

A vibrant, long-exposure photograph of a multi-tiered waterfall cascading over dark, moss-covered rocks. Large, bright green ferns are prominently featured in the foreground, framing the water. The background is a dense, dark forest. The overall scene is lush and tropical.

# UROLOGY

10th EDITION 3/2015 US

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# STORZ



## THE WORLD OF ENDOSCOPY



Information on events is available on the KARL STORZ website  
[www.karlstorz.com](http://www.karlstorz.com)

## UROLOGY

10th EDITION 3/2015 US

## Important information for U.S. customers

### Note:

Certain devices and references made herein to specific indications of use may have not received clearance or approval by the United States Food and Drug Administration. Practitioners in the United States should first consult with their local KARL STORZ representative in order to ascertain product availability and specific labeling claims. Federal (USA) law restricts certain devices referenced herein to sale, distribution, and use by, or on the order of a physician, dentist, veterinarian, or other practitioner licensed by the law of the State in which she/he practices to use or order the use of the device.

## Important Notes:

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

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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.

## KARL STORZ Items Not Available in the U.S.

April, 2015

### Pending 510(k) / PMA not currently available for sale in the U.S.

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11272 VPI	Video Cysto-Urethroscope (PDD), PAL	FLEX-CYST 3, URO-PDD 6 C	15, 104
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<b>20</b> 1336 01-133	Cold Light Fountain D-LIGHT C/AF SCB	URO-UNITS 4 E	U 6
<b>20</b> 1336 51	PDD Test System, for rigid endoscopes	URO-PDD 8 A	106
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27750273-P6	CALCULASE II Fiber 600 µm	URO-LAS 4 F, LITH 7 A, URO-UNITS 26 E	82, 119, U 28
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**Note:** References made herein to specific endoscopic procedures or techniques represent the opinions and/or experiences of the named physician(s). KARL STORZ Endoscopy-America, Inc. neither warrants nor represents the appropriateness or efficacy of said procedures. Physicians are encouraged to consult medical literature regarding techniques, compliances and hazards prior to performance of any endoscopic procedure.

**Note:** Some items are pending 510(k). Please contact KARL STORZ Customer Support at (800) 421-0837 regarding the current regulatory status of products above.

## TERMS AND CONDITIONS

### KARL STORZ Endoscopy-America, Inc.

**1. ORDERS.** Orders are to be placed with the Customer Support Department of KARL STORZ Endoscopy-America, Inc. ("KARL STORZ") or with its sales force. However, orders will only be accepted by KARL STORZ's Customer Support Department located either in El Segundo, California or Southbridge, Massachusetts and only on the condition that in the event of any conflicting, inconsistent and/or additional provisions in a Customer purchase order or other document, the within Terms and Conditions will supersede and prevail and such conflicting, inconsistent and/or additional provisions shall be of no force or effect; KARL STORZ hereby objects to such other provisions or terms proposed by Customer. By accepting delivery of products from, and/or the performance of services by, KARL STORZ, and/or by paying for same, and notwithstanding anything to the contrary in Customer's own purchase order or other document, Customer accepts and agrees to the within Terms and Conditions, all of which constitute the sole and entire agreement of KARL STORZ and Customer, unless and to the extent modified and/or superseded by an agreement in writing signed by both Customer and an authorized representative of KARL STORZ.

**2. PRICES.** Prices are subject to change without notice. Nevertheless, prices in effect at the time that an order is accepted will prevail. Written quotations are valid for 60 days unless otherwise specified. All applicable taxes, as well as shipping and/or handling charges, will be added to the invoice.

**3. TERMS.** Shipments are F.O.B. shipping point, shipping and handling prepaid by KARL STORZ and added to the invoice. Invoices are due and payable upon receipt; net 30 days. A finance charge equal to 1-1/2% per month, or the maximum amount allowed by law, whichever is less, may be assessed on all balances outstanding for more than 30 days. Any and all collection expenses, including reasonable attorneys' fees, incurred by KARL STORZ to secure payment of any sums due from Customer and/or effectuate repossession of products purchased from KARL STORZ, but not paid for, will be borne by Customer. All controversies, disputes and claims, shall be adjudicated by a court of competent jurisdiction within the County of Los Angeles, State of California or the United States District Court, Central District of California, which courts shall have exclusive jurisdiction over such matters. All transactions by and between Customer and KARL STORZ shall be governed by and construed in accordance with the laws of the State of California without regard to its conflict of laws principles. The invalidity or unenforceability of any of the within Terms and Conditions will not affect the validity or enforceability of any other or remaining term or condition hereof. The within Terms and Conditions apply to products that are supplied to Customer as samples or loans from KARL STORZ. Amounts payable to KARL STORZ for the purchase, lease or rental of products and/or services are not subject to withholding, set-off, or counter-claim under any circumstances without prior written consent of KARL STORZ.

**4. SECURITY INTEREST.** Until Customer has paid KARL STORZ in full for all products purchased pursuant to an order, KARL STORZ shall have, and Customer hereby grants to KARL STORZ, a security interest in all products purchased, pursuant to such order, and in all proceeds therefrom (including any which Customer receives as payment from an insurer or third party for or as a result of any damage to or loss of said products), to secure payment of the entire purchase price for all products sold, shipped and delivered to Customer pursuant to such order, and all costs, expenses or other charges relating thereto which are payable by Customer to KARL STORZ. Customer is required to execute and deliver such documents, as required and requested by KARL STORZ, to perfect KARL STORZ's security interest(s).

**5. SHIPPING.** Although KARL STORZ products are carefully packed to minimize in-transit damage, all shipments should be carefully examined upon receipt and if a product is damaged, Customer must document the nature and extent of the damage and immediately contact KARL STORZ. If concealed loss or damage is discovered, Customer must retain all packing materials and immediately notify KARL STORZ, requesting an inspection. If shipments are received short, Customer must contact KARL STORZ's Customer Support Department at once. KARL STORZ reserves the right to make partial shipments on any order. Invoices for partial shipments are payable upon receipt. KARL STORZ is not liable for any damages caused by or attributable to delays and/or non-delivery due to any cause whatsoever.

**6. RETURN POLICY.** A return merchandise authorization (RMA) must be obtained from KARL STORZ's Customer Support Department prior to returning any products. When phoning or writing KARL STORZ, for an RMA, the Customer Support Representative must be provided with: (a) Customer name and number, as it appears on the invoice; (b) the telephone number and the person to contact; (c) the applicable P.O. number; (d) the KARL STORZ catalog number and, if applicable, the serial number for each product; and, (e) the reason for the return. KARL STORZ reserves the right to refuse or return any products sent back to KARL STORZ without prior authorization of its Customer Support Department. Returns must be carefully packed and shipped pre-paid to KARL STORZ, Attn: RMA number. KARL STORZ's Customer Support Department will provide the return address and the RMA number. When returning products, Customer should include a copy of the original invoice or packing slip to ensure prompt issuing of credit. Full credit will only be issued for products that are returned and received within 120 days of date of shipment ("Ship Date") so long as such items are unused, in resalable condition and in their original product packaging. If unopened products are received by KARL STORZ 120 or more days after the Ship Date, KARL STORZ may, in its sole and absolute discretion, either refuse acceptance of the returned products or, as a condition to authorizing a return, require payment of an inspection fee of up to 25% of the invoiced price of the product, which will require a separate P.O. number before the RMA is issued. Shipping charges will be reimbursed, inspection fees will not be charged and full credit will be given if the return was due to an error on the part of KARL STORZ. The following products may not be returned for credit or exchanged: (a) products held longer than 120 days from Ship Date (except as provided above); (b) sterile packaged products where the package is opened and/or damaged; (c) discontinued products; (d) instruments that are etched or engraved by Customer; (e) products damaged by Customer; (f) products purchased "as is" or as demo products; and (g) used products. In order to prevent the transmission of disease to the medical facilities' and/or KARL STORZ's personnel, all products must be cleaned and then sterilized and/or disinfected before returning such products to KARL STORZ, which reserves the right to return unclean and contaminated products to Customer. Additionally, if any product becomes damaged and is not immediately returned for repair or exchange, KARL STORZ assumes no responsibility or liability for Customer's continued use of that damaged product. KARL STORZ does not guarantee the performance of, and may decline to repair or accept for repair/exchange, any product that has been repaired, modified and/or altered by any person or entity other than KARL STORZ or an authorized repair facility of KARL STORZ.

**7. INSTALLATION, PREVENTATIVE MAINTENANCE, AND OTHER SERVICES.** Subject to resource availability, KARL STORZ may, in its sole discretion, (a) install and setup the product, (b) perform preventative maintenance services, (c) provide onsite or remote troubleshooting services and other services, (d) provide software updates, and (e) provide loaners in case of back orders.

**8. TRAINING.** To the extent reasonable as to the complexity and quantity of products, KARL STORZ will provide training regarding the proper use of products at or near the time of delivery or installation, as applicable. KARL STORZ may also provide additional training regarding the proper use of products upon Customer's request, in KARL STORZ's sole discretion and subject to availability of KARL STORZ personnel.

**9. REPAIR PROGRAM.** If repairs become necessary, for damages other than those incurred during initial shipment, Customer must follow the RMA procedure set forth in the "Return Policy" in Section 6, above. Warranty repairs will be made without charge (see "Warranty Policy," Section 10 below, for covered repairs). All other repairs are subject to KARL STORZ's applicable standard repair or exchange charges. If requested, Customer will be advised of the estimated cost of the repair work or a product exchange before it is undertaken. All repairs carry a 90 day warranty. Exchange products carry the applicable KARL STORZ new product warranty. If the damaged product is not returned within 30 days of receipt of the replacement product, Customer will be invoiced for the full list price of the replacement. Subject to the availability of product, KARL STORZ may, in its sole discretion, provide Customer with loaner product while non-warranty repairs are being made. Subject to resource availability, KARL STORZ may, in its sole discretion, perform minor non-warranty repairs without charge. KARL STORZ reserves the right to refuse or return any product sent back without prior authorization of KARL STORZ's Customer Support Department.

**10. WARRANTY POLICY.** Except as otherwise provided herein and/or by the applicable warranty information for a specific product or type of product, all products are generally warranted to be in good working order at the date of delivery and free from defects in workmanship and materials for 1 year from date of delivery. However, since some products carry a shorter or a longer warranty period, Customer should check with KARL STORZ's Customer Support Department or product specific literature, instruction manual and/or labeling for the exact warranty period. Any such product(s) with a defect occurring during the applicable warranty period will be promptly replaced or, at the sole discretion of KARL STORZ, repaired at no charge to Customer. All repairs shall be performed in a good and workmanlike manner and all replaced parts or products shall be free from defects in materials and workmanship for the remainder of the original warranty period (if any) or the 90 day period set forth in section 9, Repair Program, above, whichever is longer, when used by qualified personnel who are trained in their use. Subject to availability of product, KARL STORZ may, in its sole discretion, provide Customer with loaner product while the defective product is being replaced or repaired. Damage which might arise or be caused, whether by Customer or by any of the users of the products provided by KARL STORZ, as a result of, in connection with, or otherwise attributable to the following is excluded from warranty coverage: (a) misuse, abuse, mishandling and/or improper operation and/or storage; (b) repairs, servicing, modifications and/or alterations performed by any person or entity other than KARL STORZ or an authorized repair facility of KARL STORZ; (c) use in combination with adaptors, accessories and/or equipment from other manufacturers unless authorized or recommended by KARL STORZ; (d) use in any manner other than those for which such products are designed and are otherwise intended to be used; or a failure to comply with power and grounding specifications provided by KARL STORZ. **THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED AND/OR STATUTORY, INCLUDING, BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS AND/OR OF SUITABILITY FOR A PARTICULAR PURPOSE, WITH RESPECT TO ALL KARL STORZ PRODUCTS AND/OR SERVICES. ANY AND ALL OTHER WARRANTIES, REPRESENTATIONS AND/OR GUARANTEES, OF ANY TYPE, NATURE OR EXTENT, BE IT IMPLIED, EXPRESS AND/OR WHETHER ARISING UNDER OR AS A RESULT OF ANY STATUTE, LAW, COMMERCIAL USAGE, CUSTOM, TRADE OR OTHERWISE, ARE HEREBY EXPRESSLY EXCLUDED AND DISCLAIMED.** Any contrary course of performance by and between the parties will not modify any representations and/or warranties set forth herein. KARL STORZ neither assumes nor authorizes any person to assume for it any other liabilities in conjunction with and/or related to the sale and/or use of its products. To ensure proper use, handling and care of KARL STORZ products, Customer should consult the product specific literature, instruction manual, and/or labeling included with the product or otherwise available. Repairs, modifications or alterations of KARL STORZ products, performed by any person or entity, other than by KARL STORZ or an authorized repair facility of KARL STORZ, nullifies and otherwise voids all applicable KARL STORZ warranties. Repair or replacement of a KARL STORZ product shall not extend the term of any applicable warranty. The remedies provided herein are Customer's exclusive remedies under this Warranty Policy.

**11. LIMITATION OF LIABILITY.** KARL STORZ is not liable, either directly or by way of express or implied indemnity, for any special, incidental, consequential, punitive, exemplary or indirect damages, including but not limited to alleged damages for delayed shipment, non-delivery, product failure, product design or production, inability to use such products or services, loss of future business (lost profits), or from any other cause, whatsoever, in connection with or arising from the purchase, sale, lease, rental, installation or use of KARL STORZ products, even if KARL STORZ has been advised of the possibility of such damages. **SOME JURISDICTIONS DO NOT ALLOW EXCLUSIONS AND DISCLAIMERS OF CERTAIN WARRANTIES OR LIMITATIONS OF LIABILITY, SO THE LIMITATIONS AND/OR EXCLUSIONS, SET FORTH IN THESE TERMS AND CONDITIONS, MAY NOT APPLY. IN THAT EVENT, KARL STORZ'S LIABILITY WILL BE LIMITED TO THE GREATEST EXTENT PERMITTED BY LAW IN THE SUBJECT JURISDICTION.**

**12. DISCOUNTS AND REBATES.** The dollar value of discounts and rebates (if any) provided by KARL STORZ to Customer are intended to be discounts or reductions in price described in and in accordance with 42 U.S.C. Section 1320a-7b(b)(3)(A) and 42 C.F.R. Section 1001.952(h). Customer has an obligation to accurately record and may have an obligation to report all such reductions in purchase price to the Department of Health and Human Services ("DHHS") or other federal agency, state agencies, or other payers, as applicable. Customer acknowledges that this section is sufficient to advise Customer of its obligations under applicable federal and state laws and regulations.

**13. SOFTWARE OWNERSHIP AND LICENSING.** With respect to products provided by KARL STORZ and/or its affiliated/related entities (collectively, "KARL STORZ") and containing software components, Customer is granted a non-exclusive, limited, non-transferable license (the "License") to use the programmed logic, computer programs and/or software, including software developed by or on behalf of KARL STORZ ("KARL STORZ Software") and/or software ("Third Party Software") developed by or on behalf of third parties (who are considered third party beneficiaries of this Section) embedded in, or for use in conjunction with, such products, internally, but only in the form in which delivered to Customer and for the sole purpose of operating in accordance with KARL STORZ' written instructions for the products provided to Customer (and for no other product or purpose). ("KARL STORZ Software" and "Third Party Software" are referred to collectively as "Software"). The Software, and all modifications, enhancements and upgrades thereto, will, at all times, remain the property of KARL STORZ or the applicable third party. Customer may not duplicate, copy, reverse-engineer, de-compile, or disassemble the Software or in any way modify the Software. Customer has no right to, and may not, create derivatives of the Software, and Customer may not attempt to copy, create or re-create the source code of the Software. Any and all such modifications or enhancements to the Software by Customer will immediately become the sole property of KARL STORZ. Customer hereby acknowledges and agrees that (a) the purchase, lease or other acquisition of products does not constitute a transfer of the Software, (b) the Software is the property of KARL STORZ or the applicable third party, (c) Customer neither owns nor acquires any interest in any copyright, patent or other intellectual property right in or to the Software as a result of such purchase, lease or other acquisition of products, (d) KARL STORZ, or the applicable third party, retains and owns all right, title, and interest in and to the Software and the ownership rights therein, at all times, regardless of the form or media in or on which the original or other copies of the Software may exist, and (e) by using the products, Customer is subject to, and is bound by, the terms of any separate third-party license agreement relating to the Third Party Software. In the event of a failure of Customer or its agents, employees or representatives, to comply with any terms and conditions of the License herein granted, the License will, without any further action by KARL STORZ or any other party, immediately end and terminate.

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KARL STORZ GmbH & Co. KG is the proprietor and/or licensee  
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**US 5951570**

27630003-1  
27630038  
27634031  
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27040 EB  
27054 E  
27033 E

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27050WF  
27050WG

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26003BA  
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27295AA  
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EA, FA, FIA

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27630020-1  
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**US 5569026**

20330320-1

**US 6251108**

27050 VG, VF, RG, RK, RF, RM

**US 5928136**

11272 C, CU, CI, CIU, VP, VPU,  
VN, VPI, VPIU, VNI, VNIU  
11278 A, AU, AA, AAU, AC,  
ACU, AI, AIU  
27050 SG, SF, BG, BF

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26330320-1





# HOPKINS® TELESCOPES FOR ADULTS

HOPKINS® TELESCOPES,  
diameter 4 mm ..... 2-3

HOPKINS® TELESCOPES,  
PHOTODYNAMIC DIAGNOSIS (PDD),  
diameter 4 mm ..... 4

HOPKINS® TELESCOPES, WITH  
INTEGRATED GREENLIGHT FILTER,  
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# HOPKINS® Telescopes

Now with New Design

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

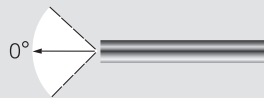
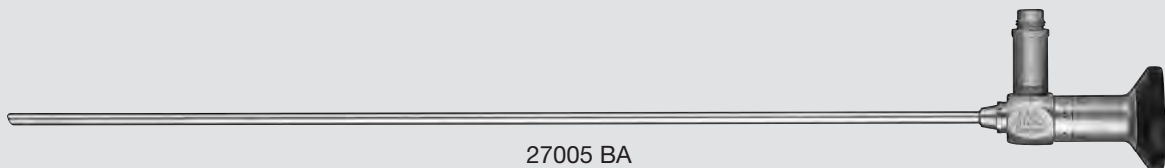
The customary special features of the HOPKINS® telescopes will be maintained:

- 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 brilliant viewing
- Light cable coding on the telescope cube enables easier identification of the light cable according to the telescope size



Diameter 4 mm, length 30 cm

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



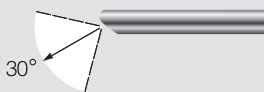
27005 AA

**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



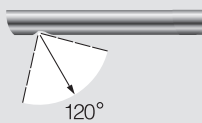
27005 BA

**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



27005 EA

**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



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.

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

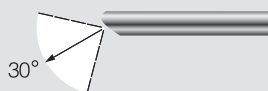
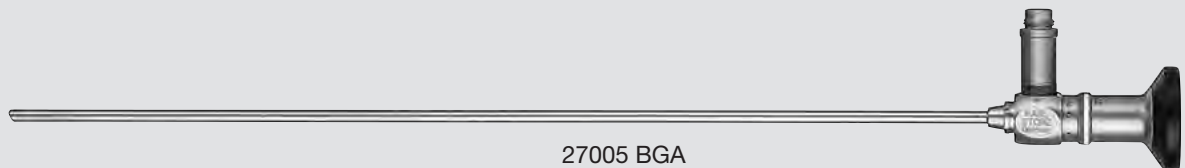
# HOPKINS® Telescopes

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



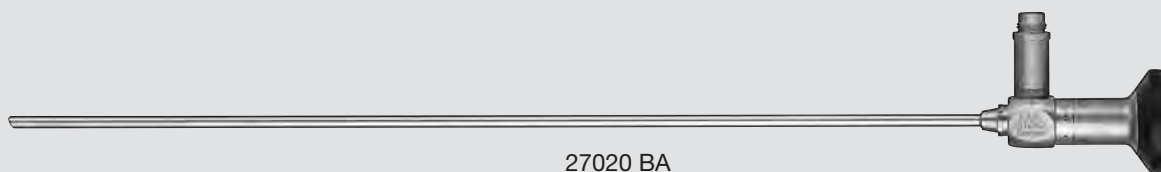
27005 BGA

**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 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

Diameter 2.9 mm, length 30 cm



27020 BA



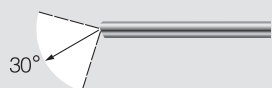
27020 AA

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



27020 FA

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



27020 BA

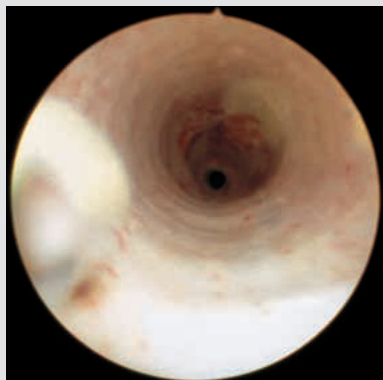
**HOPKINS® Forward-Oblique Telescope 30°**, diameter 2.9 mm, length 30 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

**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



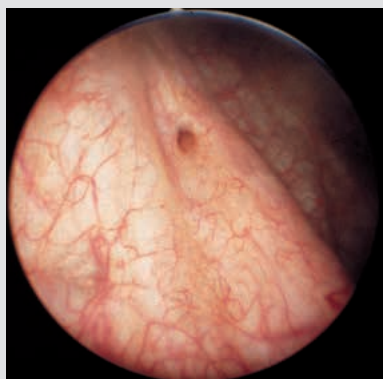
*Bulbar stenosis*



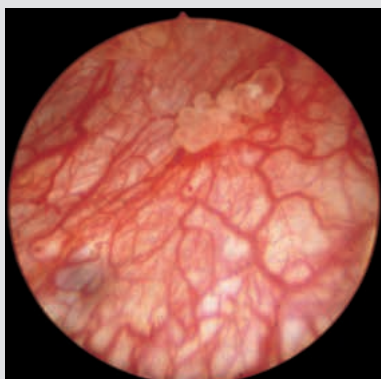
*Bulbar stenosis with urethrotome knife visible*



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



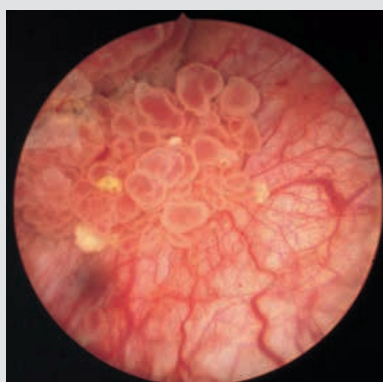
*Right ostium during urine ejection*



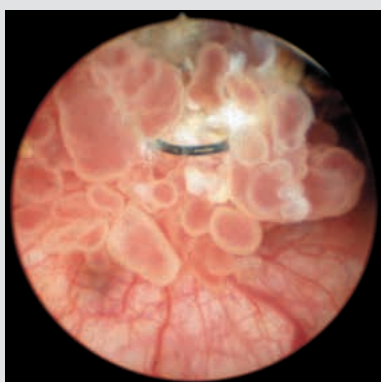
*Small papillary bladder tumor*



*Bladder mucosa, papillary bladder tumor*



*Bladder mucosa, papillary bladder tumor*



*Papillary bladder tumor partially resected; electrode loop*



*Papillary bladder tumor partially resected; electrode loop*

2-922

*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

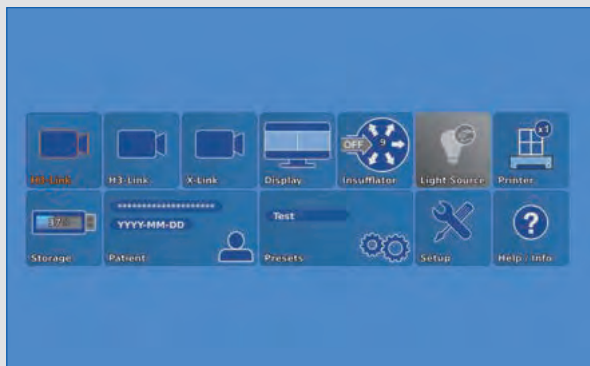
- **Dashboard: Overview with intuitive user guidance**
- **Live menu: User-friendly and customizable menu bar**
- **Intelligent icons: The graphic representation changes as soon as settings are modified in the connected units**
- **Automatic light source control**
- **Side-by-side view: Parallel display 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



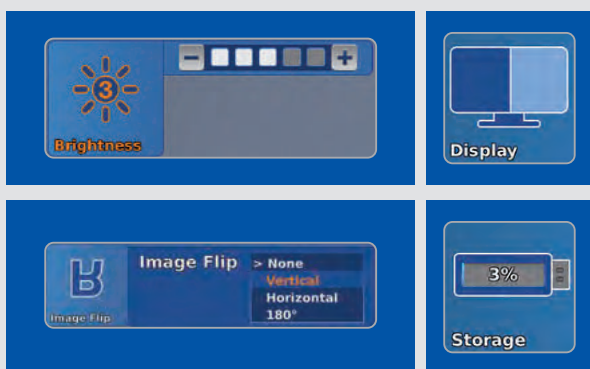
IMAGE1 S camera heads



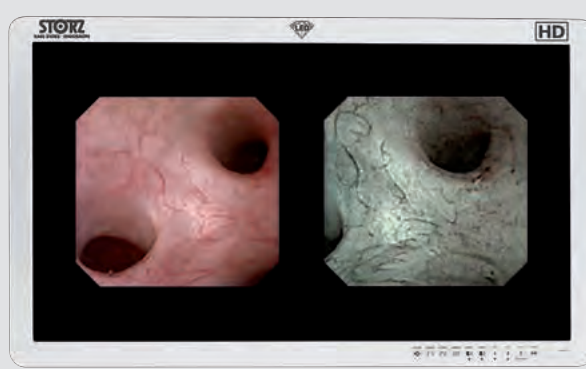
Dashboard



Live menu



Intelligent icons



Renal collecting system in side-by-side view



# IMAGE1 S in Urology <sup>NEW</sup>

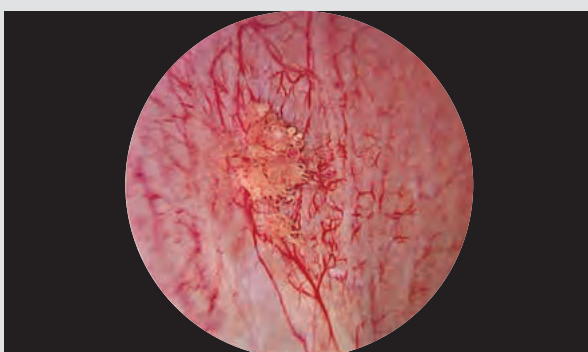
Lower Urinary Tract

**IMAGE1 S**



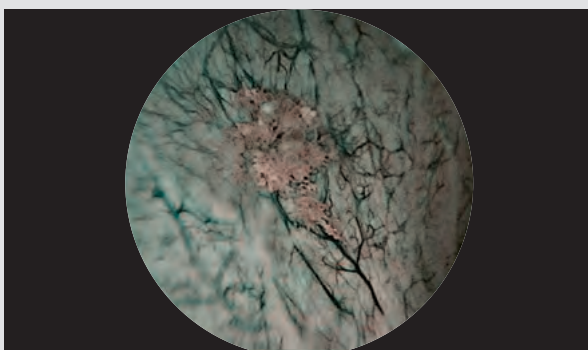
### Brilliant Imaging in FULL HD

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 green-blue 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





# CYSTOSCOPE-URETHROSCOPES FOR ADULTS AND ADOLESCENTS

<b>CYSTOSCOPE-URETHROSCOPES, FLEXIBLE</b> . . . . .	12-28
Video Cysto-Urethroscopes . . . . .	13-17
Mobile Video Cystoscopy . . . . .	18-23
Cysto-Urethro-Fiberscopes . . . . .	24-26
Plastic Containers . . . . .	27-28

<b>CYSTOSCOPE-URETHROSCOPES, RIGID</b> . . . . .	29-46
Cystoscope-Urethroscope Sheaths . . . . .	29
Accessories for Cysto-Urethroscopes . . . . .	30-36
Visual Obturators, Cystoscope Adaptors . . . . .	37
Universal Cysto-Urethroscopes . . . . .	38
Cystoscopes for Adolescents . . . . .	39
Semirigid and Flexible Instruments . . . . .	40-42
Miscellaneous Instruments . . . . .	43-45

## Intuitive Deflection Mechanism

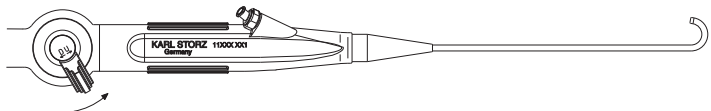
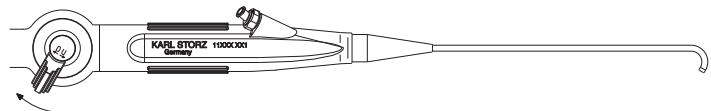
You wouldn't force someone who is left-handed to write with his right hand. Yet many flexible endoscopes impose exactly this type of limitation by forcing their operators to use counter-intuitive deflection mechanisms.

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-

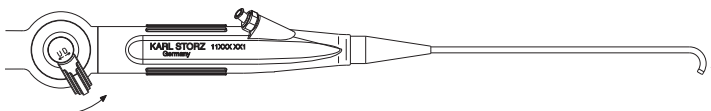
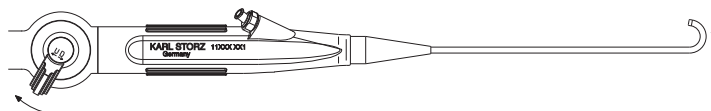
positive mechanism: a downward movement of the lever mechanism now causes a downward movement of the endoscope tip.

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*

# Video Cysto-Urethroscopes

with CCD chip technology



## Excellent Image Quality

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



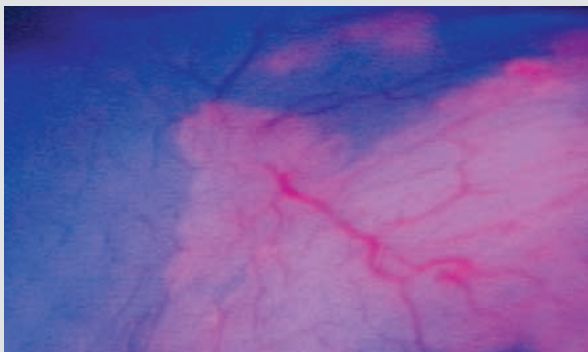
## Optimal Patient Comfort

- 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

# Video Cysto-Urethroscopes

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



# Video Cysto-Urethroscopes

with CCD chip technology

16 Fr.

Order no.	Video Cysto-Urethroscopes	Deflection of distal tip	Direction of view	Angle of view	Working length	Working channel inner diameter	Sheath size
<b>Standard white light version</b>							
11272 VP <b>PAL</b>	with positive deflection		0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VN <b>NTSC</b>	with positive deflection		0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNU <b>NTSC</b>	with contrapositive deflection		0°	120°	37 cm	6.5 Fr.	16 Fr.
<b>Expanded PDD version</b>							
11272 VPI <b>PAL</b>	for Photodynamic Diagnosis (PDD) and with positive deflection		0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNI <b>NTSC</b>	for Photodynamic Diagnosis (PDD) and with positive deflection		0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNIU <b>NTSC</b>	for Photodynamic Diagnosis (PDD) and with contrapositive deflection		0°	120°	37 cm	6.5 Fr.	16 Fr.

**Following accessories are included in delivery:**



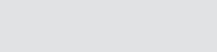
27677 VC

**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

202130 70

**Video Connecting Cable**

**Optional accessories:**



27023 VK

**Stone Basket**, 5 Fr., 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



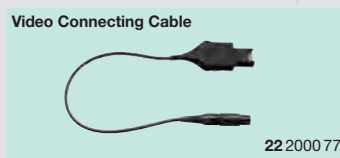
27001 RA

**Cleaning Adaptor**

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

# Video Cysto-Urethroscopes

Overview



**\*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



**Cold Light Fountain**



**D-LIGHT C/AF SCB** 20 1336 01-133

**Video Cysto-Urethroscopes, flexible,  
for Photodynamic Diagnosis (PDD)**



11272 VPI  
11272 VNI  
11272 VNIU

**IMAGE1 S Video Endoscope Adaptor**



TC 001

**Video Connecting Cable**



202130 70

**IMAGE1 S Camera System**



TC 200EN  
TC 301

**TELECAM SL II FI Camera Control Unit**



202130 11-1

**Monitors**



19" 9619 NB  
26" 9626 NB/NB-2

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

# 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-urethro-fiberscopes, 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



# 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

# Mobile Video Cystoscopy



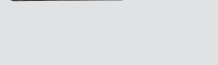
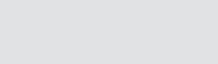


with CMOS chip technology








16 Fr.

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

**Following accessories are included in delivery:**

-  27677 FV **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:**

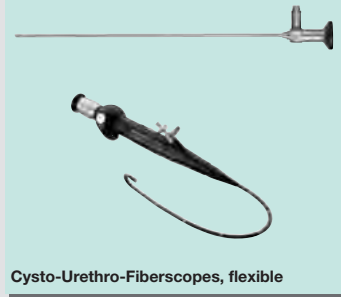
-  27023 VK **Stone Basket**, 5 Fr., length 60 cm
-  27723 T **Coagulation Electrode**, unipolar, 4 Fr., length 73 cm
-  27550 N **Seal**, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
-  27001 RA **Cleaning Adaptor**
-  8403 ZX **C-MAC® Monitor for CMOS Endoscopes**, screen 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

# CMOS Office Platform

Overview

**C-VIEW**

Rigid Endoscopes



CMOS Video Cysto-Urethroscopes C-VIEW™, flexible



Cold Light Fountains



XENON 175 SCB	20 1321 01-1
Power LED 175 SCB	20 1614 01-1
LED NOVA 150	20 1612 01
HALOGEN 250 twin	20 1133 01

Fiber Optic Light Cables



495 NA

C-CAM®



20 2901 32

C-HUB® II



20 2903 20

C-MAC® Monitor for CMOS Endoscopes



8403 ZX

PC, Laptop, etc.,  
via USB



Monitors



19" 9619 NB

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

## C-HUB® II and C-CAM® <sup>NEW</sup>

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.





20 2903 20

**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

**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

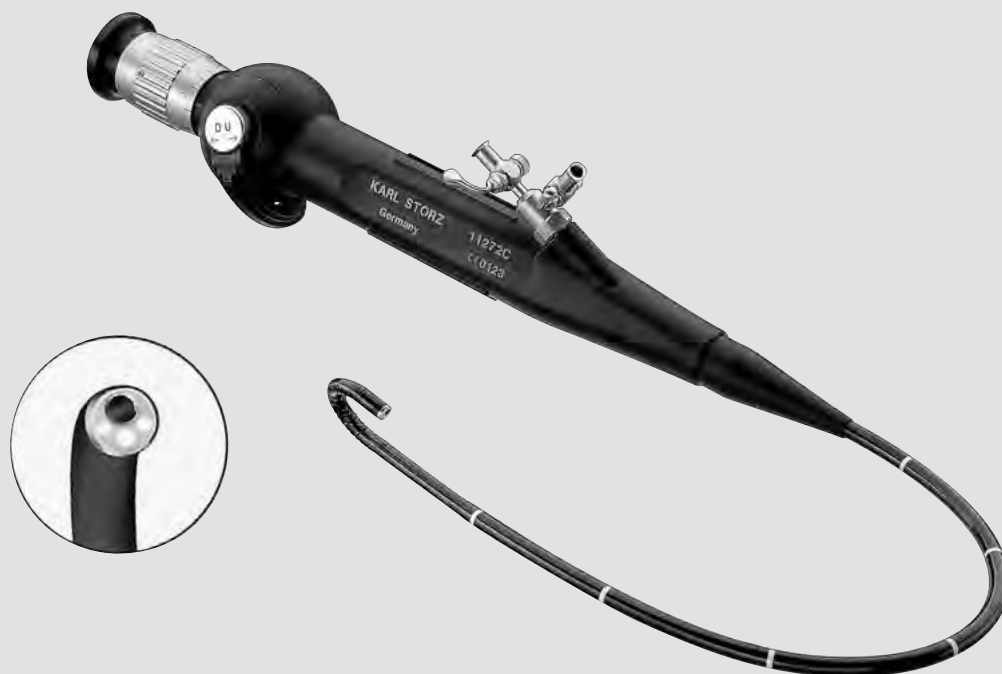
**8403 ZX C-MAC® Monitor for CMOS Endoscopes**, screen size 7" with 1280 x 800 pixel resolution, two camera inputs, a USB and a HDMI port, splash-proof according to IP54, suitable for wipe disinfection, shock-resistant ABS plastic housing, intelligent power management with rechargeable Li-Ion batteries

9-121

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

## 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 Sterrad®
- 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





11272 C



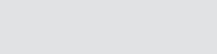




## Cysto-Urethro-Fiberscopes





15.5 Fr.

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

### Following accessories are included in delivery:

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

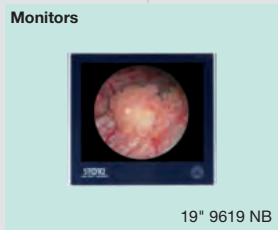
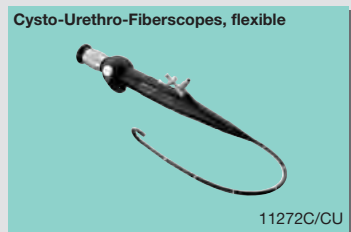
### Optional accessories:

	27023 VK	<b>Stone Basket</b> , 5 Fr., length 60 cm
	27723 T	<b>Coagulation Electrode</b> , unipolar, 4 Fr., length 73 cm
	27550 N	<b>Seal</b> , for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27001 RA	<b>Cleaning Adaptor</b>

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

# Cysto-Urethro-Fiberscopes

Overview



**\*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

# 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

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



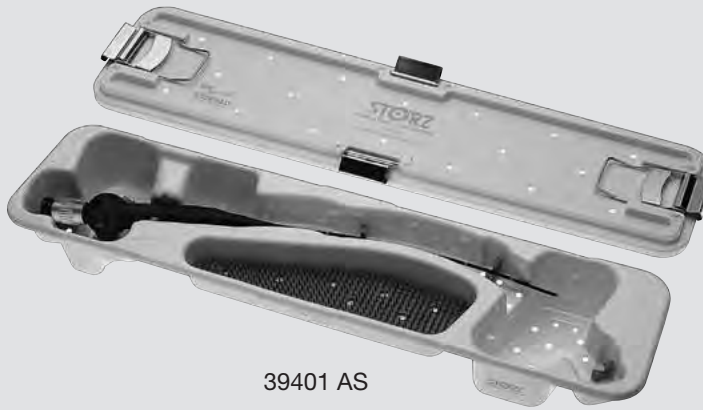
39406 AS

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

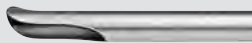
39401 AS **Plastic Container for Sterilization**, specially suited for gas and hydrogen peroxide (Sterrad®) sterilization and storage, perforated, with lid, for use with flexible endoscopes up to max. 39 cm working length, external dimensions (w x d x h): 690 x 170 x 92 mm

# 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
- 27026 B **Cystoscope-Urethroscope Sheath**, 22 Fr.,  
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

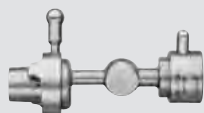


27026 BB

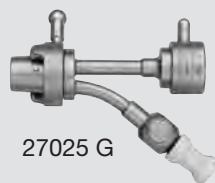


- 27026 AB **Cystoscope-Urethroscope Sheath**, 25 Fr.,  
with slot and Obturator 27026 AO,  
with 2 LUER-Lock cones,  
color code: white
- 27026 BB **Cystoscope-Urethroscope Sheath**, 22 Fr.,  
with slot and Obturator 27026 BO,  
with 2 LUER-Lock cones,  
color code: blue
- 27026 CB **Cystoscope-Urethroscope 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

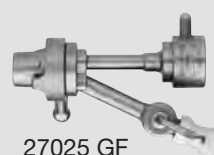
# Telescope Bridges, Catheter Deflecting Mechanisms



27025 F

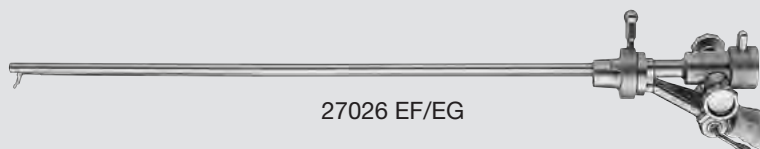


27025 G

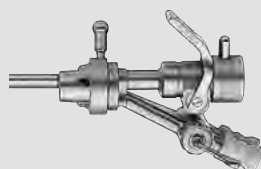


27025 GF

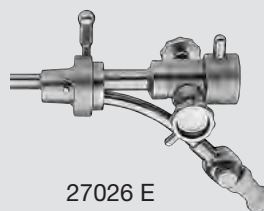
- 27025 F **Telescope Bridge**  
 27025 G **Same**, with 1 lockable channel  
 27025 GF **Same**, with 2 lockable channels



27026 EF/EG



27026 EC



27026 E

- 27026 EF **Catheter Deflecting Mechanism**, with 2 lockable channels, with ratchet, Rod 27021 O is included in delivery  
 27026 EG **Same**, without ratchet  
 27026 EC **Same**, with quick control  
 27026 E **Catheter Deflecting Mechanism**, with ALBARRAN lever, with 1 lockable channel, with ratchet, Rod 27021 O is included in delivery

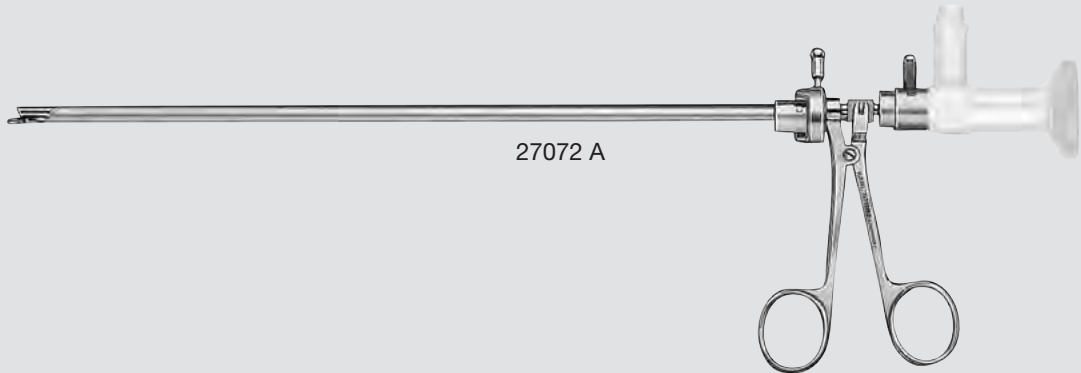
For exploration with Sheath 27026 U the Telescope Bridge 27025 G is used instead of Catheter Deflecting Mechanisms 27026 E/EC/EF/EG.

Sheaths with Obturator	Working Channel with Catheter Deflecting Mechanism		Working Channel with Telescope Bridge		Color Code
	27026 E	27026 EC 27026 EF 27026 EG	27025 G	27025 GF	
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

# Optical Forceps and Scissors

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.



27072 A



27072 A

**Optical Biopsy Forceps,**  
double action jaws



27072 DU

**Optical Biopsy Forceps,** through-cutting,  
double action jaws



27072 F

**Optical Grasping Forceps,** double action jaws



27072 S

**Optical Scissors,** double action jaws



27093 GN

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



27094 BY

**Adaptor,** for use with resectoscope sheaths and optical forceps



27093 SC

**Adaptor,** for use with optical forceps in outer sheaths of Resectoscope Sheaths 27050 SC/SD

2-92e

**Adaptors** see table on page 32

# Optical Forceps and Scissors

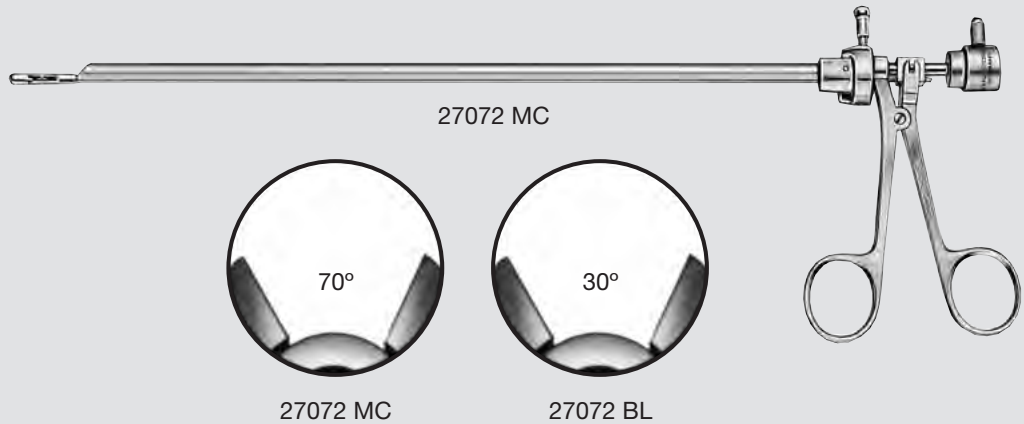
## Compatibility Matrix

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



27072 MC

MARBERGER sen. **Optical Short Jaw Biopsy Forceps**, double action jaws



27072 BL

MARBERGER sen. **Optical Short Jaw Biopsy Forceps**, double action jaws



**NEW**

27072 BSA

**Optical Biopsy Forceps**, extra large jaws, double action jaws



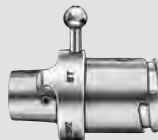
27072 FS

**Optical Grasping Forceps**, double action jaws, for stent removal



27072 HF

**Optical Biopsy Forceps**, through-cutting, double action jaws, for unipolar coagulation



27094 BY

**Adaptor**, for use with resectoscope sheaths and optical forceps

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

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:

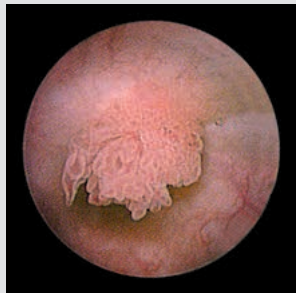
- easy and good operation
- wide field of view, thus allowing sufficient inspection of the mucosa of the bladder
- easily visible jaws, thus allowing precise positioning during the biopsy
- the tips of the forceps must have excellent cutting properties to prevent morcellization artifacts
- when extending 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 straight-forward design make these biopsy forceps particularly durable.

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

# Optical HF Biopsy Forceps

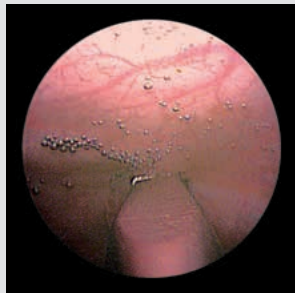
27072 HF



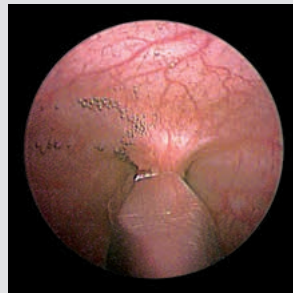
**Fig. 1:** Small papillary tumor on the posterior wall of the bladder



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



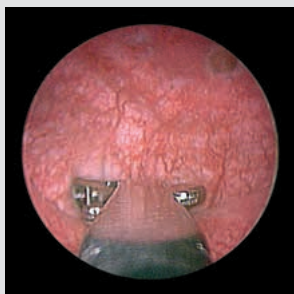
**Fig. 3:** The entire lesion is grasped with the biopsy forceps



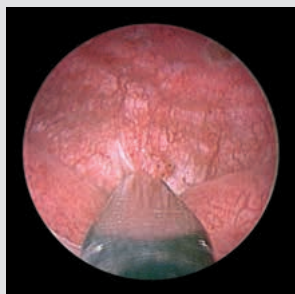
**Fig. 4:** The lesion is removed from the mucous membrane



**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



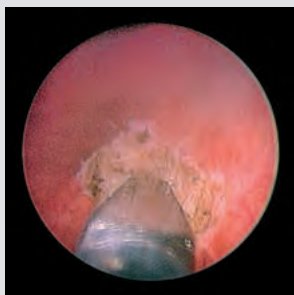
**Fig. 7:** Closed biopsy forceps



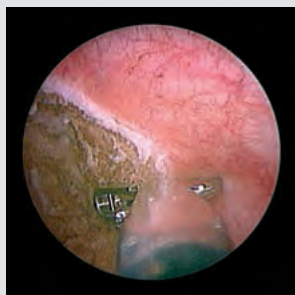
**Fig. 8:** At the end, precise coagulation is carried out with the biopsy forceps



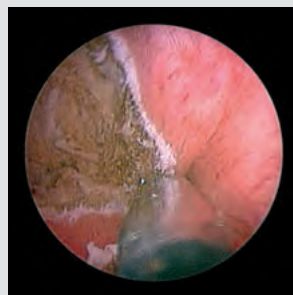
**Fig. 9:** On conclusion of the TURB, a biopsy of the base of the tumor is performed



**Fig. 10:** Completed biopsy of the base of the tumor



**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

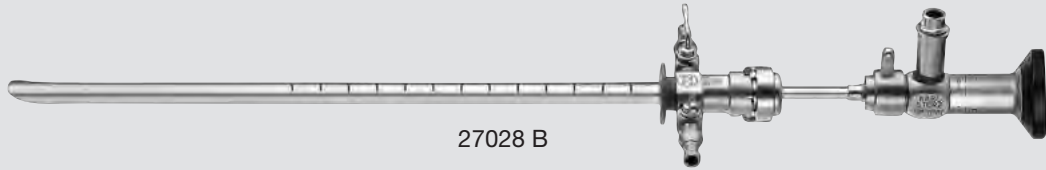
## Compatibility Matrix

Optical Forceps, Scissors	Recommended Telescopes	Recommended Cystoscope-Urethroscope Sheaths (without adaptor)	Recommended Resectoscope Sheaths	Adaptor for use with Resectoscope Sheaths
<b>27072 MC</b>	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
<b>27072 BL</b>	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
<b>27072 BSA</b>	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
<b>27072 FS</b>	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
<b>27072 HF</b>	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 B



27028 A

**Visual Obturator**, for 25 Fr. Cystoscope-Urethroscope-Sheaths 27026 A/AB, color code: white

27028 B

**Visual Obturator**, for 22 Fr. Cystoscope-Urethroscope-Sheaths 27026 B/BB, color code: blue

27028 C

**Visual Obturator**, for 20 Fr. Cystoscope-Urethroscope-Sheaths 27026 C/CB, color code: red

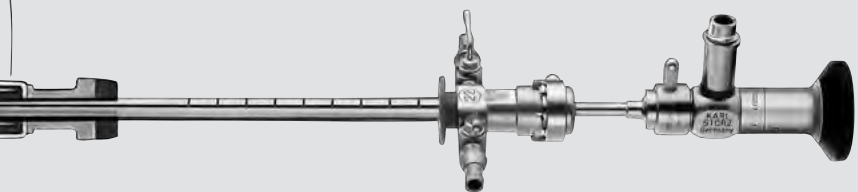
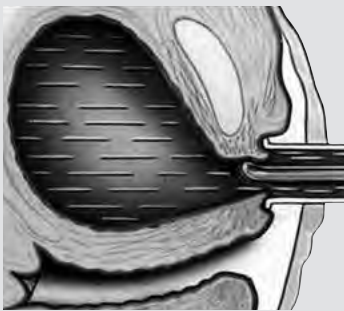
27028 D

**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 col-

lapse of the urethra. This also permits a full length urethroscopy in the female urethra.



27026 X

27026 X

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

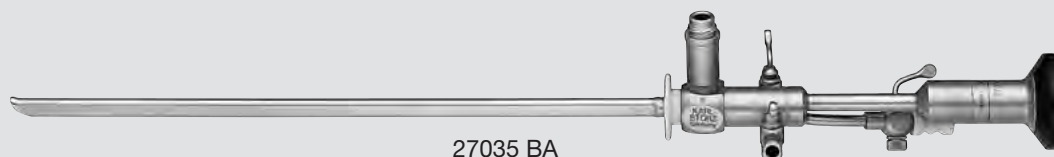
# Universal Cysto-Urethroscope

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

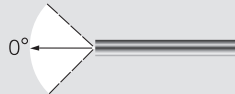
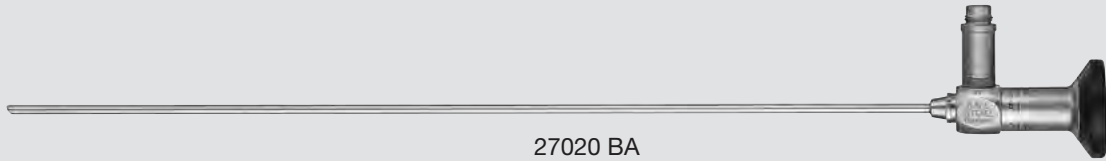
**Universal Cysto-Urethroscope**, with HOPKINS® forward-oblique telescope 30°, enlarged view, **autoclavable**, 17 Fr., fiber optic light transmission incorporated, 7 Fr. working channel and 2 LUER-Lock cones, color code: red-yellow

**Semirigid and Flexible Instruments** see pages 40-42

# HOPKINS® Telescopes and Cystoscope-Urethroscope Sheaths

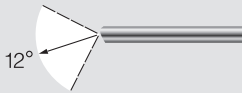
for Cystoscopy in Adolescents

Diameter 2.9 mm, length 30 cm



27020 AA

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



27020 FA

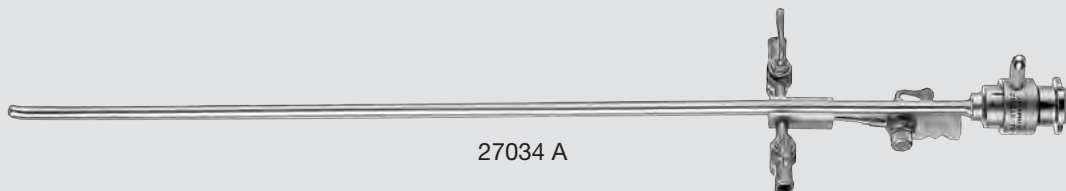
**HOPKINS® Telescope 12°**, enlarged view, diameter 2.9 mm, length 30 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black



27020 BA

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

14 Fr., working length 22 cm,  
for use with HOPKINS® Telescopes 27020 AA/FA/BA



27034 A

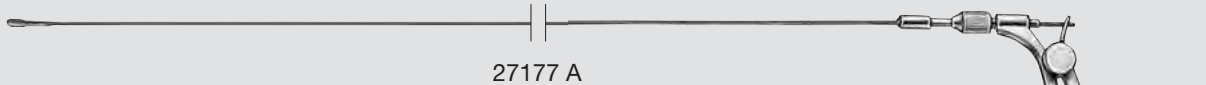
**Cystoscope-Urethroscope Sheath**, 14 Fr., working length 22 cm, with working channel 5 Fr., with Obturator 27034 AO and 2 LUER-Lock cones, color code: blue

# Flexible Instruments

Forceps, Injection Cannulas, Stone Baskets

5 – 9 Fr.,

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



27177 A



27175 A

**Forceps for Foreign Body Removal**, flexible, double action jaws, 7 Fr., length 40 cm

27175 B

**Same**, 9 Fr.



27177 A

**Biopsy Forceps**, flexible, double action jaws, 7 Fr., length 40 cm

27177 B

**Same**, 9 Fr.



27178 A

**Scissors**, flexible, single action jaws, 7 Fr., length 40 cm

27178 B

**Same**, 9 Fr.



27182 A

27182 A

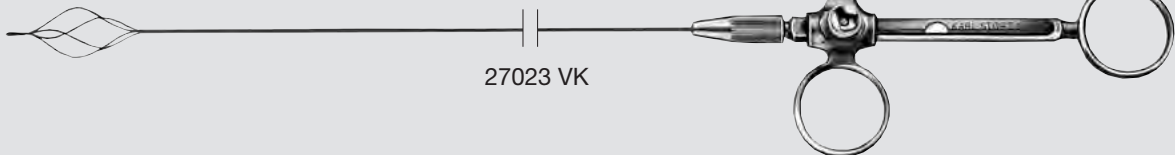
**Injection Cannula**, flexible, 6 Fr., length 50 cm



27186 A

27186 A

**Basket**, flexible, with 6 wires, 5.5 Fr., sterile, for single use



27023 VK

27023 VK

**Stone Basket**, 5 Fr., length 60 cm including:  
**3-Ring Handle**  
3x **Basket**  
3x **Coil**

Components/Spare Parts see chapter 16



# Semirigid and Flexible Instruments

Forceps, Hook Scissors, Scissors

7 Fr., length 40 cm,  
for use with Universal Cysto-Urethroscope 27035 BA



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

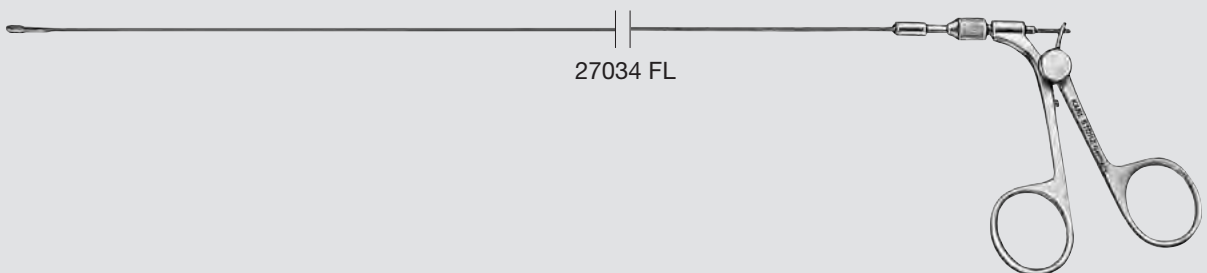
**Forceps**, semirigid, through-cutting,  
single action jaws, 7 Fr., length 40 cm



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



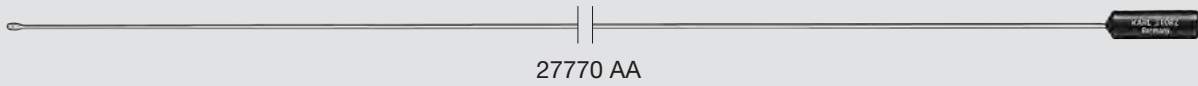
27034 S


**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	<b>Button Electrode</b> , unipolar, 3 Fr., length 53 cm
	27770 A	<b>Same</b> , 4 Fr.
	27770 B	<b>Same</b> , 5 Fr.
	27770 C	<b>Same</b> , 6 Fr.
	27770 D	<b>Same</b> , 7 Fr.
	27770 E	<b>Same</b> , 8 Fr.
	27770 F	<b>Same</b> , 10 Fr.

