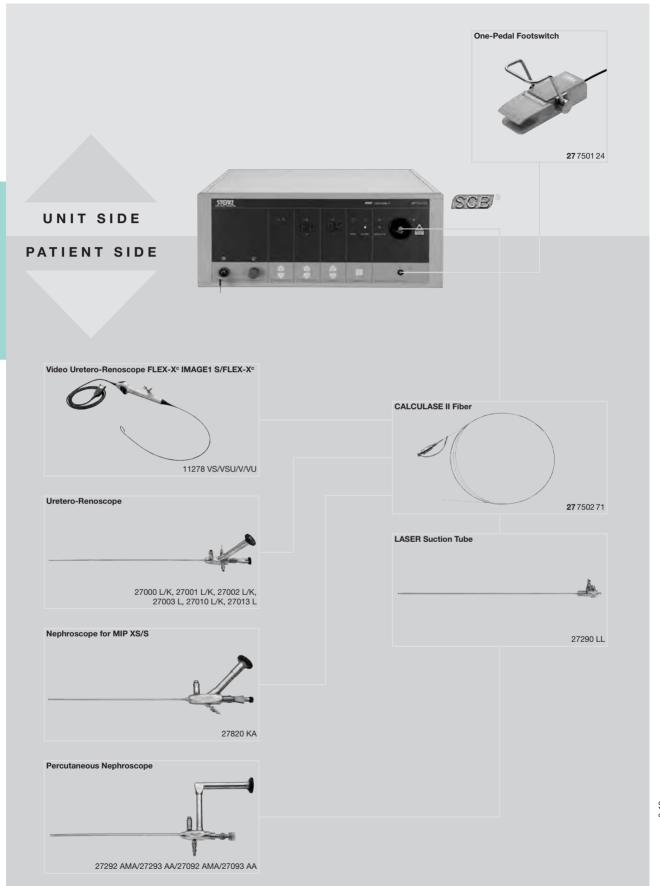
Components/Spare Parts see chapter 16

9-121

LITH 5 A 117

System Components









Fiber Sets, reusable		
		CALCULASE II Fiber 230 μm, reusable, sterile, length 300 cm, package of 6
		CALCULASE II Fiber 365 μm, reusable, sterile, length 300 cm, package of 6
		CALCULASE II Fiber 600 μm, reusable, sterile, length 300 cm, package of 6
	27 7502 87	CALCULASE II Fiber Kit

including:

Fiber Sets, for single use



27750277-P6 **CALCULASE II Fiber 230 μm,** for single use, sterile, length 300 cm, package of 6

3x CALCULASE II Fiber 230 μm, reusable 3x CALCULASE II Fiber 365 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable

27 7502 78-P6 CALCULASE II Fiber 365 µm, for single use, sterile, length 300 cm, package of 6

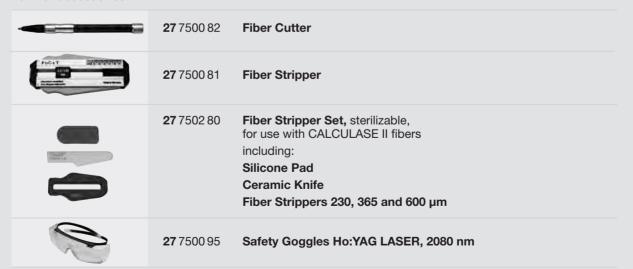
27 7502 79-P6 CALCULASE II Fiber 600 μ m, for single use, sterile, length 300 cm, package of 6

27 7502 86 CALCULASE II Fiber Kit

including:

3x CALCULASE II Fiber 230 μm , for single use, sterile 3x CALCULASE II Fiber 365 μm , for single use, sterile 3x CALCULASE II Fiber 600 μm , for single use, sterile

Further accessories



The CALCULASE II fibers above are compatible with the previous model CALCULASE (**27** 7501 20-1). **Components/Spare Parts** see chapter 16

Equipment Cart



Special Features:

- Flexible use of CALCULASE II SCB in various ORs
- Spacious storage room for accessories and expendable materials in two lockable drawers (LASER safety goggles or LASER fibers)
- Integrated cable winding and footswitch holder maintain an uncluttered OR
- Easy to transport due to large, smooth-running and antistatic dual wheels
- Powder-coated panels and shelves meet the most stringent quality and hygiene standards



UG 210

Equipment Cart, wide, small, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, energy beam with integrated electrical subdistributors with 6 sockets, grounding plugs,

Dimensions:

Equipment cart: 830 x 1265 x 730 mm (w x h x d),

Shelf: 630 x 25 x 510 mm (w x h x d),

Caster diameter: 150 mm

including:

Base Module, equipment cart, wide

Cover, equipment cart, wide

Beam Package, equipment cart, small

Shelf, wide

2x Drawer Unit with Lock, wide

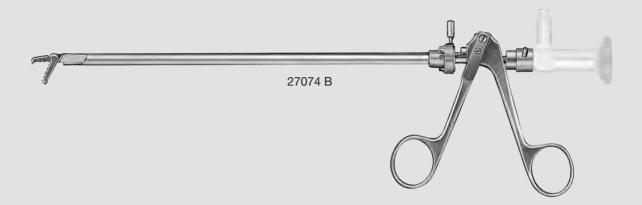
2x Equipment Rail, long

Components/Spare Parts see chapter 16





For use with HOPKINS® Forward-Oblique Telescopes 27005 BA/FA, 25 Fr. cystoscope-urethroscope sheath and 26/28 Fr. resectoscope sheaths (through outer sheath only)



27074 B **Stone Crushing Forceps,** single action jaws

27074 SZ Adaptor, for use with outer sheaths of

Resectoscope Sheaths 27040 SD/SL/SM and 27050 SL/SM

and 27000 3L/3N

27074 SC Adaptor, for use with Stone Crushing

Forceps 27074 B and outer sheaths of Resectoscope Sheaths 27050 SC/SD



Forceps in place in 25 Fr. Cystoscope-Urethroscope Sheath 27026 A



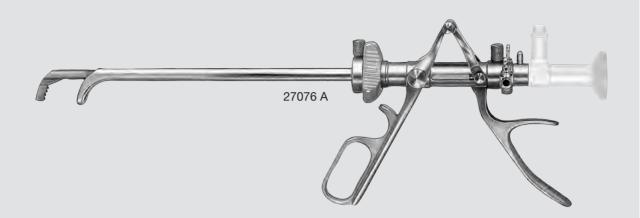
Forceps in place in 26/28 Fr. Resectoscope Outer Sheath 27040 SD/SL/SM and 27050 SL/SM

This forceps can be used for the lithotripsy of smaller stones and for crushing fragments to an absorbable size following the use of a lithotrite. The evacuation of stone fragments is possible through the entire lumen of the sheath.

Lithotrite



For use with HOPKINS® Lateral Telescope 27005 CA



27076 A **Lithotrite,** incorporating both handle and turning screw action, 24 Fr., including 2 LUER-Lock connectors



The specially designed handle has virtually frictionless motion for grasping and crushing stones. When increased force is required the screw spindle action should be used. The high strength of the jaws allows large application of force by the screw spindle. With the specially designed handle, rapid crushing of stone fragments is possible.



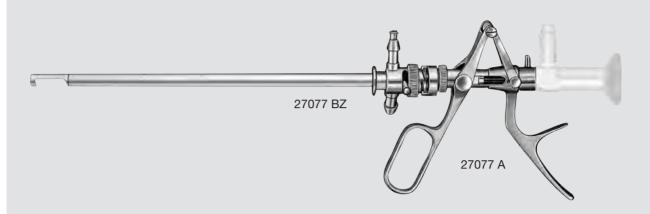
As soon as the lithotrite is introduced, the bladder can be inspected even when the jaws are closed. The fluid flow is directed towards the stone, providing a clear visual field.

Stone Punch



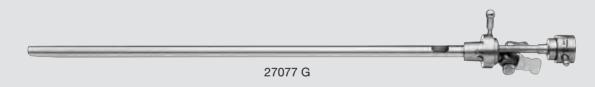
For use with HOPKINS® Forward-Oblique Telescopes 27005 BA/FA, with enlarged view

MAUERMAYER Recommended Set



27077 A Punch Working Element

27077 BZ **Punch Sheath,** with central valve, 25 Fr., including connecting tube for in- and outflow, straight beak with Obturator 27077 DO

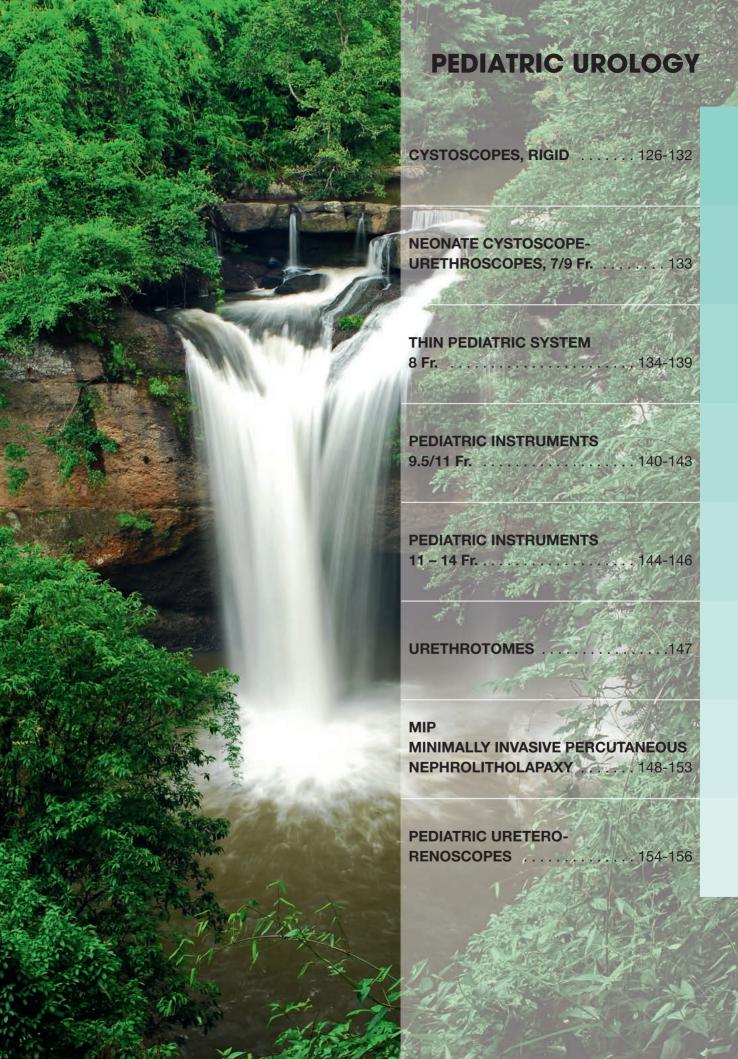


27077 G **Sheath Insert,** with channel for flexible instruments, 7 Fr., with atraumatic beak for urethroscopy



Larger stones can be crushed to an absorbable size with the stone punch. Thanks to the length of the punch, stones in smaller diverticulums can also be reached.





Pediatric Urology



Children are special patients with special needs. Pediatric instruments from KARL STORZ meet the demands of modern surgical procedures.

The new operating cysto-urethroscopes and pediatric uretero-renoscopes from KARL STORZ represent an innovative and state-of-the-art development in pediatrics, which is characterized by a completely new design and concept.

The lightweight and slender head provides the instrument with excellent balance and enables comfortable handling. Due to the significantly softer design of the sheath step, better gliding properties are achieved. The new sheath design also enables more gentle and atraumatic treatment for the patient.

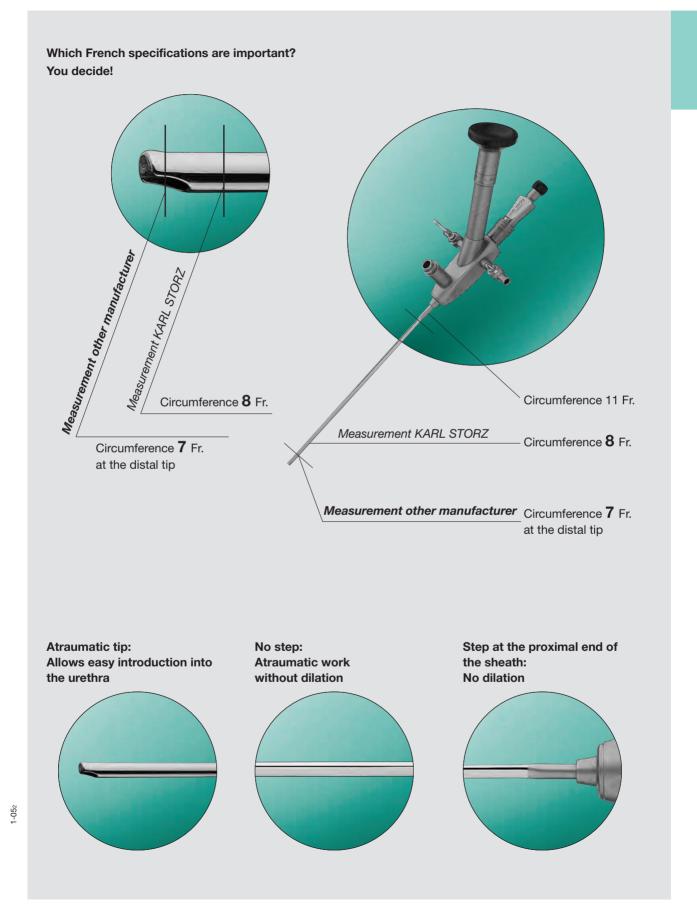
However, in addition to new elements we still continue to rely on tried-and-true properties, such as the atraumatic end of the sheath and self-closing seal. The fiber system from KARL STORZ continues to provide an excellent view. Various detachable instrument ports with quick-release coupling offer the surgeon a choice of individual combinations.

The innovative design concept of the new generation of operating cysto-urethroscopes and pediatric uretrorenoscopes provides the urologist with vastly improved possibilities for diagnosis and treatment.



Pediatric Urology NEW





URO-PED 1 C

Pediatric Operating Cysto-Urethroscopes





The **reduced outer diameter** ensures minimal patient discomfort. The unique design and the proven quality from KARL STORZ guarantee a stable and robust sheath. Its new, slim design makes work ergonomic and comfortable for the operating surgeon.



Right-angled irrigation/suction channels prevent positioning instruments too close to the housing, enabling optimal handling and convenient introduction. The flow control stopcock allows the surgeon to dispense the inflow/outflow very precisely in critical situations and to optimally adapt to any situation.



The **removable instrument ports** are attached to the operating cysto-urethroscope by means of a quick coupling mechanism and are available either with single or dual working channels. The **dual-closing sealing system** from KARL STORZ features the only sealing valve that opens and closes by itself during both distal and proximal introduction of instruments.

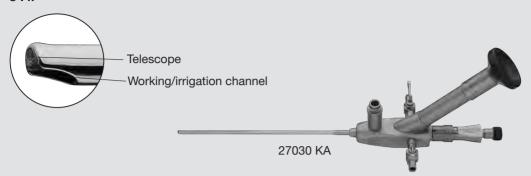


Wire Tray 39501 XK offers **ideal protection** for operating cysto-urethroscopes during transportation, cleaning, sterilization and storage. This feature ensures a long service life for the instrument. To perform ideal treatment, KARL STORZ offers a wide range of forceps, electrodes and other **accessories**.

Pediatric Operating Cysto-Urethroscopes







27030 KA

Cysto-Urethroscope, 8 Fr., 6°, 1 step, 8 – 11 Fr., length 13 cm, **autoclavable,** with angled eyepiece, fiber optic light transmission incorporated, with 2 lateral irrigation ports and 1 working channel, 5 Fr. for operating instruments 4 Fr.

Following accessories are included:

Me may	27001 G	Instrument Port with Sealing System and Quick Release Lock, 1 channel
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27500	LUER-Lock Tube Connector, male, tube diameter 9 mm
	27502	LUER-Lock Tube Connector, with stopcock, dismantling
KARL STORT	27001 RA	Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH
745-000	27001 E	Insertion Aid, for guide wires

Optional accessories:

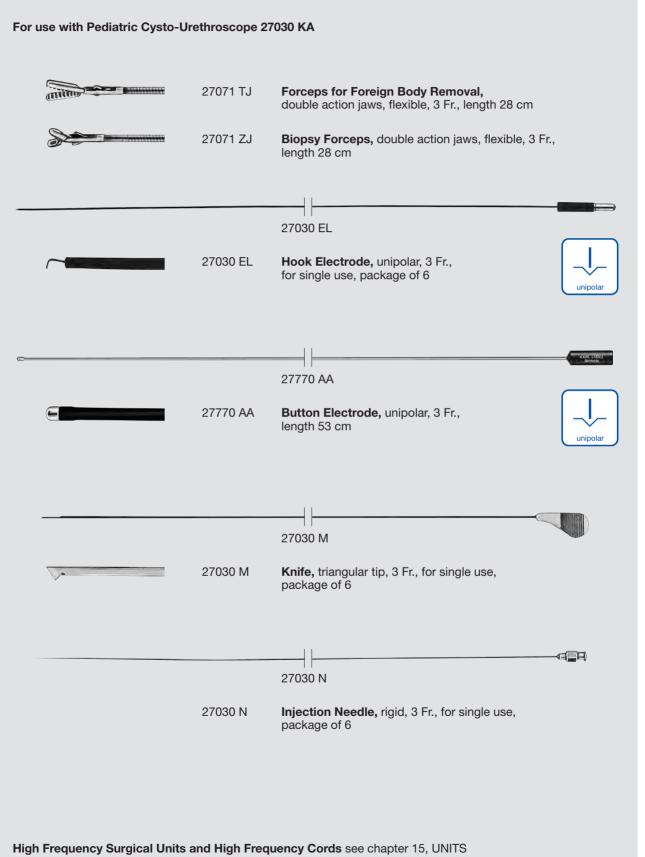


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URO-PED 3 E 129

Instruments





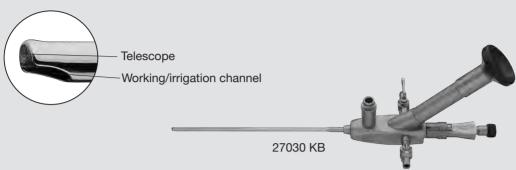
130 URO-PED 4 C

3-01,

Pediatric Operating Cysto-Urethroscopes







27030 KB

Pediatric Cysto-Urethroscope, 9.5 Fr., 6°, 1 step, 9.5 – 11 Fr., length 13 cm, **autoclavable**, with angled eyepiece, fiber optic light transmission incorporated, with 2 lateral irrigation ports and 1 working channel, 6 Fr. for operating instruments 5 Fr.

Following accessories are included:

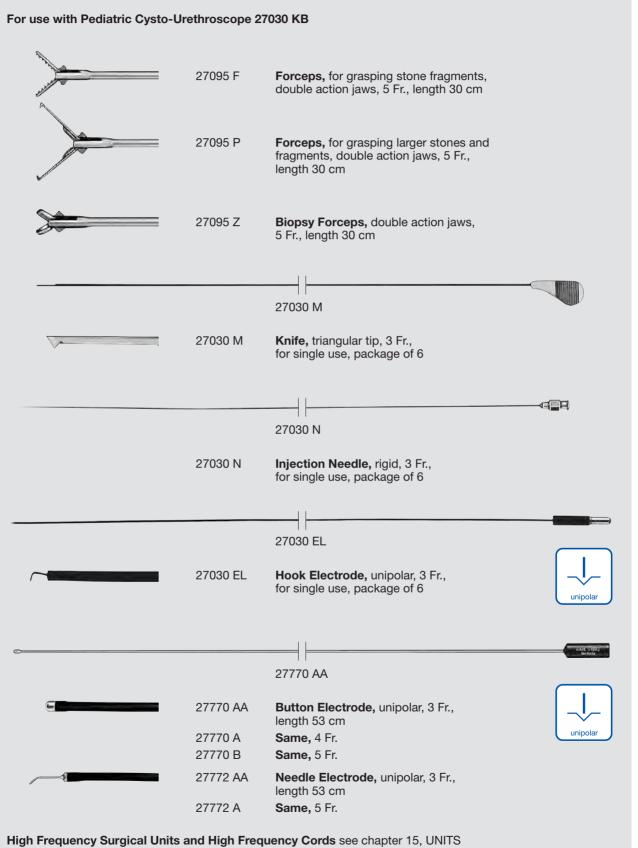
NAME ATTEND	27001 G	Instrument Port with Sealing System and Quick Release Lock, 1 channel
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27500	LUER-Lock Tube Connector, male, tube diameter 9 mm
,elie	27502	LUER-Lock Tube Connector, with stopcock, dismantling
KARLSTORI	27001 RA	Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH
145 mm	27001 E	Insertion Aid, for guide wires

Optional accessories:



Instruments



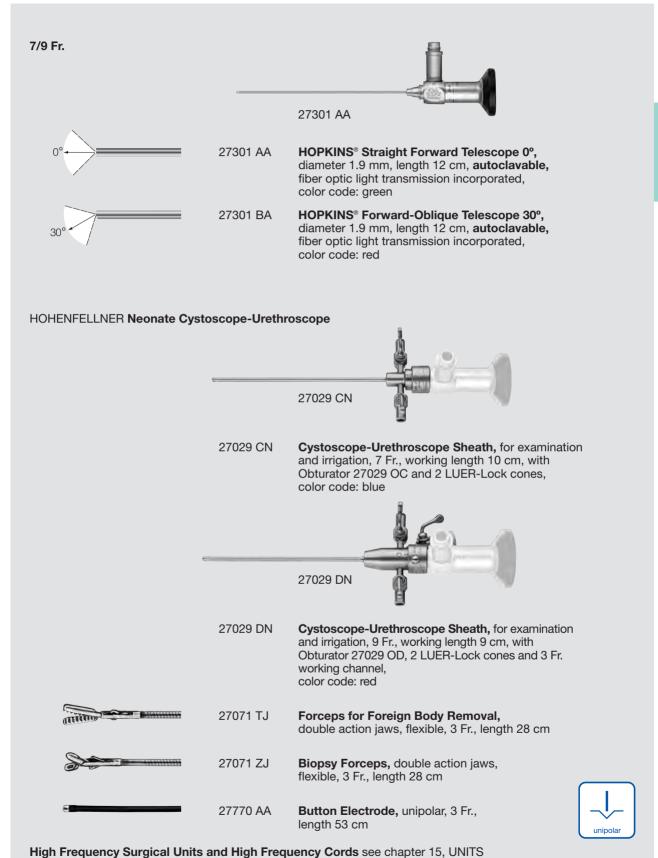


132 URO-PED 6 C

5







2-925

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

URO-PED 7 C 133

Thin Pediatric System



"Size matters" in the spectrum of urological care from baby to grand parent. The new thin pediatric systems for endoscopy in neonates and children are a major improvement in urological care for pediatric urologists, general urologists and pediatric surgeons. The development of the 1.2 mm fiber optic telescope has made it possible to minimize the size of the neonatal endoscope, anti-reflux endoscope, urethrotome as well as resectoscope and build a new line of special instruments.

The endoscopes can be used for the evaluation of the lower urinary tract in neonates and children as well as in adolescents for inspection of the urethra, prostatic urethra, bladder and ureterostoma.

In case of an urethral stricture, the urethrotome can be used for the incision of scarred tissue. When posterior urethral valves are present, they can be incised with a

small hook knife and in selected cases the resectoscope is indicated. Sub-urethral injection of viscuous fluids can be performed with the special instrument for anti-vesico-urethral reflux therapy.

A high level of care for size and anatomical detail, as well as fine controlled tissue handling and manipulations should be taken into consideration for use in neonates and children. The thin pediatric system from KARL STORZ provides improved possibilities in terms of diagnosis and treatment, and the endoscopic view is excellent in clinical use.

Wouter F. J. FEITZ, M.D., PhD, Professor of Pediatric Urology Nijmegen, The Netherlands



Thin Pediatric System





Excellent Optical Quality

The fiberoptics developed by KARL STORZ enable the miniaturization of pediatric cystoscopes, urethrotomes and resectoscopes. Despite the endoscope's small diameter, the fiberoptics guarantee excellent image quality with optimal detail resolution.



Simple and Atraumatic Treatment

Due to the distal, atraumatically shaped end of the sheath, the thin instruments can be easily inserted into the lower urinary tract.



Vesicoureteral Reflux - VUR

With the proximally extended working channel in the reflux sheath, the rigid needles can be gently inserted into the working channel, without becoming blunt. The optimized working channel guides the reflux needle with excellent precision and thus facilitates treatment.



Pediatric Resectoscope and Urethrotome

The newly designed working element for the thin pediatric system combines two applications in one instrument. As it is possible to connect HF electrodes and a knife, the system can be used as a resectoscope and an urethrotome.

Pediatric Cystoscope-Urethroscopes



8/9 Fr.

Special Features:

- Distal end of sheath atraumatically shaped
- Two lateral, right-angled irrigation ports
- Minimal sheath diameter

- The wide working channel allows use of 4 or 5. Fr. rigid instruments
- Autoclavable

27033 AA





Miniature Straight Forward Telescope 0°, diameter 1.2 mm, length 20 cm, autoclavable, fiber optic light transmission incorporated, color code: green



27033 C

27033 C

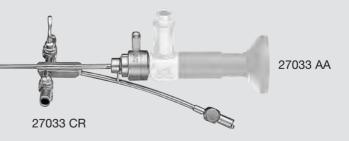
27033 AA

Cystoscope-Urethroscope Sheath, 8 Fr., with 4 Fr. working channel, working length 16 cm, with Obturator 27033 CO and 2 LUER-Lock cones, color code: blue

27033 D

Cystoscope-Urethroscope Sheath, 9 Fr., with 5 Fr. working channel, working length 16 cm, with Obturator 27033 DO and 2 LUER-Lock cones, color code: red

For use with reflux needles



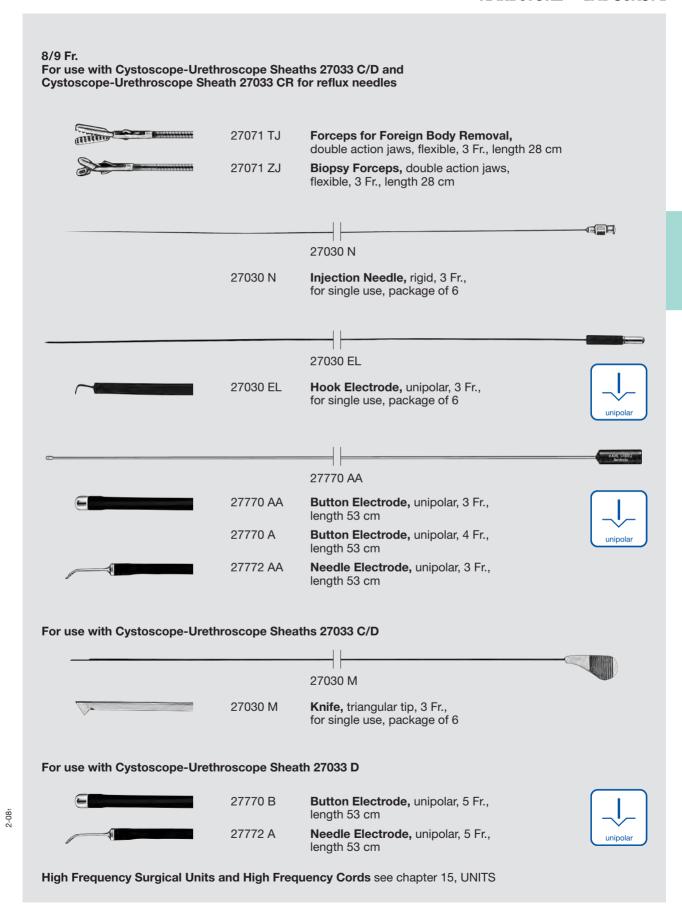
27033 CR

Cystoscope-Urethroscope Sheath, 8 Fr., with 4 Fr. working channel, for reflux needles, with Obturator 27033 CRO, with 2 LUER-Lock cones, color code: white

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Instruments





URO-PED 11 D 137

Pediatric Resectoscopes



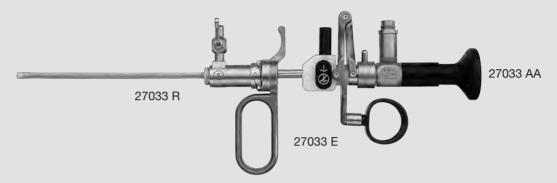
9 Fr., working length 12 cm for use with Miniature Straight Forward Telescope 27033 AA



Special Features:

- Distal end of sheath atraumatically shaped
- Minimal sheath diameter

- Cutting by means of a spring; in rest position the electrode tip is inside the sheath
- Irrigation possible via HF-connector



27033 EH	Electrotome
----------	-------------

27033 R

27033 EQ

including:

27033 E Working Element 27033 EG Cutting Loop

27033 EL Coagulation Electrode 2x 277 High Frequency Cord 280 Protection Tube

including connecting tube for inflow, and Obturator 27033 RO, color code: yellow

Telescope Bridge, with 1 lockable channel

27033 EG Cutting Loop, angled,

color code: yellow

27033 EL Coagulation Electrode, angled, blunt,

color code: yellow

27033 EP **Coagulation Electrode,** hook-shaped, with ball end, color code: yellow

Coagulation Electrode, hook-shaped, without ball end, color code: yellow

Resectoscope Sheath, 9 Fr., with LUER-Lock stopcock,

27033 ER **Coagulation Electrode,** angled, pointed,

color code: yellow



280

280 **Protection Tube,** for sterilization and storage of

electrodes, loops, curettes and knives

High Frequency Surgical Units and High Frequency Cords see chapter 15, UNITS

2-081

138

Pediatric Optical Urethrotome

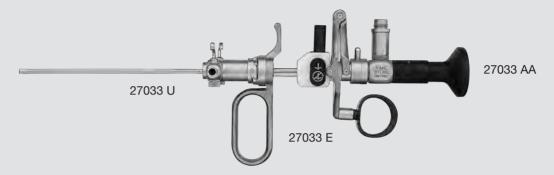


8 Fr., working length 12 cm for use with Miniature Straight Forward Telescope 27033 AA

Special Features:

- Distal end of sheath atraumatically shaped
- Minimal sheath diameter

- Cutting by means of a spring; in rest position the knife tip is inside the sheath
- Irrigation possible via HF-connector



27033 EK Working Element Set

including:

27033 E Working Element

2x 27033 TT Knife

27033 U **Urethrotome Sheath,** with LUER-Lock stopcock, 8 Fr.,

with Obturator 27033 UO and 2 LUER-Lock connectors





280

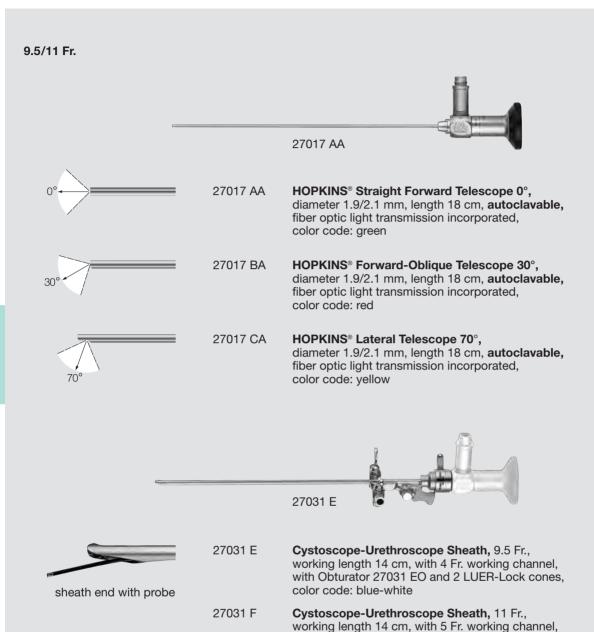
280 **Protection Tube,** for sterilization and storage of

electrodes, loops, curettes and knives

Please note: The cold knives are not to be used with HF current.







Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

8-01

color code: red-white

with Obturator 27031 FO and 2 LUER-Lock cones,





9.5/11 Fr.

for use with Cystoscope-Urethroscope Sheaths 27031 E/F

27071 TJ Forceps for Foreign Body Removal,

double action jaws, flexible, 3 Fr., length 28 cm

27071 ZJ **Biopsy Forceps,** double action jaws,

27772 AA

flexible, 3 Fr., length 28 cm

27770 AA

27770 AA **Button Electrode,** unipolar, 3 Fr., length 53 cm

Needle Electrode, unipolar, 3 Fr.,

length 53 cm

8-013

High Frequency Surgical Units and High Frequency Cords see chapter 15, UNITS

Pediatric Resectoscopes

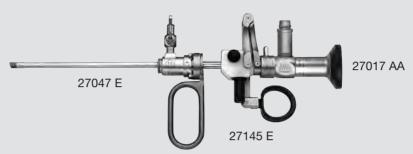


11 Fr., working length 12 cm for use with HOPKINS® Straight Forward Telescope 27017 AA



Cutting by means of a spring

The thumb support is movable. In rest position the electrode is inside the sheath.



27145 EA Electrotome

including:

27145 E Working Element 27147 EG Cutting Loop

27147 EL Coagulation Electrode
2x 277 High Frequency Cord
280 Protection Tube

27047 E **Resectoscope Sheath,** with LUER-Lock stopcock,

including connecting tube for inflow, 11 Fr. and

Obturator 27047 EO, color code: green

27147 EG **Cutting Loop,** angled, color code: green

27147 EL

Coagulation Electrode, angled, blunt,

color code: green

27147 EP Coagulation Electrode, hook-shaped, with ball end,

color code: green

27147 EQ Coagulation Electrode, hook-shaped, without ball end,

color code: green

27147 ER Coagulation Electrode, angled, pointed,

color code: green

27047 F **Telescope Bridge,** with 1 lockable channel



280

280 **Protection Tube,** for sterilization and storage of

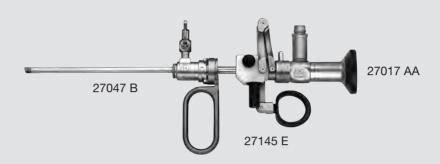
electrodes, loops, curettes and knives

High Frequency Surgical Units and High Frequency Cords see chapter 15, UNITS





10 Fr., working length 11 cm for use with HOPKINS® Straight Forward Telescope 27017 AA, for transurethral treatment of strictures in children



27145 EK Working Element Set

including:

27145 E Working Element

2x 27147 TT Knife

27047 B **Urethrotome Sheath,** with LUER-Lock

stopcock, 10 Fr., with Obturator 27047 BO

and 2 LUER-Lock connectors

27047 F **Telescope Bridge,** with 1 lockable channel

27147 TT **Cold Knife,** straight

27147 V Cold Knife, round

27147 W Cold Knife, sickle-shaped

27147 X Cold Knife, hook-shaped

280

280 **Protection Tube,** for sterilization and storage of

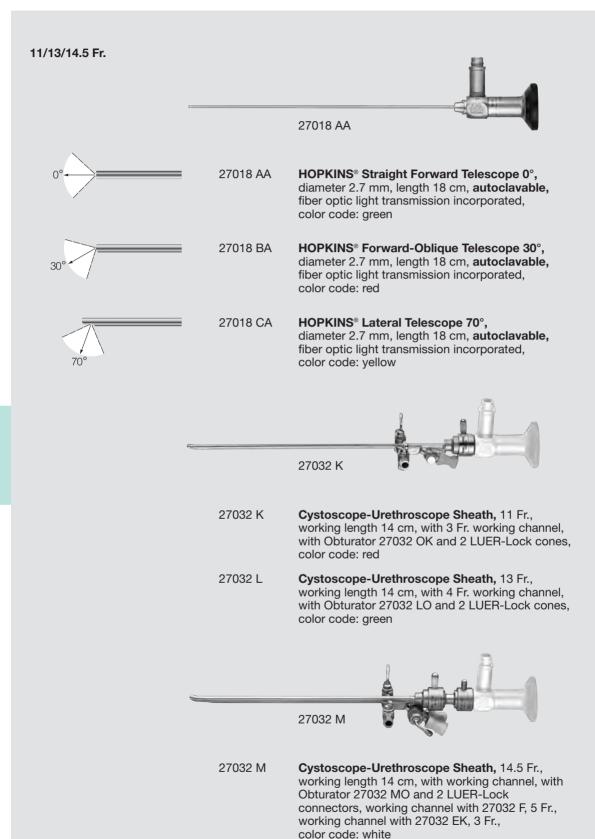
electrodes, loops, curettes and knives

Please note: The cold knives are not to be used with HF current.

9-98%

Pediatric Cystoscope-Urethroscopes



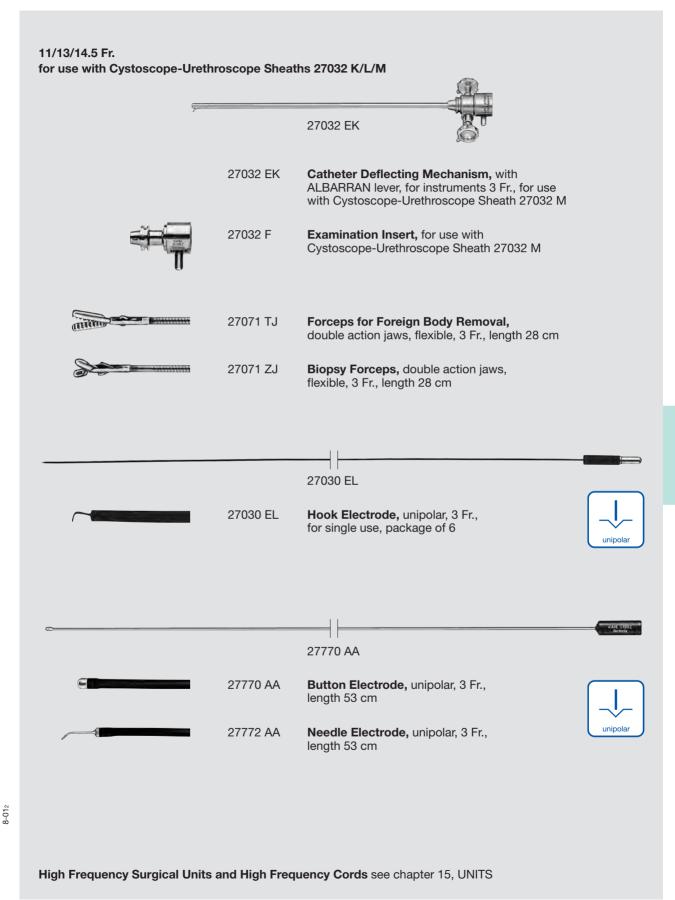


Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

144 URO-PED 18 D



Pediatric Cystoscope-Urethroscopes



URO-PED 19 C 145

Pediatric Resectoscopes

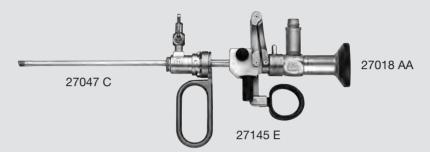


13 Fr., working length 11 cm for use with HOPKINS® Straight Forward Telescope 27018 AA



Cutting by means of a spring

The thumb ring is movable. In rest position the electrode is inside the sheath.



27145 EB Electrotome

including:

27145 E Working Element 27145 EG Cutting Loop

27145 EL Coagulation Electrode 2x 277 High Frequency Cord 280 Protection Tube

27047 C **Resectoscope Sheath,** with LUER-Lock stopcock, including connecting tubing for

inflow, 13 Fr. and Obturator 27047 CO,

color code: black



27145 EQ

27145 EL Coagulation Electrode, angled, blunt,

color code: black

27145 EP **Coagulation Electrode,** hook-shaped, with ball end, color code: black

Coagulation Electrode, hook-shaped, without ball-end, color code: black

27145 EF **Coagulation Electrode,** angled, pointed, color code: black

27047 F **Telescope Bridge,** with 1 lockable channel



280

280 **Protection Tube,** for sterilization and storage of

electrodes, loops, curettes and knives

High Frequency Surgical Units and High Frequency Cords see chapter 15, UNITS



Pediatric Urethrotome



OTIS-KEITZER **Pediatric Urethrotome**, with 2 knives, continuously adjustable from 12 Fr. to 30 Fr. 27579

Knife, for use with OTIS-KEITZER Urethrotome 27579 27579 M

A New Generation of Pressure-Controlled PCNL Systems

MIP - Minimally Invasive Percutaneous Nephrolitholapaxy



The New Family of MIP Systems and Innovative Features





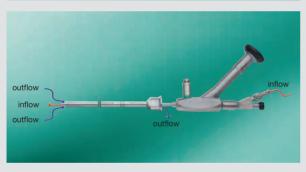
Versatility

The right instrument is available for every stone indication. The systems stand out due to their exceptional quality and durability as well as safe and careful handling.



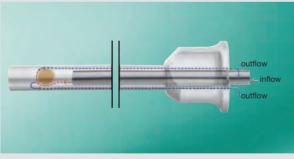
One-step-bougie

Following a skin incision, a single dilator can widen the port to allow the sheath to be advanced into the kidney. Telescope bougies or bougies in several sizes are no longer required for individual sheath sizes.



Innovative pressure management

All systems from the MIP series are designed as open systems, i.e. the sheath and telescope are not locked together and there is no second system connection to the system where irrigation liquid can flow off. With the MIP series, the irrigation liquid flows out via the space between the telescope and the operating sheath. Discontinuation of the outflow, which would lead to pressure build-up in the kidney, is not possible.



Efficient stone retrieval without instruments

The hydrodynamic effect achieved by the innovative inflow and outflow constellation makes it possible to retrieve stones without forceps, graspers or stone baskets. The funnel-shaped proximal sheath head enables stones to be removed from the sheath without any problems. A continuous irrigation flow ensures the residue-free elimination of small stone fragments and calculus dust.



Direct closure of the access tract

Access tracts to the kidney can be directly closed after stone retrieval using a gelatin-thrombin-matrix. This eliminates the need for nephrostomy (kidney fistula) in standard PCNL access tracts.

10-14

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MIP M - Percutaneous Nephroscope



Minimal Invasive

Special Features:

- Well-proven miniature nephroscope with optimized design
- One-step dilator with a second eccentric channel for guide wire deflection enables precise steering of the wire
- Large working channel allows the use of rigid standard instruments and large lithotripsy probes up to 5 Fr.
- For the treatment of medium stone burdens



Instrument sheath: 12 Fr.

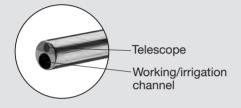
Working channel: 6.7 Fr. for use with instruments

up to 5 Fr.

Telescope: Fiber optic system, direction of

view 12°

Length: 22 cm Eyepiece: angled





27830 KA

27830 KA Nephroscope for MIP M, autoclavable

Following accessories are included in delivery:

AT .

27001 GP Instrument Port with Sealing System and

Quick Release Lock, 1 channel

27550 N

Seal, for Instrument Ports 27001 G/GF/GH/GP,

package of 10, single use recommended

27500

LUER-Lock Tube Connector, male,

tube diameter 9 mm

27502

LUER-Lock Tube Connector, with stopcock, dismantling

27001 E

Insertion Aid, for guide wires

39501 XK

Wire Tray

in

including:

Cleaning Adaptor, for Instrument Ports

27001 G/GF/GH/GG/GP



MIP – Minimally Invasive PCNL, for further information see pages 179-189 CALCULASE II SCB LASER System for endoscopic treatment of bladder, ureter and kidney stones, see chapter 15, UNITS

URO-PED 23 A 149

NEU

Dilators, Sheaths and Applicators

for MIP M





27830 AB

27830 AA One Step Dilator, with central channel for guide

wires, for use with 15/16 Fr. Operating Sheaths

27830 BA/BAS

27830 AB One Step Dilator, with central channel and a second

eccentric channel for guide wires, for use with 16.5/17.5 Fr.

Operating Sheaths 27830 BB/BBS

27830 AC Same, for use with 21/22 Fr. Operating Sheaths

27830 BC/BCS



27830 BB

27830 BA Operating Sheath, 15/16 Fr., working length 15 cm,

for continuous irrigation and suction

27830 BB **Same,** 16.5/17.5 Fr.

27830 BC **Same,** 21/22 Fr.

27830 BAS **Operating Sheath,** for the supine position, 15/16 Fr.,

working length 18 cm, for continuous irrigation and suction

27830 BBS **Same,** 16.5/17.5 Fr.

27830 BCS **Same,** 21/22 Fr.



27830 CF

27830 CF Applicator for Sealant, including sheath and rod,

for use with Operating Sheaths 27830 BA/BB/BC

27830 CFS **Applicator for Sealant,** for the supine position,

including sheath and rod, for use with Operating

Sheaths 27830 BAS/BBS/BCS



27001 GG

27001 GG Instrument Port with Sealing System and Quick

Release Lock, large, 1 channel, for use with

accessories up to 6 Fr. (diameter 2 mm) in combination with Miniature Nephroscope for MIP M 27830 KA

MIP XS/S - Percutaneous Nephroscope



Special Features:

- Smaller system for minimal access tract
- Working channel with 2 Fr. for guided laser fibers allows safe use
- Separate irrigation channel for optimal irrigation and good visualization
- For low stone burdens
- Provides an alternative where flexible ureterorenoscopy is not possible

Specifications:

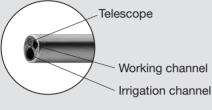
Instrument sheath: 7.5 Fr. Working channel: 2 Fr. Separate irrigation channel: 3 Fr.

