



THORAX

3rd EDITION 2/2011 US

Chapter			Pages
1	BASIC SETS	THOR-SET	1-12
2	ESOPHAGOSCOPY, DIVERTICULOSCOPY	ESO, ESO-DIM, DIV	13-38
3	BRONCHOSCOPY, TRACHEOSCOPY	BRO-INTRO, BRO-VIDEO, BRO-FIB, BRO-FIB-ACC, BRO, BRO-TEL, BRO-ST-INTRO, PED-BRO, BRO-ACC, BRO-DIM	39-90
4	AUTOFLUORESCENCE	BRO-AF-INTRO, BRO-AF	91-116
5	MEDIASTINOSCOPY	MEDIA-TEL, MEDIA-INTRO, MEDIA	117-132
6	SINGLE-PUNCTURE THORACOSCOPY	INT	133-138
7	VIDEO-ASSISTED THORACOSCOPIC SURGERY (VATS)	THOR	139-176
8	ENDOSCOPIC TRANSTHORACIC SYMPATHECTOMY	SYM	177-184
9	THORACOTOMY AND VIDEO-ASSISTED MINI-THORACOTOMY	VATS-RET, VATS-INTRO, VATS	185-204
10	VISUALIZATION SYSTEM FOR MICROSURGERY	THOR-VITOM	205-214
11	HOLDING SYSTEMS	LHT	215-226
12	UNITS AND ACCESSORIES	THOR-UNITS-INTRO, THOR-UNITS	U 1-28
13	SPARE PARTS AND ACCESSORIES	THOR-SP	SP 1-48

STORZ



THE WORLD OF ENDOSCOPY

THORAX

3rd EDITION 2/2011 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:

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. September 2011

Pending 510(k) / PMA Not Currently Available for Sale in the U.S.

Description		Section	Page
13304 C	CMOS Video Esopharyngoscope	ESO	17
11900 AP	Video Bronchoscope for Autofluorescence	BRO-VIDEO	42
11900 AN	Video Bronchoscope for Autofluorescence	BRO-VIDEO	42
15006 B	“ULTRA STOP” Antifog Solution	BRO-ACC	86
15006 C	“ULTRA STOP” Antifog Solution	BRO-ACC	86
15006 D	“ULTRA STOP” Antifog Solution	BRO-ACC	86
20 2130 11U1	TELECAM SL II FI SCB Camera Control Unit	BRO-AF	95
20 1336 01-133	Cold Light Fountain D-LIGHT C/AF SCB	BRO-AF	96
49100 LS	Fiberoptic Light Carrier Extension	VATS-RET	189
28272 EC	ENDOCRANE™, piezoregulated Holding Arm	LHT	220
26 4305 08-1	ENDOFLATOR® SCB	THOR-UNITS	U 4
20 3210 08	DUOMAT®	THOR-UNITS	U 12

Please note:

26 4305 08-1 ENDOFLATOR® SCB is 510(k) cleared for laparoscopic surgical and diagnostic procedures.

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 Services 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. ("KSEA") or with its sales force. However, orders will only be accepted by KSEA's Customer Support Department in El Segundo, California and only on the condition that in the event of any conflicting, inconsistent and/or additional provisions in a customer purchase order, the within Terms and Conditions will supersede and prevail and such conflicting, inconsistent and/or additional provisions shall be of no force or effect. By accepting delivery of products, and/or the performance of services, from KSEA, and/or by paying for same, Customer agrees that notwithstanding anything to the contrary in Customer's own purchase order, Customer accepts and agrees to the within Terms and Conditions, all of which constitute the sole and entire Agreement of KSEA 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 KSEA.

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. KSEA reports all discounts in accordance with 42 CFR §1001.952(h).

3. TERMS

Shipments are F.O.B. shipping point, freight prepaid by KSEA and added to the invoice. Unless modified in writing, invoices are due and payable upon receipt; net 30 days. A finance charge may be assessed on all unpaid balances over 30 days equal to one and one-half percent (1-1/2%) per month, or the maximum amount allowed by law, whichever is less. Any and all collection expenses, including reasonable attorneys fees, which are incurred by KSEA to secure payment of any sums due from Customer and/or to effectuate repossession of products purchased from KSEA, 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 of such matters. All transactions by and between Customer and KSEA shall be governed by and construed in accordance with the laws of the State of California. The invalidity or unenforceability of any of the within Terms and Conditions will not effect 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 KSEA. Amounts payable to KSEA for the purchase, lease, or rent of products and/or services are not subject to withholding, set-off, or counter-claim under any circumstances without prior written consent of KSEA.

4. SECURITY INTEREST

Until Customer has paid KSEA in full for all products purchased pursuant to an order, KSEA shall have, and Customer hereby grants to KSEA, a security interest in all products purchased, pursuant to such order, and in all proceeds therefrom (including that 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 to secure all costs, expenses or other charges relating thereto which are payable by Customer to KSEA. Customer is required to execute and deliver such documents, as required and requested by KSEA, to perfect KSEA's security interest(s) and Customer authorizes KSEA to prepare, execute, deliver, file and/or record, on behalf of Customer, any and all documents that are required, necessary and/or appropriate to protect, preserve and/or enforce KSEA's security interest(s) in the products sold, shipped and delivered to Customer pursuant to such order.

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 KSEA. If concealed loss or damage is discovered, Customer must retain all packing materials and immediately notify KSEA, requesting an inspection. If shipments are received short, Customer must contact KSEA's Customer Support Department at once. KSEA reserves the right to make partial shipments on any Order. Invoices for partial shipments are payable upon receipt. KSEA 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 KSEA's Customer Support Department prior to returning any products. When phoning or writing KSEA, for an RMA, the Customer Support Representative must be provided with: (1) Customer name and number, as it appears on the invoice; (2) the telephone number and the person to contact; (3) the applicable P.O. number; (4) the KARL STORZ catalog number and, if applicable, the serial number for each product; and, (5) the reason for the return. KSEA reserves the right to refuse or return any products sent back to KSEA without prior authorization of its Customer Support Department. Returns must be carefully packed and shipped pre-paid to KSEA, attn: RMA number. KSEA'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 within 30 days of invoice date and so long as such items are unused, in resalable condition and in their original product container. All products returned after 30 days from the date of invoice are subject to a 15% restocking fee. Shipping charges will be reimbursed, restocking fees will not be charged and full credit will be given if the return was due to an error on the part of KSEA. The following products may not be returned for credit or exchanged: (1) products held longer than 90 days from invoice date; (2) sterile packaged products where the package is opened and/or damaged; (3) discontinued products; (4) instruments that are etched or engraved by Customer; (5) products damaged by the Customer; (6) products purchased "as is" or as demo products; and, (7) used products. In order to prevent the transmission of disease to the medical facilities' and/or KSEA's personnel, all products must be cleaned and then sterilized and/or disinfected before sending such products back to KSEA, who reserves the right to return unclean and contaminated products to the Customer. Additionally, if any product becomes damaged and is not immediately returned, KSEA assumes no responsibility or liability for Customer's continued use of that damaged product. KSEA does not guarantee the performance, 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 KSEA or an authorized repair facility of KSEA.

7. REPAIR PROGRAM

If repairs become necessary, for other than damages incurred during initial shipment, the 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 8 below, for covered repairs). All other repairs are subject to KSEA'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 product warranty. If the damaged product is not returned within thirty (30) days of receipt of the replacement product, Customer will be invoiced for the full list price of the replacement. KSEA reserves the right to refuse or return any product sent back without prior authorization of KSEA's Customer Support Department.

8. WARRANTY POLICY

Except as otherwise provided herein and/or by the applicable warranty information for a specific product or type of product, all KARL STORZ-branded products are generally warranted to be in good working order at the date of delivery and free from defects in workmanship and materials for one (1) year from date of delivery. However, since some products carry a shorter or a longer warranty period, Customer should check with KSEA'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 KSEA, repaired at no charge to Customer. 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 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. KSEA 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 KSEA or an authorized repair facility of KSEA, 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.

9. LIMITATION OF LIABILITY

KSEA is not liable, directly or by way of indemnity, either expressly or impliedly, for: (1) any damages which might arise or be caused, whether by the Customer or by any of the users of the products provided by KSEA, as a result of, in connection with, or otherwise attributable to: (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 KSEA or an authorized repair facility of KSEA; (c) use in combination with adaptors, accessories and/or equipment from other manufacturers unless authorized or recommended by KSEA or, (d) use in any manner other than those for which such products are designed and are otherwise intended to be used; and, (2) 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 such KARL STORZ products, even if Customer 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, KSEA'S LIABILITY WILL BE LIMITED TO THE GREATEST EXTENT PERMITTED BY LAW IN THE SUBJECT JURISDICTION.