	27772 AA	<b>Needle Electrode</b> , unipolar, 3 Fr., length 53 cm
	27772 A	<b>Same</b> , 5 Fr.
	27772 B	<b>Same</b> , 7 Fr.

	27778 A	<b>Loop Electrode</b> , unipolar, 7 Fr., length 53 cm
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## Unipolar High Frequency Cords

KARL STORZ High Frequency  
Instrument Surgical Units

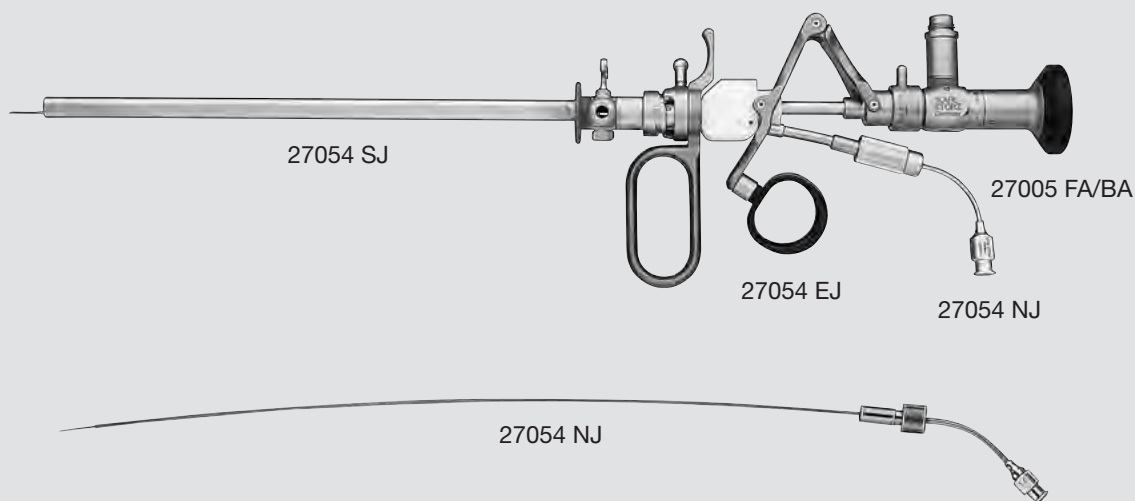
	26002 M	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	<b>Unipolar High Frequency Cord</b> , with 5 mm 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	<b>Unipolar High Frequency Cord</b> , 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 **L** to the part number, e. g. 26002 ML.

# 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 | <b>Working Element</b> , with channel for use with Injection Needle 27054 NJ   |
| 27054 SJ | <b>Operating Sheath</b> , 20 Fr., with Obturator 27054 JO and 2 LUER-Lock cones  |
| 27054 NJ | <b>Injection Needle</b> , semirigid, 4 Fr., distal end 2 Fr., with rotatable LUER-Lock connection, for use with Working Element 27054 EJ (single use recommended)              |
| 27005 FA | <b>HOPKINS® Telescope 12°</b> , enlarged view, diameter 4 mm, length 30 cm, <b>autoclavable</b> , fiber optic light transmission incorporated, color code: black               |
| 27005 BA | <b>HOPKINS® Forward-Oblique Telescope 30°</b> , enlarged view, diameter 4 mm, length 30 cm, <b>autoclavable</b> , fiber optic light transmission incorporated, color code: red |

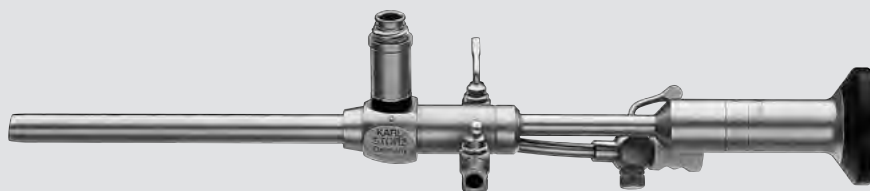
# Compact Cysto-Urethroscope

for transurethral injection

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

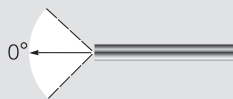
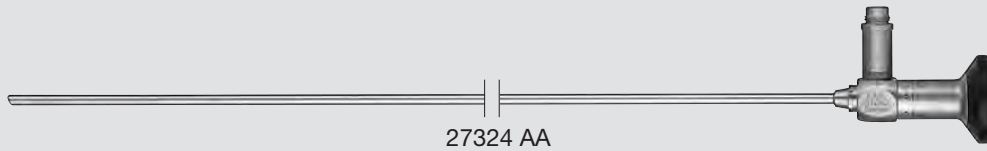
27035 FA

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

**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 <sup>NEW</sup> UroLift® System

With the UroLift® system from the company Neotract®, KARL STORZ offers special instrumentation for the treatment of Benign Prostatic Hyperplasia (BPH).



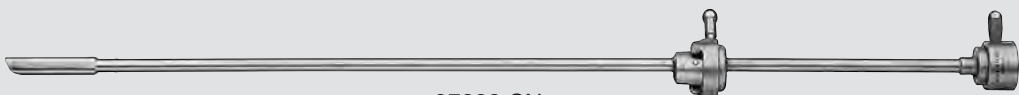
27324 AA

**HOPKINS® Straight Forward Telescope 0°**, diameter 2.9 mm, length 36 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



27026 C

27026 C **Cystoscope-Urethroscope Sheath, 20 Fr.**, with Obturator 27026 CO and 2 LUER-Lock cones, color code: red



27028 CN

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

## STANDARD RESECTOSCOPES, 24 – 28 Fr. . . . . 48-66

Unipolar (Working Elements, Electrodes) . . .	.51-55
Bipolar (Working Elements, Electrodes) . . .	.56-60
Resectoscope Sheaths, Obturators, Visual Obturators . . . . .	.61-66

## RESECTOSCOPES, EXTRA LONG, 26 Fr. . . . . 67-69

Telescope, Working Elements . . . . .	.67-68
Resectoscope Sheaths, Obturators . . . . .	.69

## RESECTOSCOPES, SLENDER, 22 Fr. . . . . 70-72

Unipolar (Working Elements, Electrodes) . . . . .	.70
Bipolar (Working Elements, Electrodes) . . . . .	.71
Resectoscope Sheaths, Obturators . . . . .	.72

## ACCESSORIES . . . . . 73-74

# 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

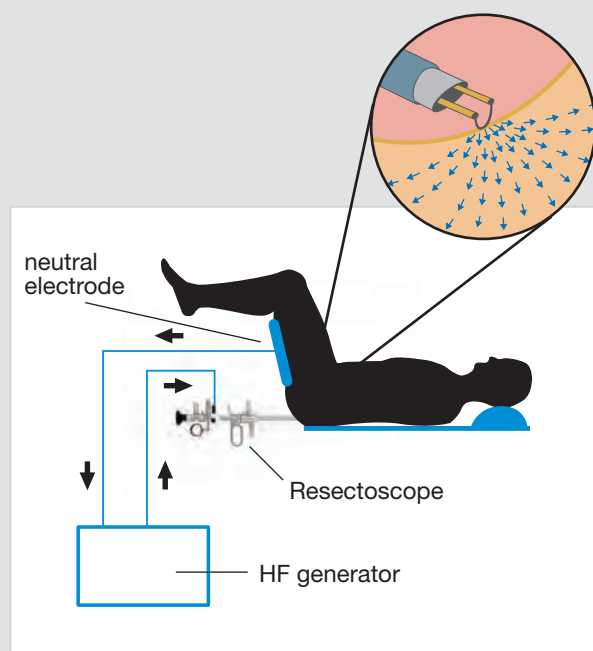
between the conducting electrode and the irrigation fluid as opposed to the tissue. This again would cause an uncontrolled flow of current to pass through the patient's body via the irrigation fluid during energy transfer.

#### 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.





# 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 electro-surgery, a neutral electrode is positioned close to the conducting electrode.

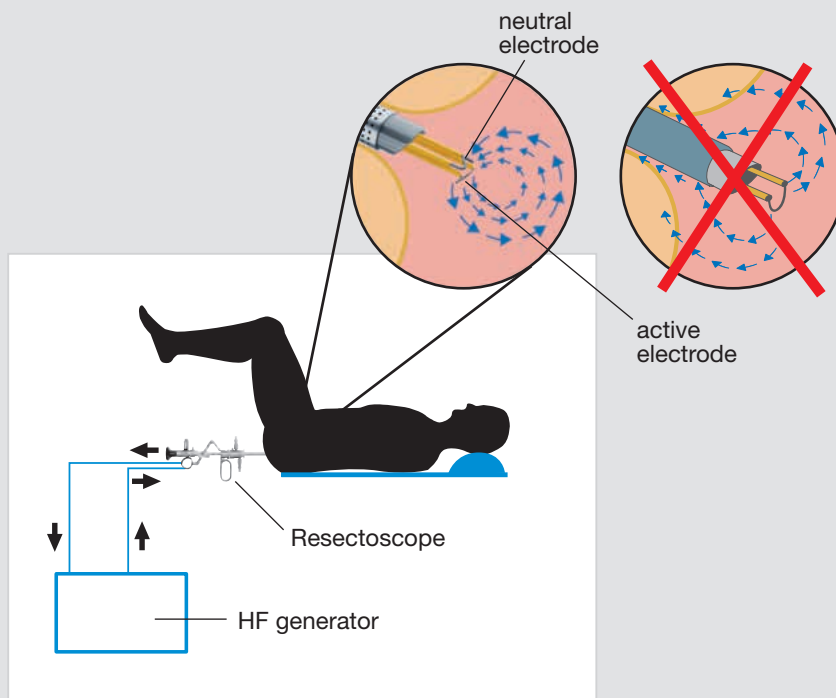
The irrigation fluid, and no longer the tissue, is the medium used to return the current to the neutral electrode. As the irrigation fluid (in the case of bipolar TUR, sodium chloride, NaCl 0.9%) shows far less resistance than tissue, the current would normally flow directly from the active towards the 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.

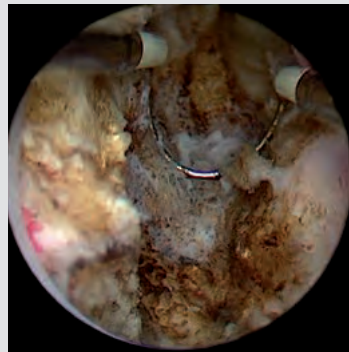
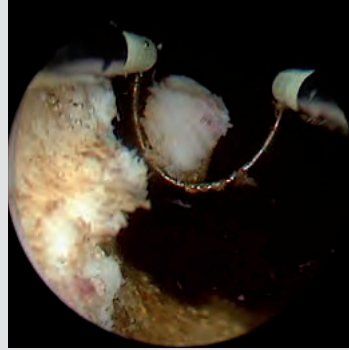
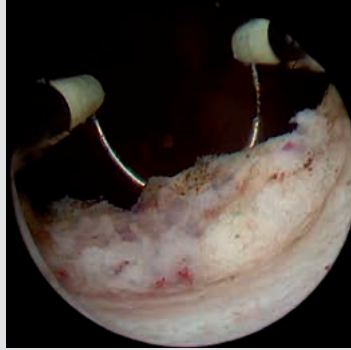


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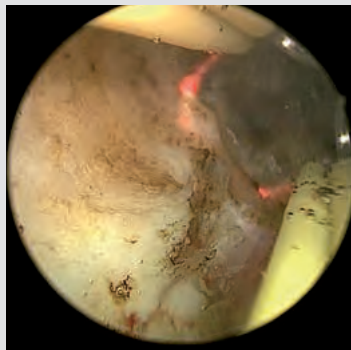
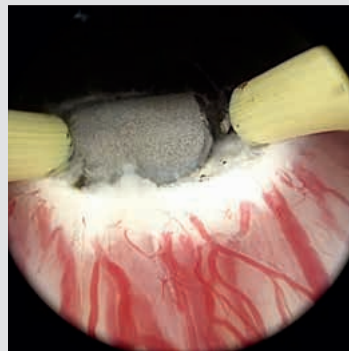
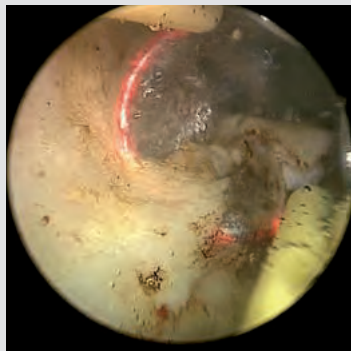
# Transurethral Resection (TUR)

Unipolar and Bipolar TUR

## Unipolar TUR



## Bipolar TUR



# Electrotomes

for One-Stem Electrodes with Stabilizers

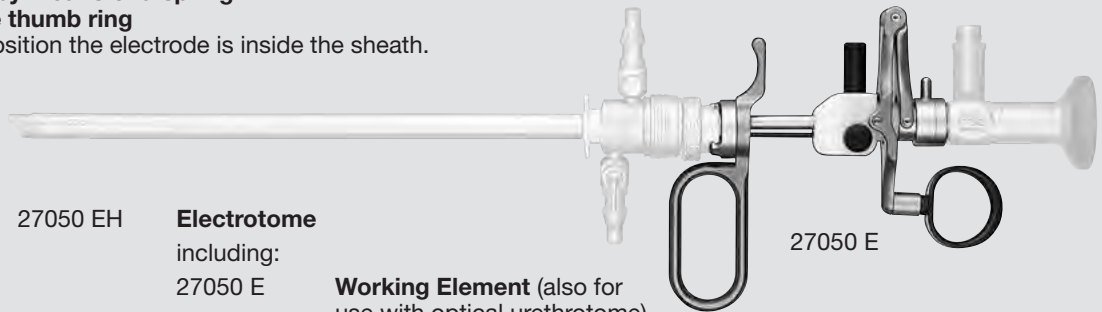


For use with HOPKINS® Forward-Oblique Telescopes 27005 BA/BIA/FA/FIA

## Cutting by means of a spring

### Movable thumb ring

In rest position the electrode is inside the sheath.



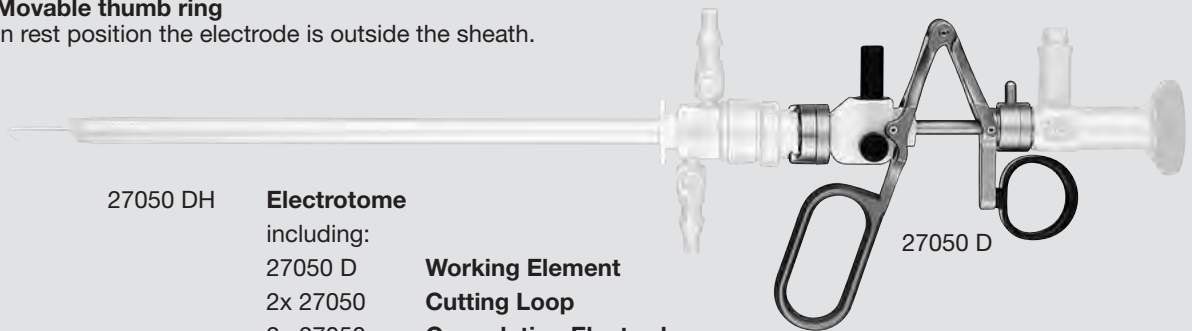
- 27050 EH    **Electrotome**  
including:  
27050 E  
  
2x 27050  
2x 27050  
2x 277  
280

- Working Element** (also for use with optical urethrotome)  
**Cutting Loop**  
**Coagulation Electrode**  
**High Frequency Cord**  
**Protection Tube**

## Cutting by means of a finger grip

### Movable thumb ring

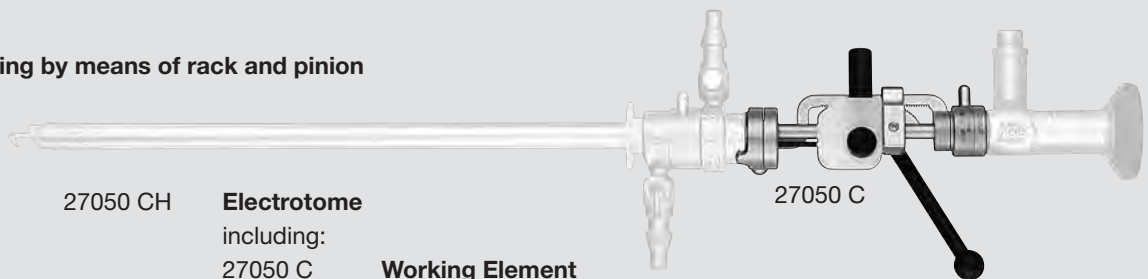
In rest position the electrode is outside the sheath.



- 27050 DH    **Electrotome**  
including:  
27050 D  
2x 27050  
2x 27050  
2x 277  
280

- Working Element**  
**Cutting Loop**  
**Coagulation Electrode**  
**High Frequency Cord**  
**Protection Tube**

## Cutting by means of rack and pinion



- 27050 CH    **Electrotome**  
including:  
27050 C  
2x 27050  
2x 27050  
2x 277  
280

- Working Element**  
**Cutting Loop**  
**Coagulation Electrode**  
**High Frequency Cord**  
**Protection Tube**

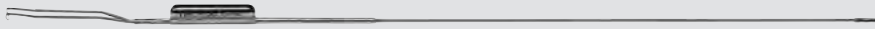
**High Frequency Cords** see page 73

**High Frequency Surgical Units** see chapter 15, UNITS

# Electrodes



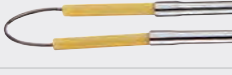
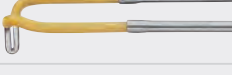
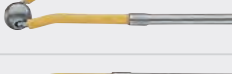
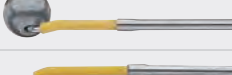

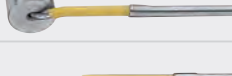
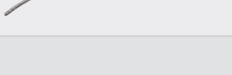
One-Stem Electrodes with Stabilizers, for Working Elements 27050 C/D/E

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	<b>Cutting Loop</b> , angled
	27050 GS	–	<b>THOMAS Cutting Loop</b> , angled, small
	27050 J	–	<b>Cutting Loop</b> , longitudinal
	27050 L	27050 K	<b>Coagulation Electrode</b> , pointed
	27050 S	–	<b>Coagulation Electrode</b> , conical
	27050 N	27050 M	<b>Coagulation Electrode</b> , ball-shaped, diameter 3 mm
	27050 NK	27050 MK	<b>Coagulation Electrode</b> , ball-shaped, diameter 5 mm
	27050 NX	–	<b>Coagulation Electrode</b> , barrel-shaped, diameter 3 mm
	27050 NW	27050 MW	<b>Coagulation Electrode</b> , barrel-shaped, diameter 5 mm
	27050 GR	–	<b>LOZZI Needle Electrode</b>

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



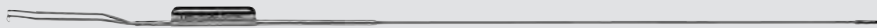
**High Frequency Cords** see page 73

**High Frequency Surgical Units** see chapter 15, UNITS

# 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	<b>Cutting Loop</b> , diameter 0.8 mm
	27050 VG	<b>Spike Electrode</b> , diameter 5 mm
	27050 RG	<b>Roller Electrode</b> , diameter 5 mm
	27050 RK	<b>Roller Electrode</b> , diameter 3 mm
	27050 SG	<b>VaporCut® Electrode</b> , band width 1.2 mm
	27050 BG	<b>VaporCut® Electrode</b> , band width 0.6 mm
	27050 KG	<b>Roller Cutting Electrode</b> , single use recommended
	27050 WG	<b>VaporCut® Electrode</b>



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



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 resectoscope 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

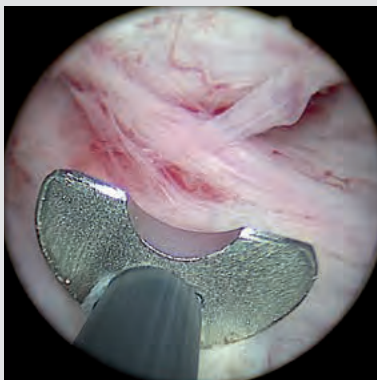


27050 CE

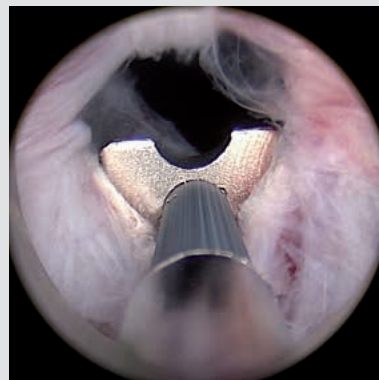


27050 CE

**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*

# Needle Electrode for En-bloc Resection of Papillary Bladder Tumors



The unipolar needle 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.

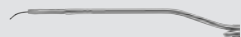
## Special Features:

- Enables en-bloc resection of papillary tumors
- En-bloc excision of papillary tumors 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

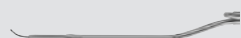


27050 TL



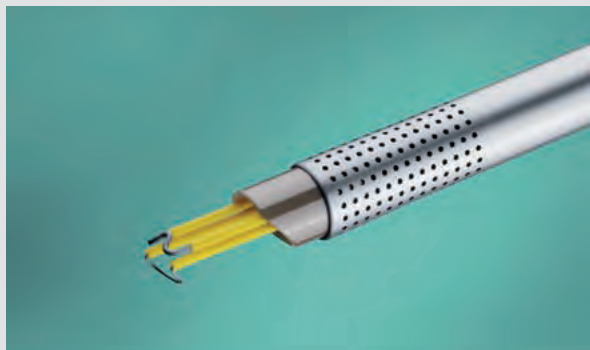
27050 TL

**Cutting Loop**, for bladder tumors, curved to left, 24/26 Fr., color code: yellow



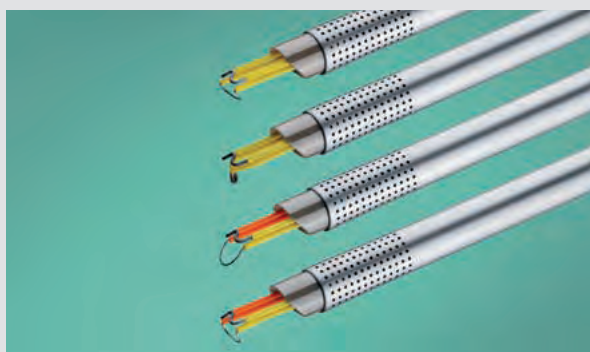
27050 TR

**Cutting Loop**, for bladder tumors, curved to right, 24/26 Fr., color code: yellow



#### New bipolar electrodes

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

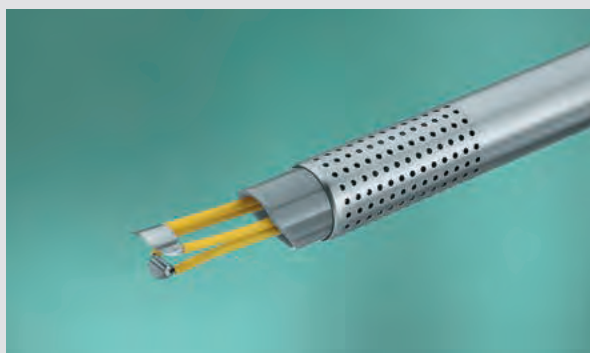


#### The right electrode for every indication

- 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**

including:

27040 EB

2x 27040

2x 27040

27176 LEB

280

**Working Element**

**Cutting Loop, bipolar**

**Coagulation Electrode, bipolar**

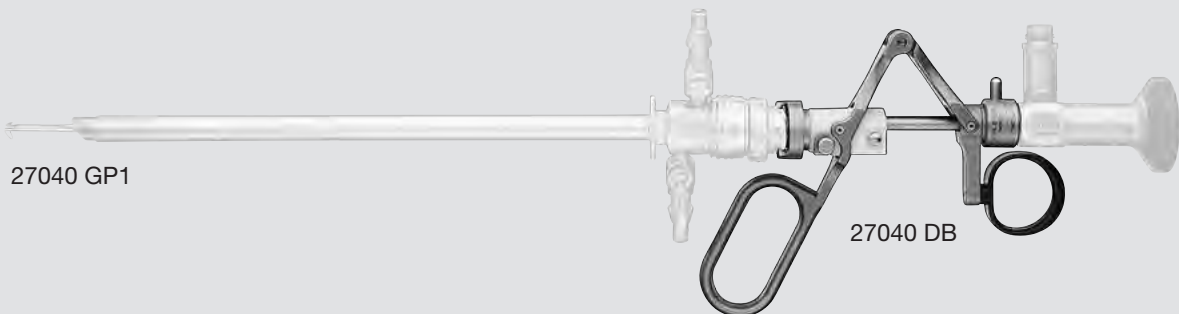
**High Frequency Cord**

**Protection Tube**

## Cutting by means of a finger grip

### Movable thumb ring

In rest position the electrode is outside the sheath.



27040 GP1

27040 DBH **Electrotome**

including:

27040 DB

2x 27040

2x 27040

27176 LEB

280

**Working Element**

**Cutting Loop, bipolar**

**Coagulation Electrode, bipolar**

**High Frequency Cord**

**Protection Tube**

**High Frequency Cords** see page 73

**High Frequency Surgical Units** see chapter 15, UNITS

# Electrodes <sup>NEW</sup>

Two-Stem Electrodes with Stabilizers, for Working Elements 27040 DB/EB








## For use with 24/26 Fr. Resectoscope Sheaths

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

Loops with 30 as the last digit of the order number indicate a wire diameter of 0.30 mm.



27040 GP1

Distal Tip	24/26 Fr.	Instrument Description	for use in the	
			Bladder	Prostate
<b>Cutting Loops, color code: yellow</b>				
	27040 GP1	<b>Cutting Loop, bipolar</b>	●	●
	27040 GD1	<b>Cutting Loop, bipolar, small</b>	●	●
	27040 BL1	<b>Coagulation Electrode, bipolar, pointed</b>	●	●
<b>Special Bladder Cutting Loops, color code: yellow/orange</b>				
	27040 GP130	<b>Cutting Loop, bipolar, diameter 0.30 mm</b>	●	-
	27040 JB1	<b>Cutting Loop, bipolar, longitudinal</b>	●	-
	27040 JB130	<b>Cutting Loop, bipolar, longitudinal, diameter 0.30 mm</b>	●	-
<b>Vaporization Electrode, color code: yellow</b>				
	27040 NB	<b>Vaporization Electrode HALF MOON®, bipolar, ball-shaped</b>	●	●



280

280

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

High Frequency Cords see page 73

High Frequency Surgical Units see chapter 15, UNITS

# Needle Electrode for En-bloc Excision of Papillary Bladder Tumors <sup>NEW</sup>



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

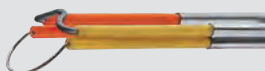


27040 JBE130



27040 JBE130

**Cutting Loop**, bipolar, rectangular, longitudinal, diameter 0.30 mm, color code: yellow/orange



27040 JB130

**Cutting Loop**, bipolar, longitudinal, diameter 0.30 mm, color code: yellow/orange

## 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 BO



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



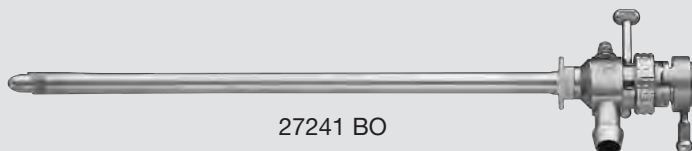
27040 AK

**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 BO



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

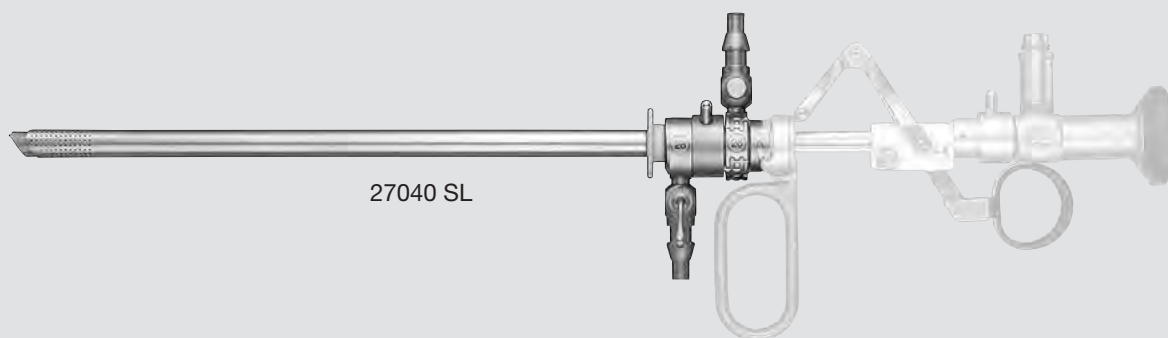
The resectoscope sheaths can be used with unipolar and bipolar working elements. Obturators see pages 65-66

# Resectoscope Sheaths with Fixed Inner Sheath

for Continuous Flow Irrigation and Suction

## Special Features:

- 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 SL

- 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
- 27040 XA **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
- 27040 XB **Inner Sheath, fixed**, with ceramic insulation, for use with resectoscope outer sheath of 27040 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

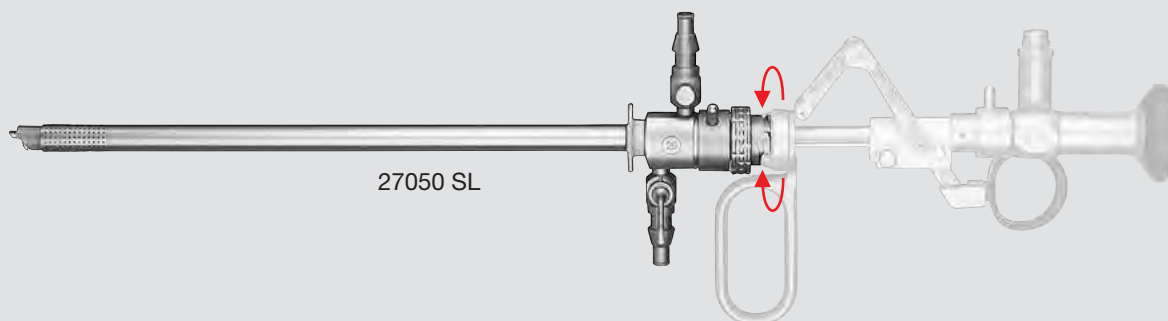
The resectoscope sheaths can be used with unipolar and bipolar working elements.  
Obturator see pages 65-66

# 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 SM **Resectoscope Sheath**, including connecting tube for in- and outflow, **28 Fr.**, oblique beak, **rotating** inner sheath with ceramic insulation, color code: black

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

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

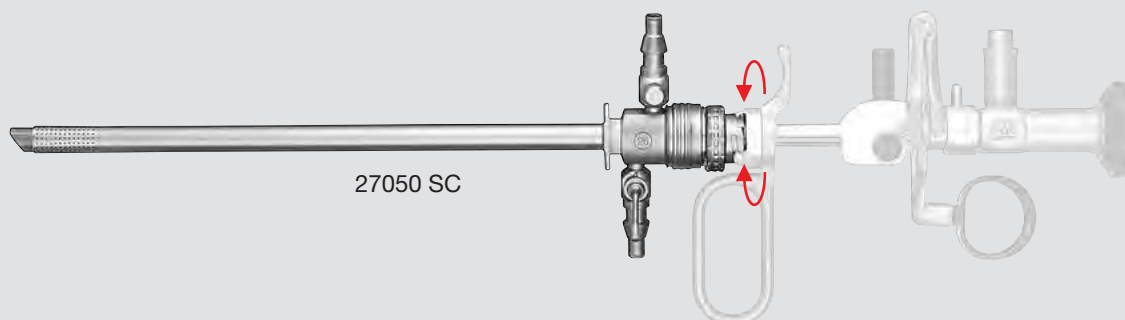
The resectoscope sheaths can be used with unipolar and bipolar working elements.  
Obturator see pages 65-66

# Resectoscope Sheaths with Rotating Inner Sheaths and Click Mechanism

for Continuous Flow Irrigation and Suction

## Special Features:

- 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

27050 SD **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

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

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



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



27050 LC **Adaptor**, for use with bladder syringes in outer sheaths of Resectoscopes 27050 SC/SD and 27054 SC



27050 ALC **Adaptor**, for use with ELLIK Evacuator in outer sheath of Resectoscope 27050 SC



27093 SC **Adaptor**, for use with optical forceps in outer sheaths of Resectoscope Sheaths 27050 SC/SD



27094 BY **Adaptor**, for use with resectoscope sheaths and optical forceps

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

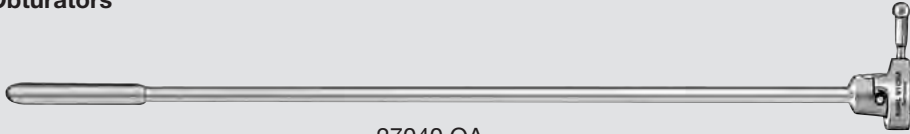


# Accessories

## Obturator

For use with 24 – 28 Fr. resectoscope sheaths

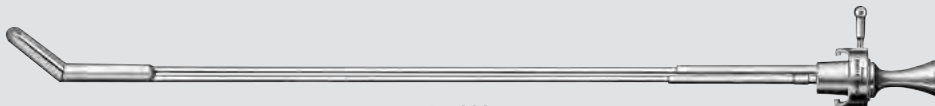
### Standard Obturators



27040 OA

- 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

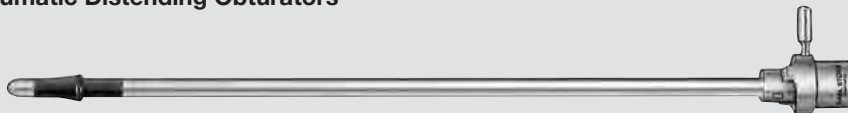
### Deflecting Obturators



27048 AK

- 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
- 27048 BK **Deflecting Obturator**, for 24 Fr. Sheaths 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: yellow

### LEUSCH Atraumatic Distending Obturators



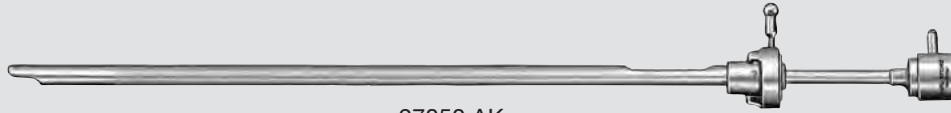
27049 BO



- 27049 AO **LEUSCH Atraumatic Distending Obturator**, 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

For use with 24 – 28 Fr. resectoscope sheaths

### SCHMIEDT Visual Obturators



27050 AK



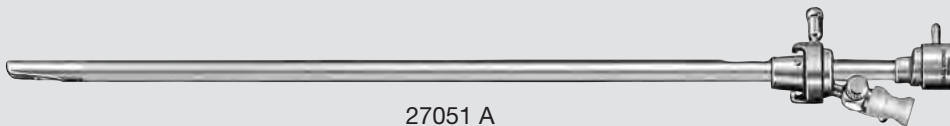
27050 AK

SCHMIEDT **Visual Obturator**,  
for 27/28 Fr. sheaths

27050 BK

SCHMIEDT **Visual Obturator**,  
for 24/26 Fr. sheaths

### SCHMIEDT Visual Obturators, with channel for flexible instruments



27051 A

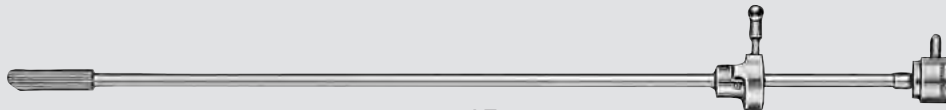
27051 A

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

27050 AE

ESHGI **Visual Obturator**,  
for 27/28 Fr. sheaths

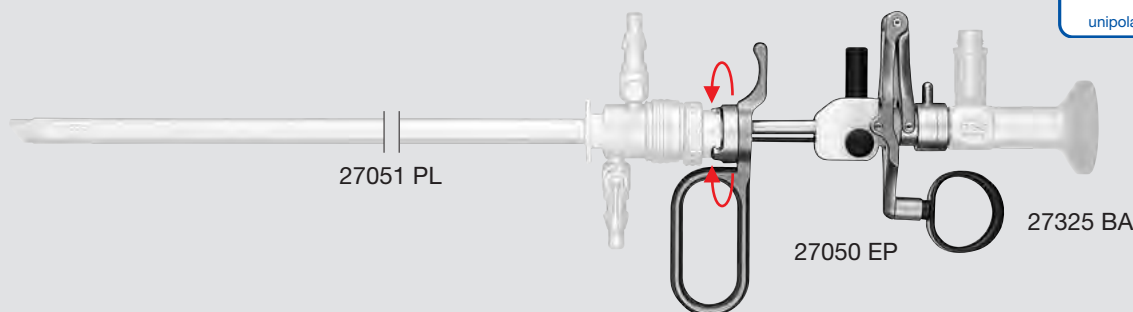
27050 BE

ESHGI **Visual Obturator**,  
for 24/26 Fr. sheaths

# Resectoscopes, extra long

Telescope, Working Element and Electrodes

26 Fr., working length 26.5 cm



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

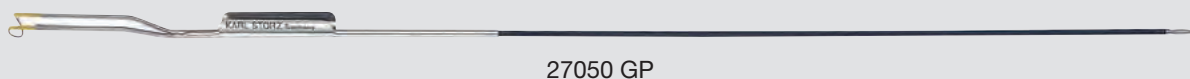
In rest position the electrode is inside the sheath.

- 27050 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	<b>Cutting Loop</b> , angled
	27050 LP	<b>Coagulation Electrode</b> , pointed
	27050 NP	<b>Coagulation Electrode</b> , 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

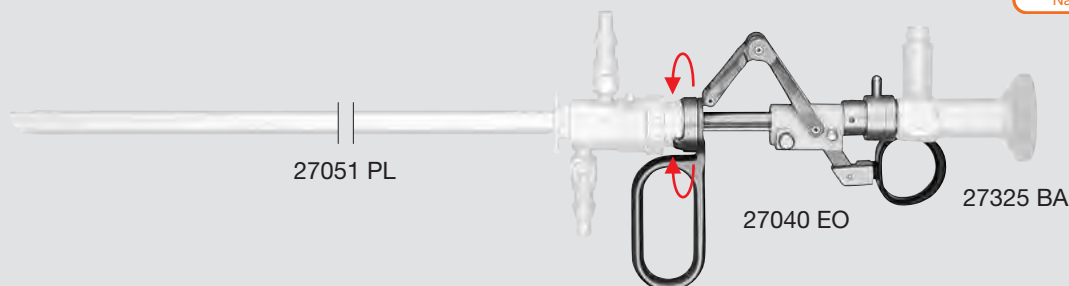


We will gladly provide an extra long resectoscope on loan.  
Please contact our customer services team to arrange an offer to suit your needs.

# Resectoscopes, extra long <sup>NEW</sup>

Telescope, Working Element and Electrodes

26 Fr., working length 26.5 cm



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.

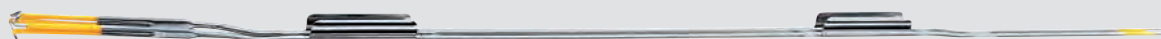
- 27040 EOH **Electrotome**, bipolar, extended length including:
- 27040 EO **Working Element**
  - 27040 GPO1 **Cutting Loop**
  - 27040 BLO1 **Coagulation Electrode**
  - 27040 NBO **Vaporization Electrode**
  - 27176 LEB **Bipolar High Frequency Cord**
  - 280 L **Protection Tube**

### Cutting by means of a finger grip

#### Movable thumb ring

In rest position the electrode is outside the sheath.

- 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	<b>Cutting Loop</b> , bipolar, extended length
	27040 BLO1	<b>Coagulation Electrode</b> , bipolar, extended length, pointed
	27040 NBO	<b>Vaporization Electrode HALF MOON®</b> , 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



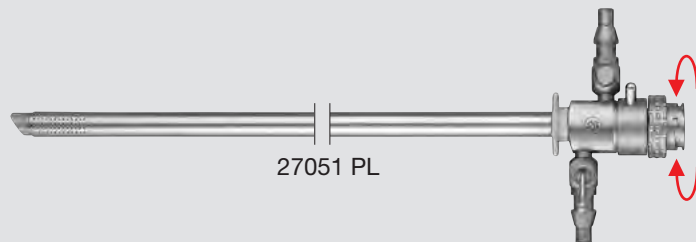
We will gladly provide an extra long resectoscope on loan.  
Please contact our customer services team to arrange an offer to suit your needs.

# Resectoscopes, extra long <sup>NEW</sup>

Resectoscope Sheath and Obturator

26 Fr., working length 26.5 cm

**Resectoscope sheaths with rotating inner sheath**  
for continuous irrigation and suction

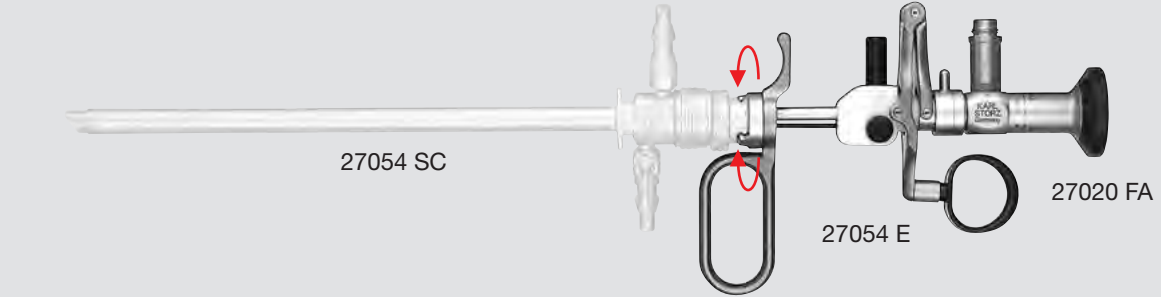


- 27051 PL **Resectoscope Sheath**, including connecting tubes for in- and outflow, **26 Fr.**, oblique beak, **rotatable** inner sheath with ceramic insulation, for use with Working Elements 27050 EP/DP and 27040 EO/DO, color code: yellow
- 27051 XA **Inner Sheath, rotating**, with ceramic insulation, for use with resectoscope outer sheath of 27051 PL, 26 Fr.
- 27040 BB **Standard Obturator**, for Resectoscope Sheath 27051 PL, color code: yellow

# Resectoscopes, slender

Telescope, Working Element and Electrodes

22 Fr., working length 20 cm



27054 SC

27054 E

27020 FA

27020 FA

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

## 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

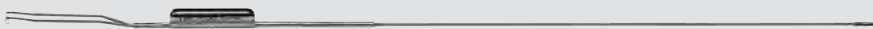
**Coagulation Electrode**

2x 277

**High Frequency Cord**

280

**Protection Tube**



27054 G

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

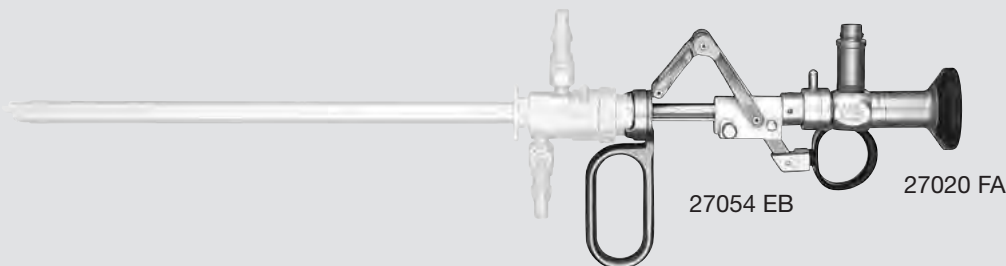


We will gladly provide a thin resectoscope on loan.  
Please contact our customer services team to arrange an offer to suit your needs.

# Resectoscopes, slender

Telescope, Working Element and Electrodes

22 Fr., working length 20 cm



27020 FA

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

## 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**

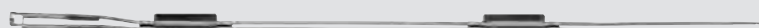
2x 27054 GP1 **Cutting Loop**

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	<b>Cutting Loop</b> , bipolar
	27054 BL1	<b>Coagulation Electrode</b> , bipolar, pointed
	27054 NB1	<b>Vaporization Electrode HALF MOON®</b> , 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.

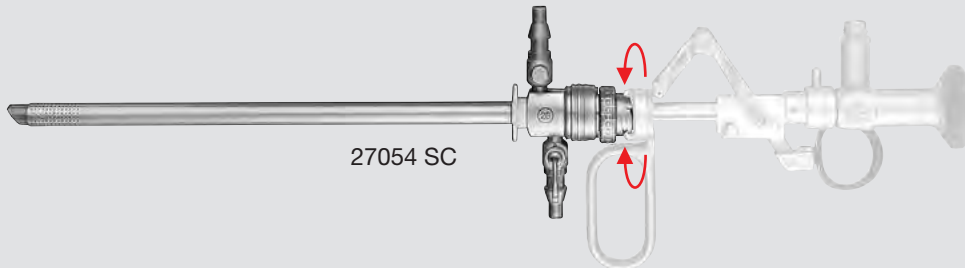
# Resectoscopes, slender

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

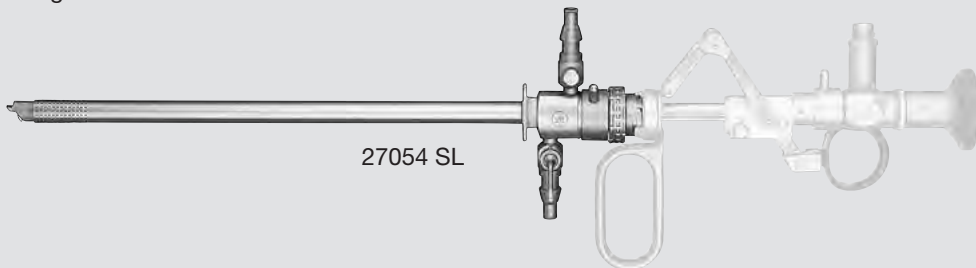


27054 SC

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.

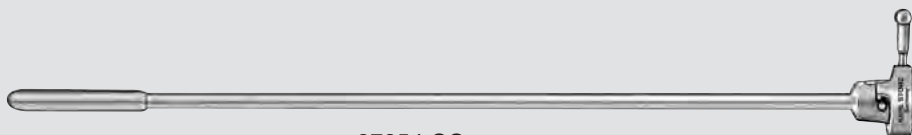
**Resectoscope sheaths with fixed inner sheath**  
for continuous irrigation and suction



27054 SL

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







# 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	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for use with models KARL STORZ and Erbe type T, older models
	277 A	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for use with Martin HF units
	277 KE	<b>Unipolar High Frequency Cord</b> , 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	<b>Unipolar High Frequency Cord</b> , with 8 mm plug, length 300 cm, for use with models AUTOCON®II 400 SCB system (112, 116) and Valleylab

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



KARL STORZ High Frequency  
Instrument Surgical Units

	27176 LEB	<b>Bipolar High Frequency Cord</b> , for AUTOCON®II 400 SCB system (high-end), length 300 cm, for use with bipolar resectoscopes
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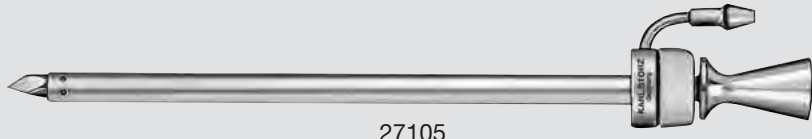
**Please note:**

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

**High Frequency Surgical Units** see chapter 15, UNITS

# Accessories

for Suprapubic Aspiration



27105



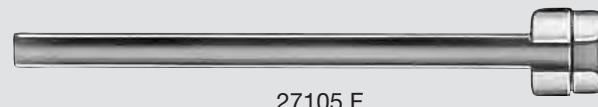
27105 B



27105 AG

27105 S

- 27105 S REUTER **Trocar**, for suprapubic aspiration including:
- 27105 REUTER **Trocar**, 18 Fr.
  - 27105 AG **Fixation Disc**
  - 27105 B **Aspiration Insert Tube**



27105 F

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

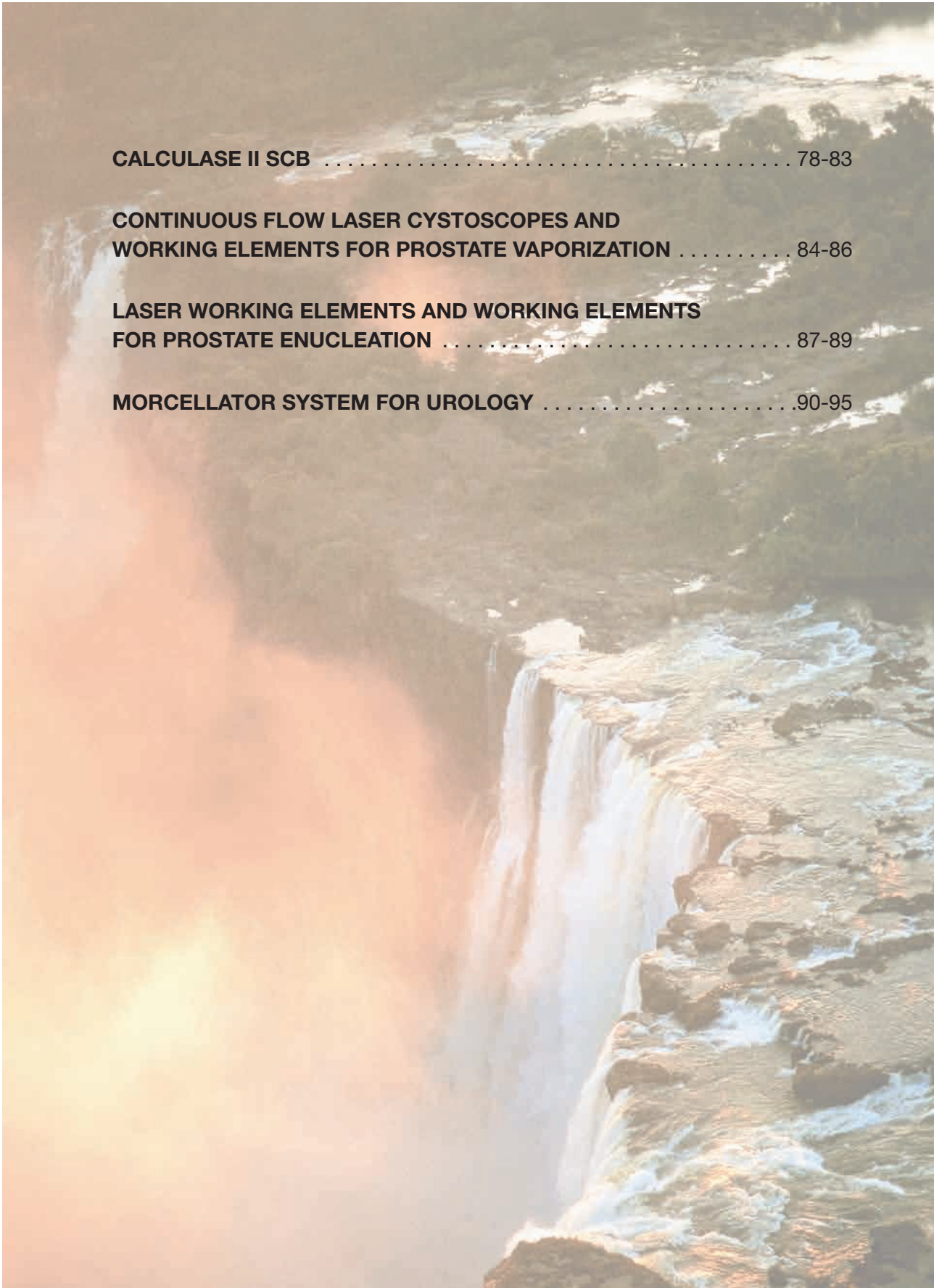


# **LASER SURGERY PHOTODYNAMIC DIAGNOSIS (PDD)**

**LASER SURGERY** ..... 77-95

**PHOTODYNAMIC  
DIAGNOSIS (PDD)** ..... 97-106

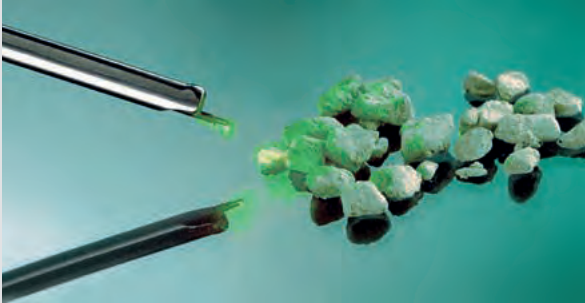




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<b>CONTINUOUS FLOW LASER CYSTOSCOPES AND WORKING ELEMENTS FOR PROSTATE VAPORIZATION</b> .....	84-86
<b>LASER WORKING ELEMENTS AND WORKING ELEMENTS FOR PROSTATE ENUCLEATION</b> .....	87-89
<b>MORCELLATOR SYSTEM FOR UROLOGY</b> .....	90-95

# CALCULASE II SCB

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  $\mu\text{m}$ ) for both single and multiple use. Together with its wide range of rigid and flexible uretero-renaloscopes 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.

# CALCULASE II SCB

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)**



# CALCULASE II SCB

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.

**Components/Spare Parts** see chapter 16



# CALCULASE II SCB

System Components



SCB®

One-Pedal Footswitch



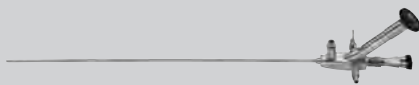
27 7501 24

Video Uretero-Renoscopes FLEX-X® IMAGE1 S/FLEX-X®



11278 VS/VSU/VVU

Uretero-Renoscopes



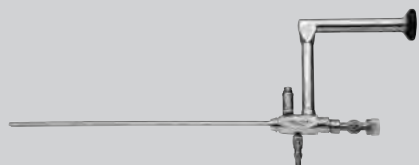
27000 L/K, 27001 L/K, 27002 L/K,  
27003 L, 27010 L/K, 27013 L

Nephroscope for MIP XS/S



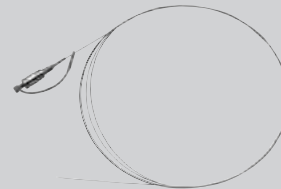
27820 KA

Percutaneous Nephroscopes



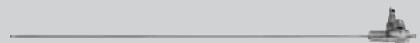
27292 AMA/27293 AA/27092 AMA/27093 AA

CALCULASE II Fiber



27 7502 71

LASER Suction Tube



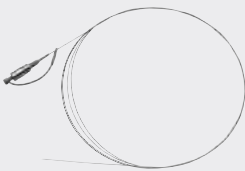
27290 LL

9-12z

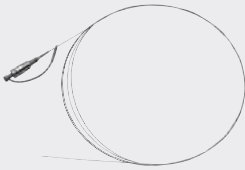
# CALCULASE II SCB

Accessories





## Fiber Sets, reusable

	<b>27 7502 71-P6</b> <b>CALCULASE II Fiber 230 µm</b> , reusable, sterile, length 300 cm, package of 6
	<b>27 7502 72-P6</b> <b>CALCULASE II Fiber 365 µm</b> , reusable, sterile, length 300 cm, package of 6
	<b>27 7502 73-P6</b> <b>CALCULASE II Fiber 600 µm</b> , reusable, sterile, length 300 cm, package of 6
<b>27 7502 87</b> <b>CALCULASE II Fiber Kit</b> including: 3x <b>CALCULASE II Fiber 230 µm</b> , reusable 3x <b>CALCULASE II Fiber 365 µm</b> , reusable 3x <b>CALCULASE II Fiber 600 µm</b> , reusable	

## Fiber Sets, for single use

	<b>27 7502 77-P6</b> <b>CALCULASE II Fiber 230 µm</b> , for single use, sterile, length 300 cm, package of 6
	<b>27 7502 78-P6</b> <b>CALCULASE II Fiber 365 µm</b> , for single use, sterile, length 300 cm, package of 6
	<b>27 7502 79-P6</b> <b>CALCULASE II Fiber 600 µm</b> , for single use, sterile, length 300 cm, package of 6
<b>27 7502 86</b> <b>CALCULASE II Fiber Kit</b> including: 3x <b>CALCULASE II Fiber 230 µm</b> , for single use, sterile 3x <b>CALCULASE II Fiber 365 µm</b> , for single use, sterile 3x <b>CALCULASE II Fiber 600 µm</b> , for single use, sterile	

## Further accessories

	<b>27 7500 82</b> <b>Fiber Cutter</b>
	<b>27 7500 81</b> <b>Fiber Stripper</b>
	<b>27 7502 80</b> <b>Fiber Stripper Set</b> , sterilizable, for use with CALCULASE II fibers including: <b>Silicone Pad</b> <b>Ceramic Knife</b> <b>Fiber Strippers 230, 365 and 600 µm</b>
	<b>27 7500 95</b> <b>Safety Goggles Ho:YAG LASER, 2080 nm</b>

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

**Components/Spare Parts** see chapter 16

# CALCULASE II SCB <sup>NEW</sup>

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

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

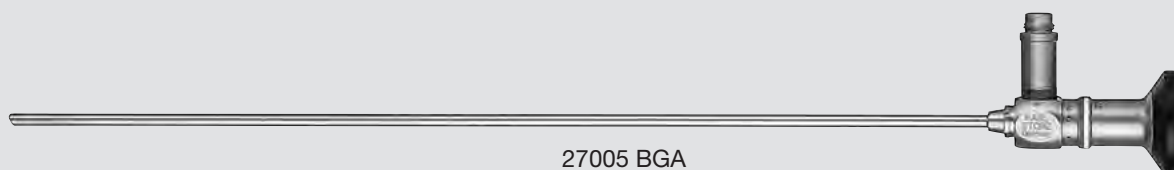
# HOPKINS® Telescope

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

**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 green-white.

**Light Cable** see catalog TELEPRESENCE

**Container for the Sterilization and Storage of Telescopes** see catalog HYGIENE

# Continuous-Flow LASER Cystoscope 23 Fr.

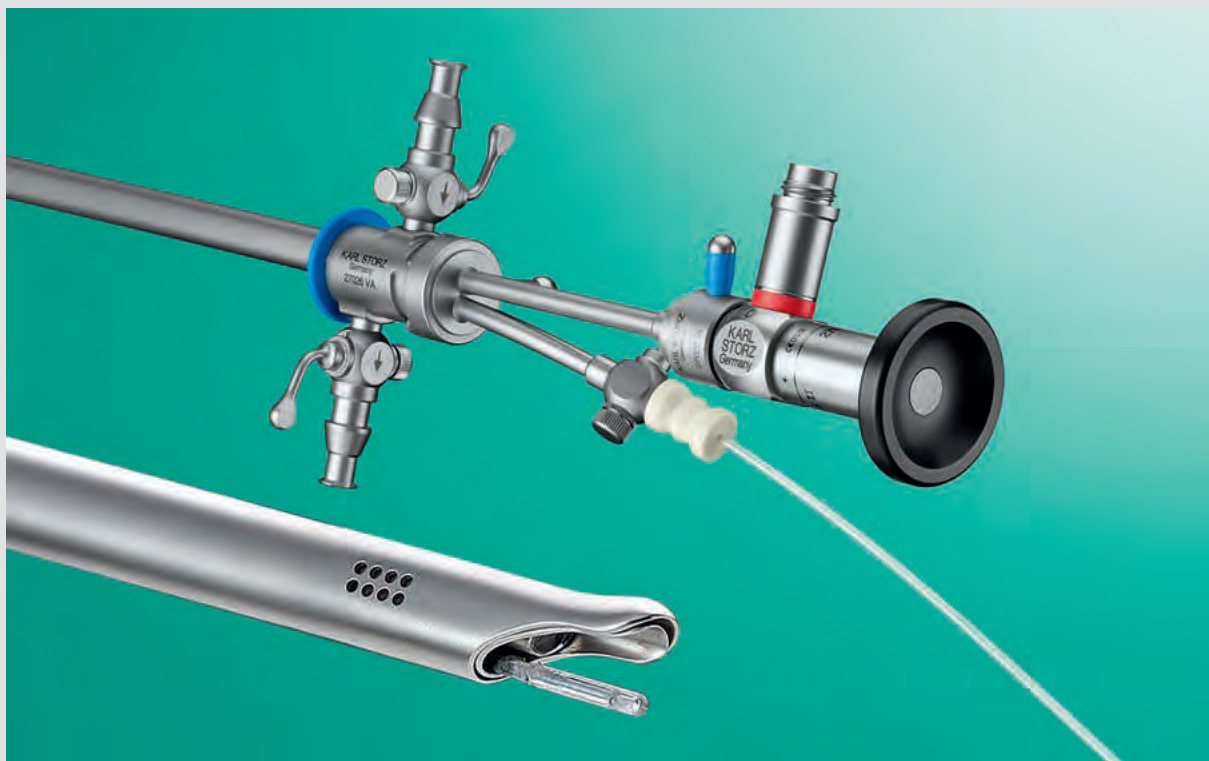
for Prostate Vaporization and Ablation of Bladder Tumors

## 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 use.
- 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 prostate or whenever the benefits of the continuous-flow system is desired in cystoscopy.