Telescope:

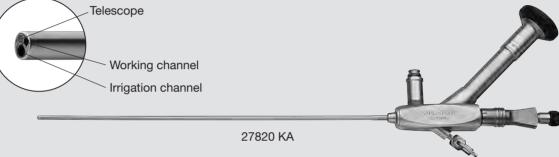
Fiber optic system, direction

of view 6° 24 cm

Length: Eyepiece: angled



Nephroscope for MIP XS/S, autoclavable



Following accessories are included in delivery:

27820 KA

39501 XRV

39107 ALK

With strant	27001 G	Instrument Port with Sealing System and Quick Release Lock, 1 channel
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27500	LUER-Lock Tube Connector, male, tube diameter 9 mm
	27502	LUER-Lock Tube Connector, with stopcock, dismantling
TAN STITE	27001 E	Insertion Aid, for guide wires
	39501 XK	Wire Tray including: Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH/GG/GP

MIP - Minimally Invasive PCNL, for further information see pages 179-189 CALCULASE II SCB LASER System for endoscopic treatment of bladder, ureter and kidney stones, see chapter 15, UNITS

Multiport Bridge

LUER stopcocks

Cleaning Adaptor, for use with small

10-14

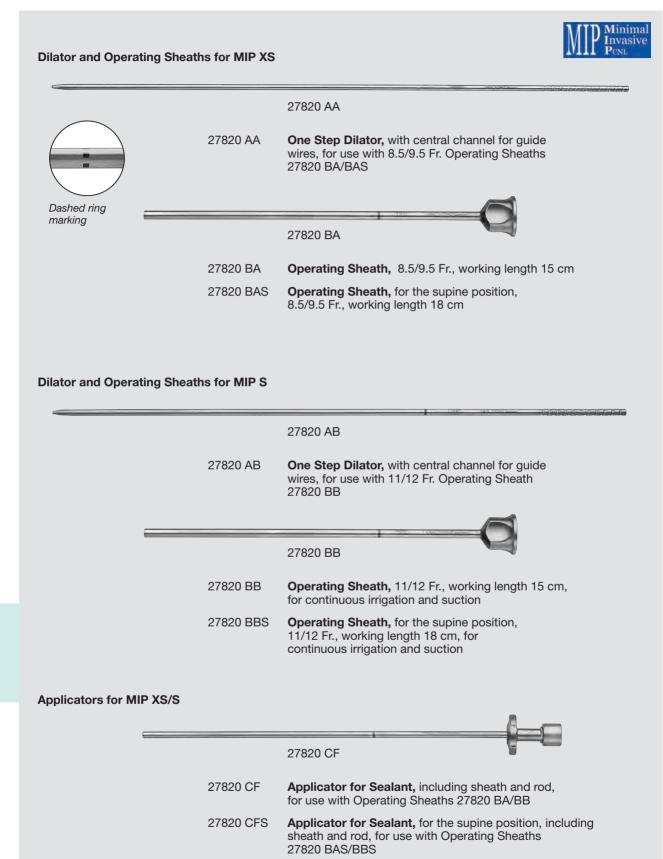
URO-PED 25 A 151

NE

Dilators, Sheaths and Applicators

STORZ FNDOSKOPE

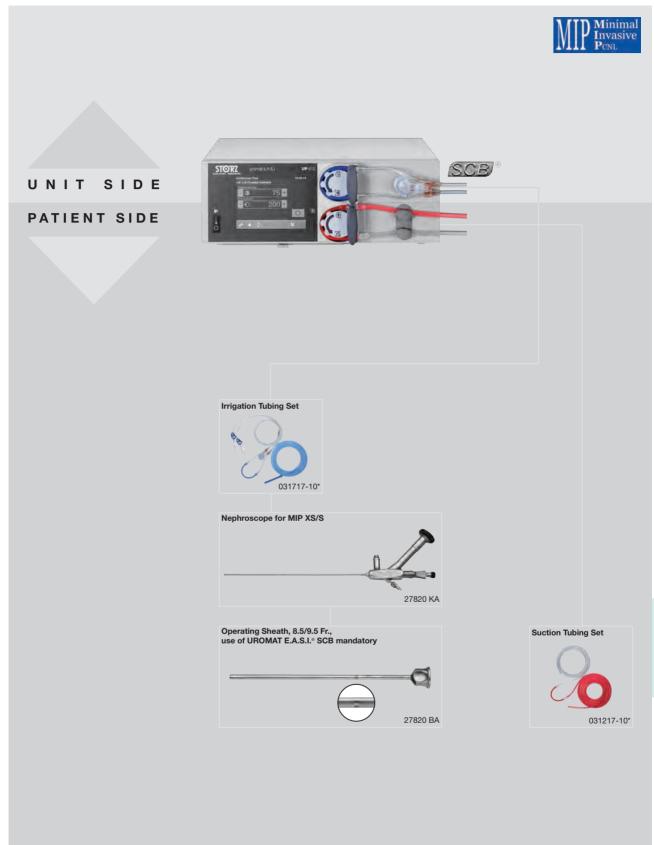
for MIP XS/S



UROMAT E.A.S.I.® SCB

System Components for MIP XS





The Next Generation Uretero-Renoscopes





The **reduced outer diameter** ensures minimal patient discomfort. The unique design and the proven quality from KARL STORZ guarantee a stable and robust sheath. Its new, slim design makes work ergonomic and comfortable for the operating surgeon.



Right-angled irrigation/suction channels prevent positioning instruments too close to the housing, enabling optimal handling and convenient introduction. The **flow control stopcock** allows the surgeon to dispense the inflow/outflow very precisely in critical situations and to optimally adapt to any situation.



The **removable instrument ports** are attached to the operating cysto-urethroscope by means of a quick coupling mechanism and are available either with single or dual working channels. The **dual-closing sealing system** from KARL STORZ features the only sealing valve that opens and closes by itself during both distal and proximal introduction of instruments.



Wire Tray 39501 XK offers ideal protection for operating cysto-urethroscopes during transportation, cleaning, sterilization and storage. This feature ensures a long service life for the instrument. To perform ideal treatment, KARL STORZ offers a wide range of forceps, electrodes and other accessories.



Pediatric Uretero-Renoscopes



7.3 Fr., length 25 cm

Special Features:

- Distal end of sheath atraumatically shaped, with rounded tip
- Minimal sheath diameter
- The large working channel allows the use of rigid instruments and probes up to 3 Fr.
- Two lateral, right-angled irrigation ports

Specifications:

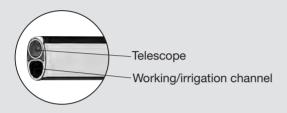
Distal tip: 7.3 Fr.

Instrument sheath: 7.3 Fr., **conical,** 1 step 7.3 – 8 Fr.

Working channel: 3.6 Fr., for use with instruments up to 3 Fr.

Telescope: Fiber optic system, direction of view 6°

Working length: 25 cm





27002 KP **Uretero-Renoscope, autoclavable,** working length 25 cm

27002 KP

Accessories

Pediatric Uretero-Renoscopes



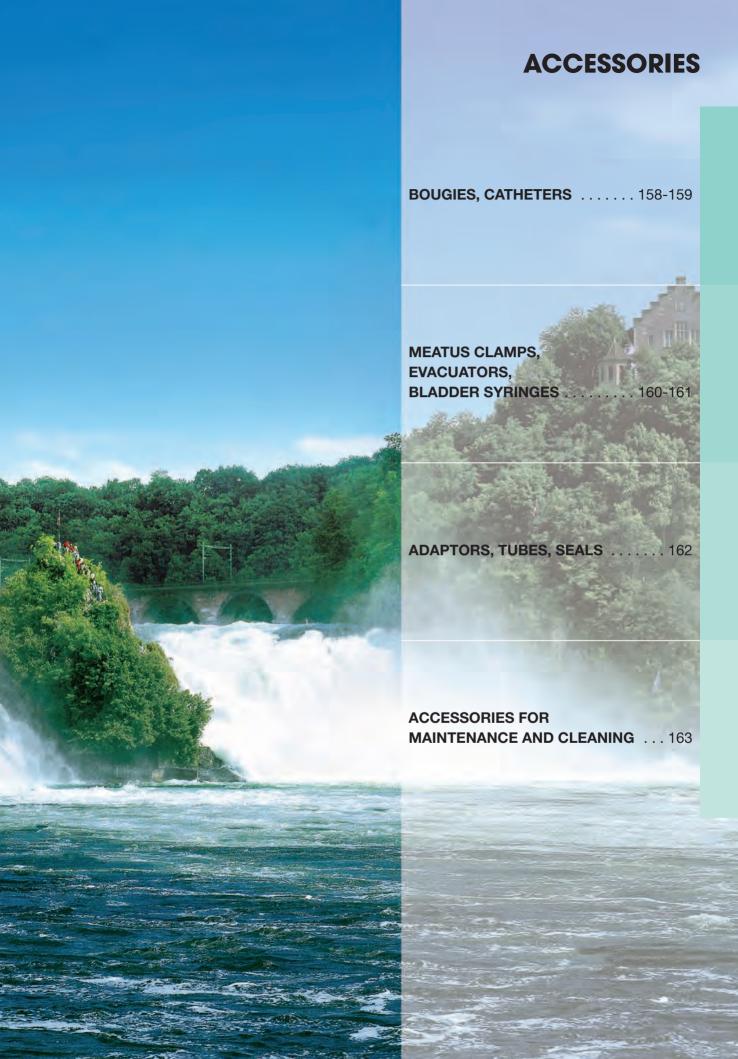
Following accessories are included in delivery:



Optional accessories:

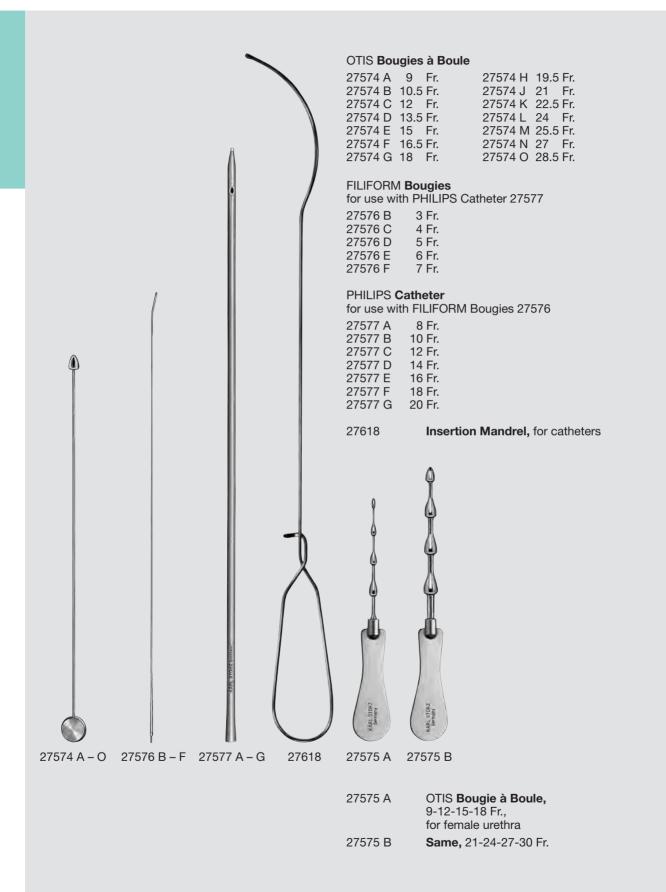
Polyton Control	27001 GF	Instrument Port with Sealing System and Quick Release Lock, 2 channels
	27001 GH	Instrument Port with Sealing System and Quick Release Lock, 2 channels, 1 straight channel, 1 lateral channel
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27023 FM	Forceps, rigid, for grasping stone fragments, double action jaws, 3 Fr., length 60 cm, color code: green

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Bougies, Catheters











27560 **Orifice Stretcher and Ruler,** conical, 15 – 30 Fr.



27561 **Orifice Stretcher and Ruler,** graduated, 10.5 – 16.5 Fr., with channel 27562 **Same,** 16.5 – 22.5 Fr.

Same, 22.5 – 28.5 Fr.



DITTEL Bougies, curved, without channel

27563

27572 A	9	Fr.	27572 F	16.5	Fr.	27572 L	24	Fr.
27572 B	10.5	Fr.	27572 G	18	Fr.	27572 N	1 25.5	Fr.
27572 C	12	Fr.	27572 H	19.5	Fr.	27572 N	27	Fr.
27572 D	13.5	Fr.	27572 J	21	Fr.	27572 C	28.5	Fr.
27572 E	15	Fr.	27572 K	22.5	Fr.			

Meatus Clamps, Evacuators





27528 STOCKMANN **Meatus Clamp**



27529

27529 STRAUSS Meatus Clamp



27224 LO

27224 ELLIK Evacuator

including:

27224 A Connector with Tube 27224 B Glass Receptacle

27224 C **Rubber Bulb,** to assist suction process

27224 LO ELLIK Evacuator

including:

27224 ALO Cone with Connector and Locking Device

27224 B Glass Receptacle

27224 C Rubber Bulb, to assist suction process

12-93

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27211 LO TOOMEY **Syringe**, 50 cc 27212 LO TOOMEY **Syringe**, 100 cc



27215 LO REINER-ALEXANDER Syringe, 75 cc 27215 EL Spare Barrel, for use with Syringe 27215 LO 27216 LO REINER-ALEXANDER Syringe, 100 cc 27216 EL Spare Barrel, for use with Syringe 27216 LO 27218 LO REINER-ALEXANDER Syringe, 150 cc 27218 EL Spare Barrel, for use with Syringe 27218 LO 27220 Catheter Adaptor, for use with Syringes 27211 LO - 27218 LO 27213 Adaptor, to connect Syringe 27211 LO to miniature cystoscope-urethroscope sheaths



Locking device "LO"

Syringes 27211 - 27218 and Evacuator 27224 are supplied with locking device "LO" to secure watertight closure between the syringe and the sheath.





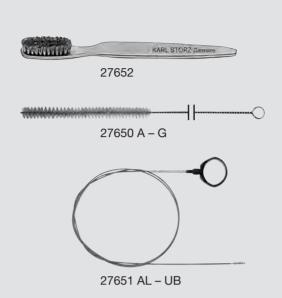
KARL STORZ	27001 RA	Cleaning Adaptor
KARS STORZ	27840 RA	Cleaning Adaptor, for MIP L
504 FIRE	27014 Y	LUER-Adaptor, with seal
	27280	Irrigating Stopcock, wide lumen, dismantling
	27281	Connector, for 27280, with tube olive
	27282	Connecting Tube for In- and Outflow, diameter 9 mm, length 140 cm
	27282 A	Outflow Tubing, diameter 12 mm, length 140 cm
	27282 B	Inflow Tube, with LUER-Lock connector 27500, diameter 9 mm, length 80 cm
	27500	LUER-Lock Tube Connector, male, tube diameter 9 mm
	27502	LUER-Lock Tube Connector, with stopcock, dismantling
	27506	Catheter Adaptor, without stopcock, LUER-Lock
	27507	Catheter Adaptor, with stopcock, LUER-Lock, dismantling
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
HARLE CO.	27535	Plug, for urethral catheters
	27550 A-10 27550 C-10 27550 D-10	Sealing Cap, drill hole diameter 0.8 mm, package of 10 Sealing Cap, drill hole diameter 1.2 mm, package of 10 Sealing Cap, without drill hole, package of 10

-84₆

Accessories for Maintenance and Cleaning



163



Order No.	Flat	Round/rigid	Round/ flexible	Length	Outer diameter	Channel diameter	Notes
27652	•	-	-	-	-	-	cleaning of jaws
27648 A	-	•	-	55 cm	16 mm	4 – 14 mm	
27650 A	-	•	-	35 cm	11 mm	3 – 9 mm	
27650 B	-	•	-	35 cm	7 mm	2.5 – 5 mm	
27650 C	-	•	-	35 cm	2.5 mm	2 – 2.4 mm	
27650 D	-	•	-	50 cm	11 mm	3 – 9 mm	
27650 E	-	•	-	50 cm	7 mm	2.5 – 5 mm	
27650 F	-	•	-	50 cm	2.5 mm	2 – 2.4 mm	
27650 G	-	•	-	50 cm	2.5 mm	-	for CLICK'lin e and ROBI®
27651 AL	-	-	•	150 cm	2 mm	1.2 – 1.8 mm	
27651 B	-	-	•	100 cm	3 mm	1.8 – 2.6 mm	
27651 UA	_	-	•	60 cm	2 mm	1.4 – 1.8 mm	
27651 UB	-	-	•	60 cm	2.2 mm	0.8 – 2 mm	



27657

27657 **Special Lubricant,** for stopcocks

For further information see catalog HYGIENE



HEADLIGHTS



NEW

LED Headlight KS70



Special Features:

- Battery lifespan of up to 21 hours (at brightness level 1) allows use in extensive procedures
- Brightness adjustment in 3 levels
- Maintenance-free, high-performance LED in combination with liquid lens technology ensures high depth illumination and an optimal concentration of light energy without a loss of luminosity*
- Continuously adjustable light field diameter as well as the position and angle of the light unit for perfect orientation of the illumination path
- Optimal wearing comfort due to balanced, lightweight headband design
- Lightweight and compact design of the lamp unit
- Optical charge status display and blinking lights as low battery warning indicator
- Quick and easy battery replacement
- Direct charging via a micro-USB plug connected to the headlight or external charging station



^{*} Unlike standard lenses, the light field diameter is adjusted not by narrowing the outer edges of the light field by means of the aperture, but by adjusting the lens curvature itself. This results in variations in the illuminating angle and light concentration.

LED Headlight KS70



White light version

094220 **LED Headlight KS70,** white light, lightweight model, control unit and rechargeable battery box on headband, charging unit,

illumination area adjustable from 30 – 150 mm in diameter with

40 cm working distance

including:

Control Unit

Battery Box

2x Battery Pack

Charger USB

Headband

094240 **LED Headlight KS70,** white light, flexible, lightweight model,

control unit and rechargeable battery box on headband, charging unit, illumination area adjustable from 30 – 150 mm in

diameter with 40 cm working distance

including:

Control Unit

Battery Pack

Charger USB

Soft Headband

Yellow light version

094230 **LED Headlight KS70,** yellowish light, lightweight model,

control unit and rechargeable battery box on headband, charging unit, illumination area adjustable from 30 – 150 mm in

diameter with 40 cm working distance

including:

Control Unit

Battery Box

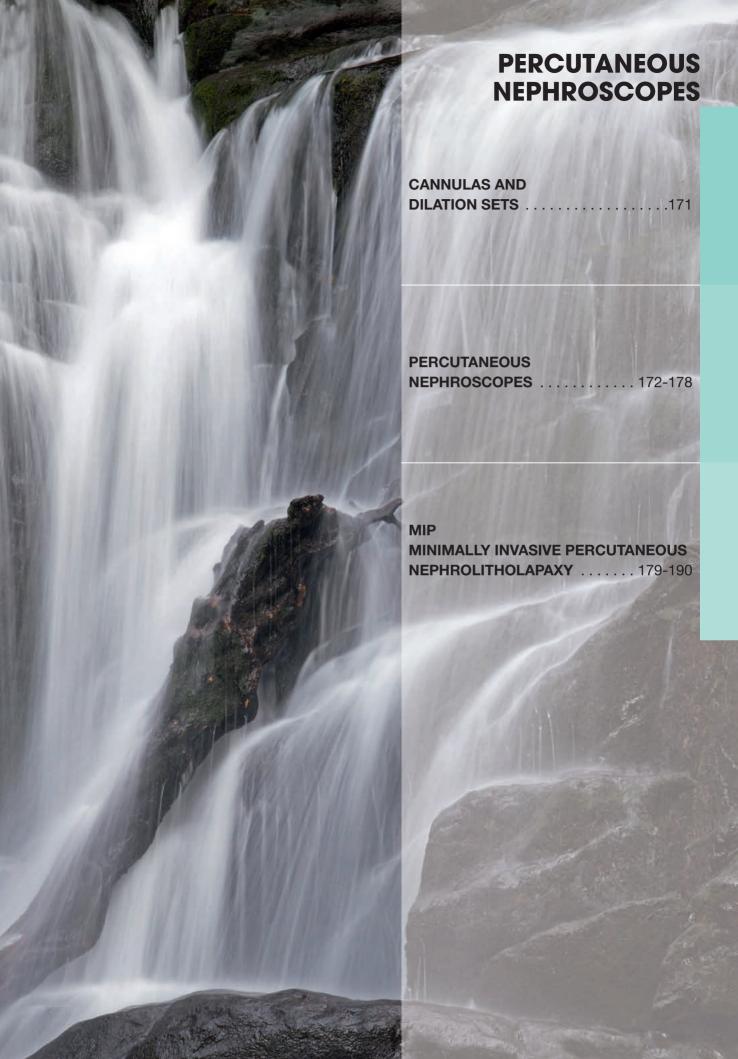
2x Battery Pack

Charger USB

Headband

Components/Spare Parts see chapter 16

URO-J1A



Cannulas and Dilation Sets





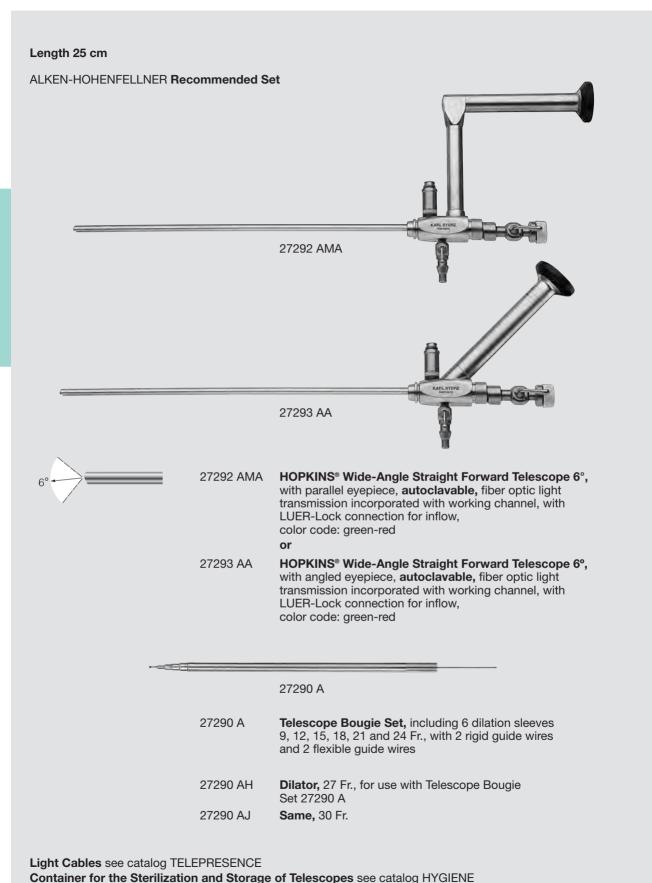
27091 K 27091 K Puncture Cannula, for puncture of the renal collecting system, consisting of inner and outer cannulas, package of 5 After puncturing, a contrast medium is injected to verify if the cannula has reached the renal collecting system. After retraction of the inner cannula, the outer cannula remains for positioning of the flexible probe. 27091 S 27091 S Guide Wire, for introduction through the Cannulas 27091 K/A, package of 2 After positioning in the renal collecting system the outer Cannula 27091 K is removed. 27091 A 27091 A Dilation Cannula, diameter 3 mm, for introduction of a second Guide Wire 27091 S, consisting of an inner and outer cannula The dilation cannula is introduced over the guide wire and the inner cannula is removed. A second guide wire can be introduced via the positioned outer cannula which can then be removed. The ALKEN Telescope Bougie Set 27090 A/27290 A is introduced over one of the two wires for dilation.

3-875

PCN 1 A 171

with Continuous Irrigation and Suction





172 PCN 2 A

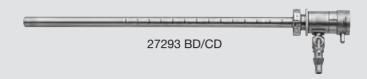
9-98_e





Length 25 cm

Sheaths for continuous irrigation and suction



27293 BD **Operating Sheath,** 26 Fr., for

continuous irrigation and suction, with LUER-Lock stopcock, rotating, color code: black-red 27293 CD

Operating Sheath, 24 Fr., for continuous irrigation and suction, with LUER-Lock stopcock, rotating,

color code: white-red

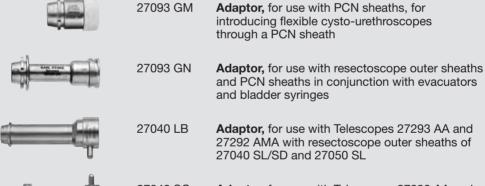
27293 BL Hollow Obturator and Fascial Dilator,

color code: black-red

27293 CL

Hollow Obturator and Fascial Dilator,

color code: white-red



27040 SC

Adaptor, for use with Telescopes 27293 AA and 27292 AMA with resectoscope outer sheaths of

27050 SC/SD

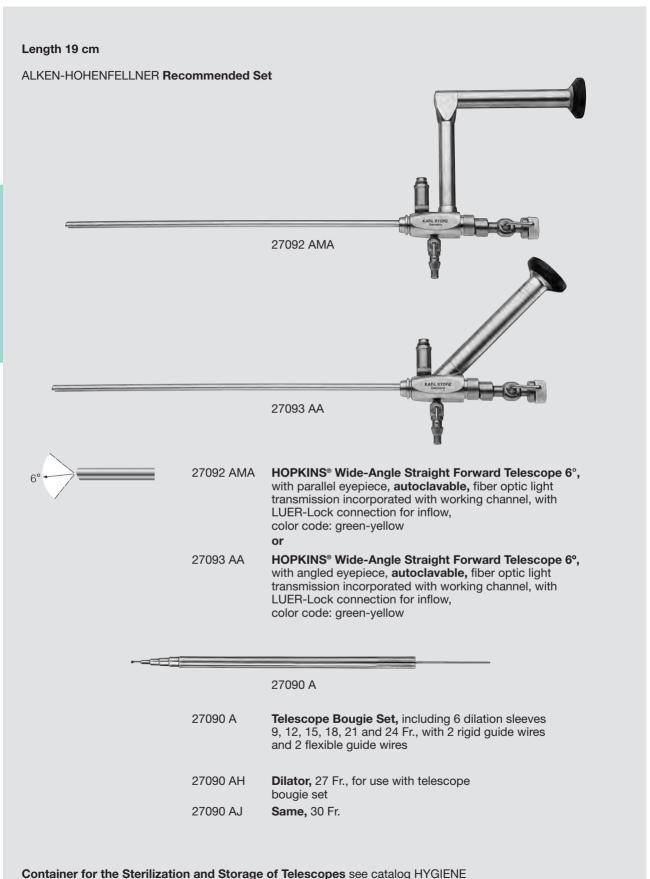
200

CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

PCN 3 B

with Continuous Irrigation and Suction





174 PCN 4 C

0





Length 19 cm

Sheaths for continuous irrigation and suction



27093 BD Operating Sheath, 26 Fr., for

continuous irrigation and suction, with LUER-Lock stopcock, rotating, color code: black-yellow

27093 CD

Operating Sheath, 24 Fr., for continuous irrigation and suction, with LUER-Lock stopcock, rotating, color code: white-yellow

27093 ON

Hollow Obturator and Fascial Dilator,

color code: black

27093 OC

Hollow Obturator and Fascial Dilator,

color code: white



27093 GM

Adaptor, for use with PCN sheaths, for introducing flexible cysto-urethroscopes through a PCN sheath



27093 GN

Adaptor, for use with resectoscope outer sheaths and PCN sheaths in conjunction with evacuators and bladder syringes

CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

Operating Instruments

for Percutaneous Removal of Kidney Stones, with Continuous Low Pressure Irrigation and Suction



ALKEN-HOHENFELLNER Recommended Set

Length 38 cm, color code: red-black, for use with Percutaneous Nephroscopes 27292 AMA, 27293 AA, 27092 AMA and 27093 AA

	27290 F	Forceps, for grasping stone fragments and coagula, with fenestrated jaws and U-spring handle, 11.5 Fr., length 38 cm, color code: red-black
	27290 H	Forceps, for grasping larger stones and stone fragments, with triple serrated jaws and U-spring handle, 10.5 Fr., length 38 cm, color code: red-black
	27290 K	Forceps, for grasping larger stones and stone fragments, with fenestrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black
	27290 DL	Biopsy Forceps, single action jaws, with ring handle, 10.5 Fr., length 38 cm, color code: red-black
	27290 M	Forceps, for grasping larger stones and stone fragments, with serrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black
	27290 SA	Scissors, single action jaws, 10.5 Fr., length 38 cm, color code: red-black
	27294 S	Knife, straight, with 3-ring-handle, 10.5 Fr., length 38 cm, color code: red-black
	27294 SK	Knife only
	27294 SH	Knife, sickle-shaped, with 3-ring handle, 10.5 Fr., length 38 cm, color code: red-black
	27294 SB	Knife only
·	27294 Y	Suction Tube, 12 Fr., length 38 cm, color code: red-black
	27290 LL	LASER Suction Tube, with micro manipulator for precise positioning of the LASER fiber, 12 Fr., length 40 cm including: 27290 LA Outer Sheath
		27290 LI Micromanipulator, with LASER guidance

CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

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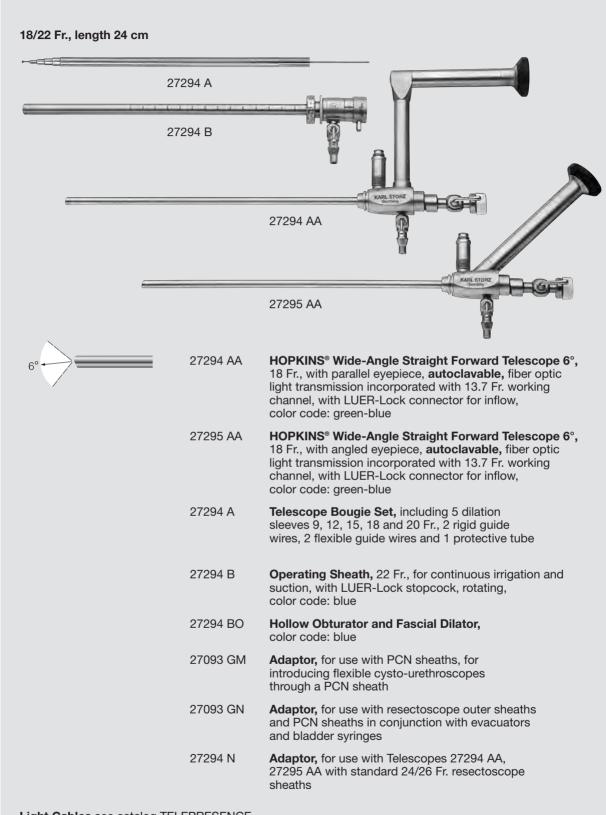
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PCN 6 D

Percutaneous Nephroscopes, "Slender" Model







Light Cables see catalog TELEPRESENCE

CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Operating Instruments





7 Fr., length 40 cm, to be used through the working channel with simultaneous irrigation with HOPKINS® Telescopes 27294 AA/27295 AA

27035 L **Biopsy Forceps,** semirigid, double action jaws, 7 Fr., length 40 cm

27035 F **Grasping Forceps,** semirigid, double action jaws, 7 Fr., length 40 cm

Length 38 cm, color code: red-black, for use through the working channel with HOPKINS® Telescopes 27294 AA/27295 AA

27290 K	Forceps, for grasping larger stones and stone fragments, with fenestrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black
27290 M	Forceps, for grasping larger stones and stone fragments, with serrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black
27290 SA	Scissors, single action jaws, 10.5 Fr., length 38 cm, color code: red-black
27294 S	Knife, straight, with 3-ring-handle, 10.5 Fr., length 38 cm, color code: red-black
27294 SK	Knife only
27294 SH	Knife, sickle-shaped, with 3-ring handle, 10.5 Fr., length 38 cm, color code: red-black
27294 SB	Knife only

3-032

CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

A New Generation of Pressure-Controlled PCNL Systems

STORY—FNDOSKOPE

MIP - Minimally Invasive Percutaneous Nephrolitholapaxy

NAGELE Modular Minimally Invasive PCNL System

Minimal Invasive PCNL

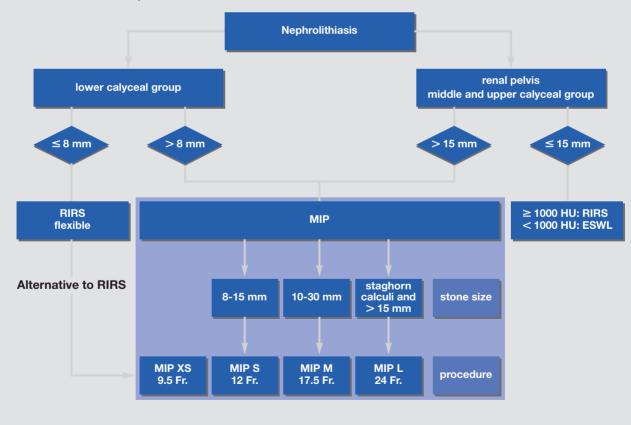
In an era where computed tomography is used to confirm stone-free status, the trend towards endourological stone treatment has become more firmly established. However, the initial euphoria surrounding the introduction of the third generation of flexible uretero-renoscopes has subsided due to limitations of use in routine urological practice. Percutaneous nephrolitholapaxy has proved superior in terms of stone-free rates with regard to the treatment of larger stone burdens and particularly in cases of unfavorable kidney geometry. It also presents an alternative for the treatment of small stones, particularly if the complication rate for the minimally invasive procedure is low but high for primary freedom from calculi.

In recent years, the concept of minimally invasive percutaneous stone treatment (MIP) has become an accepted standard in miniaturized percutaneous surgery. This has been corroborated in numerous publications. The key features of our system – single step dilation; automatic pressure control; stone extraction in the irrigation flow (= vacuum cleaner effect) and the possibility to close the access tract using a gelatin-thrombin-matrix in conjunction with ultrasound-guided puncture of the kidney – allow atraumatic and effective stone treatment with fewer complications.

The successful outcome of the first-generation MIP system created the incentive to meet future challenges in endourology and to switch to a new generation.

The second generation of the modular MIP system features 4 instrument sizes to match various indications. This enables urologists to adapt the benefits of minimally invasive PCNL to individual stone sizes and choose the best possible lithotripsy option for each size.

NAGELE stone concept



17

PCN 9 B 179

MIP - Minimally Invasive Percutaneous Nephrolitholapaxy

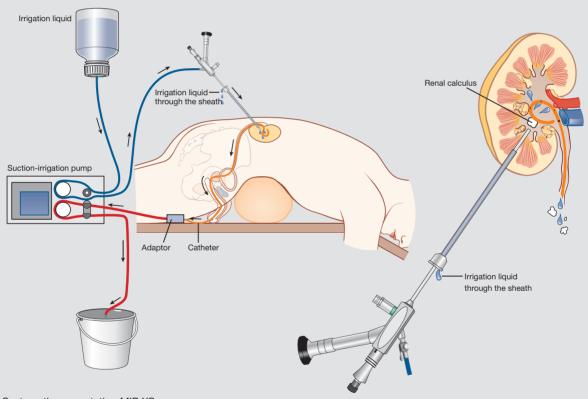




Contrary to the current trend of using superlatives (ultra-mini, micro, nano) to denote new PCNL systems, we decided to classify our nephroscopes according to various stone sizes: XS, S, M (previous size) and L. All instrument components associated with a specific nephroscope size bear a clearly visible marking to prevent incorrect use of automatic pressure control and the vacuum cleaner effect so that danger to patients is minimized. The most important innovations are: Enhanced hydrodynamics relative to each nephroscope size; modification of the sheaths via a larger working length for the treat-

ment of patients in the supine position or adipose patients; and the field and angle of view relative to the nephroscope size.

In contrast to larger nephroscopes, active irrigation is necessary (mandatory when using the XS system but optional for the S system). Calculi dust following laser fragmentation is suctioned with the irrigation liquid through a ureter catheter. This represents a revolutionary approach in percutaneous stone removal.



Systematic presentation MIP XS

The series of minimally invasive percutaneous instruments now available makes it possible to expand the spectrum of percutaneous stone treatment. This fills the treatment gap for narrow regions that were previously inaccessible for the flexible uretero-renoscope or for impassable calculi following ESWL treatment. In the case

of multiple concretions in several calices or if endoscopy is required to control stone elimination, the L system enables the use of flexible nephroscopes.

Prof. med. U. NAGELE, Landeskrankenhaus, Hall in Tirol, Austria 0-141

180 PCN 10 B

A New Generation of Pressure-Controlled PCNL Systems

MIP - Minimally Invasive Percutaneous Nephrolitholapaxy



The New Family of MIP Systems and Innovative Features





Versatility

The right instrument is available for every stone indication. The systems stand out due to their exceptional quality and durability as well as safe and careful handling.



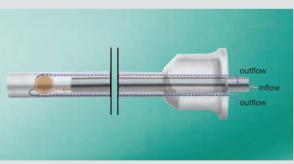
One-step-bougie

Following a skin incision, a single dilator can widen the port to allow the sheath to be advanced into the kidney. Telescope bougies or bougies in several sizes are no longer required for individual sheath sizes.



Innovative pressure management

All systems from the MIP series are designed as open systems, i.e. the sheath and telescope are not locked together and there is no second system connection to the system where irrigation liquid can flow off. With the MIP series, the irrigation liquid flows out via the space between the telescope and the operating sheath. Discontinuation of the outflow, which would lead to pressure build-up in the kidney, is not possible.



Efficient stone retrieval without instruments

The hydrodynamic effect achieved by the innovative inflow and outflow constellation makes it possible to retrieve stones without forceps, graspers or stone baskets. The funnel-shaped proximal sheath head enables stones to be removed from the sheath without any problems. A continuous irrigation flow ensures the residue-free elimination of small stone fragments and calculus dust.



Direct closure of the access tract

Access tracts to the kidney can be directly closed after stone retrieval using a gelatin-thrombin-matrix. This eliminates the need for nephrostomy (kidney fistula) in standard PCNL access tracts.

PCN 11 A 181

MIP L - Percutaneous Nephroscope



Minimal

Special Features:

- Open system allows a particularly atraumatic therapy under low-pressure conditions
- Bougie with a second eccentric channel for guide wire deflection enables precise steering of the wire
- Large working channel allows the use of rigid standard instruments and large lithotripsy probes up to 11.5 Fr.
- For large stone burdens



Instrument sheath: 19.5 Fr.

Working channel: 12.4 Fr. for use with

instruments up to 11.5 Fr.
Telescope: HOPKINS® rod lens system,

direction of view 12°

Length: 22 cm Eyepiece: angled



27840 KA

27840 KA Nephroscope for MIP L, autoclavable

Following accessories are included in delivery:

OF

27840 GP Instrument Port for Nephroscope for MIP L, with quick

release lock, sealing system and irrigation connector, for

use with Nephroscope for MIP L 27840 KA and

instruments up to 11.5 Fr.

27500 **LUER-Lock Tube Connector,** male,

tube diameter 9 mm

27502 **LUER-Lock Tube Connector,** with stopcock, dismantling

27001 E **Insertion Aid,** for guide wires

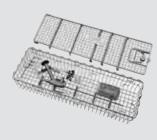
30160 XA Silicone Leaflet Washer, package of 10

30160 XB Seal, package of 10

39501 XKL Wire Trav

including:

Cleaning Adaptor, for Instrument Port 27840 GP



10-14

CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

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Dilators, Sheaths and Applicators







27840 AA

27840 AA **Dilator for MIP L,** 23/24 Fr., with central channel and a

second eccentric channel for guide wires, for use with 23/24 Fr. Operating Sheaths 27840 BA/BAS

27840 AB **Same,** for use with 25/26 Fr. Operating Sheaths

27840 BB/BBS



27840 BA

27840 BA **Operating Sheath,** 23/24 Fr., working length 15 cm, for

continuous irrigation and suction, for use with Nephroscope for MIP L 27840 KA, Dilator 27840 AA and Applicator 27840 CF

27840 BB **Same,** 25/26 Fr. for use with Nephroscope for MIP L

27840 KA, Dilator 27840 AB and Applicator 27840 CF

27840 BAS Operating Sheath, for the supine position, 23/24 Fr.,

working length 18 cm, for continuous irrigation and

suction

27840 BBS Operating Sheath, for the supine position, 25/26 Fr.,

working length 18 cm, for continuous irrigation and

suction



27840 CF

27840 CF Applicator for Sealant, including sheath and rod,

for use with Operating Sheaths 27840 BA/BB

27840 CFS **Applicator for Sealant,** for the supine position,

including sheath and rod, for use with Operating

Sheaths 27840 BAS/BBS

Optional Accessories for MIP see page 189

MIP M – Percutaneous Nephroscope



Minimal Invasive

Special Features:

- Well-proven miniature nephroscope with optimized design
- One-step dilator with a second eccentric channel for guide wire deflection enables precise steering of the wire
- Large working channel allows the use of rigid standard instruments and large lithotripsy probes up to 5 Fr.
- For the treatment of medium stone burdens



Instrument sheath: 12 Fr.

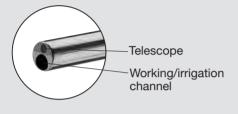
Working channel: 6.7 Fr. for use with instruments

up to 5 Fr.

Telescope: Fiber optic system, direction of

view 12°

Length: 22 cm Eyepiece: angled





27830 KA

27830 KA Nephroscope for MIP M, autoclavable

Following accessories are included in delivery:



27001 GP Instrument Port with Sealing System and

Quick Release Lock, 1 channel

27550 N **Seal,** for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended

27500 **LUER-Lock Tube Connector,** male,

tube diameter 9 mm

27502 **LUER-Lock Tube Connector,** with stopcock, dismantling

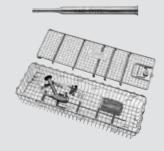
27001 E **Insertion Aid,** for guide wires

39501 XK Wire Tray

including:

Cleaning Adaptor, for Instrument Ports

27001 G/GF/GH/GG/GP



CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

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Dilators, Sheaths and Applicators

for MIP M





27830 AB

27830 AA One Step Dilator, with central channel for guide

wires, for use with 15/16 Fr. Operating Sheaths

27830 BA/BAS

27830 AB One Step Dilator, with central channel and a second

eccentric channel for guide wires, for use with 16.5/17.5 Fr.

Operating Sheaths 27830 BB/BBS

27830 AC Same, for use with 21/22 Fr. Operating Sheaths

27830 BC/BCS



27830 BB

27830 BA Operating Sheath, 15/16 Fr., working length 15 cm,

for continuous irrigation and suction

27830 BB Same, 16.5/17.5 Fr.

27830 BC Same, 21/22 Fr.

27830 BAS Operating Sheath, for the supine position, 15/16 Fr.,

working length 18 cm, for continuous irrigation and suction

27830 BBS **Same,** 16.5/17.5 Fr.

27830 BCS Same, 21/22 Fr.



27830 CF

27830 CF Applicator for Sealant, including sheath and rod,

for use with Operating Sheaths 27830 BA/BB/BC

Applicator for Sealant, for the supine position, 27830 CFS

including sheath and rod, for use with Operating

Sheaths 27830 BAS/BBS/BCS



27001 GG

27001 GG **Instrument Port with Sealing System and Quick**

Release Lock, large, 1 channel, for use with

accessories up to 6 Fr. (diameter 2 mm) in combination with Miniature Nephroscope for MIP M 27830 KA

10-14

PCN 15 185

MIP XS/S - Percutaneous Nephroscope



Minimal

Fiber optic system,

Special Features:

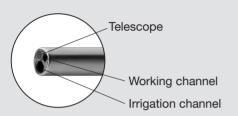
- Smaller system for minimal access tract
- Working channel with 2 Fr. for guided laser fibers allows safe use
- Separate irrigation channel for optimal irrigation and good visualization
- For low stone burdens
- Provides an alternative where flexible uretero-renoscopy is not possible

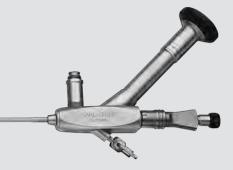
Specifications:

Instrument sheath: 7.5 Fr.
Working channel: 2 Fr.
Separate irrigation channel: 3 Fr.