10. SOFTWARE OWNERSHIP AND LICENSING

With respect to products provided by 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 developed by or on behalf of a third party ("Third Party Software") (collectively, "Software") 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). 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, in contravention of this License, will immediately become the sole property of KARL STORZ. Customer hereby acknowledges and agrees that (i) the purchase, lease or other acquisition of products does not constitute a transfer of the Software, (ii) the Software is the property of KARL STORZ or the applicable third party, (iii) 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, (iv) 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 (v) 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.

BASIC SETS



12060 A	ROBERTS-JESBERG Esophagoscope , oval, size 12 x 16, length 50 cm
12060 C	Same , size 10 x 14
12061 A	Fiber Optic Light Carrier , for use with esophagoscopes, length 50 cm
12060 B	ROBERTS-JESBERG Esophagoscope , oval, size 12 x 16, length 30 cm
12060 D	Same , size 10 x 14
12060 F	Same , size 8 x 12
12061 B	Fiber Optic Light Carrier , for use with esophagoscopes, length 30 cm
12060 S	ROBERTS-JESBERG Hypopharyngoscope , oval, size 10 x 14, length 20 cm
12061 C	Fiber Optic Light Carrier , for use with hypopharyngoscopes, length 20 cm
12070	Handle , for esophagoscopes

Recommended accessories for esophagoscopes with a length of 50 cm

12015 AA	HOPKINS® Straight Forward Telescope 0° , diameter 5.5 mm, length 53 cm, autoclavable , fiber optic light transmission incorporated, color code: green
12016 M	Optical Forceps , alligator, large jaws, for hard foreign bodies
12016 L	Optical Forceps , spoon-shaped, round, for biopsy
10381 AL	Suction Tube , with rubber tip, straight, diameter 4 mm, working length 55 cm
3x 10384 AL	Cotton Carrier , working length 55 cm
10387 AL	Sponge Holder , with spring handle, working length 55 cm

Recommended accessories for esophagoscopes and hypopharyngoscopes with lengths of 30 and 20 cm

10324 AA	HOPKINS® Straight Forward Telescope 0° , diameter 2.9 mm, length 36 cm, autoclavable , fiber optic light transmission incorporated, color code: green
10378 HF	Optical Forceps , alligator, for grasping hard foreign bodies, with spring-action handle
10378 L	Optical Forceps , spoon-shaped, for biopsy
10381 B	Suction Tube , with rubber tip, straight, diameter 2 mm, working length 35 cm
3x 10384 B	Cotton Applicator , working length 35 cm
10387 B	Sponge Holder , with spring handle, working length 35 cm

Esophagoscopy for Children with Proximal Illumination

Basic Set

10324 AA	HOPKINS® Straight Forward Telescope 0° , diameter 2.9 mm, length 36 cm, autoclavable , fiber optic light transmission incorporated, color code: green
12030 A	Esophagoscope Tube , size 6, length 30 cm
12030 B	Same , size 5
12030 C	Same , size 4
10101 FA	Prismatic Light Deflector, autoclavable , with connection to fiber optic light cable
10338 N	Rubber Telescope Guide , for use with telescopes and optical forceps
10378 KF	Optical Forceps , with KILLIAN bean jaws, for grasping peanuts and soft foreign bodies, with spring-action handle, for use with HOPKINS® Telescope 10324 A
10378 HF	Optical Forceps , alligator, for grasping hard foreign bodies, with spring-action handle, for use with HOPKINS® Telescope 10324 A
10381 B	Suction Tube , with rubber tip, straight, diameter 2 mm, working length 35 cm
3x 10384 B	Cotton Applicator , working length 35 cm
10387 B	Sponge Holder , with spring handle, working length 35 cm

Bronchoscopy for Adults with Proximal Illumination

Basic Set

STORZ
KARL STORZ — ENDOSKOPE

CHAPTER 3

10320 AA	HOPKINS® Straight Forward Telescope 0° , diameter 5.5 mm, length 50 cm, autoclavable , fiber optic light transmission incorporated, color code: green
10320 BA	HOPKINS® Forward-Oblique Telescope 30° , diameter 5.5 mm, length 50 cm, autoclavable , fiber optic light transmission incorporated, color code: red
10318 BP	Bronchoscope Tube Universal , with proximal illumination, size 8.5, length 43 cm
10318 CP	Same , size 7.5
10318 DP	Same , size 6.5
10101 FA	Prismatic Light Deflector, autoclavable , with connection to fiber optic light cable
10314 P	FLUVOG Adaptor , with sliding glass window plug, sealing cap, notched lens and keyhole opening, movable
10318 K	Injection Cannula , for positive pressure assisted ventilation system, LUER-Lock, outer diameter 3.5 mm
10318 S	Instrument Guide , for suction catheter
10924 D	Adaptor , for respirator
10350 HF	Optical Forceps , alligator, for hard foreign bodies, large jaws, with spring-action handle
10350 KF	Optical Forceps , for peanuts and soft foreign bodies, with spring-action handle
10350 L	Optical Forceps , round cupped jaws, for biopsy
10381 A	Suction Tube , with rubber tip, straight, diameter 4 mm, working length 50 cm
10382 A	Suction Tube , with rubber tip, curved, diameter 4 mm, working length 50 cm
10432 N	Aspirator , for collecting secretions, can be connected to suction tubes or suction catheters
2x 10432 E	Spare Glass , for Aspirator 10432 N
3x 10384 A	Cotton Applicator , working length 50 cm
10387 A	Sponge Holder , with spring handle, working length 50 cm

3-11

Bronchoscopy for Children with Proximal Illumination

Basic Set

10324 AA	HOPKINS® Straight Forward Telescope 0° , diameter 2.9 mm, length 36 cm, autoclavable , fiber optic light transmission incorporated, color code: green
10339 A	DOESEL-HUZLY Bronchoscope , size 6, length 30 cm
10339 BB	Same , size 4.5
10339 C	Same , size 4
10339 CD	Same , size 3.5
10101 FA	Prismatic Light Deflector, autoclavable , fiber optic light transmission incorporated
10338 P	FLUVOG Adaptor , with sliding glass window plug, sealing cap, notched lens and keyhole opening, movable
10318 K	Injection Cannula , for positive pressure assisted ventilation system, LUER-Lock, outer diameter 3.5 mm
10338 S	Guide Piece , for suction catheter, short, bronchoscope for children and infants
10924 D	Adaptor , for respirator
10378 CF	Optical Forceps , 2x 2 teeth, for grasping coins and flat foreign bodies, with spring-action handle, for use with HOPKINS® Telescope 10324 AA and Bronchoscopes 10339 A – DD
10378 KF	Optical Forceps , with KILLIAN bean jaws, for grasping peanuts and soft foreign bodies, with spring-action handle, for use with HOPKINS® Telescope 10324 AA and Bronchoscopes 10339 A – DD
10378 HF	Optical Forceps , alligator jaws, for grasping hard foreign bodies, with spring-action handle, for use with HOPKINS® Telescope 10324 AA and Bronchoscopes 10339 A – DD
10386 B	Foreign Body Basket , with ring handle, working length 35 cm
10389 B	Cytology Brush , with ring handle, working length 35 cm
10381 B	Suction Tube , with rubber tip, straight, diameter 2 mm, working length 35 cm
10382 B	Suction Tube , with rubber tip, curved, diameter 2 mm, working length 35 cm
10432 N	Aspirator , for collecting secretions, can be connected to suction tubes or suction catheters
2x 10432 E	Spare Glass , for Aspirator 10432 N
2x 10384 B	Cotton Applicator , working length 35 cm
10387 B	Sponge Holder , with spring handle, working length 35 cm

Flexible Video Autofluorescence Bronchoscopy

Basic Set

STORZ
KARL STORZ — ENDOSKOPE

CHAPTER 4

20 1336 01-133	Cold Light Fountain D-LIGHT C/AF SCB , high-performance light unit for photodynamic diagnosis (PDD), autofluorescence (AF) and standard endoscopic diagnosis
20 2130 11U1	TELECAM SL II FI SCB Camera Control Unit , color systems PAL/NTSC , with integrated Image Processing Module, suitable for fluorescence applications
11900 AP	Video Bronchoscope for Autofluorescence and White Light Diagnosis , color system PAL , including mounted Suction Unit 11900 AE, for use with TELECAM SL II FI SCB 20 2130 11U1 including: Case Video Connecting Cable Mouth Piece Biopsy Forceps , spoon-shaped, round, flexible, double action jaws, diameter 1.8 mm, working length 120 cm Leakage Tester , with bulb and manometer Pressure Compensation Cap , for ventilation during gas sterilization Cleaning Brush , flexible, length 100 cm Irrigation Tube , for working channel Instrument Oil , 50 ml Protective Film , for transporting endoscopes
11900 AN	Same, NTSC
487 VE	Adaptor , for connecting KARL STORZ light sources to KARL STORZ video endoscopes