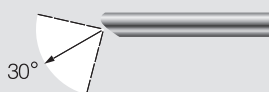
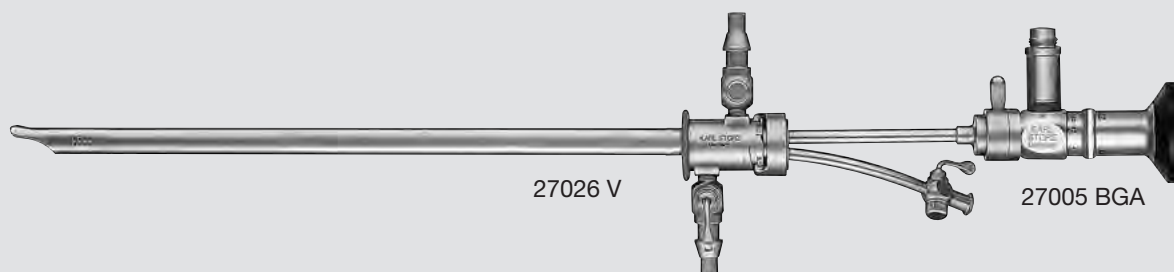


# Continuous-Flow LASER Cystoscope

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

**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

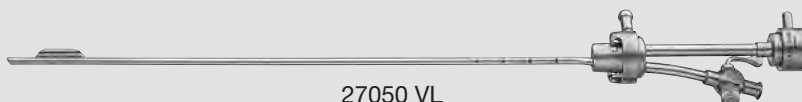


27026 VY

**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

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

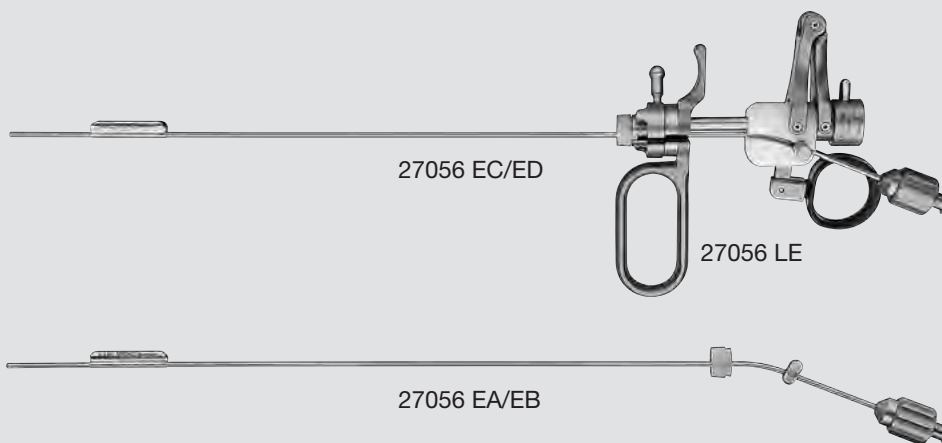
# Working Element

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

# Working Insert

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

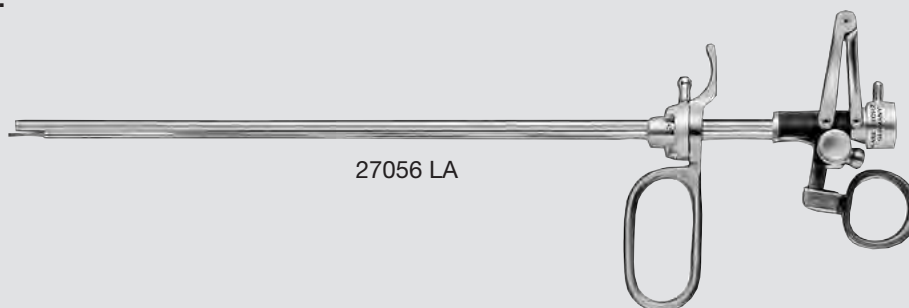
## For use with HOPKINS® Forward-Oblique Telescope 27005 BA

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



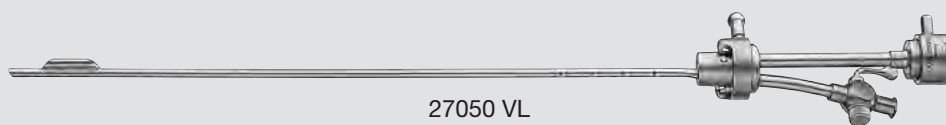
27056 LA

- 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

- 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



# GILLING Holmium LASER Enucleation of the Prostate

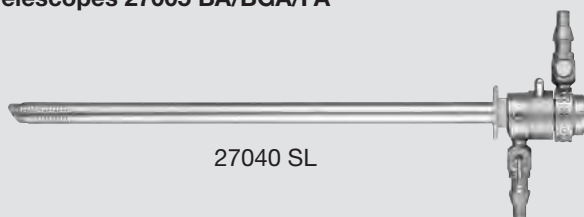
Holmium LASER Enucleation of the Prostate (HoLEP) is an emerging surgical treatment for Benign Prostatic Hyperplasia. The procedure involves triradiate bladder neck incisions and the retrograde enucleation of the median and both lateral lobes of the prostate using the existing surgical planes. The procedure is the endo-urological 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

For use with HOPKINS® Telescopes 27005 BA/BGA/FA



27040 SL

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 XAL



27040 XAL **Inner Sheath**, without ceramic insulation, with guiding device for LASER probes up to 2.6 mm, for use with Resectoscope Sheaths 27040 SD/SL

27040 OD **Standard Obturator**, for 24 Fr. Sheaths 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: yellow



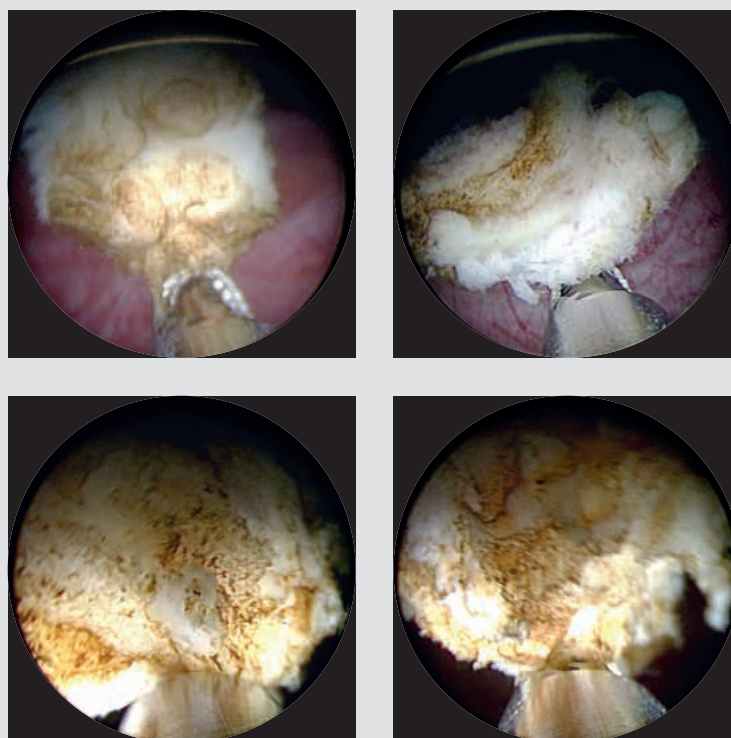
27068 CD **Telescope Bridge**, 5 Fr., with channel for instruments

2-081

## 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 prostate 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.

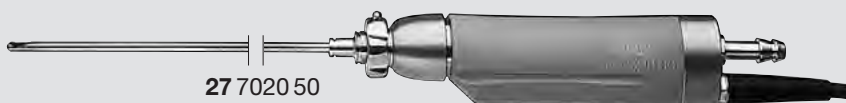


## Morcellator System for Urology

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

**Special Features:**

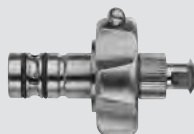
- Ergonomic handpiece design, fits comfortably in the hand
- Detachable handle – individual, ergonomic, flexible positioning
- Rapid coupling for blade fixation enables easy handling and rapid set-up
- Powerful motor
- Absolutely silent running
- Central, straight suction channel
- Easy hygienic processing, 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



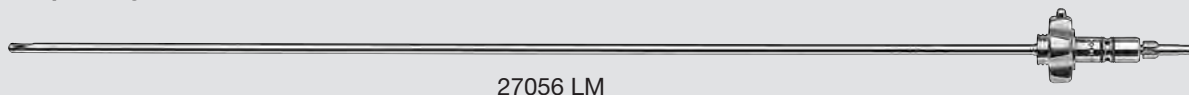
40 7120 90 **Handle**, adjustable, for use with DrillCut-X® II Morcellator Handpiece URO 27 7020 50



41250 RA **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 **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

9-121

# Morcellator System for Urology

UNIDRIVE® S III SCB

For use with DrillCut-X® II Morcellator Handpiece URO 27 7020 50

## 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)	Dimensions w x h x d	305 x 165 x 233 mm
Max. rpm	40,000 (rpm) Blade 500 – 5000 (rpm)	Weight	4 kg
Power Supply	100-120/230-240 VAC, 50/60 Hz	Certified to	IEC 601-1, CE acc. to MDD

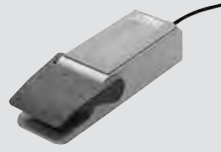
For further information see chapter 15, UNITS

Components/Spare Parts see chapter 16

# Morcellator System for Urology <sup>NEW</sup>

System Components

One-Pedal Footswitch



20 0162 30



Irrigation Tubing Set



031717-10

Suction Tubing Set



031217-10

Adaptor



27040 LB

HOPKINS® Wide-Angle Straight Forward Telescope 6°



27292 AMA  
27293 AA

Adaptor



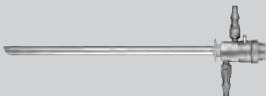
27040 SC

DrillCut-X® II Morcellator Handpiece URO



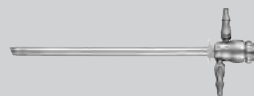
27 7020 50

Resectoscope Sheath



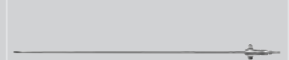
27050 SL

Resectoscope Sheath



27050 SC

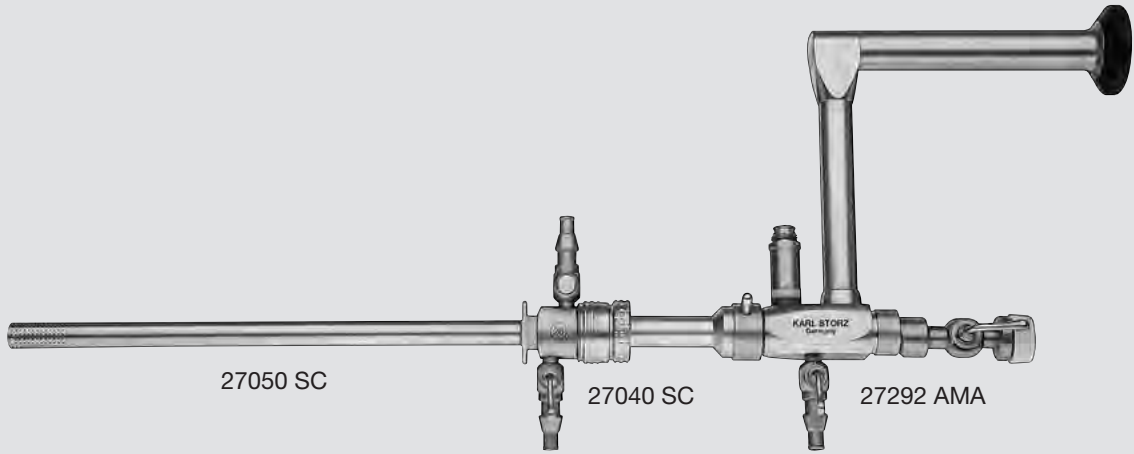
Morcellator Blade



27056 LM

# Morcellator System for Urology

Telescopes, Sheaths and Adaptors



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

# Morcellator System for Urology <sup>NEW</sup>

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



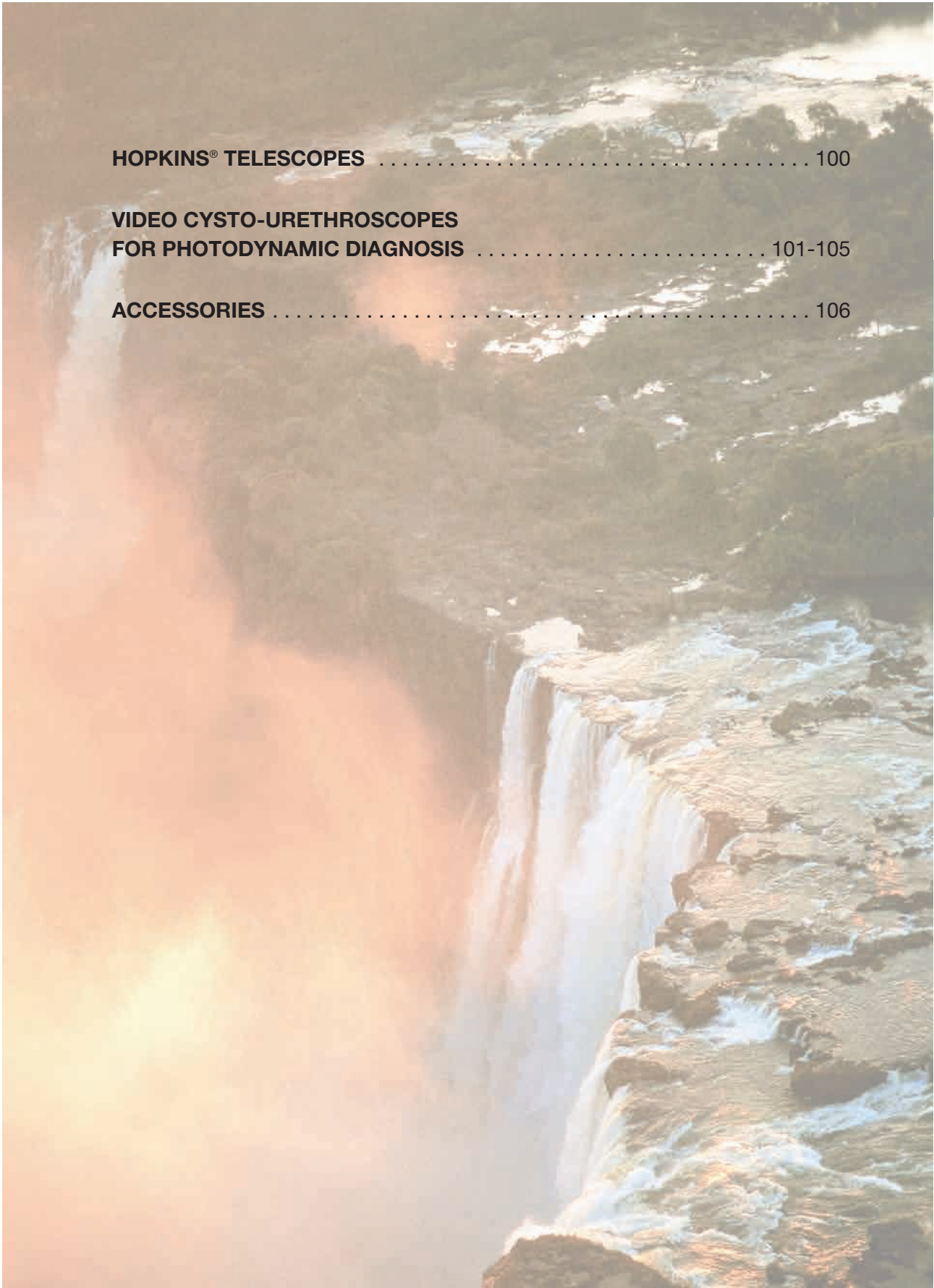
For further information see chapter 15, UNITS

Components/Spare Parts see chapter 16





# Photodynamic Diagnosis (PDD)



<b>HOPKINS® TELESCOPES</b> .....	100
<b>VIDEO CYSTO-URETHROSCOPES FOR PHOTODYNAMIC DIAGNOSIS</b> .....	101-105
<b>ACCESSORIES</b> .....	106



Developments in the field of photodynamic diagnosis and treatment have been in progress ever since the beginning of the 1980s. During the period from 1982 to 1990 the prototype of a PDD system was developed by the Urological Clinic of Großhadern Clinical Center together with the Radiation Research Society (GSF) in Munich and the KARL STORZ company. The core components consisted of a laser and a special endoscope. The tumor marker used was HpD (Photofrin II).

In a second project phase, the PDD system was further developed into an affordable unit designed for simple use in hospitals, in conjunction with new tumor markers, the system produces very good results for early recognition of tumors of the bladder.

This PDD unit is based on the **D-LIGHT** system. The **D-LIGHT** generates a special diagnosis light, which can be used for endoscopic tissue characterization. For this purpose, light with a special spectral composition is introduced into the body endoscopically via an optical waveguide system that operates with virtually no light loss. In fluorescence mode, after instillation of a suitable tumor marker substance, tumor tissue can be distinguished from healthy tissue with a high level of contrast. Under the excitation light of the **D-LIGHT** system, tumorous areas fluoresce with a red color. Flat neoplastic lesions, such as dysplasia and carcinoma in situ, which may be hidden in the normal or non-specifically inflamed mucosa are easy to recognize. Small papillary tumors can also be detected more rapidly and the risk of them being overlooked is decreased. Visualization with pure white light does not permit such accurate differentiation.

## Literature:

JOCHAM, D., BAUMGARTNER, R., FUCHS, N., LENZ, H., STEPP, H., UNSÖLD, E.: Die Fluoreszenzdiagnose Porphyrin markierter urothelioaler Tumoren, *Urologe (A)*, 28: 59, 1989

BAUMGARTNER, R., KRIEGMAIR, M., JOCHAM, D., HOFSTETTER, A., HUBER, R., KARG, O., HÄUSSINGER, K.: Photodynamic diagnoses (PDD) in early stage malignancies – Preliminary results in urology and pneumology *SPIE*, 1641: 107, 1992

KRIEGMAIR, M., BAUMGARTNER, R., HOFSTETTER, A.: Intravesikale Instillation von Delta-Aminolävulinsäure (ALA) – eine neue Methode zur photodynamischen Diagnostik und Therapie, *Lasermedizin*, 8: 83, 1992

The instruments have been optimized to such an extent that, under fluorescent light, not only better endoscopic diagnosis, but also transurethral or Nd:YAG LASER resection is possible. The **D-LIGHT** system can be switched from fluorescence mode to white light mode at any time.

## The advantages of the PDD system are:

### ● Early recognition of tumors:

Using special marker substances, the PDD system from KARL STORZ permits early endoscopic recognition of tumors. Biopsies from the non-fluorescing areas of the bladder wall are not necessary owing to the high level of sensitivity of the procedure.

### ● Targeted treatment of tumors:

Using conventional KARL STORZ Instruments, endoscopic treatment of tumors (TUR, LASER) can be performed under PDD conditions.

### ● Better visibility:

Compared to white light, the blue excitation light is reflected far less by the hemoglobin; therefore visibility is better, especially in the event of intravesical hemorrhage.

### ● Compatibility:

The PDD telescopes are compatible with standard cystoscope or resectoscope instruments from KARL STORZ.

### ● Universal use:

The **D-LIGHT** system can also be used as a white light source for standard endoscopic interventions.

*PD M. KRIEGMAIR, M. D. and Prof. A. HOFSTETTER, M. D.,  
Urological Clinic of Großhadern Clinical Center,  
Ludwig-Maximilian-University, Munich,  
Germany*

KRIEGMAIR, M., BAUMGARTNER, R., KNÜCHEL, R., EHSAN, A., STEINBACH, P., LUMPER, W., HOFSTÄDTER, E., HOFSTETTER, A.: Fluorescence photodetection of neoplastic urothelial lesions following intravesical instillation of 5-aminolevulinic acid, *Urology*, 44: 836, 1994

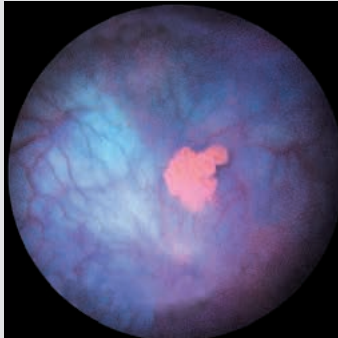
KRIEGMAIR, M., BAUMGARTNER, R., EHSAN, A., LUMPER, W., HOFSTETTER, A., KNÜCHEL, R., STEINBACH, R., HOFSTÄDTER, F.: Detection of early bladder cancer and dysplasia by fluorescence cystoscopy, *J. Urol.*, 153(4): 457 A, 1995

# Photodynamic Diagnosis (PDD) for Early Recognition of Urinary Bladder Carcinomata

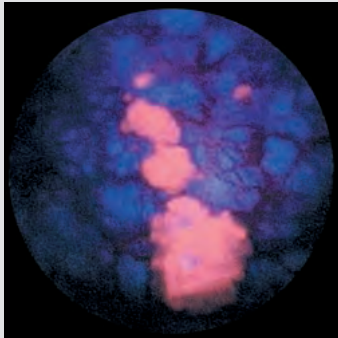


Fluorescence endoscopy compared to white light endoscopy for early recognition of urinary bladder carcinomata

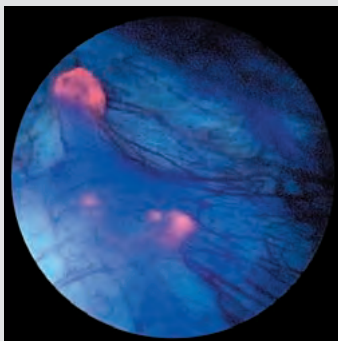
Fluorescent Excitation



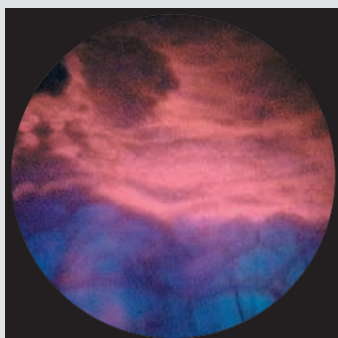
Small papillary tumor without peritumoral fluorescence (pTaG1)



Exophytic tumors of various sizes (pTaG1)

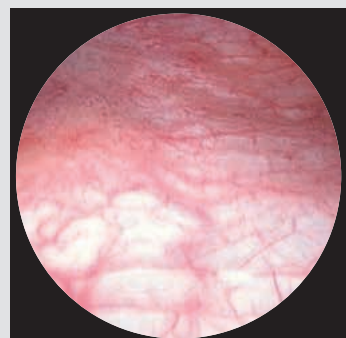
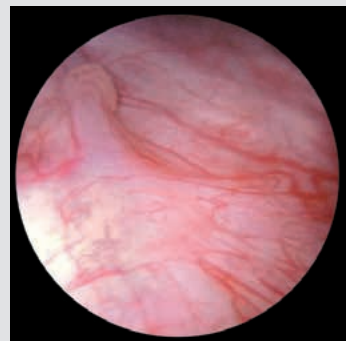
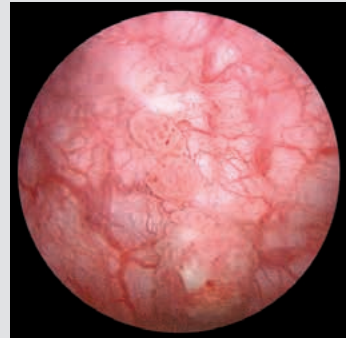
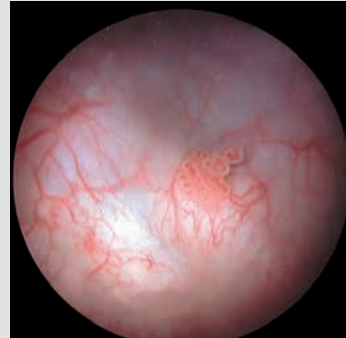


Small exophytic tumor with small satellite tumors



Carcinoma in situ

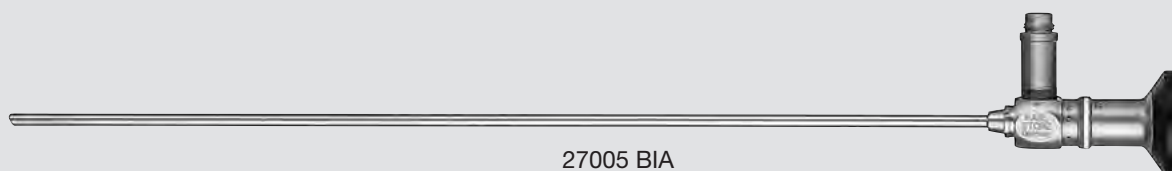
White Light



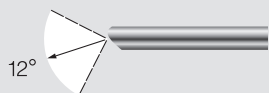
# HOPKINS® Telescopes for Photodynamic Diagnosis (PDD)

Fiber Optic Light Transmission Incorporated

Diameter 4 mm, length 30 cm

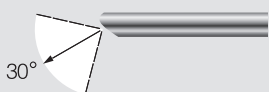


27005 BIA



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

# Video Cysto-Urethrosopes for Photodynamic Diagnosis (PDD)

for Access to the Entire Intrarenal Collection System through Larger Angles



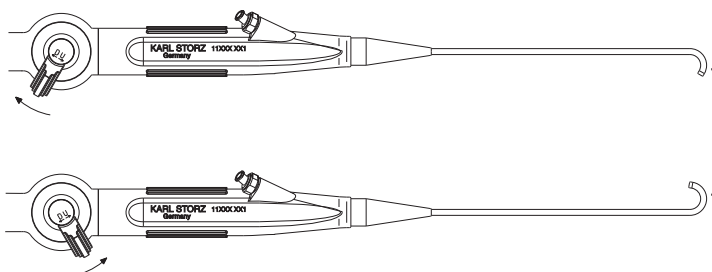
You wouldn't force someone who is left-handed to write with his right hand. Yet many flexible endoscopes impose exactly this type of limitation by forcing their operators to use counter-intuitive deflection mechanisms.

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-

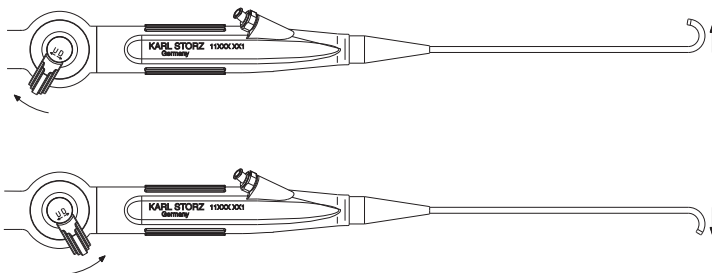
positive mechanism: a downward movement of the lever mechanism now causes a downward movement of the endoscope tip.

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.**

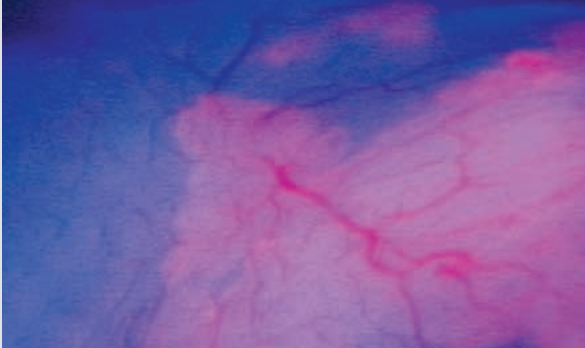


*Positive deflection mechanism*



*Contrapositive deflection mechanism*

# Video Cysto-Urethroscopes for Photodynamic Diagnosis (PDD)



- 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

# Video Cysto-Urethroscopes for Photodynamic Diagnosis (PDD)



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

# Video Cysto-Urethroscopes for Photodynamic Diagnosis (PDD)

16 Fr.



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 <b>PAL</b>	for photodynamic diagnosis (PDD) and with contrapositive deflection mechanism		0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNI <b>NTSC</b>	for photodynamic diagnosis (PDD) and with contrapositive deflection mechanism		0°	120°	37 cm	6.5 Fr.	16 Fr.
11272 VNIU <b>NTSC</b>	for photodynamic diagnosis (PDD) and with contrapositive deflection mechanism		0°	120°	37 cm	6.5 Fr.	16 Fr.

### Following accessories are included:

	27677 VC	<b>Case</b>
	27023 FE	<b>Grasping Forceps for small fragments</b> , single action jaws, flexible, 5 Fr., length 73 cm
	27023 ZE	<b>Biopsy Forceps</b> , single action jaws, flexible, 5 Fr., length 73 cm
	11025 E	<b>Pressure Compensation Cap</b> , for ventilation during gas and plasma sterilization
	13242 XL	<b>Leakage Tester</b> , with bulb and manometer
	27651 B	<b>Cleaning Brush</b> , round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm
	27014 Y	<b>LUER-Adaptor</b> , with seal
	20213070	<b>Video Connecting Cable</b>
	13991 SS	<b>Irrigation Tube</b> , reusable, for the working channel of flexible video endoscopes

### Optional accessories:

	27023 VK	<b>Stone Basket</b> , 5 Fr., length 60 cm
	27723 T	<b>Coagulation Electrode</b> , unipolar, 4 Fr., length 73 cm
	27550 N	<b>Seal</b> , for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended
	27001 RA	<b>Cleaning Adaptor</b>
	39403 AS	<b>Plastic Container for Sterilization</b>

**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



**Video Cysto-Urethroscopes, flexible, for Photodynamic Diagnosis (PDD)**

11272 VPI  
11272 VNI  
11272 VNIU

**HOPKINS® Telescopes**

27005 BIA/FIA/CIA

**One-Pedal Footswitch**

20 0141 30

**Fluid Light Cable**

495 FO

**Cold Light Fountain**

**D-LIGHT C/AF SCB** 20 1336 01-133

**Video Connecting Cable**

20 2130 70

**IMAGE1 S Video Endoscope Adaptor**

TC 001

**IMAGE1 S Camera Heads**

TH 112  
TH 113

**TRICAM® SL II Camera Heads**

20 221039  
20 221037

**TELECAM SL II FI Camera Control Unit**

20 2130 11-1

**IMAGE1 S Camera System**

TC 200EN  
TC 301

**TRICAM® SL II Camera Control Unit**

20 2230 11-1

**Monitors**

19" 9619 NB  
26" 9826 NB

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

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

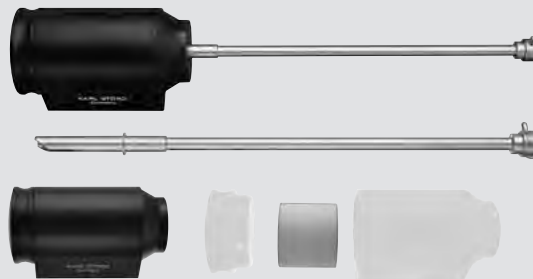
With the KARL STORZ PDD-QAT (Quality Assurance Tool) the system's functionality and configuration as well as the correct components are checked before a surgical procedure.

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**





# URETHROTOMES FOR ADULTS

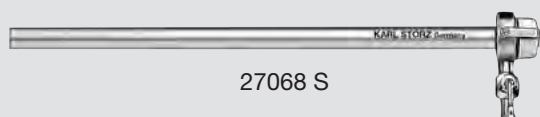
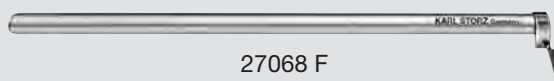
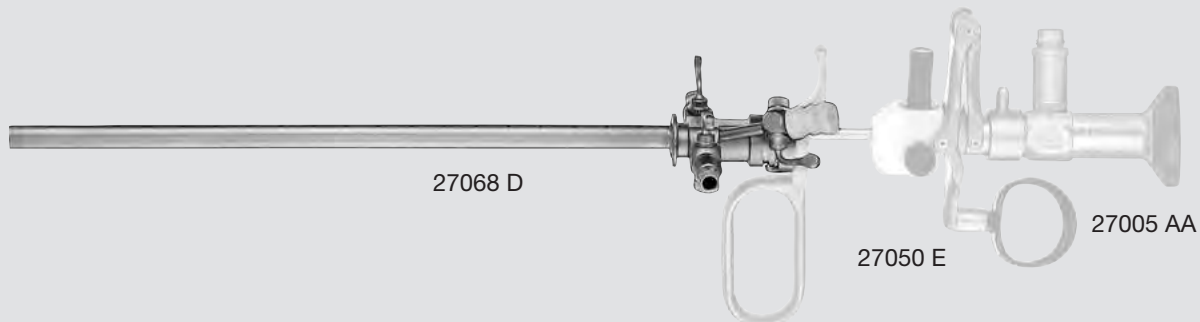
OPTICAL URETHROTOMES . . . 108-109

URETHROTOME, 21 Fr. . . . . 110

# Optical Urethrotome

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

21 Fr., working length 20 cm  
for use with HOPKINS® Straight Forward Telescope 27005 AA

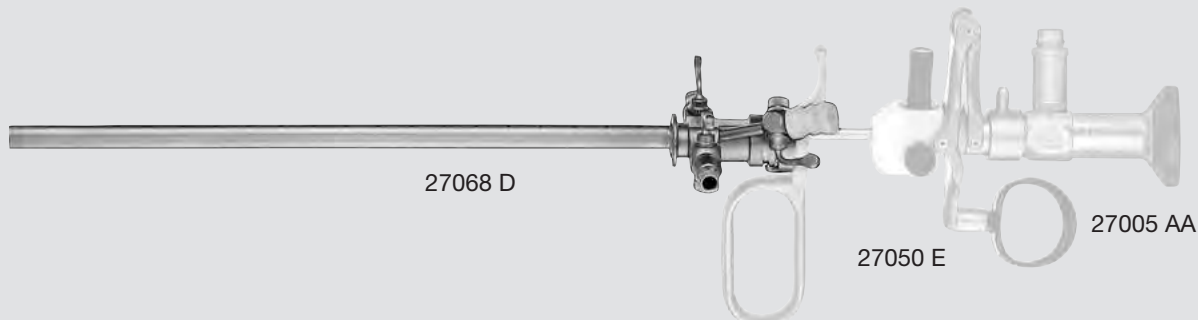


- 27068 D SACHSE **Urethrotome Sheath**, 21 Fr., with channel for FILIFORM bougies and 2 LUER-Lock cones
- 27068 DO **Obturator**, for Urethrotome Sheath 21 Fr., 27068 D
- 27068 CD **Telescope Bridge**, 5 Fr., with channel for instruments
- 27068 F **Supplementary Sheath**, sides open, for introduction 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

21 Fr., working length 20 cm  
for use with HOPKINS® Straight Forward Telescope 27005 AA



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

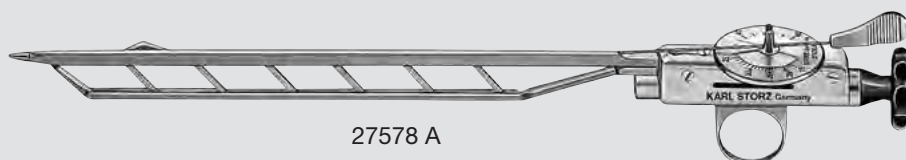


280

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.



27578 A

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



# LITHOTRIPSY MECHANICAL STONE FORCEPS

**SYSTEMS FOR UROLOGY  
FROM STORZ MEDICAL . . . . . 113-115**

**CALCULASE II SCB . . . . . 116-120**

**MECHANICAL  
STONE FORCEPS . . . . . 121-123**





# Systems for Urology <sup>NEW</sup> from STORZ MEDICAL

MODULITH® SLX-F2 connect

**STORZ**  
KARL STORZ — ENDOSKOPE

**STORZ** 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

## 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.



# Systems for Urology <sup>NEW</sup> from STORZ MEDICAL

PRIMERA ST 360®

**STORZ**  
KARL STORZ — ENDOSKOPE

**STORZ** MEDICAL

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 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.

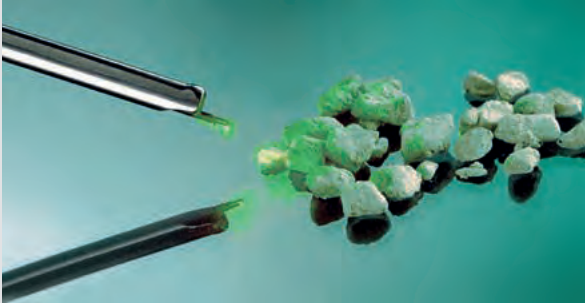
The wide range of options range from the basic configuration with a monitor support arm through to a sophisticated ceiling mount solution with OR lights and radiation protection.



10-14

# CALCULASE II SCB

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  $\mu\text{m}$ ) for both single and multiple use. Together with its wide range of rigid and flexible uretero-renaloscopes 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.

# CALCULASE II SCB

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.

**Components/Spare Parts** see chapter 16

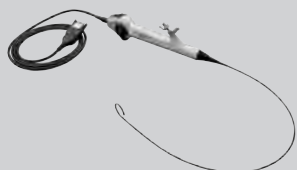
# CALCULASE II SCB

System Components



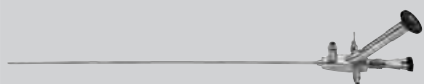
27 7501 24

Video Uretero-Renoscope FLEX-X° IMAGE1 S/FLEX-X°



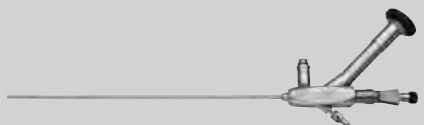
11278 VS/VSU/VU

Uretero-Renoscope



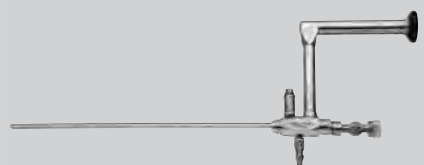
27000 L/K, 27001 L/K, 27002 L/K,  
27003 L, 27010 L/K, 27013 L

Nephroscope for MIP XS/S



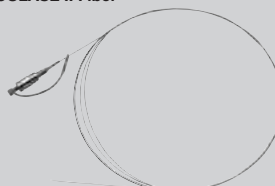
27820 KA

Percutaneous Nephroscope



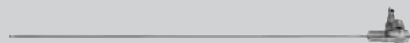
27292 AMA/27293 AA/27092 AMA/27093 AA

CALCULASE II Fiber



27 7502 71

LASER Suction Tube

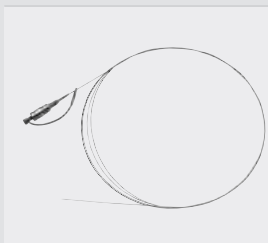


27290 LL

# CALCULASE II SCB

Accessories

## Fiber Sets, reusable



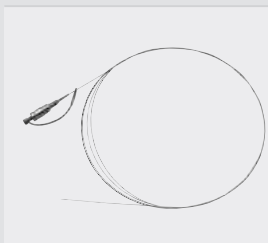
**27 7502 71-P6** **CALCULASE II Fiber 230  $\mu\text{m}$** , reusable, sterile, length 300 cm, package of 6

**27 7502 72-P6** **CALCULASE II Fiber 365  $\mu\text{m}$** , reusable, sterile, length 300 cm, package of 6

**27 7502 73-P6** **CALCULASE II Fiber 600  $\mu\text{m}$** , reusable, sterile, length 300 cm, package of 6

**27 7502 87** **CALCULASE II Fiber Kit**  
including:  
3x **CALCULASE II Fiber 230  $\mu\text{m}$** , reusable  
3x **CALCULASE II Fiber 365  $\mu\text{m}$** , reusable  
3x **CALCULASE II Fiber 600  $\mu\text{m}$** , reusable

## Fiber Sets, for single use



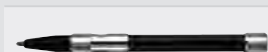
**27 7502 77-P6** **CALCULASE II Fiber 230  $\mu\text{m}$** , for single use, sterile, length 300 cm, package of 6

**27 7502 78-P6** **CALCULASE II Fiber 365  $\mu\text{m}$** , for single use, sterile, length 300 cm, package of 6

**27 7502 79-P6** **CALCULASE II Fiber 600  $\mu\text{m}$** , for single use, sterile, length 300 cm, package of 6

**27 7502 86** **CALCULASE II Fiber Kit**  
including:  
3x **CALCULASE II Fiber 230  $\mu\text{m}$** , for single use, sterile  
3x **CALCULASE II Fiber 365  $\mu\text{m}$** , for single use, sterile  
3x **CALCULASE II Fiber 600  $\mu\text{m}$** , 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  $\mu\text{m}$**



**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

# CALCULASE II SCB <sup>NEW</sup>

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

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

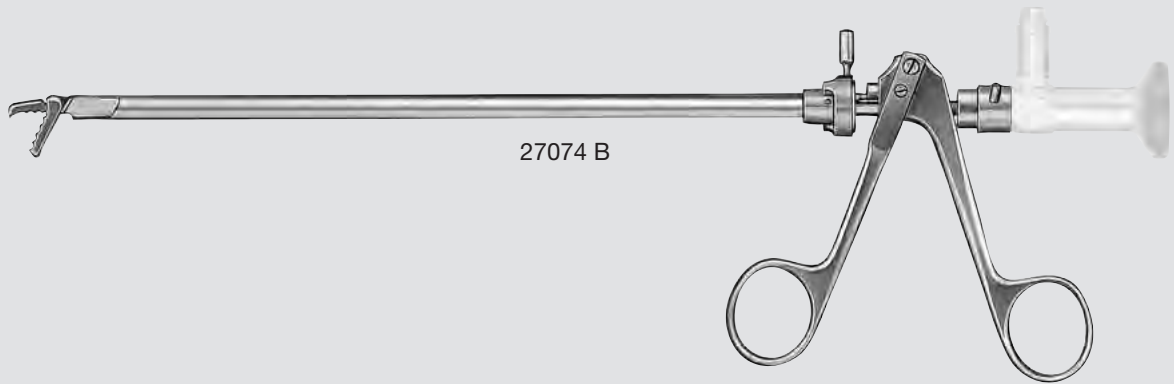
2x **Equipment Rail**, long

**Components/Spare Parts** see chapter 16



# Stone Crushing Forceps

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

27074 SC **Adaptor**, for use with Stone Crushing Forceps 27074 B and outer sheaths of Resectoscope Sheaths 27050 SC/SD



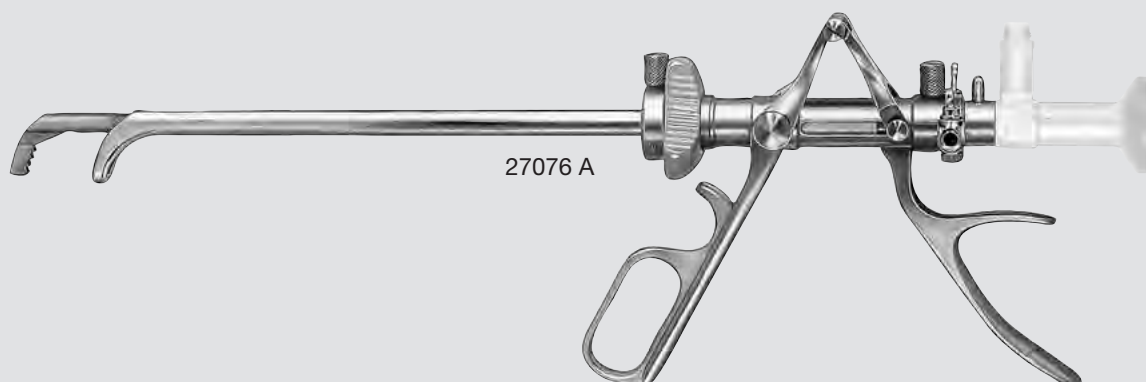
Forceps in place in 25 Fr. Cystoscope-Urethroscope Sheath 27026 A



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.

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.

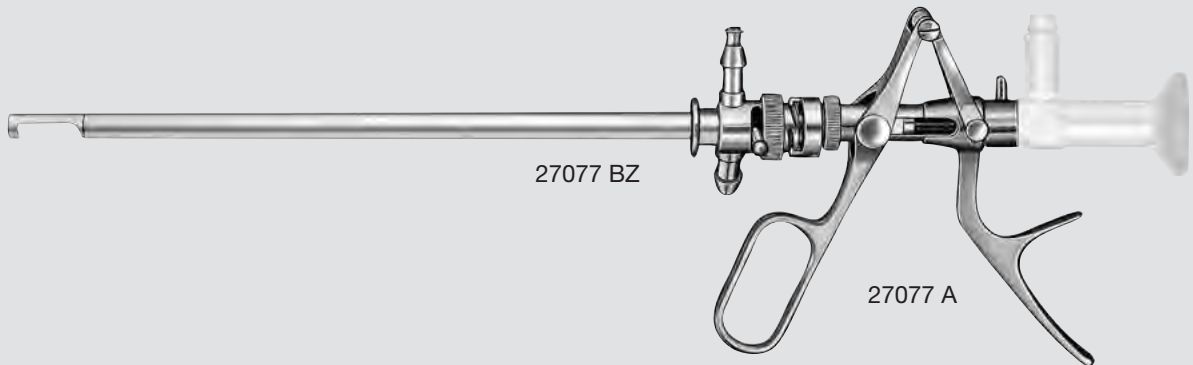


As soon as the lithotrite is introduced, the bladder can be inspected even when the jaws are closed. The fluid flow is directed towards the stone, providing a clear visual field.

# Stone Punch

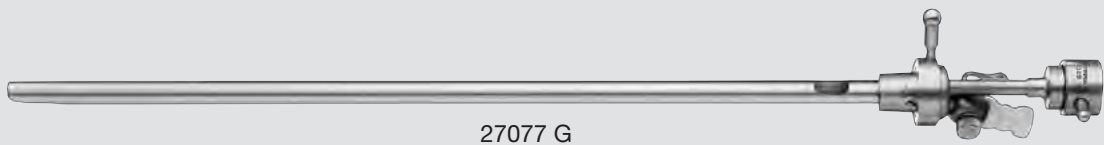
For use with HOPKINS® Forward-Oblique Telescopes 27005 BA/FA, with enlarged view

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

**CYSTOSCOPES, RIGID** ..... 126-132

**NEONATE CYSTOSCOPE-  
URETHROSCOPES, 7/9 Fr.** ..... 133

**THIN PEDIATRIC SYSTEM  
8 Fr.** ..... 134-139

**PEDIATRIC INSTRUMENTS  
9.5/11 Fr.** ..... 140-143

**PEDIATRIC INSTRUMENTS  
11 – 14 Fr.** ..... 144-146

**URETHROTOMES** ..... 147

**MIP  
MINIMALLY INVASIVE PERCUTANEOUS  
NEPHROLITHOLAPAXY** ..... 148-153

**PEDIATRIC URETERO-  
RENOSCOPES** ..... 154-156

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

The new operating cysto-urethrosopes 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.

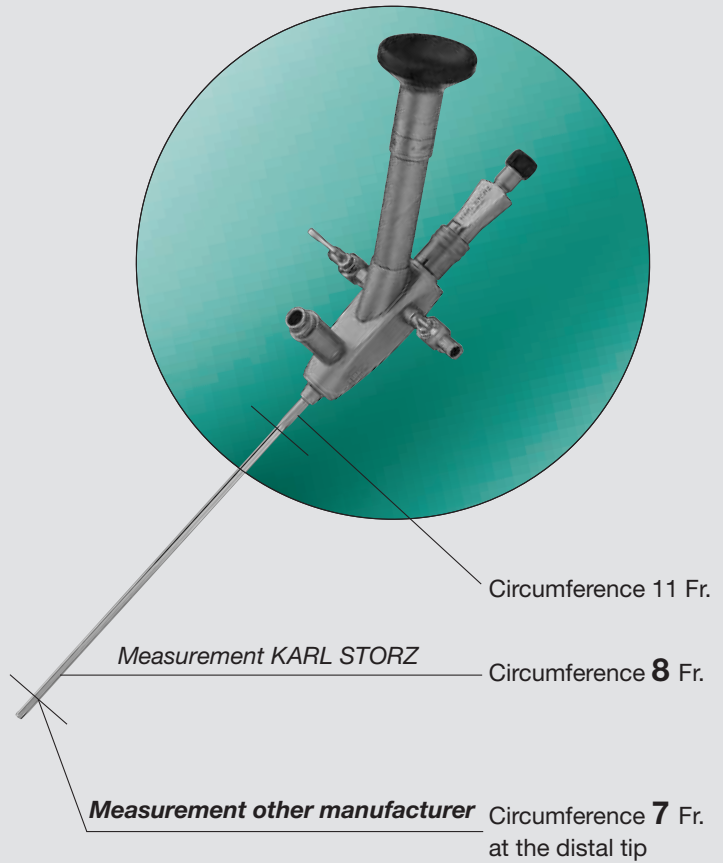
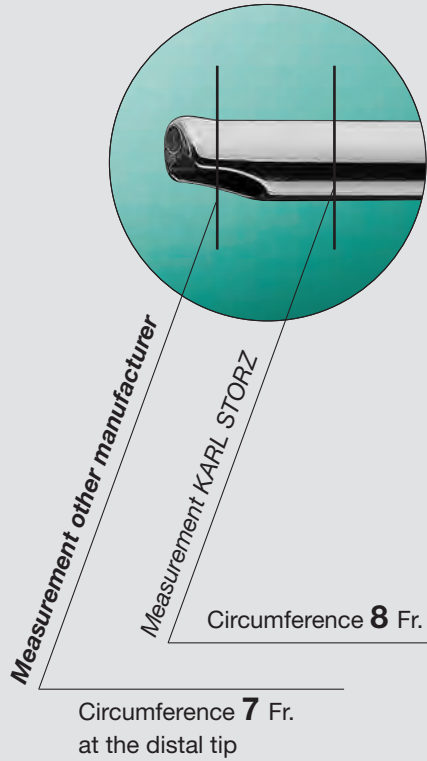
The lightweight and slender head provides the instrument with excellent balance and enables comfortable handling. Due to the significantly softer design of the sheath step, better gliding properties are achieved. The new sheath design also enables more gentle and atraumatic treatment for the patient.

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.

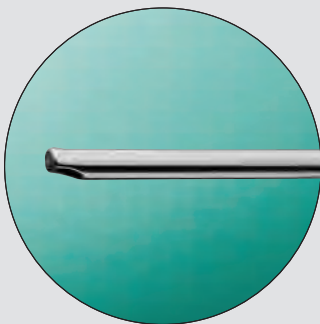
The innovative design concept of the new generation of operating cysto-urethrosopes and pediatric uretero-renoscopes provides the urologist with vastly improved possibilities for diagnosis and treatment.



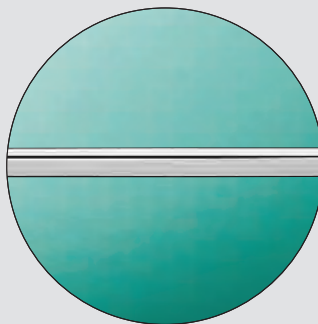
Which French specifications are important?  
You decide!



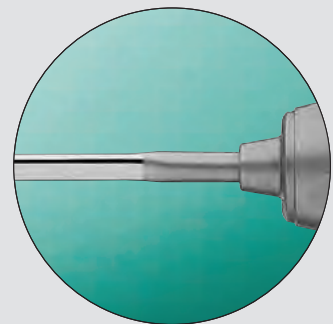
**Atraumatic tip:**  
Allows easy introduction into  
the urethra



**No step:**  
Atraumatic work  
without dilation



**Step at the proximal end of  
the sheath:**  
No dilation



## 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.

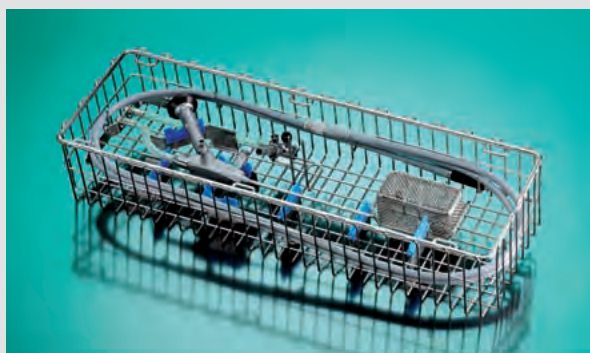


**Right-angled irrigation/suction channels** prevent positioning instruments too close to the housing, enabling optimal handling and convenient introduction.

The **flow control stopcock** allows the surgeon to dispense the inflow/outflow very precisely in critical situations and to optimally adapt to any situation.