Telescope:

direction of view 6°
Length: 24 cm
Eyepiece: angled





27820 KA

27820 KA Nephroscope for MIP XS/S, autoclavable

Following accessories are included in delivery:

Ma cross	27001 G	Instrument Port with Sealing System and Quick Release Lock, 1 channel
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27500	LUER-Lock Tube Connector, male, tube diameter 9 mm
	27502	LUER-Lock Tube Connector, with stopcock, dismantling
100 (100)	27001 E	Insertion Aid, for guide wires
	39501 XK	Wire Tray including: Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH/GG/GP
	39501 XRV	Multiport Bridge
	39107 ALK	Cleaning Adaptor, for use with small LUER stopcocks

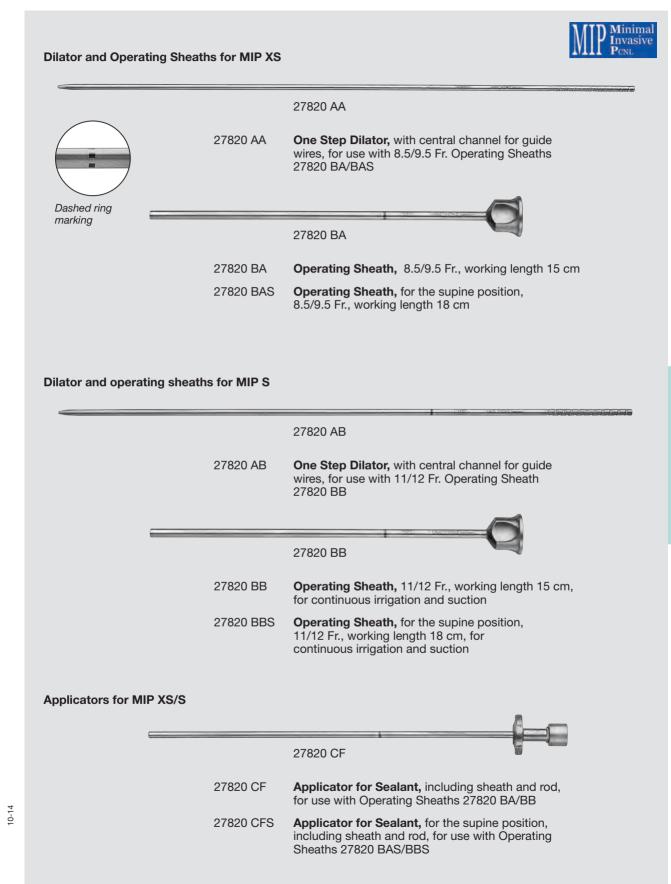
CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney see chapter 15, UNITS

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Dilators, Sheaths and Applicators

for MIP XS/S

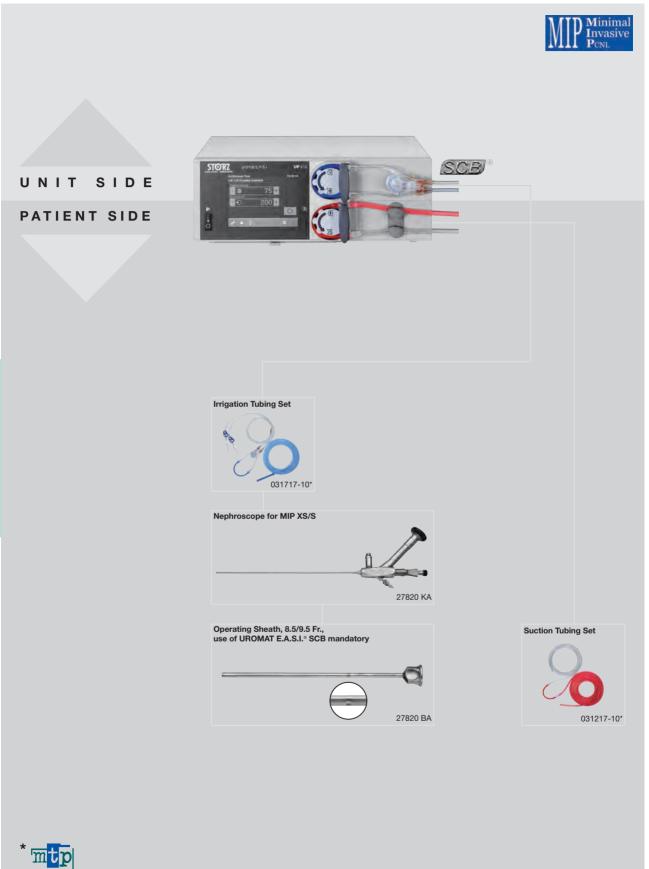




UROMAT E.A.S.I.® SCB

System Components for MIP XS





Optional Accessories







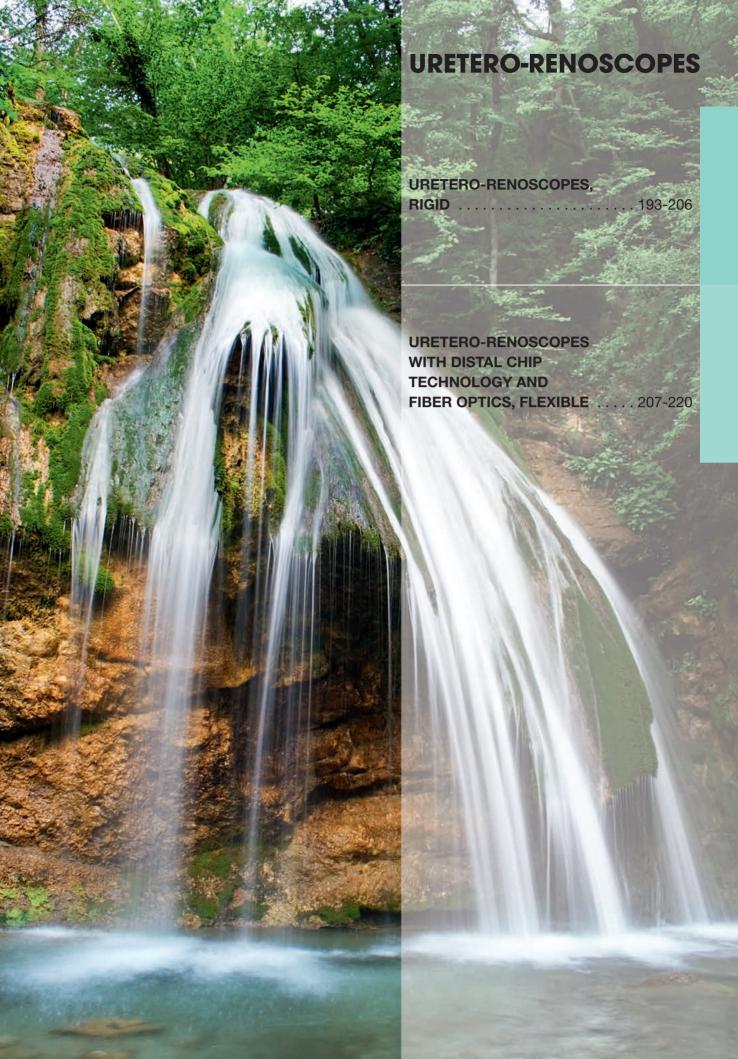
Optional accessories for MIP L

27290 F	Forceps, for grasping stone fragments and coagula, with fenestrated jaws and U-spring handle, 11.5 Fr., length 38 cm, color code: red-black
27290 H	Forceps, for grasping larger stones and stone fragments, with triple serrated jaws and U-spring handle, 10.5 Fr., length 38 cm, color code: red-black
27290 K	Forceps, for grasping larger stones and stone fragments, with fenestrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black
27290 M	Forceps, for grasping larger stones and stone fragments, with serrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black
27294 S	Knife, straight, with 3-ring-handle, 10.5 Fr., length 38 cm, color code: red-black
27294 SK	Knife only
27294 SH	Knife, sickle-shaped, with 3-ring handle, 10.5 Fr., length 38 cm, color code: red-black
27294 SB	Knife only

Optional accessories for MIP M

The state of the s	27830 FK	Forceps for Foreign Body Removal, double action jaws, flexible, 5 Fr., length 40 cm
	27830 FL	Biopsy Forceps, double action jaws, flexible, 5 Fr., length 40 cm
A Management	27830 S	Scissors, single action jaws, semiflexible, 5 Fr., working length 40 cm
	27830 H	Forceps, rigid, for grasping large stones and stone fragments, with triple serrated jaw parts and U-spring handle, 5 Fr., length 36 cm







Uretero-Renoscopes, rigid

1010 110110000 p 00, 11910	RAKL STORZ — ENDOSI
URETERO-RENOSCOPE, 7 Fr	194-198
URETERO-RENOSCOPE, 8 Fr	199
URETERO-RENOSCOPE, 9.5 Fr	200
MICHEL URETERO-RENOSCOPE, 9.5 Fr	201
URETERO-RENOSCOPE, 7 Fr	202
GAUTIER URETERO-RENOSCOPE, 8 Fr	203
ACCESSORIES	
INSTRUMENTS	205-206
	111/18/11/14
	10/10/10/10
	EVARY ARREST

Meeting All Requirements

Uretero-Renoscopes, rigid



Uretero-renoscopes have long been a core component of the KARL STORZ product range. As standstill is nowadays considered to be synonymous with a lack of progress, KARL STORZ constantly strives to optimize and enhance all instruments.

The new generation of uretero-renoscopes developed by KARL STORZ presents a further advanced development with an innovative concept and design.

The new sheath design features a considerably softer sheath step. This ensures excellent gliding properties and so enables simple and atraumatic treatment for the patient. In addition to introducing new elements, triedand-tested features were maintained, for example, the atraumatic sheath tip and the self-closing seal. The HOPKINS® rod lens system and/or the KARL STORZ fiber system continue to provide excellent visualization. Various removable ports with quick-release coupling allow the surgeon individual combinations.

The innovative design concept of the new generation of uretero-renoscopes provides urologists with vastly improved options in terms of diagnosis and treatment.

With diameters ranging from 7 to 10.5 Fr. as well as working channels from 3.4 to 6 Fr., KARL STORZ offers the right instrument for every intervention and ensures efficient diagnosis and therapy.



921

The Right Solution for each Individual Anatomy and Indication

Uretero-Renoscopes, rigid





The **reduced outer diameter** ensures minimal patient discomfort. The unique design combined with the proven KARL STORZ quality guarantee a stable and robust sheath. The new, slender design makes work more ergonomic and comfortable for the operating surgeon.



Right-angled irrigation/suction channels prevent positioning instruments too close to the housing, enabling optimal handling and convenient introduction.

The **flow control stopcock** allows the surgeon to dispense the inflow/outflow very precisely in critical situations, preventing a stone from being washed into the renal pelvis due to irrigation which is too strong or which changes in an uncontrolled manner.



The **removable instrument ports** are attached to the uretero-renoscope with a quick coupling mechanism and are available either as single or dual working channels. The **dual-closing sealing system** from KARL STORZ has the only sealing valve that opens and closes by itself during both distal and proximal introduction of instruments without removing the seal.



Wire Tray 39501 XK ideally protects the uretero-renoscope during transportation, cleaning and storage and, consequently, ensures a long service life.

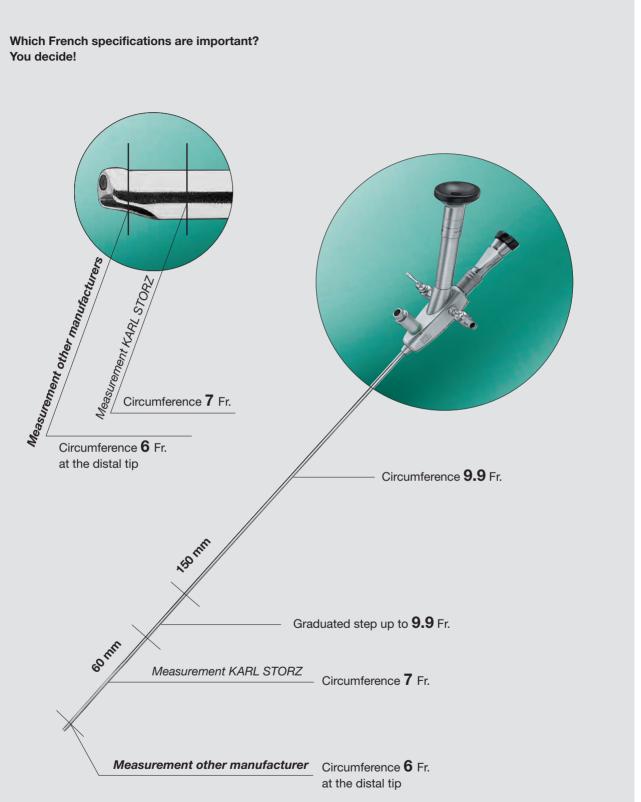
From diagnosis to therapy through to **transportation**, **cleaning**, **storage**, **accessories** and **service**, KARL STORZ provides solutions to cover all hospital workflow processes.

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The New Generation

Uretero-Renoscopes, rigid

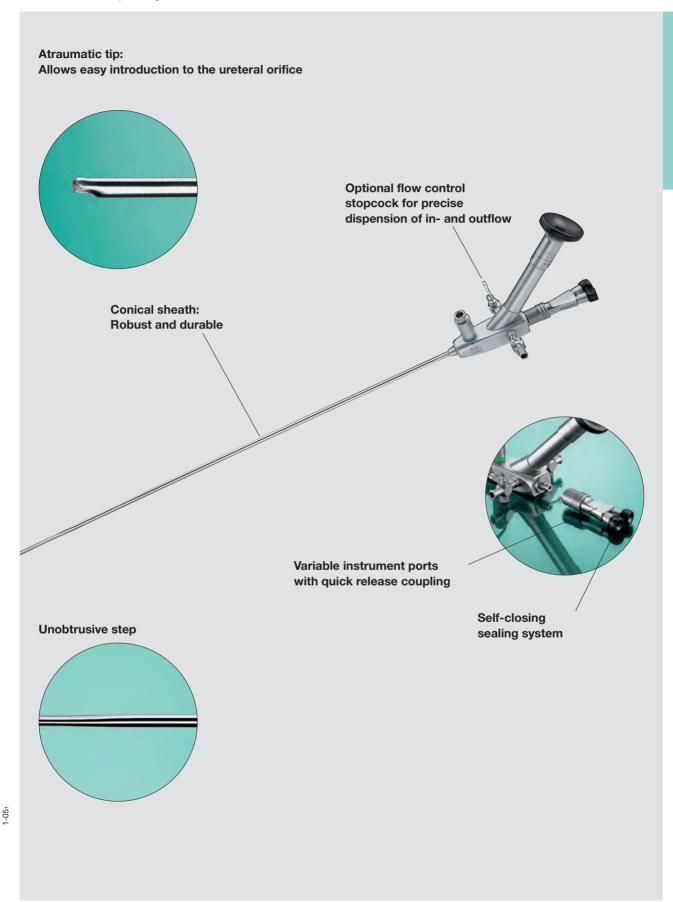




The New Generation

Uretero-Renoscopes, rigid





URS-INTRO 3

rigid



7 Fr., lengths 43 and 34 cm

Special Features:

- Distal end of sheath atraumatically shaped, with rounded tip
- Minimal sheath diameter
- Maximum irrigation through the large straight working channel with 2 lateral, right-angled irrigation ports
- The large working channel allows the use of rigid instruments and probes up to 4 Fr.
- The rigid angled eyepiece makes work more comfortable and ensures easy handling of instruments as well as a safe distance to the surgeon while using lithotripsy probes.

Specifications:

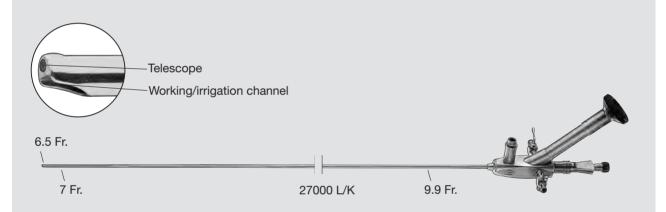
Distal tip: 6.5 Fr.

Instrument sheath: 7 Fr., 1 step, 9.9 Fr.

Working channel: 4.8 Fr., for use with instruments up to 4 Fr.

Telescope: Fiber optic system,

direction of view 6°
Length: 43 and 34 cm
Eyepiece: angled, rigid



27000 L Uretero-Renoscope, autoclavable,

length 43 cm

27000 K Ureteroscope, autoclavable,

length 34 cm

Accessories included in delivery or optional accessories see page 204





8 Fr., lengths 43 and 34 cm

Special Features:

- Atraumatic sheath tip design, with rounded tip
- Minimal sheath diameter
- Maximum inflow due to large central working channel with 2 lateral, right-angled irrigation ports
- The large working channel allows the use of rigid instruments and probes up to 4 Fr.
- The rigid angled eyepiece makes working more comfortable and ensures easy handling of instruments as well as a safe distance to the surgeon while using lithotripsy probes.

Specifications:

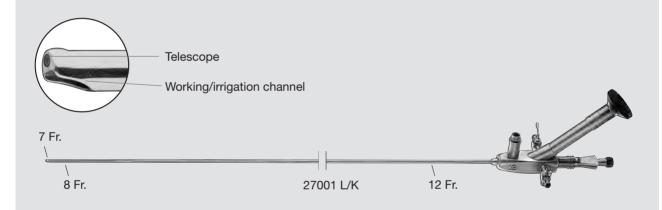
Distal tip: 7 Fr.

Instrument sheath: 8 Fr., 1 step, 12 Fr.
Working channel: 5 Fr., for use with instruments up to 4 Fr.

Telescope:

Fiber optic system, direction of view 6°

Length: Eyepiece: 43 and 34 cm angled, rigid



27001 L

Uretero-Renoscope, autoclavable,

length 43 cm

27001 K

Ureteroscope, autoclavable,

length 34 cm

1-052

Accessories included in delivery or optional accessories see page 204

rigid



9.5 Fr., lengths 43 and 34 cm

Special Features:

- Distal end of sheath atraumatically shaped, with rounded tip
- Minimal sheath diameter
- Maximum inflow due to large central working channel with 2 lateral, right-angled irrigation ports
- The large working channel allows the use of rigid instruments and probes up to 5 Fr.
- The rigid angled eyepiece makes working more comfortable and ensures easy handling of instruments as well as a safe distance to the surgeon while using lithotripsy probes.

Specifications:

Distal tip: 8 Fr.

Instrument sheath:

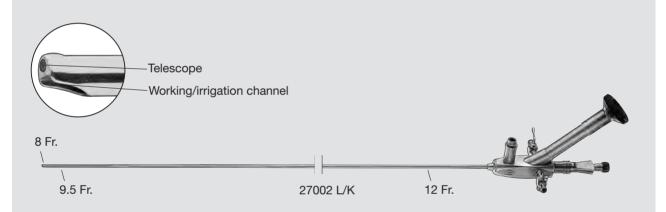
Working channel:

6 Fr. for use with instruments up to 5 Fr.

Telescope:

Fiber optic system,

direction of view 6°
Length: 43 and 34 cm
Eyepiece: angled, rigid



27002 L Uretero-Renoscope, autoclavable,

length 43 cm

27002 K Ureteroscope, autoclavable,

length 34 cm

Accessories included in delivery or optional accessories see page 204

MICHEL Uretero-Renoscope





9.5 Fr., length 43 cm

Special Features:

- Distal end of sheath atraumatically shaped, with rounded tip
- Minimal sheath diameter
- Maximum irrigation due to large central working channel with 1 right-angled irrigation port, left side
- The large working channel allows the simultaneous use of rigid instruments and probes from 2 to 3 Fr.
- Maximum irrigation due to an additional separate irrigation channel (2.3 Fr.) with an irrigation port on the underside
- The rigid angled eyepiece makes work more comfortable and ensures easy handling of instruments as well as a safe distance to the surgeon while using lithotripsy probes.

Specifications:

Distal tip: 9 Fr.

Instrument sheath: 9.5 Fr., 1 step, 12 Fr.
Working channel: for simultaneous use of 2 and 3 Fr. instruments

and probes

Separate

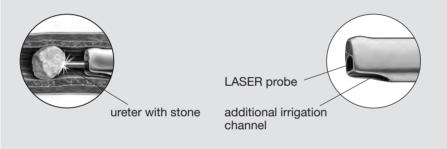
irrigation channel:

Telescope: Fiber optic system,

direction of view 6° 43 cm

2.3 Fr.

Length: 43 cm Eyepiece: angled, rigid







27003 L MICHEL Uretero-Renoscope, autoclavable, length 43 cm

Accessories included in delivery or optional accessories see page 204

rigid



7 Fr., lengths 43 and 34 cm

Special Features:

- Minimal sheath diameter
- Maximum inflow due to an additional irrigation channel (2.4 Fr.), left side
- The large working channel allows the use of instruments and probes up to 3 Fr.
- Especially suitable for use with the CALCULASE SCB LASER system for stone disintegration

Specifications:

Distal tip: 7 Fr.

Instrument sheath: 7 Fr., 1 step, conical

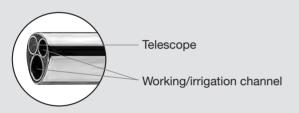
8.4 – 9.9 Fr.

Working channel: 3.4 Fr., for use with instruments up to 3 Fr.

Irrigation channel: 2.4 Fr.

Telescope: Fiber optic system, direction of view 6°

Length: 43 and 34 cm Eyepiece: straight, rigid





27010 L/K

27010 L Uretero-Renoscope, autoclavable,

length 43 cm

27010 K Ureteroscope, autoclavable,

length 34 cm

Accessories included in delivery or optional accessories see page 204

GAUTIER Uretero-Renoscope





8 Fr., length 41 cm

Special Features:

- Excellent optical quality due to HOPKINS® rod lens system
- Distal end of sheath atraumatically shaped, with rounded tip
- Minimal sheath diameter
- Maximum inflow due to large central working channel with 2 lateral, right angled irrigation
- The large working channel allows the use of rigid instruments and probes up to 4 Fr.

Specifications:

Telescope:

Distal tip: 7 Fr.

8 Fr, 1 step, conical Instrument sheath:

8 – 13.5 Fr.

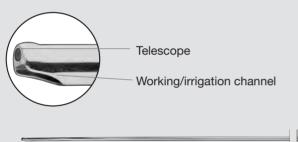
Working channel: 5 Fr., for use with

instruments up to 4 Fr.

HOPKINS® rod lens system, direction of view 6°

Length: 43 cm

Eyepiece: straight, rigid







27013 L

1-051

Accessories included in delivery or optional accessories see page 204

URS 7 I





For use with 27000 L/K, 27001 L/K, 27002 L/K, 27003 L and 27013 L

Following accessories are included in delivery:

ONE TOTAL	27001 G	Instrument Port with Sealing System and Quick Release Lock, 1 channel
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27500	LUER-Lock Tube Connector, male, tube diameter 9 mm
	27502	LUER-Lock Tube Connector, with stopcock, dismantling
	27504	Flow Control Stopcock
145.000	27001 E	Insertion Aid, for guide wires
	39501 X	Wire Tray, 644 x 150 x 80 mm including:
		Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH

Optional accessories:

Main Street	27001 GF	Instrument Port with Sealing System and Quick Release Lock, 2 channels
12 200	27001 GH	Instrument Port with Sealing System and Quick Release Lock, 2 channels, 1 straight channel, 1 lateral channel

For use with 27010 L/K

Following accessories are included in delivery:

PAGE 4700	27014 Y	LUER-Adaptor, with seal
ail	27550 N	Seal , for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27500	LUER-Lock Tube Connector, male, tube diameter 9 mm
	27502	LUER-Lock Tube Connector, with stopcock, dismantling
115 (117)	27001 E	Insertion Aid, for guide wires
	39501 X	Wire Tray, 644 x 150 x 80 mm including: Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH

Components/Spare Parts see chapter 16

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For use with 27000 L/K and 27001 L/K