3-11

LINDER/HÜRTGEN Distending DCI® Video Mediastinoscope

- 10972 SP LINDER/HÜRTGEN Distending DCI® Video Mediastinoscope, length 20 cm
 10970 BA DCI® HOPKINS® Forward-Oblique Telescope 30°, diameter 4 mm, length 14 cm, autoclavable
 22200011U102 IMAGE 1 HUB™ Camera Control Unit SCB, with SDI module, color systems PAL/NTSC
 22260031-3 IMAGE1 D1 One-Chip DCI® Camera Head, f = 16 mm
 495 DC DCI® Fiber Optic Light Cable, diameter 3.5 mm, length 320 cm

LERUT DCI® Video Mediastinoscope

- 10971 MV LERUT DCI® Video Mediastinoscope, length 15 cm
 10970 BA DCI® HOPKINS® Forward-Oblique Telescope 30°, diameter 4 mm, length 14 cm, autoclavable
 22200011U102 IMAGE 1 HUB™ Camera Control Unit SCB, with SDI module, color systems PAL/NTSC
 22260031-3 IMAGE1 D1 One-Chip DCI® Camera Head, f = 16 mm
 495 DC DCI® Fiber Optic Light Cable, diameter 3.5 mm, length 320 cm

Operating Instruments

- 10970 EN Coagulating Suction Tube, insulated, with connector pin for unipolar coagulation, diameter 5 mm, length 20 cm
or
 10970 ENL Coagulating Suction Tube, insulated, with connector pin for unipolar coagulation, diameter 5 mm, length 30 cm
 10972 EN Coagulating Suction Tube, distally curved, insulated, with connector pin for unipolar coagulation, angled handle, diameter 5 mm, length 20 cm
or
 10972 ENL Coagulating Suction Tube, distally curved, insulated, with connector pin for unipolar coagulation, angled handle, diameter 5 mm, length 30 cm
 10971 GO MediaFIT™ Biopsy Forceps, dismantling, oval jaws, size 8 x 16 mm, length 21 cm
 10971 GR MediaFIT™ Biopsy Forceps, dismantling, spoon-shaped jaws, jaw diameter 5 mm, length 21 cm
 10971 ML MediaFIT™ MAASSEN Sponge and Dissecting Forceps, dismantling, size 5 mm, length 30 cm
 10970 P Aspiration Cannula, with 12 injection cannulas, length 20 cm
 10970 PS Silicone Tubing, with LUER-Lock adaptor, for connecting Aspiration Cannula 10970 P/PL to LUER-Lock suction syringe
 8665 R Clip Forceps, jaws curved to right, working length 22 cm
 8665 T Clip, titanium LT 200, medium, 5 mm, sterile, package of 36 cartridges with 6 clips each

Single-puncture Thoracoscopy

Basic Set

26072 BA	HOPKINS® II Forward-Oblique Telescope 30° , enlarged view, diameter 4 mm, length 29 cm, autoclavable , fiber optic light transmission incorporated, color code: red
30120 NOL	Trocar , flexible, with blunt tip, with integrated silicone leaflet valve, autoclavable , size 6 mm, working length 8.5 cm including: Cannula , flexible Trocar only or
40120 NAL	Trocar , flexible, with blunt tip, without valve, autoclavable , size 6 mm, working length 8.5 cm including: Cannula , flexible Trocar only
26072 A	Optical Biopsy Forceps , double action jaws
26072 SU	Optical Suction Tube
26072 TK	Optical Powder Blower

Set recommended by LINDER M. D. and HÜRTGEN M. D.

26046 FA	HOPKINS® II Telescope 45° , enlarged view, diameter 5 mm, length 29 cm, autoclavable , fiber optic light transmission incorporated, color code: black
40160 CD	Trocar , with blunt tip, size 6 mm, working length 6 cm
3x 40123 NAL	Trocar , flexible, with blunt tip, size 11 mm, working length 8.5 cm
2x 40120 NAL	Trocar , flexible, with blunt tip, size 6 mm, working length 8.5 cm
43237 LGF	CLICKliné Parenchymal Forceps , atraumatic, single action jaws, straight jaws, size 5 mm, length 28 cm, metal Y-handle, with ABSORBER1® geometry, axial, with 4 locking positions
43237 LSF	CLICKliné Parenchymal Forceps , atraumatic, single action jaws, double curved jaws, size 5 mm, length 28 cm, metal Y-handle, with ABSORBER1® geometry, axial, with 4 locking positions
43237 LHF	CLICKliné Lung Forceps , atraumatic, single action jaws, single curved jaws, size 5 mm, length 28 cm, metal Y-handle, with ABSORBER1® geometry, axial, with 4 locking positions
43244 LLP	CLICKliné Lung Forceps , atraumatic, single action jaws, curved jaws, fenestrated, size 5 mm, length 28 cm, MOURET metal handle, with hemostat style ratchet, axial, with 4 locking positions
43244 LRP	CLICKliné Lung Nodule Forceps , atraumatic, single action jaws, curved jaws, fenestrated, size 5 mm, length 28 cm, MOURET metal handle, with hemostat style ratchet, axial, with 4 locking positions
43231 LVS	CLICKliné Parenchymal Forceps , atraumatic, single action jaws, curved jaws, size 5 mm, length 28 cm, metal handle, with lateral locking button, for use with linear stapler
43227 LKP	CLICKliné KELLY Dissecting Forceps , double action jaws, curved jaws, size 5 mm, length 28 cm, metal Y-handle, insulated, axial, with connector pin for unipolar coagulation
43227 LMP	CLICKliné Scissors , double action blades, curved blades, size 5 mm, length 28 cm, metal Y-handle, insulated, axial, with connector pin for unipolar coagulation
43227 MTP	CLICKliné Scissors , distally angled outer sheath, scissor blades open parallel to angulation, size 5 mm, length 28 cm, metal Y-handle, insulated, axial, with connector pin for unipolar coagulation
43227 DUP	CLICKliné Biopsy Forceps , distally angled outer sheath, single action jaws, size 5 mm, length 28 cm, metal Y-handle, insulated, axial, with connector pin for unipolar coagulation
43244 MFP	CLICKliné MANHES Grasping Forceps , atraumatic, single action jaws, straight jaws, size 5 mm, length 28 cm, MOURET metal handle, with hemostat style ratchet, axial, with 4 locking positions
40170 LB	Coagulating Suction Tube , distally angled sheath, with connector pin for unipolar coagulation
	or
40270 LB	Coagulating Suction Tube , distally angled sheath, with connector pin for bipolar coagulation
30804	Handle with Trumpet Valve , for irrigation or suction, for use with Coagulating Suction Tubes 40170 LB and 40270 LB
40360 LH	Suction and Irrigation Tube , with lateral holes, distally angled sheath, size 5 mm, length 28 cm
40560 LH	Suction and Irrigation Tube , with lateral holes, distally angled sheath, size 10 mm, length 28 cm
2x 30805	Handle with Two-Way Stopcock , for irrigation or suction
40775 LF	Dissecting Electrode , L-shaped, insulated, with connector pin for unipolar coagulation, distally angled sheath, size 5 mm, length 28 cm
40175 LT	Palpation Probe and Knot Tier , distally angled sheath
30173 FPL	Macro Needle Holder , dismantling, with tungsten carbide inserts, ergonomic pistol-grip handle, with disengageable ratchet, ratchet position left, single action jaws, straight jaws, size 5 mm, length 33 cm

Set recommended by HECKER, M. D.