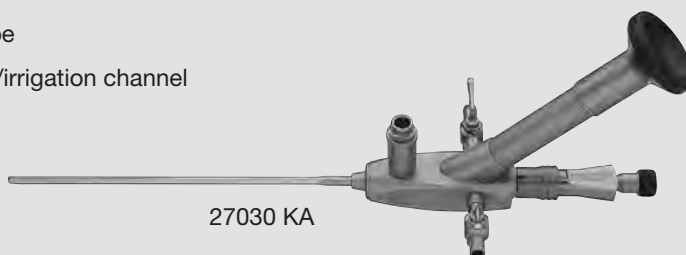
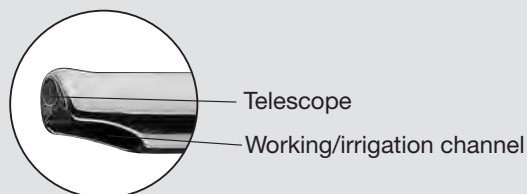
The **removable instrument ports** are attached to the operating cysto-urethroscope by means of a quick coupling mechanism and are available either with single or dual working channels. The **dual-closing sealing system** from KARL STORZ features the only sealing valve that opens and closes by itself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



8 Fr.



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:



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

27001 RA **Cleaning Adaptor**, for Instrument Ports 27001 G/GF/GH

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

### Optional accessories:



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

For use with Pediatric Cysto-Urethroscope 27030 KA



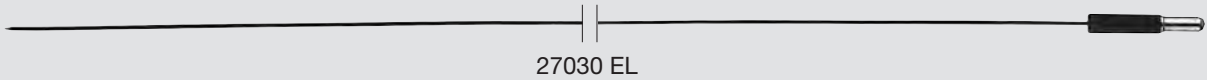
27071 TJ

**Forceps for Foreign Body Removal**, double action jaws, flexible, 3 Fr., length 28 cm



27071 ZJ

**Biopsy Forceps**, double action jaws, flexible, 3 Fr., length 28 cm

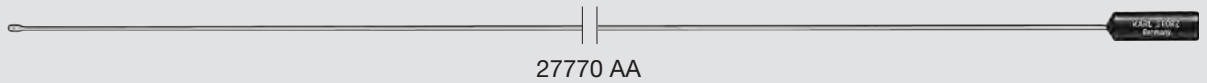


27030 EL



27030 EL

**Hook Electrode**, unipolar, 3 Fr., for single use, package of 6

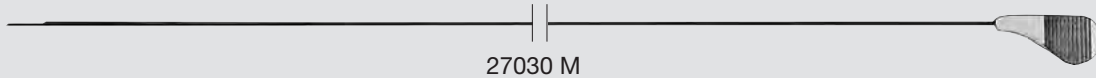


27770 AA



27770 AA

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

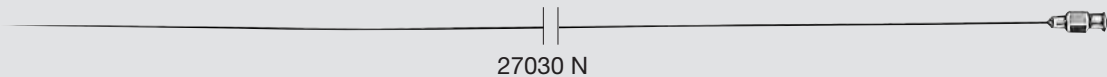


27030 M



27030 M

**Knife**, triangular tip, 3 Fr., for single use, package of 6



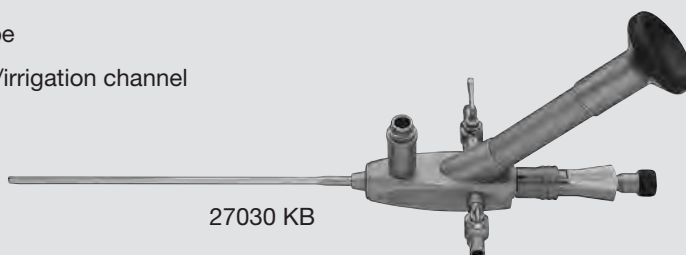
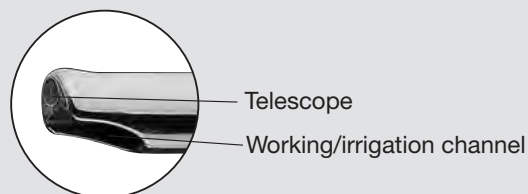
27030 N

27030 N

**Injection Needle**, rigid, 3 Fr., for single use, package of 6

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

9.5 Fr.



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:**



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

27001 RA **Cleaning Adaptor**, for Instrument Ports 27001 G/GF/GH

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

**Optional accessories:**



27001 GF **Instrument Port with Sealing System and Quick Release Lock**, 2 channels

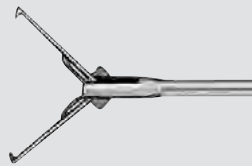


27001 GH **Instrument Port with Sealing System and Quick Release Lock**, 2 channels, 1 straight channel, 1 lateral channel

For use with Pediatric Cysto-Urethroscope 27030 KB



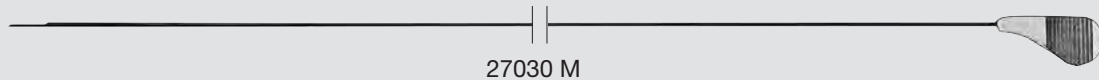
27095 F **Forceps**, for grasping stone fragments, double action jaws, 5 Fr., length 30 cm



27095 P **Forceps**, for grasping larger stones and fragments, double action jaws, 5 Fr., length 30 cm



27095 Z **Biopsy Forceps**, double action jaws, 5 Fr., length 30 cm



27030 M



27030 M **Knife**, triangular tip, 3 Fr., for single use, package of 6



27030 N

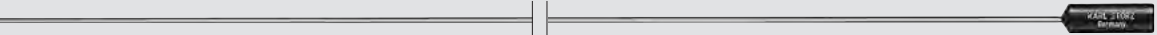
27030 N **Injection Needle**, rigid, 3 Fr., for single use, package of 6



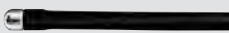
27030 EL



27030 EL **Hook Electrode**, unipolar, 3 Fr., for single use, package of 6



27770 AA



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

27770 A **Same**, 4 Fr.

27770 B **Same**, 5 Fr.



27772 AA **Needle Electrode**, unipolar, 3 Fr., length 53 cm

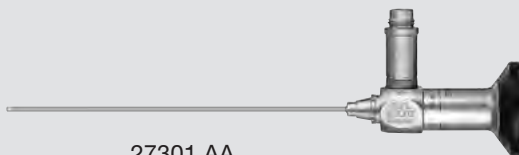
27772 A **Same**, 5 Fr.



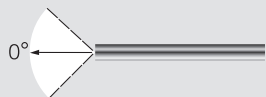
High Frequency Surgical Units and High Frequency Cords see chapter 15, UNITS

## Neonate Cystoscope-Urethroscope

7/9 Fr.



27301 AA



27301 AA

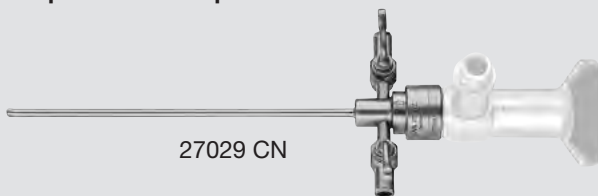
**HOPKINS® Straight Forward Telescope 0°**, diameter 1.9 mm, length 12 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



27301 BA

**HOPKINS® Forward-Oblique Telescope 30°**, diameter 1.9 mm, length 12 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

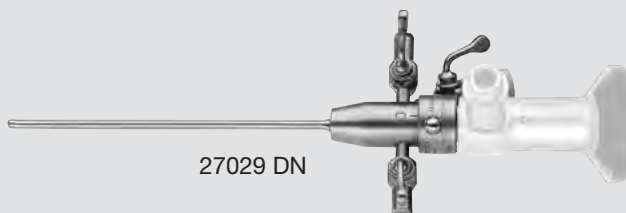
### HOHENFELLNER Neonate Cystoscope-Urethroscope



27029 CN

27029 CN

**Cystoscope-Urethroscope Sheath**, for examination and irrigation, 7 Fr., working length 10 cm, with Obturator 27029 OC and 2 LUER-Lock cones, color code: blue



27029 DN

27029 DN

**Cystoscope-Urethroscope Sheath**, for examination and irrigation, 9 Fr., working length 9 cm, with Obturator 27029 OD, 2 LUER-Lock cones and 3 Fr. working channel, color code: red



27071 TJ

**Forceps for Foreign Body Removal**, double action jaws, flexible, 3 Fr., length 28 cm



27071 ZJ

**Biopsy Forceps**, double action jaws, flexible, 3 Fr., length 28 cm



27770 AA

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



**High Frequency Surgical Units and High Frequency Cords** see chapter 15, UNITS  
**Container for the Sterilization and Storage of Telescopes** see catalog HYGIENE

## 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

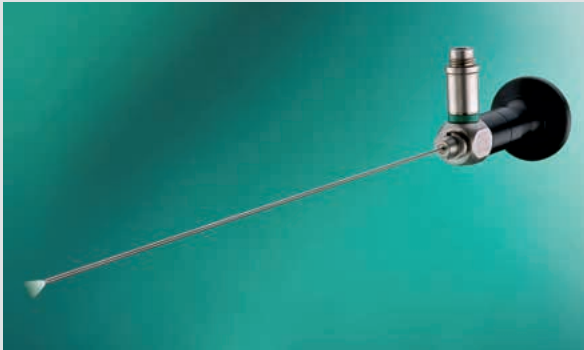
small hook knife and in selected cases the resectoscope is indicated. Sub-urethral injection of viscous fluids can be performed with the special instrument for anti-vesico-urethral reflux therapy.

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.

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



27033 AA

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



27033 AA

27033 C

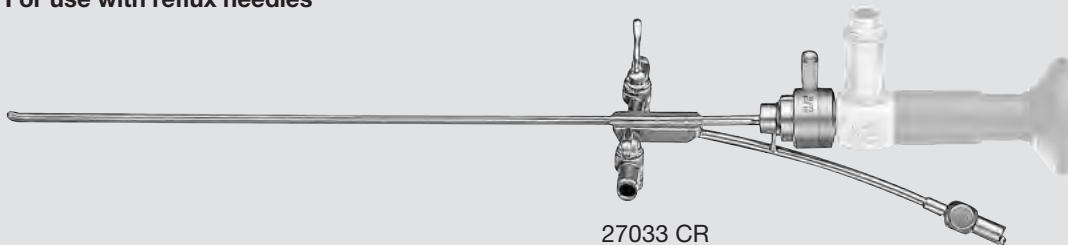
27033 C

**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 AA

27033 CR

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



8/9 Fr.

For use with Cystoscope-Urethroscope Sheaths 27033 C/D and Cystoscope-Urethroscope Sheath 27033 CR for reflux needles



27071 TJ

**Forceps for Foreign Body Removal**, double action jaws, flexible, 3 Fr., length 28 cm



27071 ZJ

**Biopsy Forceps**, double action jaws, flexible, 3 Fr., length 28 cm



27030 N

27030 N

**Injection Needle**, rigid, 3 Fr., for single use, package of 6



27030 EL



27030 EL

**Hook Electrode**, unipolar, 3 Fr., for single use, package of 6



27770 AA



27770 AA

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

27770 A

**Button Electrode**, unipolar, 4 Fr., length 53 cm



27772 AA

**Needle Electrode**, unipolar, 3 Fr., length 53 cm



For use with Cystoscope-Urethroscope Sheaths 27033 C/D



27030 M



27030 M

**Knife**, triangular tip, 3 Fr., for single use, package of 6

For use with Cystoscope-Urethroscope Sheath 27033 D



27770 B

**Button Electrode**, unipolar, 5 Fr., length 53 cm



27772 A

**Needle Electrode**, unipolar, 5 Fr., length 53 cm



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

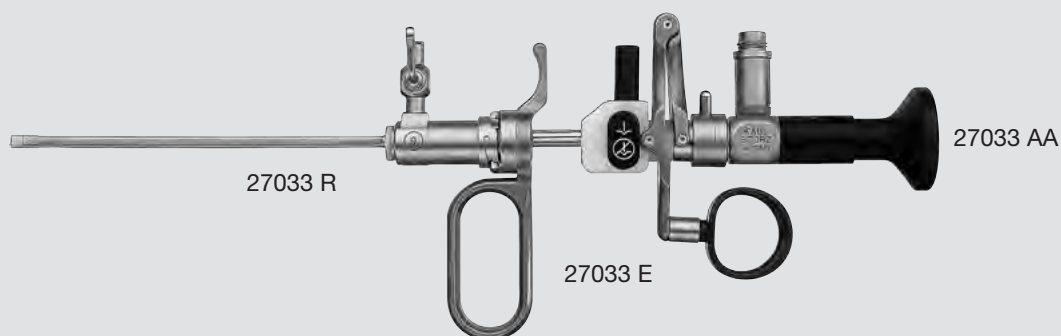
# Pediatric Resectoscopes

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**

including:

- 27033 E **Working Element**
- 27033 EG **Cutting Loop**
- 27033 EL **Coagulation Electrode**
- 2x 277 **High Frequency Cord**
- 280 **Protection Tube**



27033 R

**Resectoscope Sheath**, 9 Fr., with LUER-Lock stopcock, including connecting tube for inflow, and Obturator 27033 RO, color code: yellow

27033 F

**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



27033 EQ

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



27033 ER

**Coagulation Electrode**, angled, pointed, color code: yellow



280

280

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

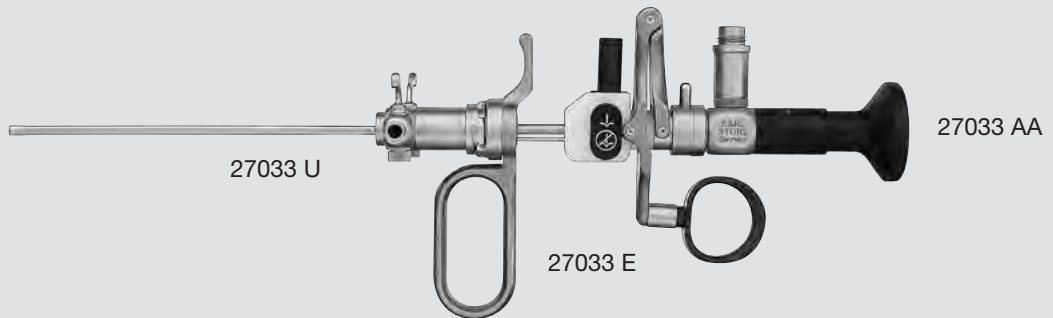
High Frequency Surgical Units and High Frequency Cords see chapter 15, UNITS

## 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

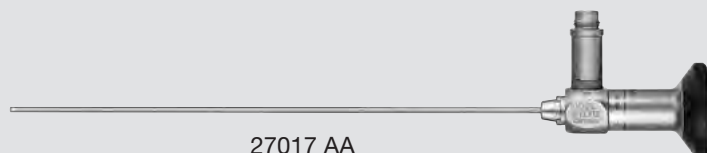
-  27033 TT **Cold Knife**, straight
-  27033 V **Cold Knife**, round
-  27033 W **Cold Knife**, sickle-shaped
-  27033 X **Cold Knife**, hook-shaped



2-081

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

9.5/11 Fr.



27017 AA



27017 AA

**HOPKINS® Straight Forward Telescope 0°**, diameter 1.9/2.1 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



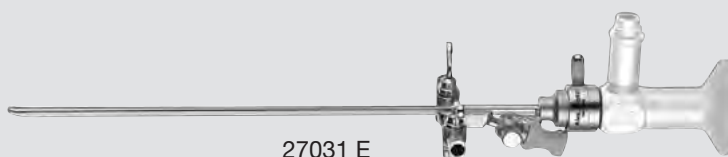
27017 BA

**HOPKINS® Forward-Oblique Telescope 30°**, diameter 1.9/2.1 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



27017 CA

**HOPKINS® Lateral Telescope 70°**, diameter 1.9/2.1 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: yellow



27031 E



sheath end with probe

27031 E

**Cystoscope-Urethroscope Sheath, 9.5 Fr.**, working length 14 cm, with 4 Fr. working channel, with Obturator 27031 EO and 2 LUER-Lock cones, color code: blue-white

27031 F

**Cystoscope-Urethroscope Sheath, 11 Fr.**, working length 14 cm, with 5 Fr. working channel, with Obturator 27031 FO and 2 LUER-Lock cones, color code: red-white

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

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, flexible, 3 Fr., length 28 cm

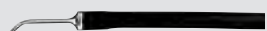


27770 AA



27770 AA

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



27772 AA

**Needle Electrode**, unipolar, 3 Fr., length 53 cm



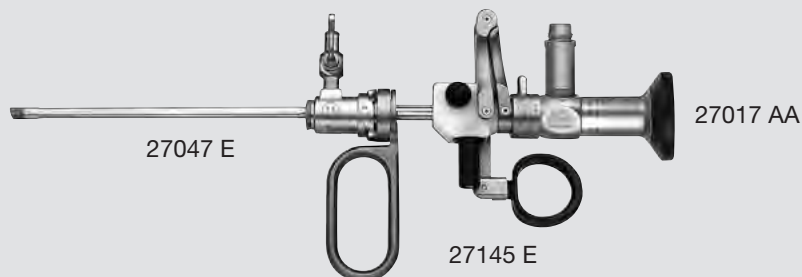
# Pediatric Resectoscopes





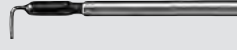
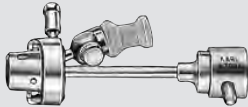

11 Fr., working length 12 cm  
for use with HOPKINS® Straight Forward Telescope 27017 AA



### Cutting by means of a spring

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



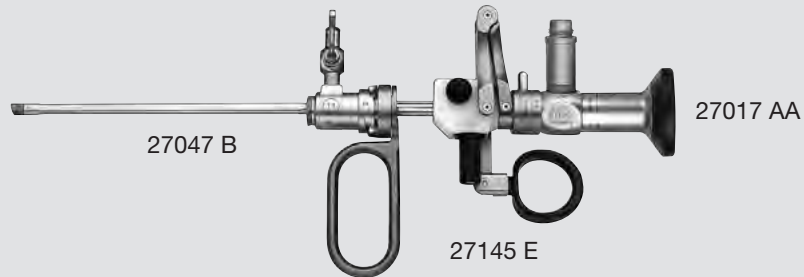
- 27145 EA    **Electrotome**  
including:  
27145 E    **Working Element**  
27147 EG    **Cutting Loop**  
27147 EL    **Coagulation Electrode**  
2x 277    **High Frequency Cord**  
280    **Protection Tube**
  
- 27047 E    **Resectoscope Sheath**, with LUER-Lock stopcock,  
including connecting 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    **Protection Tube**, for sterilization and storage of  
electrodes, loops, curettes and knives

8-013

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

# Pediatric Optical Urethrotome

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

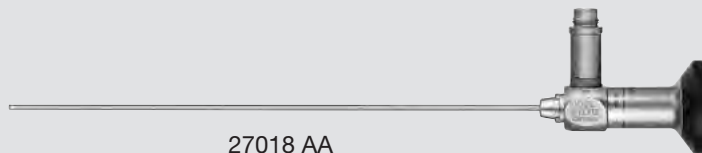


280 **Protection Tube**, for sterilization and storage of electrodes, loops, curettes and knives

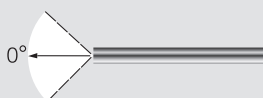
9-98z

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

11/13/14.5 Fr.

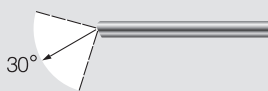


27018 AA



27018 AA

**HOPKINS® Straight Forward Telescope 0°**, diameter 2.7 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



27018 BA

**HOPKINS® Forward-Oblique Telescope 30°**, diameter 2.7 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



27018 CA

**HOPKINS® Lateral Telescope 70°**, diameter 2.7 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: yellow



27032 K

27032 K

**Cystoscope-Urethroscope Sheath, 11 Fr.**, working length 14 cm, with 3 Fr. working channel, with Obturator 27032 OK and 2 LUER-Lock cones, color code: red

27032 L

**Cystoscope-Urethroscope Sheath, 13 Fr.**, working length 14 cm, with 4 Fr. working channel, with Obturator 27032 LO and 2 LUER-Lock cones, color code: green



27032 M

27032 M

**Cystoscope-Urethroscope Sheath, 14.5 Fr.**, working length 14 cm, with working channel, with Obturator 27032 MO and 2 LUER-Lock connectors, working channel with 27032 F, 5 Fr., working channel with 27032 EK, 3 Fr., color code: white

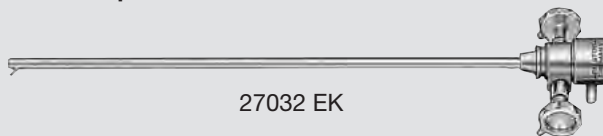
Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



## Pediatric Cystoscope-Urethroscopes

11/13/14.5 Fr.

for use with Cystoscope-Urethroscope Sheaths 27032 K/L/M



27032 EK

27032 EK **Catheter Deflecting Mechanism**, with ALBARRAN lever, for instruments 3 Fr., for use with Cystoscope-Urethroscope Sheath 27032 M



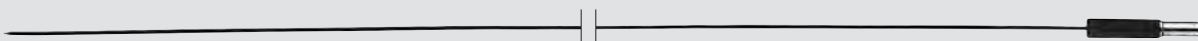
27032 F **Examination Insert**, for use with Cystoscope-Urethroscope Sheath 27032 M



27071 TJ **Forceps for Foreign Body Removal**, double action jaws, flexible, 3 Fr., length 28 cm



27071 ZJ **Biopsy Forceps**, double action jaws, flexible, 3 Fr., length 28 cm



27030 EL



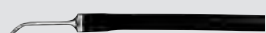
27030 EL **Hook Electrode**, unipolar, 3 Fr., for single use, package of 6



27770 AA



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



27772 AA **Needle Electrode**, unipolar, 3 Fr., length 53 cm



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

# Pediatric Resectoscopes

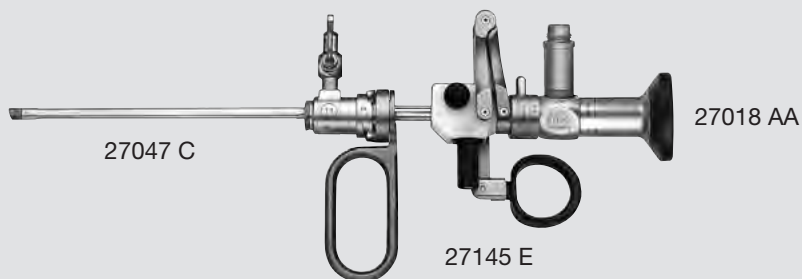
13 Fr., working length 11 cm  
for use with HOPKINS® Straight Forward Telescope 27018 AA



### Cutting by means of a spring

The thumb ring is movable.

In rest position the electrode is inside the sheath.



27145 EB

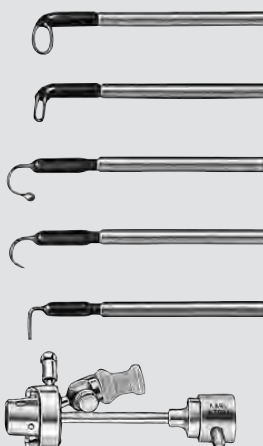
### Electrotome

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 EG

**Cutting Loop**, angled, color code: black

27145 EL

**Coagulation Electrode**, angled, blunt, color code: black

27145 EP

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

27145 EQ

**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



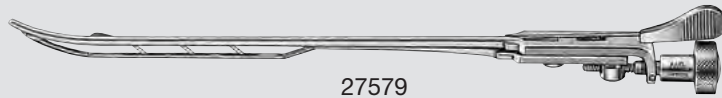
280

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



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

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

# A New Generation <sup>NEW</sup> of Pressure-Controlled PCNL Systems

MIP – Minimally Invasive Percutaneous Nephrolitholapaxy

**STORZ**  
KARL STORZ — ENDOSKOPE

**MIP** Minimal  
Invasive  
PCNL

## The New Family of MIP Systems and Innovative Features



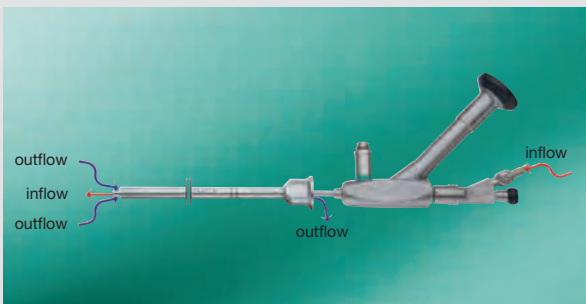
### Versatility

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.



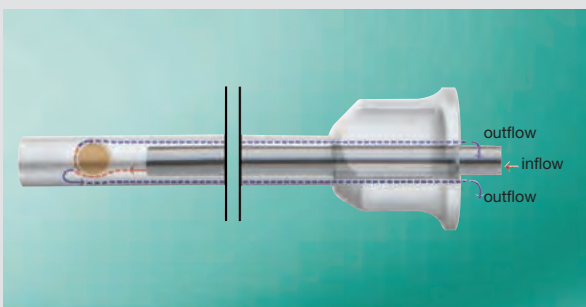
### One-step-bougie

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.

# MIP M – Percutaneous Nephroscope <sup>NEW</sup>

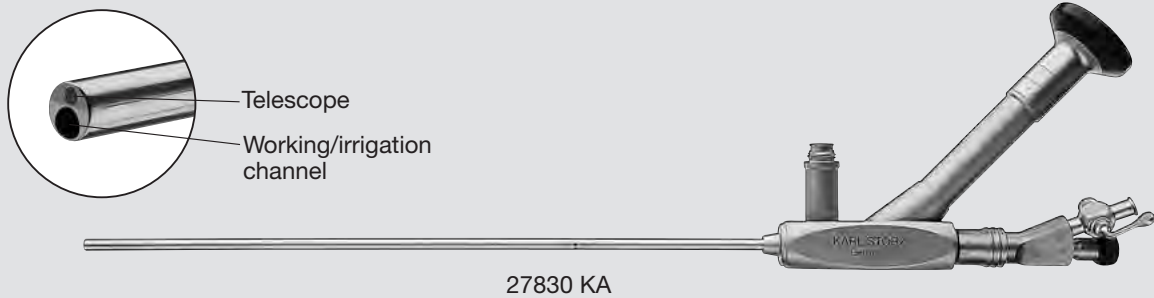


**Special Features:**

- 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

**Specifications:**

- 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
- Eye-piece: angled



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**



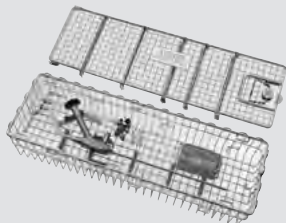
27550 N      **Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended**

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**

**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**

# Dilators, Sheaths and Applicators <sup>NEW</sup>

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

NEW

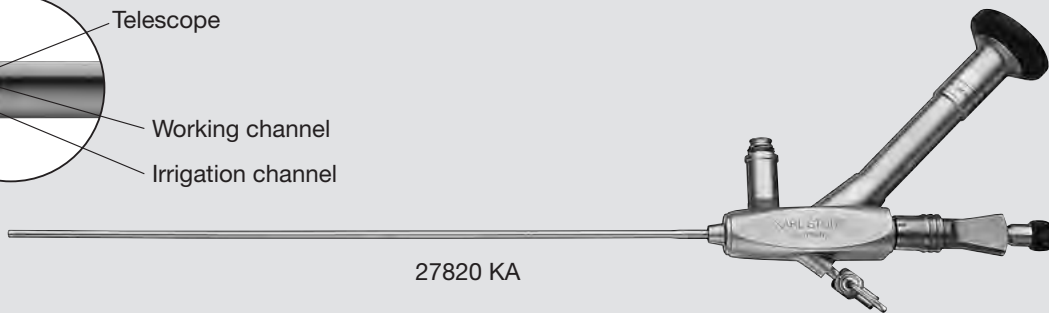
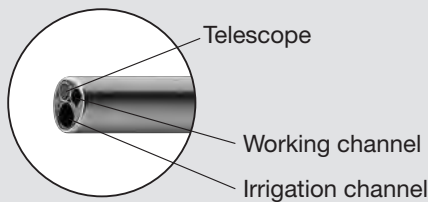


### Special Features:

- 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 ureteroscopy 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°
Length:	24 cm
Eyepiece:	angled



27820 KA Nephroscope for MIP XS/S, autoclavable

### Following accessories are included in delivery:

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

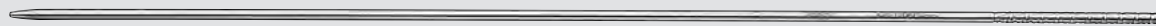
MIP – Minimally Invasive PCNL, for further information see pages 179-189  
**CALCULASE II SCB LASER System** for endoscopic treatment of bladder, ureter and kidney stones, see chapter 15, UNITS

# Dilators, Sheaths and Applicators <sup>NEW</sup>

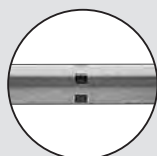
for MIP XS/S



## Dilator and Operating Sheaths for MIP XS



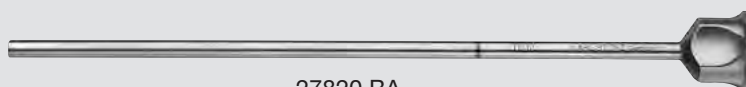
27820 AA



Dashed ring marking

27820 AA

**One Step Dilator**, with central channel for guide wires, for use with 8.5/9.5 Fr. Operating Sheaths 27820 BA/BAS



27820 BA

27820 BA

**Operating Sheath**, 8.5/9.5 Fr., working length 15 cm

27820 BAS

**Operating Sheath**, for the supine position, 8.5/9.5 Fr., working length 18 cm

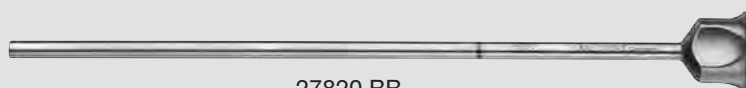
## Dilator and Operating Sheaths for MIP S



27820 AB

27820 AB

**One Step Dilator**, with central channel for guide wires, for use with 11/12 Fr. Operating Sheath 27820 BB



27820 BB

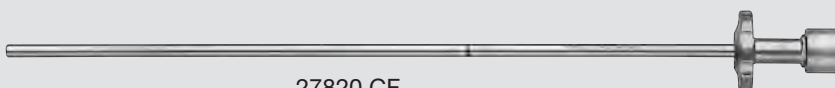
27820 BB

**Operating Sheath**, 11/12 Fr., working length 15 cm, for continuous irrigation and suction

27820 BBS

**Operating Sheath**, for the supine position, 11/12 Fr., working length 18 cm, for continuous irrigation and suction

## Applicators for MIP XS/S



27820 CF

27820 CF

**Applicator for Sealant**, including sheath and rod, for use with Operating Sheaths 27820 BA/BB

27820 CFS

**Applicator for Sealant**, for the supine position, including sheath and rod, for use with Operating Sheaths 27820 BAS/BBS



# UROMAT E.A.S.I.® SCB <sup>NEW</sup>

System Components  
for MIP XS



UNIT SIDE

PATIENT SIDE

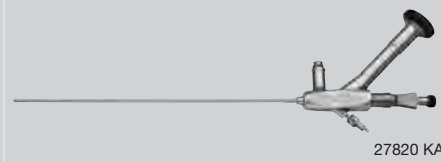


Irrigation Tubing Set



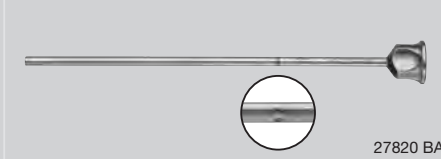
031717-10\*

Nephroscope for MIP XS/S



27820 KA

Operating Sheath, 8.5/9.5 Fr.,  
use of UROMAT E.A.S.I.® SCB mandatory



27820 BA

Suction Tubing Set



031217-10\*

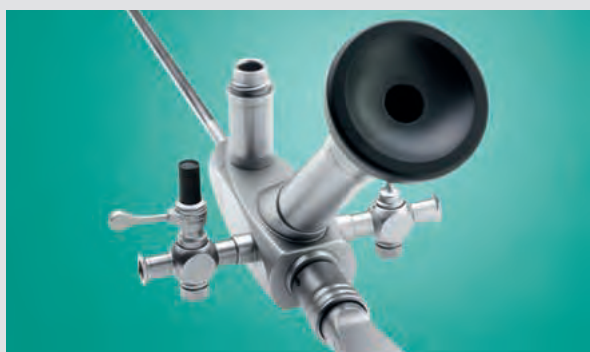
10-14



## 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-urethrosopes 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

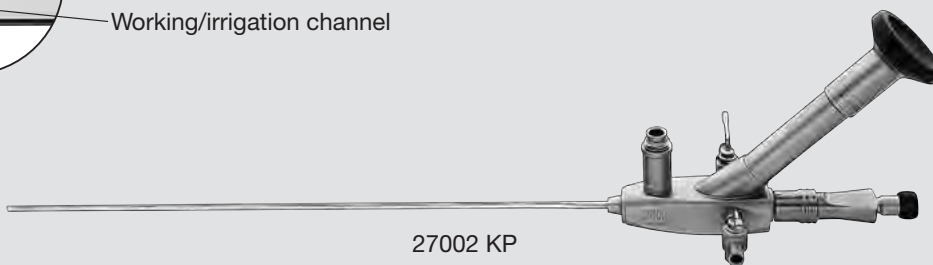
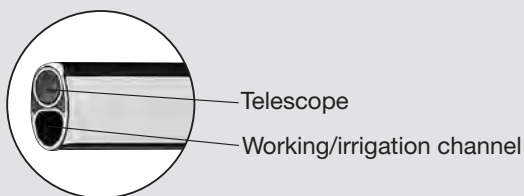
7.3 Fr., length 25 cm

**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., <b>conical</b> , 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

# Accessories

Pediatric Uretero-Renoscopes

Following accessories are included in delivery:



27001 G **Instrument Port with Sealing System and Quick Release Lock**, 1 channel



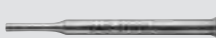
27550 N **Seal**, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended

27500 **LUER-Lock Tube Connector**, male, tube diameter 9 mm

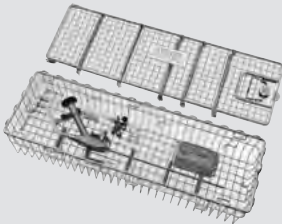


27502 **LUER-Lock Tube Connector**, with stopcock, dismantling

27504 **Flow Control Stopcock**



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



39501 XK **Wire Tray**  
including:  
**Cleaning Adaptor**, for Instrument Ports 27001 G/GF/GH/GG/GP

Optional accessories:



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

# ACCESSORIES

**BOUGIES, CATHETERS . . . . . 158-159**

**MEATUS CLAMPS,  
EVACUATORS,  
BLADDER SYRINGES . . . . . 160-161**

**ADAPTORS, TUBES, SEALS . . . . . 162**

**ACCESSORIES FOR  
MAINTENANCE AND CLEANING . . . 163**



### OTIS Bougies à Boule

27574 A	9 Fr.	27574 H	19.5 Fr.
27574 B	10.5 Fr.	27574 J	21 Fr.
27574 C	12 Fr.	27574 K	22.5 Fr.
27574 D	13.5 Fr.	27574 L	24 Fr.
27574 E	15 Fr.	27574 M	25.5 Fr.
27574 F	16.5 Fr.	27574 N	27 Fr.
27574 G	18 Fr.	27574 O	28.5 Fr.

### FILIFORM Bougies

for use with PHILIPS Catheter 27577

27576 B	3 Fr.
27576 C	4 Fr.
27576 D	5 Fr.
27576 E	6 Fr.
27576 F	7 Fr.

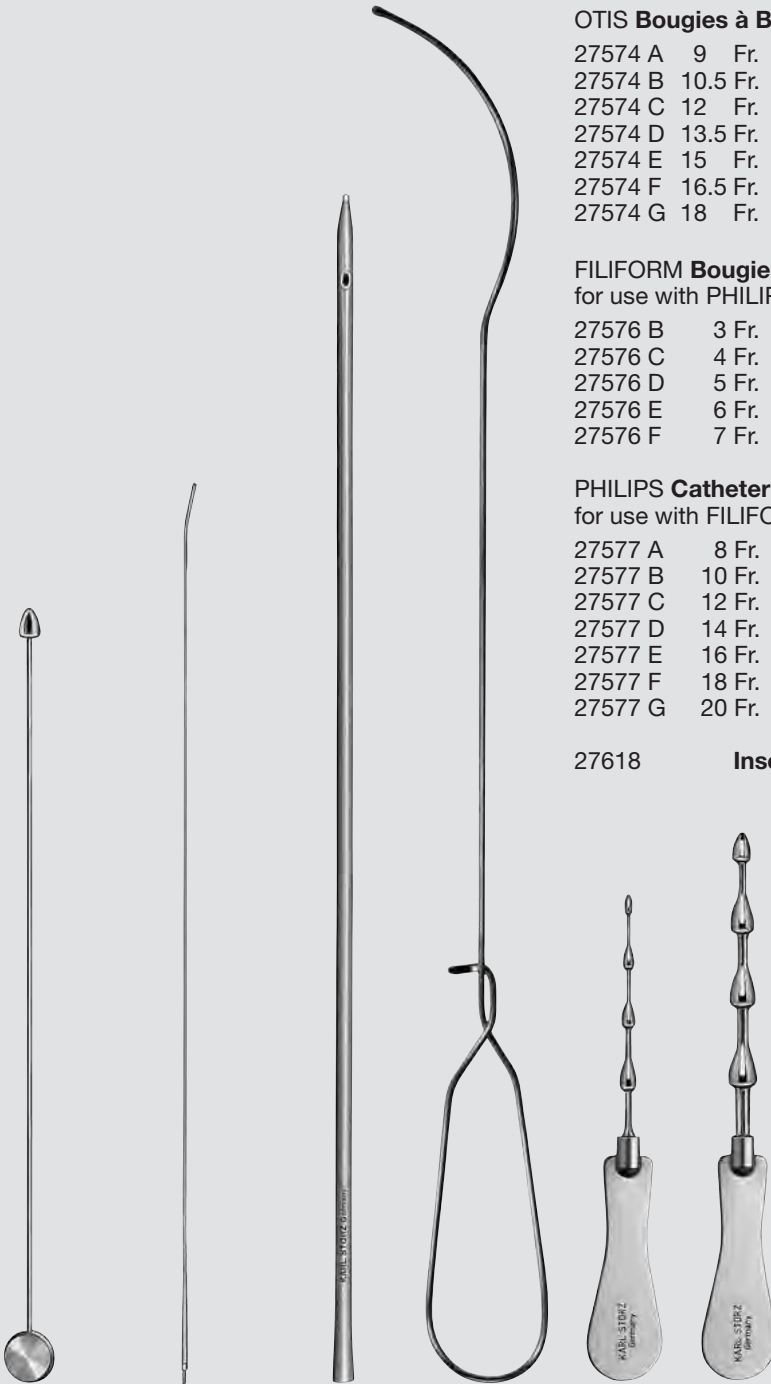
### PHILIPS Catheter

for use with FILIFORM Bougies 27576

27577 A	8 Fr.
27577 B	10 Fr.
27577 C	12 Fr.
27577 D	14 Fr.
27577 E	16 Fr.
27577 F	18 Fr.
27577 G	20 Fr.

27618

**Insertion Mandrel, for catheters**



27574 A – O

27576 B – F

27577 A – G

27618

27575 A

27575 B

27575 A OTIS Bougie à Boule,  
9-12-15-18 Fr.,  
for female urethra

27575 B **Same,** 21-24-27-30 Fr.



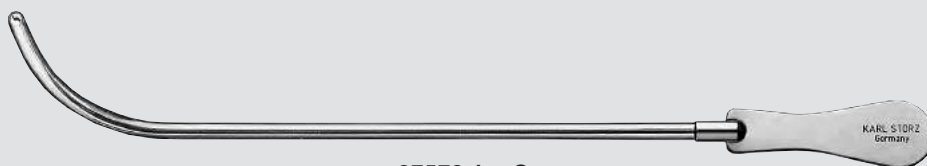
27560

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



27561 – 27563

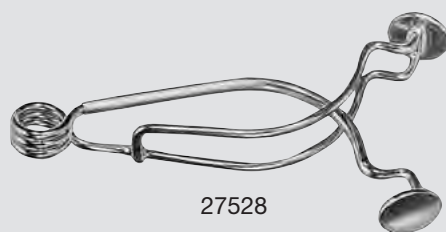
27561 **Orifice Stretcher and Ruler, graduated,**  
10.5 – 16.5 Fr., with channel  
27562 **Same, 16.5 – 22.5 Fr.**  
27563 **Same, 22.5 – 28.5 Fr.**



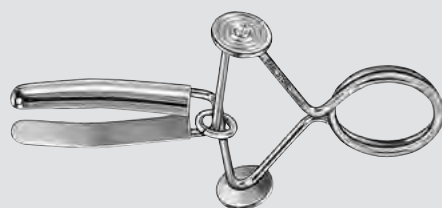
27572 A – O

**DITTEL Bougies, curved, without channel**

27572 A 9 Fr.	27572 F 16.5 Fr.	27572 L 24 Fr.
27572 B 10.5 Fr.	27572 G 18 Fr.	27572 M 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 O 28.5 Fr.
27572 E 15 Fr.	27572 K 22.5 Fr.	



27528 STOCKMANN Meatus Clamp



27529 STRAUSS Meatus Clamp



- 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



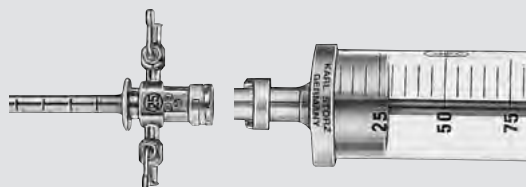


27211 LO TOOMEY **Syringe**, 50 cc  
27212 LO TOOMEY **Syringe**, 100 cc







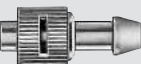









27215 LO

- 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.

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

# Accessories for Maintenance and Cleaning



27652



27650 A - G



27651 AL - UB

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 <b>CLICKline®</b> and <b>ROBI®</b>
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



# LED Headlight KS70 <sup>NEW</sup>

## 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 <sup>NEW</sup>

## 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







# **PERCUTANEOUS NEPHROSCOPES**

**CANNULAS AND  
DILATION SETS . . . . .171**

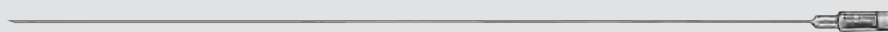
**PERCUTANEOUS  
NEPHROSCOPES . . . . . 172-178**

**MIP  
MINIMALLY INVASIVE PERCUTANEOUS  
NEPHROLITHOLAPAXY . . . . . 179-190**



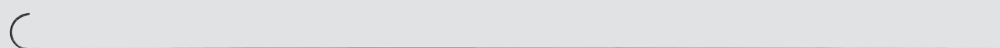
# Cannulas and Dilation Sets

for Percutaneous Nephroscopy



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

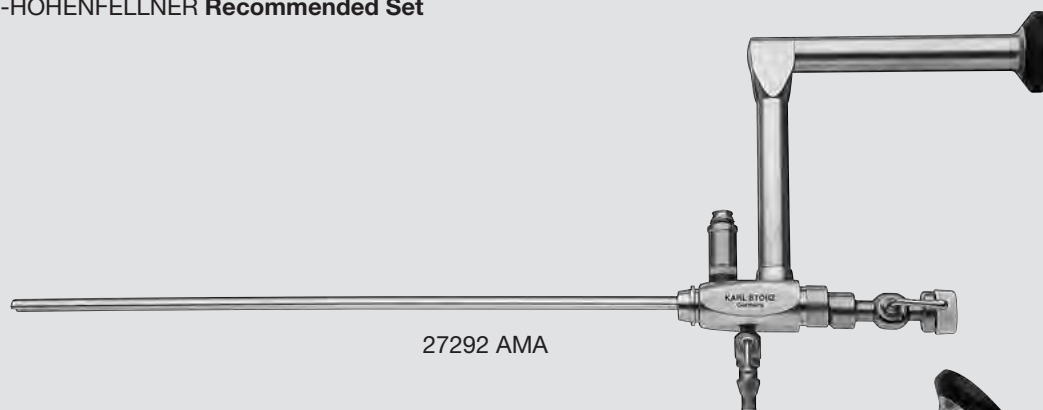
- 27091 A **Dilation Cannula**, diameter 3 mm, for introduction of a second Guide Wire 27091 S, consisting of an inner and outer cannula  
The dilation cannula is introduced over the guide wire and the inner cannula is removed. A second guide wire can be introduced via the positioned outer cannula which can then be removed. The ALKEN Telescope Bougie Set 27090 A/27290 A is introduced over one of the two wires for dilation.

# Percutaneous Nephroscopes

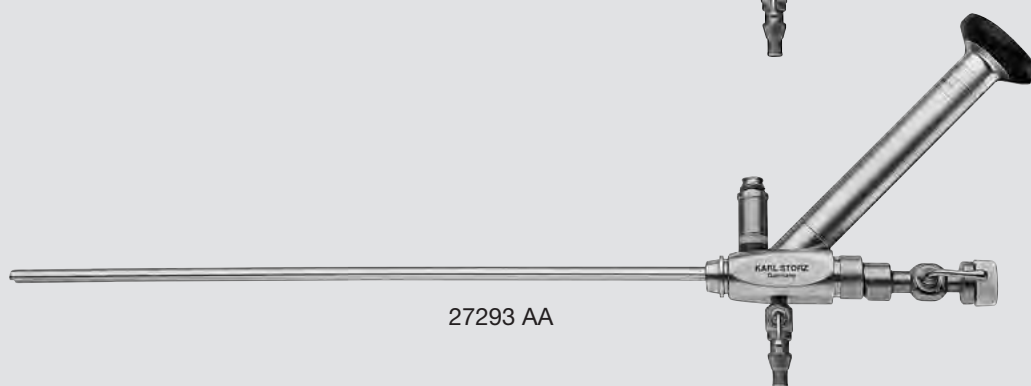
with Continuous Irrigation and Suction

Length 25 cm

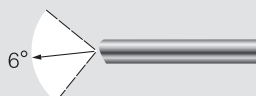
ALKEN-HOHENFELLNER Recommended Set



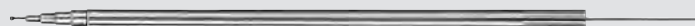
27292 AMA



27293 AA



- 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



27290 A

- 27290 A **Telescope Bougie Set**, including 6 dilation sleeves 9, 12, 15, 18, 21 and 24 Fr., with 2 rigid guide wires and 2 flexible guide wires
- 27290 AH **Dilator**, 27 Fr., for use with Telescope Bougie Set 27290 A
- 27290 AJ **Same**, 30 Fr.

Light Cables see catalog TELEPRESENCE

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

## Percutaneous Nephroscopes

with Continuous Irrigation and Suction

Length 25 cm

Sheaths for continuous irrigation and suction



27293 BD/CD

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



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



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



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

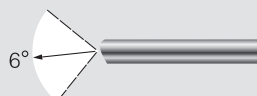
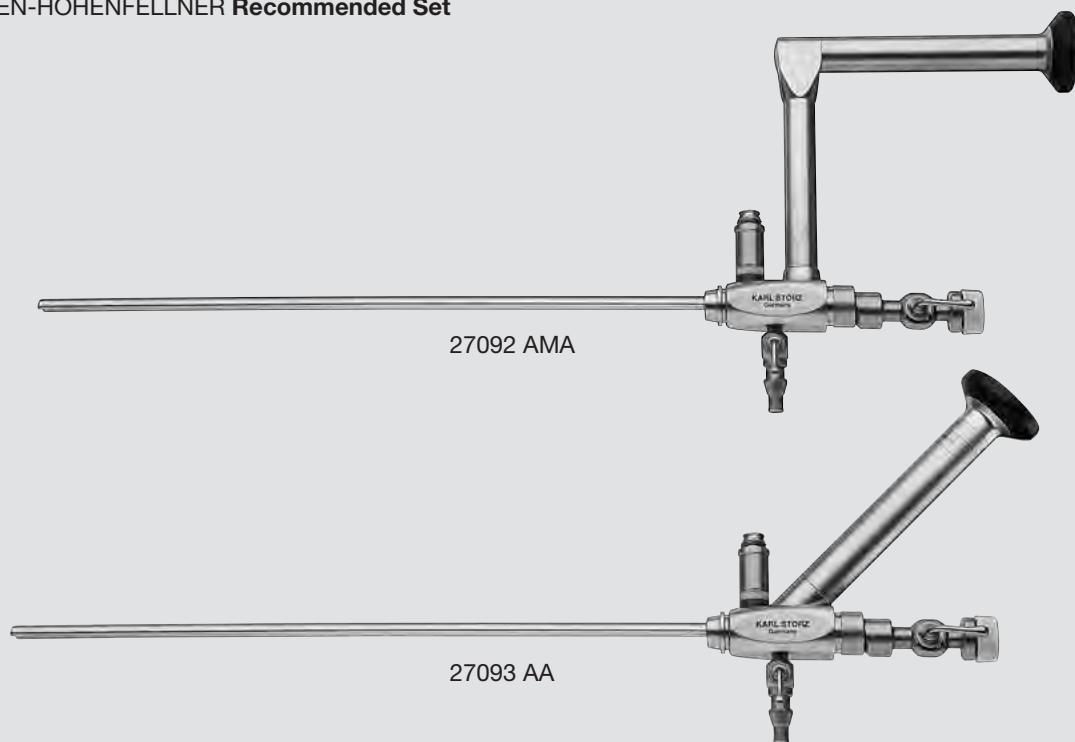
**CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney**  
see chapter 15, UNITS

# Percutaneous Nephroscopes

with Continuous Irrigation and Suction

Length 19 cm

ALKEN-HOHENFELLNER Recommended Set



- 27092 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-yellow  
**or**  
27093 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-yellow



- 27090 A  
27090 A **Telescope Bougie Set**, including 6 dilation sleeves 9, 12, 15, 18, 21 and 24 Fr., with 2 rigid guide wires and 2 flexible guide wires  
27090 AH **Dilator**, 27 Fr., for use with telescope bougie set  
27090 AJ **Same**, 30 Fr.

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE

# Percutaneous Nephroscopes

with Continuous Irrigation and Suction

Length 19 cm

Sheaths for continuous irrigation and suction



27093 BD/CD

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

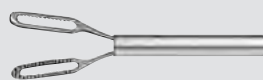
# Operating Instruments

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

## ALKEN-HOHENFELLNER Recommended Set

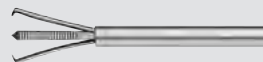
Length 38 cm, color code: red-black,

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

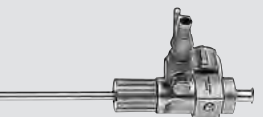
27294 SB

**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

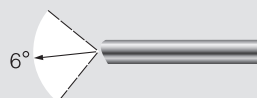
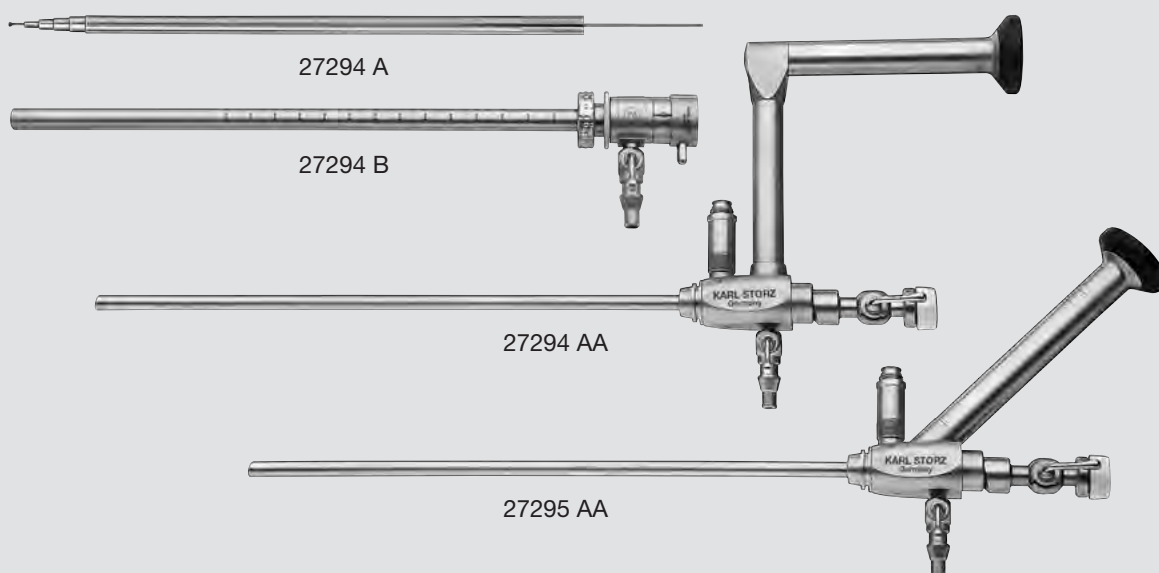
**CALCULASE II SCB LASER System for endoscopic treatment of stone in bladder, ureter and kidney**  
see chapter 15, UNITS



# Percutaneous Nephroscopes, "Slender" Model

for Percutaneous Removal of Kidney Stones

18/22 Fr., length 24 cm



- 27294 AA **HOPKINS® Wide-Angle Straight Forward Telescope 6°**, 18 Fr., with parallel eyepiece, **autoclavable**, fiber optic light transmission incorporated with 13.7 Fr. working channel, with LUER-Lock connector for inflow, color code: green-blue
- 27295 AA **HOPKINS® Wide-Angle Straight Forward Telescope 6°**, 18 Fr., with angled eyepiece, **autoclavable**, fiber optic light transmission incorporated with 13.7 Fr. working channel, with LUER-Lock connector for inflow, color code: green-blue
- 27294 A **Telescope Bougie Set**, including 5 dilation sleeves 9, 12, 15, 18 and 20 Fr., 2 rigid guide wires, 2 flexible guide wires and 1 protective tube
- 27294 B **Operating Sheath**, 22 Fr., for continuous irrigation and suction, with LUER-Lock stopcock, rotating, color code: blue
- 27294 BO **Hollow Obturator and Fascial Dilator**, color code: blue
- 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
- 27294 N **Adaptor**, for use with Telescopes 27294 AA, 27295 AA with standard 24/26 Fr. resectoscope sheaths

**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

for Percutaneous Removal of Kidney Stones

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

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

# A New Generation <sup>NEW</sup> of Pressure-Controlled PCNL Systems

MIP – Minimally Invasive Percutaneous Nephrolitholapaxy



## NAGELE Modular Minimally Invasive PCNL System

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-renaloscopes 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.

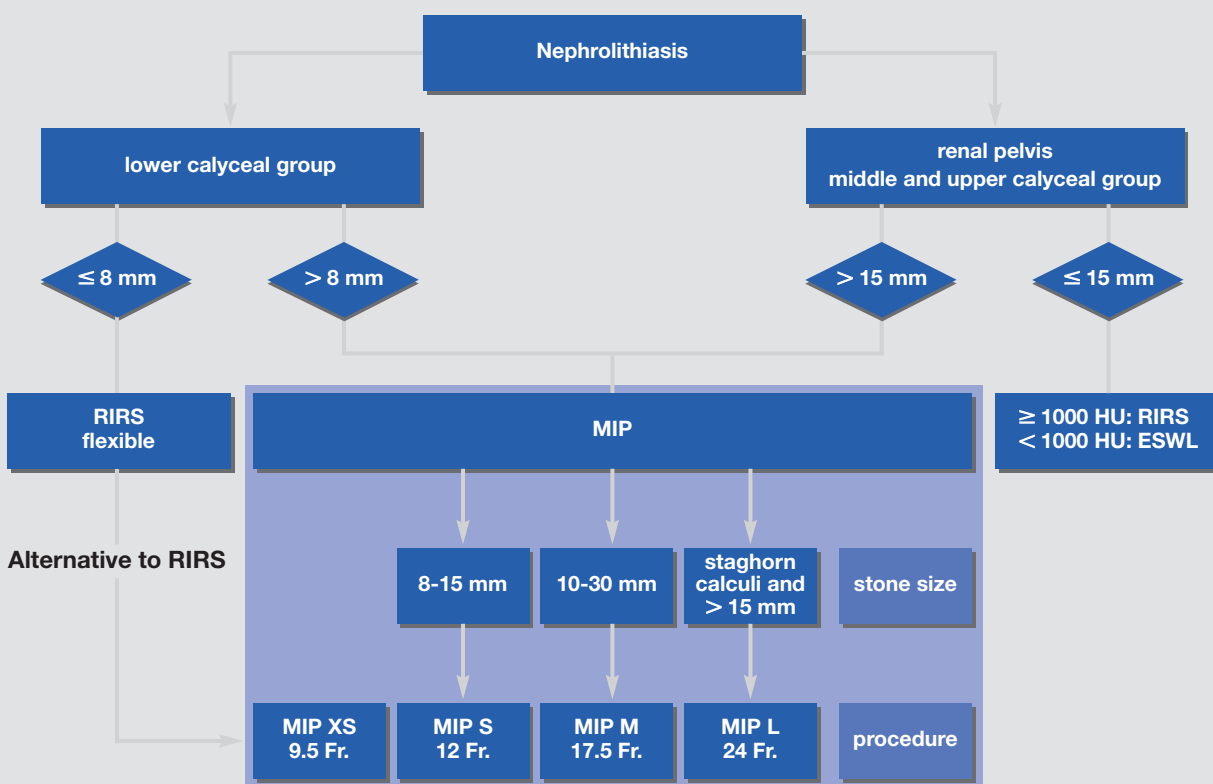
In recent years, the concept of minimally invasive percutaneous stone treatment (MIP) has become an accepted standard in miniaturized percutaneous surgery. This has been corroborated in numerous publications.

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



10-14

# A New Generation <sup>NEW</sup> of Pressure-Controlled PCNL Systems

MIP – Minimally Invasive Percutaneous Nephrolitholapaxy

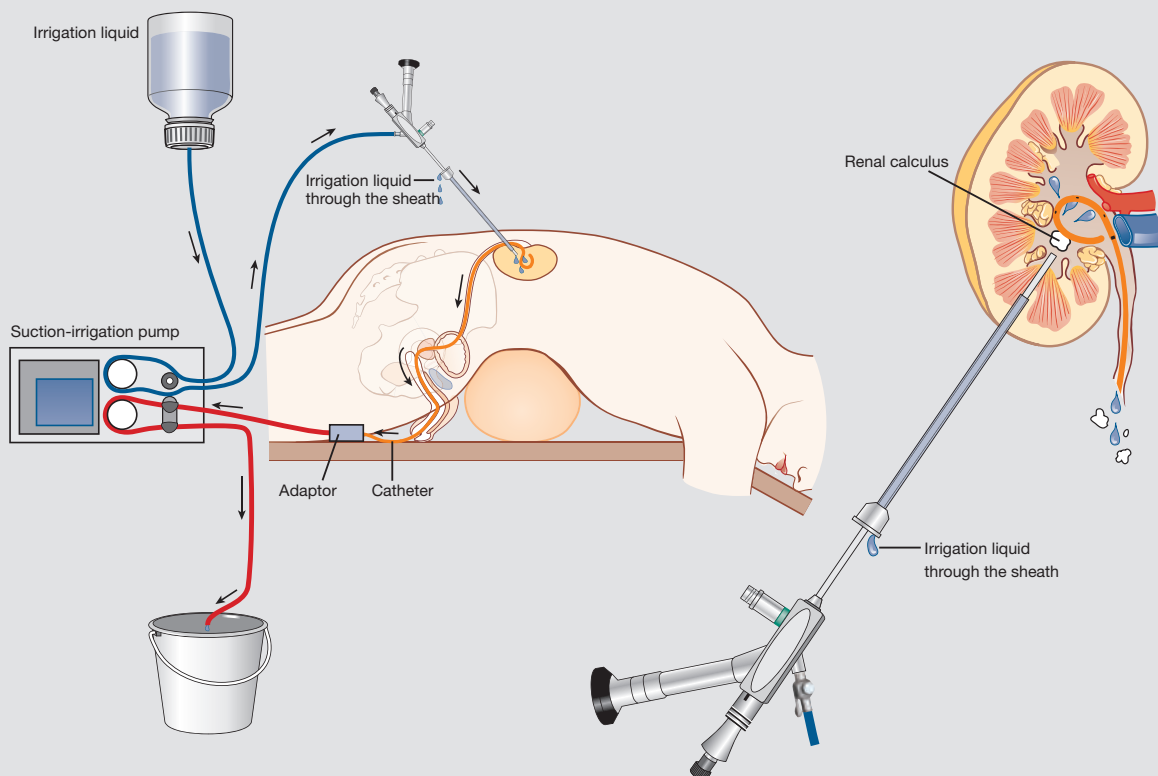
**STORZ**  
KARL STORZ — ENDOSKOPE

**MIP** Minimal  
Invasive  
PCNL

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-roscope 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*

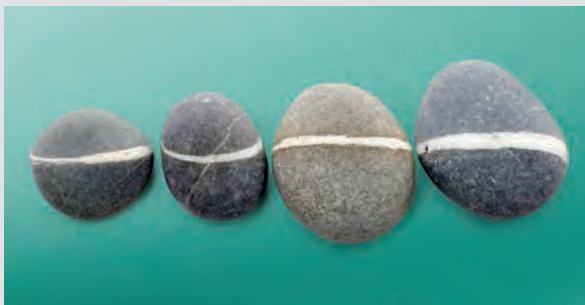
10-141

# A New Generation <sup>NEW</sup> of Pressure-Controlled PCNL Systems

MIP – Minimally Invasive Percutaneous Nephrolitholapaxy



## The New Family of MIP Systems and Innovative Features



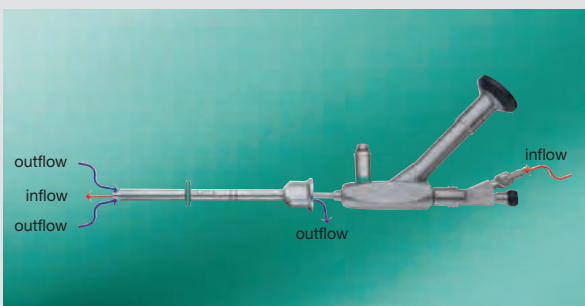
### Versatility

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.