	27424 F	Forceps, rigid, for grasping stone fragments, double action jaws, 4 Fr., length 60 cm, color code: blue
	27424 P	Forceps, rigid, for grasping larger stones and fragments, double action jaws, 4 Fr., length 60 cm, color code: blue
	27424 Z	Biopsy Forceps, rigid, double action jaws, 4 Fr., length 60 cm, color code: blue
	27424 R	PÉREZ-CASTRO Forceps, rigid, with long jaws, for Steinstrasse, double action jaws, 4 Fr., length 60 cm, color code: blue
	27424 U	Splitting Forceps, rigid, cutting upwards, single action jaws, 4 Fr., length 60 cm, color code: blue
	27023 VB	Stone Basket, sterile, for single use, 2.5 Fr., length 120 cm
~~~~~~	27023 Y	<b>Brush for Cytology,</b> 3 Fr., unsterile, for single use, package of 5

#### For use with 27010 L/K and 27003 L

27023 FM	Forceps, rigid, for grasping stone fragments, double action jaws, 3 Fr., length 60 cm, color code: green
27023 VB	<b>Stone Basket,</b> sterile, for single use, 2.5 Fr., length 120 cm
27023 Y	<b>Brush for Cytology,</b> 3 Fr., unsterile, for single use, package of 5

0.00

**CALCULASE II SCB LASER System for endoscopic treatment of bladder, ureter and kidney stones** see chapter 15, UNITS

URS 9 I 205





#### For use with 27002 L/K

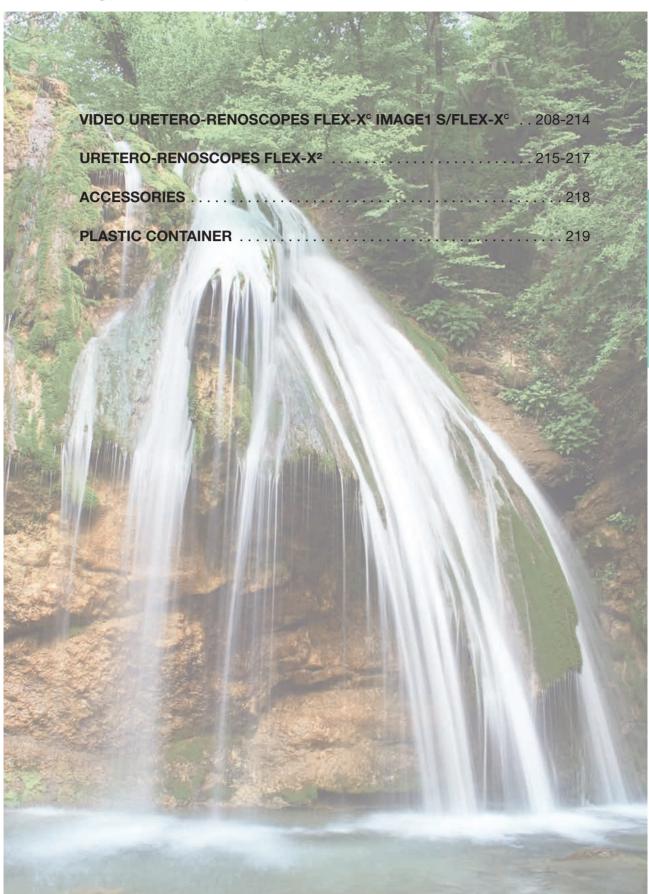
	27425 F	Forceps, rigid, for grasping stone fragments, double action jaws, 5 Fr., length 60 cm, color code: red
	27425 P	Forceps, rigid, for grasping larger stones and fragments, double action jaws, 5 Fr., length 60 cm, color code: red
	27425 Z	<b>Biopsy Forceps</b> , rigid, double action jaws, 5 Fr., length 60 cm, color code: red
	27425 R	PÉREZ-CASTRO <b>Forceps,</b> rigid, with long jaws, for Steinstrasse, double action jaws, 5 Fr., length 60 cm, color code: red
	27425 U	<b>Splitting Forceps,</b> rigid, single action jaws, cutting upwards, 5 Fr., length 60 cm, color code: red
	27023 WU	<b>Balloon Catheter</b> , sterile, for single use, 3 Fr., package of 2
	27023 VK	Stone Basket, 5 Fr., length 60 cm including: 3-Ring Handle 3x Basket 3x Coil
	27023 VU	<b>Stone Basket,</b> sterile, for single use, 3 Fr., length 115 cm
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	27023 Y	<b>Brush for Cytology,</b> 3 Fr., unsterile, for single use, package of 5

CALCULASE II SCB LASER System for endoscopic treatment of bladder, ureter and kidney stones see chapter 15, UNITS

Components/Spare Parts see chapter 16

Uretero-Renoscopes with Distal Chip Technology and Fiber Optics, flexible





Uretero-Renoscopes, flexible

for Access to the Entire Intrarenal Collection System



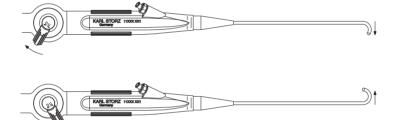
You wouldn't force someone who is left-handed to write with his right hand. Yet many flexible endoscopes impose exactly this type of limitation by forcing their operators to use counter-intuitive deflection mechanisms.

KARL STORZ answers this challenge by offering a choice of deflection mechanisms: either positive or contrapositive. With positive (or "logical") deflection, a downward movement of the lever mechanism causes an upward movement of the endoscope tip, and vice versa. Reverse this orientation by choosing the contra-

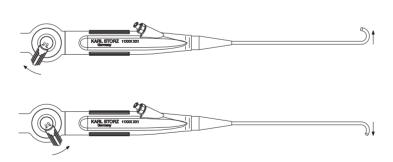
positive mechanism: a downward movement of the lever mechanism now causes a downward movement of the endoscope tip.

Either way, a simple flexion of the thumb on the deflection lever sweeps the endoscope tip into some of the most challenging areas of the anatomy, such as the neck of the bladder and the bladder diverticulum. And the intuitive design means you will never have to struggle to distinguish up from down – or down from up.

Choose the active tip deflection mechanism you are most comfortable with.



Positive deflection mechanism



Contrapositive deflection mechanism

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Video Uretero-Renoscopes, flexible KARL STORZ FLEX-X^c



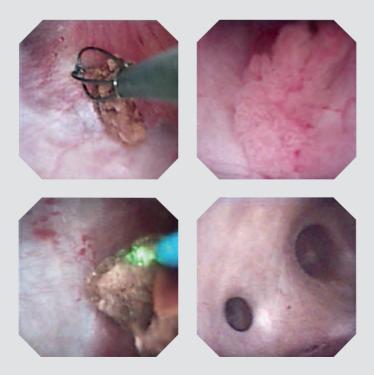
FLEX-X^c goes digital!

Twenty years ago, KARL STORZ Endoskope was the first to deliver an actively deflectable flexible ureteroscope with a small cirumference, featuring an outer circumference of less than 9 Fr., a two-way steerable tip deflection and a 1.2 mm working channel. This advanced endoscope was based on an innovative fiberoptic design that allowed for miniaturization while maintaining mechanical parameters surgeons required for complex endoscopic interventions. As in 1992, KARL STORZ once again has pioneered optical design with the addition of FLEX-X° - the smallest digital CMOS-based flexible uretero-renoscope to date. The FLEX-X actively deflectable flexible uretero-renoscope is based on the tenet that less is more. Consequently, the fiberoptic-based FLEX-X has become the standard tool for complex ureteroscopic interventions, including endoscopic lithotripsy and various therapies for upper urinary tract urothelial malignancies. Thanks to its small circumference sheath and two-way active tip deflection, FLEX-X^c mirrors the positive attributes of its fiberoptic predecessor in many ways. The addition of digital CMOS optical package/technology exponentially increases relative image pixel power to deliver high-resolution, endoscopic imaging. The ability to adjust and tune the digital image provides greater accuracy in diagnostic endoscopy while facilitating the most complex ureteroscopic interventions.

Endourologists have developed complex minimally invasive interventions that require a durable, steerable, flexible uretero-renoscope. With these attributes, the FLEX-X series has become the standard uretero-renoscope in many operating rooms worldwide. The main reasons are ease in ureteral access and a precise steerable endoscope tip which facilitaties delivery of various energy sources, e.g. LASER. The relatively easy access to the upper urinary tract with these instruments is based in part on the thin and relatively stiff endoscope shaft. FLEX-X°'s unique design with its oval sheath with a small circumference is durable and also encourages continuous drainage around the instrument from tip to bladder, maintaining relatively low intrarenal pressures.

In summary, FLEX-X^c maintains all the mechanical advantages of the traditional steerable fiberoptic endoscope with the addition of the smallest circumference CMOS-based digital imager to date. Its new and unique oval shaft design is durable and also improves irrigant drainage during complex ureteroscopic interventions.

M. GRASSO M.D. Professor of Urology New York Medical College New York, USA



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Video Uretero-Renoscopes, flexible KARL STORZ FLEX-X°







Easier access to the kidney

- High torque stability
- 1:1 implementation of hand movements
- Externely smooth control



Ergonomic use

- Integrated LED light source for ease of use without an additional light cable
- Lightweight
- Extremely thin and steerable sheath
- Use of instruments or LASER fibers with little or no loss of angulation properties possible
- Automatic focus and exposure



Extremely slender and steerable:

- Minimal sheath circumference of only 8.4 Fr.
- Atraumatic tip of 8.5 Fr.
- Large working channel of 3.6 Fr.
- LASERITE ceramic insert prevents thermal damage and extends service life
- Sterilizable with EtO and FO gas, Steris® and Sterrad®



Infinitely 270° variable deflection:

- Infinitely variable 270° deflection (up/down) for intuitive orientation and visualization of the entire renal collecting system
- Integrated shock absorber system offers additional passive deflection components and enables easier access to all areas of the kidney

Video Uretero-Renoscopes, flexible *

STORY—ENDOSKOPE

for Access to the Entire Intrarenal Collection System

3.5 Fr.							FLEX-X
Order No.	Video Uretero. Renoscopes	Deflection of distal tip	Direction of view	Angle of view	Working length	Working channel inner diameter	Sheath size
Model for use	with IMAGE1 S						
11278 VSK	with positive deflection	270°	0°	90°	70 cm	3.6 Fr.	8.5 Fr.
11278 VSUK	with contrapositive deflection	270°	0°	90°	70 cm	3.6 Fr.	8.5 Fr.
Model for use	with IMAGE 1 HUB™ H	D					
11278 VK	with positive deflection	270°	0°	90°	70 cm	3.6 Fr.	8.5 Fr.
11278 VUK	with contrapositive deflection	270°	0°	90°	70 cm	3.6 Fr.	8.5 Fr.



11278 V Video Uretero-Renoscope FLEX-X^c

Following accessories are included in delivery:

	27677 X	Case
	13242 XL	Leakage Tester, with bulb and manometer
	27651 AL	Cleaning Brush, round, flexible, outer diameter 2 mm, for working channel diameter 1.2 – 1.8 mm, length 150 cm
And Area	27014 Y	LUER-Adaptor, with seal
	11025 E	Pressure Compensation Cap, for ventilation during gas and plasma sterilization

Flexible Video Uretero-Renoscopes 11278 VS/VSU are compatible with the IMAGE1 S Camera Control Unit. Flexible Video Uretero-Renoscopes 11278 V/VU are compatible with the IMAGE 1 HUB™ HD Camera Control Unit 22 2010 11U1XX.

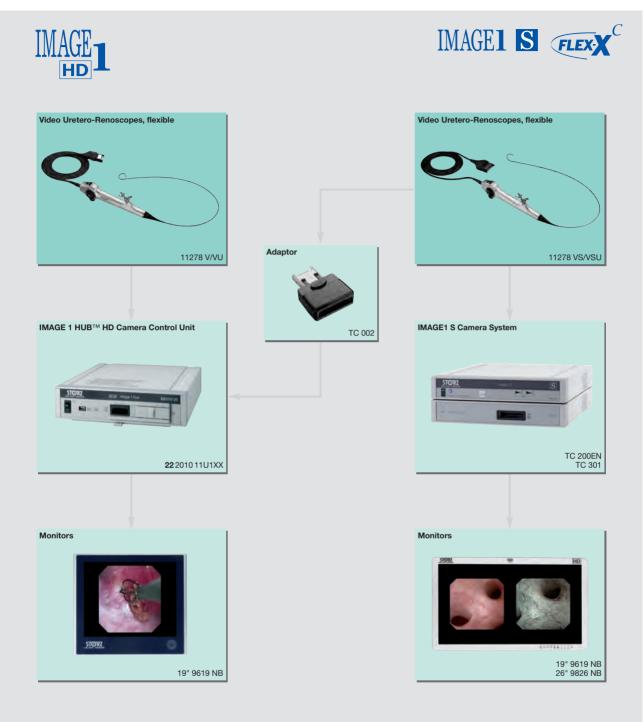
For further information on Cold Light Fountains, Camera Systems and Monitors see catalog TELEPRESENCE

Optional Accessories see page 218

Video Uretero-Renoscopes, flexible [™]

Overview





For further information on Cold Light Fountains, Camera Systems and Monitors see catalog TELEPRESENCE

IMAGE1 S



IMAGE1 S

With its new FULL HD camera platform IMAGE1 S, KARL STORZ once again sets a new milestone in endoscopic imaging, consolidating their reputation as an innovation leader in minimally invasive surgery.

Special Features

- Dashboard: Overview with intuitive user guidance
- Live menu: User-friendly and customizable menu bar
- Intelligent icons: The graphic representation changes as soon as settings are modified in the connected units
- Automatic light source control
- Side-by-side view: Parallel display of standard image and visualization mode possible
- Multiple source control: Picture-in-Picture function enables the simultaneous display of image information from two connected image sources, e.g., for hybrid procedures



Modular camera control system



IMAGE1 S camera heads



Dashboard

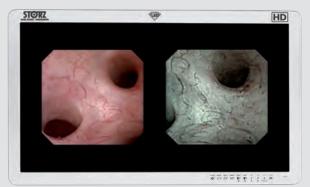
Intelligent icons







Live menu



Renal collecting system in side-by-side view



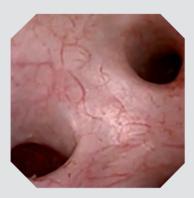
URS 17 D 213

IMAGE1 S in Urology, flexible

Upper Urinary Tract







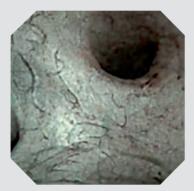
Brillant Imaging in FULL HD

IMAGE1 S delivers excellent imaging for both flexible and rigid endoscopy. The IMAGE1 S system provides true-to-life color reproduction and impresses with a natural color rendition.



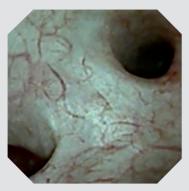
CLARA and CHROMA

IMAGE1 S offers the possibility of combining both the CLARA and CHROMA technologies. In this mode, the image is uniformly illuminated by CLARA and the tissue structures are clearly defined by CHROMA.



SPECTRA A

In SPECTRA A, spectral filtering of the red hues takes place. The resulting color change is due to spectral color shifts. The contrast of structures, such as blood vessels in mucosa, is seen with a green-blue tint.



SPECTRA B

SPECTRA B reduces reds and intensifies the greenblue spectral component. The background appears greenish so that blood vessels and capillaries are highlighted. The user maintains a large amount of the natural color perception.

For further information on Cold Light Fountains, Camera Systems and Monitors see catalog TELEPRESENCE

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Uretero-Reno-Fiberscopes

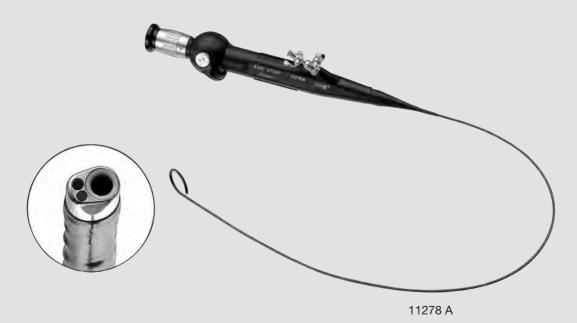
for Access to the Entire Intrarenal Collection System





Special Features:

- LASERITE ceramic insert at the distal end protects the instrument from thermal damage during LASER application
- Additional passive deflection components
- Integrated shock absorber system
- Deflection 270° upwards/downwards allows the intuitive orientation and visualization of the entire renal tract
- Use of instruments or LASER fibers with little or no loss of angulation properties possible
- Enhanced material resistance and stiffness allow easier access to the kidney
- Sterilizable with EtO and FO gas, Steris® and Sterrad®
- Additional reprocessing options with hydrogen peroxide
- Minimal discomfort for the patient in the ureteral and renal tracts
- Diagnostic and therapeutic applications
- Smaller outer diameter



Uretero-Reno-Fiberscopes





7.5 Fr.							FLEX:	2
Order no.	Uretero-Reno. Fiberscopes	Deflection of distal tip	Direction of view.	Angle of view	Working length	Working channel	Sheath size	
11278 A	with positive deflection	270	0°	88°	67 cm	3.6 Fr.	7.5 Fr.	
11278 AU	with contrapositive deflection	270°	0°	88°	67 cm	3.6 Fr.	7.5 Fr.	

Following accessories are included in delivery:

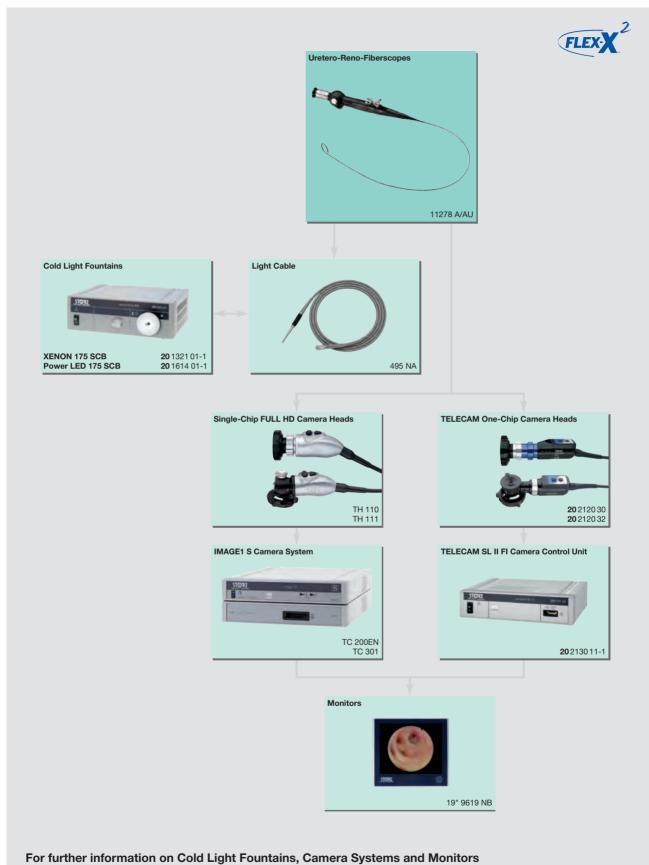
	27677 X	Case
	11025 E	Pressure Compensation Cap, for ventilation during gas and plasma sterilization
	13242 XL	Leakage Tester, with bulb and manometer
	27651 AL	Cleaning Brush, round, flexible, outer diameter 2 mm, for working channel diameter 1.2 – 1.8 mm, length 150 cm
AND ASSESSMENT	27014 Y	LUER-Adaptor, with seal

Optional Accessories see page 218

Uretero-Reno-Fiberscopes







see catalog TELEPRESENCE

URS 21 A 217

Uretero-Renoscopes, flexible





For use with flexible Uretero-Reno-Fiberscopes 11278 A/AU and flexible Video Uretero-Renoscopes 11278 VS/VSU/V/VU

	11275 FE	Grasping Forceps, double action jaws, flexible, 3 Fr., length 100 cm
*	11275 ZE	Biopsy Forceps, double action jaws, flexible, 3 Fr., length 100 cm
	27023 VB	Stone Basket, sterile, for single use, 2.5 Fr., length 120 cm
0	11770 T	Coagulation Electrode, unipolar, 3 Fr., length 110 cm
	27025 P	Guide Wire, with ball end, 3 Fr., sterile, package of 10
	27550 N	Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
KARL STORZ	27001 RA	Cleaning Adaptor

Plastic Containers for the Sterilization and Storage of Flexible Uretero-Renoscopes



For use with flexible Video Uretero-Renoscopes 11278 V/VU/VS/VSU



39406 AS

Plastic Container for Flexible Endoscopes, specially suited for gas and hydrogen peroxide (Sterrad®) sterilization and storage, for use with one flexible endoscope, external dimensions (w x d x h): 550 x 260 x 90 mm

For use with flexible Uretero-Reno-Fiberscopes 11278 A/AU



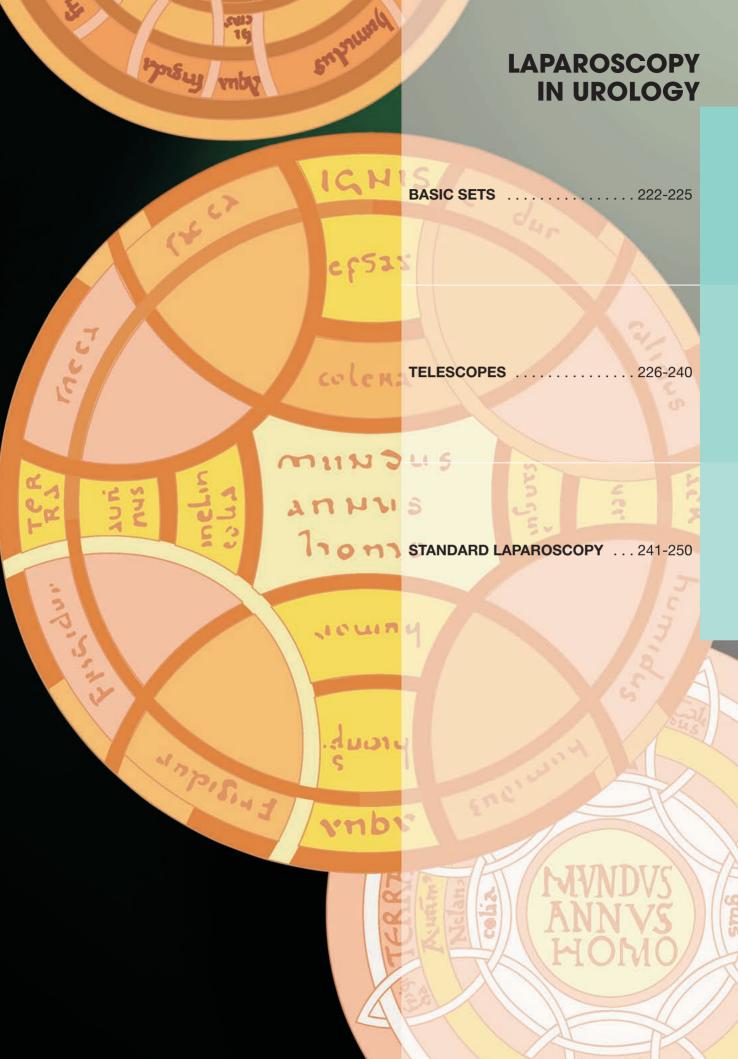
39402 AS Plastic Container for Sterilization, specially suited for gas and hydrogen peroxide (Sterrad®) sterilization and storage, perforated, with lid, for use with flexible endoscopes up to max. 95 cm working length, external dimensions (w x d x h): 550 x 260 x 92 mm

Please note: Fiberscopes can only be sterilized with gas and plasma in these containers. The instruments displayed are not included in the plastic containers.

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URS 23 219





Units for Laparoscopy in Urology

Basic Set







TC 200EN*	IMAGE1 S CONNECT
TC 009	USB Adaptor, for ACC 1 and ACC 2
TC 300	IMAGE1 S H3-LINK
TC 302	IMAGE1 S D3-LINK™
26605 BA	TIPCAM®1 S 3D LAP
9800 GP	3D Polarization Glasses, passive
9800 C	3D Clip-on Glasses, circularly polarized
20 1331 01-1	Cold Light Fountain XENON 300 SCB
495 TIP	Fiber Optic Light Cable
UI 400 S1	ENDOFLATOR® 40 SCB
26 3311 01-1	HAMOU® ENDOMAT® SCB
20 5322 01	AUTOCON® II 200
WD 200-EN*	AIDA Documentation System
27805	Neutral Electrode
27806	Neutral Electrode Connecting Cable
20 0178 30	Two-Pedal Footswitch
UG 220	Equipment Cart, wide

9832 NB-3D 32" 3D Monitor

UG 310 Isolation Transformer
UG 410 Earth Leakage Monitor

Monitor Holder

Footswitch Holder, for two- and three-pedal footswitches

Bottle Holder, for CO2 bottles

*IMAGE1 S CONNECT and AIDA Documentation System also available in the following languages: DE, ES, FR, IT, PT, RU

UG 500

UG 609

29005 DFH

Units see chapter 15, UNITS

FULL HD Camera Platforms see catalog TELEPRESENCE

Communication Bus with Accessories see catalog KARL STORZ OR1 NEO®

Units for Laparoscopy in Urology





IMAGE1 S



9826 NB	26" FULL HD Monitor
TC 200EN*	IMAGE1 S CONNECT
TC 009	USB Adaptor, for ACC 1 and ACC 2
TC 300	IMAGE1 S H3-LINK
TH 102	IMAGE1 S H3-Z FI Three-Chip FULL HD Camera Head
20 1331 01-1	Cold Light Fountain XENON 300 SCE
UI 400 S1	ENDOFLATOR® 40 SCB
26 3311 01-1	HAMOU® ENDOMAT® SCB
20 5322 01	AUTOCON® II 200
TC 010	Two-Pedal Footswitch USB
27805	Neutral Electrode
27806	Neutral Electrode Connecting Cable
20 0178 30	Two-Pedal Footswitch
WD 200-EN*	AIDA Documentation System
UG 220	Equipment Cart, wide
UG 500	Monitor Holder
29005 DFH	Footswitch Holder, for two- and three-pedal footswitches
UG 609	Bottle Holder, for CO ₂ bottles
UG 310	Isolation Transformer
UG 410	Earth Leakage Monitor

*IMAGE1 S CONNECT and AIDA Documentation System also available in the following languages: DE, ES, FR, IT, PT, RU

Units see chapter 15, UNITS

FULL HD Camera Platforms see catalog TELEPRESENCE

Communication Bus with Accessories see catalog KARL STORZ OR1 NEO®

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Laparoscopy in Urology





Telescopes and Instruments:

26003 BA	HOPKINS® Forward-Oblique Telescope 30°, enlarged view, diameter 10 mm, length 31	1 cm,

autoclavable, fiber optic light transmission incorporated,

color code: red

3x 30160 MP Trocar, with pyramidal tip, insufflation stopcock and multifunctional valve,

size 6 mm, working length 10.5 cm,

color code: black

2x 30103 MP Trocar, with pyramidal tip, insufflation stopcock and multifunctional valve,

size 11 mm, working length 10.5 cm,

color code: green

2x 30108 MP **Trocar**, with pyramidal tip, insufflation stopcock and multifunctional valve,

size 13.5 mm, working length 11.5 cm,

color code: blue

30142 HB **Double Reducer,** 13/10 mm, 13.5/10 mm, 13/5 mm and 13.5/5 mm

2x 30141 DB Reducer, 11/5 mm

2x 33352 MG CLICK'line MANHES Grasping Forceps, "tiger jaws", rotating, 2 x 4 teeth, with MANHES style

ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm

33351 MD CLICK'line KELLY Dissecting and Grasping Forceps, rotating, without ratchet,

with connector pin for unipolar coagulation, size 5 mm, length 36 cm

2x 33351 R CLICKline Dissecting and Grasping Forceps, rotating, jaws right-angled, without ratchet,

with connector pin for unipolar coagulation, size 5 mm, length 36 cm

33563 RG CLICK'line Dissecting and Grasping Forceps, rotating, jaws right angled, with hemostat style

ratchet, size 10 mm, length 36 cm

33561 MLL CLICK'line KELLY Dissecting and Grasping Forceps, rotating, without ratchet,

size 10 mm, length 36 cm

34351 MS CLICK'line METZENBAUM Scissors, rotating, curved jaws, without ratchet,

with connector pin for unipolar coagulation, size 5 mm, length 36 cm

34310 MS CLICK'line METZENBAUM Scissors Insert

34561 GS CLICK'line Spoon Forceps, rotating, without ratchet, size 10 mm, length 36 cm

38651 MD ROBI® KELLY Dissecting and Grasping Forceps, CLERMONT-FERRAND model, rotating.

dismantling, with connector pin for bipolar coagulation, double action jaws, especially suitable for

dissection, size 5 mm, length 36 cm

32340 PT Surgical Sponge Holder

26173 BN Suction and Irrigation Tube, with lateral holes, with two-way stopcock for single-hand control,

size 5 mm, length 36 cm

30173 RAR KOH Macro Needle Holder, dismantling, with LUER-Lock irrigation connector for cleaning, single

action jaws, jaws curved to right, with tungsten carbide inserts, with ergonomic handle, axial,

disengageable ratchet, ratchet position right, size 5 mm, length 33 cm

30173 LAL KOH Macro Needle Holder, dismantling, with LUER-Lock irrigation connector for cleaning, single

action jaws, jaws curved to left, with tungsten carbide inserts, with ergonomic handle, axial,

disengageable ratchet, ratchet position left, size 5 mm, length 33 cm

27566 BL RASSWEILER Transurethral Bougie, 18 Fr., with working channel 9 Fr.

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For further laparoscopic instruments see catalog LAPAROSCOPY

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

Minilaparoscopic Surgery





26003 BA		rward-Oblique Telescope 30°, enlarged view, diameter 10 mm, length 31 cm, fiber optic light transmission incorporated,
	26046 BA	HOPKINS® Forward-Oblique Telescope 30°, diameter 5 mm, length 29 cm, autoclavable, fiber optic light transmission incorporated, color code: red
26007 BA	HOPKINS® For autoclavable, color code: re-	rward-Oblique Telescope 30°, enlarged view, diameter 3.3 mm, length 25 cm, fiber optic light transmission incorporated,
495 NCS		ght Cable, with straight connector, extremely heat-resistant, enhanced light diameter 4.8 mm, length 250 cm
495 NA	Fiber Optic Li	ght Cable, with straight connector, diameter 3.5 mm, length 230 cm
533 TVA	Adaptor, auto	clavable, permits telescope changing under sterile conditions
26120 JL		moperitoneum Needle, with spring-loaded blunt inner cannula, LUER-Lock, diameter 2.1 mm, length 13 cm
30160 GC	Trocar, with cocolor code: bla	onical tip, with silicone leaflet valve, size 6 mm, working length 10.5 cm, ack
30117 GP	Trocar, with p color code: re-	yramidal tip, with silicone leaflet valve, size 3.9 mm, working length 10 cm, d-green
3x 30114 GZL	Trocar, with color code: gr	onical tip, with silicone leaflet valve, size 3.5 mm, working length 10 cm, een-yellow
31351 ML		Y Dissecting and Grasping Forceps, rotating, dismantling, long, double action nector pin for unipolar coagulation, size 3.5 mm, length 36 cm
31341 ON		ping Forceps, rotating, dismantling, with especially fine atraumatic serration, ith irrigation connector for cleaning, single action jaws, size 3.5 mm, length 36 cm
31351 MW		sors, rotating, dismantling, jaws serrated, curved, conical, with connector pin for ulation, size 3.5 mm, length 36 cm
31351 EH	CLICK'line Micro size 3.5 mm, le	D Hook Scissors, rotating, with connector pin for unipolar coagulation, ength 36 cm
25775 CL	with connecto	gulating and Dissecting Electrode, L-shaped, distal tip tapered, with cm-marking, r pin for unipolar coagulation, size 3 mm, length 36 cm
26005 M		Frequency Cord, length 300 cm
38951 MD	connector pin	Grasping Forceps, CLERMONT-FERRAND model, rotating, dismantling, with for bipolar coagulation, size 3.5 mm, length 36 cm
38951 ON		ng Forceps, CLERMONT-FERRAND model, rotating, dismantling, with especially c serration, fenestrated jaws, with connector pin for bipolar coagulation, ength 36 cm
38951 MW	ROBI® Scisso with connecto	rs, CLERMONT-FERRAND model, rotating, dismantling, curved scissor blades, r pin for bipolar coagulation, size 3.5 mm, length 36 cm
26176 LE	Bipolar High	Frequency Cord, length 300 cm
26167 LKL	Suction and I irrigation and	rrigation Tube, with lateral holes, size 3 mm, length 36 cm, for use with handles for suction
30805		wo-Way Stopcock, for suction and irrigation, autoclavable, for use with suction ubes size 5 mm
26167 FNL		ro Needle Holder, with tungsten carbide inserts, straight handle with ratchet, urved to left, size 3 mm, length 36 cm
26167 FKL		ro Needle Holder, with tungsten carbide inserts, straight handle with ratchet, urved to right, size 3 mm, length 36 cm

For further laparoscopic instruments see catalog LAPAROSCOPY Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

ENDOCAMELEON®





Telescope with variable direction of view

Until now, surgeons had to choose in advance which telescope or direction of view to use in a procedure. Moreover, surgeons were restricted to the selected direction of view throughout the surgery or had to make an intraoperative telescope change.

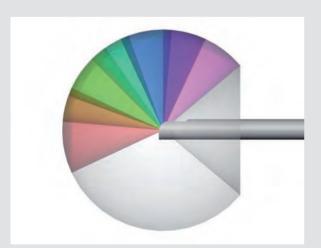
To prevent this predicament in the future, we developed the ENDOCAMELEON®: a telescope that allows you to adjust the desired direction of view – also during surgery – between 0° and 120°.

The ENDOCAMELEON® combines the user comfort of the proven 0° HOPKINS® telescope with the advantages and potential of a telescope featuring a variable direction of view – offering you the quality you expect from KARL STORZ telescopes.

The innovative ENDOCAMELEON® technology is not difficult to use and, due to the external moving parts, does not take up extra intracorporal space. Handling remains straightforward and ergonomic. Image alignment is the same as rigid telescopes: the direction of view is selected by simply turning the adjustment knob, making the system very intuitive to use. As the ENDOCAMELEON® is equipped with a standard eyepiece, the variable direction of view benefits all standard camera systems. Thanks to the HOPKINS® rod lens system, ENDOCAMELEON® also offers image quality that enables a useful application of three-chip cameras or HD camera systems.

To have the direction of view best suited for each situation available at all times offers the surgeon a higher degree of safety. With the ENDOCAMELEON®, visual inspection of the entire surgical field is easily achieved. Instrument movement can be controlled throughout the entire procedure and hemorrhages in

previously inaccessible areas can be detected and controlled. With a simple turn of the adjusting knob, the ENDOCAMELEON® enables the user to easily select the direction of view between 0° and 120° to suit all OR requirements.



ENDOCAMELEON® with variable direction of view, lateral view



ENDOCAMELEON® with variable direction of view, isometric view

3L-6

ENDOCAMELEON®





Diameter 10 mm, length 32 and 42 cm

Trocar size 11 mm

Recommended in combination with IMAGE1 S

Special Features:

- Variable direction of view 0° 120°
- HOPKINS® telescope with unique rod lens system
- Easy-to-use adjusting knob for selecting the direction of view
- Rigid sheath with a diameter of 10 mm



26003 AE

26003 AE ENDOCAMELEON® HOPKINS® Telescope,

diameter 10 mm, **length 32 cm, autoclavable,** variable direction of view from 0° – 120°, adjustment knob for selecting the desired direction of view, fiber optic light transmission incorporated,

color code: gold

26003 AEE Same, length 42 cm



Fig. 1: Lymphadenectomy



Fig. 2: Cystectomy



Fig. 3: Radical prostatectomy



Fig. 4: Partial nephrectomy

Images courtesy of Prof. med. G. JANETSCHEK, Universitätsklinik für Urologie, Paracelsus Medizinische Universität Salzburg, Austria

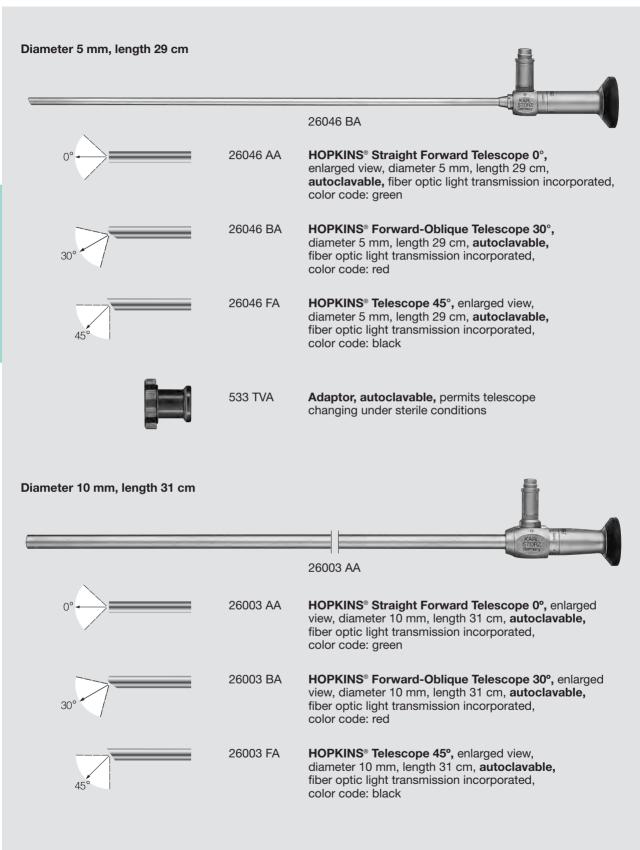
Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

7

URO-LAP 7

for Laparoscopy





For further Telescopes see chapter 1 and Laparoscopic Telescopes see catalog LAPAROSCOPY, chapter 2 Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

3D Camera Platforms

Discover a New World in 3D



Discover a New World in 3D

Exact depth perception inside the human body is essential for any endoscopic procedure.

Studies¹ have shown that even experienced surgeons benefit from three-dimensional display technology with regard to the duration and precision of an intervention.

The IMAGE1 S 3D system provides excellent depth of field to enable precise hand-eye coordination in three-dimensional vision and simplifies particularly complex endoscopic procedures for the surgeon.

This first-class stereoscopic system from KARL STORZ leads to significant improvements in surgical efficiency and patient safety in the OR.

IMAGE1 S 3D consists of 3D video endoscopes with a 0° or 30° direction of view that are 10 mm in diameter as well

as 3D camera modules and 3D monitors with passive-polarized 3D glasses.

The lightweight design makes the 3D video endoscopes easy to use, even after long hours of surgery. Furthermore, the 3D video endoscopes from KARL STORZ are autoclavable.

Two image sensors at the distal end are precisely aligned mechanically. Complemented by precise electronics in the endoscope and camera control unit, the system generates endoscopic 3D images that are true to life

Combined with 3D monitors, this system offers the surgeon an excellent complete system that makes it easy to switch between 2D and 3D applications.

¹ 3D visualization in medical applications (Fraunhofer-Institut für Nachrichtentechnik, Heinrich-Hertz-Institut HHI, April 2013)



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URO-LAP 9 A 229

3D Camera Platforms





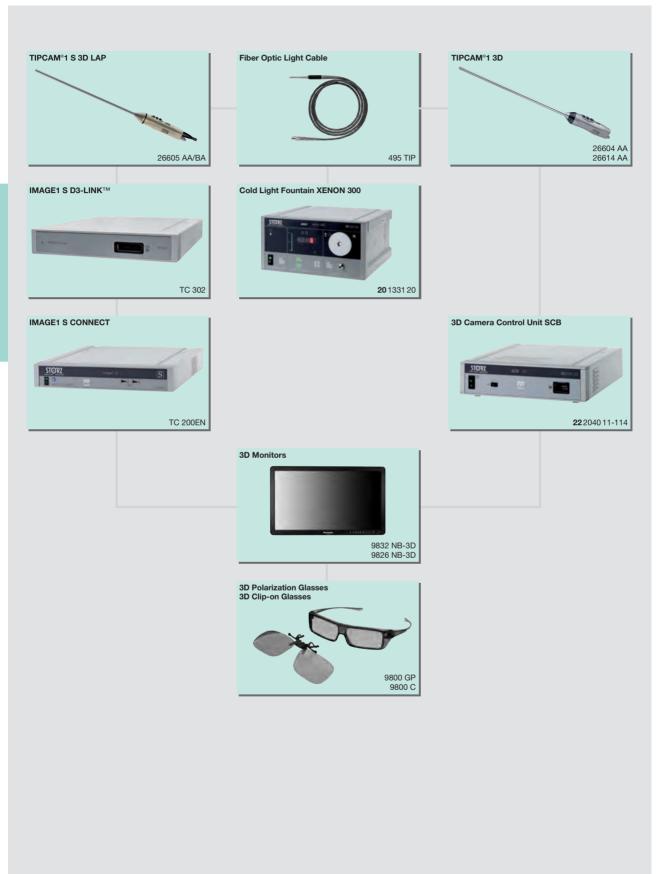


IMAGE1 S 3D in FULL HD









TC 200EN

TC 200EN*

IMAGE1 S CONNECT, connect module, for use with up to 3 link modules, resolution 1920 x 1080 pixels, with integrated KARL STORZ-SCB and digital Image Processing Module, power supply 100 - 120 VAC/200 - 240 VAC, 50/60 Hz

including:

Mains Cord, length 300 cm

DVI-D Connecting Cable, length 300 cm SCB Connecting Cable, length 100 cm USB Flash Drive, 32 GB

USB Silicone Keyboard, with touchpad, US

Specifications:

HD video outputs	- 2x DVI-D - 1x 3G-SDI
Signal format display	1920 x 1080p, 50/60 Hz
LINK video inputs	3x
USB interface SCB interface	4x USB, (2x front, 2x rear) 2x 6-pin mini-DIN

Power supply	100 - 120 VAC/200 - 240 VAC
Power frequency	50/60 Hz
Protection class	I, CF-Defib
Dimensions w x h x d	305 x 54 x 320 mm
Weight	2.1 kg

^{*} Available in the following languages: DE, ES, FR, IT, PT, RU Components/Spare Parts see catalog TELEPRESENCE

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URO-LAP 11 A 231

IMAGE1 S 3D in FULL HD

Link Module



IMAGE1 S 3D

For use with IMAGE1 S camera system IMAGE1 S CONNECT Module TC 200EN and for use with TIPCAM®1 S 3D LAP



TC 302

TC 302

IMAGE1 S D3-LINK™, link module, for use with TIPCAM®1 S 3D LAP, power supply 100 − 120 VAC/200 − 240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT TC 200EN including:

Mains Cord, length 300 cm Link Cable, length 20 cm

Specifications:

Supported	26605AA, 26605BA	Protection class	I, CF-Defib
camera heads/video endoscopes		Dimensions w x h x d	305 x 54 x 320 mm
LINK video outputs	1x	Weight	1.86 kg
Power supply	100 - 120 VAC/200 - 240 VAC	· ·	ŭ
Power frequency	50/60 Hz		

Documentation Systems compatible with 3D Imaging see catalog TELEPRESENCE **Components/Spare Parts** see catalog TELEPRESENCE

IMAGE1 S 3D in FULL HD **

3D Video Endoscopes