26046 BA	HOPKINS® II Forward-Oblique Telescope 30° , enlarged view, diameter 5 mm, length 29 cm, autoclavable , fiber optic light transmission incorporated, color code: red
2x 40120 NAL	Trocar , flexible, with blunt tip, size 6 mm, working length 8.5 cm
34221 MS	CLICK'line® METZENBAUM Scissors , double action jaws, size 5 mm, length 30 cm, plastic handle, with connector pin for unipolar coagulation
43227 LUP	CLICK'line® Scissors , distally angled sheath, double action jaws, scissor blades open horizontally to angulation, size 5 mm, length 28 cm, metal Y-handle, insulated, axial, with 4 locking positions, with connector pin for unipolar coagulation
33221 MD	CLICK'line® KELLY Dissecting and Grasping Forceps , double action jaws, size 5 mm, length 30 cm, plastic handle, with connector pin for unipolar coagulation
43227 LKP	CLICK'line® KELLY Dissecting Forceps , double action jaws, curved jaws, size 5 mm, length 28 cm, metal Y-handle, insulated, axial, with 4 locking positions, with connector pin for unipolar coagulation
43237 LLR	CLICK'line® Lung Forceps , atraumatic, single action jaws, curved jaws, fenestrated, size 5 mm, length 28 cm, metal Y-handle, with ratchet, axial, with 4 locking positions
40400 G	Grasping Forceps , with ratchet, self-opening, fenestrated jaws, S-shaped, medial joint, length 33 cm
26778 UF	Coagulating and Dissecting Electrode , L-shaped, insulated, with connector pin for unipolar coagulation, size 5 mm, length 43 cm
26772 UF	Coagulating and Dissecting Electrode , L-shaped, insulated, with connector pin for unipolar coagulation, size 5 mm, length 30 cm
40775 LF	Dissecting Electrode , L-shaped, insulated, with connector pin for unipolar coagulation, distally angled sheath, size 5 mm, length 28 cm

Video Assisted Mini-Thoracotomy

Basic Set

Set recommended by Prof. GIUDICELLI, Prof. FUENTES and OTTOMANI, M. D.

26003 AA	HOPKINS® II Straight Forward Telescope 0° , enlarged view, diameter 10 mm, length 31 cm, autoclavable , fiber optic light transmission incorporated, color code: green
40103 CD	Trocar , with blunt tip, size 11 mm, working length 6 cm
40103 AB	Trocar , with blunt tip, size 11 mm, working length 4 cm
40110 A	GIUDICELLI/FUENTES/OTTOMANI Rib Spreader , self-retaining, blade depth 40 mm, blade width 30 mm
	or
40110 B	GIUDICELLI/FUENTES/OTTOMANI Rib Spreader , self-retaining, blade depth 60 mm, blade width 30 mm
495 CD	Percutaneous Fiber Optic Light Cable , length 300 cm, with three percutaneous illumination ports, each 5 mm in diameter and 5 cm in length
40400 A	Forceps , atraumatic, bayonet-shaped, insulated, length 22 cm
40400 B	Forceps , with multiple teeth, bayonet-shaped, insulated, length 22 cm
40400 F	Dissecting Forceps , with ratchet, self-opening, S-shaped, medial joint, length 28 cm
40400 H	Grasping Forceps , with ratchet, self-opening, fenestrated jaws, S-shaped, medial joint, length 28 cm
40400 K	Grasping Forceps , with ratchet, self-opening, fenestrated jaws, curved, medial joint, length 28 cm
40500 C	Dissecting Forceps , S-shaped, medial joint, length 28 cm
40500 E	Dissecting Forceps , S-shaped, distal joint, length 28 cm
40600 A	Retractor , S-shaped, with 3 teeth, length 27 cm
40600 B	Retractor , distal end curved, with 3 teeth, length 27 cm
40600 D	Lung Spatula , S-shaped, length 27 cm
40360 LH	Suction and Irrigation Tube , with lateral holes, distally angled sheath, size 5 mm, length 28 cm
30805	Handle with Two-Way Stopcock , for suction and irrigation
40700 A	Electrode , knife tip, malleable, with connector pin for unipolar coagulation, length 40 cm
40600 E	Needle Holder , S-shaped, with ratchet, length 27 cm
40600 C	Sling Passer , length 25 cm
26596 T	Knot Tier , for extracorporeal knotting, size 5 mm, length 36 cm

Units for Thoracic Surgery

Basic Set

CHAPTER 12 /
CAT. TELEPRESENCE



Units and Accessories:

- 29005 LAP **Mobile Equipment Cart**
- 9526 NB **26" HD Monitor**
- 22 2010 11U102 **IMAGE 1 HUB™ HD Camera Control Unit SCB, with SDI module**
- 22 2200 55-3 **IMAGE1 H3-Z Three-Chip HD Camera Head**
- 20 0409 13-EN **KARL STORZ AIDA® compact NEO advanced**
- 20 1331 01-1 **Cold Light Fountain XENON 300 SCB**
- 495 NCS **Fiber Optic Light Cable, extremely heat-resistant, diameter 4.8 mm, length 250 cm**
- 20 3210 08 **DUOMAT® Suction and Irrigation Pump, accessories optional**

- optional:**
- 26 4305 08-1 **Electronic CO₂ ENDOFLATOR® SCB, optional accessories required**
- 20 5352 01U11x **High Frequency Generator AUTOCON®II 400 SCB, accessories optional**
- 20 0178 31 **Three-Pedal Footswitch**
- 29005 HFH **Double Pedal Holder**
- 27805 **Neutral Electrode**
- 27806 **Neutral Electrode Connecting Cable**
- 26005 M **Unipolar High Frequency Cord**
- 26176 LE **Bipolar High Frequency Cord**
- 29005 KH **Camera Holder**

KARL STORZ IMAGE1 Video Camera Systems, Equipment Carts and Light Cables
see catalog TELEPRESENCE
KARL STORZ AIDA® compact NEO advanced see catalog KARL STORZ OR1™

ESOPHAGOSCOPY DIVERTICULOSCOPY

HERRMANN CMOS
VIDEO ESOPHARYNGOSCOPE

NEW

14-17

ESOPHAGOSCOPES AND
HYPOPHARYNGOSCOPES
FOR ADULTS

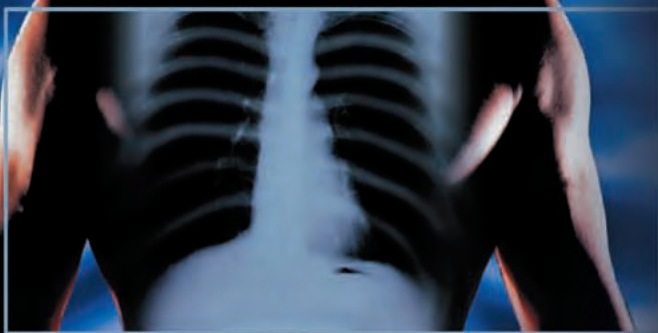
18-21

ESOPHAGOSCOPES
FOR CHILDREN

22-35

DIVERTICULOSCOPES

36-38



HERRMANN CMOS Video ^{NEW} Esopharyngoscope

for Functional Diagnostics in Esophagoscopy

STORZ
KARL STORZ — ENDOSKOPE

CMOS Video Esopharyngoscope for adults, without working channel,
working length 75 cm, diameter 3.7 mm

Special features:

- Possibility of inversion up to 200°
- A cm-scale with special markings for every 5 and 10 cm – can be read as distance between the optical window to the vestibule of the nose
- Every 10 cm the distance from the optical window is visible as a figure beside the marking, e. g. 30 cm = 3; 50 cm = 5 or 70 cm = 7. This means that the height and caudal-cranial extent of a pathological process can be determined with an accuracy of up to less than 1 cm in the esophagus. This procedure is suitable for measuring extensive alterations.
- When the distal end is curved backwards by 200°, a 2.5 cm-scale is visible in the optical window on the sheath. The cm-scale is positioned in inversion beside the pathological process. The extension is read and recorded with the video-endoscope. It allows measuring the length of a change in the esophagus with an accuracy up to ± 1 mm, whilst eliminating the parallax error. This procedure is suitable for measuring smaller processes outside the sphincter regions.
- The possibility of long-term endoscopy is comparable to pH-metry or impedancometry.

Fields of application

- Laryngopharynx
- Upper Esophageal Sphincter (UES)
- Cardia or Lower Esophageal Sphincter (LES)

Applications

- Stress endoscopy
- Polysomnoscropy
- Tracheobronchoscopy
- Combined endoscopy

Handling

The video esopharyngoscope is introduced transnasally. It is inserted into the pharynx under visual control. During this maneuver the functions of breathing, speaking, singing, coughing, swallowing water, liquid and solid food, etc. can be examined in the nose, rhinopharynx, velopharynx, oropharynx and larynx or laryngopharynx. This endoscopic procedure can be performed on adults without any medication. Administering decongestant nose drops with the addition of a few drops of e. g. oxybuprocaine (Novosine) is only advisable in the case of allergic patients and children on account of increased sensitivity or the narrower nasal passage.

To aid passage through the upper esophageal sphincter, the patient is given a glass of plain water (non-carbonated) and a straw. Once the optical window of the video esopharyngoscope is positioned above the postcricoidal region, the endoscope passes the upper sphincter after the first sip of water. This takes advantage of the physiological hypesthesia which occurs through the act of swallowing. The patient virtually drinks the endoscope. With the help of the patient, the optical window reaches the lower esophageal sphincter. Drinking plain water enables the endoscope to pass through the cardia. Stomach gas, the stomach's contents and the stomach wall can then be visualized via mucosal relief.