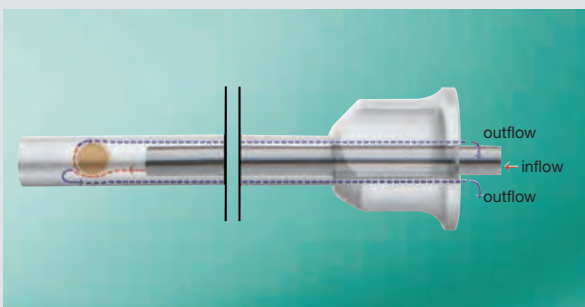
### One-step-bougie

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

# MIP L – Percutaneous Nephroscope <sup>NEW</sup>

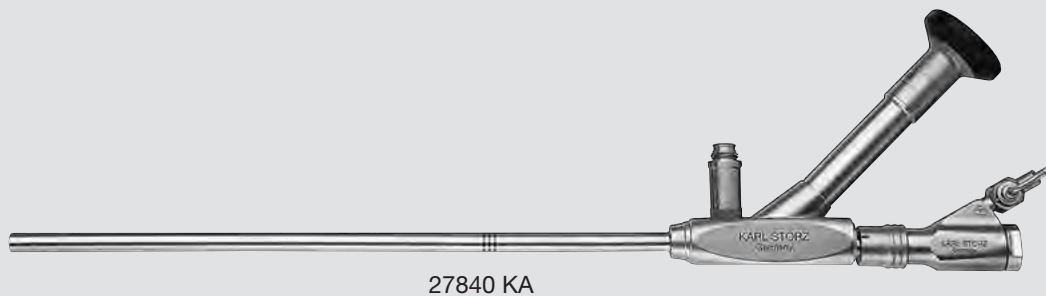


### Special Features:

- 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

### Specifications:

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
Eye-piece:	angled



27840 KA      **Nephroscope for MIP L, autoclavable**

### Following accessories are included in delivery:



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

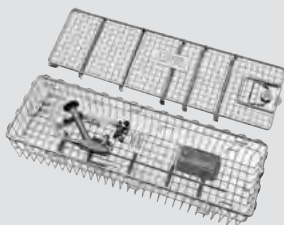
27502      **LUER-Lock Tube Connector**, with stopcock, dismantling



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

30160 XA      **Silicone Leaflet Washer**, package of 10

30160 XB      **Seal**, package of 10



39501 XKL      **Wire Tray** including:  
**Cleaning Adaptor**, for Instrument Port 27840 GP

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

# Dilators, Sheaths and Applicators <sup>NEW</sup>

for MIP L



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

# MIP M – Percutaneous Nephroscope <sup>NEW</sup>

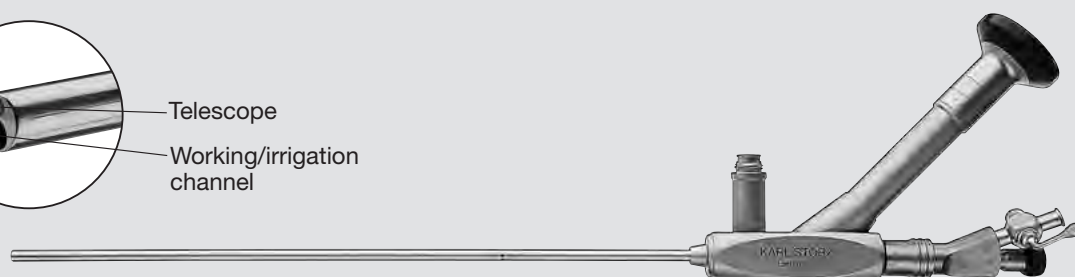
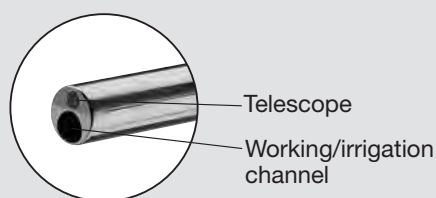


### Special Features:

- 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

### Specifications:

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**



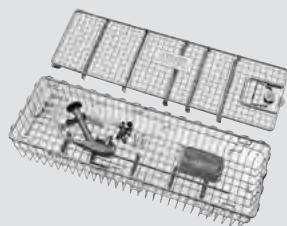
27550 N **Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended**

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



# Dilators, Sheaths and Applicators <sup>NEW</sup>

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

NEW

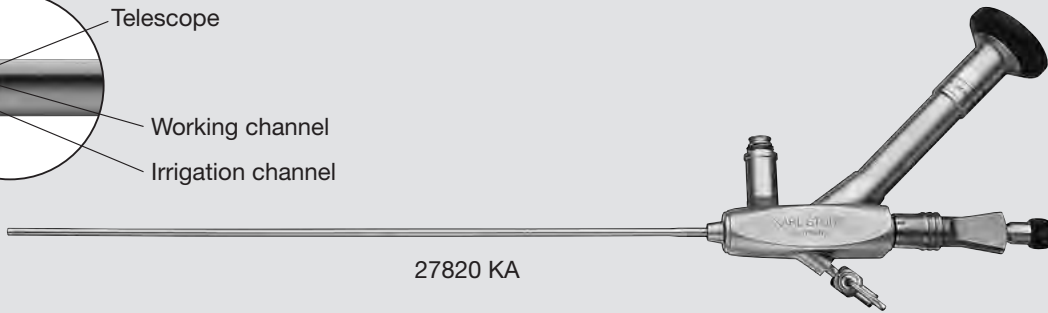
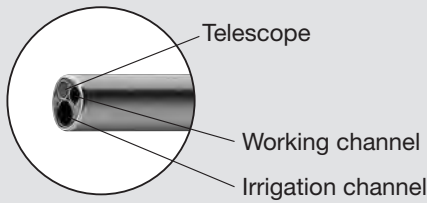


**Special Features:**

- 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-rensoscopy 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°
Length:	24 cm
Eyepiece:	angled



27820 KA Nephroscope for MIP XS/S, autoclavable

**Following accessories are included in delivery:**

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

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

# Dilators, Sheaths and Applicators <sup>NEW</sup>

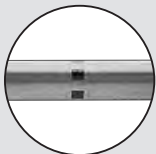
for MIP XS/S



## Dilator and Operating Sheaths for MIP XS



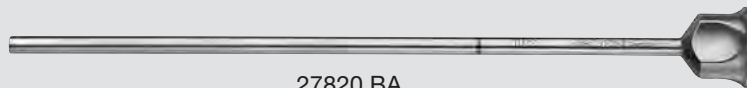
27820 AA



Dashed ring marking

27820 AA

**One Step Dilator**, with central channel for guide wires, for use with 8.5/9.5 Fr. Operating Sheaths 27820 BA/BAS



27820 BA

27820 BA

**Operating Sheath**, 8.5/9.5 Fr., working length 15 cm

27820 BAS

**Operating Sheath**, for the supine position, 8.5/9.5 Fr., working length 18 cm

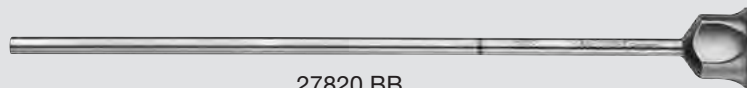
## Dilator and operating sheaths for MIP S



27820 AB

27820 AB

**One Step Dilator**, with central channel for guide wires, for use with 11/12 Fr. Operating Sheath 27820 BB



27820 BB

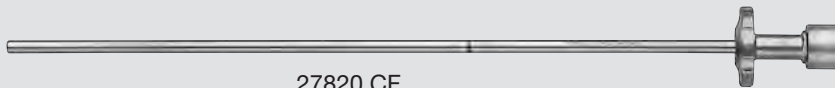
27820 BB

**Operating Sheath**, 11/12 Fr., working length 15 cm, for continuous irrigation and suction

27820 BBS

**Operating Sheath**, for the supine position, 11/12 Fr., working length 18 cm, for continuous irrigation and suction

## Applicators for MIP XS/S



27820 CF

27820 CF

**Applicator for Sealant**, including sheath and rod, for use with Operating Sheaths 27820 BA/BB

27820 CFS

**Applicator for Sealant**, for the supine position, including sheath and rod, for use with Operating Sheaths 27820 BAS/BBS

# UROMAT E.A.S.I.® SCB <sup>NEW</sup>

System Components  
for MIP XS

**STORZ**  
KARL STORZ — ENDOSKOPE

**MIP** Minimal  
Invasive  
PCNL

UNIT SIDE

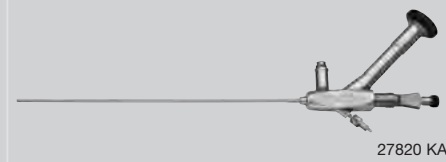
PATIENT SIDE



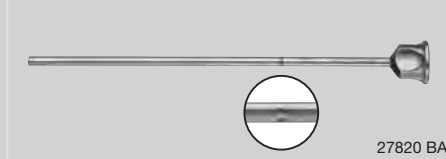
Irrigation Tubing Set



Nephroscope for MIP XS/S



Operating Sheath, 8.5/9.5 Fr.,  
use of UROMAT E.A.S.I.® SCB mandatory



Suction Tubing Set



# Optional Accessories

for MIP L/M

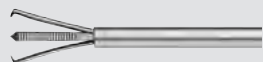


## Optional accessories for MIP L



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

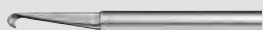


27294 S

**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

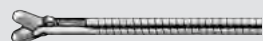
**Knife** only

## Optional accessories for MIP M



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



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

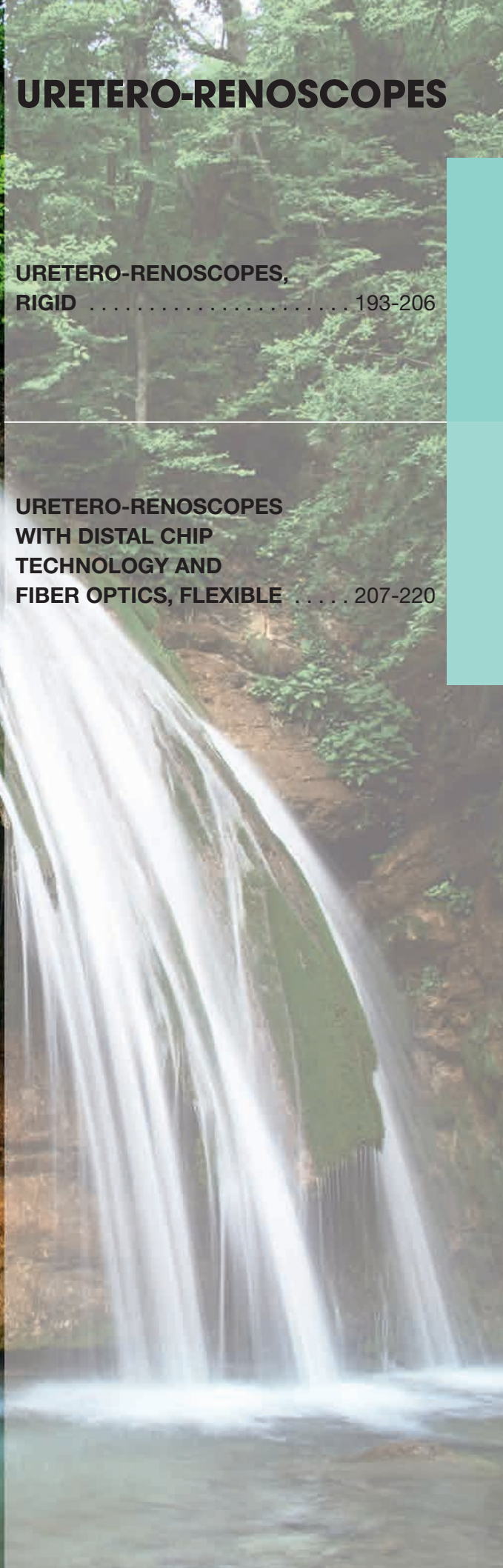




# URETERO-RENOSCOPES

**URETERO-RENOSCOPES,  
RIGID . . . . . 193-206**

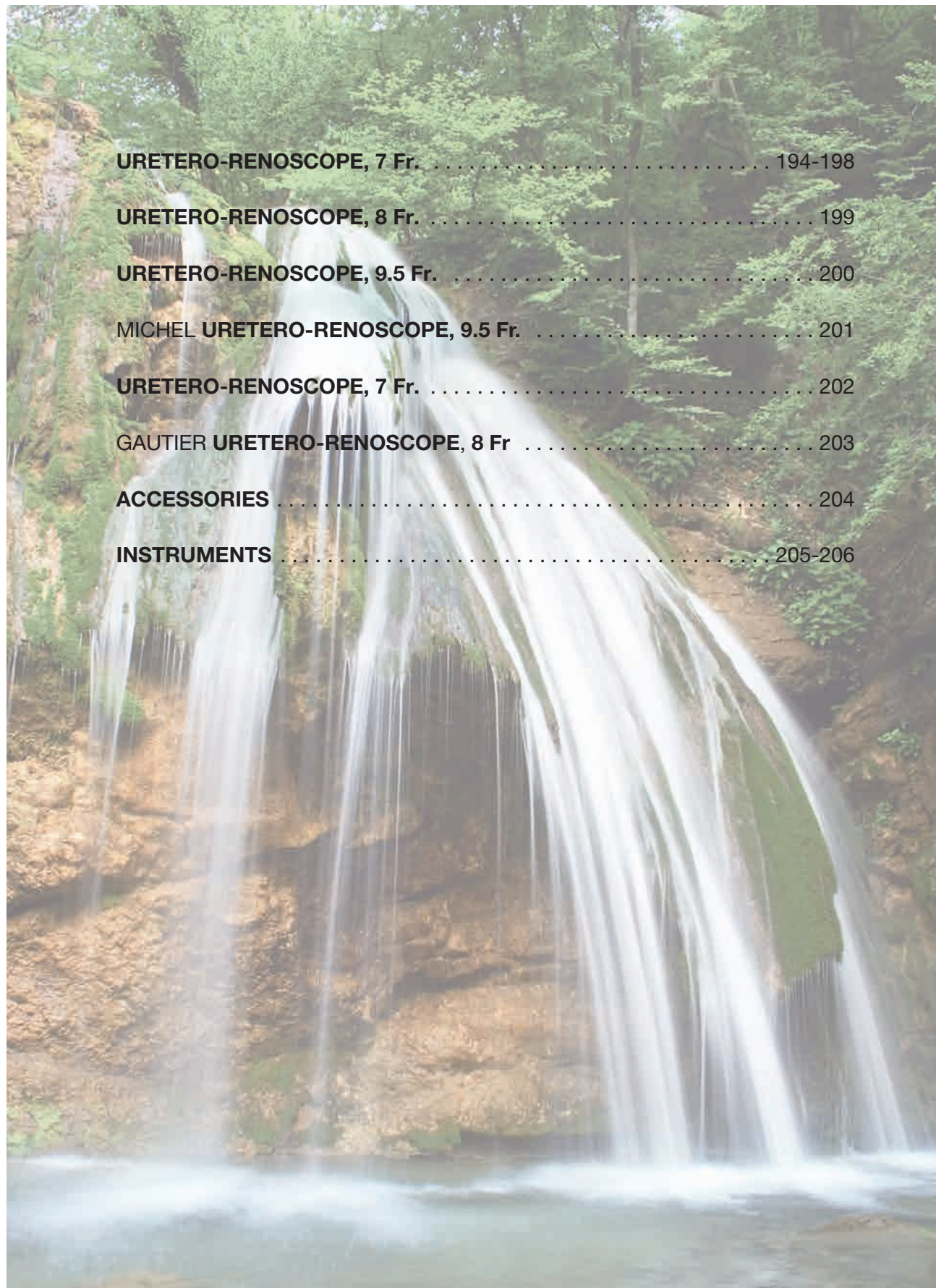
**URETERO-RENOSCOPES  
WITH DISTAL CHIP  
TECHNOLOGY AND  
FIBER OPTICS, FLEXIBLE . . . . . 207-220**







**Uretero-Renoscopes, rigid**



**URETERO-RENSCOPE, 7 Fr.** ..... 194-198

**URETERO-RENSCOPE, 8 Fr.** ..... 199

**URETERO-RENSCOPE, 9.5 Fr.** ..... 200

**MICHEL URETERO-RENSCOPE, 9.5 Fr.** ..... 201

**URETERO-RENSCOPE, 7 Fr.** ..... 202

**GAUTIER URETERO-RENSCOPE, 8 Fr** ..... 203

**ACCESSORIES** ..... 204

**INSTRUMENTS** ..... 205-206

# 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, tried-and-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.



# The Right Solution for each Individual Anatomy and Indication

Uretero-Renoscopes, rigid

**STORZ**  
KARL STORZ — ENDOSKOPE



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-renaloscope 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-renaloscope during transportation, cleaning and storage and, consequently, ensures a long service life.

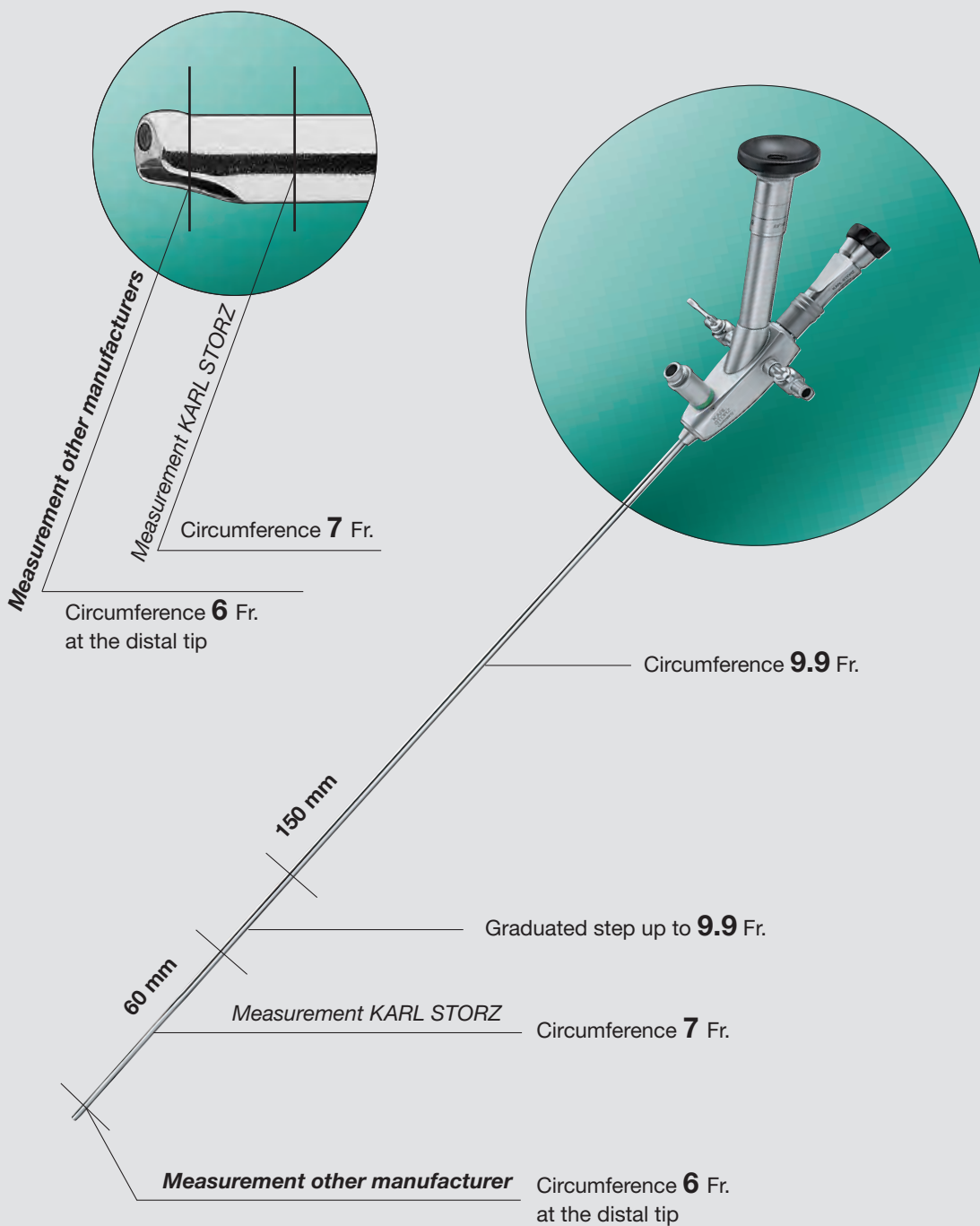
From diagnosis to therapy through to **transportation, cleaning, storage, accessories** and **service**, KARL STORZ provides solutions to cover all hospital workflow processes.

1-051

# The New Generation

Uretero-Renoscopes, rigid

Which French specifications are important?  
You decide!

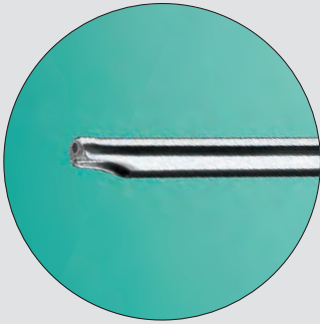


# The New Generation

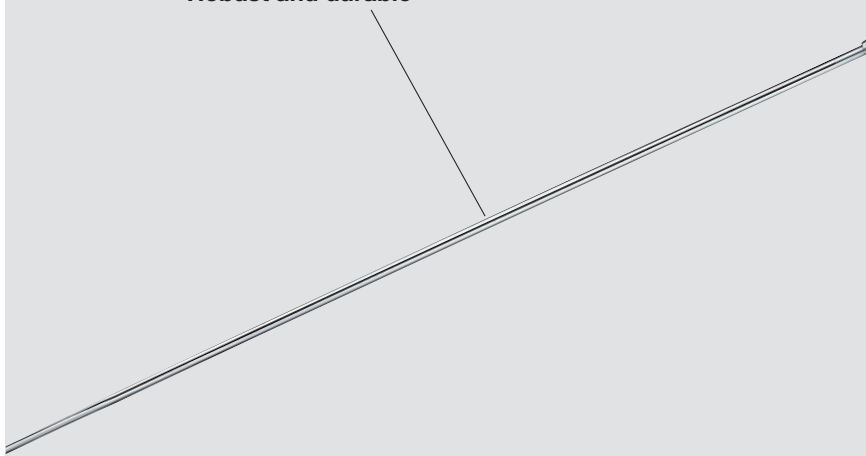
Uretero-Renoscopes, rigid

**Atraumatic tip:**

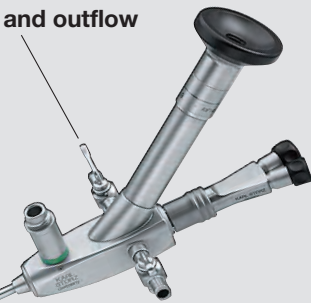
Allows easy introduction to the ureteral orifice



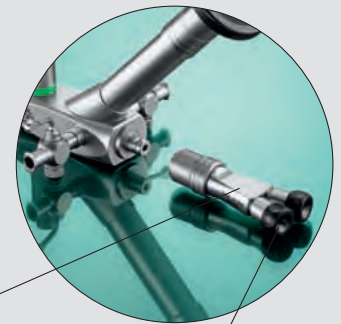
**Conical sheath:**  
Robust and durable



**Optional flow control stopcock for precise dispensation of in- and outflow**

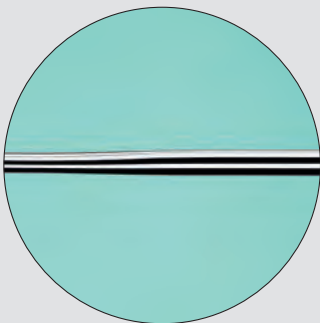


**Variable instrument ports with quick release coupling**



**Self-closing sealing system**

**Unobtrusive step**



1-051

# Uretero-Renoscopes, Ureteroscopes

rigid

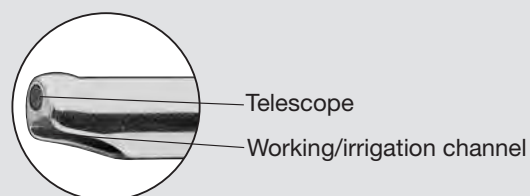
7 Fr., lengths 43 and 34 cm

### 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

# Uretero-Renoscopes, Ureteroscopes

rigid

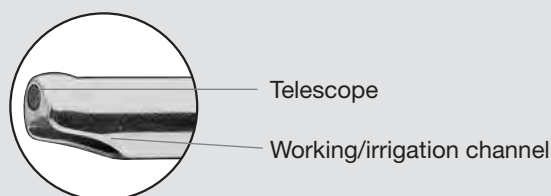
8 Fr., lengths 43 and 34 cm

### 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:	43 and 34 cm
Eyepiece:	angled, rigid



27001 L **Uretero-Renoscope, autoclavable,**  
length 43 cm

27001 K **Ureteroscope, autoclavable,**  
length 34 cm

Accessories included in delivery or optional accessories see page 204

# Uretero-Renoscopes, Ureteroscopes

rigid

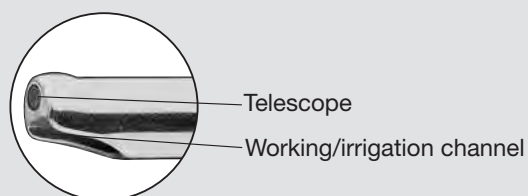
9.5 Fr., lengths 43 and 34 cm

### 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:	9.5 Fr., 1 step, 12 Fr.
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

rigid

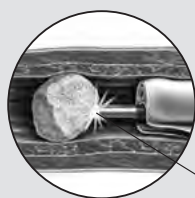
9.5 Fr., length 43 cm

### Special Features:

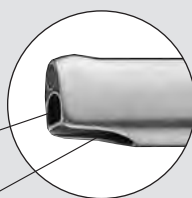
- Distal end of sheath atraumatically shaped, with rounded tip
- Minimal sheath diameter
- Maximum irrigation due to large central working channel with 1 right-angled irrigation port, left side
- The large working channel allows the simultaneous use of rigid instruments and probes from 2 to 3 Fr.
- Maximum 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 :	2.3 Fr.
Telescope:	Fiber optic system, direction of view 6°
Length:	43 cm
Eyepiece:	angled, rigid



ureter with stone



LASER probe

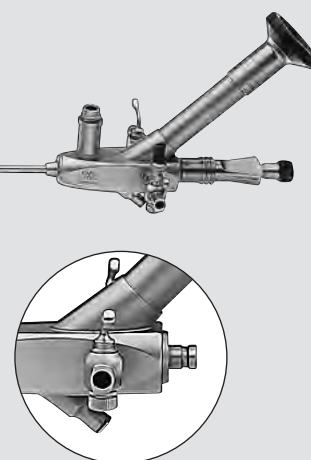
additional irrigation channel

9 Fr.

9.5 Fr.

27003 L

12 Fr.



27003 L

**MICHEL Uretero-Renoscope,**  
autoclavable, length 43 cm

# Uretero-Renoscopes, Ureteroscopes

rigid

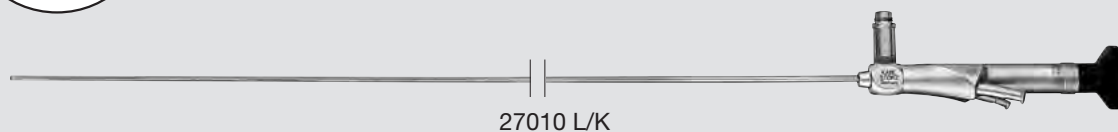
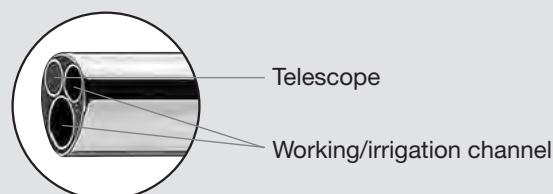
7 Fr., lengths 43 and 34 cm

## 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	<b>Uretero-Renoscope, autoclavable,</b> length 43 cm
27010 K	<b>Ureteroscope, autoclavable,</b> length 34 cm

Accessories included in delivery or optional accessories see page 204

# GAUTIER Uretero-Renoscope

rigid, with HOPKINS® rod lens system

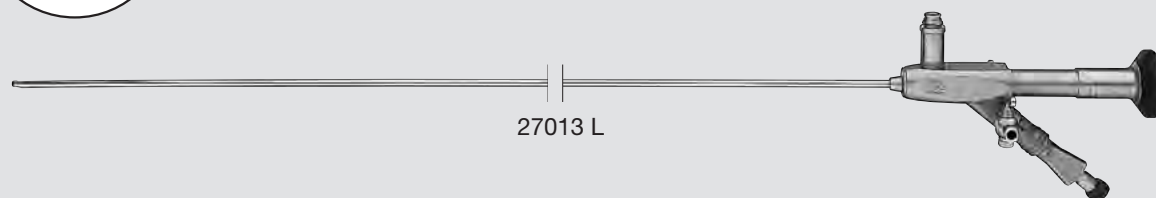
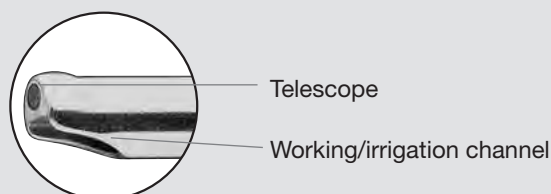
8 Fr., length 41 cm

### 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 ports
- The large working channel allows the use of rigid instruments and probes up to 4 Fr.

### Specifications:

Distal tip:	7 Fr.
Instrument sheath:	8 Fr, 1 step, conical 8 – 13.5 Fr.
Working channel:	5 Fr., for use with instruments up to 4 Fr.
Telescope:	HOPKINS® rod lens system, direction of view 6°
Length:	43 cm
Eyepiece:	straight, rigid



27013 L

**Uretero-Renoscope, autoclavable,**  
length 43 cm

# Uretero-Renoscopes, Ureteroscopes, rigid

Accessories

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

Following accessories are included in delivery:



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**

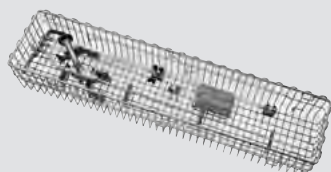


27502 **LUER-Lock Tube Connector, with stopcock, dismantling**

27504 **Flow Control Stopcock**



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:



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**

For use with 27010 L/K

Following accessories are included in delivery:



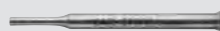
27014 Y **LUER-Adaptor, with seal**



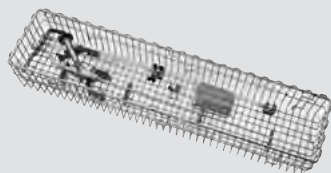
27550 N **Seal, for Instrument Ports 27001 G/GF/GH/GP, package of 10, single use recommended**

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 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

# Uretero-Renoscopes, Ureterscopes, rigid

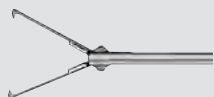
Instruments

## 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



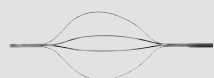
27424 R

**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

**Brush for Cytology**, 3 Fr., unsterile, for single use, package of 5

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



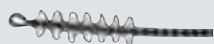
27023 FM

**Forceps**, rigid, for grasping stone fragments, double action jaws, 3 Fr., length 60 cm, color code: green



27023 VB

**Stone Basket**, sterile, for single use, 2.5 Fr., length 120 cm



27023 Y

**Brush for Cytology**, 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

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 **Biopsy Forceps**, rigid, double action jaws, 5 Fr., length 60 cm, color code: red



27425 R **PÉREZ-CASTRO Forceps**, rigid, with long jaws, for Steinstrasse, double action jaws, 5 Fr., length 60 cm, color code: red



27425 U **Splitting Forceps**, rigid, single action jaws, cutting upwards, 5 Fr., length 60 cm, color code: red



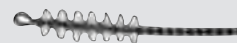
27023 WU **Balloon Catheter**, sterile, for single use, 3 Fr., package of 2



27023 VK **Stone Basket**, 5 Fr., length 60 cm including:  
**3-Ring Handle**  
3x **Basket**  
3x **Coil**



27023 VU **Stone Basket**, sterile, for single use, 3 Fr., length 115 cm

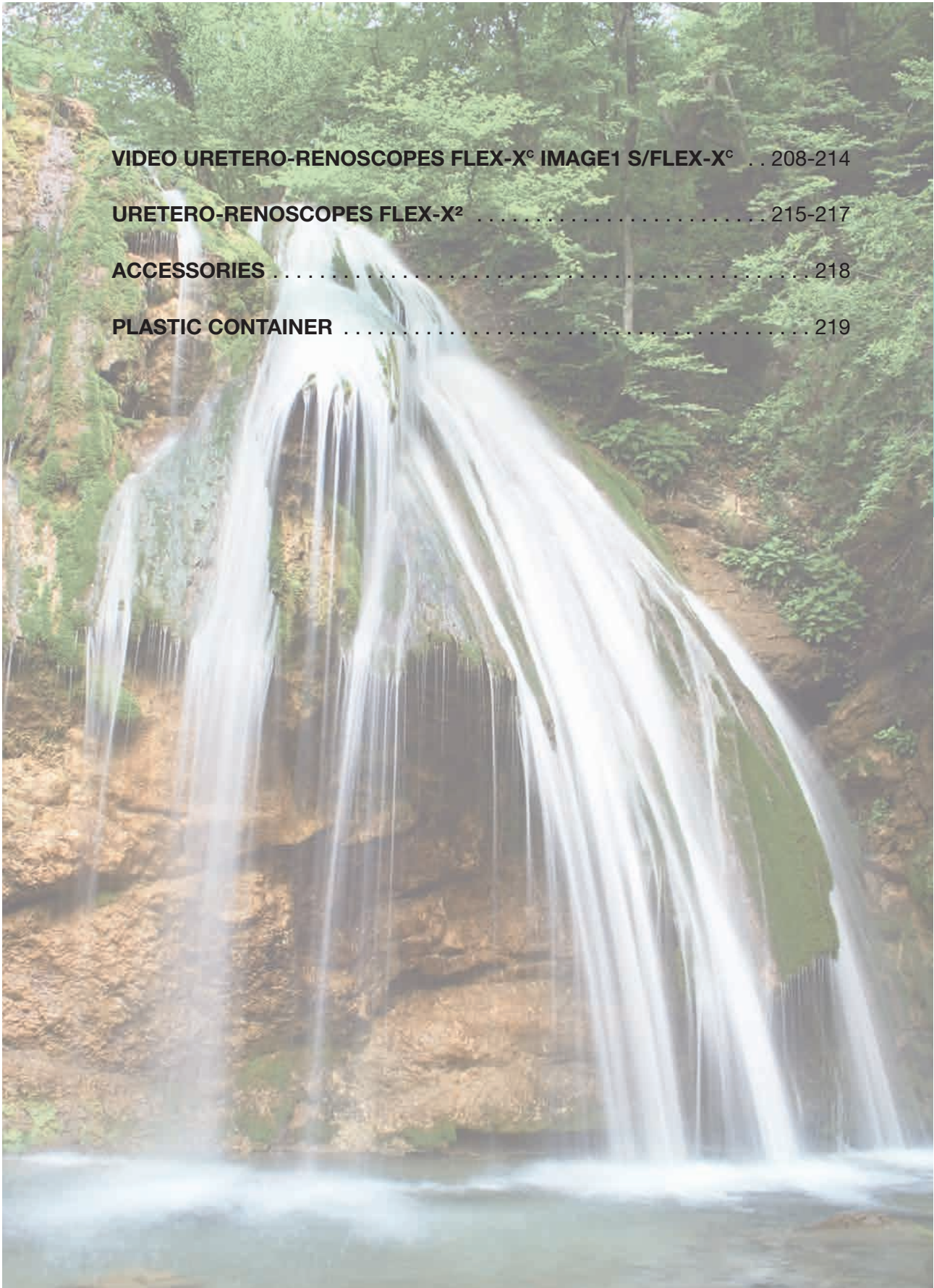


27023 Y **Brush for Cytology**, 3 Fr., unsterile, for single use, package of 5

**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



<b>VIDEO URETERO-RENSCOPES FLEX-X<sup>c</sup> IMAGE1 S/FLEX-X<sup>c</sup></b> . . .	208-214
<b>URETERO-RENSCOPES FLEX-X<sup>2</sup></b> . . . . .	215-217
<b>ACCESSORIES</b> . . . . .	218
<b>PLASTIC CONTAINER</b> . . . . .	219

# Uretero-Renoscopes, flexible

for Access to the Entire Intrarenal Collection System

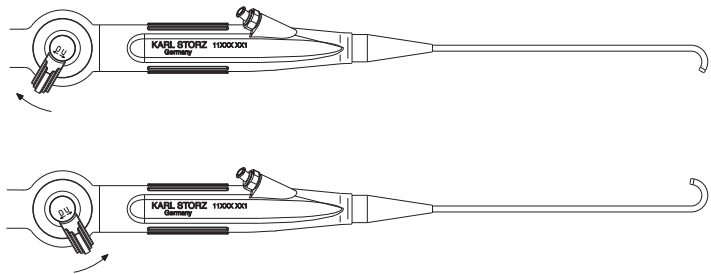
You wouldn't force someone who is left-handed to write with his right hand. Yet many flexible endoscopes impose exactly this type of limitation by forcing their operators to use counter-intuitive deflection mechanisms.

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-

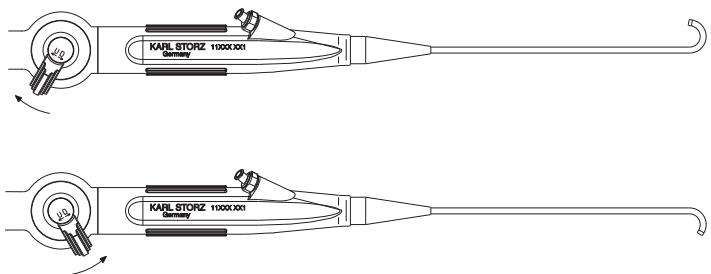
positive mechanism: a downward movement of the lever mechanism now causes a downward movement of the endoscope tip.

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*



# Video Uretero-Renoscopes, flexible KARL STORZ FLEX-X<sup>c</sup>

## FLEX-X<sup>c</sup> goes digital!

Twenty years ago, KARL STORZ Endoskope was the first to deliver an actively deflectable flexible ureteroscope with a small circumference, 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<sup>c</sup> – the smallest digital CMOS-based flexible uretero-renaloscope to date. The FLEX-X actively deflectable flexible uretero-renaloscope 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<sup>c</sup> mirrors the positive attributes of its fiberoptic predecessor in many ways. The addition of the 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-renaloscope. With these attributes, the FLEX-X series has become the standard uretero-renaloscope in many operating rooms worldwide. The main reasons are ease in ureteral access and a precise steerable endoscope tip which facilitates 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<sup>c</sup>'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<sup>c</sup> 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*



# Video Uretero-Renoscopes, flexible <sup>NEW</sup> KARL STORZ FLEX-X<sup>C</sup>

**STORZ**  
KARL STORZ — ENDOSKOPE

**FLEX-X<sup>C</sup> IMAGE1 S**



#### Easier access to the kidney

- High torque stability
- 1:1 implementation of hand movements
- Extremely 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 <sup>NEW</sup>

for Access to the Entire Intrarenal Collection System



8.5 Fr.

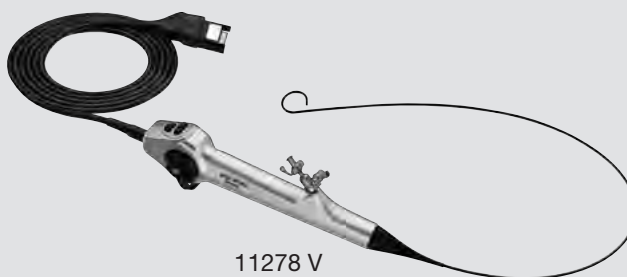
Order No.	Video Uretero-Renoscopes	Deflection of distal tip	Direction of view	Angle of view	Working length	Working channel inner diameter	Sheath size
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### Model for use with IMAGE1 S

11278 VSK	with positive deflection		0°	90°	70 cm	3.6 Fr.	8.5 Fr.
11278 VSUK	with contrapositive deflection		0°	90°	70 cm	3.6 Fr.	8.5 Fr.

### Model for use with IMAGE 1 HUB™ HD

11278 VK	with positive deflection		0°	90°	70 cm	3.6 Fr.	8.5 Fr.
11278 VUK	with contrapositive deflection		0°	90°	70 cm	3.6 Fr.	8.5 Fr.



11278 V

11278 V

**Video Uretero-Endoscope FLEX-X<sup>o</sup>**

### 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
- 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

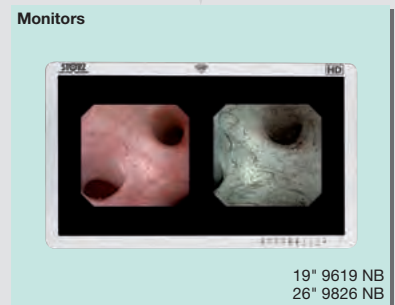
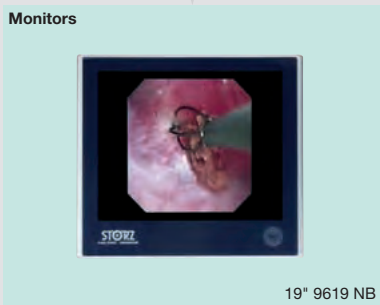
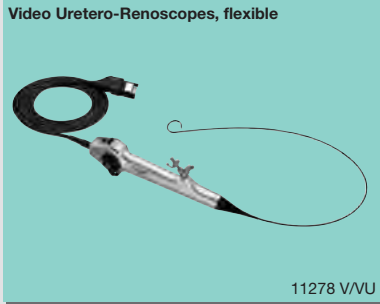
Optional Accessories see page 218

# Video Uretero-Renoscopes, flexible <sup>NEW</sup>

Overview

**IMAGE 1**  
**HD 1**

**IMAGE 1 S** **FLEX-X<sup>C</sup>**



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

## 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

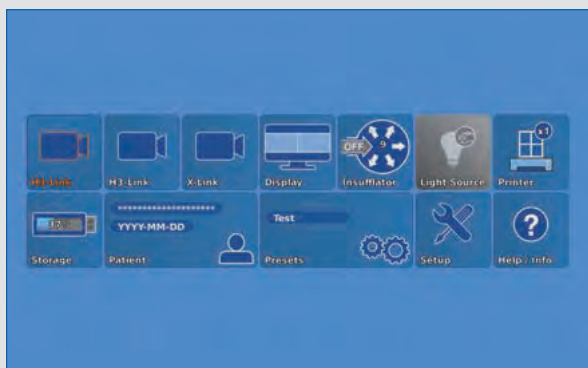
- **Dashboard:** Overview with intuitive user guidance
- **Live menu:** User-friendly and customizable menu bar
- **Intelligent icons:** The graphic representation changes as soon as settings are modified in the connected units
- **Automatic light source control**
- **Side-by-side view:** Parallel display 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



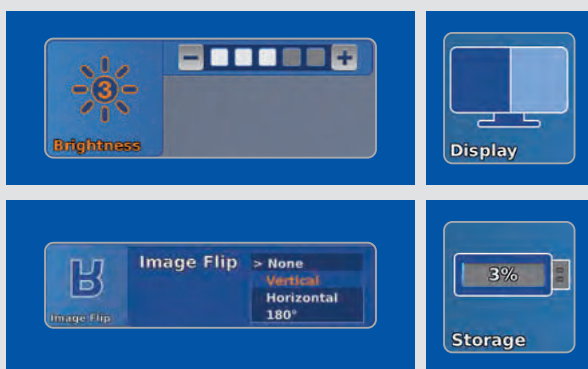
IMAGE1 S camera heads



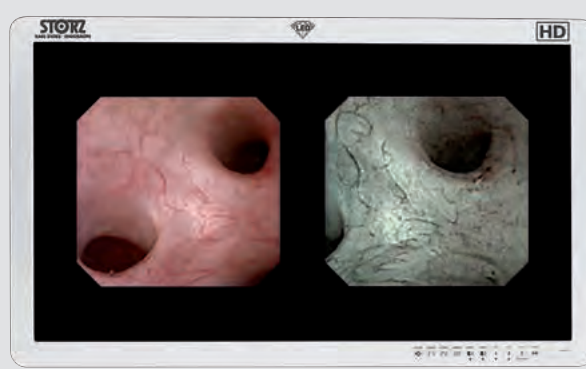
Dashboard



Live menu



Intelligent icons

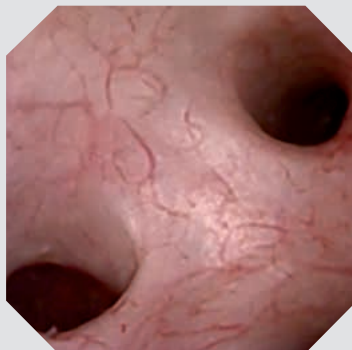


Renal collecting system in side-by-side view

# IMAGE1 S in Urology, flexible <sup>NEW</sup>

Upper Urinary Tract

IMAGE1 S



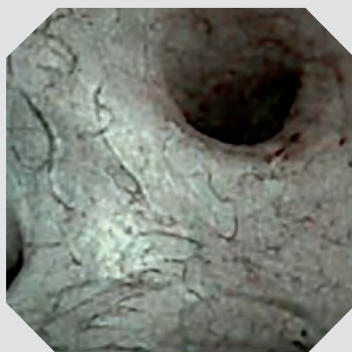
### Brilliant Imaging in FULL HD

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.



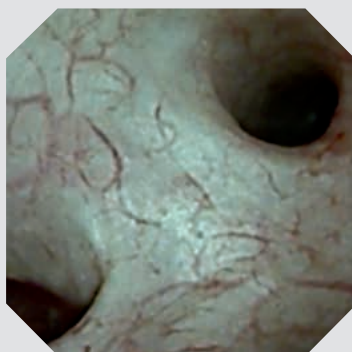
### CLARA and CHROMA

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 green-blue 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

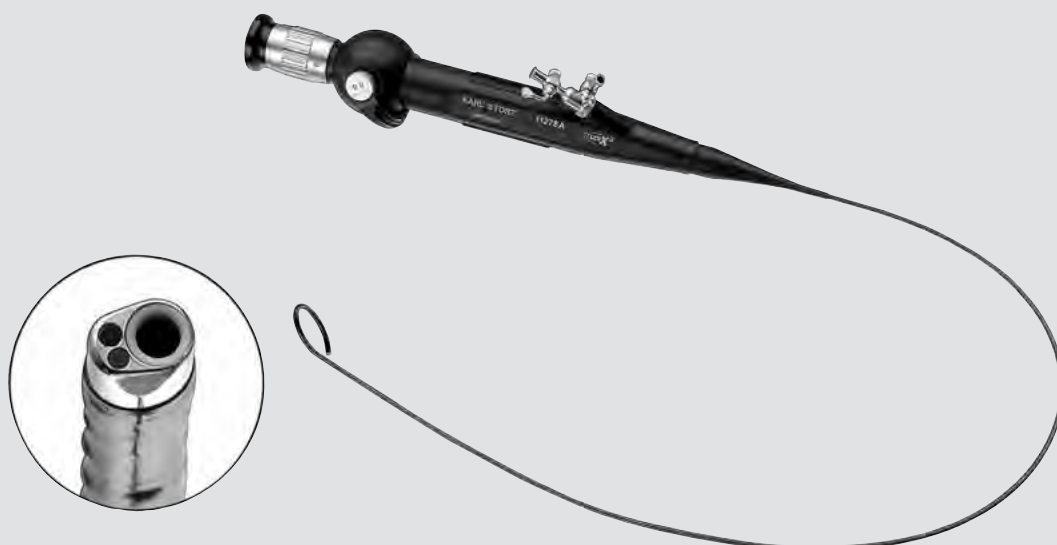
# Uretero-Reno-Fiberscopes

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



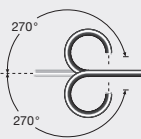

11278 A

# Uretero-Reno-Fiberscopes

for Access to the Entire Intrarenal Collection System



7.5 Fr.

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



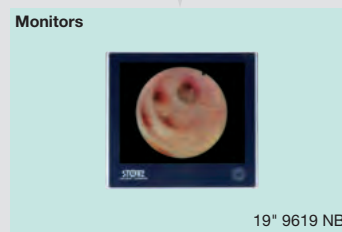
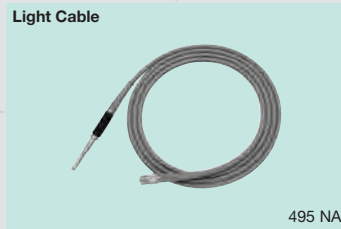
27014 Y **LUER-Adaptor**, with seal

Optional Accessories see page 218



# Uretero-Reno-Fiberscopes

Overview



9-12

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

# Uretero-Renoscopes, flexible

Optional Accessories

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



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



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

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

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.



# LAPAROSCOPY IN UROLOGY

**BASIC SETS** ..... 222-225

**TELESCOPES** ..... 226-240

**STANDARD LAPAROSCOPY** ... 241-250

# Units for Laparoscopy in Urology

Basic Set



- 9832 NB-3D **32" 3D Monitor**
- 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**
- UG 500 **Monitor Holder**
- 29005 DFH **Footswitch Holder, for two- and three-pedal footswitches**
- UG 609 **Bottle Holder, for CO<sub>2</sub> 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®

# Units for Laparoscopy in Urology

Basic Set

**IMAGE1 S**



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

10-14

\* **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®

### Telescopes and Instruments:

- 26003 BA **HOPKINS® Forward-Oblique Telescope 30°**, enlarged view, diameter 10 mm, length 31 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 **CLICKlinē 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 **CLICKlinē KELLY Dissecting and Grasping Forceps**, **rotating**, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
- 2x 33351 R **CLICKlinē Dissecting and Grasping Forceps**, **rotating**, jaws right-angled, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
- 33563 RG **CLICKlinē Dissecting and Grasping Forceps**, **rotating**, jaws right angled, with hemostat style ratchet, size 10 mm, length 36 cm
- 33561 MLL **CLICKlinē KELLY Dissecting and Grasping Forceps**, **rotating**, without ratchet, size 10 mm, length 36 cm
- 34351 MS **CLICKlinē METZENBAUM Scissors**, **rotating**, curved jaws, without ratchet, with connector pin for unipolar coagulation, size 5 mm, length 36 cm
- 34310 MS **CLICKlinē METZENBAUM Scissors Insert**
- 34561 GS **CLICKlinē 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.

For further laparoscopic instruments see catalog LAPAROSCOPY

Container for the Sterilization and Storage of Telescopes see catalog HYGIENE



26003 BA	<b>HOPKINS® Forward-Oblique Telescope 30°</b> , enlarged view, diameter 10 mm, length 31 cm, <b>autoclavable</b> , fiber optic light transmission incorporated, color code: red <b>or</b>
26046 BA	<b>HOPKINS® Forward-Oblique Telescope 30°</b> , diameter 5 mm, length 29 cm, <b>autoclavable</b> , fiber optic light transmission incorporated, color code: red
26007 BA	<b>HOPKINS® Forward-Oblique Telescope 30°</b> , enlarged view, diameter 3.3 mm, length 25 cm, <b>autoclavable</b> , fiber optic light transmission incorporated, color code: red
495 NCS	<b>Fiber Optic Light Cable</b> , with straight connector, extremely heat-resistant, enhanced light transmission, diameter 4.8 mm, length 250 cm
495 NA	<b>Fiber Optic Light Cable</b> , with straight connector, diameter 3.5 mm, length 230 cm
533 TVA	<b>Adaptor, autoclavable</b> , permits telescope changing under sterile conditions
26120 JL	<b>VERESS Pneumoperitoneum Needle</b> , with spring-loaded blunt inner cannula, LUER-Lock, <b>autoclavable</b> , diameter 2.1 mm, length 13 cm
30160 GC	<b>Trocar</b> , with conical tip, with silicone leaflet valve, size 6 mm, working length 10.5 cm, color code: black
30117 GP	<b>Trocar</b> , with pyramidal tip, with silicone leaflet valve, size 3.9 mm, working length 10 cm, color code: red-green
3x 30114 GZL	<b>Trocar</b> , with conical tip, with silicone leaflet valve, size 3.5 mm, working length 10 cm, color code: green-yellow
31351 ML	<b>CLICKliné KELLY Dissecting and Grasping Forceps, rotating</b> , dismantling, long, double action jaws, with connector pin for unipolar coagulation, size 3.5 mm, length 36 cm
31341 ON	<b>CLICKliné Grasping Forceps, rotating</b> , dismantling, with especially fine atraumatic serration, fenestrated, with irrigation connector for cleaning, single action jaws, size 3.5 mm, length 36 cm
31351 MW	<b>CLICKliné Scissors, rotating</b> , dismantling, jaws serrated, curved, conical, with connector pin for unipolar coagulation, size 3.5 mm, length 36 cm
31351 EH	<b>CLICKliné Micro Hook Scissors, rotating</b> , with connector pin for unipolar coagulation, size 3.5 mm, length 36 cm
25775 CL	<b>CADIÈRE Coagulating and Dissecting Electrode</b> , L-shaped, distal tip tapered, with cm-marking, with connector pin for unipolar coagulation, size 3 mm, length 36 cm
26005 M	<b>Unipolar High Frequency Cord</b> , length 300 cm
38951 MD	<b>ROBI® KELLY Grasping Forceps</b> , CLERMONT-FERRAND model, <b>rotating</b> , dismantling, with connector pin for bipolar coagulation, size 3.5 mm, length 36 cm
38951 ON	<b>ROBI® Grasping Forceps</b> , CLERMONT-FERRAND model, <b>rotating</b> , dismantling, with especially fine atraumatic serration, fenestrated jaws, with connector pin for bipolar coagulation, size 3.5 mm, length 36 cm
38951 MW	<b>ROBI® Scissors</b> , CLERMONT-FERRAND model, <b>rotating</b> , dismantling, curved scissor blades, with connector pin for bipolar coagulation, size 3.5 mm, length 36 cm
26176 LE	<b>Bipolar High Frequency Cord</b> , length 300 cm
26167 LKL	<b>Suction and Irrigation Tube</b> , with lateral holes, size 3 mm, length 36 cm, for use with handles for irrigation and suction
30805	<b>Handle with Two-Way Stopcock</b> , for suction and irrigation, <b>autoclavable</b> , for use with suction and irrigation tubes size 5 mm
26167 FNL	<b>KOH Ultramicro Needle Holder</b> , with tungsten carbide inserts, straight handle with ratchet, jaws slightly curved to left, size 3 mm, length 36 cm
26167 FKL	<b>KOH Ultramicro Needle Holder</b> , with tungsten carbide inserts, straight handle with ratchet, jaws slightly curved 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



### 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.

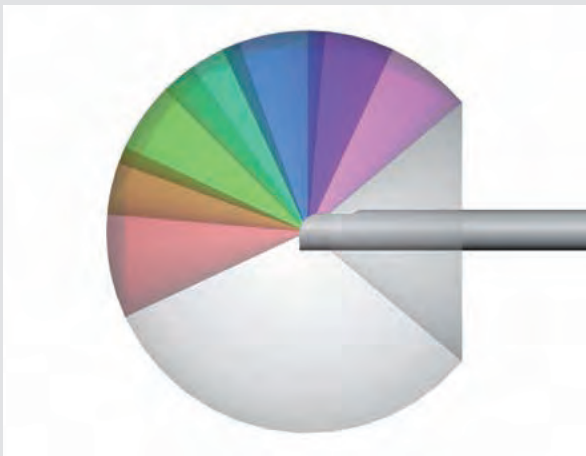
To prevent this predicament in the future, we developed the ENDOCAMELEON®: a telescope that allows you to adjust the desired direction of view – also during surgery – between 0° and 120°.

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.