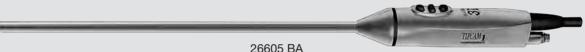
For use with IMAGE1 S camera system IMAGE1 S CONNECT Module TC 200EN, IMAGE1 S D3-LINK™ Module TC 302

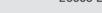






TIPCAM®1 S 3D LAP with two distal FULL HD image sensors, direction of view 0°, diameter 10 mm, autoclavable, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S







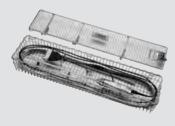
TIPCAM®1 S 3D LAP, with two distal, FULL HD image sensors, direction of view 30°, diameter 10 mm, autoclavable, freely programmable camera head buttons, including video connecting cable, for use with IMAGE1 S



495 TIP

26605 BA

Fiber Optic Light Cable, with straight connector, extremely heat-resistant, diameter 4.8 mm, length 300 cm, for use with TIPCAM®



39501 XTC

Wire Tray for Cleaning, Sterilization and Storage of TIPCAM®1 S 3D LAP Video Endoscopes 26605 AA/BA and one light cable, **autoclavable**, external dimensions (w xd x h): $640 \times 150 \times 87$ mm

Specifications:

TIPCAM®1 S 3D LAP	26605 AA	26605 BA	
Image sensor	2x FULL HD, distal	2x FULL HD, distal	
Outer diameter	10 mm	10 mm	
Focal length	20-200 mm	20-200 mm	
Direction of view	0°	30°	
Working length	31.7 cm	32 cm	
Total length	45 cm	45.3 cm	
Weight	420 g	420 g	
Cable	non-detachable	non-detachable	
Cable length	300 cm	300 cm	

Monitors see catalog TELEPRESENCE

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3D System

3D Camera Control Unit







22 2040 11 U114 3D Camera Control Unit SCB, with ICM module, max.

resolution 1920 x 1080 pixels, with integrated ICM (Image Capture Module) and SCB (KARL STORZ Communication Bus), power supply 100 - 240 VAC, 50/60 Hz including:

Mains Cord

BNC Video Cable

S-Video (Y/C) Connecting Cable

2x Connecting Cable, for controlling peripheral units

DVI-D Connecting Cable

SCB Connecting Cable

Silicone Keyboard, with US English character set

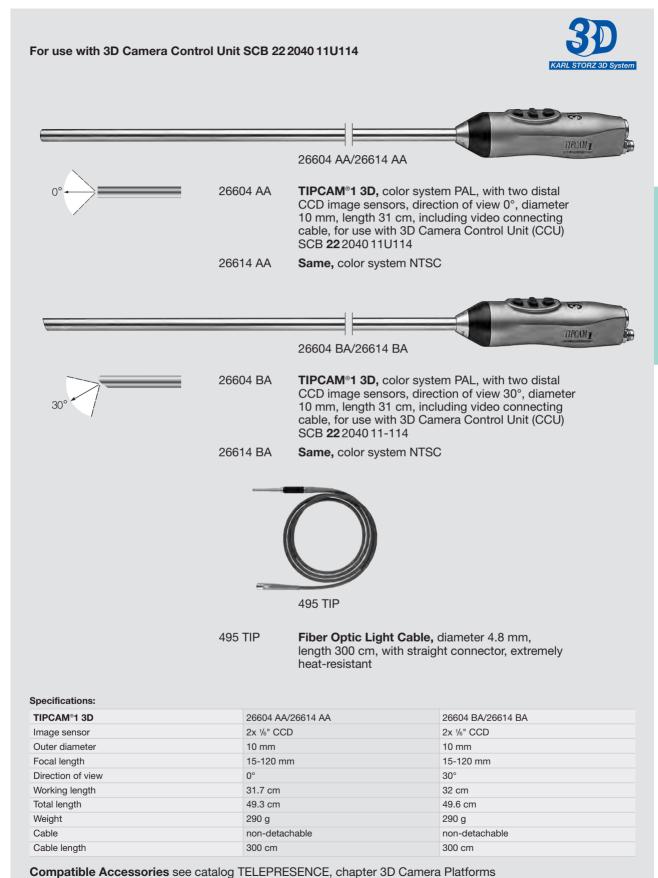
USB Flash Drive, 4 GB

Polarization Glasses, package of 2

Components/Spare Parts see catalog TELEPRESENCE



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URO-LAP 15 A

2D TIPCAM®1 Video Endoscope

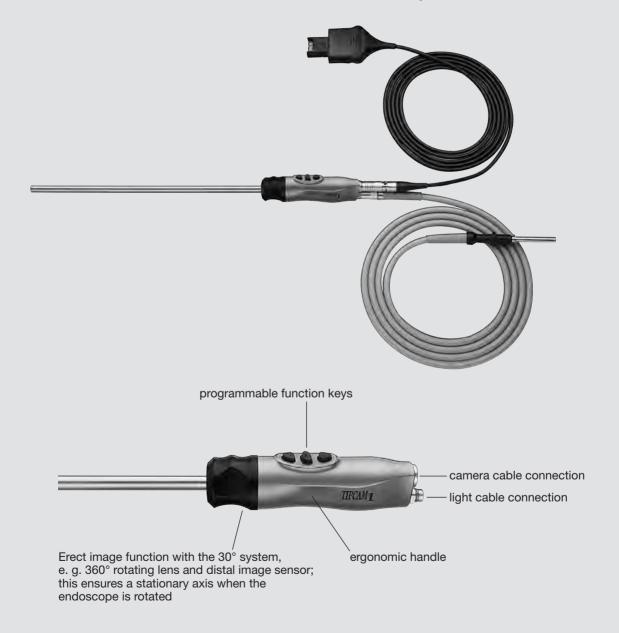




The autoclavable video endoscope TIPCAM®1 combines ergonomic design with innovative technology. The light and video cables can be disconnected and exchanged at the proximal end if required. The sensor chip system at the distal tip of the video endoscope prevents fogging of the telescope.

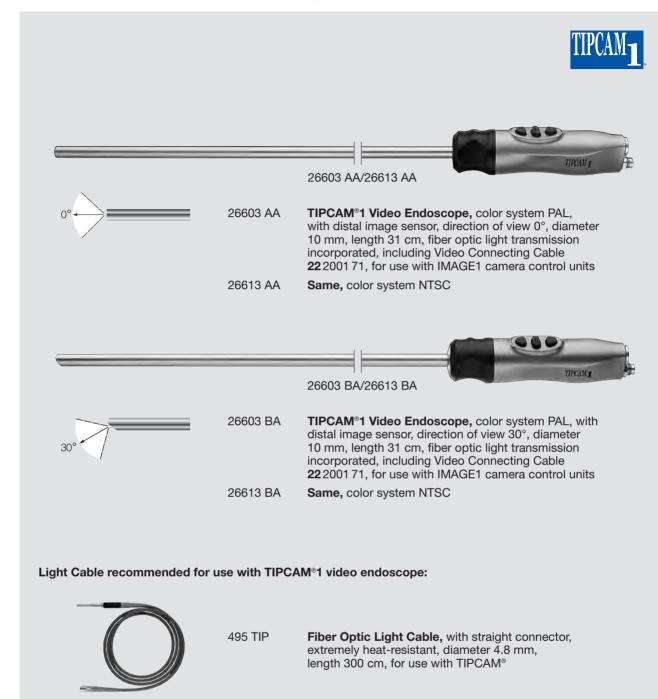
Special Features:

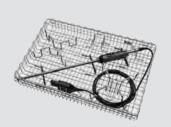
- Fixed-focus lens with extremely high depth of field
- Erect image function with 30° system
- Robust rod lens housing made of titanium
- Compatible with the IMAGE 1 HUB™ HD control unit
- TIPCAM®1 is fully autoclavable.



2D TIPCAM®1 Video Endoscope







39501 TC

Wire Tray for Cleaning, Sterilization and Storage of TIPCAM®1 Video Endoscopes 266x3 AA/BA, TIPCAM®1 3D Video Endoscopes 266x4 AA/BA and one light cable, **autoclavable**, external dimensions (w x d x h): 480 x 320 x 75 mm

Further accessories see catalog TELEPRESENCE

URO-LAP 17 A 237

Pelvine Lymphadenectomy with ICG Fluorescence Navigation





Preoperative staging with conventional imaging techniques is unable to detect small lymph node metastases (< 5-8 mm). Pelvine Lymphadenectomy (PLA) is, therefore, the only reliable method for staging locoregional prostate carcinoma.

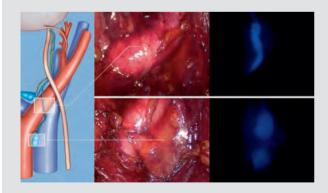
Even with the use of PLA, metastases are overlooked. The template selected for PLA is often too small (obturator fossa, ±V. external iliaca region only). However, even with the extended template (e-PLA) approx. 10% of metastases remain undetected. Many factors contribute to this problem. Lymphatic drainage of the prostate is extremely variable and research to date has been insufficient. Furthermore, this is certainly larger than the e-PLA template, which itself is not precisely defined.

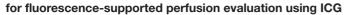
A solution to this dilemma is the Sentinel PLA (S-PLA). This has been listed as the only alternative to e-PLA in the EAU Guidelines 2011. Wawroschek (J Urol 2001) introduced S-PLA into the therapy of locoregional prostate carcinoma and Janetschek (J Urol 2005) was the first to combine it with laparoscopic prostatectomy. A colloid-based radiotracer (Tc99m) is applied to the prostate. This technetium is transported along the lymphatic vessels and subsequently marks the first lymph node station. A gamma probe is used to identify the radioactively marked lymph nodes during S-PLA. In direct comparison with e-PLA, S-PLA demonstrated a higher rate of sensitivity (Weckermann D, EurUrol 2007).

Fluorescence navigation with indocyanine green (ICG) is a further development of S-PLA with a radiotracer. Similar to a technetium, the ICG is injected into the prostrate just prior to surgery and is transported along the lymphatic vessels to the first lymph node station. ICG collected in the lymph nodes emits an infrarod light which can visualized with the aid of special equipment from KARL STORZ.

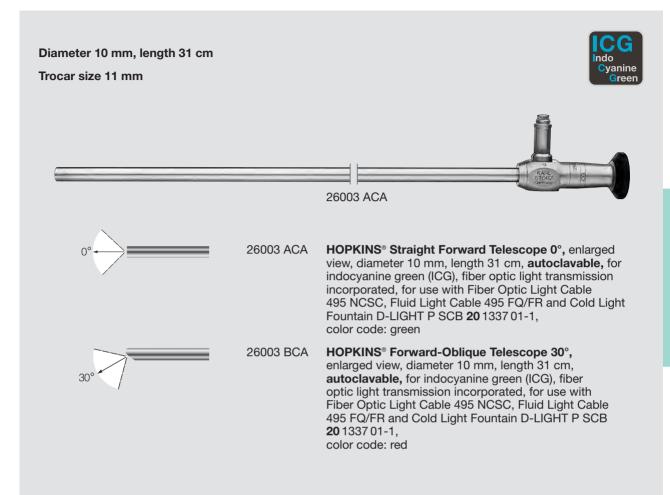
We performed ICG-navigated S-PLA on more than 30 patients. S-PLA with ICG sensitivity is at least equal to that of the radiotracer (Tc99m). S-PLA is much more convenient for the surgeon. It is easier to locate lymph nodes marked with ICG as they are illuminated with infrared light. In contrast, the gamma probe only emits an acoustic signal that is difficult to display due the narrow dimensions of the probe. Another considerable advantage of ICG is that it allows visualization of both the lymph nodes and the lymphatic vessels. This enables complete mapping of the lymphatic drainage of the prostate.

Prof. med. G. JANETSCHEK, Universitätsklinik für Urologie, Paracelsus Medizinische Universität Salzburg Salzburg, Austria

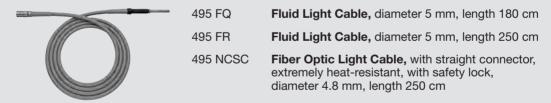








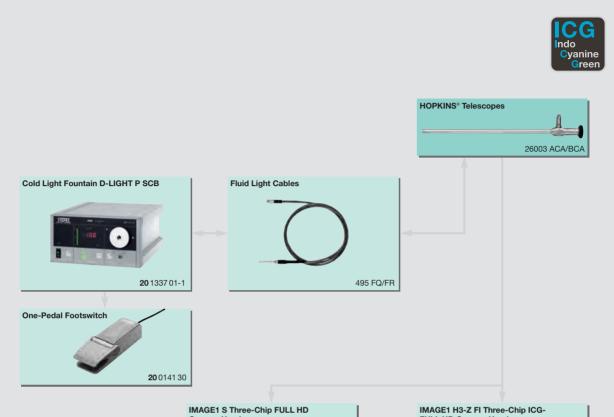
Recommended light cables for fluorescence-supported perfusion evaluation using ICG



D-LIGHT P System for Autofluorescence and ICG Fluorescence see catalog TELEPRESENCE **Trocars for use with telescopes diameter 10 mm** see catalog LAPAROSCOPY, chapter 3 **Container for the Sterilization and Storage of Telescopes** see catalog HYGIENE

for fluorescence-supported perfusion evaluation using ICG, Overview













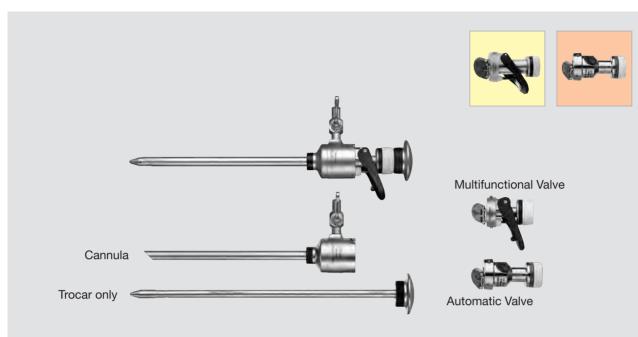


For further information on Cold Light Fountains, Camera Systems and Monitors see catalog TELEPRESENCE

Trocars

Sizes 6 and 11 mm





6 mm	11 mm	6 mm	11 mm
10.5 cm	10.5 cm	10.5 cm	10.5 cm
black	green	black	green
Multifuncti <mark>onal Valve</mark>		Automatic Valve	
30160 MC	30103 MC	30160 AC	30103 AC
30160 H2	30103 H2	30160 H2	30103 H2
30160 C	30103 C	30160 C	30103 C
30160 M1	30103 M1	30160 A1	30103 A1
30160 MP	30103 MP	30160 AP	30103 AP
30160 H2	30103 H2	30160 H2	30103 H2
30160 P	30103 P	30160 P	30103 P
30160 M1	30103 M1	30160 A1	30103 A1
30160 MA	30103 MA	30160 AA	30103 AA
30160 H2	30103 H2	30160 H2	30103 H2
30160 A	30103 A	30160 A	30103 A
30160 M1	30103 M1	30160 A1	30103 A1
30160 MB	30103 WSB	30160 AB	30103 FSB
30160 H2	30103 H2	30160 H2	30103 H2
30160 B	30103 SB	30160 B	30103 SB
30160 M1	30103 M1	30160 A1	30103 A1
	10.5 cm black Multifunct 30160 MC 30160 H2 30160 C 30160 M1 30160 MP 30160 P 30160 M1 30160 MA 30160 H2 30160 A 30160 M1 30160 MB 30160 H2 30160 B	10.5 cm green Multifunctional Valve 30160 MC 30103 MC 30160 H2 30103 H2 30160 M1 30103 M1 30160 MP 30103 MP 30160 P 30103 P 30103 M1 30160 MA 30103 MA 30160 H2 30103 MA 30160 H2 30103 MA 30160 MA 30103 MA 30160 MB 30103 MSB 30160 MB 30103 WSB 30160 H2 30103 WSB	10.5 cm black green black Multifunctional Valve Automa 30160 MC 30103 MC 30160 AC 30160 H2 30103 H2 30160 H2 30160 M1 30103 M1 30160 A1 30160 MP 30103 MP 30160 AP 30160 P 30103 P 30160 P 30160 M1 30103 M1 30160 A1 30160 MA 30103 MA 30160 AA 30160 H2 30103 H2 30160 AA 30160 H2 30103 H2 30160 AA 30160 MA 30103 MA 30160 AA 30160 MB 30103 M1 30160 AB 30160 MB 30103 WSB 30160 AB 30160 H2 30103 H2 30160 AB 30160 MB 30103 WSB 30160 AB

Telescopes for use with trocars sizes 6 and 11 mm see catalog LAPAROSCOPY, chapter 2 HEINKEL-SEMM Dilation Set and Accessories for Trocars see catalog LAPAROSCOPY, chapter 3

Dissecting and Grasping Forceps

CLICK/line - rotating, dismantling, insulated, with connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **lengths 30 and 36 cm**, for use with trocars size 6 mm

Operating instruments, **length 43 cm**, for use with telescopes with inbuilt working channel and trocars size 6 mm



Length	Handle						
Length	33151	33152	33153	33156	33121	33125	33149
30 cm	NEW	NEW	NEW	NEW	446	+46	
36 cm	20	Do	30	Po	10	1/0	1
43 cm	7		4	Y	4	4	

Double action iaws

Double action jaws							
Working Insert	Complete instrument						
33210 MD	33251 MD	33252 MD	33253 MD	33256 MD	33221 MD	33225 MD	33249 MD
33310 MD	33351 MD	33352 MD	33353 MD	33356 MD	33321 MD	33325 MD	33349 MD
33410 MD	33451 MD	33452 MD	33453 MD	33456 MD	33421 MD	33425 MD	33449 MD
CLICK'line KELLY Dissecting and Grasping Forceps							
33210 ML	33251 ML	33252 ML	33253 ML	33256 ML	33221 ML	33225 ML	33249 ML
33310 ML	33351 ML	33352 ML	33353 ML	33356 ML	33321 ML	33325 ML	33349 ML
33410 ML	33451 ML	33452 ML	33453 ML	33456 ML	33421 ML	33425 ML	33449 ML
├ - 22 -	·			ng and Grasp			
33210 DN	33251 DN	33252 DN	33253 DN	33256 DN	33221 DN	33225 DN	33249 DN
33310 DN	33351 DN	33352 DN	33353 DN	33356 DN	33321 DN	33325 DN	33349 DN
33410 DN	33451 DN	33452 DN	33453 DN	33456 DN	33421 DN	33425 DN	33449 DN
CLICK'line Dissecting and Grasping Forceps, "dolphin nose" ├─ 18 ──							
33210 KJ	33251 KJ	33252 KJ	33253 KJ	33256 KJ	33221 KJ	33225 KJ	33249 KJ
33310 KJ	33351 KJ	33352 KJ	33353 KJ	33356 KJ	33321 KJ	33325 KJ	33349 KJ
33410 KJ	33451 KJ	33452 KJ	33453 KJ	33456 KJ	33421 KJ	33425 KJ	33449 KJ
CLICK*line* REDDICK-OLSEN Dissecting and Grasping Forceps							

Further instruments see catalog LAPAROSCOPY, chapter 4

Scissors

CLICK/line - rotating, dismantling, with and without connector pin for unipolar coagulation



Size 5 mm

Operating instruments, **lengths 30 and 36 cm**, for use with trocars size 6 mm

Operating instruments, **length 43 cm**, for use with telescopes with inbuilt working channel and trocars size 6 mm



Length	Handle						
Lengui	33151	33121	33125	33149	33161	33131	33147
30 cm	NEW	***	446		NEW	4	NEW
36 cm	20	10	20	1	20		
43 cm	7	4	4,		4	9	

Double action jaws

Working Insert	Complete instrument						
34210 MS	34251 MS	34221 MS	34225 MS	34249 MS	34261 MS	34231 MS	34247 MS
34310 MS	34351 MS	34321 MS	34325 MS	34349 MS	34361 MS	34331 MS	34347 MS
34410 MS	34451 MS	34421 MS	34425 MS	34449 MS	34461 MS	34431 MS	34447 MS
CLICK'line METZENBAUM Scissors, curved							
34210 MA	34251 MA	34221 MA	34225 MA	34249 MA	34261 MA	34231 MA	34247 MA
34310 MA	34351 MA	34321 MA	34325 MA	34349 MA	34361 MA	34331 MA	34347 MA
34410 MA	34451 MA	34421 MA	34425 MA	34449 MA	34461 MA	34431 MA	34447 MA
CLICK'line Scissors, spoon-shaped blades, serrated, curved							
34210 MW	34251 MW	34221 MW	34225 MW	34249 MW	34261 MW	34231 MW	34247 MW
34310 MW	34351 MW	34321 MW	34325 MW	34349 MW	34361 MW	34331 MW	34347 MW
34410 MW	34451 MW	34421 MW	34425 MW	34449 MW	34461 MW	34431 MW	34447 MW
CLICK'line Scissors, serrated, curved, conical							
34210 MD	34251 MD	34221 MD	34225 MD	34249 MD	34261 MD	34231 MD	34247 MD
34310 MD	34351 MD	34321 MD	34325 MD	34349 MD	34361 MD	34331 MD	34347 MD
CLICK*line* Scissors, straight							

Further instruments see catalog LAPAROSCOPY, chapter 5

0-12

URO-LAP 23 A

KOH Macro Needle Holder





Size 5 mm

Operating instruments, **lengths 33 and 43 cm**, with axial handle for use with trocars size 6 mm

Length	Handle						
	30173 AR	30173 AL	30173 AO				
33 cm							
43 cm							

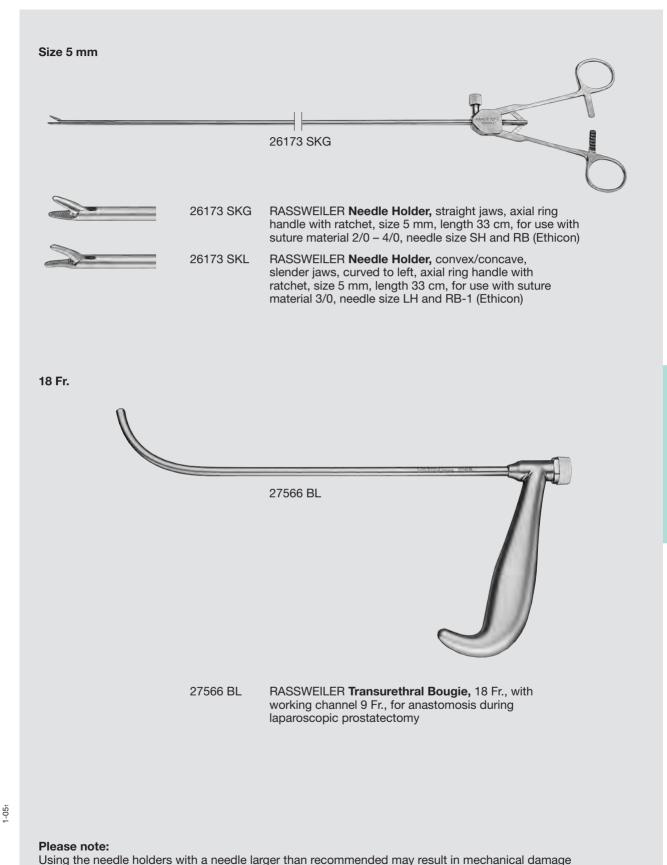
Single action jaws

Working Insert	Complete Instrument							
30173 R	30173 RAR	30173 RAL	30173 RAO					
30178 R	30178 RAR	30178 RAL	30178 RAO					
S	KOH Macro Needle Holder, jaws curved to right, with tungsten carbide inserts, for use with suture material size 0/0 – 7/0							
30173 L	30173 LAR	30173 LAL	30173 LAO					
30178 L	30178 LAR	30178 LAL	30178 LAO					
	KOH Macro Needle Holder, jaws curved to left, with tungsten carbide inserts, for use with suture material size 0/0 – 7/0							
30173 F	30173 FAR	30173 FAL	30173 FAO					
30178 F	30178 FAR	30178 FAL	30178 FAO					
KOH Macro Needle Holder, straight jaws, with tungsten carbide inserts, for use with suture material size 0/0 – 7/0								
30173 G	30173 GAR	30173 GAL	30173 GAO					
	KOH Assistant Needle Holder, straight jaws							

Further instruments see catalog LAPAROSCOPY, chapters 8 and 15

RASSWEILER **Needle Holders**, RASSWEILER **Transurethral Bougie**





URO-LAP 25

to the instrument.

Kidney Clamp for Laparoscopic Partial Nephrectomy



The new kidney clamp from KARL STORZ - a crucial step against warm ischaemia during laparoscopic partial nephrectomy

The new kidney clamp from KARL STORZ makes partial nephrectomy not only more straightforward but safer and more effective as well.

Warm ischaemia, due to pedicle clamping, is a limiting factor during laparoscopic partial nephrectomy that can impose time constraints on the operating surgeon. Current methods for clamping the renal artery leaves the surgeon with a limited amount of operating time before the entire kidney loses its function due interrupted blood flow.

The easy-to-use kidney clamp allows safe application and a highly efficient clamping of the affected area. As

the blood and oxygen supply is only blocked to the affected part of the kidney, the healthy part remains supplied with blood over the entire procedure and thus maintains its function (no ischaemia).

The parenchymal clamp eliminates the need for hazardous pedicle clamping.

As the kidney clamp is easily opened during and especially after resection, it is possible to monitor the resected area at all times and to control bleeding.

> Dr. NOHRA, Beirut, Lebanon, Dr. HUYGHE, Toulouse, France

Special Features:

- Continuous blood supply of the healthy part of the kidney
- No time limit for resection and wound closure
- Minimal traumatization of the healthy part of the kidnev
- The locking mechanism enables continuous and convenient clamping of the renal part to be treated as well as the control of bleeding of the resected area after wound closure
- Use of standard surgical techniques, except for interruption of the central blood supply



Kidney Clamp, for clamping the kidney and 27710 NK limiting blood supply, size 10 mm, length 29 cm

includina:

Handle, with ratchet 27710 NA 27710 NB **Outer Sheath**

27710 NC **Snare**

LASER Applicator for Laparoscopy



The new LASER applicator for laparoscopy Controlled LASER guidance with integrated channel for smoke evacuation

LASER technology presents a safe and efficient option for the laparoscopic excision of small peripheral kidney tumors without ischemia and previous exposure of the renal pedicle.

The laparoscopic LASER applicator is used to ensure safe, convenient guidance and precise positioning of LASER fibers at almost a right angle. The curved distal tip allows the introduction of a trocar to obtain the required distance to the renal parenchyma for effective LASER application at an ideal angle. Alternatively, it is also possible to introduce the LASER guide directly into the site via a small skin incision.

The smoke generated during the LASER application can be removed through a second lumen integrated in the instrument by means of a conventional suction system to ensure good visualization during tumor nucleation.

Prof. med. G. JANETSCHEK, Universitätsklinik für Urologie, Paracelsus Medizinische Universität Salzburg, Austria

Special Features:

- Safe guidance of the LASER fiber
- Curved distal tip for ideal LASER application

- Integrated suction channel for clear endoscopic vision
- For LASER fibers with a diameter of 0.7 0.9 mm

27710 LL

27710 LL

LASER Applicator, for manipulation of the

LASER fiber including:

27710 LH

Handle Outer Sheath

27710 LA 27710 LI

Inner Sheath, unsterile, package of 5, for single use

Retractor for Laparoscopy NE



Tissue Fixation/Retraction

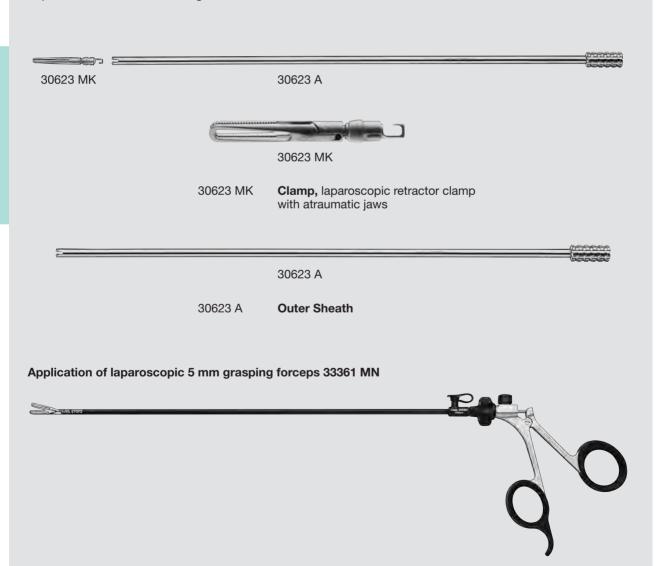
Clamp 30623 MK with an application sheath from KARL STORZ enables easy retraction of impeding tissue during laparoscopic surgery without the need for an additional trocar.

The clamp is applied by means of a conventional laparoscopic 5 mm grasping forceps and its corresponding application sheath. The sheath tube is slipped over the grasping forceps. A retraction clamp holding a suture is then fixated in the instrument jaw and locked securely into the sheath.

A 6 mm trocar is used to introduce the atraumatic retraction clamp to the surgical site. The clamp is opened in the sheath by rotating the laparoscopic grasping forceps and closed by rotating the forceps in the opposite direction. The suture enables transcutaneous retraction of the fixated tissue in any direction in order to provide full access to the surgical site.

The retraction clamp ensures safe, efficient and atraumatic intraoperative access to complex organ structures – it provides adequate space in the operative field, reduces the number of trocars required and features a clamping force that can be adapted to existing conditions.

- Fixation of impeding tissue retraction
- Atraumatic clamp
- Secure, exact positioning
- Application of laparoscopic 5 mm grasping forceps 33361 MN
- Application with 6 mm trocar
- Clamping force adjustable through rotation



10-141

248 URO-LAP 28

Fiber Optic Ureter Probe



The illuminating ureter probe is ideal for trans-illumination of the ureter during surgery involving inflammatory or malignant tumors in the pelvis when the ureter is surrounded by tissue (for example, in the case of ovarian tumors).

The cold light fibers are arranged in such a way that there is a band of light every cm along its length.

The illuminating ureter probe is connected to a cold light fountain and positioned, with the aid of a cystoscope, before or during the operation.

The transilluminated light output of this probe is even stronger than normal operating lights.

The probe helps prevent injuries to the ureter.



496 U Fiber Optic Ureter Probe, 7 Fr.

LED Battey Light Source - "Power of Light"

The new LED battery light source from KARL STORZ for rigid endoscopes and fiberscopes is watertight and completely immersible for cleaning and disinfection

and can be sterilized with ETO, FO gas, Steris® and Sterrad®.

Special Features:

- Exact and powerful illumination of the operating field with absolutely white and specially focused light
- 50,000 lux LED light source
- Battery life more than 120 minutes in continuous use
- No special batteries needed can be purchased at any store
- LED service life of more than 50,000 hours



11301 D3

11301 D3

Battery Light Source LED for Endoscopes, with coarse thread, boost mode for temporary increase in brightness, burning time > 120 min, weight approx. 78 g, waterproof and fully immersible for cleaning and disinfection

1-051

URO-LAP 29 249





LYRA TUR Trainer "ADAM"



New Training Platform for TUR

KARL STORZ is now extending its offer of training possibilities with a new training platform for TUR.

The basic model features a new design that allows work similar to reality. Factors that were taken into consideration were the training of the basic resection movements as well as external influences such as the

introduction and external support and/or fixation of the instruments under real-life circumstances.

The resection of, for example, potatoes or apples represents a cost-effective solution and enables authentic resection with good resection properties.

The TUR trainer platform "ADAM" offers the following training possibilities:

- Training for rigid and flexible treatment of the entire urinary tract via:
 - rigid cystoscopy
 - flexible cystoscopy

- Simulates a wide range of indications and treatment options
 - TUR-P
 - TUR-B
 - Treatment of tumors



27345 TUR LYRA **Endourological Trainer "ADAM"**, complete including:

Organ Platform

Organ Platform
Organ Insert Penis

Organ Insert Bladder

LYRA Body Endourological Trainer "ADAM"

9-12

Components/Spare Parts see chapter 16

LYRA URS Trainer "ADAM"



New Training Platform for URS

The proven LYRA URS trainer offers the following training possibilities:

- Training for rigid and flexible treatment of the entire urinary tract via:
 - rigid URS
 - flexible URS

- Simulates a wide range of indications and treatment options
 - Kidney stones
 - Stone extraction
 - LASER stone treatment
 - Pneumatic lithotripsy



27345 URS

LYRA Endourological Trainer "ADAM", complete

including:

Organ Platform

Organ Insert

LYRA Body Endourological Trainer "ADAM"

9-12

Components/Spare Parts see chapter 16

URO-TR 3

SZINICZ Laparoscopic Trainer

Simulation Trainer with Pulsating Organ Perfusion (P.O.P.)



Pulsating Organ Perfusion (P.O.P.)

Pulsating organ perfusion was developed for simulation of operations in minimally invasive surgical techniques and opens up new perspectives in laparoscopy/thoracoscopy training.

Following interventions can be practised with the P.O.P. Simulation Trainer under most realistic conditions on animal organs or organ complexes:

- Laparoscopic operations (liver, gallbladder, small intestine, colon, spleen, etc.)
- Thoracic surgery (heart, lungs, aorta)
- Anastomosis of the gastro-intestinal tract (both laparoscopic and open surgery)
- Urological minimally invasive surgery (kidney, ureter, adrenal, etc.)
- Gynecological minimally invasive surgery (adnexae, cysts, etc.)
- Mastering complications
- Team training

Perfect Surgery as a Result of Optimal Training

Up to now, animal experiments were the only adequate means of practising clinical operations. In contrast, P.O.P. offers significant advantages. P.O.P. simulates all types of hemorrhages (parenchymatous, capillary, venous) without the time limitations associated with test animals. It is thereby not only possible to learn standard interventions, but also to master (hemorrhagic) complications. In contrast to animal experiments, the exercises can be repeated as often as desired and almost without any time limitations.

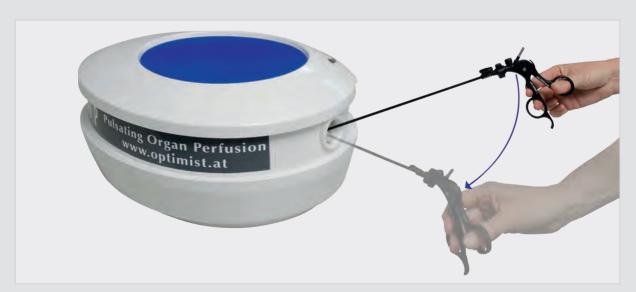
Furthermore, P.O.P. is also very suitable for experimenting with new techniques and enables the results to be checked immediately. All technologies familiar from clinical work such as high frequency surgery techniques (unipolar, bipolar), laser, ultrasound dissection, aquadissection, tissue sealing and adhesion can be applied in the P.O.P. simulation trainer.

Prof. Gerhard Szinicz, M. D. and his staff were awarded the "1993 Felix Wankel Animal Protection Research Prize" (Ludwig Maximilian University of Munich) for the concept and idea of this innovative method of training.

Functional Principle:

The central artery of animal organs or organ complexes is catheterized and connected to the pump of the P.O.P. simulation trainer. The perfusion medium (colored tap water) in the pelvitrainer is conveyed into the organ by the pump. The pump works with an electronically controlled frequency of approximately (65 lifts per minute) and is pressure-controlled (maximum pressure approximately 140 mmHg). The organs are supported on a perforated metal grid. The perfusion fluid passes back into the simulation trainer via side branches of the arteries, veins and parenchymal lesions.

The above-mentioned organs and organ complexes are available deep-frozen and can be preserved at -20 °C for up to a year. You can order online at www.optimist.at



The P.O.P. Trainer DOCK SYSTEM offers the possibility to extend the areas of application for pulsating organ perfusion in the simulation of endoscopic, proctological and endourological OR techniques. The rotating and tilting ball joint enables changing adapters with a diameter of 10 mm to 40 mm.

9-12

254 URO-TR 4

SZINICZ Laparoscopic Trainer



Simulation Trainer with Pulsating Organ Perfusion (P.O.P.)



26342 KB

26342 KB

SZINICZ **Laparoscopic Trainer,** DOCK SYSTEM, with pulsating organ perfusion, complete, with mains adaptor 230 VAC, 50/60 Hz

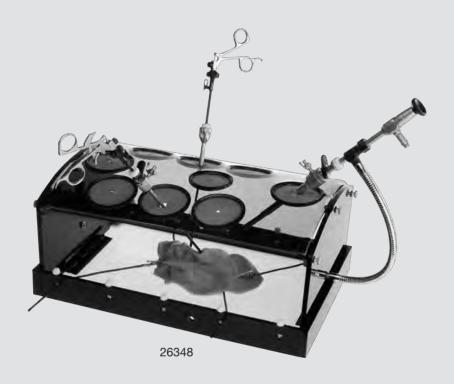
SZABO-BERCI-SACKIER

Laparoscopic Trainer

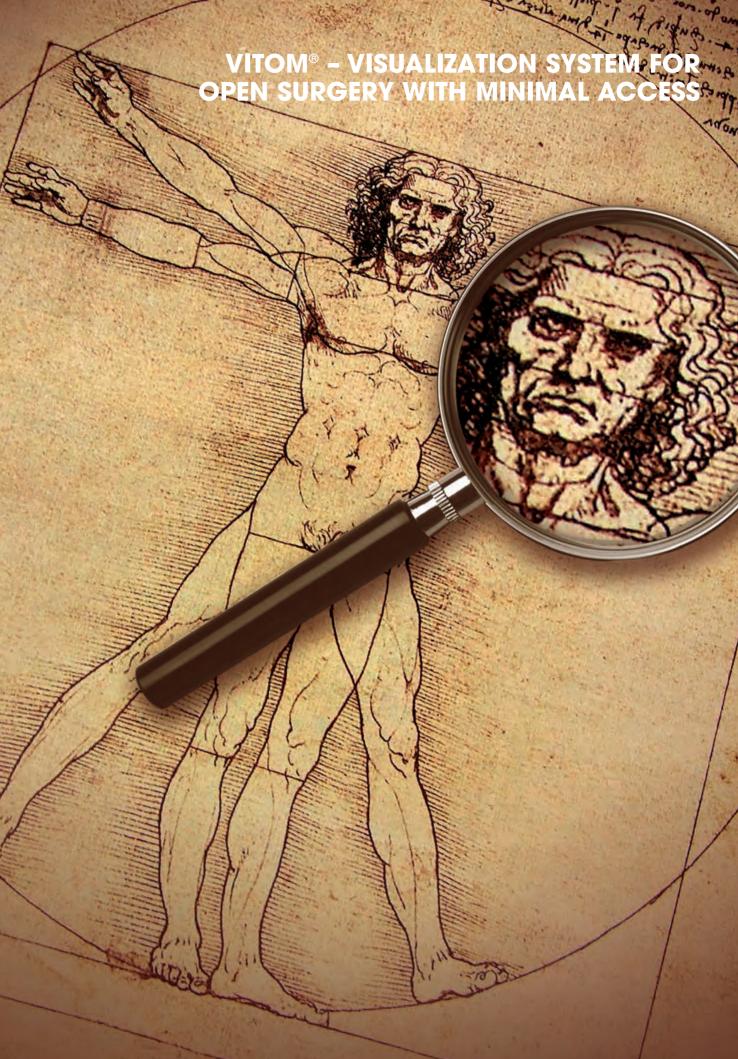


The SZABO-BERCI-SACKIER laparoscopic trainer is designed to simulate laparoscopic procedures, especially the different suturing techniques. It contains diaphragms at the typical puncture sites and a flexible endoscope holder that gives the surgeon the ability to

manipulate instruments with both hands. The SZABO-BERCI-SACKIER laparoscopic trainer can be used to practice the surgical skills necessary to complete a successful laparoscopic procedure.



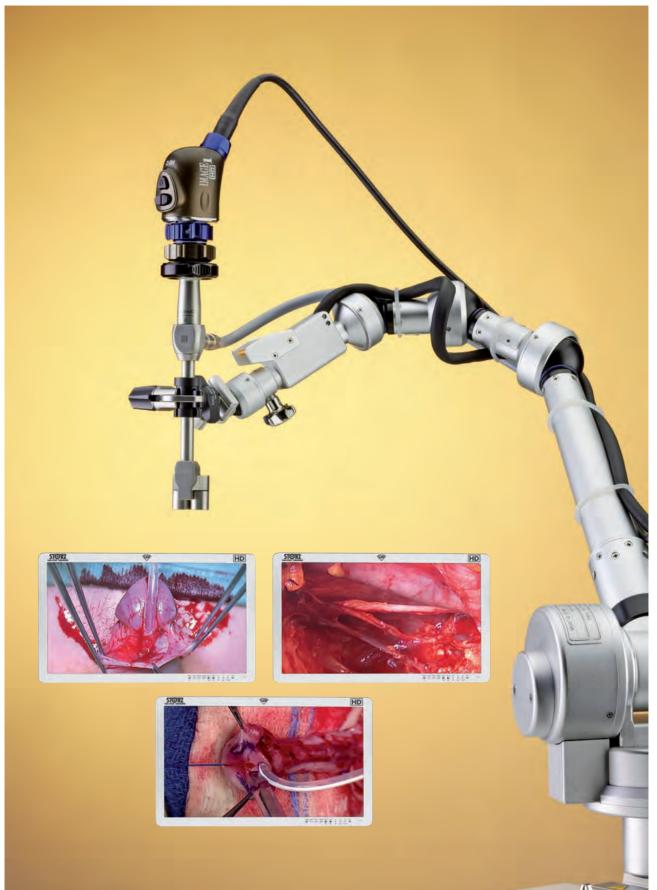
26348 SZABO-BERCI-SACKIER Laparoscopic Trainer





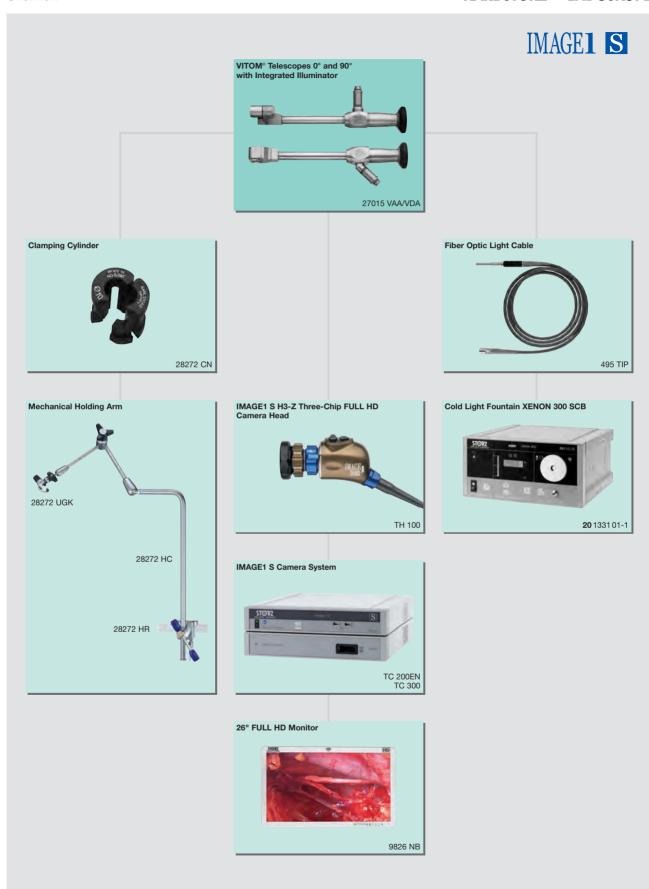
Visualization System for Open Surgery with Minimal Access





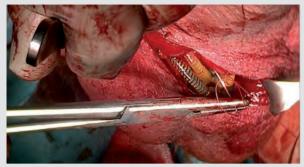






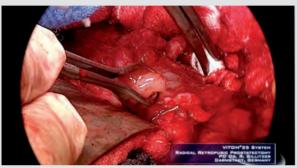
URO-VITOM 3 A





Brillant Visualization in FULL HD

The IMAGE1 S FULL HD camera system provides optimal support for the entire range of minimally invasive and open surgical procedures.



Visualization

The VITOM® system offers the ideal prerequisites for the best possible visualization of open surgical procedures through its great depth of field, optimal magnification, good contrast and excellent color rendition.



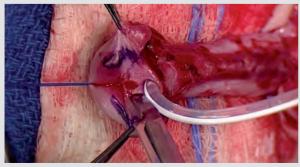
Ergonomic Work

The enlarged image of an open-surgical procedure can be observed via a FULL HD monitor from a convenient distance by the surgeon, the assistant as well as the entire OR team. This provides everyone present with an optimal view of the surgical site.



Teaching and Training

The VITOM® system provides an unobstructed and magnified view of the surgical site both inside and outside the OR and is therefore ideal for teaching and training purposes.



Fields of application

The VITOM® system has been used successfully for the following procedures in urology: Urethral reconstruction; hypospadia/epispadia correction; artificial sphincter implants; open prostatectomy; open cystectomy; orchidopexy; penile deviations; penile protheses; sacropexy; "male sling" implants and circumcision.

Visualization System for Open Surgery with Minimal Access



The VITOM® system from KARL STORZ represents a revolutionary and innovative way of displaying open surgery with minimal access in a high quality and ergonomic manner.

VITOM® is based on the renowned HOPKINS® rod lens system from KARL STORZ. With the help of a holding system, VITOM® is placed at a working distance of 25 – 75 cm above the surgical field. This gives the surgeon more room to work. The small size of the VITOM® reduces space requirements in the OR to a minimum. Due to its slim and compact design, the surgical field is not obstructed and even long instruments can be used with ease. The VITOM® system provides excellent depth of field, optimal magnification, good contrast and excellent color reproduction, which are the ideal

requisites for the best possible recording and playback in FULL HD quality. The first-class enhanced imaging can be observed via a FULL HD monitor from a convenient distance by the surgeon, the assistant as well as the entire OR team. In urology, the VITOM® system has proven to be a complementary solution to OR illumination cameras, loupes, operating microscopes or the unaided eye.

VITOM® features integrated fiber optic light transmission which enables connection to endoscopic cold light sources.

The system allows further use of existing units. A FULL HD endoscope imaging solution from KARL STORZ can also be used with the VITOM® system.

The VITOM® system offers:

- Excellent FULL HD image quality
- Great depth of view
- Large working distance
- Ergonomic monitor work

- Compact design requiring minimal space in the OR
- Use of existing KARL STORZ FULL HD endoscopy system possible



Using the VITOM® system in urology

OR photographs courtesy of: PD Dr. David Schilling Universitätsklinikum Frankfurt, Germany

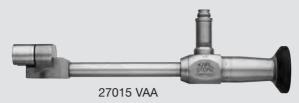
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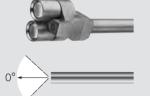
URO-VITOM 5 B





Exoscope and Illumination - 2nd Generation VITOM® Telescopes Length 11 cm





27015 VAA

VITOM® Telescope 0° with Integrated Illuminator, VITOM® HOPKINS® straight forward telescope 0°, working distance 25 - 75 cm, length 11 cm, autoclavable, with fiber optic light transmission incorporated and condensor lenses, color code: green Note: The scope used in this set has the article no. **20** 9160 25 AA.

Fiber Optic Light Cables 495 TIP or 495 NVC recommended



495 TIP

Fiber Optic Light Cable, diameter 4.8 mm, length 300 cm, with straight connector, extremely heat-resistant

495 NVC

Fiber Optic Light Cable, diameter 4.8 mm, length 300 cm, with 90° deflection to the instrument, very narrow radius of curvature

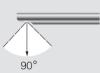




Exoscope and Illumination – 2nd Generation VITOM® Telescopes Length 11 cm







27015 VDA

VITOM® Telescope 90° with Integrated Illuminator, VITOM® HOPKINS® telescope 90°, working distance 25 – 75 cm, length 11 cm, **autoclavable**, with fiber optic light transmission incorporated and condensor lenses,

color code: blue

Note: The scope used in this set has the article no. **20** 9160 25 DA.

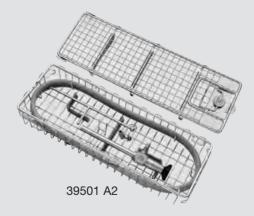
Fiber Optic Light Cable 495 TIP recommended



495 TIP

495 TIP

Fiber Optic Light Cable, diameter 4.8 mm, length 300 cm, with straight connector, extremely heat-resistant



39501 A2