Field of application Stress endoscopy

Following the transnasal introduction of the endoscope into the esophagus, the functions of the stomach, esophagus, pharynx and larynx can be simultaneously recorded with an ECG under the same conditions as a stress electrocardiogram. As the symptoms for cardiac disorders and gastric reflux are similar, differential diagnosis is important in this case. Respiration and reflux disorders in the esophagus, pharynx and larynx or resulting electrocardiographic changes are documented during an exercise stress test.

Polysomnoscropy (sleep endoscopy in conjunction with polysomnography)

Similar to stress endoscopy, a new diagnostic sleep endoscopy has been developed which combines polysomnography with somnoscropy (sleep endoscopy) on-line. The video esopharyngoscope is introduced as described above. In the sleep laboratory, the mechanisms of obstruction in the velopharynx, oropharynx and larynx regions that are observed and recorded during sleep endoscopy can be correlated on-line with polysomnographic data. This shows that there is a direct correlation between causes recorded by means of sleep registration and polysomnographic findings. Consequently, the significance of laryngeal obstruction mechanisms, which are responsible for 22% of all snoring and OSAHS problems, could be established. For the first time, a pretherapeutic diagnostic technique allows a prognosis on a postoperative outcome. This offers the possibility of objective quality control of the performed therapy during post-therapeutic follow-up.

A C-PAP or B-PAP machine is set up or adjusted under polysomnoscopic control. This ensures that OSAHS patients receive a higher standard of treatment.

Tracheobronchoscopy

Out-patient tracheobronchoscopy can be performed on patients (including children) in a sitting position. Following administration of decongestant nose drops and nasal decongestion, e.g. 2% oxybuprocaine is inhaled deeply through an atomizer. This maneuver is repeated every 2 minutes. One waits for about 4 minutes until the patient confirms anesthesia. The video esopharyngoscope is advanced to the vocal cord level and oxybuprocaine is applied as drops to the tracheal mucosa. It is then possible to advance to the tracheobronchial tree.

Combined endoscopy (Functional analysis under visual control)

Using a Steri-Strip (6 × 50 mm = half-length (3M)), a Sleuth catheter (impedancometry) and a pH meter probe or manometer probe, for example, are placed in parallel (piggyback) on the video esopharyngoscope and mounted on the side of the fiberscope with cm-markings (up to 70 cm). The tip of the catheter or the probe must be visible in the optical window even when the endoscope is deflected. Following nasal decongestion, the piggyback system is inserted into the side of the nose which offers the most space for maneuver. After reaching the pharynx, the system passes the upper sphincter as described above. The plaster should not be wrapped around the instruments more than twice (max. 50 mm = half-length) so that it comes off easily in the stomach. Gentle counter-rotation of both piggyback components enables this fixation to be detached more quickly in the stomach.

Benefits of combined endoscopy:

- Introduction of probe or catheter under visual control, i.e. without gagging and without accidentally entering the larynx or the trachea
- Visualization of sensor position (sensor of the pH probe in the gaseous space of the stomach with correct pH values, but false interpretation)
- Visualization of the sensor or catheter position (i. e. kinked catheter in the esophagus)
- Prevention of blind measuring and, consequently, false interpretations via visualization and measurements

This new endoscopic technique offers improved functional diagnostics which is now performed under visualization in contrast to previous blind introduction. This opens up new dimensions and several possibilities for understanding mechanisms and pathomechanisms, for preventive medicine, and to develop more specific therapy plans.

A patient's case history and food diary (when, what, where, how long) – which records the type, time of day, and duration of food and drink consumption as well as any complaints – helps shorten the time required to perform medical examinations. Indications are also provided for, i. e. impedance measurement combined with pH-metry and/or simultaneous endoscopic long-term functional analysis. A more specific diagnosis can prevent the indiscriminate use of antacids and similar medications.

*Prof. Dr. I. F. HERRMANN,
European Hospital,
Rome, Italy*

HERRMANN CMOS Video ^{NEW} Esopharyngoscope

for Functional Diagnostics in Esophagoscopy

STORZ
KARL STORZ — ENDOSKOPE

The **CMOS video esopharyngoscope** features a compact and mobile solution thanks to its integrated light source and camera control unit.

Combined with the lightweight Monitor 8402 ZX, the **CMOS video esophagoscope** provides a convenient and fast solution for the doctor's office, house calls or consultation purposes.

Special Features:

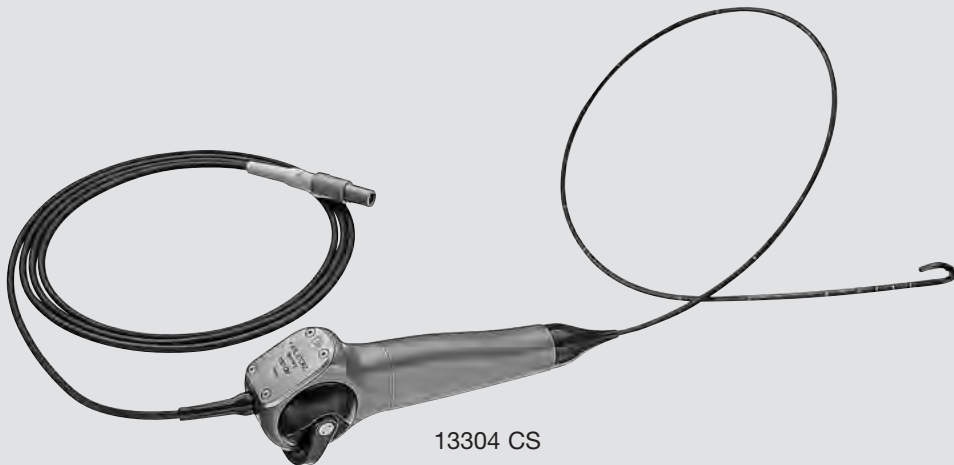
- **Mobility thanks to all-in-one solution – the lightweight monitor combined with the CMOS video esopharyngoscope offer quick installation and great flexibility**
- **CMOS chip technology for good image quality**
- **Optimal field of view for excellent visualization of pathologies**
- **Large angle of view for optimal orientation**
- **Integrated LED light source for optimal illumination**
- **Sensitive yet robust control through ergonomic handle**
- **Waterproof, fully immersible for cleaning and disinfection**
- **Sterilizable via EtO gas, Sterrad® and Steris® System 1**



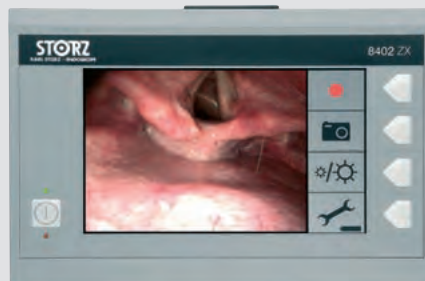
HERRMANN CMOS Video ^{NEW} Esopharyngoscope

for Functional Diagnostics in Esophagoscopy

STORZ
KARL STORZ — ENDOSKOPE



13304 CS



8402 ZX

13304 CSK **CMOS Video Esopharyngoscope KIT,**
for use with Monitor 8402 ZX
Direction of view: 0°
Angle of view: 85°
Working length: 75 cm
Outer diameter: 3.7 mm
Deflection up/down: 200°/100°

The following accessories are included:

13304 CS **CMOS Video Esopharyngoscope**
13242 XL **Leakage Tester**, with bulb and manometer
11025 E **Pressure Compensation Cap**, for ventilation
during gas sterilization
27677 FV **Case**

13304 CSM **CMOS Video Esopharyngoscope with Monitor**
Direction of view: 0°
Angle of view: 85°
Working length: 75 cm
Outer diameter: 3.7 mm
Deflection up/down: 200°/100°