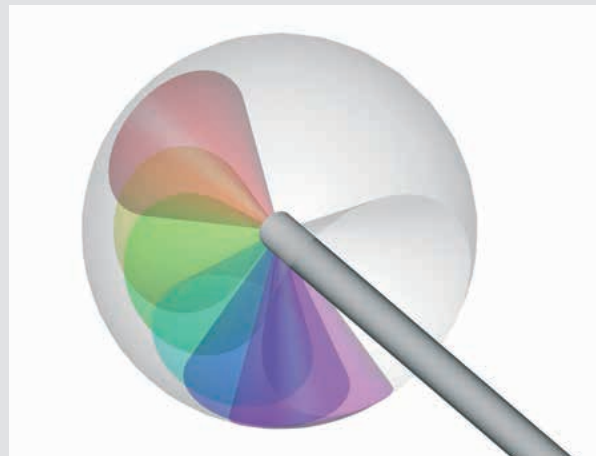
The innovative ENDOCAMELEON® technology is not difficult to use and, due to the external moving parts, does not take up extra intracorporal space. Handling remains straightforward and ergonomic. Image alignment is the same as rigid telescopes: the direction of view is selected by simply turning the adjustment 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



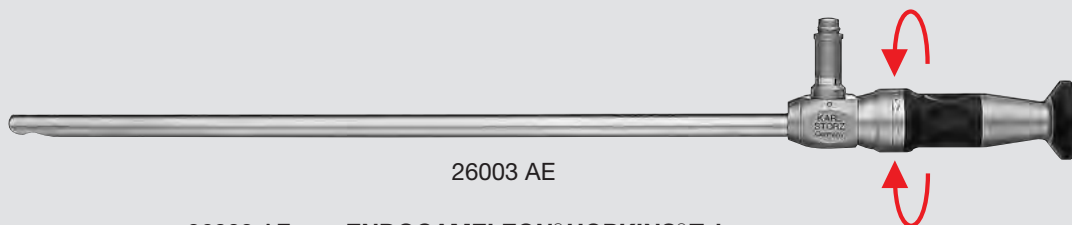
Diameter 10 mm, length 32 and 42 cm

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

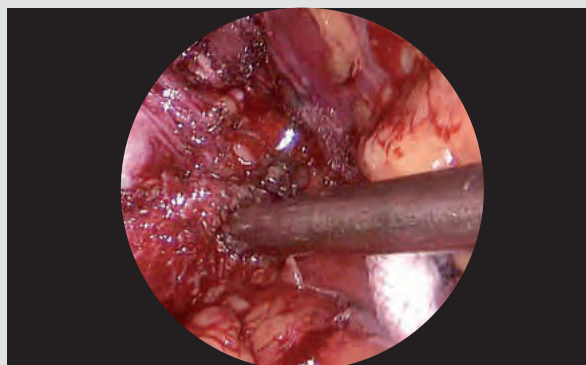
**ENDOCAMELEON® HOPKINS® Telescope**, diameter 10 mm, length 32 cm, autoclavable, variable direction of view from 0° – 120°, adjustment knob for selecting the desired direction of view, fiber optic light transmission incorporated, color code: gold

26003 AEE

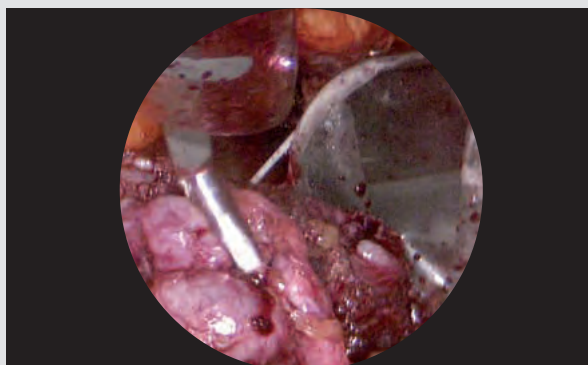
**Same, length 42 cm**



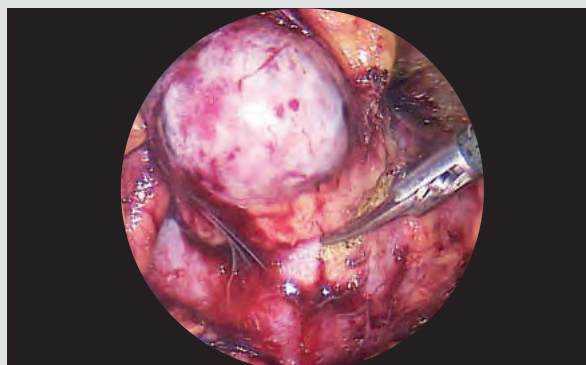
**Fig. 1:** Lymphadenectomy



**Fig. 2:** Cystectomy



**Fig. 3:** Radical prostatectomy



**Fig. 4:** Partial nephrectomy

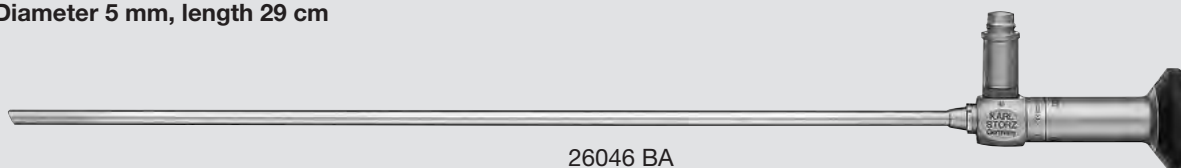
Images courtesy of Prof. med. G. JANETSCHKEK, Universitätsklinik für Urologie, Paracelsus Medizinische Universität Salzburg, Austria

**Container for the Sterilization and Storage of Telescopes** see catalog HYGIENE

# HOPKINS® Telescopes

for Laparoscopy

Diameter 5 mm, length 29 cm

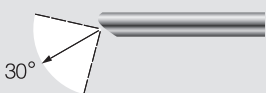


26046 BA



26046 AA

**HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



26046 BA

**HOPKINS® Forward-Oblique Telescope 30°**, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



26046 FA

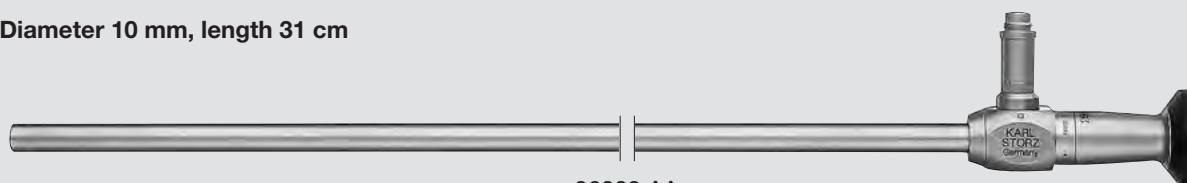
**HOPKINS® Telescope 45°**, enlarged view, diameter 5 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black



533 TVA

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

Diameter 10 mm, length 31 cm

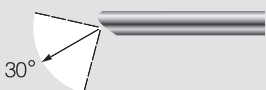


26003 AA



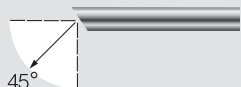
26003 AA

**HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green



26003 BA

**HOPKINS® Forward-Oblique Telescope 30°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red



26003 FA

**HOPKINS® Telescope 45°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: black

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.

Studies<sup>1</sup> 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.

<sup>1</sup> 3D visualization in medical applications (Fraunhofer-Institut für Nachrichtentechnik, Heinrich-Hertz-Institut HHI, April 2013)



10-14

# 3D Camera Platforms

## Overview

TIPCAM®1 S 3D LAP



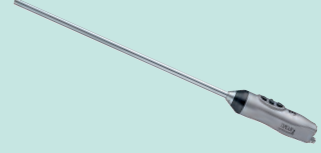
26605 AA/BA

Fiber Optic Light Cable



495 TIP

TIPCAM®1 3D



26604 AA  
26614 AA

IMAGE1 S D3-LINK™



TC 302

Cold Light Fountain XENON 300



20 1331 20

IMAGE1 S CONNECT



TC 200EN

3D Camera Control Unit SCB



222040 11-114

3D Monitors



9832 NB-3D  
9826 NB-3D

3D Polarization Glasses  
3D Clip-on Glasses



9800 GP  
9800 C

# IMAGE1 S 3D in FULL HD <sup>NEW</sup>

Camera Control Unit

IMAGE1 S



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	Power supply	100 – 120 VAC/200 – 240 VAC
Signal format display	1920 x 1080p, 50/60 Hz	Power frequency	50/60 Hz
LINK video inputs	3x	Protection class	I, CF-Defib
USB interface	4x USB, (2x front, 2x rear)	Dimensions w x h x d	305 x 54 x 320 mm
SCB interface	2x 6-pin mini-DIN	Weight	2.1 kg

\* Available in the following languages: DE, ES, FR, IT, PT, RU

**Components/Spare Parts** see catalog TELEPRESENCE

# IMAGE1 S 3D in FULL HD <sup>NEW</sup>

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 camera heads/video endoscopes	26605AA, 26605BA	Protection class	I, CF-Defib
LINK video outputs	1x	Dimensions w x h x d	305 x 54 x 320 mm
Power supply	100 – 120 VAC/200 – 240 VAC	Weight	1.86 kg
Power frequency	50/60 Hz		

**Documentation Systems compatible with 3D Imaging** see catalog TELEPRESENCE  
**Components/Spare Parts** see catalog TELEPRESENCE

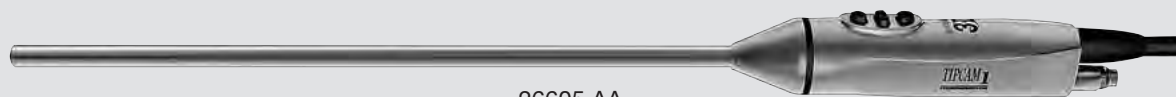


# IMAGE1 S 3D in FULL HD <sup>NEW</sup>

3D Video Endoscopes

IMAGE1 S 3D™

For use with IMAGE1 S camera system IMAGE1 S CONNECT Module TC 200EN, IMAGE1 S D3-LINK™ Module TC 302

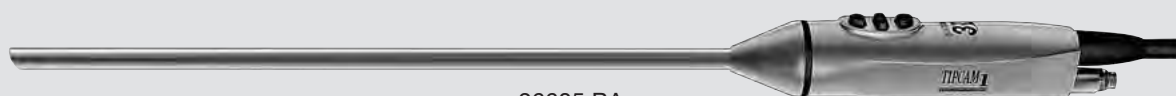


26605 AA

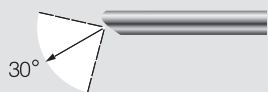


26605 AA

**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



26605 BA



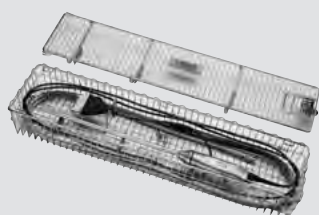
26605 BA

**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

**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 x d x h): 640 x 150 x 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

## 3D System

3D Camera Control Unit



KARL STORZ 3D System



**222040 11U114 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

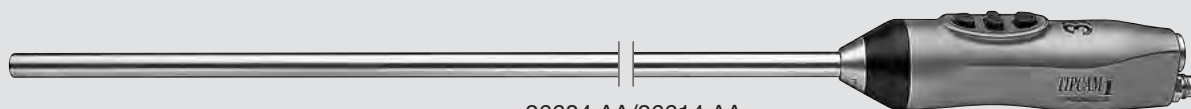
**Polarization Glasses**, package of 2

**Components/Spare Parts** see catalog TELEPRESENCE



KARL STORZ 3D System

For use with 3D Camera Control Unit SCB 22 2040 11U114



26604 AA/26614 AA

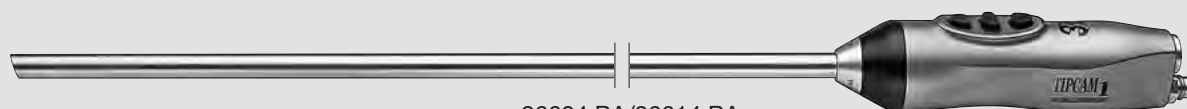


26604 AA

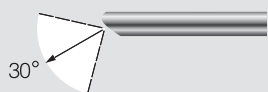
**TIPCAM®1 3D**, color system PAL, with two distal CCD image sensors, direction of view 0°, diameter 10 mm, length 31 cm, including video connecting cable, for use with 3D Camera Control Unit (CCU) SCB 22 2040 11U114

26614 AA

**Same**, color system NTSC



26604 BA/26614 BA



26604 BA

**TIPCAM®1 3D**, color system PAL, with two distal CCD image sensors, direction of view 30°, diameter 10 mm, length 31 cm, including video connecting cable, for use with 3D Camera Control Unit (CCU) SCB 22 2040 11-114

26614 BA

**Same**, color system NTSC



495 TIP

495 TIP

**Fiber Optic Light Cable**, diameter 4.8 mm, length 300 cm, with straight connector, extremely heat-resistant

**Specifications:**

<b>TIPCAM®1 3D</b>	26604 AA/26614 AA	26604 BA/26614 BA
Image sensor	2x 1/6" CCD	2x 1/6" CCD
Outer diameter	10 mm	10 mm
Focal length	15-120 mm	15-120 mm
Direction of view	0°	30°
Working length	31.7 cm	32 cm
Total length	49.3 cm	49.6 cm
Weight	290 g	290 g
Cable	non-detachable	non-detachable
Cable length	300 cm	300 cm

**Compatible Accessories** see catalog TELEPRESENCE, chapter 3D Camera Platforms

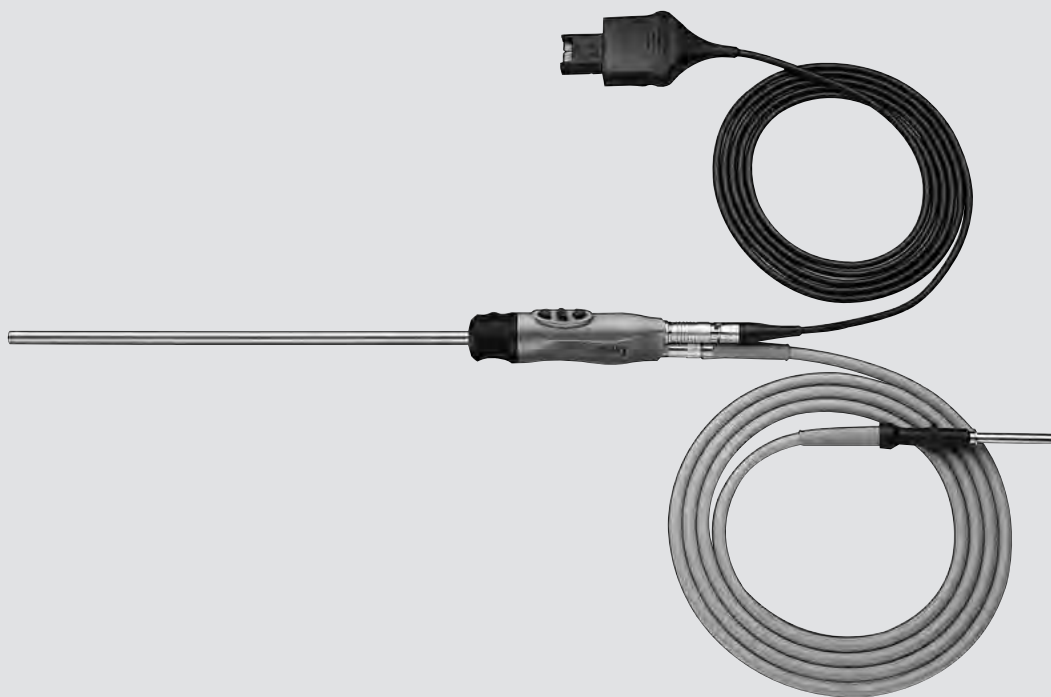
## 2D TIPCAM®1 Video Endoscope



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.



programmable function keys



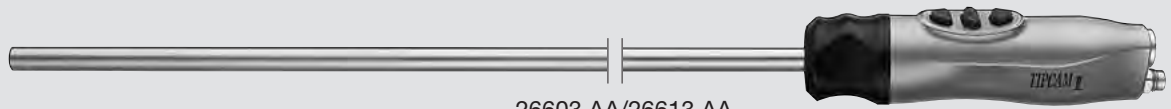
camera cable connection

light cable connection

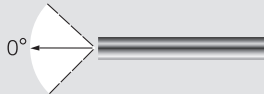
ergonomic handle

Erect image function with the 30° system, e. g. 360° rotating lens and distal image sensor; this ensures a stationary axis when the endoscope is rotated

## 2D TIPCAM®1 Video Endoscope



26603 AA/26613 AA

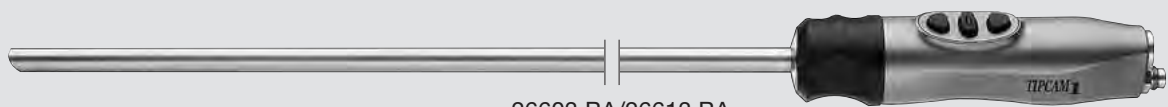


26603 AA

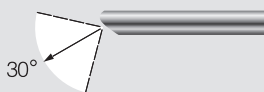
**TIPCAM®1 Video Endoscope**, color system PAL, with distal image sensor, direction of view 0°, diameter 10 mm, length 31 cm, fiber optic light transmission incorporated, including Video Connecting Cable 222001 71, for use with IMAGE1 camera control units

26613 AA

**Same**, color system NTSC



26603 BA/26613 BA



26603 BA

**TIPCAM®1 Video Endoscope**, color system PAL, with distal image sensor, direction of view 30°, diameter 10 mm, length 31 cm, fiber optic light transmission incorporated, including Video Connecting Cable 222001 71, for use with IMAGE1 camera control units

26613 BA

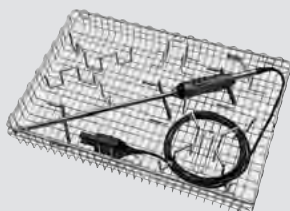
**Same**, color system NTSC

### Light Cable recommended for use with TIPCAM®1 video endoscope:



495 TIP

**Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, diameter 4.8 mm, length 300 cm, for use with TIPCAM®



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



Preoperative staging with conventional imaging techniques is unable to detect small lymph node metastases (< 5-8 mm). Pelvine Lymphadenektomie (PLA) is, therefore, the only reliable method for staging locoregional prostate carcinoma.

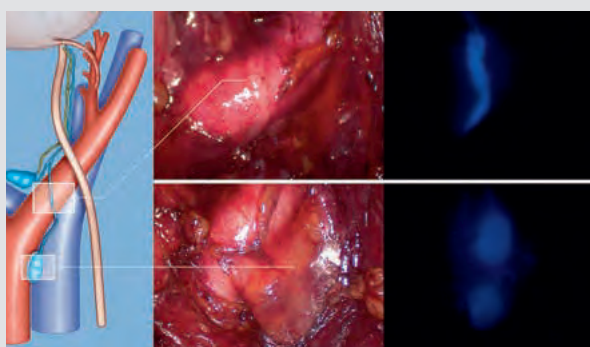
Even with the use of PLA, metastases are overlooked. The template selected for PLA is often too small (obturator fossa, ±V. external iliaca region only). However, even with the extended template (e-PLA) approx. 10% of metastases remain undetected. Many factors contribute to this problem. Lymphatic drainage 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 prostate 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 infrared light which can be 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 to 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*



# HOPKINS® Telescopes

for fluorescence-supported perfusion evaluation using ICG



Diameter 10 mm, length 31 cm

Trocar size 11 mm



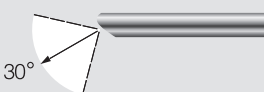
26003 ACA



0°

26003 ACA

**HOPKINS® Straight Forward Telescope 0°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, for use with Fiber Optic Light Cable 495 NCSC, Fluid Light Cable 495 FQ/FR and Cold Light Fountain D-LIGHT P SCB 20 1337 01-1, color code: green



30°

26003 BCA

**HOPKINS® Forward-Oblique Telescope 30°**, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, for indocyanine green (ICG), fiber optic light transmission incorporated, for use with Fiber Optic Light Cable 495 NCSC, Fluid Light Cable 495 FQ/FR and Cold Light Fountain D-LIGHT P SCB 20 1337 01-1, color code: red

## Recommended light cables for fluorescence-supported perfusion evaluation using ICG



495 FQ

**Fluid Light Cable**, diameter 5 mm, length 180 cm

495 FR

**Fluid Light Cable**, diameter 5 mm, length 250 cm

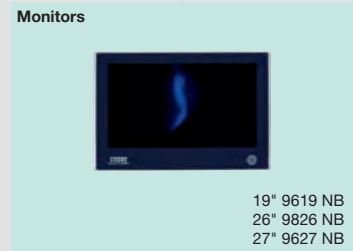
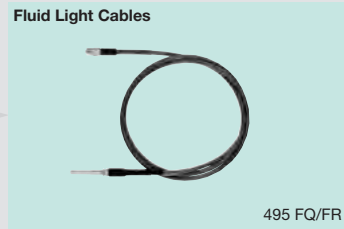
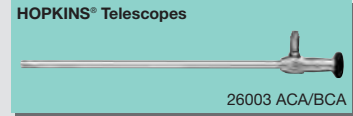
495 NCSC

**Fiber Optic Light Cable**, with straight connector, extremely heat-resistant, with safety lock, diameter 4.8 mm, length 250 cm

**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

# HOPKINS® Telescopes

for fluorescence-supported perfusion evaluation using ICG,  
Overview

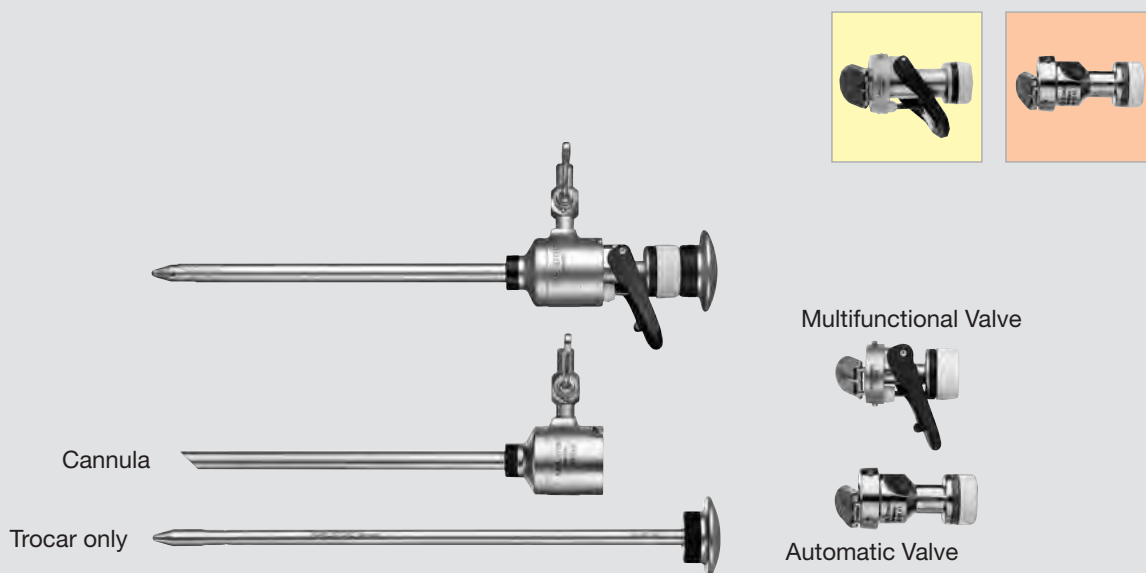






For further information on Cold Light Fountains, Camera Systems and Monitors  
see catalog TELEPRESENCE



# Trocars

Sizes 6 and 11 mm



<b>Size:</b>		<b>6 mm</b>	<b>11 mm</b>	<b>6 mm</b>	<b>11 mm</b>
Working length:		10.5 cm	10.5 cm	10.5 cm	10.5 cm
Color code:		black	green	black	green
		<b>Multifunctional Valve</b>		<b>Automatic Valve</b>	
	<b>Trocar, with conical tip</b> including: <b>Cannula</b> <b>Trocar only</b> <b>Valve</b>	<b>30160 MC</b> 30160 H2 30160 C 30160 M1	<b>30103 MC</b> 30103 H2 30103 C 30103 M1	<b>30160 AC</b> 30160 H2 30160 C 30160 A1	<b>30103 AC</b> 30103 H2 30103 C 30103 A1
	<b>Trocar, with pyramidal tip</b> including: <b>Cannula</b> <b>Trocar only</b> <b>Valve</b>	<b>30160 MP</b> 30160 H2 30160 P 30160 M1	<b>30103 MP</b> 30103 H2 30103 P 30103 M1	<b>30160 AP</b> 30160 H2 30160 P 30160 A1	<b>30103 AP</b> 30103 H2 30103 P 30103 A1
	<b>Trocar, with blunt tip</b> including: <b>Cannula</b> <b>Trocar only</b> <b>Valve</b>	<b>30160 MA</b> 30160 H2 30160 A 30160 M1	<b>30103 MA</b> 30103 H2 30103 A 30103 M1	<b>30160 AA</b> 30160 H2 30160 A 30160 A1	<b>30103 AA</b> 30103 H2 30103 A 30103 A1
	<b>SCARFI Trocar</b> including: <b>Cannula</b> <b>Trocar only</b> <b>Valve</b>	<b>30160 MB</b> 30160 H2 30160 B 30160 M1	<b>30103 WSB</b> 30103 H2 30103 SB 30103 M1	<b>30160 AB</b> 30160 H2 30160 B 30160 A1	<b>30103 FSB</b> 30103 H2 30103 SB 30103 A1

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<sup>line</sup> – 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						
	33151	33152	33153	33156	33121	33125	33149
30 cm	<b>NEW</b> 	<b>NEW</b> 	<b>NEW</b> 	<b>NEW</b> 			
36 cm							
43 cm							

## 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<sup>line</sup> KELLY Dissecting and Grasping Forceps

16

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



CLICK<sup>line</sup> KELLY Dissecting and Grasping Forceps, long

22

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<sup>line</sup> 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<sup>line</sup> REDDICK-OLSEN Dissecting and Grasping Forceps

13

Further instruments see catalog LAPAROSCOPY, chapter 4

# Scissors

CLICK'liné – 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

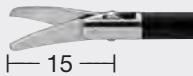
Operating instruments, **length 43 cm**, for  
use with telescopes with inbuilt working  
channel and trocars size 6 mm



Length	Handle						
	33151	33121	33125	33149	33161	33131	33147
30 cm	<b>NEW</b> 				<b>NEW</b> 		<b>NEW</b> 
36 cm							
43 cm							

## 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



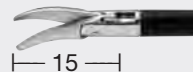
CLICK'liné METZENBAUM Scissors, curved

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



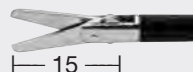
CLICK'liné Scissors, spoon-shaped blades, serrated, curved

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'liné 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'liné Scissors, straight







Further instruments see catalog LAPAROSCOPY, chapter 5

# KOH Macro Needle Holder

dismantling

## 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



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
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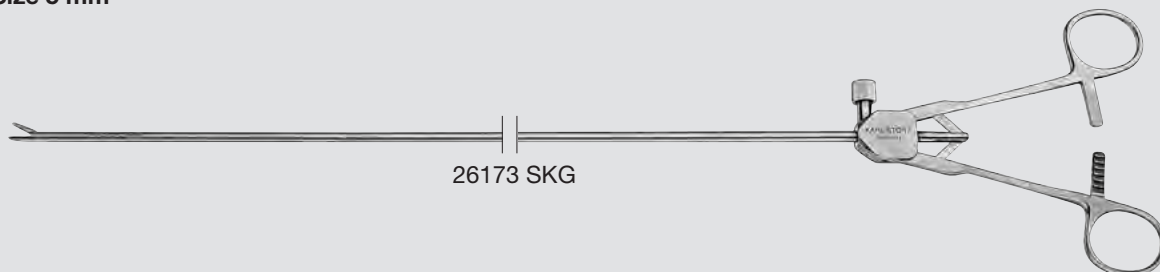


KOH **Assistant Needle Holder**, straight jaws

**Further instruments** see catalog LAPAROSCOPY, chapters 8 and 15

# RASSWEILER Needle Holders, RASSWEILER Transurethral Bougie

Size 5 mm



26173 SKG

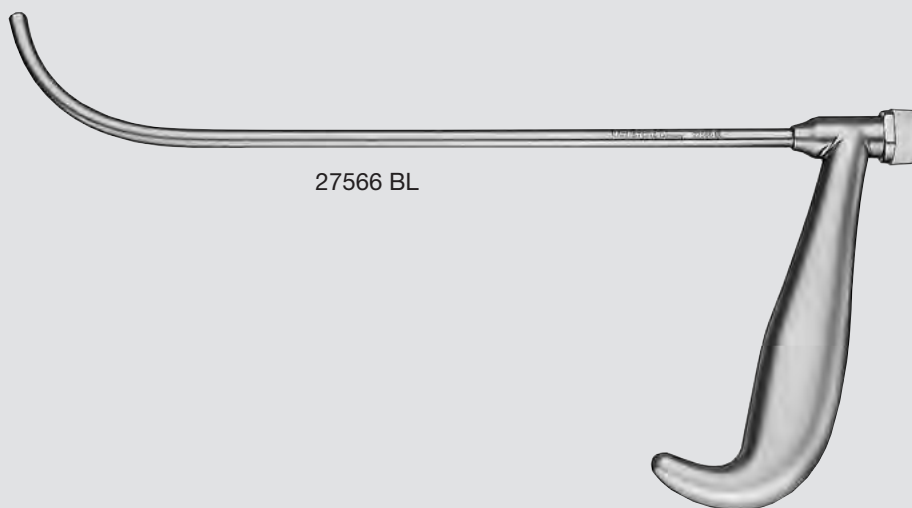


26173 SKG RASSWEILER **Needle Holder**, straight jaws, axial ring handle with ratchet, size 5 mm, length 33 cm, for use with suture material 2/0 – 4/0, needle size SH and RB (Ethicon)



26173 SKL RASSWEILER **Needle Holder**, convex/concave, slender jaws, curved to left, axial ring handle with ratchet, size 5 mm, length 33 cm, for use with suture material 3/0, needle size LH and RB-1 (Ethicon)

18 Fr.



27566 BL

27566 BL RASSWEILER **Transurethral Bougie**, 18 Fr., with working channel 9 Fr., for anastomosis during laparoscopic prostatectomy

1-051

**Please note:**

Using the needle holders with a needle larger than recommended may result in mechanical damage 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).

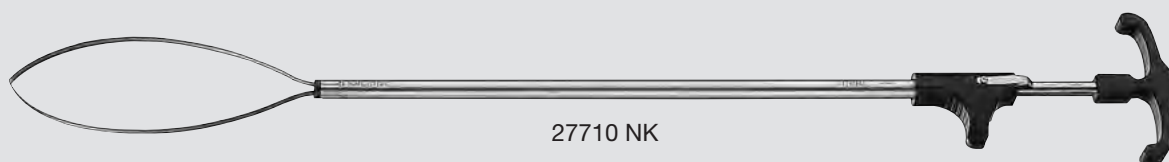
The parenchymal clamp eliminates the need for hazardous pedicle clamping.

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 kidney
- 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



27710 NK **Kidney Clamp**, for clamping the kidney and limiting blood supply, size 10 mm, length 29 cm including:  
27710 NA **Handle**, with ratchet  
27710 NB **Outer Sheath**  
27710 NC **Snare**

# LASER Applicator for Laparoscopy <sup>NEW</sup>

## 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.

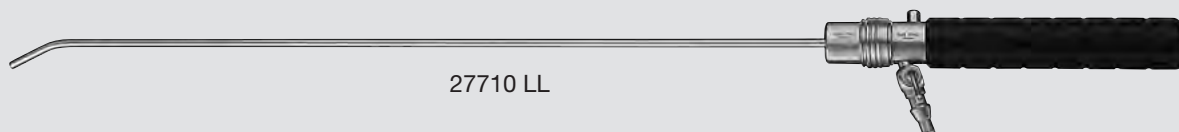
The laparoscopic LASER applicator is used to ensure safe, convenient guidance and precise positioning of LASER fibers at almost a right angle. The curved distal tip allows the introduction of a trocar to obtain the required distance to the renal parenchyma for effective LASER application at an ideal 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

27710 LA

27710 LI

**Handle**

**Outer Sheath**

**Inner Sheath**, unsterile,  
package of 5, for single use

## Tissue Fixation/Retraction

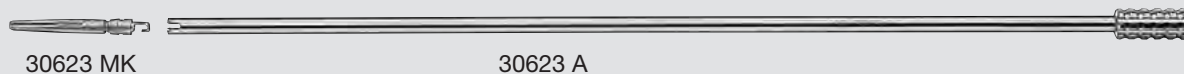
Clamp 30623 MK with an application sheath from KARL STORZ enables easy retraction of impeding tissue during laparoscopic surgery without the need for an additional trocar.

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

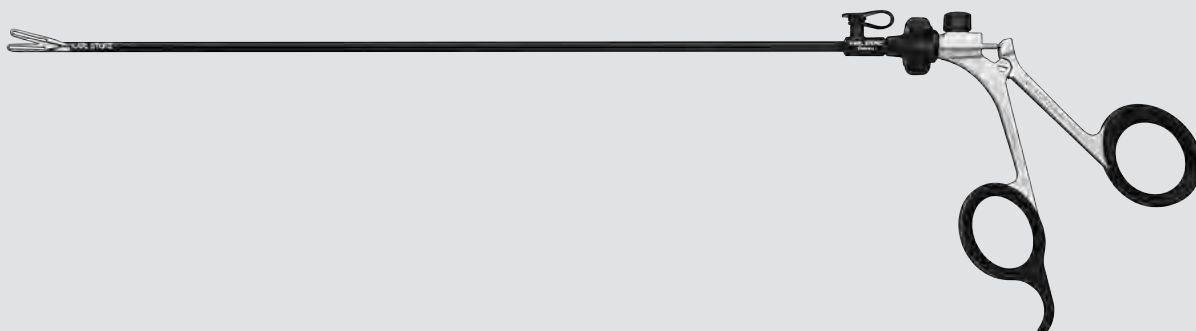


30623 MK  
**Clamp**, laparoscopic retractor clamp with atraumatic jaws



30623 A  
**Outer Sheath**

## Application of laparoscopic 5 mm grasping forceps 33361 MN





## 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

496 U

**Fiber Optic Ureter Probe, 7 Fr.**

### LED Battery 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

#### 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

and can be sterilized with ETO, FO gas, Steris® and Sterrad®.

- 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



**TRAINERS**



## 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

- 27345 TUR LYRA Endourological Trainer “ADAM”, complete including:
- Organ Platform**
  - Organ Insert Penis**
  - Organ Insert Bladder**
  - LYRA Body Endourological Trainer “ADAM”**

**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

27345 URS LYRA **Endourological Trainer “ADAM”**, complete including:  
**Organ Platform**  
**Organ Insert**  
LYRA **Body Endourological Trainer “ADAM”**

# 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](http://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.

# SZINICZ Laparoscopic Trainer

Simulation Trainer with Pulsating Organ Perfusion (P.O.P.)



26342 KB

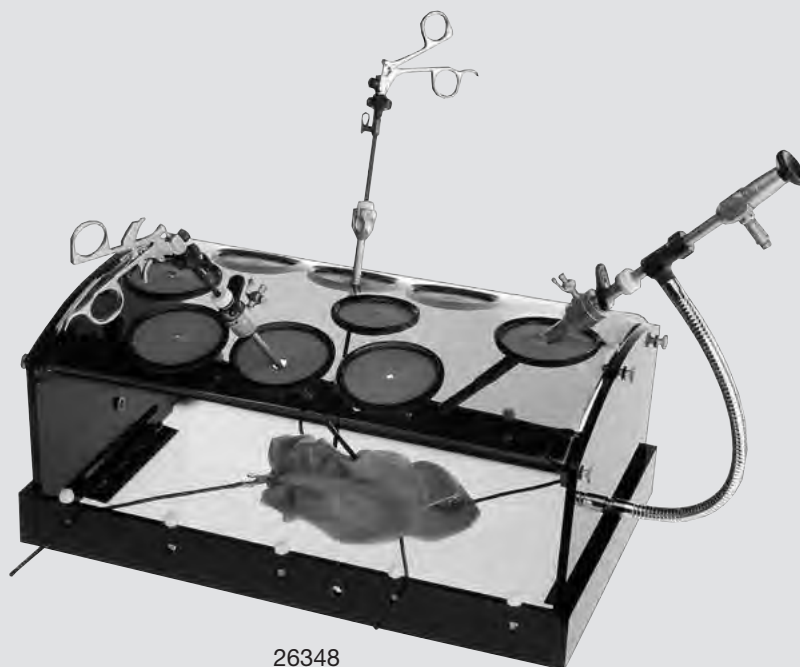
26342 KB

**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**



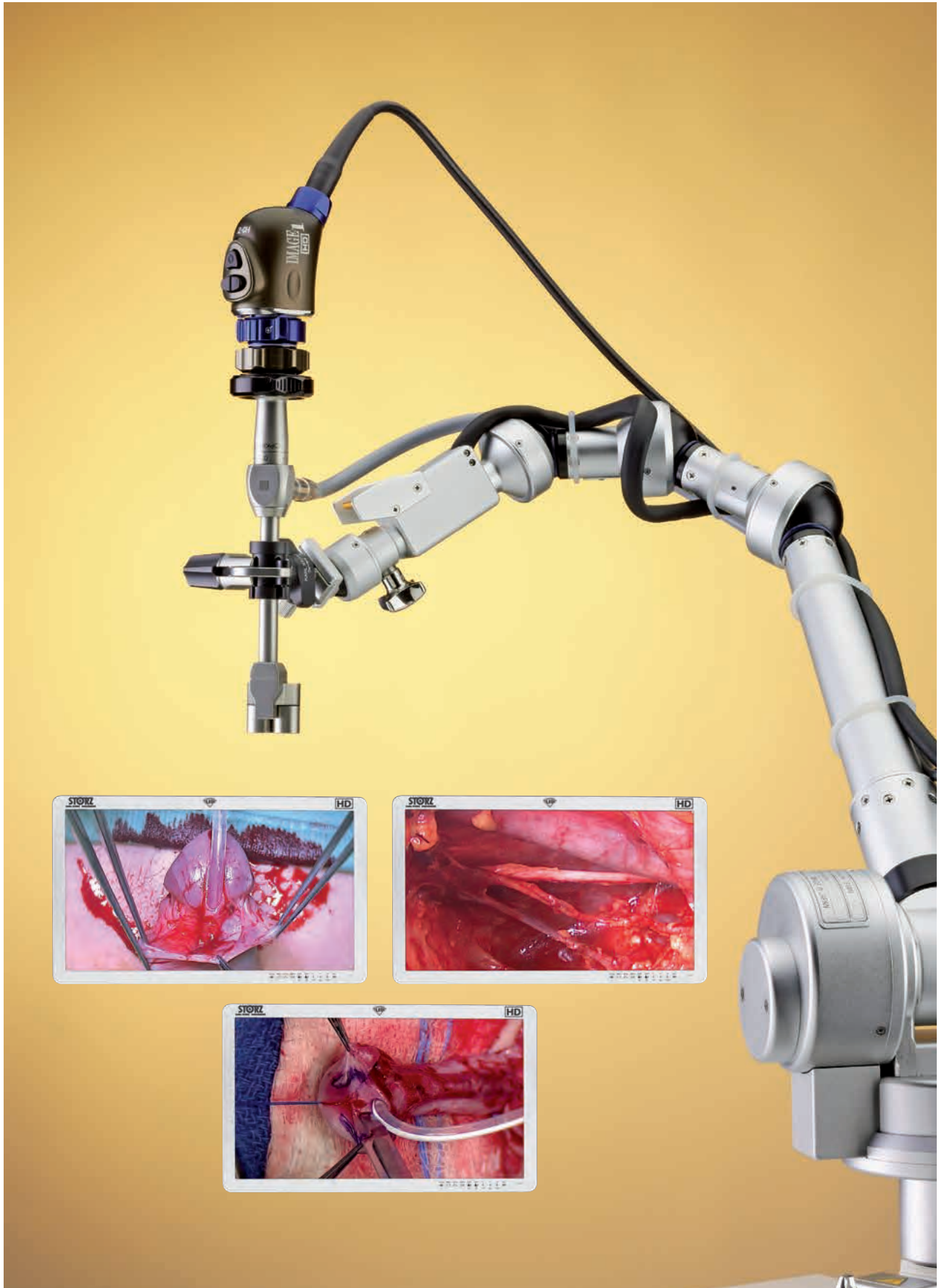
**VITOM® - VISUALIZATION SYSTEM FOR  
OPEN SURGERY WITH MINIMAL ACCESS**



VITOM® *NEW*

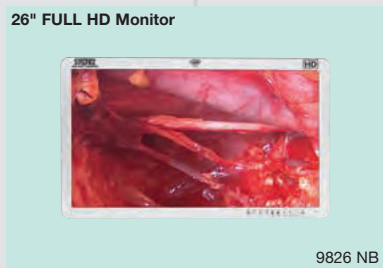
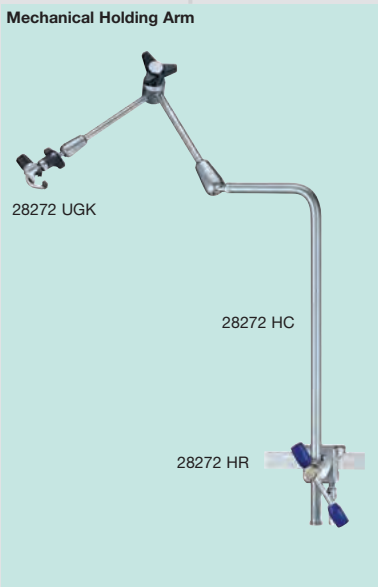
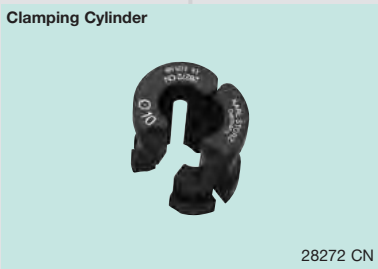
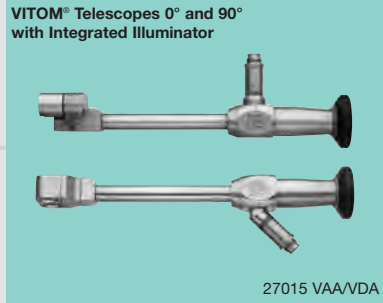
Visualization System for Open Surgery with Minimal Access

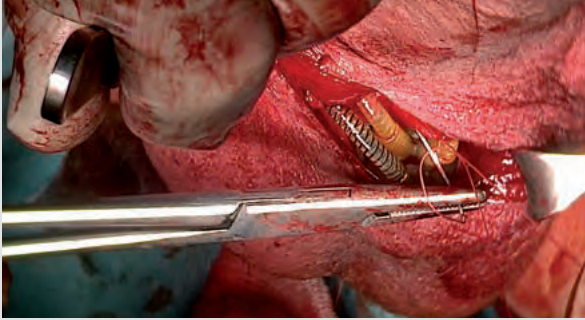
STORZ  
KARL STORZ — ENDOSKOPE



10-14

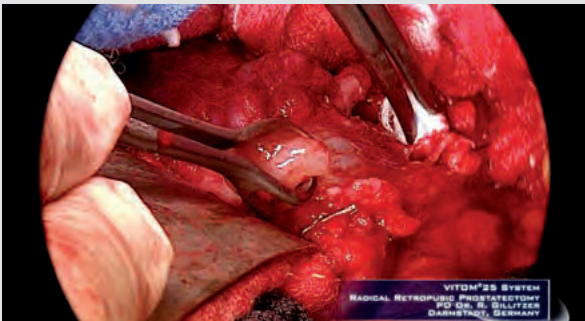
**IMAGE1 S**





**Brilliant 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.



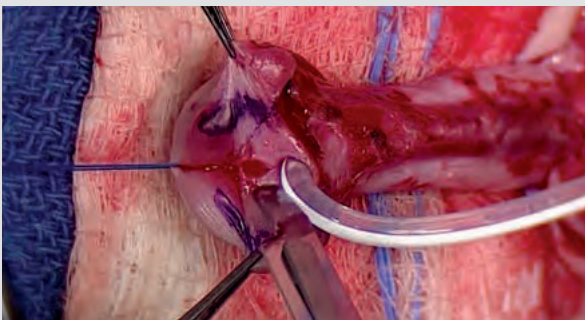
**Ergonomic Work**

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; hypospadias/epispadias correction; artificial sphincter implants; open prostatectomy; open cystectomy; orchidopexy; penile deviations; penile prostheses; sacropexy; “male sling” implants and circumcision.

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:**

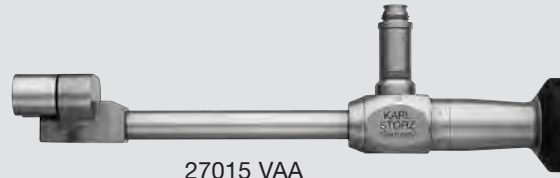
- Excellent FULL HD image quality
- Great depth of view
- Large working distance
- Ergonomic monitor work
- Compact design requiring minimal space in the OR
- Use of existing KARL STORZ FULL HD endoscopy system possible



Using the VITOM® system in urology

OR photographs courtesy of: PD Dr. David Schilling Universitätsklinikum Frankfurt, Germany

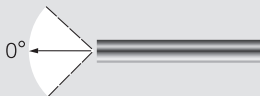
**Exoscope and Illumination – 2nd Generation VITOM® Telescopes**  
Length 11 cm



27015 VAA



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. 20916025 AA.

**Fiber Optic Light Cables 495 TIP or 495 NVC recommended**



495 TIP



495 NVC

495 TIP

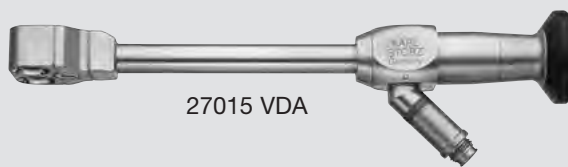
**Fiber Optic Light Cable**, diameter 4.8 mm, length 300 cm, with straight connector, extremely heat-resistant

495 NVC

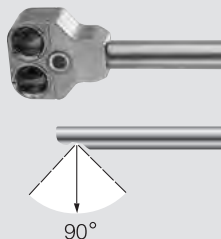
**Fiber Optic Light Cable**, diameter 4.8 mm, length 300 cm, with 90° deflection to the instrument, very narrow radius of curvature

**Compatible Holding Systems** see catalog HOLDING SYSTEMS

**Exoscope and Illumination – 2nd Generation VITOM® Telescopes**  
Length 11 cm



27015 VDA



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.**

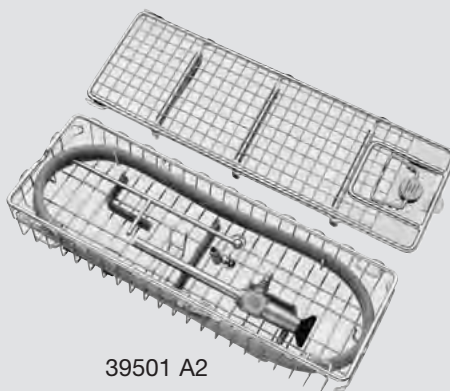
**Fiber Optic Light Cable 495 TIP recommended**



495 TIP

495 TIP

**Fiber Optic Light Cable,** diameter 4.8 mm,  
length 300 cm, with straight connector,  
extremely heat-resistant



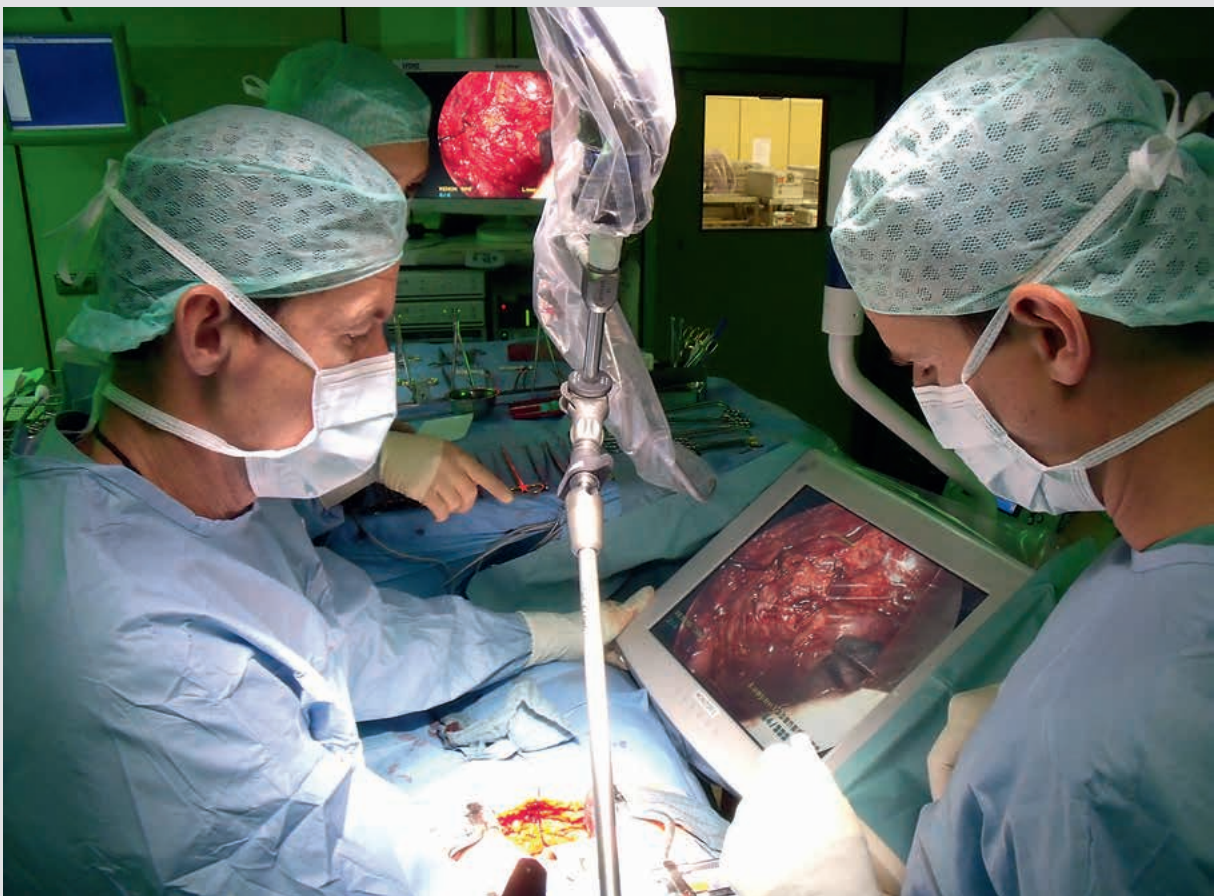
39501 A2

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

<b>Working distance:</b>	25 – 75 cm		
<b>Depth of view at working distance of:</b> <b>Depth of view:</b>	<b>25 cm</b> approx. 3.5 cm	<b>50 cm</b> approx. 7 cm	<b>75 cm</b> approx. 10 cm
<b>Field of view at working distance of:</b> IMAGE1 S H3-Z camera zoom 1x IMAGE1 S H3-Z camera zoom 2x	<b>25 cm</b> 5 cm 3.5 cm	<b>50 cm</b> 10 cm 7 cm	<b>75 cm</b> 15 cm 10.5 cm
<b>Reproduction scale at working distance of:</b>	<b>25 cm</b>	<b>50 cm</b>	<b>75 cm</b>
<b>26" Monitor:</b> H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 8x approx. 16x	approx. 4x approx. 8x	approx. 3x approx. 6x
<b>42" Monitor:</b> H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 14x approx. 28x	approx. 7x approx. 14x	approx. 5x approx. 10.5x
<b>52" Monitor:</b> H3-Z camera zoom 1x H3-Z camera zoom 2x	approx. 17x approx. 34x	approx. 8x approx. 16x	approx. 6x 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



# UNITS AND ACCESSORIES



**STANDARD EQUIPMENT**

**EQUIPMENT CARTS**

**STORZ MEDICAL**

**LITHOTRIPSY**

**SUCTION AND IRRIGATION SYSTEMS**

**MOTOR SYSTEMS**

**HIGH FREQUENCY SURGICAL UNITS**



## Units and Accessories for Urology



- STANDARD EQUIPMENT
- EQUIPMENT CARTS
- STORZ MEDICAL
- LITHOTRIPSY
- SUCTION AND IRRIGATION SYSTEMS
- MOTOR SYSTEMS
- HIGH FREQUENCY SURGICAL UNITS

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





■ **STANDARD EQUIPMENT**

**LOWER URINARY TRACT**

**UPPER URINARY TRACT**

# Standard Equipment for the Lower Urinary Tract



## Units and Accessories

9619 NB	<b>19" HD Monitor</b>
TC 200EN*	<b>IMAGE1 S CONNECT</b>
TC 301	<b>IMAGE1 S X-LINK</b>
20133601-133	<b>Cold Light Fountain D-LIGHT C/AF SCB</b>
UP410 S1	<b>UROMAT E.A.S.I.® SCB</b>
205352 02-125	<b>AUTOCON® II 400 SCB</b>
277010 01-1	<b>UNIDRIVE® S III SCB</b>
WD100-EN*	<b>AIDA mini</b>
UG 220	<b>Equipment Cart, wide</b>
20017831	<b>Three-Pedal Footswitch</b>
29005 DFH	<b>Footswitch Holder, for two- and three-pedal footswitches</b>
UG 310	<b>Isolation Transformer</b>
UG 410	<b>Earth Leakage Monitor</b>

\* 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®

# Standard Equipment for the Upper Urinary Tract



## Units and Accessories

9627 NB	<b>27" FULL HD Monitor</b>
TC 200EN*	<b>IMAGE1 S CONNECT</b>
TC 301	<b>IMAGE1 S X-LINK</b>
UP410 S1	<b>UROMAT E.A.S.I.® SCB</b>
20 5352 02-125	<b>AUTOCON® II 400 SCB</b>
WD100-EN*	<b>AIDA mini</b>
UG 210	<b>Equipment Card</b>
UG 500	<b>Monitor Holder</b>
27 7502 01-1	<b>CALCULASE II SCB</b>
or	
27 6100 01	<b>CALCUSON</b>
<b>optional:</b>	
UG 612	<b>Camera Holder</b>
29005 EFH	<b>Footswitch Holder, for one-pedal footswitch</b>

\* **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**

*NEW* **COR**  
**E-Series**



UG 220

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

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

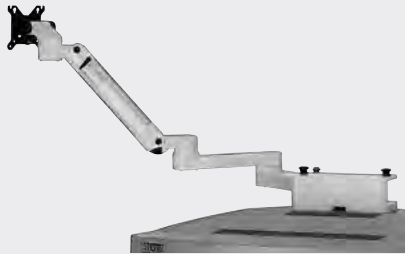
2x **Equipment Rail**, long

For further information on Equipment Carts see catalog TELEPRESENCE

Components/Spare Parts see chapter 16

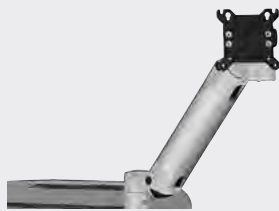
# Equipment Cart COR <sup>NEW</sup>

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



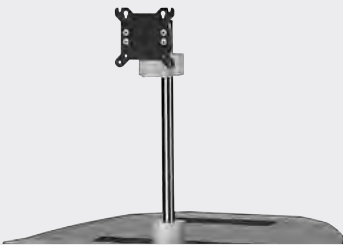
UG 510

**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

**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

UG 607

**Equipment Rail**, short, for mounting to side of equipment cart, Dimensions: 170 x 25 x 10 mm (w x h x d), for Equipment Carts UGxxx

# Equipment Cart COR <sup>NEW</sup>

Accessories



UG 310 **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

UG 300 **Same**, 100 – 120 V



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

UG 400 **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 **Potential Equipotential Cable**, length 10 m  
 20 0102 70 **Potential Equalization Cable**, length 500 cm  
 20 0103 70 **Potential Equalization Cable**, length 200 cm  
 20 0105 70 **Potential Equipotential Cable**, length 150 cm  
 20 0106 70 **Potential Equipotential Cable**, length 100 cm



UG 614 **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

UG 615 **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

# Equipment Cart COR <sup>NEW</sup>

Accessories



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**



UG 626

**IV Pole**, height adjustable, with 2 bottle hooks à 5 kg, length 118 – 203 cm, for use with Equipment Carts UGxxx including:  
**IV Pole**  
**Multifunctional Holder**

10-14

Components/Spare Parts see chapter 16

# Equipment Cart COR <sup>NEW</sup>

Accessories



UG 623 **Multifunctional Holder**, 2-part, for mounting poles, diameter 25 mm, package of 2, for use with Equipment Carts UGxxx



29005 HFH **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**

29005 HFE **Footswitch Holder**, for one-pedal footswitch, for mounting to Equipment Rail 29003 GS, for use with One-Pedal Footswitch **20 0138 32**



29005 DFH **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**

29005 EFH **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

# Equipment Cart

E-Series



20 0200 86

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

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 x 1660 x 670 mm (w x h x d),  
Shelf: 455 x 350 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

# Equipment Cart

E-Series



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**

**NEW** MODULITH® SLX-F2 connect

MODULITH® SLK »inline«

**NEW** PRIMERA 360

**NEW** DUOLITH® SD1 »ultra«

# Systems for Urology from <sup>NEW</sup> STORZ MEDICAL

MODULITH® SLX-F2 connect

**STORZ**  
KARL STORZ — ENDOSKOPE

**STORZ** 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.

STORZ MEDICAL



10-14

# Systems for Urology from STORZ MEDICAL

MODULITH® SLK »inline«

**STORZ**  
KARL STORZ — ENDOSKOPE

**STORZ** MEDICAL

## 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

STORZ MEDICAL

# Systems for Urology from <sup>NEW</sup> STORZ MEDICAL

PRIMERA ST 360®

**STORZ**  
KARL STORZ — ENDOSKOPE

**STORZ MEDICAL**

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 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.