Wire Tray for Cleaning, Sterilization and Storage of two rigid endoscopes and one light cable, including holder for light post adaptors, silicone telescope holders and lid, external dimensions (w x d x h): 352 x 125 x 54 mm, for rigid endoscopes up to diameter 10 mm and working length 20 cm

Compatible Holding Systems see catalog HOLDING SYSTEMS





Working distance:	25 – 75 cm		
Depth of view at working distance of: Depth of view:	25 cm approx. 3.5 cr	50 cm m approx. 7 cm	75 cm approx. 10 cm
Field of view at working distance of:	25 cm	50 cm	75 cm
IMAGE1 S H3-Z camera zoom 1x	5 cm	10 cm	15 cm
IMAGE1 S H3-Z camera zoom 2x	3.5 cm	7 cm	10.5 cm
Reproduction scale at working distance of:	25 cm	50 cm	75 cm
26" Monitor: H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 8x	approx. 4x	approx. 3x
	approx. 16x	approx. 8x	approx. 6x
42" Monitor: H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 14x	approx. 7x	approx. 5x
	approx. 28x	approx. 14x	approx. 10.5x
52" Monitor: H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 17x	approx. 8x	approx. 6x
	approx. 34x	approx. 16x	approx. 12x



Using the VITOM® system in urology

Technical specifications are subject to change.

OR photographs courtesy of: Prof. Dr. Arnulf Stenzl, Universitätsklinikum Tübingen, Germany

7

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Units and Accessories for Urology





- STANDARD EQUIPMENT
- EQUIPMENT CARTS
- STORZ MEDICAL
- **LITHOTRIPSY**
- **SUCTION AND IRRIGATION SYSTEMS**
- MOTOR SYSTEMS
- **HIGH FREQUENCY SURGICAL UNITS**

The units manufactured by KARL STORZ combine long-lasting precision mechanics with state-of-the-art micro-electronic programmable controls. At KARL STORZ, the greatest emphasis is placed on user and patient safety. The quality assurance system of KARL STORZ is certified in accordance with the requirements of ISO 9001/EN 46001. It guarantees constant quality testing in the selection of materials and components. At the end of each manufacturing process, tests are carried out with automatic measuring and testing systems developed specially for this purpose. The results are recorded and logged. That gives each device a distinct "fingerprint" that can be checked at any time before and after it is delivered to the customer.

The standardized, modular design of KARL STORZ units was developed based on extensive ergonomic studies and is conceived for ease of care and cleaning and user-friendly practice, as well as to meet the demands of the special hygienic standards required in surgery. Clearly laid out adjacent function keys and displays guarantee efficient operation and make it easier to constantly monitor actual and set parameters. Acoustic and visual warning signals also assist the user. The settings can be changed manually at any time. Automatic microelectronic control systems guarantee optimum operating conditions and therefore relieve the surgeon in his work who can then fully concentrate on medical procedures.

The entire KARL STORZ product line includes the following categories of units with accessories:

- Insufflators
- Suction and Irrigation Systems
- Motor Systems
- Lithotripsy
- HF Surgical Units

-984

UNITS-INTRO 1 U 3

Standard Equipment



STANDARD EQUIPMENT



STANDARD EQUIPMENT LOWER URINARY TRACT UPPER URINARY TRACT

Standard Equipment for the Lower Urinary Tract





Units and Accessories

9619 NB 19" HD Monitor TC 200EN* **IMAGE1 S CONNECT** TC 301 **IMAGE1 S X-LINK**

20133601-133 Cold Light Fountain D-LIGHT C/AF SCB

UP410 S1 **UROMAT E.A.S.I.® SCB** 20 5352 02-125 AUTOCON® II 400 SCB **27** 7010 01-1 **UNIDRIVE® S III SCB**

WD100-EN* AIDA mini

UG 220 **Equipment Cart, wide** 20 017831 Three-Pedal Footswitch 29005 DFH Footswitch Holder, for two-

and three-pedal footswitches

UG 310 **Isolation Transformer** UG 410 **Earth Leakage Monitor**

* IMAGE1 S CONNECT and AIDA mini are also available in the following languages: DE, ES, FR, IT, PT, RU For further information on Cold Light Sources, Camera Systems and Monitors see catalog TELEPRESENCE Communication Bus and Accessories see catalog KARL STORZ OR1 NEO®

TANDARD

Standard Equipment for the Upper Urinary Tract





Units and Accessories

9627 NB 27" FULL HD Monitor
TC 200EN* IMAGE1 S CONNECT
TC 301 IMAGE1 S X-LINK
UP410 S1 UROMAT E.A.S.I.® SCB
20 5352 02-125 AUTOCON® II 400 SCB

WD100-EN* AIDA mini

UG 210 Equipment Card
UG 500 Monitor Holder

27 7502 01-1 **CALCULASE II SCB**

or

27 6100 01 CALCUSON

optional:

UG 612 Camera Holder

29005 EFH Footswitch Holder, for

one-pedal footswitch

^{*}IMAGE1 S CONNECT and AIDA mini are also available in the following languages: DE, ES, FR, IT, PT, RU For further information on Cold Light Sources, Camera Systems and Monitors see catalog TELEPRESENCE Communication Bus and Accessories see catalog KARL STORZ OR1 NEO®

Equipment Carts





EQUIPMENT CARTS

NEW COR E-Series

Equipment Cart





UG 220

Equipment Cart, wide, high, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, energy beam with integrated electrical subdistributors with 12 sockets, grounding plugs,

Dimensions:

Equipment cart: 830 x 1474 x 730 mm (w x h x d),

Shelf: 630 x 25 x 510 mm (w x h x d),

Caster diameter: 150 mm

including:

Base Module, equipment cart, wide

Cover, equipment cart, wide

Beam Package, equipment cart, high

3x Shelf, wide

Drawer Unit with Lock, wide

2x Equipment Rail, long

Camera Holder



UG 210

Equipment Cart, wide, small, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, energy beam with integrated electrical subdistributors with 6 sockets, grounding plugs,

Dimensions:

Equipment cart: 830 x 1265 x 730 mm (w x h x d),

Shelf: 630 x 25 x 510 mm (w x h x d),

Caster diameter: 150 mm

including:

Base Module, equipment cart, wide

Cover, equipment cart, wide

Beam Package, equipment cart, small

Shelf, wide

2x Drawer Unit with Lock, wide

2x Equipment Rail, long

For further information on Equipment Carts see catalog TELEPRESENCE Components/Spare Parts see chapter 16

EQUIPMENT CARTS

Equipment Cart COR Accessories



UG 540	Monitor Swivel Arm, height and side adjustable, can be positioned on the left or on the right side, swivel range 180°, reach 780 mm, from center 1170 mm, loading capacity max. 15 kg, with monitor mount VESA 75/100, for use with Equipment Carts UGxxx
UG 510	Monitor Holding Arm, height and side adjustable, tilting, can be mounted either on the left or on the right side, swivel range up to 320°, reach 530 mm, loading capacity max. 15 kg, with monitor holder VESA 75/100, for Equipment Carts UGxxx
UG 520	Monitor Holding Arm, long, height and side adjustable, tilting, swivel range up to 320°, reach 760 mm, loading capacity max. 15 kg, with monitor holder VESA 75/100, for use with Equipment Carts UGxxx
UG 500	Monitor Holder, height adjustable, swiveling and tilting, central mount, swivel range approx. 360°, loading capacity max. 18 kg, with monitor mount VESA 75/100, for use with Equipment Carts UGxxx
UG 608 UG 607	Equipment Rail, long, for mounting to side of equipment cart, Dimensions: 300 x 25 x 10 mm (w x h x d), for Equipment Carts UGxxx Equipment Rail, short, for mounting to side of equipment cart, Dimensions: 170 x 25 x 10 mm (w x h x d)
	Dimensions: 170 x 25 x 10 mm (w x h x d), for Equipment Carts UGxxx

10-14

U 11 URO-UNITS 9 I

Equipment Cart COR Accessories



EQUIPMENT CARTS

	UG 310 UG 300	Isolation Transformer, 200 – 240 V, 2000 VA, with 3 special mains socket, automatic cutout, 3 grounding plugs, Dimensions in mm: 330 x 90 x 495 (w x h x d), for use with Equipment Carts UGxxx Same, 100 – 120 V
STORY STORY STORY STORY STORY The second of the second	UG 410	Earth Leakage Monitor, 200 – 240 V, for mounting to equipment carts, Control panel dimensions: 44 x 80 x 29 mm (w x h x d), for use with Isolation Transformer UG 310 Earth Leakage Monitor, 100 – 120 V, for mounting to equipment carts, Control panel dimensions: 44 x 80 x 29 mm (w x h x d), for use with Isolation Transformer UG 300
	20 0101 70 20 0102 70 20 0103 70 20 0105 70 20 0106 70	Potential Equipotential Cable, length 10 m Potential Equalization Cable, length 500 cm Potential Equalization Cable, length 200 cm Potential Equipotential Cable, length 150 cm Potential Equipotential Cable, length 100 cm
	UG 614 UG 615	Counter Balance Plate, for improved stability when mounting a monitor holding arm, Dimensions: 356 x 6 x 478 (w x h x d), for use with Equipment Carts UGxxx Auxiliary Counter Balance Plate, for improved stability when mounting a monitor holding arm, Dimensions: 290 x 6 x 478 mm (w x h x d), for use with Equipment Carts UGxxx
	UG 604	Shelf, wide, load capacity max. 60 kg, Dimensions: 630 x 25 x 510 mm (w x h x d), for use with Equipment Carts UGxxx
	UG 606	Keyboard Tray, wide, for mounting below wide Shelf UG 604, load capacity max. 15 kg, Dimensions: 630 x 480 mm (w x d), for use with Equipment Carts UGxxx

U 12 URO-UNITS 10 F

Equipment Cart COR

Accessories



EQUIPMENT CARTS

UG 602 Drawer Unit with Lock, wide, max. shelf load 60 kg, max. drawer load 5 kg, with cable slot, Dimensions: 630 x 126 x 510 mm (w x h x d), for use with Equipment Carts UGxxx UG 612 Camera Holder, for storing camera heads, with detachable inlays, compatible with all endoscopy cameras, for use with **Equipment Carts UGxxx** UG 625 IV Pole, with 2 bottle hooks à 5 kg, length 130 cm, for use with Equipment Carts UGxxx including: **IV** Pole **Multifunctional Holder** IV Pole, height adjustable, with 2 bottle hooks à 5 kg, length 118 – 203 cm, for use with UG 626 Equipment Carts UGxxx including: **IV** Pole **Multifunctional Holder**

Components/Spare Parts see chapter 16

URO-UNITS 11 F

EQUIPMENT CARTS

Equipment Cart COR Accessories



UG 623	Multifunctional Holder, 2-part, for mounting poles, diameter 25 mm, package of 2, for use with Equipment Carts UGxxx
29005 HFH 29005 HFE	Footswitch Holder, for two- and three-pedal footswitches, for mounting to Equipment Rail 29003 GS, for use with Footswitch 20 0138 30 and 20 0138 31 Footswitch Holder, for one-pedal footswitch, for mounting to Equipment Rail 29003 GS, for use with One-Pedal Footswitch 20 0138 32
29005 DFH 29005 EFH	Footswitch Holder, for two- and three-pedal footswitches, for mounting to Equipment Rails UG 608 and 29003 GS, for use with Footswitches 20 0143 30, 20 0154 30, 20 0164 30, 20 0166 30, 20 0168 31, 20 0178 30 and 20 0178 31 Footswitch Holder, for one-pedal footswitch, for mounting to Equipment Rails UG 608 and 29003 GS, for use with Footswitches 20 0141 30, 20 0142 30 and 20 0178 32
29005 AK	Wire Basket, for accessories, for mounting to Equipment Rail 29003 GS, dimensions (w x h x d): 300 x 100 x 200 mm, for use with Equipment Cart 29005

IPMENT CARTS

Equipment Cart

E-Series





20 0200 86

TROLL-E C-MAC® Mobile Stand, rides on 4 antistatic dual wheels, 2 equipped with locking brakes, with stainless steel tube, Dimensions:

Mobile stand: 670 x 1500 x 670 mm (w x h x d), Caster diameter: 100 mm Trolley is delivered unassembled.

including:

Subrack, for mobile stand
Top Cover, with guide sleeve
Stainless Steel Tube, length 135 cm
Equipment Rail
Cross Tube Adaptor

Stainless Steel Round Pipe, length 25 cm



20 0200 81

TROLL-E Mobile Stand, rides on 4 antistatic dual wheels, 2 equipped with locking brakes, for mounting monitors with VESA 75/100 connection, integrated cable conduit in vertical beam, 1 shelf and cable manager, load capacity for monitor: max. 15 kg,

Dimensions:

Mobile stand: $670 \times 1660 \times 670 \text{ mm}$ (w x h x d), Shelf: $455 \times 350 \text{ mm}$ (w x d), caster diameter: 100 mm

Trolley is delivered unassembled.

including:

Subrack, for mobile stand

Beam Module

Shelf

For further information on Equipment Carts see catalog TELEPRESENCE Components/Spare Parts see chapter 16



20 0200 80

SHORT-E HF Cart, rides on 4 antistatic dual wheels, 2 equipped with locking brakes, integrated cable conduit in vertical beam, 1 HF shelf for AUTOCON® II 400 SCB, with hook for storing cables, cable manager, max. load capacity 51 kg, Dimensions: HF cart: 670 x 1020 x 670 mm (w x h x d), HF shelf: 455 x 375 mm (w x d), caster diameter: 100 mm, Trolley is delivered unassembled. including:

Subrack, for mobile stand **HF Shelf**

For further information on Equipment Carts see catalog TELEPRESENCE Components/Spare Parts see chapter 16

STORZ MEDICAL





■ STORZ MEDICAL

MODULITH® SLX-F2 connect

MODULITH® SLK »inline«

NEW PRIMERA 360

NEW DUOLITH® SD1 »ultra«

Systems for Urology from NEW STORZ MEDICAL

MODULITH® SLX-F2 connect



ST RZ MFDICAL

The Complete Solution for Urology

The MODULITH® SLX-F2 connect sets new standards in the field of stationary, multifunctional systems for ESWL and Endourology. This is the only system on the market that offers the user the possibility to rotate the X-ray detector between the over- and undertable positions. This quickly and easily creates optimum ergonomics for performing all endourological interventions. A large, modern 17" X-ray flat-panel detector can be positioned close to the patient under the table. This provides an overview of the entire urogenital tract and practically makes table repositioning unnecessary during endourological interventions. Endoscopic and ultrasound images can be displayed on freely positioned monitors if required.

Alternatively, the proven electromagnetic STORZ MEDICAL with a penetration depth of max.180 mm enables the non-invasive treatment of severely overweight patients up to a maximum weight of 225 kg.

MODULITH® SLX-F2 connect combines a lithotripter and a urological examination table in one system. This enables the urologist to provide optimal treatment for each patient while utilizing the system at full capacity. State-of-the-art technology, flexibility and cost-effectiveness makes the MODULITH® SLX-F2 connect stand out as a unique multifunctional workstation for urology.



U 18 **URO-UNITS 16 D**

TORZ MEDICAL

Systems for Urology from STORZ MEDICAL

MODULITH® SLK »inline«



ST RZ MFDICAL

The Innovative Solution for Stone Therapy with Inline Localization and Intuitive Use.

MODULITH® SLK »inline« features the proven STORZ MEDICAL cylinder source. Inline-localization brings all types of stones in the urinary tract into focus for safe and effective treatment. The over- and undertable positioning of the therapy source in combination with the wide radius of motion of the integrated table allows treatment without the need for patient repositioning. Even obese patients up to 225 kg can be safely positioned on the patient foil during treatment. This enables ideal coupling with the therapy head for transmitting shock waves without the formation of air bubbles. MODULITH® SLK »inline« makes it easy to perform endourological treatments such as URS and PCNL thanks to good access to the patient from all sides and a wide range of available accessories.

Thanks to the clearly arranged user interface, MODULITH® SLK »inline« is easy and intuitive to use. MODULITH® SLK »inline« can be configured according to budgetary or individual needs and requirements, ranging from the cost-effective version with a manual C-arm from the hospital inventory through to high-end configurations with a remote workstation and a motorized C-arm. The modular design allows a smooth upgrade of the MODULITH® SLK »inline« system at a later date.







10-14

URO-UNITS 17 A U 19

Systems for Urology from NEW STORZ MEDICAL

PRIMERA ST 360®



ST RZ MFDICAL

The PRIMERA ST 360® system is the result of a close cooperation between STORZ MEDICAL and KARL STORZ. The outcome is a unique equipment concept that perfectly combines X-ray diagnostics and endourology.

The system is equipped with state-of-the-art digital Xray technology. The large 43 x 43 cm flat-panel detector can capture the entire urogenital tract with only one recording in excellent image quality. Applications range from urological examinations to diagnosis through to endourological interventions.

A special feature of the PRIMERA ST 360® system is the STORZ Communication Bus (SCB). This interface allows the networking of system components required for urological diagnosis and therapy in order to perform complex procedures in a safer and more effective manner. This contributes to a significant improvement in the workflow.

The central control concept enables all functions and parameters of the table, the digital X-ray system, endoscopic imaging and therapeutic units to be displayed on the touch screen during treatment. Depending on the specific situation, the entire OR team as well as the operating surgeon can easily and conveniently control all parameters.

The flexible positioning of the work monitors as well as free access to the patient table from all sides enable ergonomic treatment position and an optimal view of the monitors during all urological procedures.

The wide range of options range from the basic configuration with a monitor support arm through to a sophisticated ceiling mount solution with OR lights and radiation protection.







U 20 **URO-UNITS 18 E**

Systems for Urology from STORZ MEDICAL

DUOLITH® SD1 »ultra«



ST RZ MEDICAL

Modular Shock Wave Therapy

Focussed and radial shock waves with integrated ultrasound diagnosis in one system

The DUOLITH® SD1 »ultra« Version Tower shock wave therapy system features a modular design. It is used in the fields of orthopedics, wound healing and urology. The modularity principle enables physicians to customize the system according to their individual needs to expand it as desired. All modules are centrally controlled via a large-format touch screen using an intuitive user interface. New materials and technologies provide a user-friendly and efficient operation.

Shock wave therapy is an effective and long-term treatment option for urological indications such as CPPS (Chronic Pelvic Pain Syndrome), Induratio Penis Plastica (IPP) or Erectile Dysfunction (ED) of vascular origin. The focused handpiece allows targeted treatment of both deep-lying and superficial areas whereas the radial handpiece is used for the treatment of painful muscle structures and trigger points. Scientific studies have proven the effectiveness of shock wave therapy for these indications.



7

URO-UNITS 19 U 21

Lithotripsy Systems





LITHOTRIPSY CALCULASE II SCB

CALCUSPLIT®

CALCUSON

LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment





20 Watt LASER Power

The brand CALCULASE II SCB stands for a cost-effective and efficient Holmium: YAG-LASER system for endoscopic LASER lithotripsy.



Soft Tissue Treatment

The system can be used for, among others, soft tissue treatment such as ureteropelvic junction stenosis and the ablation of urethral carcinoma.



Diverse LASER Fibers and Instruments

KARL STORZ offers LASER fibers in various sizes (230, 365 and 600 µm) for both single and multiple use. Together with its wide range of rigid and flexible uretero-renoscopes equipped with fiber optic and sensor technology as well as the MIP product family, KARL STORZ offers the ideal complete solution for stone therapy and soft tissue treatment.



Automatic Fiber Detection

This feature enables automatic adjustment of energy settings to the fiber sizes and, consequently, prevents damage to the fibers or the unit itself.



Mobility

Its compact design makes CALCULASE II SCB a very versatile and mobile system. Thanks to its innovative handles, the LASER system can easily be placed on the urological equipment cart and moved from one OR to the next.

Alternatively, the LASER system can be placed on an equipment cart specially designed for this purpose and transported as required.

LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment



LASER System for the Treatment of Bladder, Ureter and Kidney Stones and for opening stenoses/strictures as well as tumor ablations

Special Features:

- Extremely fast lithotripsy
 - High success rate independent of stone composition
 - Rapid stone destruction
 - Lithotripsy under endoscopic control
- 20 Watt for effective and precise treatment:
 Precise cutting effect in the case of stenoses
 - Individually selectable parameters (pulse frequency and intensity)
 - Least possible tissue damage
- Automatic fiber detection:
 - High user-friendliness
 - Automatically controlled energy output
 - Increased safety

- Special design:
 - Mobile desktop housing
 - Integrated low-noise cooling system
 - For use on endoscopic equipment carts
- Green pilot laser: Good visibility even in challenging situations
- For use with rigid, semiflexible and flexible endoscopes
- With connection possibilities to the KARL STORZ Communication Bus (KARL STORZ-SCB)



9-121

URO-UNITS 23 A U 25

Holmium LASER System for Endoscopic Stone Therapy and Soft Tissue Treatment, Recommended Standard Set Configuration





27 7502 01-1 CALCULASE II SCB, Holmium LASER system,

with KARL STORZ-SCB, power supply 230 VAC, 50/60 Hz

including:

Mains Cord

One-Pedal Footswitch

Key Set

Remote Interlock Connector

Safety Goggles Ho:YAG LASER, 2080 nm

SCB Connecting Cable, length 100 cm

Ion Exchanger

27 7502 01U1 Same, power supply 115 VAC, 50/60 Hz

Please note:

Each lithotripsy system requires a separate basic fiber set: 27 7502 87 or 27 7502 86.

Parameters for 230 µm Fibers

Energy	Frequency				
	4 Hz	6 Hz	8 Hz	10 Hz	15 Hz
0.5 J	2 W	3 W	4 W	5 W	-
0.8 J	3.2 W	4.8 W	6.4 W	8 W	-
1.2 J	4.8 W	7.2 W	9.6 W	12 W	-
1.7 J	-	-	-	-	-
2 J	-	_	-	-	-

Parameters for 365 µm and 600 µm Fibers

Energy	Frequency				
	4 Hz	6 Hz	8 Hz	10 Hz	15 Hz
0.5 J	2 W	3 W	4 W	5 W	7.5 W
0.8 J	3.2 W	4.8 W	6.4 W	8 W	12 W
1.2 J	4.8 W	7.2 W	9.6 W	12 W	18 W
1.7 J	6.8 W	10.2 W	13.6 W	17 W	-
2 J	8 W	12 W	16 W	20 W	_

Parameter settings are selected via the LASER fiber code.

Accessories for CALCULASE II SCB see page U 28

Components/Spare Parts see chapter 16

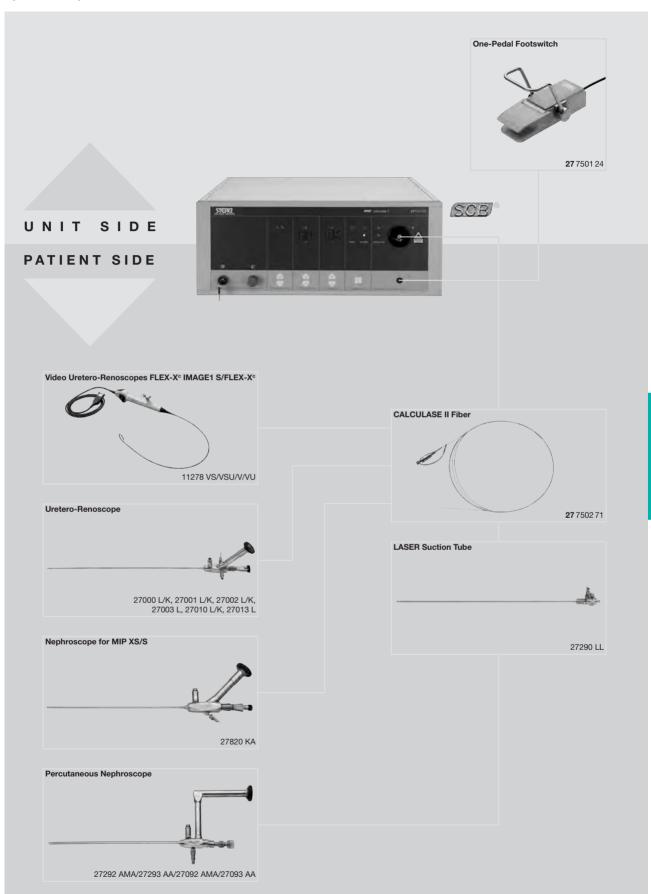
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VACIOTOTO

CALCULASE II SCB

System Components





3-1₂2

URO-UNITS 25 E U 27

Accessories for CALCULASE II SCB



Fiber Sets, reusable 27750271-P6 CALCULASE II Fiber 230 µm, reusable, sterile, length 300 cm, package of 6 27750272-P6 CALCULASE II Fiber 600 µm, reusable, sterile, length 300 cm, package of 6 27750273-P6 CALCULASE II Fiber 600 µm, reusable, sterile, length 300 cm, package of 6 27750287 CALCULASE II Fiber 230 µm, reusable 3x CALCULASE II Fiber 365 µm, reusable 3x CALCULASE II Fiber 600 µm, reusable 3x CALCULASE II Fiber 600 µm, reusable 3x CALCULASE II Fiber 600 µm, reusable 3x CALCULASE II Fiber 365 µm, for single use, sterile, length 300 cm, package of 6 27750278-P6 CALCULASE II Fiber 365 µm, for single use, sterile, length 300 cm, package of 6 27750278-P6 CALCULASE II Fiber 365 µm, for single use, sterile, length 300 cm, package of 6 27750286 CALCULASE II Fiber 600 µm, for single use, sterile 3x CALCULASE II Fiber 365 µm, for single use, sterile 3x CALCULASE II Fiber 600 µm, for single use, sterile 3x CALCULASE II Fiber 600 µm, for single use, sterile 3x CALCULASE II Fiber 600 µm, for single use, sterile 3x CALCULASE II Fiber 600 µm, for single use, sterile 3x CALCULASE II Fiber 600 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 600 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 3x CALCULASE II Fiber 800 µm, for single use, sterile 800 µm, for single 900 µm, for sin			
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length 300 cm, package of 6 27750273-P6 CALCULASE II Fiber 600 μm, reusable, sterile, length 300 cm, package of 6 27750287 CALCULASE II Fiber Kit including: 3x CALCULASE II Fiber 365 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable 3x CALCULASE II Fiber 365 μm, for single use, sterile, length 300 cm, package of 6 27750278-P6 CALCULASE II Fiber 365 μm, for single use, sterile, length 300 cm, package of 6 27750279-P6 CALCULASE II Fiber 600 μm, for single use, sterile, length 300 cm, package of 6 277502 79-P6 CALCULASE II Fiber 600 μm, for single use, sterile, length 300 cm, package of 6 277502 86 CALCULASE II Fiber 600 μm, for single use, sterile 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 4x CALCULASE II Fiber 600 μm, for single use, sterile 4x CALCULASE II fiber 600 μm, for single use, st		27 7502 71-P6	
Proceedings Processing		27 7502 72-P6	
including: 3x CALCULASE II Fiber 230 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable 27 7502 77-P6 CALCULASE II Fiber 230 μm, for single use, sterile, length 300 cm, package of 6 27 7502 78-P6 CALCULASE II Fiber 365 μm, for single use, sterile, length 300 cm, package of 6 27 7502 79-P6 CALCULASE II Fiber 600 μm, for single use, sterile, length 300 cm, package of 6 27 7502 86 CALCULASE II Fiber 600 μm, for single use, sterile including: 3x CALCULASE II Fiber 230 μm, for single use, sterile 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 27 7500 82 Fiber Cutter 27 7500 81 Fiber Stripper 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm		27 7502 73-P6	
3x CALCULASE II Fiber 230 μm, reusable 3x CALCULASE II Fiber 365 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable 27 7502 77-P6 CALCULASE II Fiber 230 μm, for single use, sterile, length 300 cm, package of 6 27 7502 78-P6 CALCULASE II Fiber 365 μm, for single use, sterile, length 300 cm, package of 6 27 7502 79-P6 CALCULASE II Fiber 600 μm, for single use, sterile, length 300 cm, package of 6 27 7502 86 CALCULASE II Fiber 600 μm, for single use, sterile including: 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 3x		27 7502 87	
3x CALCULASE II Fiber 365 μm, reusable 3x CALCULASE II Fiber 600 μm, reusable 27 7502 77-P6 CALCULASE II Fiber 230 μm, for single use, sterile, length 300 cm, package of 6 27 7502 78-P6 CALCULASE II Fiber 600 μm, for single use, sterile, length 300 cm, package of 6 27 7502 79-P6 CALCULASE II Fiber 600 μm, for single use, sterile, length 300 cm, package of 6 27 7502 86 CALCULASE II Fiber 600 μm, for single use, sterile 3x CALCULASE II Fiber 230 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 27 7500 82 Fiber Cutter 27 7502 80 Fiber Stripper 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm			
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27 7502 77-P6 CALCULASE II Fiber 230 μm, for single use, sterile, length 300 cm, package of 6 27 7502 78-P6 CALCULASE II Fiber 365 μm, for single use, sterile, length 300 cm, package of 6 27 7502 79-P6 CALCULASE II Fiber 600 μm, for single use, sterile, length 300 cm, package of 6 27 7502 86 CALCULASE II Fiber Kit including: 3x CALCULASE II Fiber 230 μm, for single use, sterile 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 77 7500 82 Fiber Cutter 27 7500 82 Fiber Cutter 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm			3x CALCULASE II Fiber 600 μm, reusable
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sterile, length 300 cm, package of 6 27 7502 86 CALCULASE II Fiber Kit including: 3x CALCULASE II Fiber 230 μm, for single use, sterile 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 27 7500 82 Fiber Cutter 27 7500 81 Fiber Stripper 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm		27 7502 78-P6	
including: 3x CALCULASE II Fiber 230 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 277500 82 Fiber Cutter 277500 81 Fiber Stripper 277502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm		27 7502 79-P6	
3x CALCULASE II Fiber 230 μm, for single use, sterile 3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile Additional Accessories 27 7500 82 Fiber Cutter 27 7500 81 Fiber Stripper 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm		27 7502 86	
3x CALCULASE II Fiber 365 μm, for single use, sterile 3x CALCULASE II Fiber 600 μm, for single use, sterile 277500 82 Fiber Cutter 277500 81 Fiber Stripper 277502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm			
Additional Accessories 27 7500 82 Fiber Cutter 27 7500 81 Fiber Stripper 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm			
27 7500 82 Fiber Cutter 27 7500 81 Fiber Stripper 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm			
27 7500 81 Fiber Stripper 27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm	Additional Accessories		
27 7502 80 Fiber Stripper Set, sterilizable, for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm		27 7500 82	Fiber Cutter
for use with CALCULASE II fibers including: Silicone Pad Ceramic Knife Fiber Strippers 230, 365 and 600 μm	FOCET INSTITUTE IN	27 7500 81	Fiber Stripper
Ceramic Knife Fiber Strippers 230, 365 and 600 μm		27 7502 80	for use with CALCULASE II fibers including:
27 7500 95 Safety Goggles Ho:YAG LASER, 2080 nm			Ceramic Knife
27 7 555 55 Galoty doggloo Hollina Ericelly 2000 Hill	8	27 7500 95	Safety Goggles Ho:YAG LASER, 2080 nm

The CALCULASE II fibers above are compatible with the previous model CALCULASE (**27** 7501 20-1). **Components/Spare Parts** see chapter 16

9-12

Equipment Cart



Special Features:

- Flexible use of CALCULASE II SCB in various ORs
- Spacious storage room for accessories and expendable materials in two lockable drawers (LASER safety goggles or LASER fibers)
- Integrated cable winding and footswitch holder maintain an uncluttered OR
- Easy to transport due to large, smooth-running and antistatic dual wheels
- Powder-coated panels and shelves meet the most stringent quality and hygiene standards



UG 210

Equipment Cart, wide, small, rides on 4 antistatic dual wheels equipped with locking brakes, mains switch on cover, energy beam with integrated electrical subdistributors with 6 sockets, grounding plugs, Dimensions:

Equipment cart: 830 x 1265 x 730 mm (w x h x d),

Shelf: 630 x 25 x 510 mm (w x h x d),

Caster diameter: 150 mm

including:

Base Module, equipment cart, wide

Cover, equipment cart, wide

Beam Package, equipment cart, small

Shelf, wide

2x Drawer Unit with Lock, wide

2x Equipment Rail, long