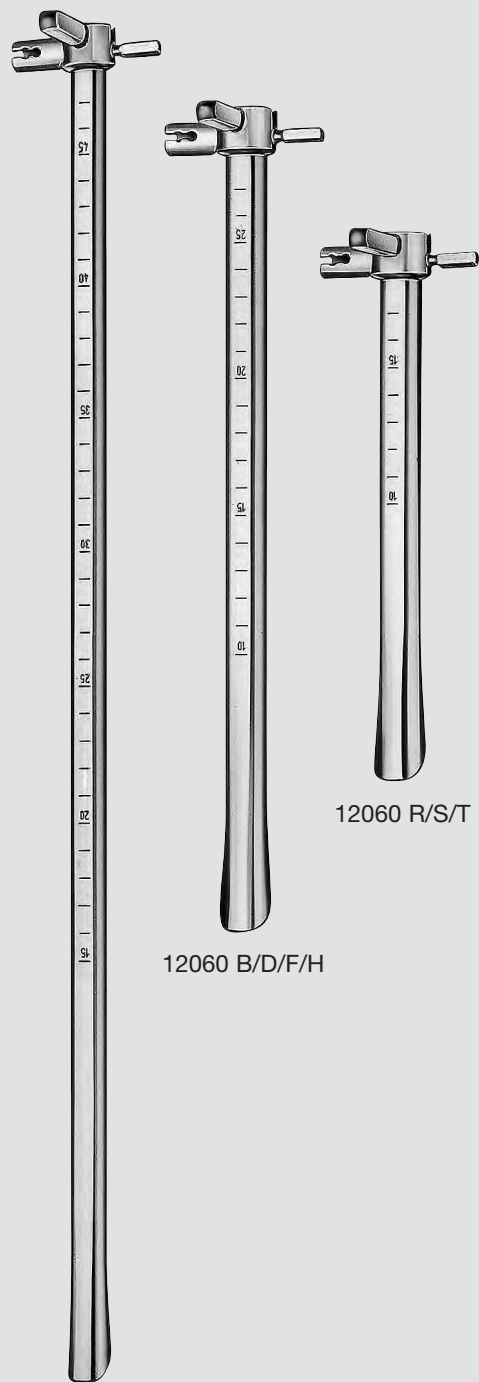
The following accessories are included:

13304 CSK **CMOS Video Esopharyngoscope KIT**
8402 ZX **Monitor**, for CMOS endoscopes

ROBERTS-JESBERG Esophagoscopes and Hypopharyngoscopes

for Distal and Proximal Illumination

STORZ
KARL STORZ — ENDOSKOPE



12060 A/C/E

12060 B/D/F/H

12060 R/S/T

Size 12 x 16

- 12060 AX ROBERTS-JESBERG **Esophagoscope**, oval, size 12 x 16, length 55 cm
- 12060 A **Same**, length 50 cm
- 12060 AW **Same**, length 45 cm
- 12060 AV **Same**, length 40 cm
- 12060 AU **Same**, length 35 cm
- 12060 B **Same**, length 30 cm

Size 10 x 14

- 12060 C ROBERTS-JESBERG **Esophagoscope**, oval, size 10 x 14 mm, length 50 cm
- 12060 CV **Same**, length 40 cm
- 12060 D **Same**, length 30 cm

Size 8 x 12

- 12060 E ROBERTS-JESBERG **Esophagoscope**, oval, size 8 x 12, length 50 cm
- 12060 EV **Same**, length 40 cm
- 12060 F **Same**, length 30 cm

Size 7 x 9

- 12060 H ROBERTS-JESBERG **Esophagoscope**, oval, size 7 x 9, length 30 cm

Hypopharyngoscopes, length 20 cm

- 12060 R ROBERTS-JESBERG **Hypopharyngoscope**, oval, size 12 x 16, length 20 cm
- 12060 S **Same**, size 10 x 14
- 12060 T **Same**, size 8 x 12



10101 FA

For proximal illumination

10101 FA **Prismatic Light Deflector, autoclavable,**
 with connection to fiber optic light cable

12061 A – C



For distal illumination

12061 A **Fiber Optic Light Carrier,** for use with
 esophoscopes, length 50 cm

12061 AX **Same,** for use with esophoscopes,
 length 55 cm

12061 AW **Same,** for use with esophoscopes,
 length 45 cm

12061 AV **Same,** for use with esophoscopes,
 length 40 cm

12061 AU **Same,** for use with esophoscopes,
 length 35 cm

12061 B **Same,** for use with esophoscopes,
 length 30 cm

12061 C **Fiber Optic Light Carrier,** for use with
 hypopharyngoscopes, length 20 cm

12062 A – C



Additional Accessories

12062 A **Insertable Suction Tube,** for use with
 esophoscopes, outer diameter 2 mm,
 length 50 cm

12062 AX **Same,** for use with esophoscopes,
 length 55 cm

12062 B **Same,** for use with esophoscopes,
 length 30 cm

12062 C **Insertable Suction Tube,** for use with
 hypopharyngoscopes, outer diameter 2 mm,
 length 20 cm

10338 TA **Adjustable Magnifier, autoclavable,**
 swing-away type, with plug connection

12070 **Handle,** for esophoscopes



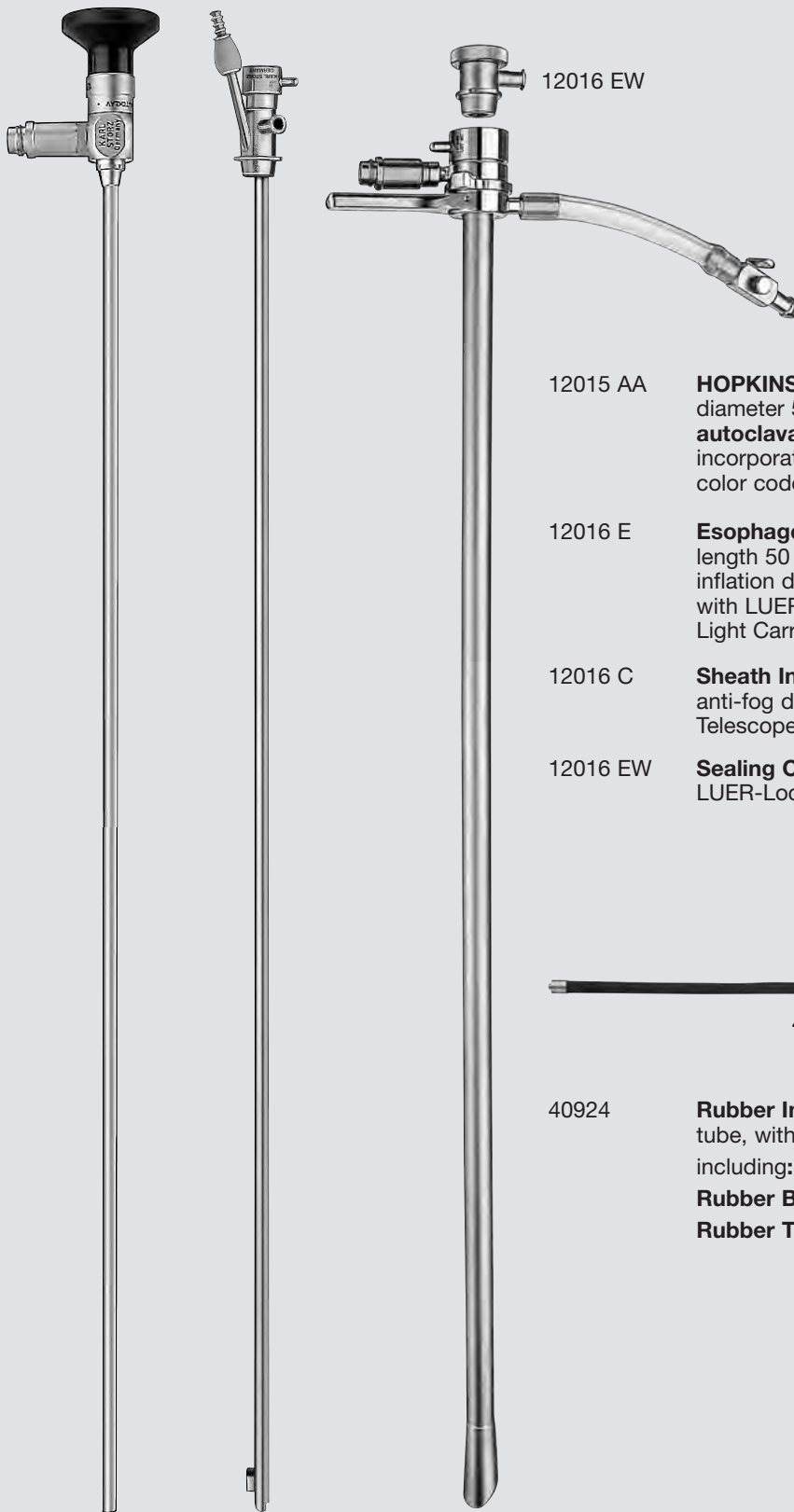
10338 TA



12070

Optical Esophagoscope

with Suction Channel and Air Inflation Device



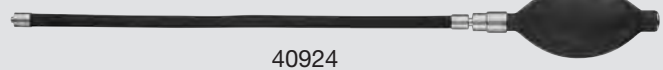
12016 EW

12015 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 5.5 mm, length 53 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

12016 E **Esophagoscope Tube**, size 11, working length 50 cm, with suction channel and air inflation device, including glass window plug with LUER-Lock 12016 EW, with Fiber Optic Light Carrier 12016 EM, with Tube 12016 EF