STORZ MEDICAL



10-14

# Systems for Urology from <sup>NEW</sup> STORZ MEDICAL

DUOLITH® SD1 »ultra«

**STORZ**  
KARL STORZ — ENDOSKOPE

**STORZ** MEDICAL

## Modular Shock Wave Therapy

### Focused 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.







## ■ LITHOTRIPSY

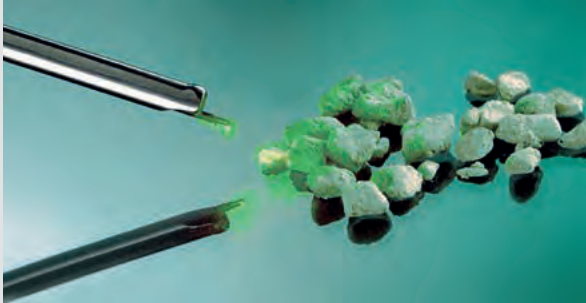
CALCULASE II SCB

CALCUSON

CALCUSPLIT®

# CALCULASE II SCB

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.



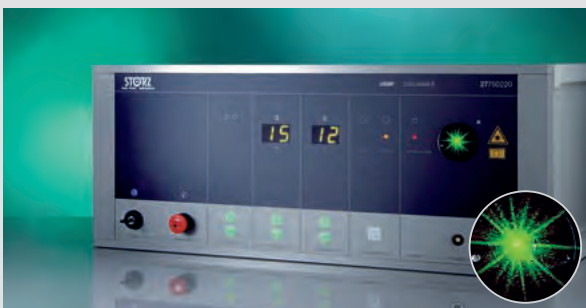
## Soft Tissue Treatment

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  $\mu\text{m}$ ) for both single and multiple use. Together with its wide range of rigid and flexible uretero-renaloscopes 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.



# CALCULASE II SCB

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)**



# CALCULASE II SCB

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
<b>0.5 J</b>	2 W	3 W	4 W	5 W	–
<b>0.8 J</b>	3.2 W	4.8 W	6.4 W	8 W	–
<b>1.2 J</b>	4.8 W	7.2 W	9.6 W	12 W	–
<b>1.7 J</b>	–	–	–	–	–
<b>2 J</b>	–	–	–	–	–

**Parameters for 365 µm and 600 µm Fibers**

Energy	Frequency				
	4 Hz	6 Hz	8 Hz	10 Hz	15 Hz
<b>0.5 J</b>	2 W	3 W	4 W	5 W	7.5 W
<b>0.8 J</b>	3.2 W	4.8 W	6.4 W	8 W	12 W
<b>1.2 J</b>	4.8 W	7.2 W	9.6 W	12 W	18 W
<b>1.7 J</b>	6.8 W	10.2 W	13.6 W	17 W	–
<b>2 J</b>	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

# CALCULASE II SCB

System Components

UNIT SIDE

PATIENT SIDE



SCB®

One-Pedal Footswitch



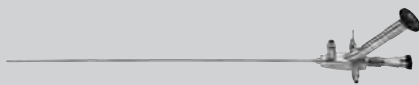
27 7501 24

Video Uretero-Renoscopes FLEX-X® IMAGE1 S/FLEX-X®



11278 VS/VSU/VVU

Uretero-Renoscope



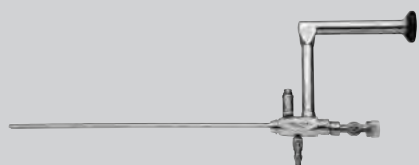
27000 L/K, 27001 L/K, 27002 L/K,  
27003 L, 27010 L/K, 27013 L

Nephroscope for MIP XS/S



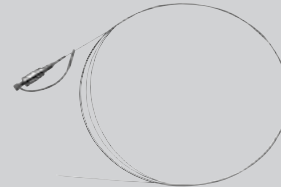
27820 KA

Percutaneous Nephroscope



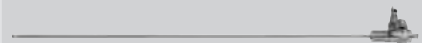
27292 AMA/27293 AA/27092 AMA/27093 AA

CALCULASE II Fiber



27 7502 71

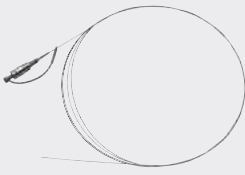
LASER Suction Tube



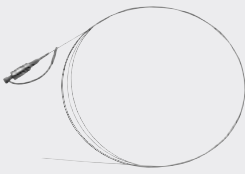
27290 LL

LITHOTRIPSY





**Fiber Sets, reusable**

	<b>27 7502 71-P6</b> <b>CALCULASE II Fiber 230 µm</b> , reusable, sterile, length 300 cm, package of 6
	<b>27 7502 72-P6</b> <b>CALCULASE II Fiber 365 µm</b> , reusable, sterile, length 300 cm, package of 6
	<b>27 7502 73-P6</b> <b>CALCULASE II Fiber 600 µm</b> , reusable, sterile, length 300 cm, package of 6
<b>27 7502 87</b> <b>CALCULASE II Fiber Kit</b> including: 3x <b>CALCULASE II Fiber 230 µm</b> , reusable 3x <b>CALCULASE II Fiber 365 µm</b> , reusable 3x <b>CALCULASE II Fiber 600 µm</b> , reusable	

**Fiber Sets, for single use**

	<b>27 7502 77-P6</b> <b>CALCULASE II Fiber 230 µm</b> , for single use, sterile, length 300 cm, package of 6
	<b>27 7502 78-P6</b> <b>CALCULASE II Fiber 365 µm</b> , for single use, sterile, length 300 cm, package of 6
	<b>27 7502 79-P6</b> <b>CALCULASE II Fiber 600 µm</b> , for single use, sterile, length 300 cm, package of 6
<b>27 7502 86</b> <b>CALCULASE II Fiber Kit</b> including: 3x <b>CALCULASE II Fiber 230 µm</b> , for single use, sterile 3x <b>CALCULASE II Fiber 365 µm</b> , for single use, sterile 3x <b>CALCULASE II Fiber 600 µm</b> , for single use, sterile	

**Additional Accessories**

	<b>27 7500 82</b> <b>Fiber Cutter</b>
	<b>27 7500 81</b> <b>Fiber Stripper</b>
	<b>27 7502 80</b> <b>Fiber Stripper Set</b> , sterilizable, for use with CALCULASE II fibers including: <b>Silicone Pad</b> <b>Ceramic Knife</b> <b>Fiber Strippers 230, 365 and 600 µm</b>
	<b>27 7500 95</b> <b>Safety Goggles Ho:YAG LASER, 2080 nm</b>

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

**Components/Spare Parts** see chapter 16

# CALCULASE II SCB <sup>NEW</sup>

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

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

# CALCUSON

Ultrasonic Lithotripsy System,  
Recommended Standard Set Configuration

### 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



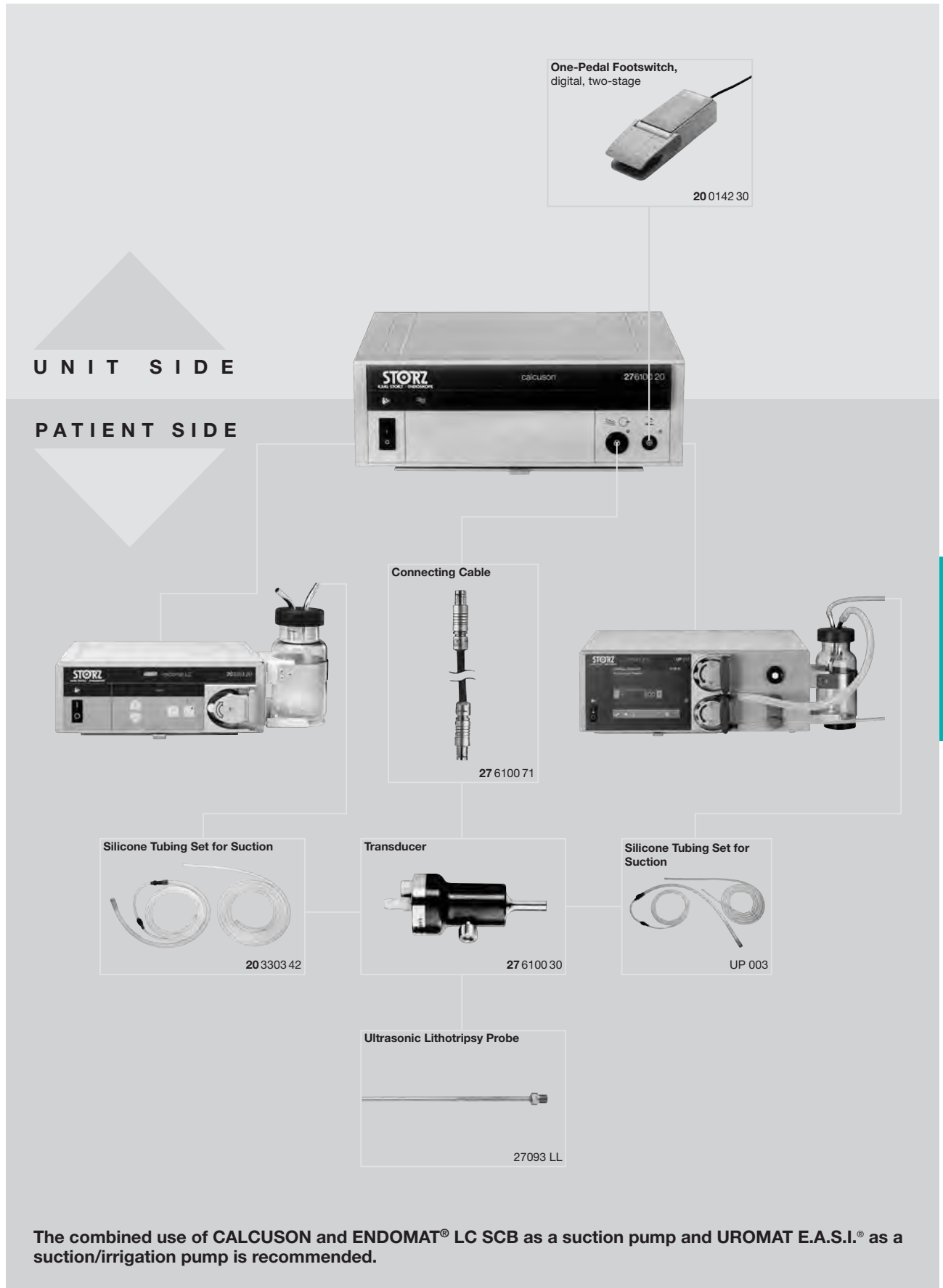
- 27 6100 01 **CALCUSON Ultrasonic Generator Set,**  
power supply 100 – 120 VAC/200 – 240 VAC, 50/60 Hz  
including:  
**Mains Cord**  
**One-Pedal Footswitch**  
**Transducer**  
**Connecting Cable** (transducer/generator)  
**Protection Sleeve,** for storage and sterilization of probes  
**Cleaning 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

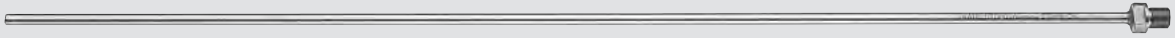
**Components/Spare Parts** see chapter 16



# Accessories

for CALCUSON

## 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	1.5 mm	47 cm	without oscillating tip, with suction channel	Ureteroscope 27002 K
27425 NL		57 cm		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 Nephroscope for MIP L 27840 KA
27093 OM			without oscillating tip, with suction channel	
27093 LL	3.5 mm	40 cm	with oscillating tip and suction channel	HOPKINS® Telescopes 27292 AMA, 27293 AA and Operating Sheaths 27293 BD/CD
27093 OL			without oscillating tip, with suction channel	
27093 LK	3.5 mm	30 cm	with oscillating tip and suction channel	HOPKINS® Telescopes 27092 AMA, 27093 AA and Operating Sheaths 27093 BD/CD
27093 OK			without oscillating tip, with suction channel	



# 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 intracorporeal 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.





- 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  
**Spare Damping Unit, autoclavable**, for use with CALCUSPLIT® lithotripsy probes, package of 20  
**Silicone Tube, autoclavable**, for connecting handpieces, 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
Power supply	110/120/230/240 VAC, 50/60 Hz	Weight	5 kg
		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

**CALCUSPLIT®**  
System Components

Compressor



20 0310 01

Tissue Tube, for connection to central compressed air supply



27 6300 21

Fabric Tube, for connecting CALCUSPLIT® to the compressor



27 6300 22

One-Pedal Footswitch, digital, two-stage



20 0142 30

UNIT SIDE

PATIENT SIDE



Silicone Tube, for insufflation



27 6300 40

CALCUSPLIT® Handpiece



27 6300 38

Lithotripsy Wire Probe



27 6325 34

LITHOTRIPSY

# Accessories

for CALCUSPLIT®

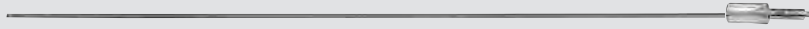
## Lithotripsy Wire Probes for use with Handpiece 27 6300 38



27 6301 36



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	<b>Ureteroscopes</b> 27000 K, 27001 K, 27002 K, 27002 KP, in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38
27 6325 35	1.0 mm		
27 6325 36	1.6 mm	48.5 cm	<b>Ureteroscope</b> 27002 K, in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38
27 6326 34	0.8 mm	57.5 cm	<b>Uretero-Renoscopes</b> 27000 L, 27001 L, 27002 L, 27003 L, in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38
27 6326 35	1.0 mm		
27 6326 36	1.6 mm	57.5 cm	<b>Uretero-Renoscope</b> 27002 L, in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38
27 6322 31	0.8 mm	31 cm	<b>HOPKINS® Telescopes</b> 27092 AMA, 27093 AA, 27095 AA, in combination with Operating Sheaths 27093 BD/CD, 27095 B and Handpiece 27 6300 38
27 6322 32	1.0 mm		
27 6322 33	1.6 mm		
27 6322 34	2.0 mm		
27 6340 31	0.8 mm	37.5 cm	<b>HOPKINS® Telescopes</b> 27292 AMA, 27293 AA, 27294 AA, 27295 AA, Operating Sheaths 27293 BD/CD and Nephroscope for MIP M 27830 KA in conjunction with Instrument Port 27001 GP and Handpiece 27 6300 38
27 6340 32	1.0 mm		
27 6340 33	1.6 mm		
27 6340 34	2.0 mm	37.5 cm	<b>HOPKINS® Telescopes</b> 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	–	–	<b>Uretero-Renoscope,</b> new generation, for use with CALCUSPLIT® in conjunction with Instrument Port 27001 G and Handpiece 27 6300 38
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■ **SUCTION AND IRRIGATION SYSTEMS**

*NEW* **UROMAT E.A.S.I.® SCB**

**ENDOMAT® LC SCB**

# UROMAT E.A.S.I.® SCB <sup>NEW</sup>

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)
- **Powerful:**  
Optimal power values for several endo-urological 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**



SUCTION AND IRRIGATION SYSTEMS

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

# UROMAT E.A.S.I.® SCB <sup>NEW</sup>

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



Accessories for UROMAT E.A.S.I.® SCB see page U 44

Components/Spare Parts see chapter 16



# UROMAT E.A.S.I.® SCB <sup>NEW</sup>

Pressure-regulated Suction and Irrigation System  
for Uretero-Renoscropy, Resection and MIP XS

UNIT SIDE

PATIENT SIDE



One-Pedal Footswitch,  
one-stage, digital



UP 001

Irrigation Tubing Set



\*031717-10

Irrigation Tubing Set



\*031717-10

Suction Tubing Set



\*031217-10

Irrigation Tubing Set



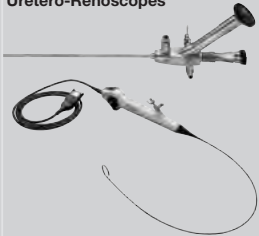
\*031717-10

Suction Tubing Set



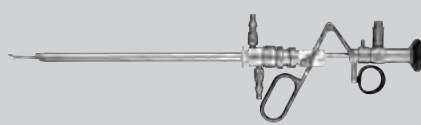
\*031217-10

Flexible and Semiflexible  
Uretero-Renoscopes



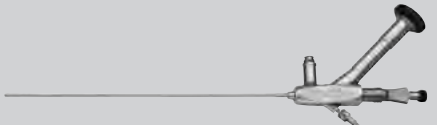
27001 L/K  
11278 VS/VSU

Resectoscope



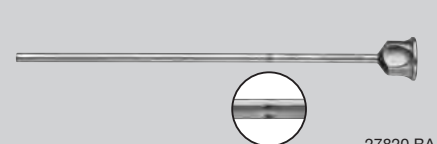
27050 SC

Nephroscope for MIP XS/S



27820 KA

Operating Sheath, 8.5/9.5 Fr.,  
use of UROMAT E.A.S.I.® SCB mandatory

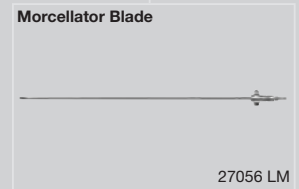
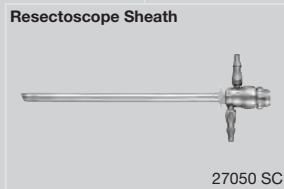
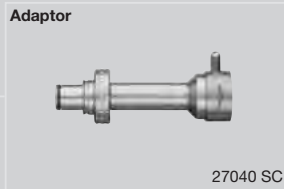
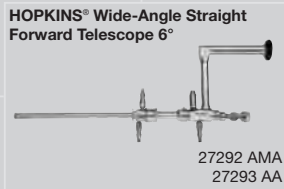
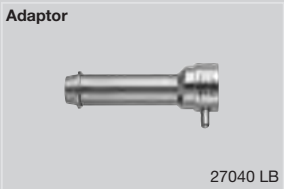
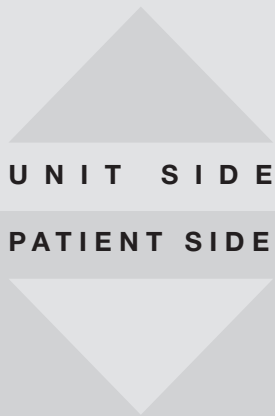


27820 BA

SUCTION AND  
IRRIGATION SYSTEMS

# UROMAT E.A.S.I.® SCB <sup>NEW</sup>

System Components  
for Morcellation



SUCTION AND IRRIGATION SYSTEMS



# UROMAT E.A.S.I.® SCB <sup>NEW</sup>

System Components,  
for use with CALCUSON

UNIT SIDE  
PATIENT SIDE

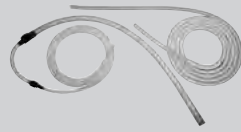
One-Pedal Footswitch,  
digital, two-stage



20 0142 30



Silicone Tubing Set



UP 003

Connecting Cable



27 6100 71

Transducer







27 6100 30

Ultrasonic Lithotripsy Probe





27093 LL




**For use with continuous-flow mode during resection and morcellation**

	<p>031717-10* <b>Irrigation Tubing Set</b>, 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</p>
	<p>031217-10* <b>Suction Tubing Set</b>, for single use, sterile, package of 10, for use with HYSTEROMAT E.A.S.I.® SCB and UROMAT E.A.S.I.® SCB</p>
	<p>031767-10* <b>Pump Tubing Day Set</b>, 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</p>
	<p>031162-10* <b>Patient Tube</b>, 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</p>

**For use with single-flow mode and BOLUS function during URS**

	<p>031717-10* <b>Irrigation Tubing Set</b>, 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</p>
	<p>UP 001 <b>One-Pedal Footswitch</b>, one-stage, digital, for activating the BOLUS function, for use with UROMAT E.A.S.I.® SCB</p>

**For use with CALCUSON**

	<p>UP 003 <b>Silicone Tubing Set</b>, for suction, sterilizable, for use with UROMAT E.A.S.I.® SCB and CALCUSON</p>
	<p>20 0142 30 <b>One-Pedal Footswitch</b>, digital, two-stage</p>
	<p>20 3000 51 <b>Suction Bottle</b>, 0.5 l, sterilizable 20 3000 39 <b>Bottle Cap</b>, for Suction Bottle 20 3000 51 UP 011 <b>Bottle Holder</b>, for Suction Bottle 20 3000 51</p>



SUCTION AND IRRIGATION SYSTEMS

# 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 l, 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



Accessories for ENDOMAT® LC SCB see page U 47

Components/Spare Parts see chapter 16

# ENDOMAT® LC SCB

System Components

UNIT SIDE

PATIENT SIDE

One-Pedal Footswitch,  
digital, two-stage



20 0142 30



Probe Connecting Cable



27 6100 71

Silicone Tubing Set for Suction



20 3303 42

Transducer



27 6100 30

Resectoscope



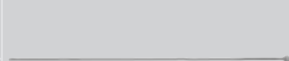
27050 SC

Telescope with Sheath



27292 AMA  
27293 BD

Ultrasonic Lithotripsy Probe





27093 LL

The combined use of CALCUSON and ENDOMAT® LC SCB as a suction pump is recommended.

# Accessories

for ENDOMAT® LC SCB

## For use with CALCUSON

	<p><b>20 3004 82</b>    <b>Connector Set</b>, for ENDOMAT® LC, for use with Silicone Tubing Sets <b>20 3303 40</b>, <b>20 3303 41</b> and <b>20 3303 43</b></p>
	<p><b>20 3303 93</b>    <b>Pump Tube</b>, sterilizable, package of 25</p>
	<p><b>20 0142 30</b>    <b>One-Pedal Footswitch</b>, digital, two-stage</p>
	<p><b>20 0903 70</b>    <b>SCB Connecting Cable</b>, length 60 cm</p>
	<p><b>20 3000 51</b>    <b>Suction Bottle</b>, 0.5 l, sterilizable  <b>20 3000 39</b>    <b>Bottle Cap</b>, for Suction Bottle <b>20 3000 51</b>  <b>20 3002 31</b>    <b>Bottle Stand</b>, for Suction Bottle <b>20 3000 51</b></p>
	<p><b>20 3303 42</b>    <b>Silicone Tubing Set</b>, for suction, sterilizable, for use with Suction Bottle <b>20 3000 51</b></p>







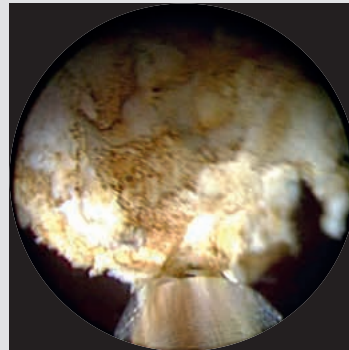
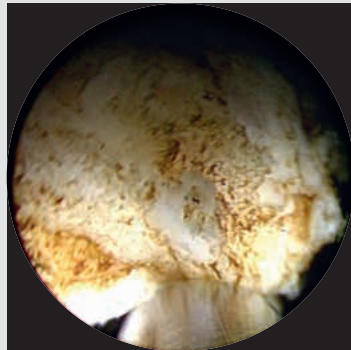
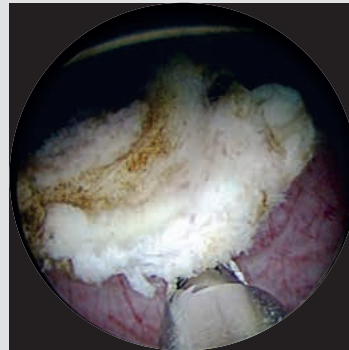
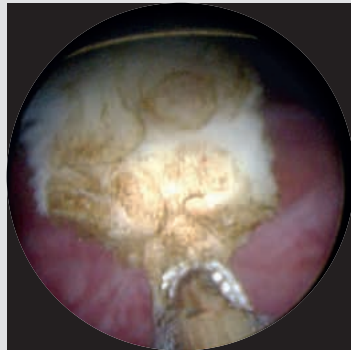
## ■ MOTOR SYSTEMS

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 prostate 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.

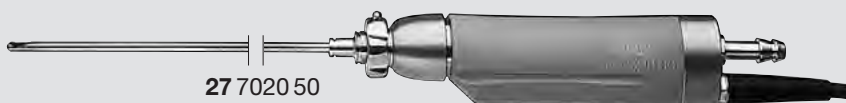


## Morcellator System for Urology

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

**Special Features:**

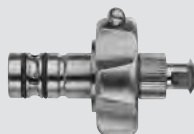
- Ergonomic handpiece design, fits comfortably in the hand
- Detachable handle – individual, ergonomic, flexible positioning
- Rapid coupling for blade fixation enables easy handling and rapid set-up
- Powerful motor
- Absolutely silent running
- Central, straight suction channel
- Easy hygienic processing, 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



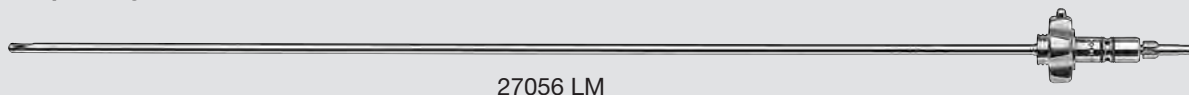
40 7120 90 **Handle**, adjustable, for use with DrillCut-X® II Morcellator Handpiece URO 27 7020 50



41250 RA **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 **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

9-121

MOTOR SYSTEMS

# Morcellator System for Urology

UNIDRIVE® S III SCB

For use with DrillCut-X® II Morcellator Handpiece URO 27 7020 50

## 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

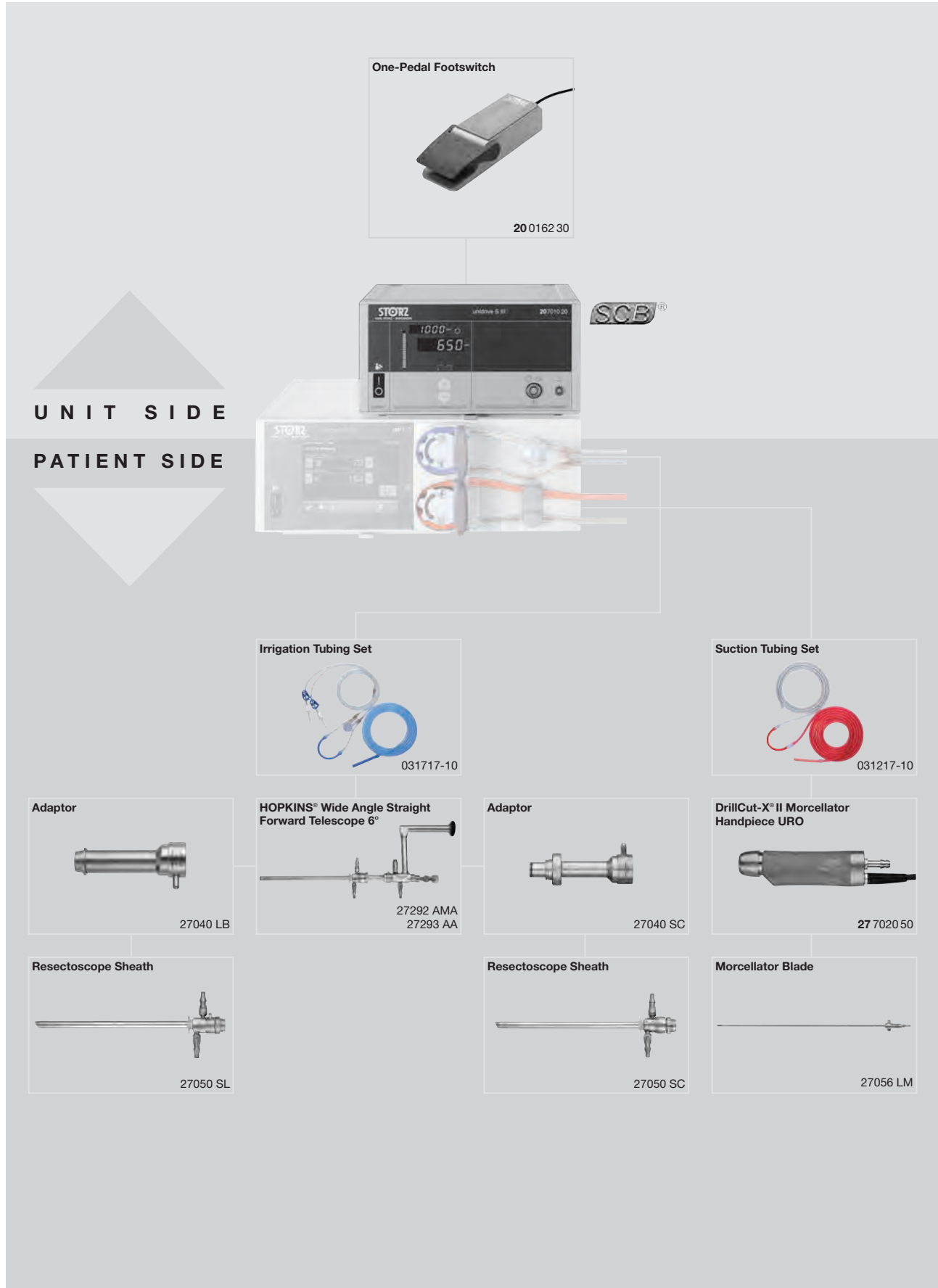
## Specifications:

Operating mode	oscillating (morcellator)	Dimensions w x h x d	305 x 165 x 233 mm
Max. rotation	40,000 (rpm) blade 500 – 5000 (rpm)	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

# Morcellator System for Urology <sup>NEW</sup>

System Components



**MOTOR SYSTEMS**





## ■ HIGH FREQUENCY 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.





# AUTOCON® II 400 SCB

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:

- **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**
- **New resection modes (Saline C-Cut++/  
Saline Coag++) for optimal resection in saline solution**



### **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 clear safety 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 integrability 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.

# AUTOCON® II 400 SCB

## 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.



# AUTOCON® II 400 SCB

## Specifications

HF Modes	Effects	P max. at 500 Ohm	V <sub>p</sub> max. at 500 Ohm	Crest Factor	Arc Control	Voltage Control
<b>Unipolar</b>						
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	–	●
<b>Bipolar</b>						
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 ++*	8 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.	200 (at 75 Ohm)	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

\*\*with software package "Bi-Vascular-Safe"

### Specifications:

Safety systems	<ul style="list-style-type: none"> <li>- automatic self-test</li> <li>- maldosage</li> <li>- neutral electrode safety system (dynamic, two-part, one- and two-part NE)</li> <li>- LF/HF leakage current monitor</li> <li>- activation time</li> <li>- deactivable HF</li> </ul>	Power supply	<b>20</b> 5352 2x-12x: 220-240 VAC, 50/60 Hz <b>20</b> 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

# AUTOCON® II 400 SCB

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**

**Components/Spare Parts** see chapter 16

# AUTOCON® II 400 SCB

High Frequency Surgical Unit,  
Recommended Standard Set Configurations



**AUTOCON® II 400 SCB,**  
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.	<b>20 5352 01-122</b> <b>20 5352 01U122</b>	<b>20 5352 01-125</b> <b>20 5352 01U125</b> basic unit
	–	<b>20 5352 02-125</b> <b>20 5352 02U125</b> basic unit, incl. additional resection module
	–	<b>20 5352 03-125</b> <b>20 5352 03U125</b> basic unit, incl. Bi-Vascular-Safe mode
	–	<b>20 5352 04-125</b> <b>20 5352 04U125</b> basic unit, incl. additional resection module + Bi-Vascular-Safe mode

### Socket Position

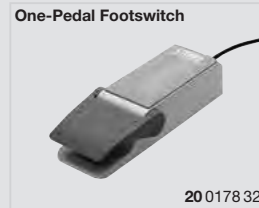
1	Bipolar Combination 	Bipolar Combination 
2	Bipolar Combination 	Bipolar Multifunction 
3	Unipolar 3-pin and Erbe 	Unipolar 3-pin and Erbe 
4	NE 6.3 mm jack and 2-pin 	NE 6.3 mm jack and 2-pin 

**Optional Accessories for AUTOCON® II 400 SCB** see pages U 64-U 68

**Components/Spare Parts** see chapter 16

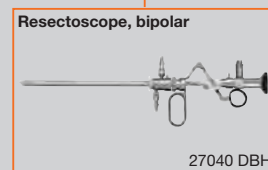
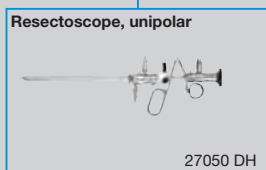
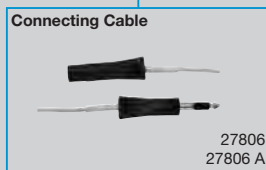
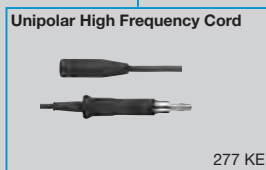
# AUTOCON® II 400 SCB

System Components



UNIT SIDE

PATIENT SIDE



# Optional Accessories

for AUTOCON® II 400 SCB

			AUTOCON® II 400 SCB
	200178 31	<b>Three-Pedal Footswitch</b> , for use with AUTOCON® II 400 SCB	●
	200178 30	<b>Two-Pedal Footswitch</b> , for use with AUTOCON® II 400 SCB and AUTOCON® II 200	●
	200178 32	<b>One-Pedal Footswitch</b> , for activating coagulation, for use with AUTOCON® II 400 SCB and AUTOCON® II 200	●
	27805	<b>Neutral Electrode</b> , of conductive silicone with 2 rubber ties for fastening, contact surface A = 500 cm <sup>2</sup> , for use with Connecting Cable 27806	●
	27806	<b>Neutral Electrode Connecting Cable</b> , for Neutral Electrodes 27805 and 860021 E, length 400 cm	-111 -115 -122 -125
	27806 UR	<b>Neutral Electrode Connecting Cable</b> , for Neutral Electrode 27805	-112 -116 -122 -125
	27806 US	<b>Neutral Electrode Connecting Cable</b> , for Neutral Electrode 27802	-112 -116 -122 -125
	27802	<b>Neutral Electrode</b> , for single use, contact surface divided into two, A = 169 cm <sup>2</sup> , package of 50, Connecting Cable 27801 required	●
	27801	<b>Connecting Cable</b> , for connecting Neutral Electrode 27802, length 500 cm	-111 -115 -122 -125
	26 5200 43	<b>Electrode Handle</b> , with 2 buttons for activating the unipolar generator, yellow button: unipolar cutting, blue button: unipolar coagulation (Cable 26 5200 45 required)	●
	26 5200 45	<b>High Frequency Cable</b> , for Electrode Handle 26 5200 43, length 400 cm	-111 -115 -122 -125
	26 5200 46	<b>Electrode Handle</b> , without buttons, with integrated connecting cable, length 300 cm	-111 -115 -122 -125
	27176 B	<b>External Hardware Upgrade AUTOCON® II 400 SCB</b> , (high-end version) for the function "Bipolar Resection"	●



# Surgery Electrodes Set

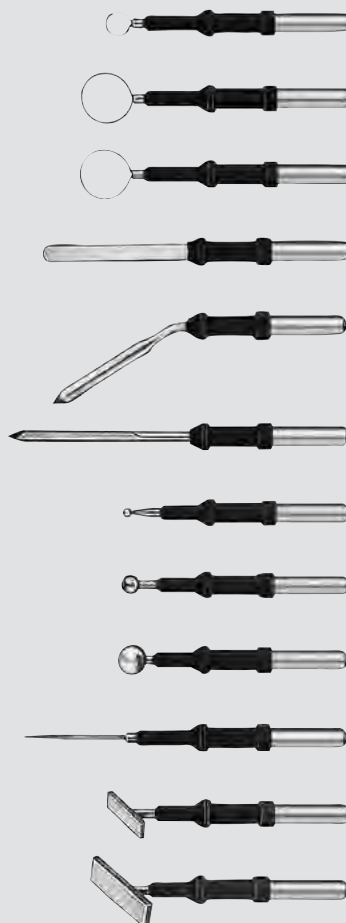
Accessories



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





# Accessories

## Unipolar High Frequency Cords

### Unipolar High Frequency Cords, for use with unipolar working elements






KARL STORZ High Frequency  
Instrument Surgical Unit

	277	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for use with models KARL STORZ and Erbe type T, older models
	277 A	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for use with Martin HF units
	277 KE	<b>Unipolar High Frequency Cord</b> , 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	<b>Unipolar High Frequency Cord</b> , 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 High Frequency  
Instrument Surgical Unit

	26002 M	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for models KARL STORZ, Erbe type T, older models and Ellman
	26004 M	<b>Unipolar High Frequency Cord</b> , with 4 mm plug, length 300 cm, for use with Martin HF units
	26005 M	<b>Unipolar High Frequency Cord</b> , 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	<b>Unipolar High Frequency Cord</b> , 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 **ML**, 26176 **LVL**.

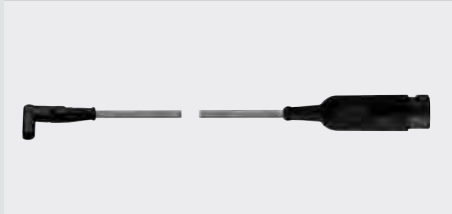
# Accessories

## Bipolar High Frequency Cords

### Bipolar High Frequency Cords, for use with bipolar working elements



KARL STORZ High Frequency  
Instrument Surgical Unit



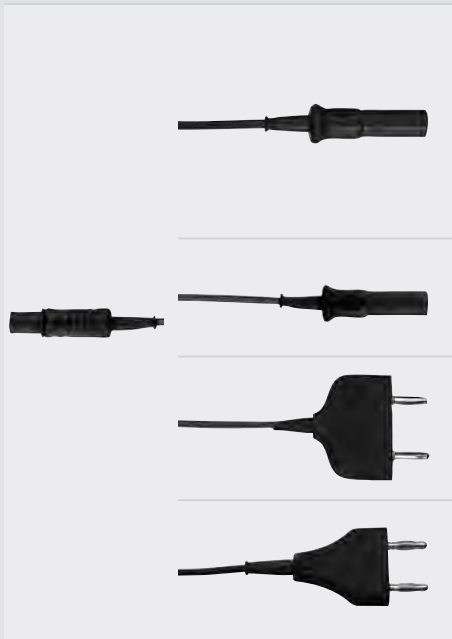
27176 LEB **Bipolar High Frequency Cord**, for  
AUTOCON®II 400 SCB system (high-end),  
length 300 cm, for use with bipolar resectoscopes

27176 LEBL **Same**, length 500 cm

### Bipolar High Frequency Cords



KARL STORZ High Frequency  
Instrument 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

**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 ML, 26176 LVL.

# Compatibility

High 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
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## Unipolar High Frequency 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 Frequency Cords

26176 LE	●	–	●	●	●
26176 LM	●	●	●	●	●
26176 LW	–	–	●	●	–
26176 LV	–	●	●	●	●

## Bipolar High Frequency Cords/Instruments to Multifunction 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	●	●	–	●	●



**COMPONENTS  
SPARE PARTS**

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.

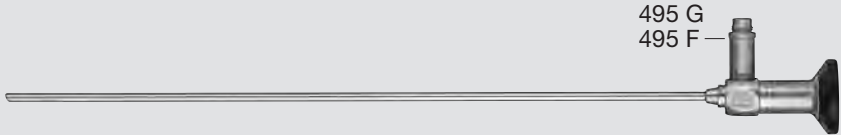
### Hotline

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:

Components / Spare Parts		Catalog page
27005 AA	HOPKINS® Straight Forward Telescope 0°, enlarged view	3
27005 FA	HOPKINS® Telescope 12°, enlarged view	3
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
27005 CIA	HOPKINS® Lateral Telescope 70°, enlarged view	4, 100
27005 BGA	Greenlight Filter HOPKINS® Forward-Oblique Telescope 30°, enlarged view	5, 84
27020 AA	HOPKINS® Straight Forward Telescope 0°	6, 39
27020 FA	HOPKINS® Telescope 12°, enlarged view	6, 39
27020 BA	HOPKINS® Forward-Oblique Telescope 30°	6, 39



Spare Parts	
	<b>495 F</b> <b>Receptacle,</b> diameter 9 mm, for Wolf fiber optic light cable
	<b>495 G</b> <b>Screw Base,</b> for KARL STORZ fiber optic light cables and Olympus Corporation

*Spare parts assigned to instrument with catalog page reference and order numbers for individual components/spare parts*

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C-HUB® II Camera Control Unit, Cysto-Urethro-Fiberscopes	SP 6
Cystoscope-Urethroscope Sheaths	SP 7
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# HOPKINS® Telescopes for Adults

HOPKINS® Telescopes

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27020 FA	HOPKINS® Telescope 12°, enlarged view	6, 39
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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

# Cystoscope-Urethroscopes for Adults and Adolescents

Flexible Cysto-Urethroscopes

## Components / Spare Parts

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## Spare parts



11025 E  
**Pressure Compensation Cap**, for ventilation during gas and plasma sterilization



6985691  
**Spring Cap**



8515090  
**Stopcock**

## Components / Spare Parts

Catalog page

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## Spare Parts



11025 E  
**Pressure Compensation Cap**, for ventilation during gas and plasma sterilization



6985691  
**Spring Cap**



8515090  
**Stopcock**



11900 AV  
**Suction Valve**, autoclavable



5925300  
**O-Ring**, for suction valve, small, red, 2 x 1.5 mm



5925600  
**O-Ring**, for suction valve, large, red, 2.5 x 1.5 mm



11900 VA  
**Valve Adaptor**, autoclavable



11272 AZK  
**Forceps Unit**, with LUER two-way stopcock

5928000  
**O-Ring**, 3 x 1 mm

# Cystoscope-Urethroscopes for Adults and Adolescents

C-HUB® II Camera Control Unit, Cysto-Urethro-Fiberscopes

## Components / Spare Parts

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20290320	<b>C-HUB® II</b>
20290120-PS	<b>C-HUB® Power Supply</b>
547 S	<b>S-Video (Y/C) Connecting Cable</b>
20200073	<b>USB Connecting Cable</b>
20040445-V02	<b>Video Editor</b>



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## Components / Spare Parts

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<b>11272 C</b>	<b>Cysto-Urethro-Fiberscope</b>
<b>11272 CU</b>	<b>Cysto-Urethro-Fiberscope</b>



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### Spare Parts for 11272 C



11025 E  
**Pressure Compensation Cap**, for ventilation during gas and plasma sterilization



6985691  
**Spring Cap**



495 F  
**Receptacle**, diameter 9 mm, for Wolf fiber optic light cable



8515090  
**Stopcock**



495 G  
**Screw Base**, for KARL STORZ fiber optic light cables and Olympus Corporation

### Spare Parts for 11272 CU



11025 E  
**Pressure Compensation Cap**, for ventilation during gas and plasma sterilization



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



6011590  
**Plug**, for LUER-Lock connector

# Cystoscope-Urethroscopes for Adults and Adolescents

Cystoscope-Urethroscope Sheaths, Telescope Bridge

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27026 D	Cystoscope-Urethroscope Sheath	29
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27026 BB	Cystoscope-Urethroscope Sheath	29
27026 CB	Cystoscope-Urethroscope Sheath	29
27026 DB	Cystoscope-Urethroscope Sheath	29



## Spare Parts

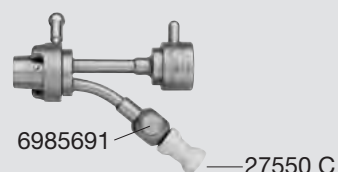


6985691  
**Spring Cap**



8458190  
**Stopcock**

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## Spare Parts



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



8541890  
**Stopcock**



6985691  
**Spring Cap**

# Cystoscope-Urethroscopes for Adults and Adolescents

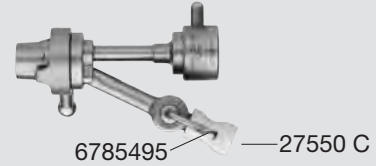
Telescope Bridge, Catheter Deflecting Mechanisms

Components / Spare Parts

Catalog page

**27025 GF Telescope Bridge**

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## Spare Parts



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



6785495  
**Stopcock**



3012090  
**Spring**, for stopcock



6725195  
**Screw Cap**

Components / Spare Parts

Catalog page

**27026 EF Catheter Deflecting Mechanism**

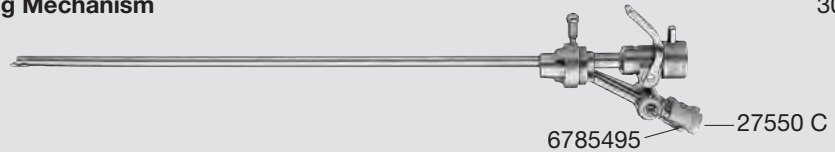
30

**27026 EG Catheter Deflecting Mechanism**

30

**27026 EC Catheter Deflecting Mechanism**

30



## Spare Parts



27021 O  
**Rod**



6785495  
**Stopcock**



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



6725195  
**Screw Cap**



3012090  
**Spring**, for stopcock



# Cystoscope-Urethroscopes for Adults and Adolescents

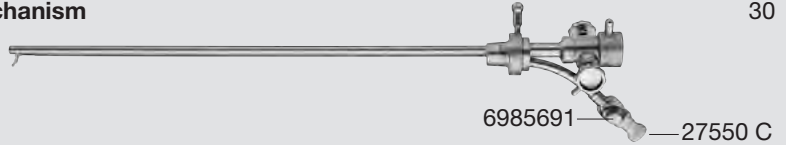
Catheter Deflecting Mechanism, NICKELL Cystoscope Adaptor,  
Cysto-Urethroscopes

Components / Spare Parts

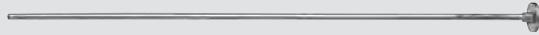
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**27026 E Catheter Deflecting Mechanism**

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Spare Parts



27021 O  
**Rod**



6985691  
**Spring Cap**



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



8541890  
**Stopcock**

Components / Spare Parts

Catalog page

**27026 X NICKELL Cystoscope Adaptor**

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Spare Part



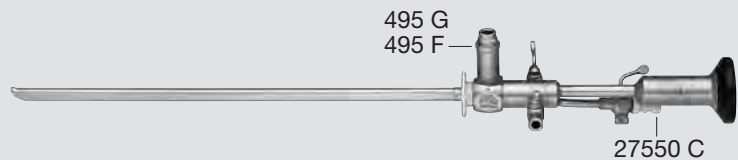
6127490  
**Sealing Cap**, (50/3.6)

Components / Spare Parts

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**27035 BA Universal Cysto-Urethroscope**

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Spare Parts



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



8515090  
**Stopcock**



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



8458190  
**Stopcock**

# Cystoscope-Urethroscopes for Adults and Adolescents

HOPKINS® Straight Forward Telescope 0°, Forceps, Scissors

Components / Spare Parts

Catalog page

**27324 AA HOPKINS® Straight Forward Telescope 0°**

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## Spare Parts



495 F  
**Receptacle,**  
diameter 9 mm, for  
Wolf fiber optic light cable



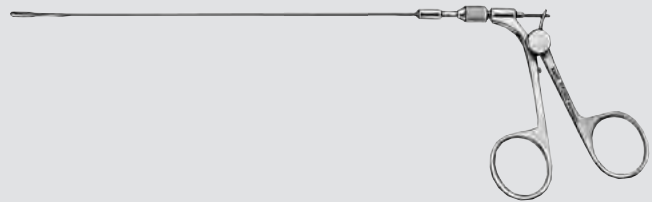
495 G  
**Screw Base,** for  
KARL STORZ fiber optic  
light cables and Olympus  
Corporation

Components / Spare Parts

Catalog page

**27023 FE Grasping Forceps for small fragments**  
**27023 ZE Biopsy Forceps**  
**27034 FK Forceps for Foreign Body Removal**  
**27034 FL Biopsy Forceps**  
**27034 S Scissors**

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## Spare Part



5904998  
**Seal,** diameter 0.8 mm



5963402  
**Knurled Screw**

# Cystoscope-Urethroscopes for Adults and Adolescents

Forceps, Scissors, Cystoscope-Urethroscope Sheaths, Stone Basket

Components / Spare Parts		Catalog page
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27177 A	Biopsy Forceps	40
27177 B	Biopsy Forceps	40
27178 A	Scissors	40
27178 B	Scissors	40

## Spare Parts



5904998  
**Seal**, diameter 0.8 mm



5963403  
**Knurled Screw**

Components / Spare Parts		Catalog page
27034 A	Cystoscope-Urethroscope Sheath	39



## Spare Parts



27550 A-10  
**Sealing Cap**, drill hole diameter 0.8 mm, package of 10

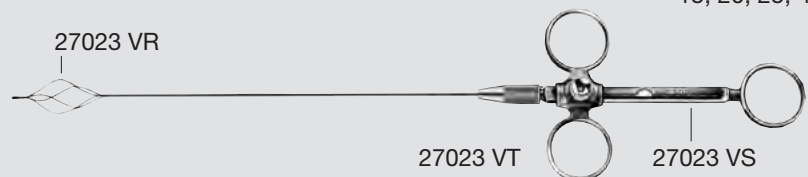


8515090  
**Stopcock**



6985691  
**Spring Cap**

Components / Spare Parts		Catalog page
27023 VK	Stone Basket	15, 20, 25, 40
27023 VT	3-Ring Handle	
27023 VR	Basket	
27023 VS	Coil	



# Cystoscope-Urethroscopes for Adults and Adolescents

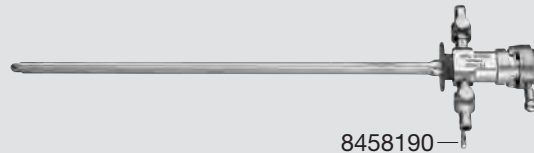
Operating Sheath, Working Elements

Components / Spare Parts

Catalog page

**27054 SJ**    **Operating Sheath, 20 Fr.**

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Spare Parts



**6985691**  
**Spring Cap**



**8458190**  
**Stopcock**

Components / Spare Parts

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**27050 E**    **Working Element**

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**27050 D**    **Working Element**

51

**27050 C**    **Working Element**

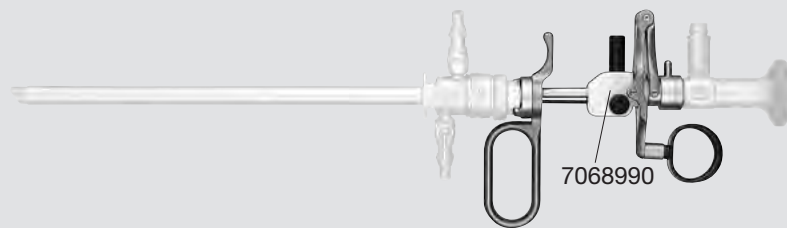
51

**27054 E**    **Working Element**

70

**27050 EP**    **Working Element**

67



Spare Parts



**27040 TZ**  
**Triangular Arbor**



**7068990**  
**Rubber Cap**



**6370590**  
**Teflon Seal**

Components / Spare Parts

Catalog page

**27040 EB**    **Working Element**

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**27040 DB**    **Working Element**

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**27054 EB**    **Working Element**

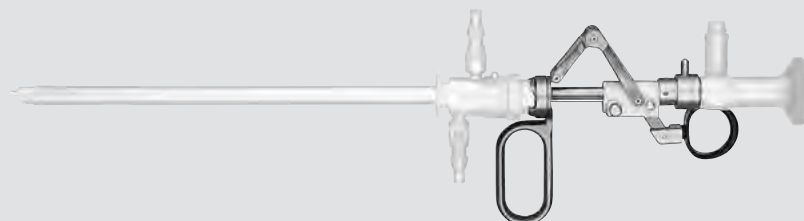
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**27040 EO**    **Working Element**

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**27040 DO**    **Working Element**

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Spare Parts



**27040 TZ**  
**Triangular Arbor**




**6345190**  
**Teflon Seal**

# Resectoscopes for Adults

Resectoscope Sheaths, Inner Sheaths

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<b>27241 BK</b>	<b>Resectoscope Sheath</b>		61

## Spare Parts



6909895  
**Knurled Ring**



8897090  
**Sealing Ring**



6648191  
**Stopcock**



8897190  
**Cone Piece**

## Components / Spare Parts

Catalog page

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<b>27040 BO</b>	<b>Resectoscope Sheath</b>		61
<b>27040 AK</b>	<b>Resectoscope Sheath</b>		61
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<b>27054 SL</b>	<b>Resectoscope Sheath</b>		72

8541890

## Spare Parts



6985691  
**Spring Cap**



8541890  
**Stopcock**

Spare Part for 27050 SL/SM:



5917500  
**O-Ring**, silicone,  
inner diameter 11 mm,  
outer diameter 13 mm

## Components / Spare Parts

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## Spare Part

5920800  
**O-Ring**

# Resectoscopes for Adults

SCHMIEDT Visual Obturators, REUTER Trocar

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**27051 B** SCHMIEDT Visual Obturator

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## Spare Parts



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



8458190  
**Stopcock**



6985691  
**Spring Cap**

## Components / Spare Parts

Catalog page

**27105** REUTER Trocar

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## Spare Part



6127590  
**Sealing Cap**, (50/4)

# LASER Surgery, Photodynamic Diagnosis (PDD)

Outer Sheath, Inner Sheath, LASER Guide Probes, Telescope Bridge

Components / Spare Parts

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Spare Parts

Spare Parts for 27026 VA:

Spare Parts for 27026 VI:



6985691  
**Spring Cap**



6985691  
**Spring Cap**



8541890  
**Stopcock**



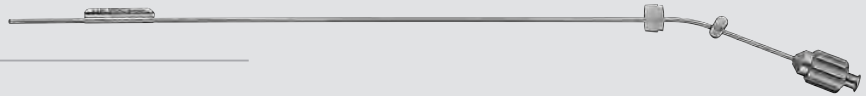
8458190  
**Stopcock**

Components / Spare Parts

Catalog page

- 27056 EA LASER Guide Probe
- 27056 EB LASER Guide Probe
- 27056 EC LASER Guide Probe
- 27056 ED LASER Guide Probe

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Spare Part



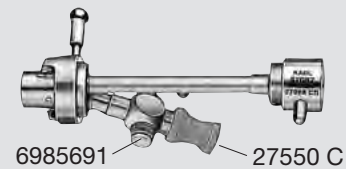
7801995  
**Seal**

Components / Spare Parts

Catalog page

- 27068 CD Telescope Bridge

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Spare Parts



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
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8541890  
**Stopcock**



6985691  
**Spring Cap**

# LASER Surgery, Photodynamic Diagnosis (PDD)

Working Elements, LASER Working Insert

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Spare Part



8285490  
**Sealing Cap**

Components / Spare Parts

Catalog page

- 27050 VL LASER Working Insert

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Spare Parts



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



8458190  
**Stopcock**



6985691  
**Spring Cap**

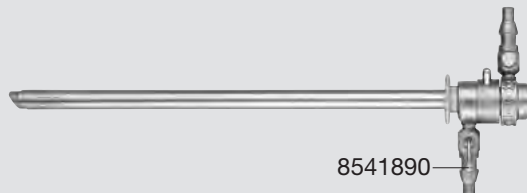


# LASER Surgery, Photodynamic Diagnosis (PDD)

Resectoscope Sheath, Inner Sheath, Forceps

Components / Spare Parts Catalog page

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<b>27040 XAL</b>	<b>Inner Sheath</b>	89



**Spare Parts**



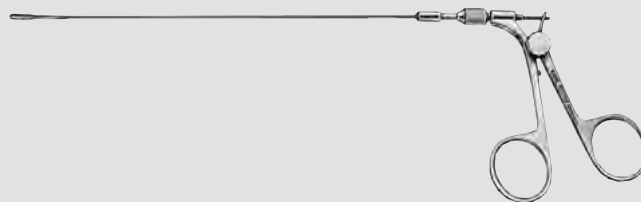
6985691  
**Spring Cap**



8541890  
**Stopcock**

Components / Spare Parts Catalog page

<b>27023 FE</b>	<b>Grasping Forceps, for small fragments</b>	104
<b>27023 ZE</b>	<b>Biopsy Forceps</b>	104



**Spare Parts**



5904998  
**Seal, diameter 0.8 mm**



5963402  
**Knurled Screw**

# Urethrotomes for Adults

SACHSE Urethrotome Sheath, Telescope Bridge, Supplementary Sheath

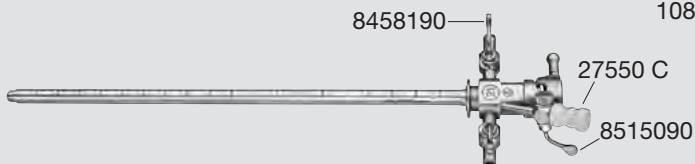
## Components / Spare Parts

Catalog page

**27068 D** SACHSE Urethrotome Sheath

8458190

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## Spare Parts



27550 C-10  
**Sealing Cap**, drill hole diameter 1.2 mm, package of 10



8458190  
**Stopcock**



6985691  
**Spring Cap**



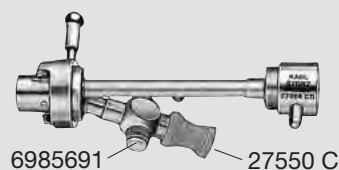
8515090  
**Stopcock**

## Components / Spare Parts

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**27068 CD** Telescope Bridge

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## Spare Parts



27550 C-10  
**Sealing Cap**, drill hole diameter 1.2 mm, package of 10



8541890  
**Stopcock**



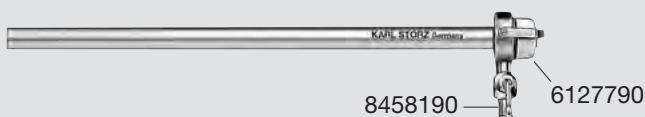
6985691  
**Spring Cap**

## Components / Spare Parts

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**27068 S** Supplementary Sheath

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## Spare Parts



6127790  
**Sealing Cap**, (50/6)



8458190  
**Stopcock**



6985691  
**Spring Cap**

# Lithotripsy, Mechanical Stone Forceps

Adaptors, Lithotrite

## Components / Spare Parts

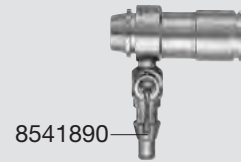
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**27074 SZ**    **Adaptor**