Components/Spare Parts see chapter 16

URO-UNITS 27 E

10-14

Special Features:

- Ultrasonic lithotripsy system with automatically controlled generator for maximum power output, working frequency approx. 26,000 Hz
- Enhanced patient safety

- Easy to use
- Optimal power output
- High effectiveness



27 6100 01

CALCUSON Ultrasonic Generator Set,

power supply 100 - 120 VAC/200 - 240 VAC, 50/60 Hz

including:

Mains Cord

One-Pedal Footswitch

Transducer

Connecting Cable (transducer/generator)

Protection Sleeve, for storage and sterilization of probes

Cleaning Rod, for probes

Wrench, for probes

Specifications:

 Working frequency
 approx. 26,000 Hz
 Weight
 3.7 kg

 Power supply
 110-120 VAC/200-240 VAC, 50/60 Hz
 Certified to
 IEC 60601-1, CE acc. to MDD

 Dimensions w x h x d
 305 x 110 x 260 mm

Ultrasonic Lithotripsy Probe for CALCUSON see page U 32

Components/Spare Parts see chapter 16

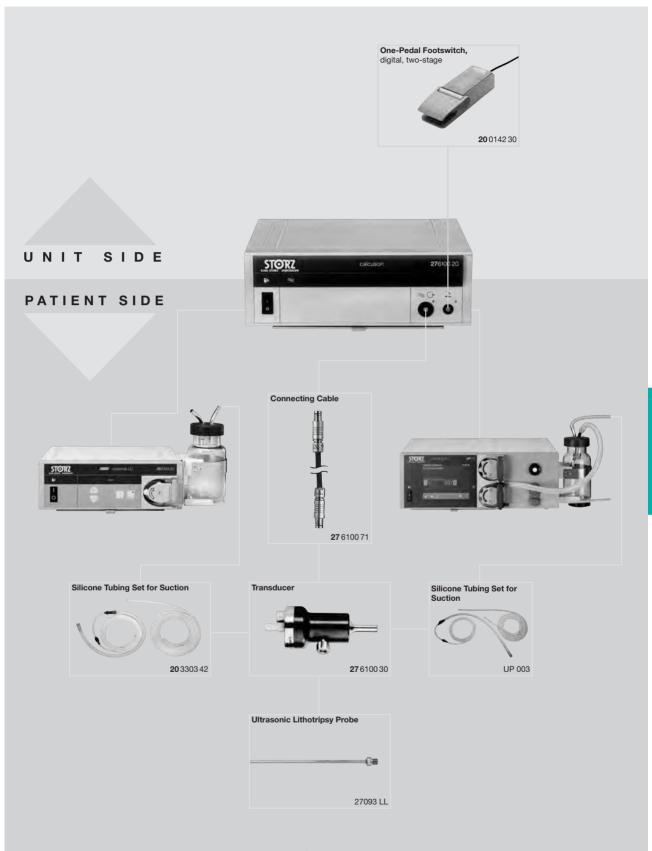
INIPOT

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CALCUSON

System Components





The combined use of CALCUSON and ENDOMAT® LC SCB as a suction pump and UROMAT E.A.S.I.® as a suction/irrigation pump is recommended.

URO-UNITS 29

Accessories



Ultrasonic Lithotripsy Probes for use with Transducer 27 6100 30

27093 OK

Ultrasonic Lithotripsy Probes

Order No.	Diameter	Length	Further Details	for use with
27425 NK		47 cm		Ureteroscope 27002 K
27425 NL	1.5 mm	57 cm	without oscillating tip, with suction channel	Uretero-Renoscope 27002 L
27830 KN		37 cm		Nephroscope for MIP M 27830 KA
27095 LK	1.8 mm	32 cm	with oscillating tip and suction channel	HOPKINS® Telescope 27095 AA in combination with Operating Sheath 27095 B
27093 LM	3 mm	40 cm	with oscillating tip and suction channel	HOPKINS® Telescopes 27294 AA, 27295 AA and Operating Sheath 27294 B and
27093 OM	3 111111		without oscillating tip, with suction channel	Nephroscope for MIP L 27840 KA
27093 LL	3.5 mm	3.5 mm 40 cm	with oscillating tip and suction channel	HOPKINS® Telescopes 27292 AMA, 27293 AA
27093 OL	3.3 11111		without oscillating tip, with suction channel	and Operating Sheaths 27293 BD/CD
27093 LK	3.5 mm	with oscillating tip and suction channel without oscillating tip, with suction channel	HOPKINS® Telescopes 27092 AMA, 27093 AA	
27093 OK				without oscillating

LITHOTRIPS

CALCUSPLIT®

System for Pneumatic Lithotripsy



Pneumatic lithotripsy system, based on the known jackhammer principle, i.e. the kinetic energy of a bolt, is transferred via an elastic shock onto the proximal end piece of the intracorporal probe. The pulse movement of the distal section of the probe fragments the calculus with which it is in contact.

The kinetic energy of the bolt is transmitted to the probe via a special transformation element. In this way, the force is increased and, furthermore, precise adjustment of the probe deflection is ensured.

Special Features:

- Handpiece and application probe have no electrical components. This ensures that there is no electrical hazard whatsoever for patient or user.
- Energy transmission is purely mechanical.
 The efficiency of the system is, therefore, very high and ensures effective fragmentation.
- The average energy transmitted to the calculus is relatively small due to the low pulse frequency of 12 Hz. This fact, together with optimum energy transmission, means that there is no significant increase in the temperature of either probe or handpiece.
- The smallest probe diameter is 0.8 mm. The lumen is large enough to allow efficient irrigation and optimum endoscopic visualization.
- CALCUSPLIT® is very simple to use.
 The handpiece and the probe are very easy to disassemble for cleaning purposes.
- The system is compatible with existing KARL STORZ instruments for treatment of urinary, renal and cystic calculi.



8-051

URO-UNITS 31 E U 33

27 6300 03 CALCUSPLIT®,

power supply 100/120/230/240 VAC, 50/60 Hz including:

Mains Cord

One-Pedal Footswitch, digital, two-stage

Fabric Tube, for connection to the central compressed air supply, length 400 cm

CALCUSPLIT® Handpiece, autoclavable

Sealing Rings, for use with CALCUSPLIT® handpiece, package of 5

0------

Spare Damping Unit, autoclavable, for use with CALCUSPLIT® lithotripsy probes, package of 20

Silicone Tube, autoclavable, for connecting handpieces, length 200 cm

nandpieces, length 200 cm

Cleaning Brush, outer diameter 2.5 mm, length 35 cm

Instrument Oil, bottle of 50 ml

Optional Accessories:

20 0310 01

Air Compressor, 0-8 bar, power supply 230 VAC, 50/60 Hz, dimensions (w x d x h): approx. 500 x 320 x 340 mm, weight approx. 22 kg

including:

Fabric Tube, for connecting CALCUSPLIT® SCB **27** 6300 20 and HYDROMAT® **26** 3110 20 to Air Compressor **20** 0310 20

20 0310 01 C Same, power supply 115 VAC, 50/60 Hz

Specifications:

Working frequency	- single shot - continuous shot 12 Hz	Dimensions w x h x d	305 x 164 x 260 mm
		Weight	5 kg
Power supply	110/120/230/240 VAC, 50/60 Hz	Certified to	IEC 60601-1, CE acc. to MDD

Lithotripsy Wire Probes for use with Handpiece 27 6300 38 see page U 36 **Components/Spare Parts** see chapter 16

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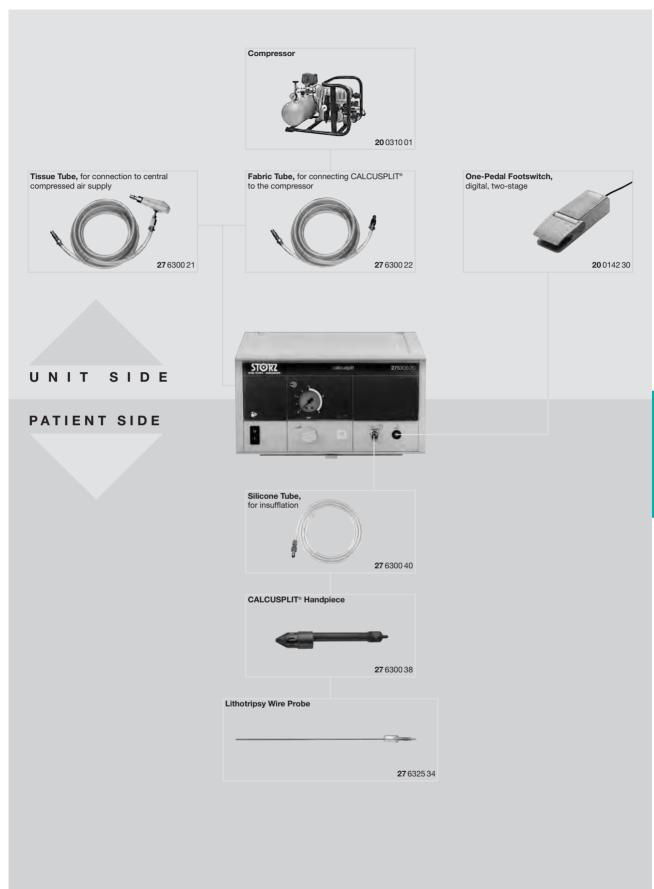
U 34 URO-UNITS 32 E

VOGIGTOR

CALCUSPLIT®

System Components





URO-UNITS 33 E

STORZ FNDOSKOPE

Lithotripsy Wire Probes for use with Handpiece 27 6300 38



27 6340 33

CALCUSPLIT® Lithotripsy Wire Probes

Order No.	Diameter	Working L.	for use with	
27 6325 34	0.8 mm	48.5 cm	Ureteroscopes 27000 K, 27001 K, 27002 K, 27002 KP, in conjunction with Instrument Port 27001 G and	
27 6325 35	1.0 mm	46.5 (111	Handpiece 27 6300 38	
27 6325 36	1.6 mm	48.5 cm	Ureteroscope 27002 K, in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38	
27 6326 34	0.8 mm	57.5 cm	Uretero-Renoscopes 27000 L, 27001 L, 27002 L, 27003 L, in conjunction with Instrument Port 27001 G and	
27 6326 35	1.0 mm	57.5 CIII	Handpiece 27 6300 38	
27 6326 36	1.6 mm	57.5 cm	Uretero-Renoscope 27002 L, in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38	
27 6322 31	0.8 mm			
27 6322 32	1.0 mm	31 cm	HOPKINS® Telescopes 27092 AMA, 27093 AA, 27095 AA, in combination with Operating Sheaths 27093 BD/CD, 27095 B	
27 6322 33	1.6 mm		31 CIII	OT CITI
27 6322 34	2.0 mm			
27 6340 31	0.8 mm		HOPKINS® Telescopes 27292 AMA, 27293 AA, 27294 AA,	
27 6340 32	1.0 mm	37.5 cm	27295 AA, Operating Sheaths 27293 BD/CD and Nephroscope for MIP M 27830 KA in conjunction with Instrument Port 27001 GP and	
27 6340 33	1.6 mm		Handpiece 27 6300 38	
27 6340 34	2.0 mm	37.5 cm	HOPKINS® Telescopes 27292 AMA, 27293 AA, Operating Sheaths 27293 BD/CD and Nephroscope for MIP M 27830 KA in conjunction with Instrument Port 27001 GG and Handpiece 27 6300 38	

Adaptor, autoclavable, for KARL STORZ uretero-renoscopes, new generation

	27 6301 36	-	-	Uretero-Renoscope, new generation, for use with CALCUSPLIT® in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38
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5-954

SUCTION AND IRRIGATION SYSTEM

Suction and Irrigation Systems





SUCTION AND IRRIGATION SYSTEMS

NEW UROMAT E.A.S.I.® SCB ENDOMAT® LC SCB

Pressure-regulated Suction and Irrigation System



UROMAT E.A.S.I.® is a combined, pressure-regulated suction and irrigation pump with a continuous fluid flow for urological interventions. Alternatively, the two pumps

can be used independently of each other with flow regulation, e.g. for laparoscopic interventions.

Special Features:

Innovative:

Intelligent, pressure-regulated double roller pump (ensures a constant balance between inflow and outflow for highest patient safety)

Optimal power values for several endourological applications

Cost-efficient: Continuous comparison of pressure and flow values enables optimal fluid use

Convenient: Preset parameters for endo-urological applications

Intuitive:

Pump parameters can be selected via touch screen

Market-oriented: **BOLUS** function with adjustable parameters which can be activated via footswitch or touch screen

Easier identification: Color coding of the tubing set Blue: Irrigation **Red: Suction**

Can be used for all indications in urology



Pressure-regulated Suction and Irrigation System



Pressure-regulated suction-irrigation pump with the following pre-set endo-urological programs:



Continuous Flow

- Can be used for all standard indications for urology, e.g.: TUR-B/P/enucleation/vaporization/URS/PCN
- Consistently clear view due to continuous fluid exchange
- Pressure-controlled
- No adjustment at the inflow and outflow stopcocks of the instrument necessary



Single Flow

- Specially for use with flexible/rigid URS
- BOLUS function allows a temporary increase in irrigation to maintain a clear view during or after stone disintegration
- Activation via touch screen or footswitch



Morcellation

- Effective suction of tissue fragments
- Prevents uncontrolled tissue movement
- Control/activation of both units via a one-pedal footswitch: Position 1 = activation of the pump; tissue fragment is suctioned
 Position 2 = activation of the morcellator while the pump is running
- Enhanced patient safety due to adjustable, constant pressure inside the bladder during morcellation
- Optimal combination for successful, fast and effective morcellation



Lithotripsy

- Time-saving lithotripsy due to direct suction of the stone fragments with the CALCUSON lithotripsy probe
- Convenient activation of the pump and generator via a two-stage footswitch

7

URO-UNITS 37 B U 39

Pressure-regulated Suction and Irrigation System, Recommended Standard Set Configurations



Special Features:

- Effective suction of tissue fragments
- Control/activation of both units via a one-pedal footswitch
 - 1. step = pump activation; suctioning of tissue fragments
 - 2. step = activation of morcellator while pump is activated
- Adjustable constant pressure inside the bladder during morcellation for greater patient safety
- With connection possibilities to KARL STORZ Communication Bus (KARL STORZ-SCB)



UP410 S1

UP410 S1

UROMAT E.A.S.I. SCB, power supply 100 – 240 VAC, 50/60 Hz, UROMAT E.A.S.I. SCB ready, compatible from RUI Release 45

including:

SCB Connecting Cable, length 100 cm **Basic Tubing Set*,** for single use

Control Cable

Specifications

Flow-regulated	depending on mode	Dimensions	447 x 155 x 313 mm
Irrigation pressure	adjustable 20-200 mmHg	wxhxd	
Suction	100-1800 ml/min suction power	Weight	8.8 kg
Power supply	100-240 VAC, 50/60 Hz	Certified to	IEC 60601-1, CE acc. to MDD



Accessories for UROMAT E.A.S.I.® SCB see page U 44

Components/Spare Parts see chapter 16

10-1

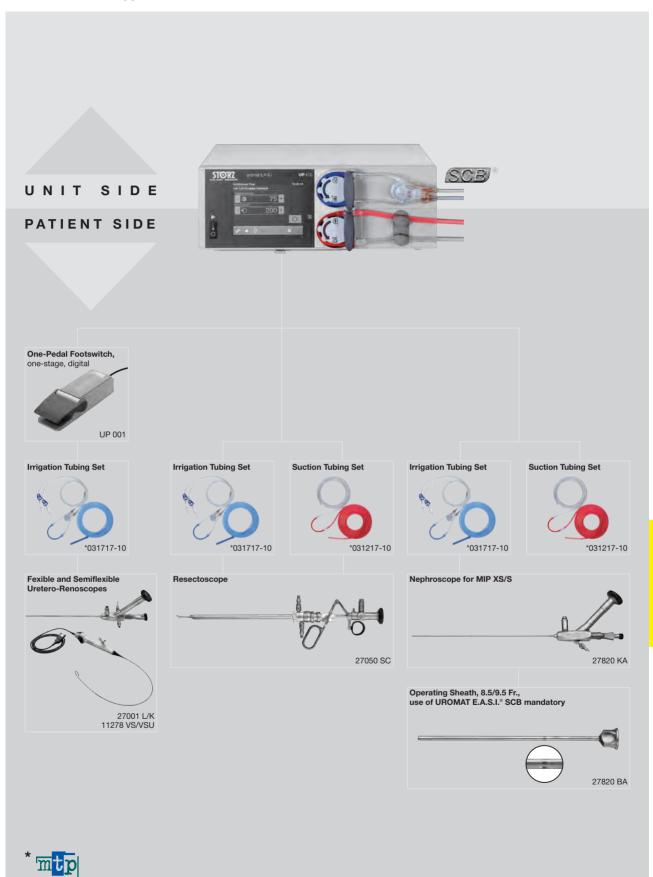
U 40

SUCTION AND IRRIGATION SYSTEMS

UROMAT E.A.S.I.® SCB

Pressure-regulated Suction and Irrigation System for Uretero-Renoscopy, Resection and MIP XS



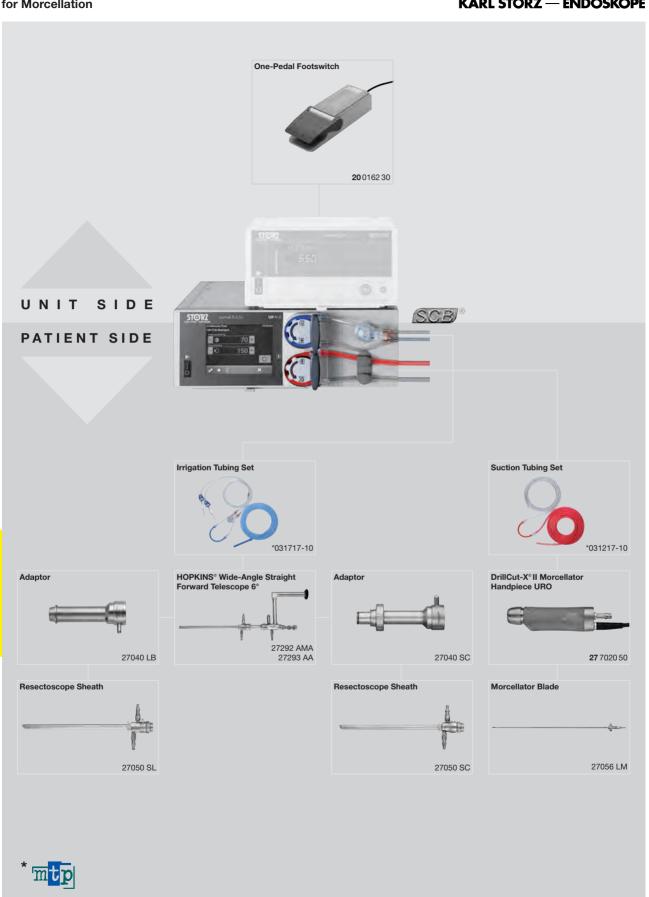


10-14

System Components for Morcellation



SUCTION AND IRRIGATION SYSTEMS



System Components, for use with CALCUSON



SUCTION AND
IRRIGATION SYSTEMS



URO-UNITS 41 B

Accessories for UROMAT E.A.S.I.® SCB



For use with continuous-flow mode during resection	and morcellation
--	------------------

031717-10*	Irrigation Tubing Set, with two puncture needles, for single use, sterile, package of 10, for use with HYSTEROMAT E.A.S.I.® SCB and UROMAT E.A.S.I.® SCB
031217-10*	Suction Tubing Set, for single use, sterile, package of 10, for use with HYSTEROMAT E.A.S.I.® SCB and UROMAT E.A.S.I.® SCB
031767-10*	Pump Tubing Day Set, with two puncture needles, sterile, package of 10, for use with HYSTEROMAT E.A.S.I.® SCB and UROMAT E.A.S.I.® SCB in combination with Patient Tube 031162-01
031162-10*	Patient Tube, for single use, sterile, package of 10, for use with Pump Tubing Day Set 031161-01, 031167-01, 031168-01, 031261-01 and 031767-01

For use with single-flow mode and BOLUS function during URS

6	031717-10*	Irrigation Tubing Set, with two puncture needles, for single use, sterile, package of 10, for use with HYSTEROMAT E.A.S.I.® SCB and UROMAT E.A.S.I.® SCB
	UP 001	One-Pedal Footswitch, one-stage, digital, for activating the BOLUS function, for use with UROMAT E.A.S.I.® SCB

For use with CALCUSON

00	UP 003	Silicone Tubing Set, for suction, sterilizable, for use with UROMAT E.A.S.I.® SCB and CALCUSON
	20 0142 30	One-Pedal Footswitch, digital, two-stage
	20 3000 51 20 3000 39 UP 011	Suction Bottle, 0.5 I, sterilizable Bottle Cap, for Suction Bottle 20 3000 51 Bottle Holder, for Suction Bottle 20 3000 51

* mtp

10-

U 44 URO-UNITS 42 A

ENDOMAT® LC SCB

Roller Pump – Suction System, Recommended Standard Set Configuration, for use with CALCUSON



Special Features:

- Simple roller pump system, flow-regulated, for suction. To improve visibility during suction, the second level of Footswitch 20 0142 30 can be used to activate a flow between 500 and 1000 ml/min.
- SCB model with connections to the KARL STORZ Communication Bus (KARL STORZ-SCB)



27 3303 01-1 ENDOMAT® LC SCB,

suction pump, power supply 100 – 240 VAC, 50/60 Hz including:

SCB Connecting Cable, length 100 cm

Suction Bottle, 0.5 I, sterilizable

Silicone Tubing Set, for suction, sterilizable,

for use with suction bottle

Bottle Cap, for suction bottle

Bottle Stand, for suction bottle

Control Cable

Optional accessory for use with ENDOMAT® LC SCB with CALCUSON:

031247-10* **Tubing Set,** for suction, for single use, sterile, package of 10

Specifications:

Suction flow	regulated: 0-1000 (ml/min)	Weight	4.5 kg
Suction pressure	non-regulated: -0.46 (-46 kPa) bar	Power supply	100-240 VAC, 50/60 Hz
Dimensions w x h x d	305 x 110 x 260	Certified to	IEC 601-1, CE acc. to MDD

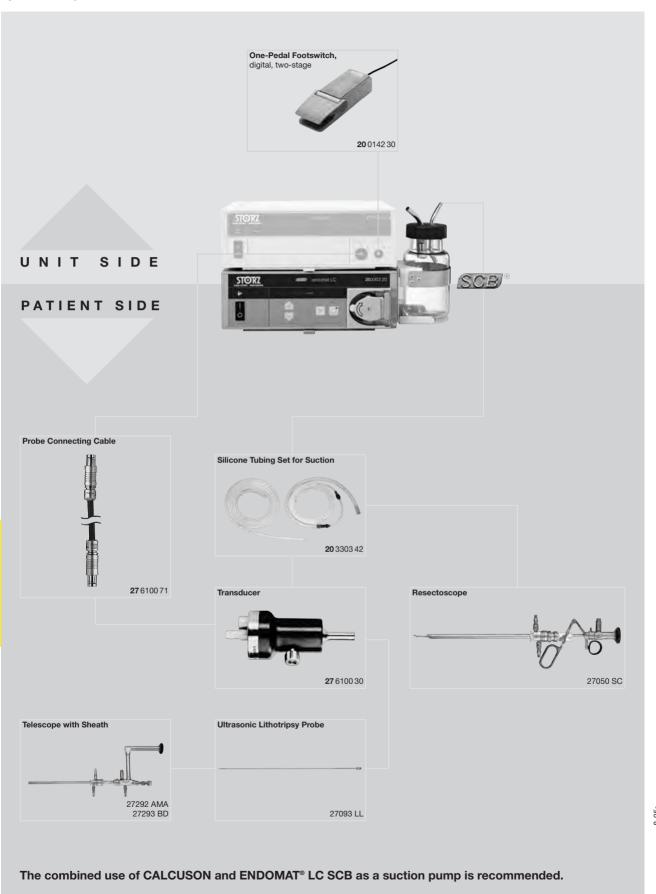


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Accessories for ENDOMAT® LC SCB see page U 47

Components/Spare Parts see chapter 16

URO-UNITS 43 A



Accessories

for ENDOMAT® LC SCB



For use with CALCUSOI	N	
	20 3004 82	Connector Set, for ENDOMAT® LC, for use with Silicone Tubing Sets 20 3303 40, 20 3303 41 and 20 3303 43
	20 3303 93	Pump Tube, sterilizable, package of 25
	20 0142 30	One-Pedal Footswitch, digital, two-stage
	20 0903 70	SCB Connecting Cable, length 60 cm
	20 3000 51 20 3000 39 20 3002 31	Suction Bottle, 0.5 I, sterilizable Bottle Cap, for Suction Bottle 20 3000 51 Bottle Stand, for Suction Bottle 20 3000 51
00	20 3303 42	Silicone Tubing Set, for suction, sterilizable, for use with Suction Bottle 20 3000 51

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URO-UNITS 45 A U 47

Motor Systems





MOTOR SYSTEMS

Morcellator System in Urology

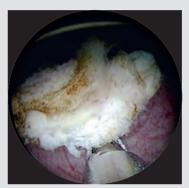
Morcellator System for Urology



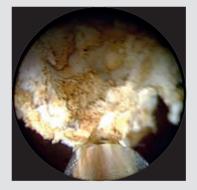
LASER surgery is a crucial part of today's urological treatment and an alternative to transurethral HF resection. Our instruments for the vaporization and enucleation of the prostrate provide the benefits and quality that you expect from KARL STORZ. With the morcellator, KARL STORZ has expanded its range of LASER products to provide an effective instrument for the removal of prostate tissue following enucleation of the prostate. Greater patient safety due to adjustable

constant pressure in the bladder during morcellation as well as effective suction of tissue fragments ensures fast and efficient reduction of the prostate tissue. Continuous removal of tissue fragments provides an unobstructed endoscopic view during morcellation. The combination of instruments and units offered by KARL STORZ makes it easier to perform successful minimally invasive procedures.









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MOTOR SYSTEMS

Morcellator System for Urology



Handpiece 27 7020 50, for use with UNIDRIVE® S III SCB

Special Features:

- Ergonomic handpiece design, fits comfortably in the hand
- Detachable handle individual, ergonomic, flexible positioning
- Rapid coupling for blade fixation enables easy handling and rapid set-up
- Powerful motor

- Absolutely silent running
- Central, straight suction channel
- Easy hygienic processing, suitable for use in a cleaning machine and autoclavable at 134 °C
- Activation via the footswitch of the UNIDRIVE® S III motor system



27 7020 50 DrillCut-X® II Morcellator Handpiece URO, for use with UNIDRIVE® S III SCB



40 7120 90 **Handle,** adjustable, for use with DrillCut-X® II Morcellator Handpiece URO **27** 7020 50



Cleaning Adaptor, LUER-Lock, for cleaning DrillCut-X® II morcellator handpieces

For use with DrillCut-X® II Morcellator Handpiece URO

- Reusable
- Inner and outer blades can be cleaned separately
- Autoclavable
- With horizontal oscillation inner blade



27056 LM



27056 LM

41250 RA

Morcellator Blade, straight, sterilizable, drop-shaped cutting window, outer window serrated, inner window double fenestrated and serrated, diameter 4 mm, length 40 cm, for use with DrillCut-X® II Morcellator Handpiece URO **27** 7020 50



41200 RA

Cleaning Adaptor, LUER-Lock, for cleaning the inner and outer blades

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URO-UNITS 49 A U 51

UNIDRIVE® S III SCB



For use with DrillCut-X® II Morcellator Handpiece URO 27702050

Special Features:

- Maximum number of revolutions can be preset
- Consistently high motor performance over the entire range of revolutions
- Processor-controlled number of revolutions and motor torque
- Optimized user control
- Operating elements are simple and clear to read
- Automatic handpiece recognition
- Integrated control connection for KARL STORZ pump systems in combination mode
- For use with: DrillCut-X®II URO Morcellator Handpiece
- With connections to the KARL STORZ Communication Bus (KARL STORZ-SCB)



27 7010 01-1 **UNIDRIVE**® **S III SCB**, power supply

100 - 120/230 - 240 VAC, 50/60 Hz

including:

Mains Cord

One-Pedal Footswitch, two-stage

SCB Connecting Cable, length 100 cm

Specifications:

opomousion:					
Operating mode	oscillating (morcellator)	Dimensions	305 x 165 x 233 mm		
Max. rotation	40,000 (rpm) blade 500 – 5000 (rpm)	wxhxd			
		Weight	4 kg		
Power supply	100-120/230-240 VAC, 50/60 Hz	Certified to	IEC 601-1, CE acc. to MDD		

Components/Spare Parts see chapter 16

9-1

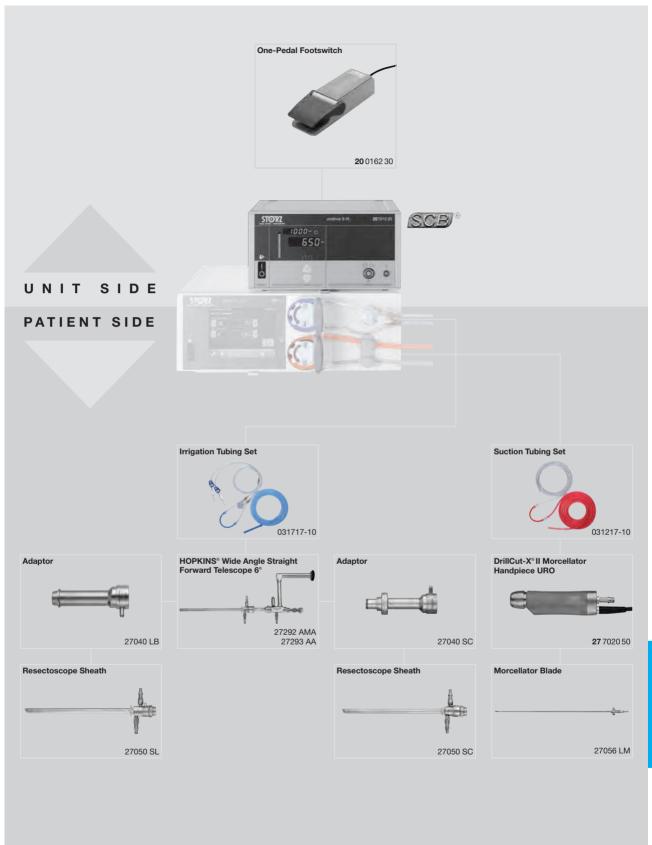
U 52 URO-UNITS 50

MOTOR SYSTEM

Morcellator System for Urology

System Components





0-14

HIGH FREQUENCY

High Frequency Surgical Units





HIGH FREQUENCY SURGICAL UNITS

AUTOCON®II 400 SCB

SURGICAL UNITS

AUTOCON® II 400 SCB



Special Features:

- For interdisciplinary use
- Cutting-edge next-generation unit with a convenient, easy-to-disinfect 6.5" touch screen
- Bi-Vascular-Safe mode for bipolar coagulation and thermofusion of large-lumen vessels
- Equipped with 2 bipolar or 2 unipolar HF outputs depending on unit
- Defibrillator-safe CF outputs for maximum patient and user safety
- Permanent safety due to continuous monitoring of the contact between the neutral electrode and the patient during unipolar use
- 2 freely programmable foot pedals can be connected simultaneously

- Automatic activation of HF energy or via handswitch or footswitch depending on mode used
- Self-test for maximum patient and user safety
- Unit versions for standard use, bipolar resection and thermofusion of large-lumen vessels according to individual user requirements
- Up to 28 pre-programmed procedures for a wide range of disciplines make the unit extremely simple to operate. 100 program memories are available for individual programming.











Maximum Safety Combined with Optimal Cutting and Coagulation: AUTOCON® II 400 SCB with Resection Box for Bipolar Resection



Resection in saline has never been so good!

Thanks to hardware and software upgrades to AUTOCON®II 400 SCB as well as several modifications to resection electrodes, the current bipolar system from KARL STORZ for resection in NaCl saline irrigation solution delivers an even higher performance.

The KARL STORZ resection box includes these modifications and provides the following benefits:

 New resection modes (Saline C-Cut++/ Saline Coag ++) for optimal resection in saline solution

- Excellent cutting behavior
- Rapid resection speed
- Maximum patient and user safety
- Easy to use due to Plug & Play function
- Straightforward installation of the resection box to AUTOCON® II 400 SCB via a magnetic metal plate on the housing





Safety Aspects and Main Features



Integrated voltage stability control or arc control

The two state-of-the-art generators both guarantee optimal surgical cutting and coagulation power that adapts continuously to the particular indication, especially when there are wide variations in the tissue structures and tissue impedances. At the press of a button, the operator can switch between arc control (TOP Cut mode) and voltage stability control (POWER Cut mode).

TOP Cut mode

In this mode, the HF energy required for a cutting effect is automatically reduced to the necessary physical minimum in each individual case. The electric arc always remains at a constant level, thus ensuring a uniform surgical effect. Such precise work offers a clearsafety advantage and produces a cut that conserves tissue and reduces stress for the patient.

This increased safety with the AUTOCON®II 400 SCB unit is achieved by using the latest and fastest microprocessor and sensor technology, which enables the unit to capture all the important parameters, such as variable incision speed, geometry of the active electrode, different impedance behavior of biological tissue types and fluids, and transition and contact resistances. This data is then used to adjust the HF power output and HF voltage. This means that the operator is not restricted in his work or obliged to adapt to the HF unit. On the contrary, the HF unit adapts optimally to all the user's application and operating techniques.

POWER Cut mode with constant HF voltage and power

This mode ensures a uniform surgical effect and consistent cutting efficiency over a wide impedance range and many different tissue types.

RAM system – return electrode application monitoring

This safety system continuously monitors the contact quality between the neutral electrode and the patient's skin, and additionally indicates it with symbols. If the contact surface area decreases, the safety system gives an early visual and acoustic alarm, thus preventing a burn under the application site of the patient electrode. To increase the contact reliability of the neutral electrode, the user can prevent the application of single-faced electrodes.

Gastro Cut and Papillo Cut

These two new resection modes, which were specially developed by KARL STORZ for use in flexible endoscopy, permit a fractionated and controlled cut with no bleeding. The special HF generator technology allows controlled output of cutting and coagulation pulse current. Both the pulse sequence and the pulse speed can be set separately and specifically for each mode

LF/HF leakage currents

Stray currents and the associated risk of burns are minimized by design measures.

SCB and OR1™ compatible

The units are designed for integration in to the KARL STORZ Communication Bus (SCB). Full integratability of the HF unit in the networked, and even speech-controlled, operating room of the future is already a standard feature (system requirement: RUI software release 2009001-26 or later).

C-Cut® Mode and LAP-C-Cut mode – the intermittent coagulation-cutting mode with AUTOCON® II 400 SCB

Designed for blood-free cutting during laparoscopy and when using irrigation liquids, the electric current is specially modulated and offers a reproducible coagulation current with high cutting efficiency. This makes time-consuming subsequent coagulation a thing of the past. Using the C-Cut® mode thus reduces the need for blood transfusions and saves surgery time. The result is an overall reduction in operating costs, and for the patient it means additional protection against the development of TUR syndrome after urological endoscopic surgery.

Bipolar generator with 370 W HF power

This outstanding performance range allows the unit to be used in conjunction with the newly developed bipolar special and standard accessories. This highend unit is even suitable for indications using irrigation liquids, which in the past could only be performed with special-purpose HF systems. The safety of the bipolar technology from KARL STORZ eliminates the need for applying a neutral electrode, including for interventions which used to be standard unipolar procedures.

SURGICAL UNITS

Safety Aspects and Main Features



Unipolar generator with 300 W HF power

With a peak power of 300 watts, the AUTOCON® II 400 SCB is ideally equipped for interventions in all areas of use.

Precise power setting and power limitation

Exact fine tuning in 1 W steps is provided for interventions requiring maximum precision with very low power.

Up to 8 hemostatic effects

Individual selection of up to 8 hemostatic effects for unipolar and bipolar cutting, each with up to 370 W output, permits optimal control of coagulation and the surgical effect in every situation.

Forceps auto-start function

When the forceps tips contact the tissue, bipolar coagulation is activated automatically after a freely adjustable delay of up to 9.9 seconds.

6.5" Touch Screen

The color touch screen makes the AUTOCON® II 400 SCB the world's first HF unit with this new, user-friendly operating technology. It also offers the important advantage of very easy cleaning and wipe-down disinfection.

100 program memories

Simple programming of the indication-related unit parameters makes the AUTOCON® II 400 SCB easy and intuitive to operate because all the programs can be stored in numeric order or text-based with user name and indication. The stored programs can be called up in the indication list at the touch of a button.

Bipolar coagulation auto-stop function

Automatic power shutdown when the coagulation procedure has been ended.

Self-test program

A comprehensive software safety concept ensures smooth, safe use after switching on. Detected component faults are indicated by an error code display, enabling rapid troubleshooting. The self-test also includes the connected accessories for the specific purpose of minimizing waiting times in preoperative work-up.

Software upgrade

The service port on the back of the unit allows the HF functions of the AUTOCON® II 400 SCB to be expanded economically for future forms of HF treatment. This means that the AUTOCON® II 400 SCB is always up-to-date.















		P max.	V _P max.			Voltage
HF Modes	Effects	at 500 Ohm	at 500 Ohm	Crest Factor	Arc Control	Control
Unipolar						
TOP-Cut	8	300	1040	1.4	•	-
POWER-Cut	8	300	740	1.4	-	•
C-Cut®	8	200	1450	3.2 – 3.6	-	•
LAP-C-Cut	8	200	1450	3.2 – 3.6	-	•
Gastro-Cut	4	200	880	1.4	-	•
Papillo-Cut	4	200	880	1.4	-	•
Standard Coag	8	200 (at 50 Ohm)	190	1.4	-	•
Forced Coag	4	120	1800	6.0	-	•
Spray Coag	2	120	4300	7.4	-	•
Bipolar						
Bipolar-Cut	8	100	740	1.4	-	•
Saline-C-Cut	8	370	770	1.4	-	•
Saline-C-Cut ++*	8	300 (at 75 Ohm)	490	1.4	-	•
Saline-Time-C-Cut	8 time 0.1-1 sec.	370	770	1.4	-	•
Saline-Time-C-Cut ++*	time 0.1-1 sec.	300 (at 75 Ohm)	490	1.4	-	•
Saline Coag	8	200 (at 75 Ohm)	190	1.4	-	•
Saline Coag ++*	8	200 (at 50 Ohm)	190	1.4	-	•
Saline-Time-Coag	8 time 0.1-1 sec.		190	1.4	-	•
Saline-Time-Coag ++*	8 time 0.1-1 sec.	200 (at 75 Ohm)	190	1.4	-	•
Bipolar Soft Coag	8	120 (at 75 Ohm)	190	1.4	-	•
Bipolar Soft mit Auto-Stop	8	120 (at 75 Ohm)	190	1.4	-	•
Bi-Vascular-Safe**	8	300 (at 25 Ohm)	220	1.4	-	•

^{*}Only for units with additional resection module

Specifications:

Safety systems

Power supply	20 5352 2x-12x: 220-240 VAC, 50/60 Hz 20 5352 2xU12x: 100-120 VAC, 50/60 Hz
Dimensions w x h x d	448 x 164 x 345 mm
Weight	10 kg
Certified to	IEC 60601-1, CE acc. to MDD

^{**}with software package "Bi-Vascular-Safe"

⁻ automatic self-test

⁻ maldosage - neutral electrode safety system

⁽dynamic, two-part, one- and two-part NE)
- LF/HF leakage current monitor
- activation time

⁻ deactivable HF

HF Cart SHORT-E



Special Features:

- Optimized for HF units from KARL STORZ
- Ergonomic design

- Optional subracks for storing accessories
- Smooth-running casters





20 0200 80

SHORT-E HF Cart, rides on 4 antistatic dual wheels, 2 equipped with locking brakes, integrated cable conduit in vertical beam, 1 HF shelf for AUTOCON® II 400 SCB, with hook for storing cables, cable manager, max. load capacity 51 kg,

Dimensions:

HF cart: 670 x 1020 x 670 mm (w x h x d),

HF shelf: 455 x 375 mm (w x d), caster diameter: 100 mm,

Trolley is delivered unassembled.

including:

Subrack, for mobile stand

HF Shelf

HIGH FREQUENCY SURGICAL UNITS

Components/Spare Parts see chapter 16





power supply 220 – 240 VAC, 50/60 Hz including:

Mains Cord

SCB Connecting Cable, length 100 cm

AUTOCON® II 400 SCB,

power supply 100 – 120 VAC, 50/60 Hz

including:

Mains Cord

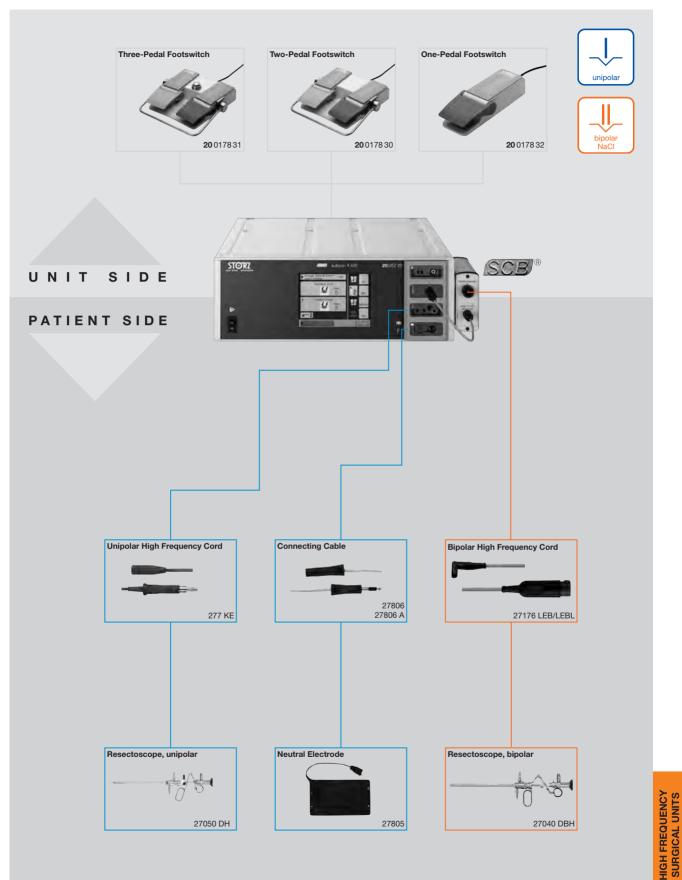
SCB Connecting Cable, length 100 cm

Application	Standard: Unipolar/Bipolar	High-End
Unit version	-122 (220 – 240 VAC) U122 (100 – 120 VAC)	-125 (220 – 240 VAC) U125 (100 – 120 VAC)
Product No.	20 5352 01-122 20 5352 01U122	20 5352 01-125 20 5352 01U125 basic unit
	-	20 5352 02-125 20 5352 02U125 basic unit, incl. additional resection module
	-	20 5352 03-125 20 5352 03U125 basic unit, incl. Bi-Vascular-Safe mode
	-	20 5352 04-125 20 5352 04U125 basic unit, incl. additional resection module + Bi-Vascular-Safe mode
Socket Position		
1	Bipolar Combination	Bipolar Combination
2	Bipolar Combination	Bipolar Multifunction
3	Unipolar 3-pin and Erbe	Unipolar 3-pin and Erbe
4	NE 6.3 mm jack and 2-pin	NE 6.3 mm jack and 2-pin

Optional Accessories for AUTOCON®II 400 SCB see pages U 64-U 68 **Components/Spare Parts** see chapter 16