12016 C **Sheath Insert**, with working channel and anti-fog device, for use with HOPKINS® Telescope 12015 AA

12016 EW **Sealing Cap**, with window and LUER-Lock cone



40924

40924 **Rubber Insufflation Bulb**, with detachable tube, with LUER-Lock including:
Rubber Bulb
Rubber Tube

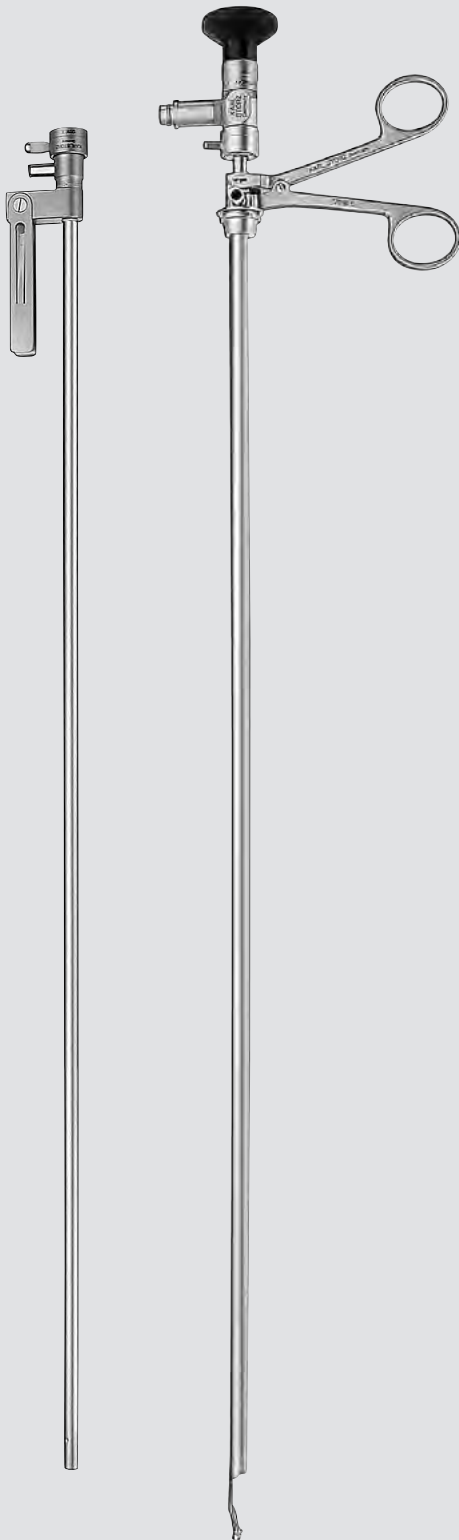
12015 AA

12016 C

12016 E

Components see chapter 13, SPARE PARTS AND ACCESSORIES

12015 AA



Instruments for use with HOPKINS® Telescope 12015 AA

- 12016 K **Optical Peanut Forceps**, for large chunks of meat and soft foreign bodies
- 12016 L **Optical Forceps**, spoon-shaped, round, for biopsy
- 12016 M **Optical Forceps**, alligator, large jaws, for hard foreign bodies
- 12016 N **Optical Forceps**, universal, for biopsy, for foreign bodies and removal of denatured tissue
- 12016 X **Telescope Guide**, for use with 50 cm Esophagoscopes 12060 A/C/E and HOPKINS® Telescope 12015 AA

12016 X

12016 L

12016 K

12016 L

12016 M

12016 N

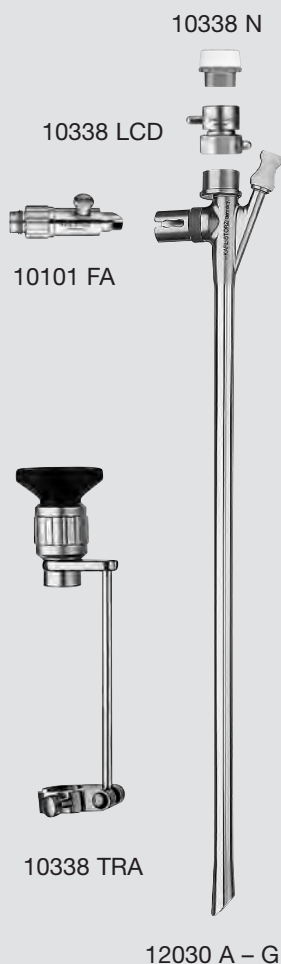
11-981

Pediatric Esophagoscopes

with Proximal Illumination

Special Features:

- Absence of distal light carrier does not restrict inner diameter
- Prismatic Light Deflector 10101 FA inserted proximally ensures best illumination and enables full use of lumen through operating instruments
- Excellent view of operation area
- Lateral channel for introduction of instruments and catheters



- | | |
|-----------|---|
| 12030 A | Esophagoscope Tube , size 6, length 30 cm |
| 12030 B | Same , size 5 |
| 12030 C | Same , size 4 |
| 12030 F | Esophagoscope Tube , size 3.5 mm, length 18.5 cm |
| 12030 G | Same , size 3 |
| 10101 FA | Prismatic Light Deflector , autoclavable, with connection to fiber optic light cable |
| 10338 TRA | Adjustable Magnifier , autoclavable, swing-away type, with ring adaption |
| 10338 N | Rubber Telescope Guide , for use with telescopes and optical forceps |
| 10338 LCD | Telescope Bridge , for fixed position between bronchoscope and telescope |
- For use through lateral working channel of esophagoscopes, lengths 30 and 18.5 cm, under control of HOPKINS® Telescopes 10324 AA, 10020 ATA and 10018 AA:**
- | | |
|---------|---|
| 10338 U | Forceps , alligator, spoon-shaped, single action jaws, semiflexible, sheath diameter 1 mm, working length 35 cm |
| 10338 X | Forceps , spoon-shaped, for biopsy, single action jaws, semiflexible, sheath diameter 1 mm, working length 35 cm |
| 10468 B | Suction Catheter , 7 Fr., with Adaptor 10479 B |
| 10468 C | Suction Catheter , 6 Fr., with Adaptor 10479 C |
| 10468 D | Suction Catheter , 5 Fr., with Adaptor 10479 F |

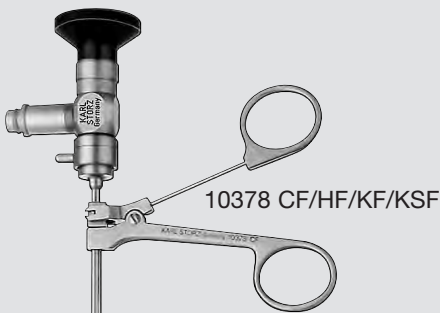
Optical Forceps and Scissors

for Pediatric Esophagoscopes size 6 – 3.5, length 30 cm – 18.5 cm

Special Features:

- Newly designed forceps for hard and soft foreign bodies enable removal under precise optical control not previously possible.
- Small size of forceps allows them to be introduced through pediatric esophagoscopes as of size 3.5 cm and in lengths 30 – 18.5 cm
- Foreign bodies can be removed quickly and with utmost safety.
- Better assessment of the depth of cut when taking biopsies

10324 AA



10378 CF/HF/KF/KSF

10324 AA



10378 L/S/U/M

For use with Esophagoscopes 12030 A – C:

- 10324 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 2.9 mm, length 36 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green
- 10378 CF **Optical Forceps**, 2x 2 teeth, for grasping coins and flat foreign bodies, with spring-action handle
- 10378 HF **Optical Forceps**, alligator, for grasping hard foreign bodies, with spring-action handle
- 10378 KF **Optical Forceps**, with KILLIAN bean jaws, for grasping peanuts and soft foreign bodies, with spring-action handle
- NEW** 10378 KSF **Optical Forceps**, VANCOUVER model, for grasping peanut fragments and soft foreign bodies, with spring-action handle
- 10378 L **Optical Forceps**, spoon-shaped, for biopsy
- 10378 S **Optical Scissors**
- 10378 U **Optical Forceps**, universal, for biopsy and foreign bodies removal
- 10378 M **Optical Forceps**, spoon-shaped, oval, for biopsy, large model