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**27074 SC**    **Adaptor**

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8541890

## Spare Parts



6985691  
**Spring Cap**



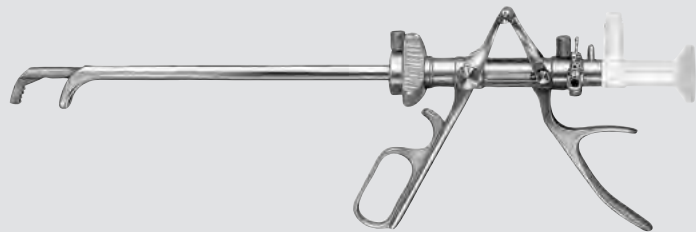
8541890  
**Stopcock**

## Components / Spare Parts

Catalog page

**27076 A**    **Lithotrite**

122



## Spare Parts



27076 T  
**Test Block**



8458190  
**Stopcock**



27076 V  
**Fixation Screw**



6985691  
**Spring Cap**



27076 W  
**Fixation Screw**

# Lithotripsy, Mechanical Stone Forceps

Punch Sheath, Sheath Insert

Components / Spare Parts

Catalog page

**27077 BZ**    **Punch Sheath**

123



## Spare Parts



6909895  
**Knurled Ring**



8897090  
**Sealing Ring**



6648191  
**Stopcock**



8897190  
**Cone Piece**

Components / Spare Parts

Catalog page

**27077 G**    **Sheath Insert**

123



## Spare Parts



27550 C-10  
**Sealing Cap**, drill hole  
diameter 1.2 mm, package  
of 10



8458190  
**Stopcock**

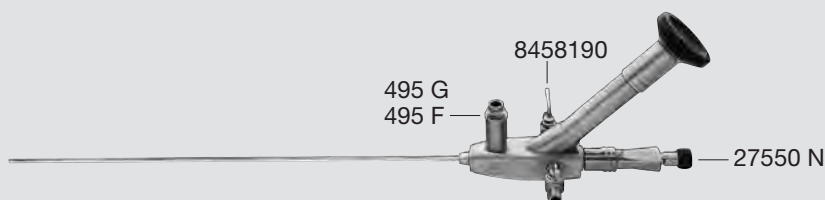


6985691  
**Spring Cap**

# Pediatric Urology

Cysto-Urethroscopes, Uretero-Renoscope

Components / Spare Parts		Catalog page
27030 KA	Pediatric Cysto-Urethroscope	129
27030 KB	Pediatric Cysto-Urethroscope	131
27002 KP	Pediatric Uretero-Renoscope	155



## Spare Parts



27001 RA  
**Cleaning Adaptor,**  
for Instrument Ports  
27001 G/GF/GH/GP/GG



495 G  
**Screw Base,** for  
KARL STORZ fiber optic  
light cables and Olympus  
Corporation



27504  
**Flow Control Stopcock**



6985691  
**Spring Cap**



27550 N  
**Seal,** package of 10, single  
use recommended



8458190  
**Stopcock**



495 F  
**Receptacle,**  
diameter 9 mm, for  
Wolf fiber optic light cable

# Pediatric Urology

## Instrument Ports

### Components / Spare Parts

Catalog page

- 27001 G Instrument Port**
- 27001 GF Instrument Port**
- 27001 GH Instrument Port**

129, 131, 151, 156  
129, 131, 151, 156  
129, 131, 151, 156

### Spare Part



27550 N  
**Seal**, package of 10, single use recommended



### Components / Spare Parts

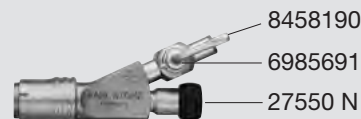
Catalog page

- 27001 GP Instrument Port**

149



27550 N  
**Seal**, package of 10, single use recommended



### Spare Parts



6985691  
**Spring Cap**



8458190  
**Stopcock**

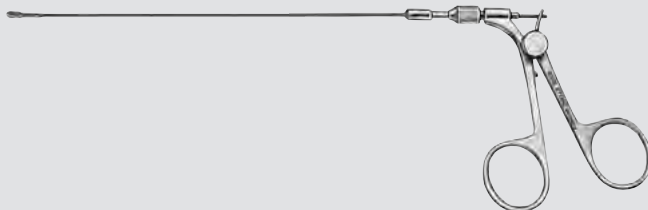
# Pediatric Urology

Forceps, HOPKINS® Telescopes, Miniature Straight Forward Telescopes

## Components / Spare Parts

Catalog page

<b>27071 TJ</b>	<b>Forceps for Foreign Body Removal</b>	130, 133, 137, 141, 145
<b>27071 ZJ</b>	<b>Biopsy Forceps</b>	130, 133, 137, 141, 145
<b>27095 F</b>	<b>Forceps</b>	132
<b>27095 P</b>	<b>Forceps</b>	132
<b>27095 Z</b>	<b>Biopsy Forceps</b>	132



## Spare Parts



5904998  
**Seal**, diameter 0.8 mm



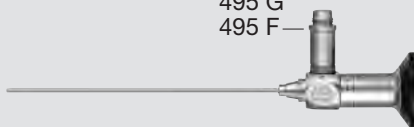
5963402  
**Knurled Screw**

## Components / Spare Parts

Catalog page

<b>27301 AA</b>	<b>HOPKINS® Straight Forward Telescope 0°</b>	133
<b>27301 BA</b>	<b>HOPKINS® Forward-Oblique Telescope 30°</b>	133
<b>27033 AA</b>	<b>Miniature Straight Forward Telescope 0°</b>	136
<b>27017 AA</b>	<b>HOPKINS® Straight Forward Telescope 0°</b>	140
<b>27017 BA</b>	<b>HOPKINS® Forward-Oblique Telescope 30°</b>	140
<b>27017 CA</b>	<b>HOPKINS® Lateral Telescope 70°</b>	140
<b>27018 AA</b>	<b>HOPKINS® Straight Forward Telescope 0°</b>	144
<b>27018 BA</b>	<b>HOPKINS® Forward-Oblique Telescope 30°</b>	144
<b>27018 CA</b>	<b>HOPKINS® Lateral Telescope 70°</b>	144

495 G  
495 F



## 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

# Pediatric Urology

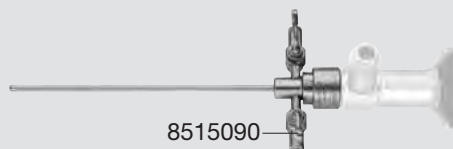
Cystoscope-Urethroscope Sheaths

Components / Spare Parts

Catalog page

**27029 CN Cystoscope-Urethroscope Sheath**

133



## Spare Parts



6985691  
**Spring Cap**



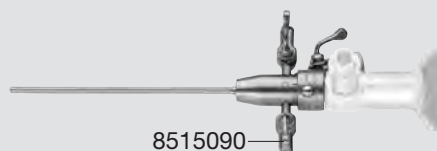
8515090  
**Stopcock**

Components / Spare Parts

Catalog page

**27029 DN Cystoscope-Urethroscope Sheath**

133



## Spare Parts



27550 A-10  
**Sealing Cap**, drill hole  
diameter 0.8 mm, package  
of 10



8515090  
**Stopcock**



6985691  
**Spring Cap**



# Pediatric Urology

## Cystoscope-Urethroscope Sheaths

Components / Spare Parts		Catalog page
27033 C	Cystoscope-Urethroscope Sheath	136
27033 D	Cystoscope-Urethroscope Sheath	136
27033 CR	Cystoscope-Urethroscope Sheath	136
27031 E	Cystoscope-Urethroscope Sheath	140
27031 F	Cystoscope-Urethroscope Sheath	140
27032 K	Cystoscope-Urethroscope Sheath	144
27032 L	Cystoscope-Urethroscope Sheath	144



### Spare Parts



27550 A-10  
**Sealing Cap**, drill hole diameter 0.8 mm, package of 10

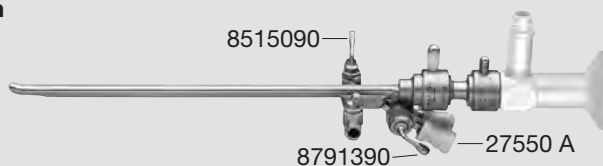


8515090  
**Stopcock**



6985691  
**Spring Cap**

Components / Spare Parts		Catalog page
27032 M	Cystoscope-Urethroscope Sheath	144



### Spare Parts



27550 A-10  
**Sealing Cap**, drill hole diameter 0.8 mm, package of 10



8515090  
**Stopcock**



3012090  
**Spring**, for stopcock



8791390  
**Stopcock**



6985691  
**Spring Cap**

8791290  
**Knurled Cap**

# Pediatric Urology

Telescope Bridges, Working Element

Components / Spare Parts

Catalog page

**27033 F Telescope Bridge**

138



### Spare Parts



27550 A-10  
**Sealing Cap**, drill hole diameter 0.8 mm, package of 10



8515090  
**Stopcock**



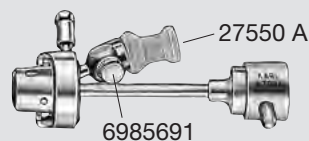
6985691  
**Spring Cap**

Components / Spare Parts

Catalog page

**27047 F Telescope Bridge**

142, 143, 146



### Spare Parts



27550 A-10  
**Sealing Cap**, drill hole diameter 0.8 mm, package of 10



6377790  
**Stopcock**, for working channel



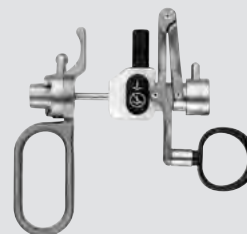
6985691  
**Spring Cap**

Components / Spare Parts

Catalog page

**27033 E Working Element**

138, 139



### Spare Parts



27040 TZ  
**Triangular Arbor**



9466590  
**Gasket**



9466390  
**Teflon Seal**

# Pediatric Urology

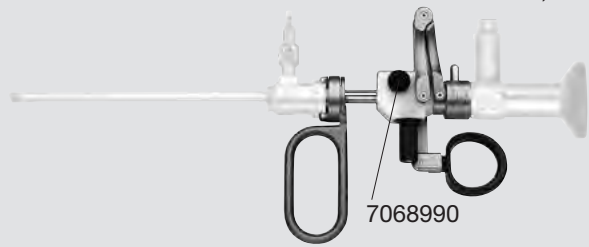
Working Element, Resectoscope Sheath, Urethrotome Sheaths

Components / Spare Parts

Catalog page

**27145 E Working Element**

142, 143, 146



## Spare Parts



**27040 TZ  
Triangular Arbor**



**7068990  
Rubber Cap**



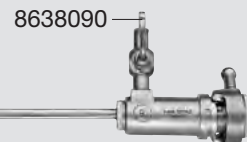
**6345190  
Teflon Seal**

Components / Spare Parts

Catalog page

**27033 R Resectoscope Sheath**

138



## Spare Parts



**6985691  
Spring Cap**



**8638090  
Stopcock**

Components / Spare Parts

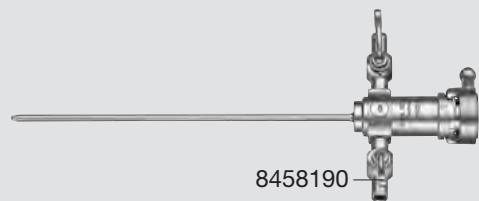
Catalog page

**27033 U Urethrotome Sheath**

139

**27047 B Urethrotome Sheath**

143



## Spare Parts



**6985691  
Spring Cap**



**8458190  
Stopcock**

# Pediatric Urology

Resectoscope Sheaths, Nephroscope for MIP M, Instrument Port

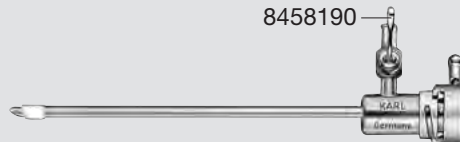
Components / Spare Parts

Catalog page

**27047 C Resectoscope Sheath**

8458190

146



## Spare Parts



6985691  
**Spring Cap**



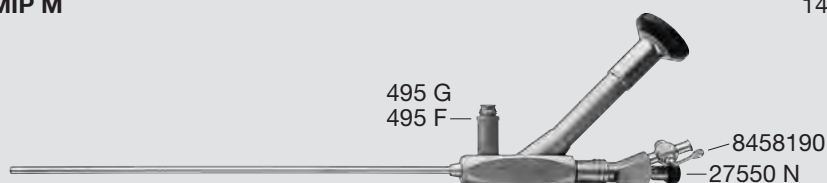
8458190  
**Stopcock**

Components / Spare Parts

Catalog page

**27830 KA Nephroscope for MIP M**

149



## Spare Parts



27550 N  
**Seal**, package of 10, single use recommended



6985691  
**Spring Cap**



495 F  
**Receptacle**, diameter 9 mm, for Wolf fiber optic light cable



8458190  
**Stopcock**



495 G  
**Screw Base**, for KARL STORZ fiber optic light cables and Olympus Corporation

Components / Spare Parts

Catalog page

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

150



## Spare Parts



7037595  
**Cone**



7624890  
**Sealing Cap**, diameter 0.8 mm

# Pediatric Urology

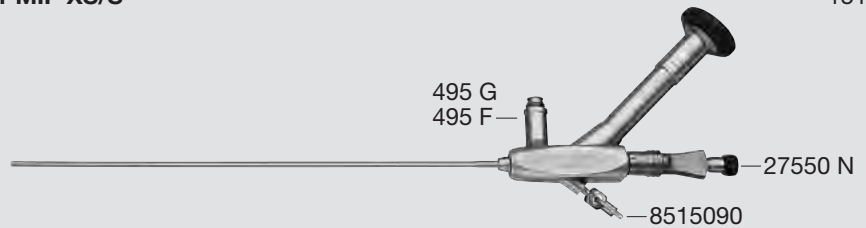
Nephroscope for MIP XS/S, Wire Tray

Components / Spare Parts

Catalog page

**27820 KA Nephroscope for MIP XS/S**

151



## Spare Parts



**27550 N Seal**, package of 10, single use recommended



**6985691 Spring Cap**



**495 F Receptacle**, diameter 9 mm, for Wolf fiber optic light cable



**8515090 Stopcock**



**495 G Screw Base**, for KARL STORZ fiber optic light cables and Olympus Corporation

Components / Spare Parts

Catalog page

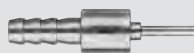
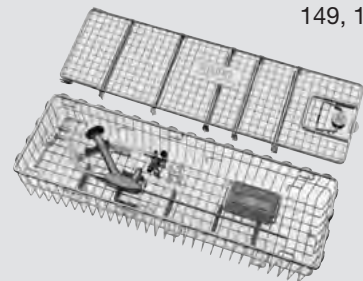
**39501 XK Wire Tray**

149, 151, 156

## Spare Parts



**27001 RA Cleaning Adaptor**, for Instrument Ports 27001 G/GF/GH/GP/GG



**39107 ALK Cleaning Adaptor**, for use with small LUER stopcocks



**39501 XRV Multiport Bridge**

**39501 XS Spare Parts Basket**, external dimensions (w x d x h): 80 x 40 x 40 mm

**7981790 Locking Piece**, with clamp, screw and nut

# Accessories

LUER-Adaptor, Stopcock,  
LUER-Lock Tube Connector, Catheter Adaptor

Components / Spare Parts

Catalog page

**27014 Y LUER-Adaptor**

162

## Spare Parts



**27550 N**  
**Seal**, package of 10, single use recommended



Components / Spare Parts

Catalog page

**27280 Stopcock**, for irrigation tube

162

## Spare Parts



**27280 A**  
**Screw Cap**



**27280 B**  
**Stopcock**



Components / Spare Parts

Catalog page

**27502 LUER-Lock Tube Connector**

162

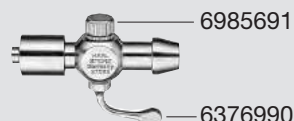
## Spare Parts



**6985691**  
**Spring Cap**



**6376990**  
**Stopcock**, for irrigation connector



Components / Spare Parts

Catalog page

**27507 Catheter Adaptor**

162

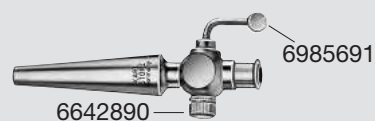
## Spare Parts



**6985691**  
**Spring Cap**



**6642890**  
**Stopcock**



# Headlights

## LED Headlights KS70

### Components / Spare Parts

Catalog page

**094220** LED Headlight KS70  
094203 LED Headlight KS70  
094207 Control Unit  
094208 Battery Box  
094224 Battery Pack  
094229 Charger USB  
078770 Headband

167



**094230** LED Headlight KS70  
094204 LED Headlight KS70  
094207 Control Unit  
094208 Battery Box  
094224 Battery Pack  
094229 Charger USB  
078770 Headband

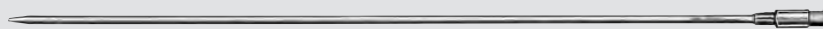
**094240** LED Headlight KS70  
094205 LED Headlight KS70  
094206 Control Unit  
094224 Battery Pack  
094229 Charger USB  
078780 Soft Headband

# Percutaneous Nephroscopes

Dilation Cannula, Telescope Bougie Sets

Components / Spare Parts Catalog page

**27091 A      Dilation Cannula** 171



27091 AL



27091 AK

**Spare Parts**

27091 AI  
**Inner Cannula**

27091 AK  
**Outer Cannula**

Components / Spare Parts Catalog page

**27090 A      Telescope Bougie Set** 174

**27290 A      Telescope Bougie Set** 172



**Spare Parts**

Spare Parts for 27090 A:

27090 AG  
**Guide Wire, rigid**

Spare Parts for 27290 A:

27290 AG  
**Guide Wire, rigid**

27090 AL  
**Guide Wire, flexible**

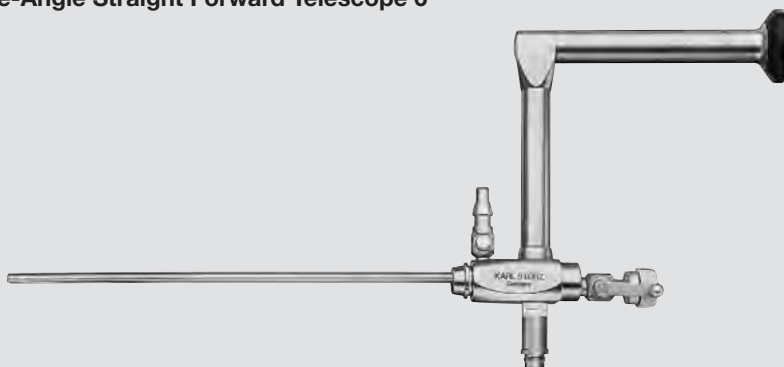
27290 AL  
**Guide Wire, flexible**



# Percutaneous Nephroscopes

HOPKINS® Telescopes

Components / Spare Parts		Catalog page
27092 AMA	HOPKINS® Wide-Angle Straight Forward Telescope 6°	174
27093 AA	HOPKINS® Wide-Angle Straight Forward Telescope 6°	174
27292 AMA	HOPKINS® Wide-Angle Straight Forward Telescope 6°	172
27293 AA	HOPKINS® Wide-Angle Straight Forward Telescope 6°	172
27294 AA	HOPKINS® Wide-Angle Straight Forward Telescope 6°	177
27295 AA	HOPKINS® Wide-Angle Straight Forward Telescope 6°	177



## Spare Parts



495 F  
**Receptacle,**  
diameter 9 mm, for  
Wolf fiber optic light cable



6127390  
**Sealing Cap, (50/2.6)**



495 G  
**Screw Base,** for  
KARL STORZ fiber optic  
light cables and Olympus  
Corporation



6985691  
**Spring Cap**



6059891  
**Spring Cap Working  
Channel**



3345390  
**Stopcock**



6187691  
**Stopcock Working  
Channel**

# Percutaneous Nephroscopes

## Operating Sheaths

### Components / Spare Parts

Catalog page

<b>27293 BD</b>	<b>Operating Sheath</b>	173
<b>27293 CD</b>	<b>Operating Sheath</b>	173
<b>27093 BD</b>	<b>Operating Sheath</b>	175
<b>27093 CD</b>	<b>Operating Sheath</b>	175



### Spare Parts



5914200  
**O-Ring**

Spare Part for 27293 BD:



7486291  
**Fixation Screw**



6985691  
**Spring Cap**

Spare Part for 27293 CD:



7494691  
**Fixation Screw**



8541890  
**Stopcock**

Spare Part for 27093 BD:



7486191  
**Fixation Screw**



7486091  
**Adaptor, rotating**

Spare Part for 27093 CD:



7486391  
**Fixation Screw**

### Components / Spare Parts

Catalog page

<b>27294 B</b>	<b>Operating Sheath</b>	177
----------------	-------------------------	-----



### Spare Parts



5914200  
**O-Ring**



7485991  
**Adaptor, rotating**



6985691  
**Spring Cap**



7485891  
**Fixation Screw**



8541890  
**Stopcock**

# Percutaneous Nephroscopes

Knives, Forceps

Components / Spare Parts

Catalog page

**27294 S** Knife  
**27294 SH** Knife

176, 178  
176, 178



Spare Parts



6045390  
**Knurled Nut**

Spare Part for 27294 S:



27294 SK  
**Knife**

Spare Part for 27294 SH:



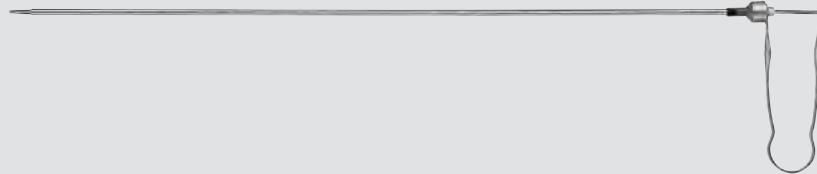
27294 SB  
**Knife**

Components / Spare Parts

Catalog page

**27290 F** Forceps  
**27290 H** Forceps

176, 189  
176, 189

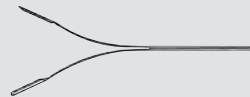


Spare Parts



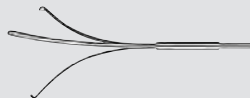
5905098  
**Sealing Cap, small**

Spare Part for 27290 F:



27290 FA  
**Forceps Insert**

Spare Part for 27290 H:



27290 HA  
**Forceps Insert**



6011590  
**Plug, for LUER-Lock connector**

# Percutaneous Nephroscopes

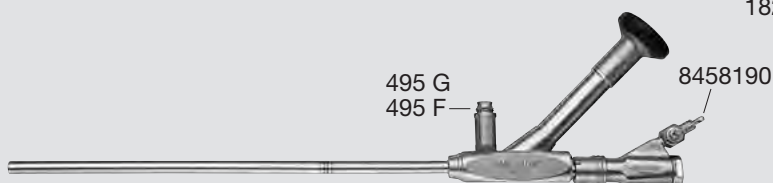
Nephroscope for MIP L and MIP M

Components / Spare Parts

Catalog page

**27840 KA Nephroscope for MIP L**

182



## Spare Parts



**27840 RA**  
**Cleaning Adaptor**



**6985691**  
**Spring Cap**



**30160 XB**  
**Seal,**  
package of 10



**30160 XA**  
**Silicone Leaflet Washer,**  
package of 10



**495 F**  
**Receptacle,**  
diameter 9 mm, for  
Wolf fiber optic light cable



**7278195**  
**Insertion Cone**



**495 G**  
**Screw Base,** for  
KARL STORZ fiber optic  
light cables and Olympus  
Corporation



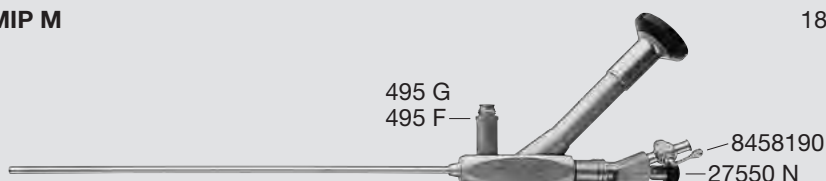
**8541820**  
**Stopcock**

Components / Spare Parts

Catalog page

**27830 KA Nephroscope for MIP M**

184



## Spare Parts



**27550 N**  
**Seal,** package of 10, single  
use recommended



**6985691**  
**Spring Cap**



**495 F**  
**Receptacle,**  
diameter 9 mm, for  
Wolf fiber optic light cable



**8458190**  
**Stopcock**



**495 G**  
**Screw Base,** for  
KARL STORZ fiber optic  
light cables and Olympus  
Corporation

# Percutaneous Nephroscopes

Instrument Port, Nephroscope for MIP XS/S, Wire Tray

Components / Spare Parts

Catalog page

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

185



## Spare Parts



7037595  
**Cone**



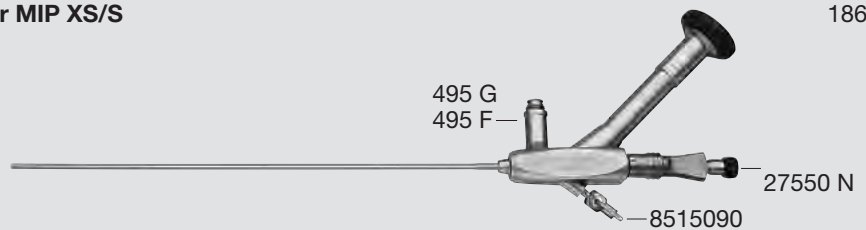
7624890  
**Sealing Cap,**  
diameter 0.8 mm

Components / Spare Parts

Catalog page

**27820 KA Nephroscope for MIP XS/S**

186



## Spare Parts



27550 N  
**Seal,** package of 10, single  
use recommended



6985691  
**Spring Cap**



495 F  
**Receptacle,**  
diameter 9 mm, for  
Wolf fiber optic light cable



8515090  
**Stopcock**



495 G  
**Screw Base,** for  
KARL STORZ fiber optic  
light cables and Olympus  
Corporation

Components / Spare Parts

Catalog page

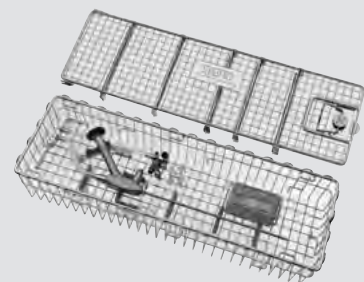
**39501 XKL Wire Tray**

182

## Spare Parts



27840 RA  
**Cleaning Adaptor**



39501 XS  
**Spare Parts Basket,**  
external dimensions  
(w x d x h): 80 x 40 x 40 mm

7981790  
**Locking Piece,** with  
clamp, screw and nut

# Percutaneous Nephroscopes

Wire Tray, Forceps, Scissors

Components / Spare Parts

Catalog page

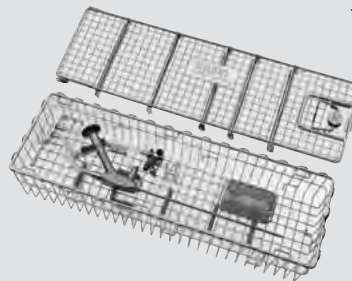
**39501 XK** Wire Tray

184, 186

## Spare Parts



27001 RA  
**Cleaning Adaptor,**  
for Instrument Ports  
27001 G/GF/GH/GP/GG



39107 ALK  
**Cleaning Adaptor,** for use  
with small LUER stopcocks



39501 XRV  
**Multiport Bridge**

39501 XS  
**Spare Parts Basket,**  
external dimensions  
(w x d x h): 80 x 40 x 40 mm

7981790  
**Locking Piece,** with  
clamp, screw and nut

Components / Spare Parts

Catalog page

**27830 FK** Forceps for Foreign Body Removal

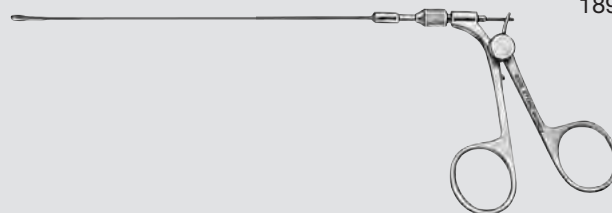
189

**27830 FL** Biopsy Forceps

189

**27830 S** Scissors

189



## Spare Parts



5904998  
**Seal,** diameter 0.8 mm

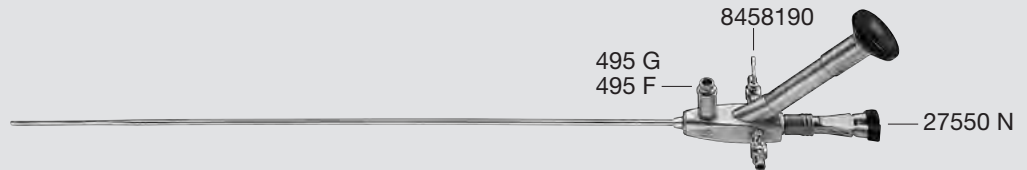


5963402  
**Knurled Screw**

# Uretero-Renoscopes

Uretero-Renoscopes, Ureteroscopes

Components / 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	201
27013 L	Uretero-Renoscope	203



## Spare Parts

	27550 N <b>Seal</b> , package of 10, single use recommended		495 G <b>Screw Base</b> , for KARL STORZ fiber optic light cables and Olympus Corporation
	27504 <b>Flow Control Stopcock</b>		6985691 <b>Spring Cap</b>
	27001 RA <b>Cleaning Adaptor</b> , for Instrument Ports 27001 G/GF/GH/GP/GG		8458190 <b>Stopcock</b>
	495 F <b>Receptacle</b> , diameter 9 mm, for Wolf fiber optic light cable		

# Uretero-Renoscopes

Uretero-Renoscope, Ureteroscope, Wire Tray, Instrument Ports

Components / Spare Parts		Catalog page
27010 L	<b>Uretero-Renoscope</b>	202
27010 K	<b>Ureteroscope</b>	202



## Spare Parts



27550 N  
**Seal**, package of 10, single use recommended

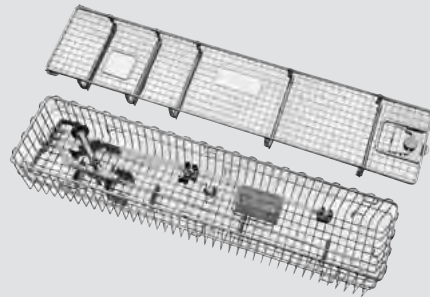


495 G  
**Screw Base**, for KARL STORZ fiber optic light cables and Olympus Corporation



495 F  
**Receptacle**, diameter 9 mm, for Wolf fiber optic light cable

Components / Spare Parts		Catalog page
39501 X	<b>Wire Tray</b>	204



## Spare Parts



27001 RA  
**Cleaning Adaptor**, for Instrument Ports 27001 G/GF/GH/GP/GG

39501 XS  
**Spare Parts Basket**, external dimensions (w x d x h): 80 x 40 x 40 mm

7981790  
**Locking Piece**, with clamp, screw and nut

Components / Spare Parts		Catalog page
27001 G	<b>Instrument Port</b>	204
27001 GF	<b>Instrument Port</b>	204
27001 GH	<b>Instrument Port</b>	204



## Spare Part



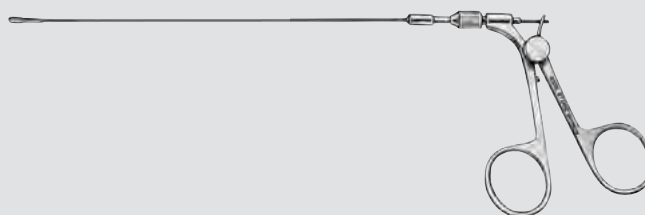
27550 N  
**Seal**, package of 10, single use recommended



# Uretero-Renoscopes

Forceps, Scissors, Video Uretero-Renoscopes

Components / Spare Parts		Catalog page
27424 F	Forceps	205
27424 P	Forceps	205
27424 Z	Biopsy Forceps	205
27424 R	PÉREZ-CASTRO Forceps	205
27424 U	Splitting Forceps	205
27425 F	Forceps	206
27425 P	Forceps	206
27425 Z	Biopsy Forceps	206
27425 R	PÉREZ-CASTRO Forceps	206
27425 U	Splitting Forceps	206



## Spare Parts



5904998  
**Seal**, diameter 0.8 mm



5963402  
**Knurled Screw**

Components / Spare Parts		Catalog page
11278 V	Video Uretero-Renoscope	211
11278 VS	Video Uretero-Renoscope	211
11278 VSU	Video Uretero-Renoscope	211
11278 VU	Video Uretero-Renoscope	211



## Spare Parts for 11278 V/VS



6985691  
**Spring Cap**



8515090  
**Stopcock**

## Spare Part for 11278 VU/VSU



6011590  
**Plug**, for LUER-Lock connector

# Uretero-Renoscopes

Uretero-Reno-Fiberscopes

Components / Spare Parts

Catalog page

**11278 A** Uretero-Reno-Fiberscope FLEX-X<sup>2</sup>

216

**11278 AU** Uretero-Reno-Fiberscope FLEX-X<sup>2</sup>

216



## 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



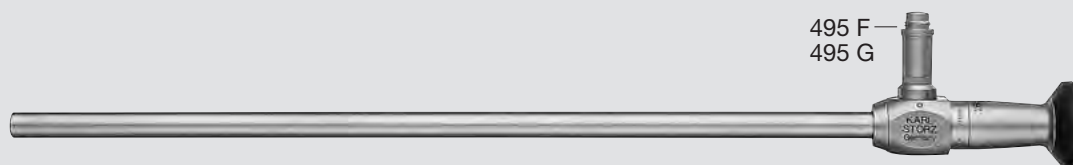
495 G  
**Screw Base**, for  
KARL STORZ fiber optic  
light cables and Olympus  
Corporation

# Laparoscopy in Urology

ENDOCAMELEON® HOPKINS® Telescopes, HOPKINS® Telescopes, Automatic Valves

Components / Spare Parts Catalog page

26003 AE	ENDOCAMELEON® HOPKINS® Telescope	227
26003 AEE	ENDOCAMELEON® HOPKINS® Telescope	227
26003 AA	HOPKINS® Straight Forward Telescope 0°, enlarged view	228
26003 BA	HOPKINS® Forward-Oblique Telescope 30°, enlarged view	228
26003 FA	HOPKINS® Telescope 45°, enlarged view	228
26046 AA	HOPKINS® Straight Forward Telescope 0°, enlarged view	228
26046 BA	HOPKINS® Forward-Oblique Telescope 30°, enlarged view	228
26046 FA	HOPKINS® Telescope 45°, enlarged view	228
26003 ACA	HOPKINS® Straight Forward Telescope 0°, enlarged view	239
26003 BCA	HOPKINS® 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 Catalog page

30103 A1	Automatic Valve	241
----------	-----------------	-----



Spare Part



7616690  
**Sealing Cap,** (60/10)

Components / Spare Parts Catalog page

30160 A1	Automatic Valve	241
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Spare Part



6127590  
**Sealing Cap,** (50/4)

# Laparoscopy in Urology

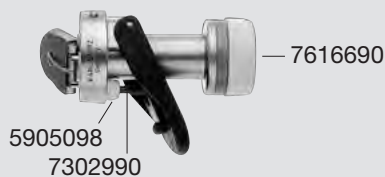
Multifunctional Valves, Cannulas

Components / Spare Parts

Catalog page

**30103 M1 Multifunctional Valve**

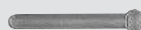
241



**Spare Parts**



5905098  
**Sealing Cap, small**



7302990  
**Tappet**



7616690  
**Sealing Cap, (60/10)**

Components / Spare Parts

Catalog page

**30160 M1 Multifunctional Valve**

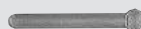
241



**Spare Parts**



5905098  
**Sealing Cap, small**



7080690  
**Tappet**



6127590  
**Sealing Cap, (50/4)**

Components / Spare Parts

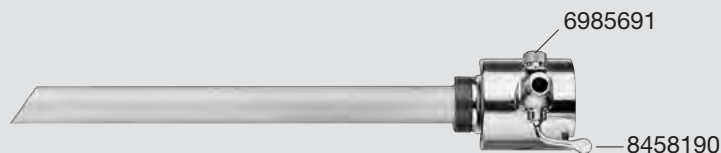
Catalog page

**30103 H2 Cannula**

241

**30160 H2 Cannula**

241



**Spare Parts**



6985691  
**Spring Cap**



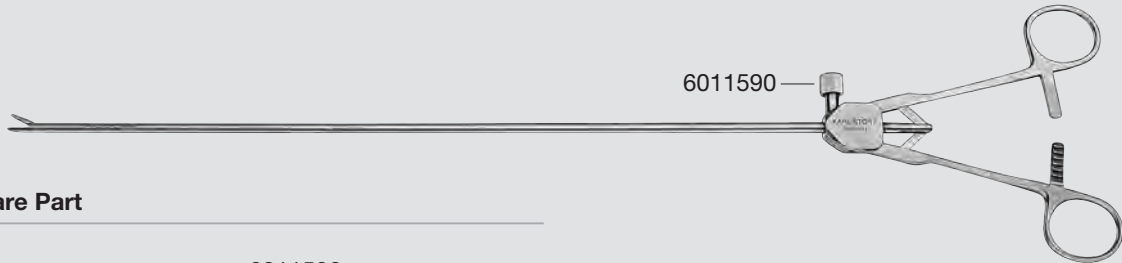
8458190  
**Stopcock**

# Laparoscopy in Urology

RASSWEILER Needle Holders, RASSWEILER Transurethral Bougie,  
LASER Applicator

Components / Spare Parts Catalog page

<b>26173 SKG</b>	<b>RASSWEILER Needle Holder</b>	245
<b>26173 SKL</b>	<b>RASSWEILER Needle Holder</b>	245



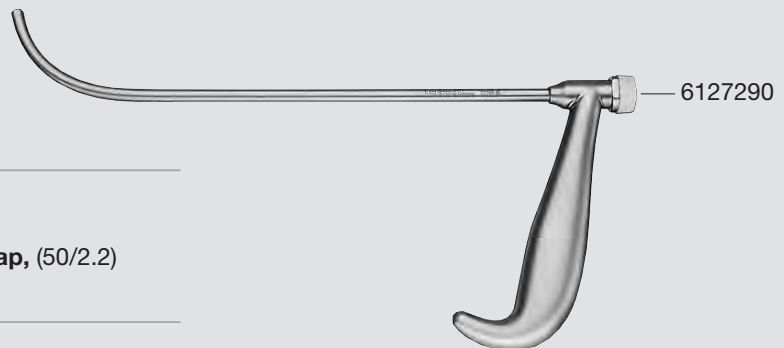
**Spare Part**



6011590  
**Plug**, for LUER-Lock  
connector

Components / Spare Parts Catalog page

<b>27566 BL</b>	<b>RASSWEILER Transurethral Bougie</b>	245
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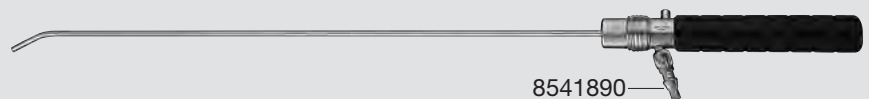
**Spare Part**



6127290  
**Sealing Cap**, (50/2.2)

Components / Spare Parts Catalog page

<b>27710 LL</b>	<b>LASER Applicator</b>	247
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**Spare Parts**



7386295  
**Thread Segment**



8541890  
**Stopcock**



6985691  
**Spring Cap**

# Trainer

LYRA Endourological Trainer "ADAM"

Components / Spare Parts

Catalog page

**27345 TUR** LYRA Endourological Trainer "ADAM"

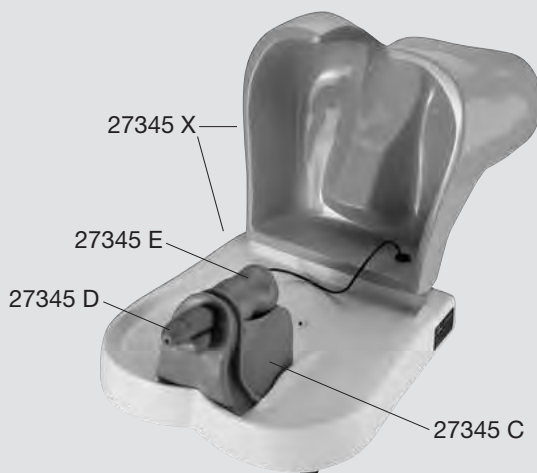
252

27345 C **Organ Platform**

27345 D **Organ Insert Penis**

27345 E **Organ Insert Bladder**

27345 X LYRA Body Endourological Trainer "ADAM"



Components / Spare Parts

Catalog page

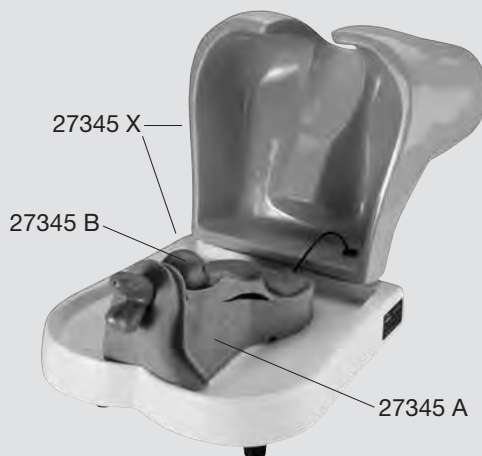
**27345 URS** LYRA Endourological Trainer "ADAM"

253

27345 A **Organ Platform**

27345 B **Organ Insert**

27345 X LYRA Body Endourological Trainer "ADAM"



# Trainer

SZINICZ Laparoscopic Trainer

Components / Spare Parts

Catalog page

**26342 KB** SZINICZ Laparoscopic Trainer

255

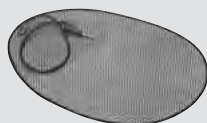


## Spare Parts



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**



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**



26342 WA  
**Water Outlet**

# Trainer

SZABO-BERCI-SACKIER Laparoscopic Trainer

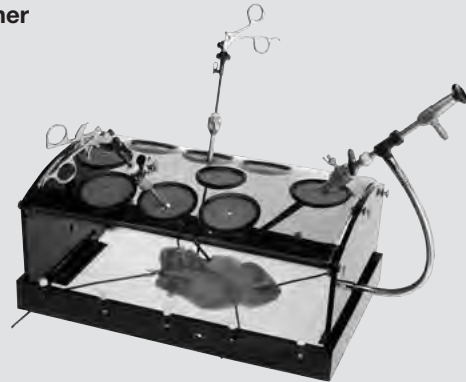
Components / Spare Parts

Catalog page

26348

SZABO-BERCI-SACKIER Laparoscopic Trainer

256



## Spare Parts



26348 A  
**Tissue Clip**



26348 N  
**Plastic Screw**



26348 B  
**Brass Screw**



26348 Z  
**Holding Device,**  
for fixation of training  
materials to be used  
with LAP trainer

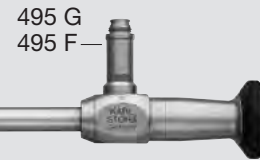


Components / Spare Parts

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

COR

Components / Spare Parts

Catalog page

- UG 220**      **Equipment Cart**
- 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**

U 10



Components / Spare Parts

Catalog page

- 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

U 10, U 29

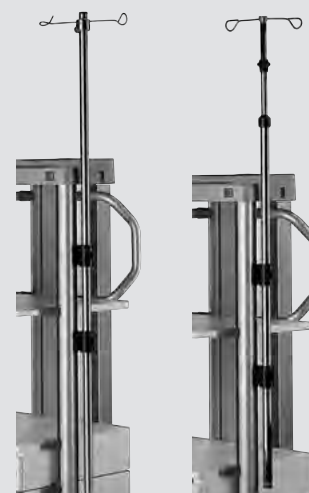


Components / Spare Parts

Catalog page

- UG 625**      **IV Pole**
- UG 616      **IV Pole**
- UG 623      **Multifunctional Holder**
  
- UG 626**      **IV Pole**
- UG 617      **IV Pole**
- UG 623      **Multifunctional Holder**

U 13



UG 625

UG 626

9-121

# Equipment Cart

E-Series

Components / Spare Parts

Catalog page

- 20020086 TROLL-E C-MAC® Mobile Stand**
- 20020060 **Subrack**, for mobile stand
- 20020064 **Top Cover**, with guide sleeve
- 20020065 **Stainless Steel Tube**, length 135 cm
- 20020049 **Equipment Rail**
- ET43-303127 **Cross Tube Adaptor**
- ET43-302703 **Stainless Steel Round Pipe**, length 25 cm

U 15



Components / Spare Parts

Catalog page

- 20020081 TROLL-E Mobile Stand**
- 20020060 **Subrack**, for mobile stand
- 20020062 **Beam Module**
- 20020047 **Shelf**

U 15



Components / Spare Parts

Catalog page

- 20020080 SHORT-E HF Cart**
- 20020060 **Subrack**, for mobile stand
- 20020045 **HF Shelf**

U 16



Components / Spare Parts

Catalog page

- 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**
- 27750124 **One-Pedal Footswitch**
- 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**



27750220-1  
 27750220U1

U 26

- 27750201U1 CALCULASE II SCB**
- 27750220U1 **CALCULASE II SCB**, with KARL STORZ-SCB, power supply 115 VAC, 50/60 Hz
- 400 LA **Mains Cord**
- 27750124 **One-Pedal Footswitch**
- 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**

Components / Spare Parts

Catalog page

- 27750280 Fiber Stripper Set**
- 27750285 **Silicone Pad**
- 27750284 **Ceramic Knife**
- 27750281 **Fiber Stripper 230 µm**
- 27750282 **Fiber Stripper 365 µm**
- 27750283 **Fiber Stripper 600 µm**



U 28

# Lithotripsy

CALCUSON, CALCUSPLIT®

Components / Spare Parts

Catalog page

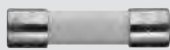
- 27610001**    **CALCUSON Ultrasonic Generator**
- 27610020    **CALCUSON Ultrasonic Generator**,  
power supply 100 – 120 VAC/200 – 240 VAC,  
50/60 Hz
- 400 A        **Mains Cord**
- 20014230    **One-Pedal Footswitch**
- 27610030    **Transducer**
- 27610071    **Connecting Cable** (transducer/generator)
- 27085 PL     **Protection Tube**, for storage and sterilization  
of probes
- 27085 CR     **Cleaning Rod**, for probes
- 27085 TW     **Wrench**, for probes



27610020

U 30

**Spare Part**



2027590  
**Mains Fuse**,  
T 2.0 AL (SB),  
package of 10

Components / Spare Parts

Catalog page

- 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
- 27656 B      **Instrument Oil**, bottle of 50 ml



27630020

U 34

**Spare Part for use at 230 V:**



1067700  
**Mains Fuse**,  
T 0.125 A (SB),  
package of 10

**Spare Part for use at 115 V:**



1067800  
**Mains Fuse**,  
T 0.2 A (SB), package of 10

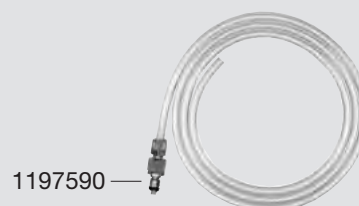
Components / Spare Parts

Catalog page

- 27630040**    **Silicone Tube**

**Spare Part**

1197590  
**CPC Coupling**



1197590

U 35

# 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



# Suction Systems

ENDOMAT® LC SCB

Components / Spare Parts

Catalog page

**27330301-1** **ENDOMAT® LC SCB**

U 45

- 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 l, sterilizable
- 20330342 **Silicone Tubing Set,** for suction, sterilizable
- 20300039 **Bottle Cap,** for Suction Bottle 20300051
- 20300231 **Bottle Stand,** for Suction Bottle 20300051
- 27610070 **Connecting Cable**



20330320-1

## Spare Part



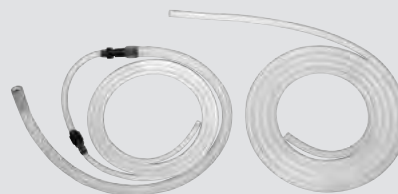
1858891  
**Mains Fuse,**  
T 2.0 AH, 250 V,  
package of 10

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

Components / Spare Parts

Catalog page

**27701001-1 UNIDRIVE® S III SCB**

U 52

20701020-1 **UNIDRIVE® S III, with KARL STORZ-SCB,**  
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**



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

Components / Spare Parts

Catalog page

**2053520x-12x AUTOCON® II 400 SCB**

U 62

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

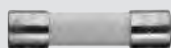


2053522x-12x  
2053522xU12x

**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 230 V:



2027690  
**Mains Fuse,**  
T 4.0 AL (SB),  
package of 10

**Spare Part** for use at 115 V:



2028090  
**Mains Fuse,**  
T 8.0 AL (SB),  
package of 10

Components / Spare Parts

Catalog page

**20020080 SHORT-E HF Cart**

U 61

20020060 **Subrack,** for mobile stand  
20020045 **HF Shelf**



# High Frequency Surgical Units

## Surgery Electrodes Set

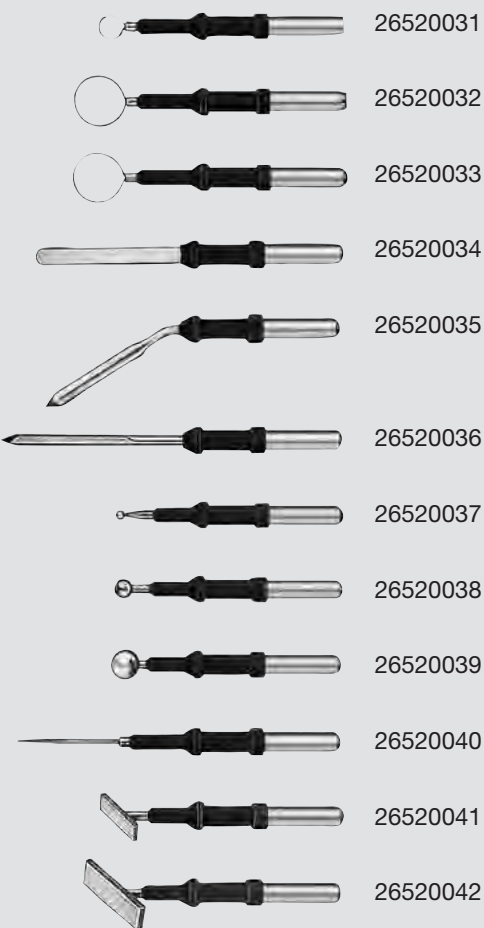
Components / Spare Parts

Catalog page

**20530008 Surgery Electrodes Set**

U 65

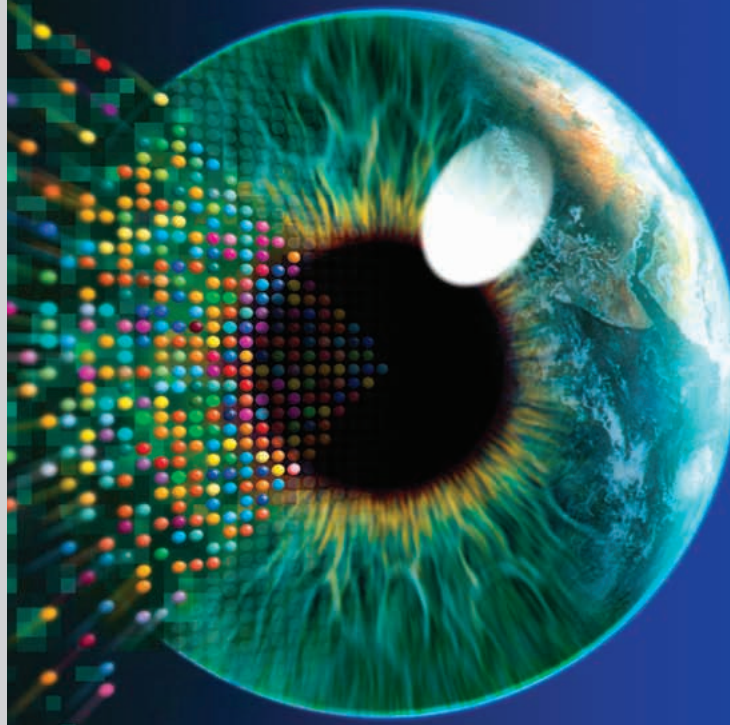
- 20530031 **Container with Lid and Sterilizing Insert,**  
for 16 electrodes with diameter 4 mm
- 26520031 **Wire Snare,** 5 mm
- 26520032 **Wire Snare,** 10 mm
- 26520033 **Ribbon Snare,** 10 mm
- 26520034 **KIRSCHNER Spatula Electrode,** straight
- 26520035 **MAGENAU Knife Electrode,** angled
- 26520036 **Knife Electrode,** lancet-shaped
- 26520037 **Ball Electrode,** 2 mm
- 26520038 **Ball Electrode,** 4 mm
- 26520039 **Ball Electrode,** 6 mm
- 26520040 **Needle Electrode**
- 26520041 **Flat Electrode,** 8 x 10 mm
- 26520042 **Flat Electrode,** 10 x 15 mm



**KARL STORZ OR1 NEO®**  
ERGONOMICS, SAFETY AND EFFICIENCY IN THE OR



**TELEPRESENCE**  
IMAGING SYSTEMS - ILLUMINATION



**STORZ**  
KARL STORZ - ENDOSKOPE

PRODUCT CATALOGS

HUMAN MEDICINE  
EDITION 1/2012



**PROTECTION 1**

We've Got  
You Covered



**STORZ**  
KARL STORZ - ENDOSKOPE

**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**
- **Illumination**



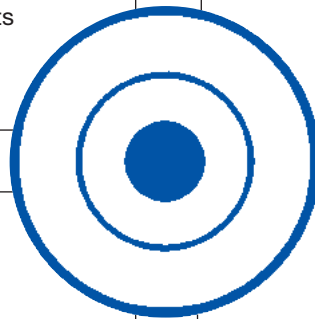
**FULL HD – New Vision in Medicine**

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.



**HUMAN MEDICINE DVD**

The KARL STORZ Product Line encompasses Endoscopes, Instruments, Accessories, Units and Imaging Systems for the full range of Human Medicine Specialties:

- Neurosurgery
- Oral and Maxillofacial Surgery
- Endoscopes and Instruments for ENT, Esophagoscopy & Bronchoscopy
- Plastic Surgery
- Endoscopes for Anesthesiology and Emergency Medicine
- Endoscopes and Instruments for Cardiovascular Surgery
- Thorax
- Gastroenterology
- Laparoscopy
- Gynecology
- Urology
- Proctology
- Arthroscopy, Sports Medicine & Spine Surgery
- Pediatric Surgery
- KARL STORZ OR1 NEO®
- Telepresence

**PROTECTION 1®**

- **Field Service Technician Program**
- **On-Site Services Program**
- **No-Fault Service Plans**
- **Custom Service Solutions**
- **Platform for Staff Training – Academy of Clinical Education**

PROECTION 1® Services delivers comprehensive solutions to assist you in ensuring optimum surgical performance, asset management, and cost savings. Choose KARL STORZ as your Service Partner and focus on what really matters – patient care.

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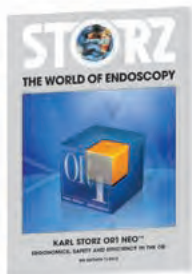


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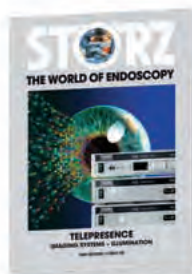


**KARL STORZ OR1 NEO®**

ERGONOMICS, SAFETY AND EFFICIENCY IN THE OR

We are particularly interested in:

- System integration
- Data management and documentation
- Telemedicine



**TELEPRESENCE**

We are particularly interested in:

- FULL HD – New vision in medicine
- Camera systems
- Monitors and video printers
- Light sources



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**PROTECTION 1®**

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- Field Service Technician Program
- On-Site Services Program
- No-Fault Service Plans
- Custom Service Solutions
- Platform for Staff Training – Academy of Clinical Education

We would like a non-binding consultancy meeting.

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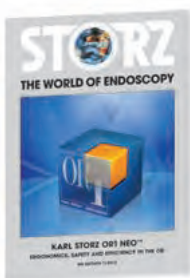
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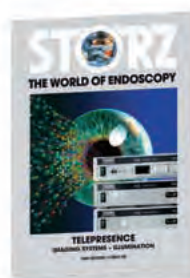


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- Standard Instruments <input type="checkbox"/>	- Minilaparoscopy <input type="checkbox"/>
- Laryngology <input type="checkbox"/>	Gynecology <input type="checkbox"/>
- Otology <input type="checkbox"/>	- Fetoscopy <input type="checkbox"/>
- Rhinology and Rhinoplasty <input type="checkbox"/>	Urology <input type="checkbox"/>
- Sinoscopy, Rhinoscopy, Postrhinology <input type="checkbox"/>	Proctology <input type="checkbox"/>
Plastic Surgery <input type="checkbox"/>	Arthroscopy, Sports Medicine, <input type="checkbox"/>
Anesthesiology and Emergency Medicine <input type="checkbox"/>	Spine Surgery <input type="checkbox"/>
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Endoscopes and Instruments <input type="checkbox"/>	Joint Reconstruction <input type="checkbox"/>
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| ENT – Esophagoscopy – Bronchoscopy <input type="checkbox"/>     | - Pediatric Laparoscopy <input type="checkbox"/>       |
| - Standard Instruments <input type="checkbox"/>                 | - Minilaparoscopy <input type="checkbox"/>             |
| - Laryngology <input type="checkbox"/>                          | Gynecology <input type="checkbox"/>                    |
| - Otology <input type="checkbox"/>                              | - Fetoscopy <input type="checkbox"/>                   |
| - Rhinology and Rhinoplasty <input type="checkbox"/>            | Urology <input type="checkbox"/>                       |
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| - Video Intubation Systems <input type="checkbox"/>             | - RECON – Bone and <input type="checkbox"/>            |
| Endoscopes and Instruments <input type="checkbox"/>             | Joint Reconstruction <input type="checkbox"/>          |
| for Cardiovascular Surgery <input type="checkbox"/>             | Microscopy <input type="checkbox"/>                    |
| Thorax <input type="checkbox"/>                                 | Pediatric Surgery <input type="checkbox"/>             |
| Gastroenterology <input type="checkbox"/>                       | Telepresence <input type="checkbox"/>                  |