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Optional Accessories for AUTOCON® II 400 SCB



			AUTOCON®II 400
	20 017831	Three-Pedal Footswitch, for use with AUTOCON® II 400 SCB	•
20	20 0178 30	Two-Pedal Footswitch, for use with AUTOCON® II 400 SCB and AUTOCON® II 200	•
	20 0178 32	One-Pedal Footswitch, for activating coagulation, for use with AUTOCON® II 400 SCB and AUTOCON® II 200	•
	27805	Neutral Electrode, of conductive silicone with 2 rubber ties for fastening, contact surface $A = 500 \text{ cm}^2$, for use with Connecting Cable 27806	•
	27806	Neutral Electrode Connecting Cable, for Neutral Electrodes 27805 and 860021 E, length 400 cm	-111 -115 -122 -125
	27806 UR	Neutral Electrode Connecting Cable, for Neutral Electrode 27805	-112 -116 -122 -125
	27806 US	Neutral Electrode Connecting Cable, for Neutral Electrode 27802	-112 -116 -122 -125
	27802	Neutral Electrode, for single use, contact surface divided into two, A = 169 cm ² , package of 50, Connecting Cable 27801 required	•
	27801	Connecting Cable, for connecting Neutral Electrode 27802, length 500 cm	-111 -115 -122 -125
	26 5200 43	Electrode Handle, with 2 buttons for activating the unipolar generator, yellow button: unipolar cutting, blue button: unipolar coagulation (Cable 26 5200 45 required)	•
	26 5200 45	High Frequency Cable, for Electrode Handle 26 5200 43, length 400 cm	-111 -115 -122 -125
	26 5200 46	Electrode Handle, without buttons, with integrated connecting cable, length 300 cm	-111 -115 -122 -125
	27176 B	External Hardware Upgrade AUTOCON® II 400 SCB, (high-end version) for the function "Bipolar Resection"	•

Surgery Electrodes Set









20 5300 08 Surgery Electrodes Set

including:

Container with Lid and Sterilizing Insert, for 16 electrodes with diameter 4 mm



Wire Snare, 5 mm

Same, 10 mm

Ribbon Snare, 10 mm



KIRSCHNER **Spatula Electrode**, straight

MAGENAU **Knife Electrode**, angled

Knife Electrode, lancet-shaped

Ball Electrode, 2 mm

Same, 4 mm

Same, 6 mm

Needle Electrode

Flat Electrode, 8 x 10 mm

Same, 10 x 15 mm



For use with Electrode Handles 26 5200 43 and 26 5200 46 Components/Spare Parts see chapter 16



Unipolar High Frequency Cords, for use with unipolar working elements



KARL STORZ Instrument

High Frequency Surgical Unit

	277	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for use with models KARL STORZ and Erbe type T, older models
	277 A	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for use with Martin HF units
	277 KE	Unipolar High Frequency Cord, with 5 mm plug, length 300 cm, for use with AUTOCON®II 400 SCB (111, 115, 122, 125), AUTOCON®II 200, AUTOCON®II 80, AUTOCON® (50, 200, 350) and Erbe type ICC
	277 KB	Unipolar High Frequency Cord, with 8 mm plug, length 300 cm, for use with models AUTOCON® II 400 SCB system (112, 116) and Valleylab

Unipolar High Frequency Cords



KARL STORZ Instrument

High Frequency Surgical Unit

	26002 M	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	Unipolar High Frequency Cord, with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	Unipolar High Frequency Cord, with 5 mm plug, length 300 cm, for AUTOCON® II 400 SCB system (111, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, AUTOCON® system (50, 200, 350) and Erbe type ICC
	26006 M	Unipolar High Frequency Cord, with 8 mm plug, length 300 cm, for use with AUTOCON® II 400 SCB system (112, 116) and Valleylab

Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter **L** to the part number, e. g. 26002 M**L**, 26176 LV**L**.

ARL STORZ — ENDOSKOPE

Accessories

Bipolar High Frequency Cords

Bipolar High Frequency Cords, for use with bipolar working elements

bipolar NaCl

KARL STORZ Instrument High Frequency Surgical Unit



27176 LEB

Bipolar High Frequency Cord, for AUTOCON®II 400 SCB system (high-end),

length 300 cm, for use with bipolar resectoscopes

27176 LEBL Same, length 500 cm

Bipolar High Frequency Cords



High Frequency Surgical Unit



26176 LE

Bipolar High Frequency Cord, length 300 cm, for AUTOCON® II 400 SCB system (111, 113, 115, 122, 125), AUTOCON® II 200, AUTOCON® II 80, Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® series (50, 200, 350), Erbe-Coagulator, T and ICC series



26176 LM

Bipolar High Frequency Cord, length 300 cm, for use with Martin HF units



26176 LV

Bipolar High Frequency Cord, length 300 cm, for AUTOCON® II 400 SCB system (112, 114, 116, 122, 125), AUTOCON® II 200, AUTOCON® II 80 and Valleylab coagulators



26176 LW

Bipolar High Frequency Cord, length 300 cm, pin distance on unit side 22 mm, for use with high frequency surgical units with bipolar sockets with 22 mm pin distance

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Please note: All high frequency cords of this page are delivered with a length of 300 cm. If a length of 500 cm is requested please add letter $\bf L$ to the part number, e. g. 26002 M $\bf L$, 26176 LV $\bf L$.

URO-UNITS 65

CompatibilityHigh Frequency Cords to AUTOCON® II 400 SCB
HF Surgical Units



AUTOCON® II 400 SCB	20 5352 20-111 20 5352 20-115	20 5352 20-112 20 5352 20-116	20 5352 20-122	20 5352 20-125 20 5352 21-125	20 5352 22-125 20 5352 23-125
Unipolar High Freq	uency Cords				
277	•	•	•	•	•
277 A	•	•	•	•	•
277 KE	•	-	•	•	•
277 KB	-	•	-	_	_
27806	•	-	•	•	•
27801	•	-	•	•	•
27806 UR	-	•	•	•	•
27806 US	-	•	•	•	•
26 5200 45	•	-	•	•	•
26 5200 46	•	-	•	•	•
26002 M	•	•	•	•	•
26004 M	•	•	•	•	•
26005 M	•	-	•	•	•
26006 M	-	•	-	_	-
Bipolar High Frequ	ency Cords				
26176 LE	•	-	•	•	•
26176 LM	•	•	•	•	•
26176 LW	_	_	•	•	-
26176 LV	-	•	•	•	•
Bipolar High Frequ	ency Cords/Instr	uments to Multifu	nction Socket		
AUTOCON® II 400 SCB	20 5352 20-115	20 5352 20-116	-	20 5352 20-125 20 5352 21-125	20 5352 22-125 20 5352 23-125
27176 LEB	•	•	-	•	•
27176 LEBL	•	•	-	•	•



Introduction



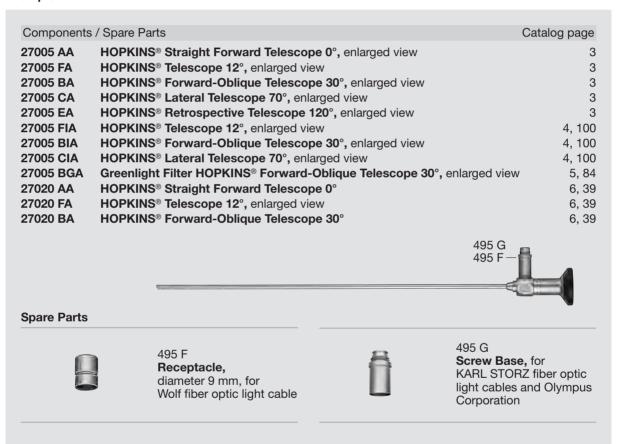
The chapter "Components / Spare Parts" contains detailed information on KARL STORZ instruments.

For easy location and reference, an index is available which lists the order number of the spare parts as well as those of the entire instrument, set or unit.

Hotline

Queries concerning products, exchange, maintenance and cleaning can be addressed to the KARL STORZ EP1 Hotline: 07461/708-980, from Monday to Thursday from 7-18 h and Friday from 7-17 h.

Example:



Spare parts assigned to instrument with catalog page reference and order numbers for individual components/spare parts

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Elevible Cysto-I Irethroscopes	SP 5	Dilation Cannulas, Telescope Bougie Sets	SP
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HOPKINS® Telescopes for Adults





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27005 BA	HOPKINS® Forward-Oblique Telescope 30°, enlarged view	3
27005 CA	HOPKINS® Lateral Telescope 70°, enlarged view	3
27005 EA	HOPKINS® Retrospective Telescope 120°, enlarged view	3
27005 FIA	HOPKINS® Telescope 12°, enlarged view	4, 100
27005 BIA	HOPKINS® Forward-Oblique Telescope 30°, enlarged view	4, 100
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Spare parts



495 F **Receptacle,** diameter 9 mm, for Wolf fiber optic light cable

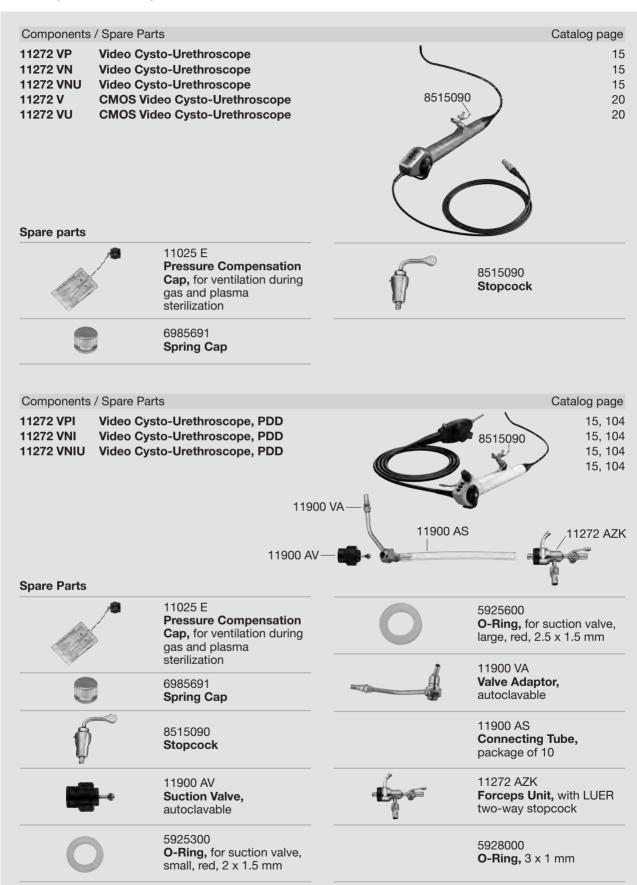


495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation

9-121

Flexible Cysto-Urethroscopes





C-HUB® II Camera Control Unit, Cysto-Urethro-Fiberscopes



Catalog page

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Components / Spare Parts

20290301 C-HUB® II Camera Control Unit

20290320 C-HUB® II

20290120-PS C-HUB® Power Supply

547 S S-Video (Y/C) Connecting Cable

20200073 **USB Connecting Cable**

20040445-V02 Video Editor



Components / Spare Parts

11272 C Cysto-Urethro-Fiberscope

Cysto-Urethro-Fiberscope 11272 CU



Spare Parts for 11272 C



11025 F

Pressure Compensation Cap, for ventilation during gas and plasma sterilization



495 F

Receptacle, diameter 9 mm, for Wolf fiber optic light cable



495 G

Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation



6985691 **Spring Cap**



8515090 Stopcock

Spare Parts for 11272 CU



11025 E

Pressure Compensation Cap, for ventilation during gas and plasma sterilization



495 F

Receptacle, diameter 9 mm, for Wolf fiber optic light cable



495 G

Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation



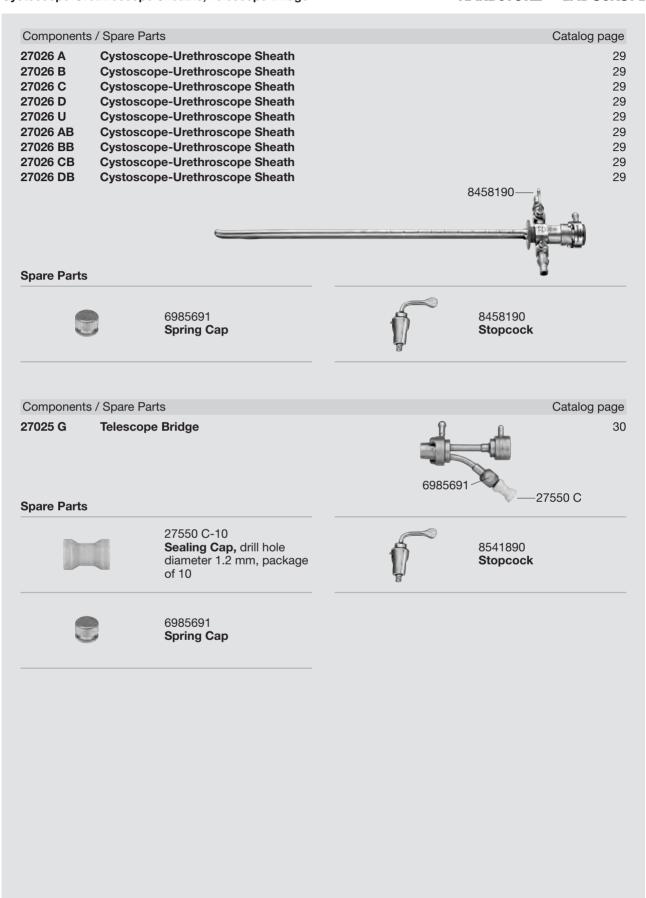
6011590 Plug, for LUER-Lock

connector

SP₆ URO-SP 4



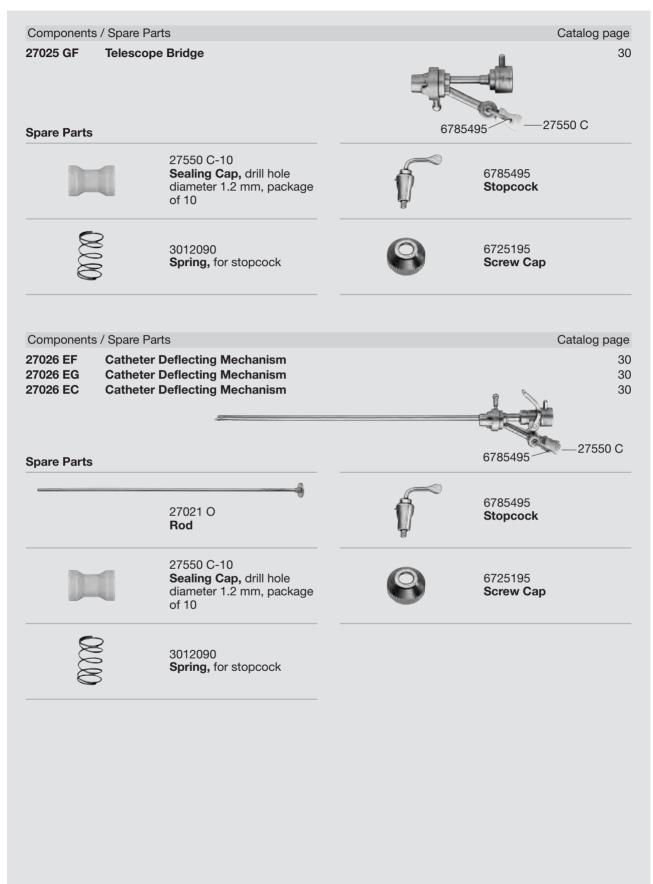
Cystoscope-Urethroscope Sheaths, Telescope Bridge



URO-SP 5

Telescope Bridge, Catheter Deflecting Mechanisms

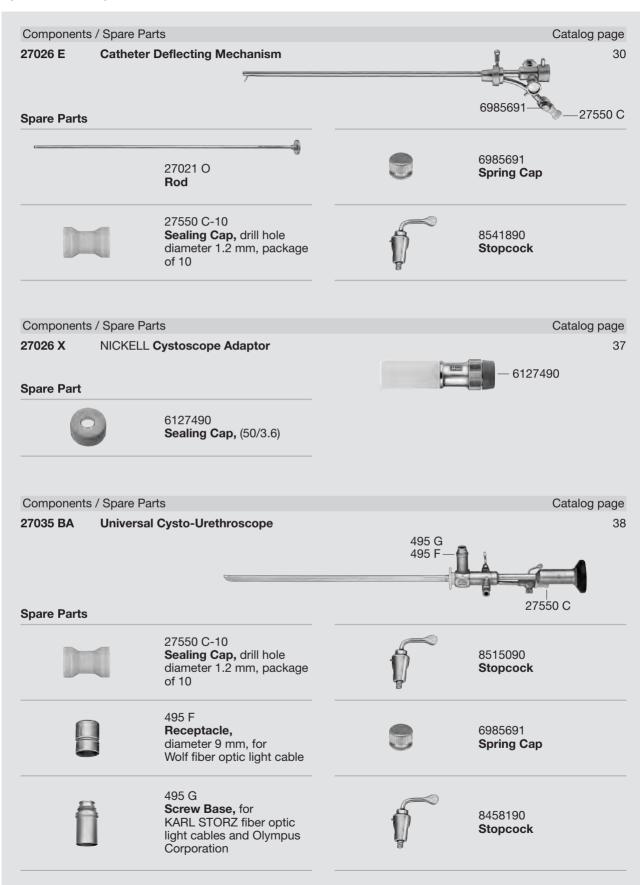




SP 8 URO-SP 6

Catheter Deflecting Mechanism, NICKELL Cystoscope Adaptor, Cysto-Urethroscopes

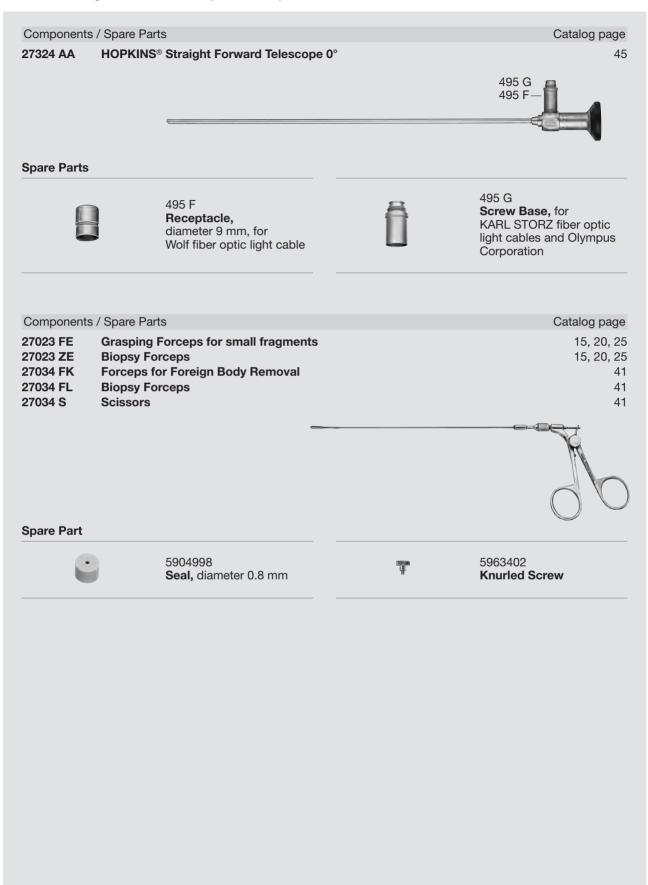




URO-SP 7 SP 9



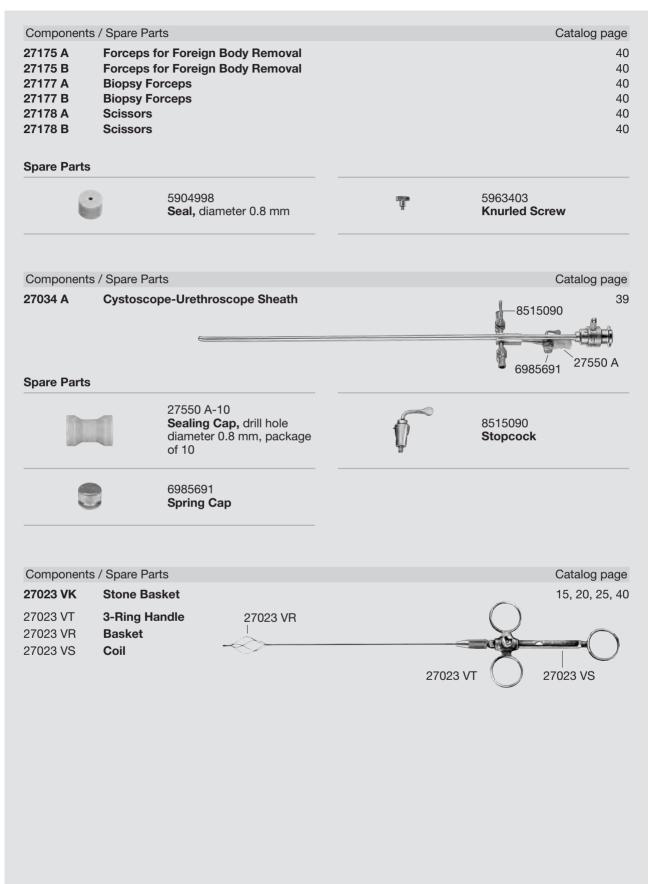
HOPKINS® Straight Forward Telescope 0°, Forceps, Scissors



SP 10 URO-SP 8



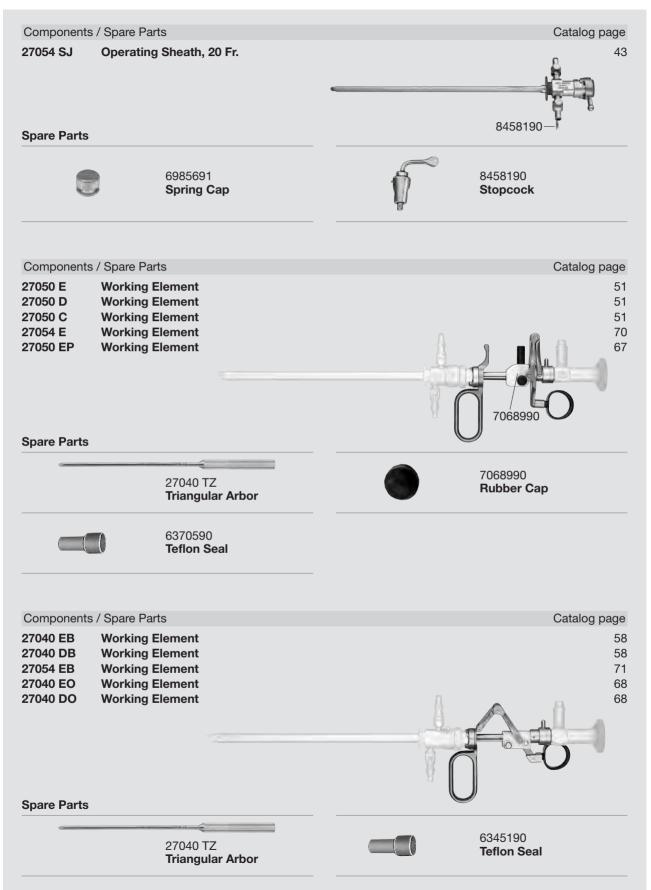
Forceps, Scissors, Cystoscope-Urethroscope Sheaths, Stone Basket



URO-SP9

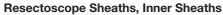
Operating Sheath, Working Elements



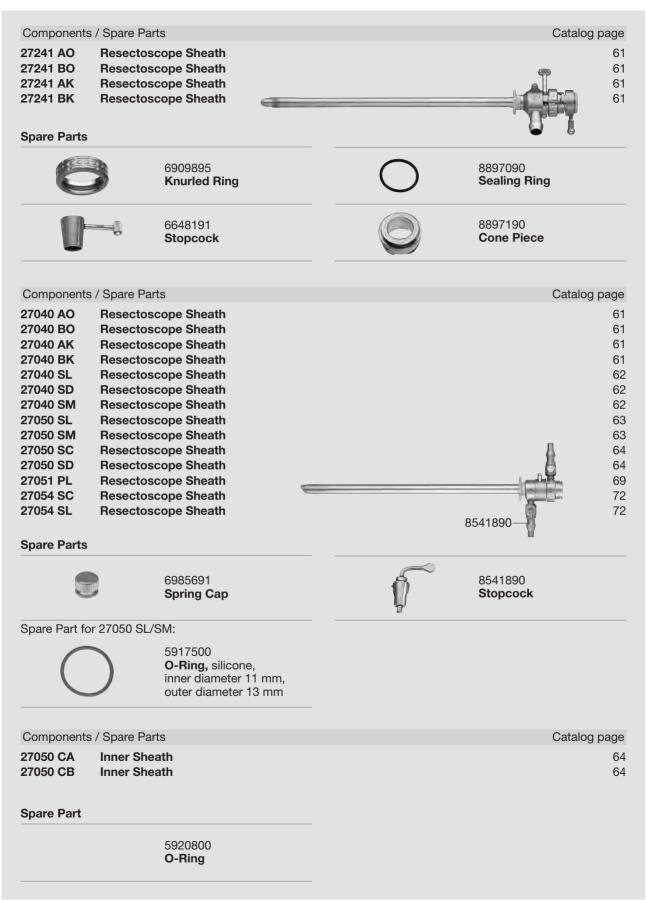


9-12

Resectoscopes for Adults





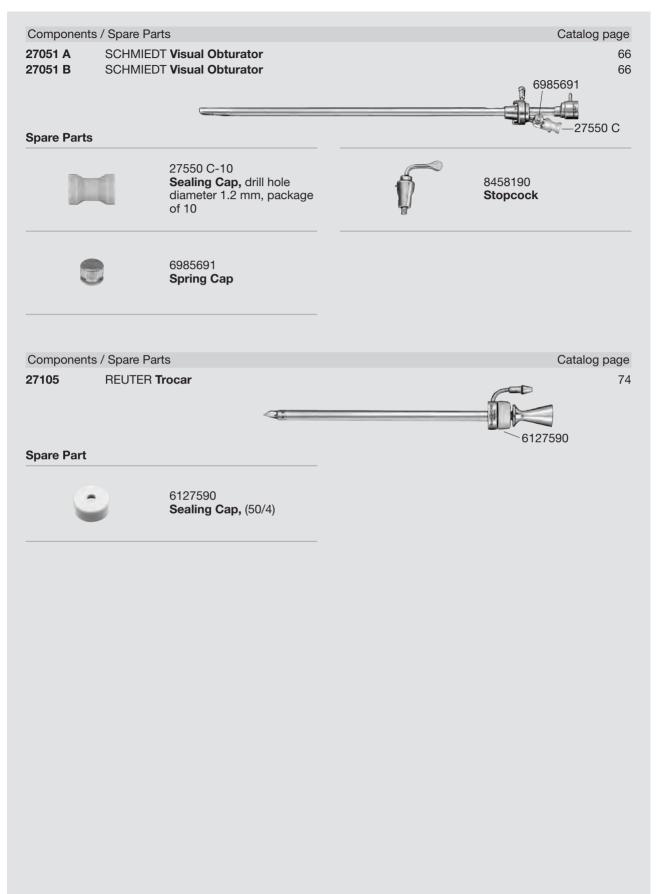


URO-SP 11

Resectoscopes for Adults

SCHMIEDT Visual Obturators, REUTER Trocar

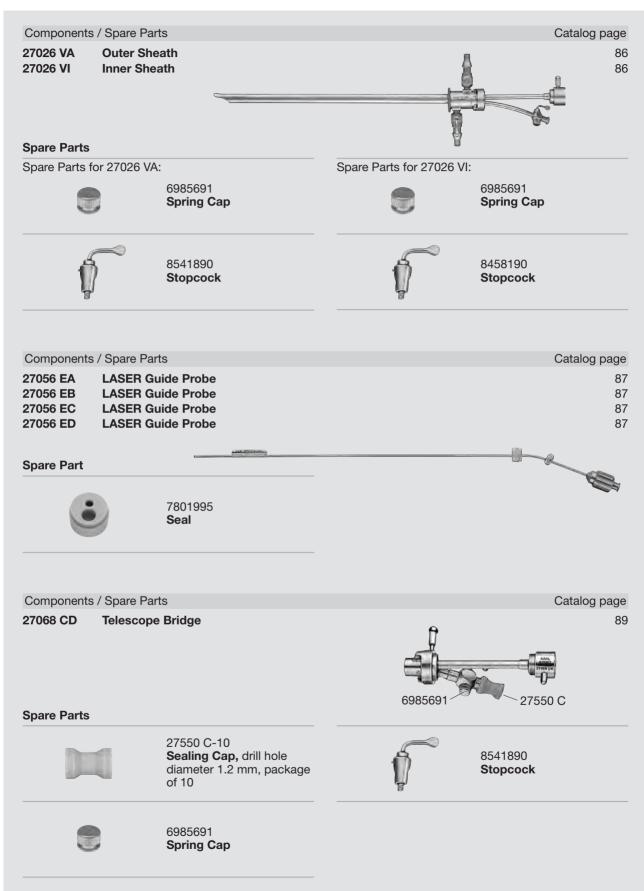




LASER Surgery, Photodynamic Diagnosis (PDD)



Outer Sheath, Inner Sheath, LASER Guide Probes, Telescope Bridge

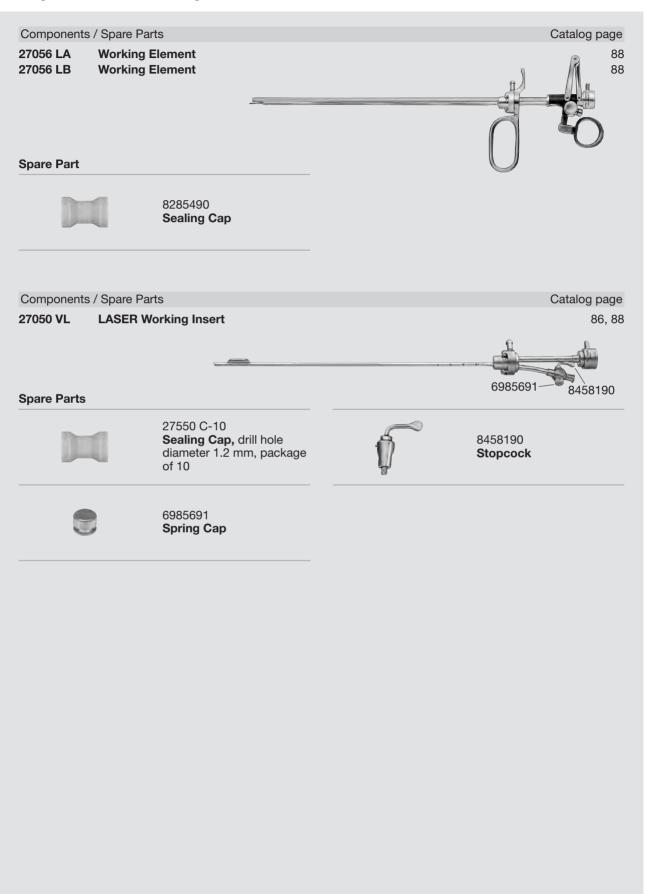


URO-SP 13 SP 15

LASER Surgery, Photodynamic Diagnosis (PDD)

STORZ ENDOSKOPE

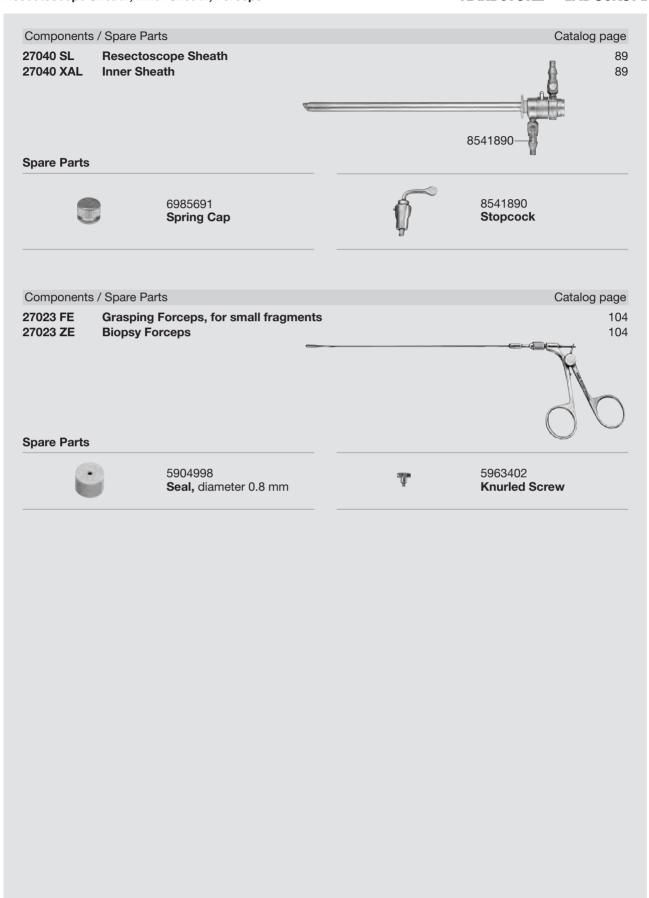
Working Elements, LASER Working Insert



LASER Surgery, Photodynamic Diagnosis (PDD)



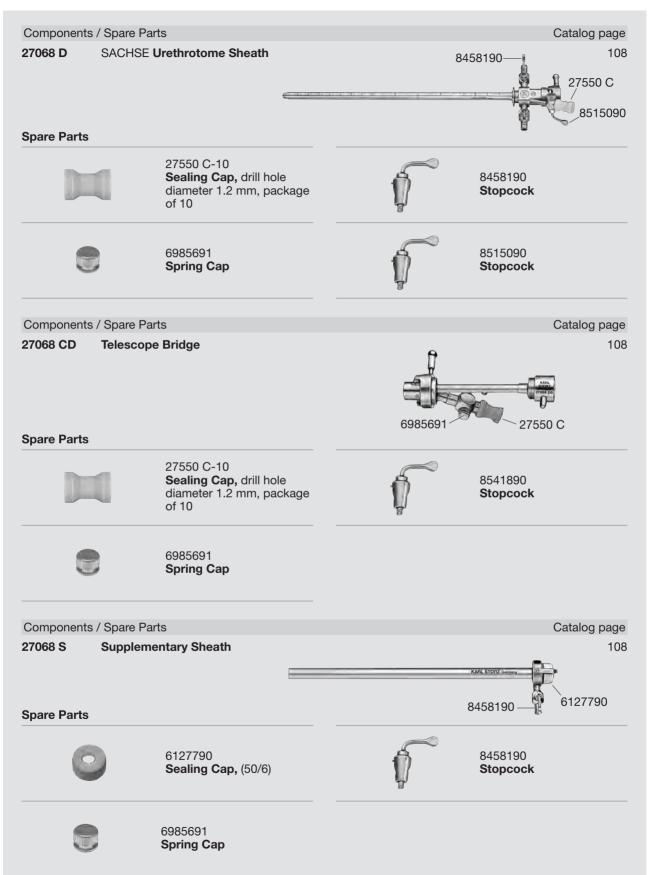
Resectoscope Sheath, Inner Sheath, Forceps



Urethrotomes for Adults



SACHSE Urethrotome Sheath, Telescope Bridge, Supplementary Sheath



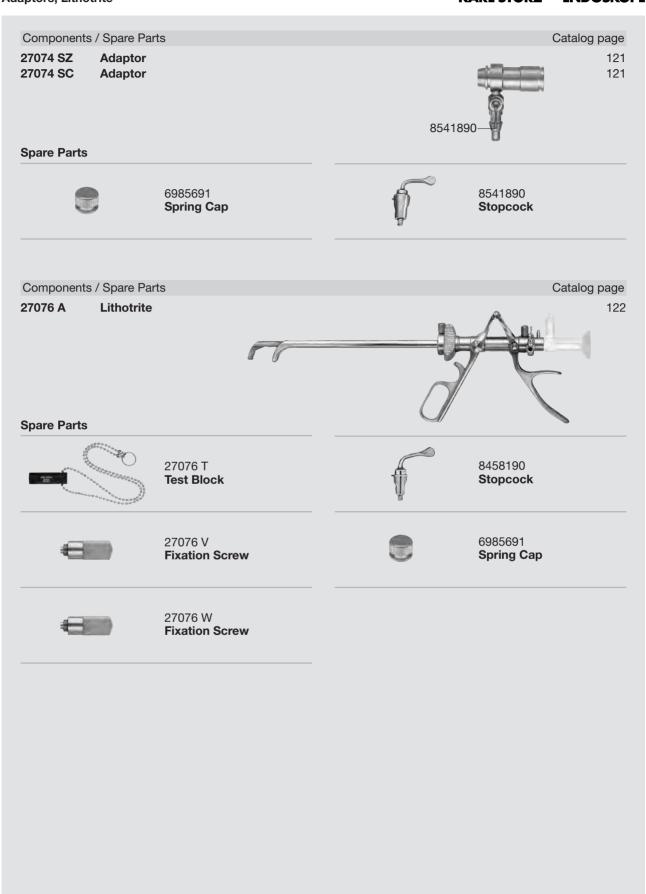
SP 18 URO-SP 16

9-121

Lithotripsy, Mechanical Stone Forceps



Adaptors, Lithotrite

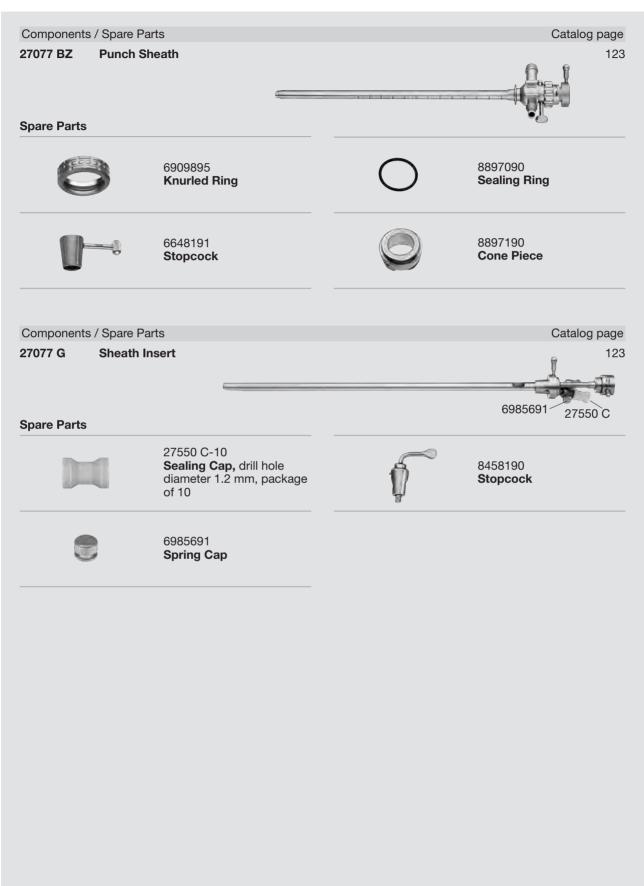


URO-SP 17 SP 19

Lithotripsy, Mechanical Stone Forceps



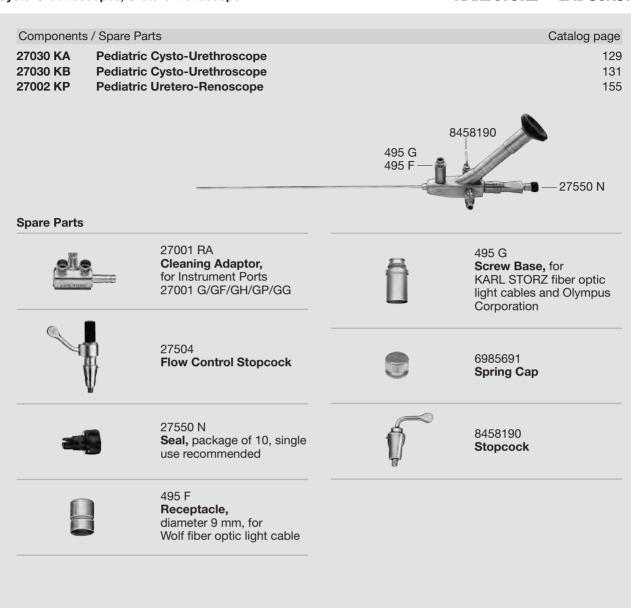
Punch Sheath, Sheath Insert



SP 20

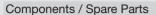
Cysto-Urethroscopes, Uretero-Renoscope





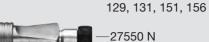
Instrument Ports





27001 G Instrument Port 27001 GF Instrument Port 27001 GH Instrument Port Catalog page

129, 131, 151, 156 129, 131, 151, 156



Spare Part



27550 N **Seal,** package of 10, single use recommended

Components / Spare Parts

27001 GP Instrument Port

Catalog page 149 __8458190



Spare Parts



27550 N **Seal,** package of 10, single use recommended



8458190 **Stopcock**



6985691 Spring Cap





Component	s / Spare Parts	Catalog page
27071 TJ	Forceps for Foreign Body Removal	130, 133, 137, 141, 145
27071 ZJ	Biopsy Forceps	130, 133, 137, 141, 145
27095 F	Forceps	132
27095 P	Forceps	132
27095 Z	Biopsy Forceps	132



Spare Parts



5904998 **Seal,** diameter 0.8 mm



5963402 Knurled Screw

Components	s / Spare Parts		Catalog page
27301 AA	HOPKINS® Straight Forward Telescope 0°		133
27301 BA	HOPKINS® Forward-Oblique Telescope 30°		133
27033 AA	Miniature Straight Forward Telescope 0°		136
27017 AA	HOPKINS® Straight Forward Telescope 0°		140
27017 BA	HOPKINS® Forward-Oblique Telescope 30°		140
27017 CA	HOPKINS® Lateral Telescope 70°		140
27018 AA	HOPKINS® Straight Forward Telescope 0°		144
27018 BA	HOPKINS® Forward-Oblique Telescope 30°		144
27018 CA	HOPKINS® Lateral Telescope 70°		144
		495 G	



Spare Parts



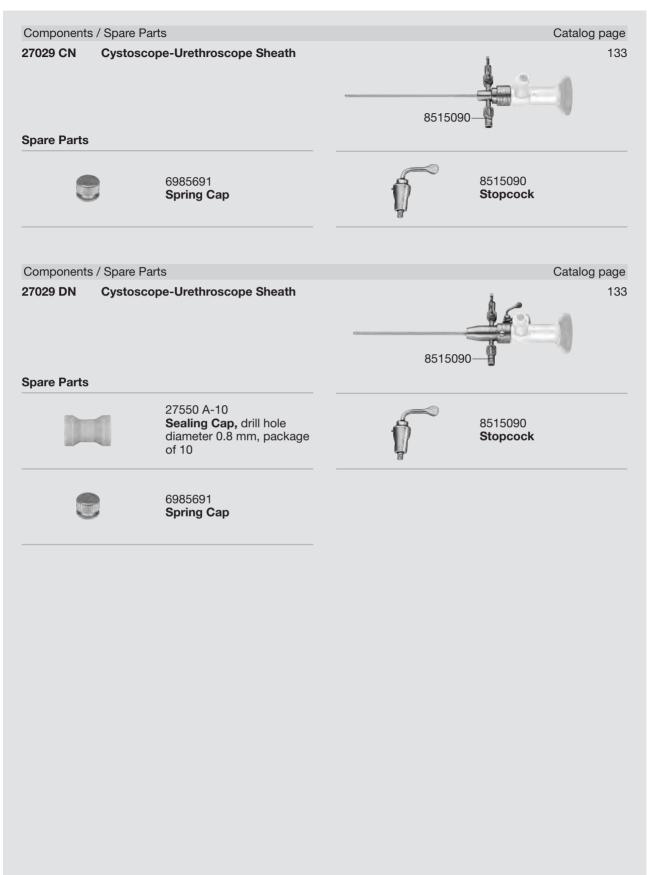
495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation

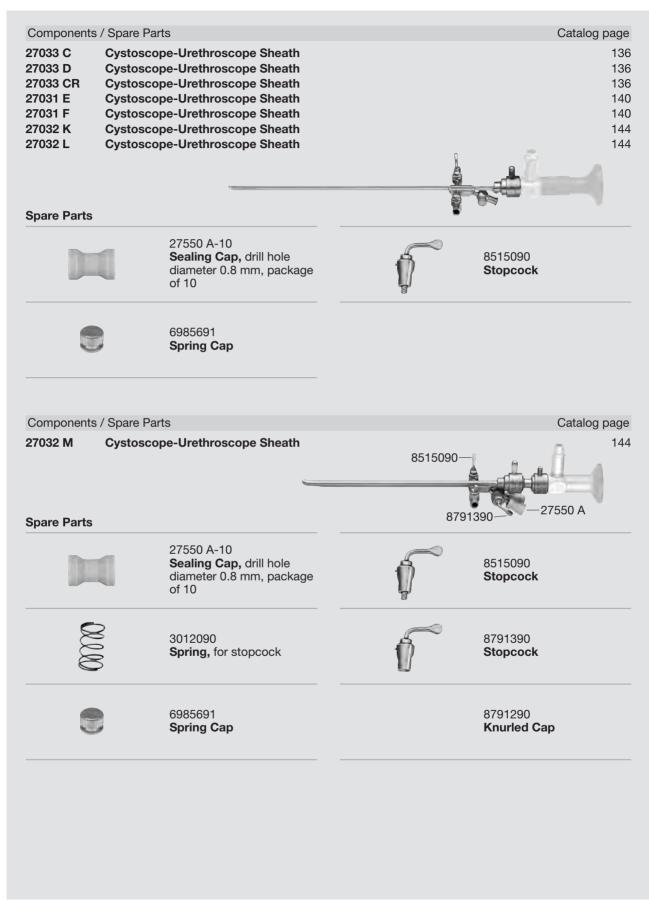
Cystoscope-Urethroscope Sheaths





Cystoscope-Urethroscope Sheaths

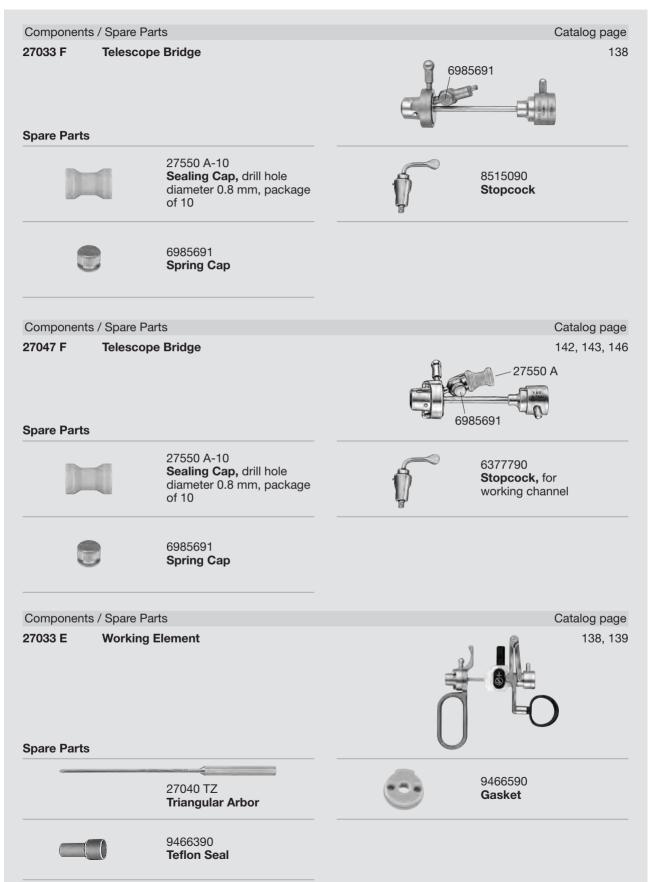




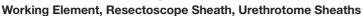
URO-SP 23 SP 25

Telescope Bridges, Working Element

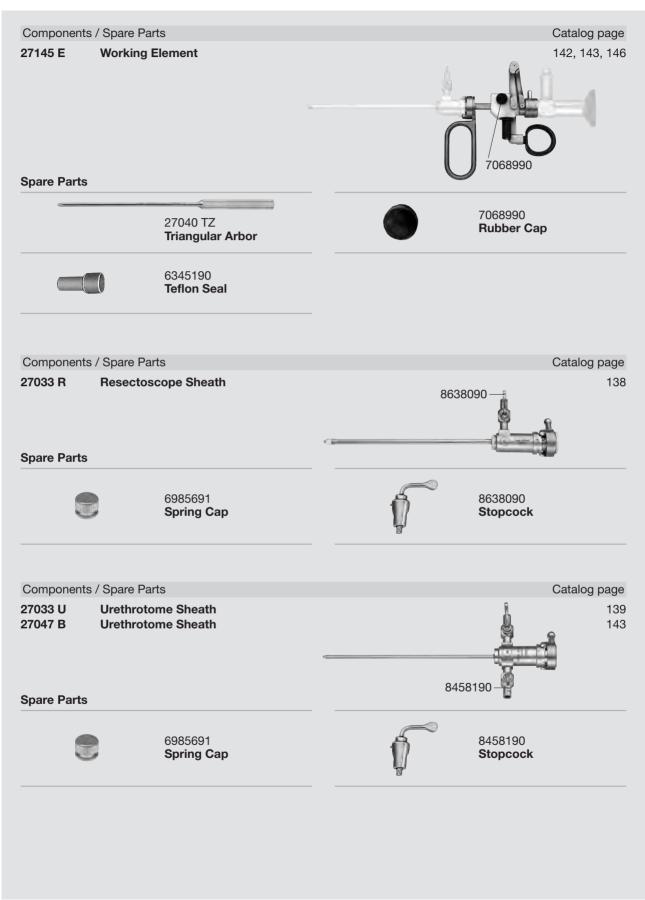




SP 26 URO-SP 24

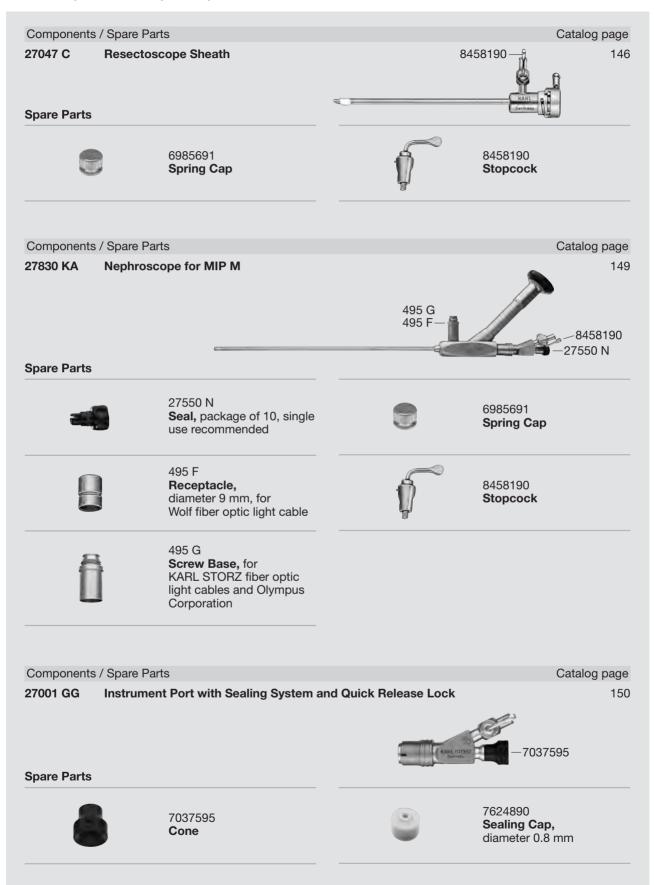






Resectoscope Sheaths, Nephroscope for MIP M, Instrument Port

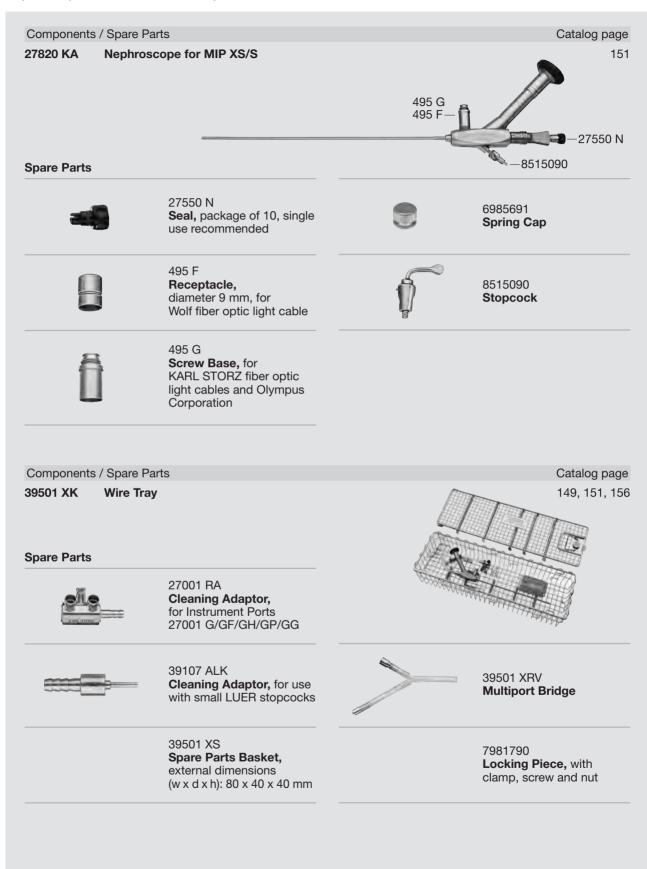




SP 28 URO-SP 26

Nephroscope for MIP XS/S, Wire Tray



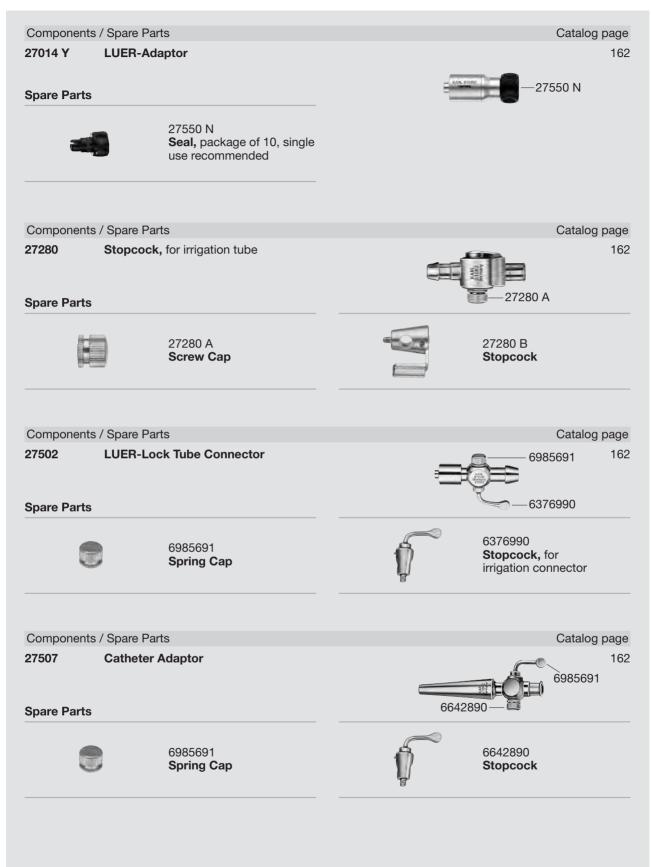


URO-SP 27 SP 29

Accessories

LUER-Adaptor, Stopcock, LUER-Lock Tube Connector, Catheter Adaptor





SP 30 URO-SP 28

Headlights LED Headlights KS70



Componer	nts / Spare Parts	Catalog page
094220	LED Headlight KS70	16
094203	LED Headlight KS70	
094207	Control Unit	094207 078770
094208	Battery Box	
094224	Battery Pack	
094229	Charger USB	
078770	Headband	
094230	LED Headlight KS70	094208 094203
094204	LED Headlight KS70	094204
094207	Control Unit	
094208	Battery Box	
094224	Battery Pack	
094229	Charger USB	
078770	Headband	
094240	LED Headlight KS70	
094205	LED Headlight KS70	
094206	Control Unit	
094224	Battery Pack	
094229	Charger USB	
078780	Soft Headband	

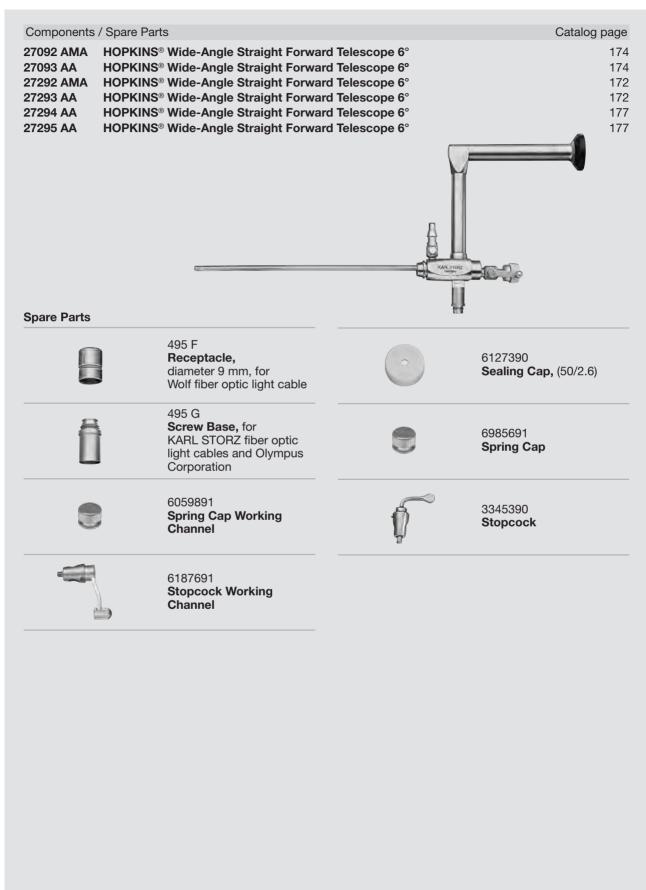
Percutaneous Nephroscopes Dilation Cannula, Telescope Bougie Sets



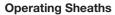
Components / S	•			Catalog page
27091 A D	Dilation Ca	nnula		171
			27091 AL	
Spare Parts			27091 AK	
		27091 Al Inner Cannula	_	27091 AK Outer Cannula
Components / S	Spare Part	s		Catalog page
27090 A T	elescope	s Bougie Set Bougie Set		Catalog page 174 172
27090 A T	elescope	Bougie Set	===	174
27090 A T 27290 A T	Telescope Telescope	Bougie Set	□∃====================================	174 172



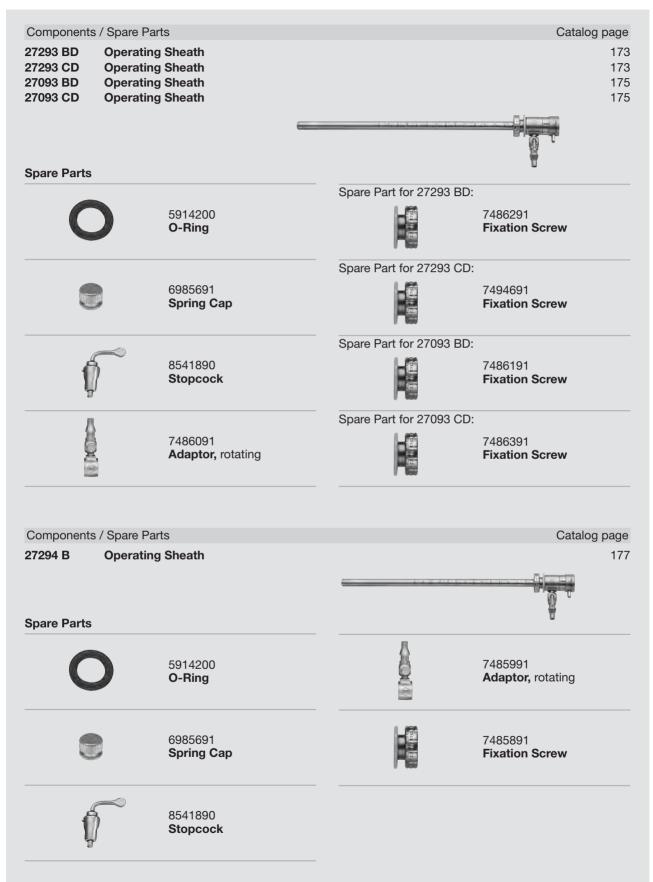




URO-SP 31 SP 33



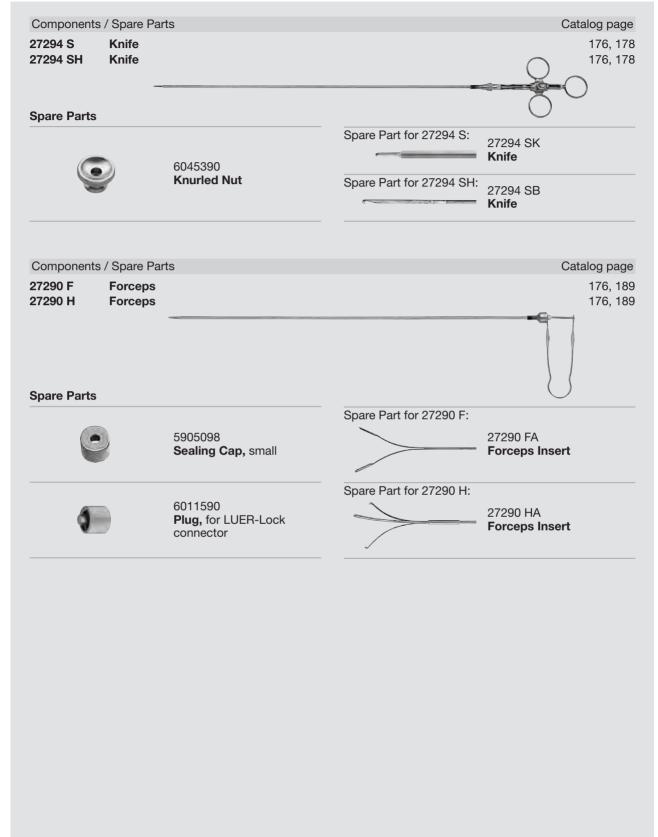




SP 34 URO-SP 32

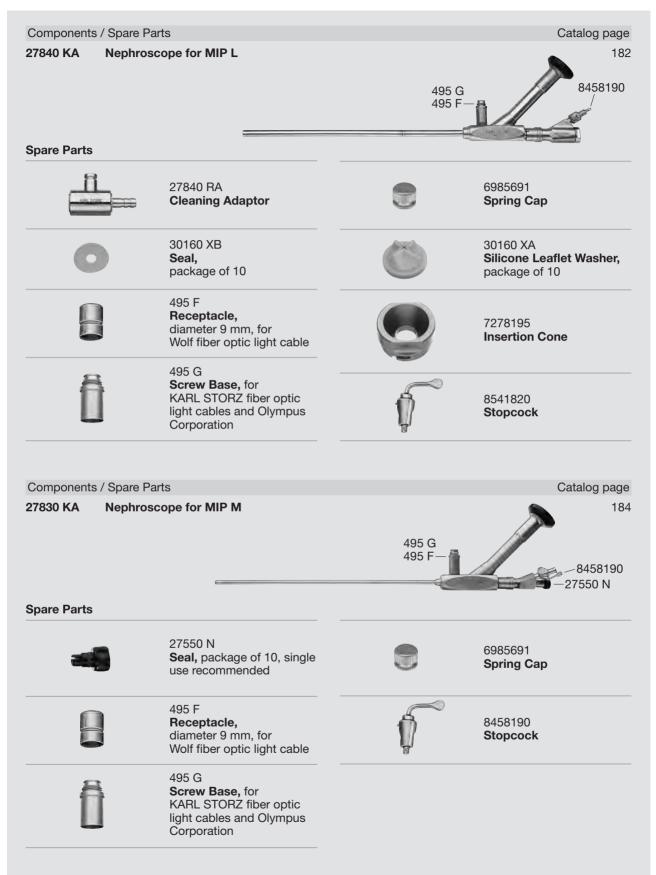






Nephroscope for MIP L and MIP M

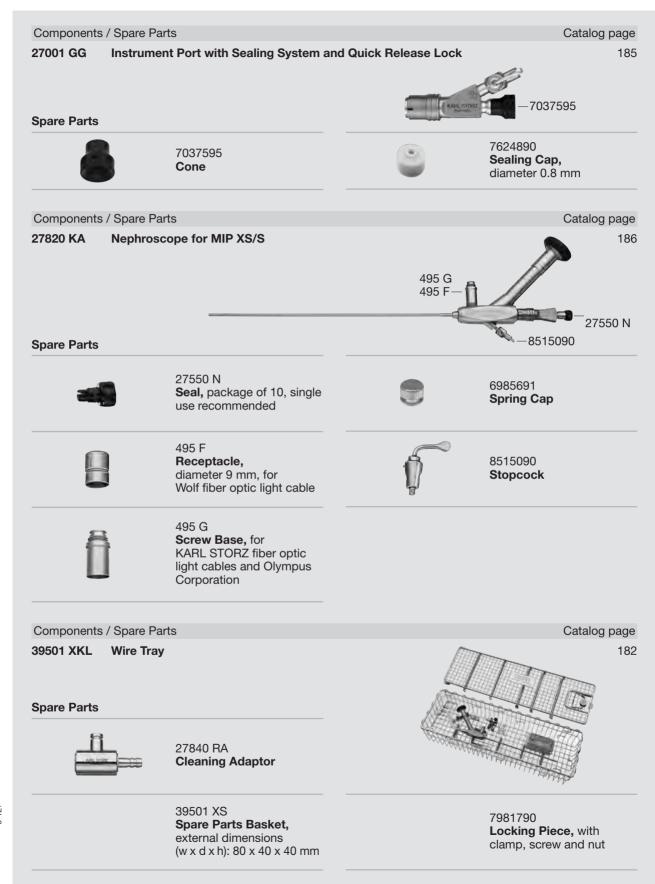




SP 36 URO-SP 34

Instrument Port, Nephroscope for MIP XS/S, Wire Tray

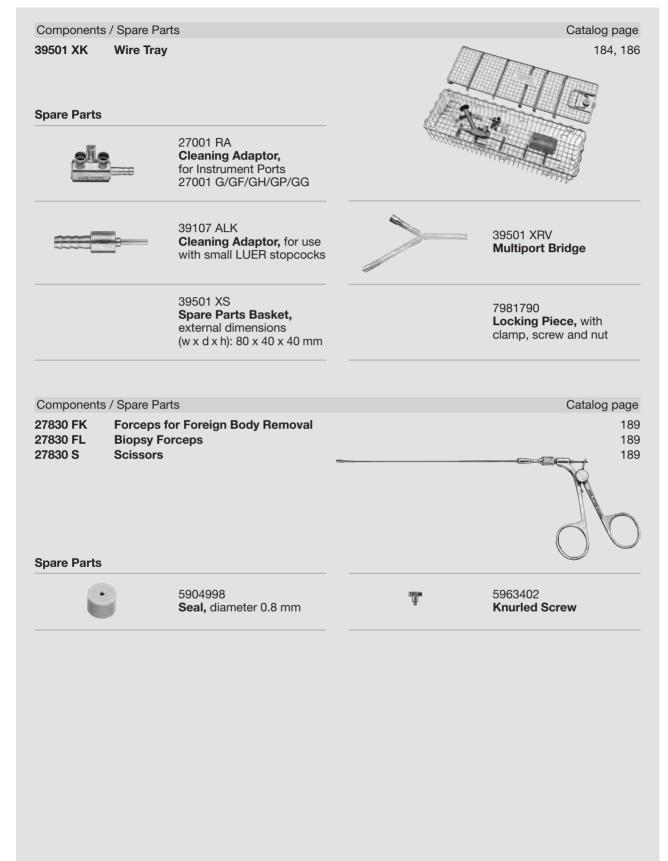




URO-SP 35 SP 37

Wire Tray, Forceps, Scissors





Uretero-Renoscopes, Ureteroscopes



Componen	ts / Spare Parts	Catalog page
27000 L	Uretero-Renoscope	198
27000 K	Ureteroscope	198
27001 L	Uretero-Renoscope	199
27001 K	Ureteroscope	199
27002 L	Uretero-Renoscope	200
27002 K	Ureteroscope	200
27003 L	MICHEL Uretero-Renoscope	20 ⁻
27013 L	Uretero-Renoscope	203
		8458190



Spare Parts



27550 N **Seal,** package of 10, single use recommended



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation



27504 Flow Control Stopcock



6985691 Spring Cap



27001 RA Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH/GP/GG



8458190 **Stopcock**



495 F **Receptacle,** diameter 9 mm, for Wolf fiber optic light cable

Uretero-Renoscope, Ureteroscope, Wire Tray, Instrument Ports



Components / Spare Parts

Catalog page

27010 L Uretero-Renoscope

202

27010 K Ureteroscope

202

495 G

495 G 495 F

Spare Parts



27550 N **Seal,** package of 10, single use recommended



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation



495 F **Receptacle,** diameter 9 mm, for Wolf fiber optic light cable

Components / Spare Parts

39501 X

Wire Tray

Catalog page

204

Spare Parts



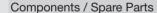
27001 RA Cleaning Adaptor, for Instrument Ports 27001 G/GF/GH/GP/GG



7981790 **Locking Piece,** with clamp, screw and nut

39501 XS

Spare Parts Basket, external dimensions (w x d x h): 80 x 40 x 40 mm



27001 G Instrument Port 27001 GF Instrument Port 27001 GH Instrument Port Catalog page 204 204

—27550 N

Spare Part



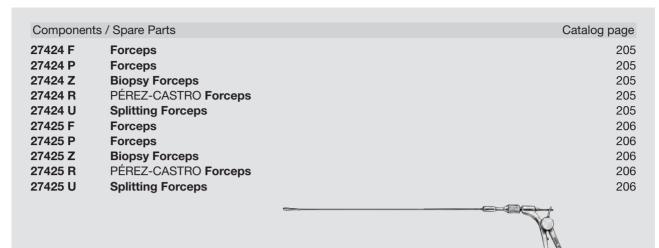
27550 N **Seal,** package of 10, single use recommended

9-121

204

Forceps, Scissors, Video Uretero-Renoscopes







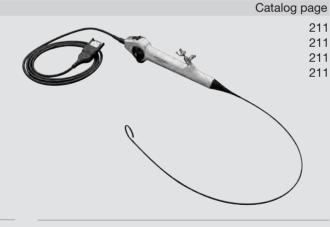


5904998 **Seal,** diameter 0.8 mm



5963402 Knurled Screw

Components	/ Spare Parts
11278 V	Video Uretero-Renoscope
11278 VS	Video Uretero-Renoscope
11278 VSU	Video Uretero-Renoscope
11278 VU	Video Uretero-Renoscope



Spare Parts for 11278 V/VS



6985691 Spring Cap



8515090 **Stopcock**

Spare Part for 11278 VU/VSU



6011590 **Plug,** for LUER-Lock connector

3-10,

URO-SP 39 SP 41

Uretero-Reno-Fiberscopes



Components / Spare Parts

11278 A Uretero-Reno-Fiberscope FLEX-X²

216 216

Catalog page

11278 AU Uretero-Reno-Fiberscope FLEX-X²



Spare Parts for 11278 A



495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



6985691 **Spring Cap**



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation



8515090 **Stopcock**

Spare Parts for 11278 AU



495 F
Receptacle,
diameter 9 mm, for
Wolf fiber optic light cable



6011590 **Plug,** for LUER-Lock connector



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation

Laparoscopy in Urology

ENDOCAMELEON® HOPKINS® Telescopes, HOPKINS® Telescopes, Automatic Valves



Components / Spare P	arts	Catalog page
26003 AE ENDOC	AMELEON® HOPKINS® Telescope	227
26003 AEE ENDOC	AMELEON® HOPKINS® Telescope	227
26003 AA HOPKIN	S® Straight Forward Telescope 0°, enlarged view	228
26003 BA HOPKIN	S® Forward-Oblique Telescope 30°, enlarged view	228
26003 FA HOPKIN	S® Telescope 45°, enlarged view	228
26046 AA HOPKIN	S® Straight Forward Telescope 0°, enlarged view	228
26046 BA HOPKIN	S® Forward-Oblique Telescope 30°, enlarged view	228
26046 FA HOPKIN	S® Telescope 45°, enlarged view	228
26003 ACA HOPKIN	S® Straight Forward Telescope 0°, enlarged view	239
26003 BCA HOPKIN	S® Forward-Oblique Telescope 30°, enlarged view	239



Spare Parts



495 F **Receptacle,**diameter 9 mm, for
Wolf fiber optic light cable



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation

Components / Spare Parts

30103 A1 Automatic Valve



Catalog page 241

7616690

Spare Part



7616690 **Sealing Cap,** (60/10)

Components / Spare Parts

Automatic Valve

Catalog page

241



– 6127590

Spare Part

30160 A1



6127590 **Sealing Cap,** (50/4)

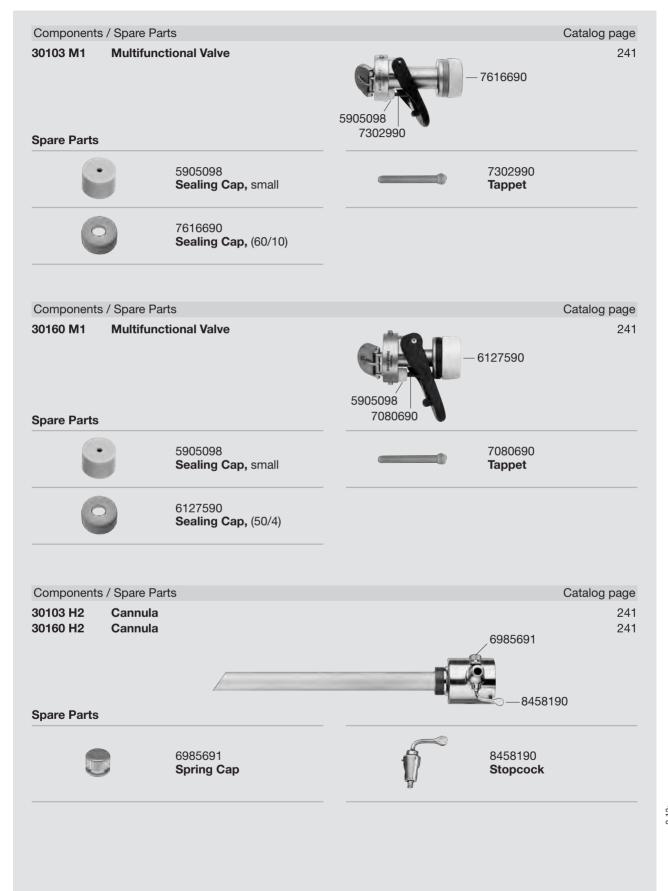
9-121

URO-SP 41 SP 43

Laparoscopy in Urology

Multifunctional Valves, Cannulas



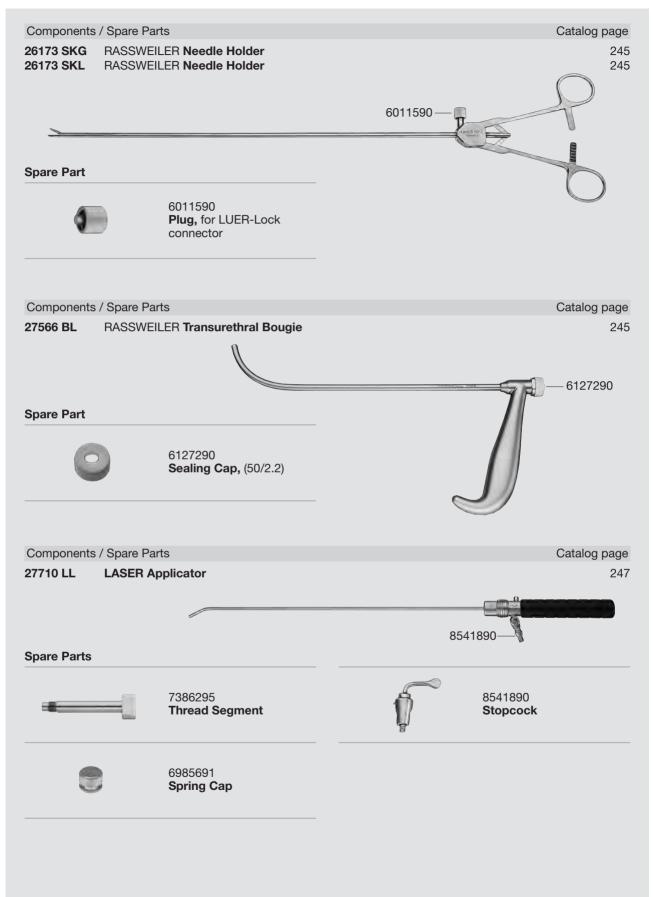


SP 44 URO-SP 42

Laparoscopy in Urology

RASSWEILER Needle Holders, RASSWEILER Transurethral Bougie, LASER Applicator



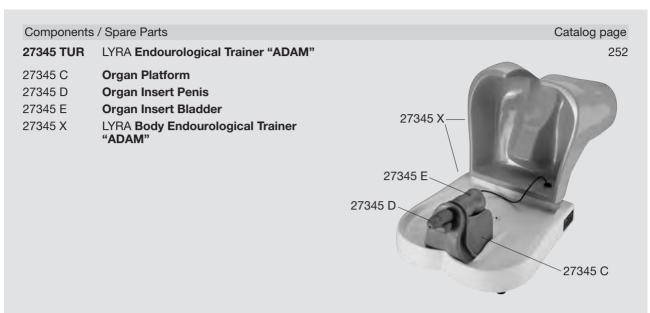


URO-SP 43

Trainer

LYRA Endourological Trainer "ADAM"





Components	s / Spare Parts	Catalog page
27345 URS	LYRA Endourological Trainer "ADAM"	253
27345 A 27345 B 27345 X	Organ Platform Organ Insert LYRA Body Endourological Trainer "ADAM"	27345 X 27345 B 27345 A

Trainer

SZINICZ Laparoscopic Trainer



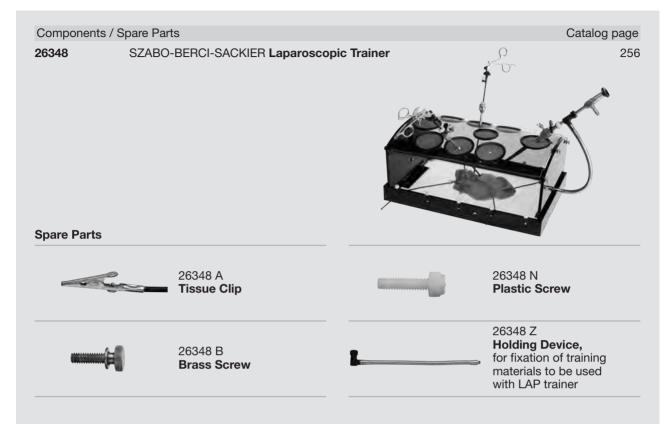
26342 KB SZIN	e Parts ICZ Laparoscopic Trainer	Ording Ording	Catalog pag
Spare Parts	26341 B Casing Cover		26341 S Manual
	26341 C Base Plate		26342 AA Adaptor, 10 mm
	26341 D Neopren Mat		26342 AB Adaptor, 12 mm
-	26341 E Pump, electronically controlled		26342 AC Adaptor, 15 mm
	26341 F Perfusion Tube	8	26342 AD Adaptor, 26 mm
	26341 K Mains Adaptor, 230 VAC		26342 AE Adaptor, 35 mm
	26341 N Food Coloring, 250 g		26342 KG Ball Joint
	26341 P Drain Plug		26342 FR Fixation Ring
	26341 R Wire Tray	Y	26342 WA Water Outlet

URO-SP 45 SP 47

Trainer

SZABO-BERCI-SACKIER Laparoscopic Trainer







Telescopes



Components / Spare Parts

Catalog page

27015 VAA VITOM® Telescope 0° with Integrated Illuminator

262



Spare Parts



495 F **Receptacle,** diameter 9 mm, for Wolf fiber optic light cable



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation

Components / Spare Parts

Catalog page

27015 VDA VITOM® Telescope 90° with Integrated Illuminator

263



Spare Parts



495 F **Receptacle,** diameter 9 mm, for Wolf fiber optic light cable



495 G Screw Base, for KARL STORZ fiber optic light cables and Olympus Corporation

Equipment Carts

Components / Spare Parts

COR



Components / Spare Parts Catalog page **UG 220 Equipment Cart** U 10 UG 011 Base Module, equipment cart, wide UG 021 Cover, equipment cart, wide UG 051 Beam Package, equipment cart, high UG 604 Shelf, wide UG 602 Drawer Unit with Lock, wide UG 608 Equipment Rail, long UG 612 Camera Holder

Components	opale i alto
UG 210	Equipment Cart
UG 011	Base Module, equipment cart, wide
UG 021	Cover, equipment cart, wide
UG 041	Beam Package, equipment cart, small
UG 604	Shelf, wide
UG 602	Drawer Unit with Lock, wide
UG 608	Equipment Rail, long



UG 625

UG 626

Components	/ Spare Parts			Catalog _I	page
UG 625	IV Pole	d	-		U 13
UG 616	IV Pole			.	
UG 623	Multifunctional Holder				
UG 626	IV Pole	200		TO 1 1	
UG 617	IV Pole	71	-		
UG 623	Multifunctional Holder				

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SP 50 URO-SP 48

Equipment Cart

E-Series





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Lithotripsy

CALCULASE II SCB



Catalog page

Components / Spare Parts 27750201-1 CALCULASE II SCB 27750220-1 CALCULASE II SCB, with KARL STORZ-SCB, power supply 230 VAC, 50/60 Hz 400 LD **Mains Cord One-Pedal Footswitch** 27750124 27750235 **Key Set** 27750226 **Remote Interlock Connector** 27750095 Safety Goggles Ho:YAG LASER, 2080 nm 20090170 SCB Connecting Cable, length 100 cm ET42-455452 Ion Exchanger



27750220U1

27750201U1 CALCULASE II SCB

27750220U1	CALCULASE II SCB, with KARL STORZ-SCB,
	1 445 1/40 50/0011

power supply 115 VAC, 50/60 Hz

400 LA **Mains Cord**

One-Pedal Footswitch 27750124

27750235 **Key Set**

27750226 **Remote Interlock Connector**

27750095 Safety Goggles Ho:YAG LASER, 2080 nm SCB Connecting Cable, length 100 cm 20090170

ET42-455452 Ion Exchanger

Components	s / Spare Parts	Catalog page
27750280	Fiber Stripper Set	27750285 — U 28
27750285	Silicone Pad	
27750284	Ceramic Knife	27750284 —
27750281	Fiber Stripper 230 µm	27750281
27750282	Fiber Stripper 365 µm	27750282
27750283	Fiber Stripper 600 μm	27750283

Lithotripsy

CALCUSON, CALCUSPLIT®



Catalog page

Catalog page

U 34

Components / Spare Parts 27610001 **CALCUSON Ultrasonic Generator** 27610020 **CALCUSON Ultrasonic Generator,** power supply 100 - 120 VAC/200 - 240 VAC, 50/60 Hz

Mains Cord

20014230 **One-Pedal Footswitch**

27610030 **Transducer**

27610071 Connecting Cable (transducer/generator) 27085 PI Protection Tube, for storage and sterilization

of probes

27085 CR Cleaning Rod, for probes 27085 TW Wrench, for probes

Spare Part

400 A



2027590 Mains Fuse, T 2.0 AL (SB), package of 10



27610020

27630020

Components / Spare Parts

27630003 **CALCUSPLIT®**

27630020 CALCUSPLIT®, power supply

100/120/230/240 VAC, 50/60 Hz

400 A **Mains Cord**

20014230 One-Pedal Footswitch, digital, two-stage

27630021 Fabric Tube, length 400 cm

27630038 CALCUSPLIT® Handpiece, autoclavable

27630180 Sealing Rings, package of 5

27630035 Spare Damping Unit, autoclavable, package of 20

27630040 Silicone Tube, autoclavable, length 200 cm 27650 C Cleaning Brush, outer diameter 2.5 mm,

length 35 cm

Instrument Oil, bottle of 50 ml 27656 B

Spare Part for use at 115 V:



Spare Part for use at 230 V:

1067700 Mains Fuse, T 0.125 A (SB), package of 10



1067800 Mains Fuse, T 0.2 A (SB), package of 10

Components / Spare Parts

Silicone Tube

Spare Part

27630040

1197590 **CPC Coupling**



Catalog page

U 35

URO-SP 51 **SP 53**

Suction and Irrigation System

UROMAT E.A.S.I.® SCB



Components / Spare Parts Catalog page

UP410 S1 UROMAT E.A.S.I.® SCB

U 40

UP410 UROMAT E.A.S.I.® SCB

20090170 SCB Connecting Cable, length 100 cm

031917-10* Basic Tubing Set, for single use

20701070 Control Cable



UP410

Spare Part



2027590 Mains Fuse, T 2.0 AL (SB), package of 10

* mtp

9-12

SP 54 URO-SP 52

Suction Systems

ENDOMAT® LC SCB



Components / Spare Parts

27330301-1 ENDOMAT® LC SCB

20330320-1 **ENDOMAT® LC, with KARL STORZ-SCB,** power supply 100 – 240 VAC, 50/60 Hz

20090170 SCB Connecting Cable, length 100 cm

20300051 Suction Bottle, 0.5 I, sterilizable

20330342 Silicone Tubing Set, for suction, sterilizable
 20300039 Bottle Cap, for Suction Bottle 20300051
 Bottle Stand, for Suction Bottle 20300051

27610070 Connecting Cable



20330320-1

Spare Part



1858891 **Mains Fuse,** T 2.0 AH, 250 V, package of 10

Components / Spare Parts

Catalog page

20330342

Silicone Tubing Set, for suction, sterilizable, for use with Suction Bottle 20300051

U 47



Spare Parts



20330393 **Pump Tube,** sterilizable, package of 25



ET15-2756891 Tube Connector



ET15-2755791 **Tube Connector,** wide



59352212011 **Cone Connector,** female

Motor Systems

UNIDRIVE® S III SCB



U 52

Components / Spare Parts Catalog page

27701001-1 **UNIDRIVE® S III SCB**

UNIDRIVE® S III, with KARL STORZ-SCB, 20701020-1

power supply 100 – 120/230 – 240 VAC, 50/60 Hz

400 A **Mains Cord**

20016230 One-Pedal Footswitch, two-stage

20090170 SCB Connecting Cable, length 100 cm

SCB STORZ

20701020-1

Spare Part



2027690 Mains Fuse, T 4.0 AL (SB), package of 10

High Frequency Surgical Units

AUTOCON® II 400 SCB, SHORT-E HF Cart



Catalog page

U 62

SCE

Components / Spare Parts

2053520x-12x AUTOCON® II 400 SCB

2053522x-12x AUTOCON® II 400 SCB,

power supply 220 - 240 VAC, 50/60 Hz

400 A Mains Cord

20090170 SCB Connecting Cable, length 100 cm

2053520xU12x AUTOCON® II 400 SCB

2053522xU12x AUTOCON® II 400 SCB,

power supply 100 - 120 VAC, 50/60 Hz

400 A Mains Cord

20090170 SCB Connecting Cable, length 100 cm

Spare Part for use at 115 V:

= =

2028090 Mains Fuse, T 8.0 AL (SB), package of 10

2053522x-12x

2053522xU12x

Spare Part for use at 230 V:



2027690 Mains Fuse, T 4.0 AL (SB), package of 10

Components / Spare Parts

20020080 SHORT-E HF Cart

20020060 Subrack, for mobile stand

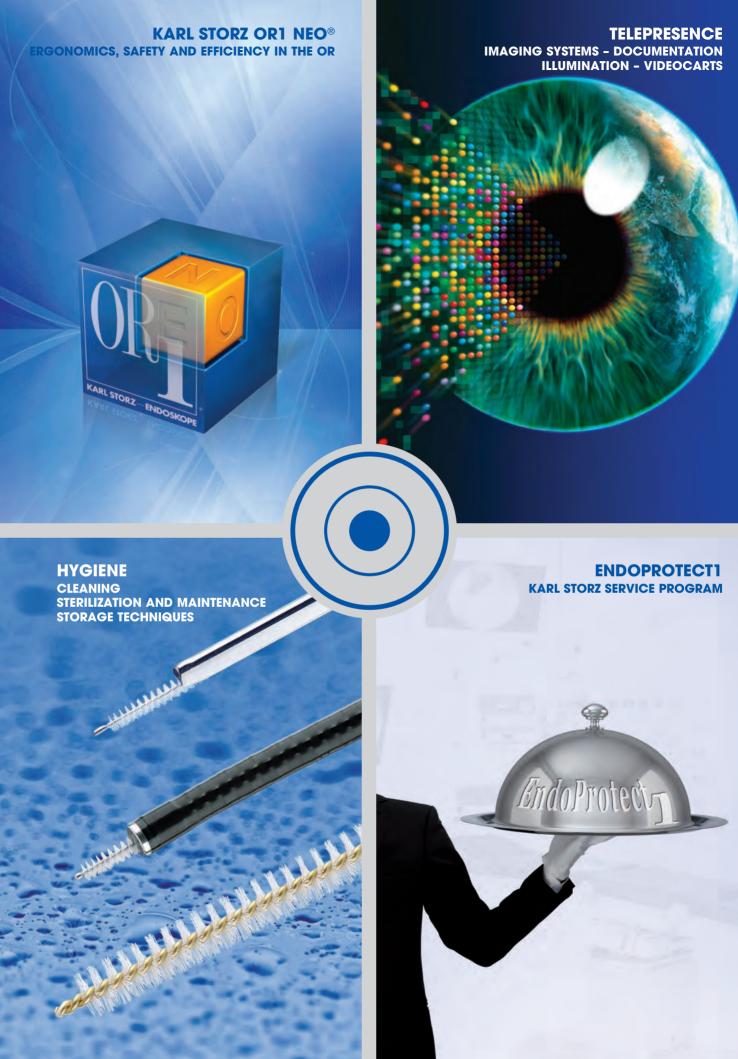
20020045 HF Shelf



High Frequency Surgical Units Surgery Electrodes Set



20530008	s / Spare Parts Surgery Electrodes Set	Catalog page U 65
20530031 26520031 26520032 26520033 26520035 26520036 26520037 26520038 26520039 26520040 26520041 26520042	Container with Lid and Sterilizing Insert, for 16 electrodes with diameter 4 mm Wire Snare, 5 mm Wire Snare, 10 mm Ribbon Snare, 10 mm KIRSCHNER Spatula Electrode, straight MAGENAU Knife Electrode, angled Knife Electrode, lancet-shaped Ball Electrode, 2 mm Ball Electrode, 4 mm Ball Electrode, 6 mm Needle Electrode Flat Electrode, 8 x 10 mm Flat Electrode, 10 x 15 mm	20530031
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KARL STORZ OR1 NEO® ERGONOMICS, SAFETY AND EFFICIENCY IN THE OR

The KARL STORZ OR1 NEO® objective is to provide an optimal operating room design for performing minimally invasive and conventional surgeries. Customized to meet disciplinary and interdisciplinary needs, the OR1 NEO® operating room concept offers the optimal solution to each requirement for an integrated OR workstation design. The system's modular design allows all components and functionalities to be integrated in the OR1 NEO® operating room solution and, therefore, become part of the workstation system. Once again, KARL STORZ sets new standards in ergonomics, safety and efficiency in the OR.

- System integration
- Data management and documentation
- **■** Telemedicine

The OR1 NEO® components provide a customized system and compatible applications. Each component offers a reliable solution on its own; the sum of all components forms a complete multifunctional system.

TELEPRESENCE

- Imaging systems
- Documentation
- Illumination
- Equipment carts



FULL HD - New Vision in Medicine

IMAGE 1 HUB™ HD offers the user the highest image quality for the precise display of even the finest tissue and vascular structures.

IMAGE 1 HUB™ HD enables the connection of the latest HD camera heads and all standard IMAGE1 camera heads.

Existing IMAGE1 can be updated to enable HD images to be displayed and HD camera heads to be utilized.

KARL STORZ WIDEVIEW monitors deliver **optimal image display.** Using the 16:10 aspect provides a larger display window and improves the viewing ergonomics.

HYGIENE

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- Accessories for maintenance and cleaning
- Cases for cleaning and disinfection
- Quivers for disinfection and storage of flexible endoscopes
- Wire trays for cleaning, sterilization and storage of endoscopes, instruments and motor accessories
- Instrument racks for cleaning, sterilization and storage
- Plastic containers for cleaning, sterilization and storage of endoscopes
- Plastic containers for cleaning, sterilization and storage of endoscopes, camera heads and instruments
- Stainless steel trays for sterilization and storage of instruments
- Aluminium trays for sterilization and storage of instruments
- Sterilization containers with MicroStop® system
- Racks for cleaning, sterilization and storage of ENT instruments
- Aluminium cases for HOPKINS® telescopes
- Carrying cases for instruments and accessories

ENDOPROTECT1

KARL STORZ SERVICE PROGRAM

- Repair service
- Set audits
- Training
- OR1™ service
- Hygiene
- ORCHESTRION® IMM



KARL STORZ has developed and optimized a special service program for the protection of patients, users and investments: ENDOPROTECT1

ENDOPROTECT1 from KARL STORZ provides a comprehensive range of safe and cost-effective services to meet the needs of endoscopic equipment in everyday clinical practice.

ENDOPROTECT1 Service Program: modular – safe – cost-effective

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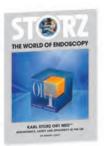


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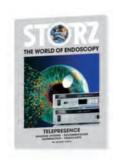


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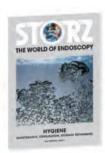
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- ☐ Camera systems
- ☐ Data management and documentation
- ☐ Monitors and video printers
- ☐ Light sources
- ☐ Equipment carts



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CLEANING, STERILIZATION AND MAINTENANCE, STORAGE TECHNIQUES



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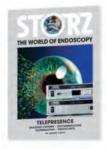


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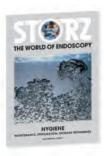
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