10378 CF

10378 HF

10378 KF

10378 KSF

10378 L

10378 S

10378 U

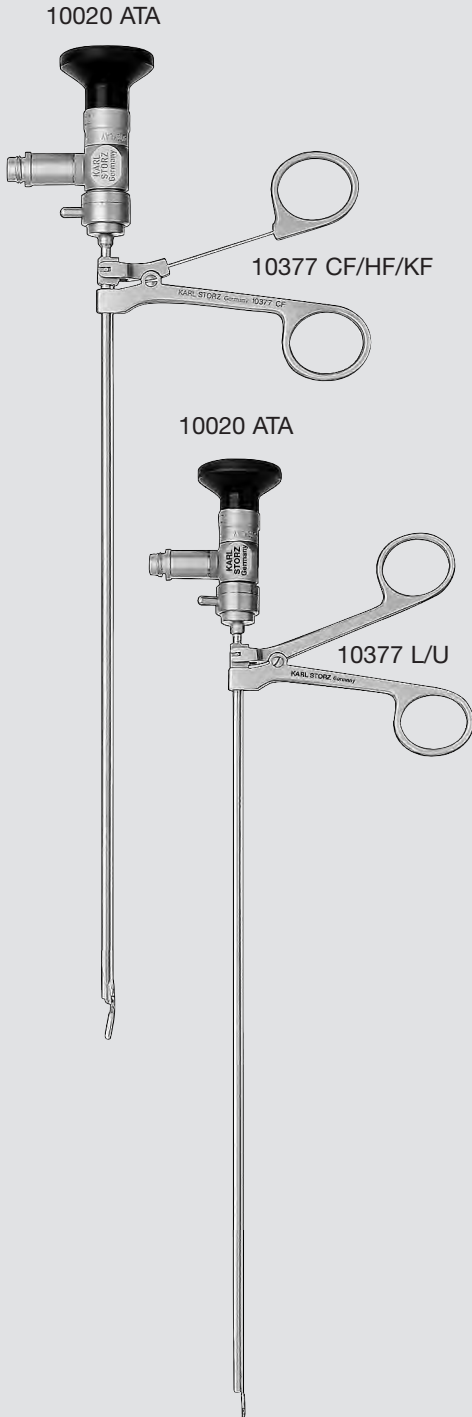
10378 M

Optical Forceps

for Pediatric Esophagoscopes size 3.5, length 18.5 cm

Special Features:

- Newly designed forceps for hard and soft foreign bodies enable removal under precise optical control not previously possible.
- Foreign bodies can be removed quickly and with utmost safety
- Better assessment of the depth of cut when taking biopsies



For use with Esophagoscope 12030 F:

- 10020 ATA **HOPKINS® Straight Forward Telescope 0°**, diameter 2.9 mm, length 30 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green
- 10377 CF **Optical Forceps**, 2x 2 teeth, for grasping coins and flat foreign bodies, with spring-action handle
- 10377 HF **Optical Forceps**, alligator, for grasping hard foreign bodies, with spring-action handle
- 10377 KF **Optical Forceps**, with KILLIAN bean jaws, for grasping peanuts and soft foreign bodies, with spring-action handle
- 10377 L **Optical Forceps**, spoon-shaped, for biopsy
- 10377 U **Optical Forceps**, universal, for biopsy and foreign bodies removal



10377 CF

10377 HF

10377 KF

10377 L

10377 U

Optical Forceps

for Pediatric Esophagoscopes size 3.5 – 3, length 18.5 cm

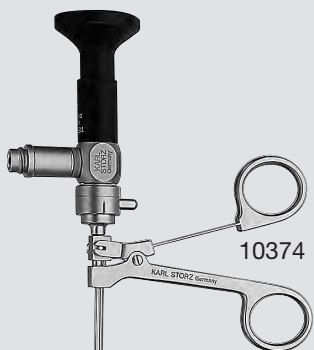
Special Features:

- Small size of forceps allows them to be introduced through pediatric bronchoscopes as of size 3 and a length of 18.5 cm
- Foreign bodies can be removed quickly and with utmost safety
- Better assessment of the depth of cut when taking biopsies

10030 AA

NEW 10030 AA

Miniature Straight Forward Telescope 0°, semirigid, autoclavable, fiber optic light transmission incorporated,
 Direction of view: 0°
 Angle of view: 90°
 Working length: 30.6 cm
 Outer diameter: 1.3 mm
 Color code: green



NEW 10374 HF

Optical Forceps, with alligator jaws, for grasping hard foreign bodies, with spring-action handle

10374 HF

NEW 10374 L

Optical Forceps, spoon-shaped, for biopsy

10030 AA



10374 L



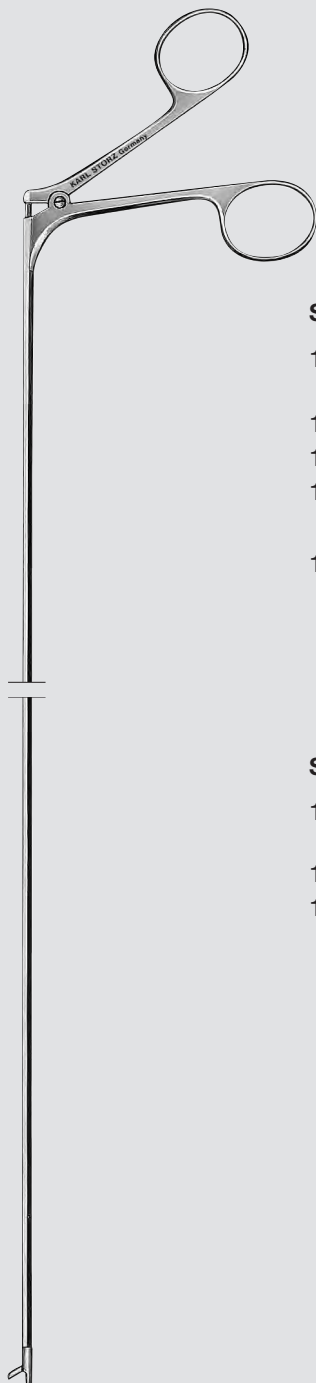
10374 HF



10374 L

Forceps and Scissors for Esophagoscopy

Single action jaws



Sheath diameter 2.5 mm, working length 55 cm

- 10366 HL **Forceps**, alligator, for hard foreign bodies, single action jaws, sheath diameter 2.5 mm, working length 55 cm
- 10366 KL **Same**, for peanuts and soft foreign bodies
- 10366 LL **Same**, spoon-shaped, round, for biopsy
- 10366 UL **Same**, universal, for biopsy and foreign bodies removal
- 10366 SL **Scissors**, straight, for trituration of bone

Sheath diameter 2.5 mm, working length 35 cm

- 10367 H **Forceps**, alligator, for hard foreign bodies, single action jaws, sheath diameter 2.5 mm, working length 35 cm
- 10367 K **Same**, for peanuts and soft foreign bodies
- 10367 L **Same**, spoon-shaped, round, for biopsy



10366 HL
10367 H



10366 KL
10367 K



10366 LL
10367 L



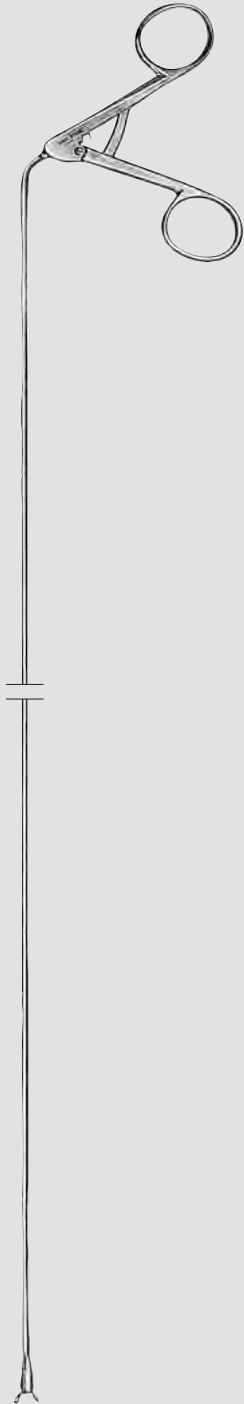
10366 UL



10366 SL

Esophagoscopic Forceps

Double action jaws



Sheath diameter 2.5 mm, working length 55 cm

- 10370 HL **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 2.5 mm, working length 55 cm
- 10370 JL **Same**, pointed, serrated, for coins and flat foreign bodies
- 10370 KL **Same**, for peanuts and soft foreign bodies
- 10370 LL **Same**, spoon-shaped, round, for biopsy



10370 HL



10370 JL



10370 KL



10370 LL

Esophagoscopic Forceps

Double action jaws



Sheath diameter 2 mm, working length 45 cm

- 10371 HL **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 2 mm, working length 45 cm
- 10371 KL **Same**, for peanuts and soft foreign bodies
- 10371 LL **Same**, spoon-shaped, round, for biopsy
- 10371 UL **Same**, universal, for biopsy and foreign bodies removal

Sheath diameter 2 mm, working length 35 cm

- 10371 H **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 2 mm, working length 35 cm
- 10371 J **Same**, pointed, serrated, for coins and flat foreign bodies
- 10371 K **Same**, for peanuts and soft foreign bodies
- 10371 L **Same**, spoon-shaped, round, for biopsy
- 10371 P **Same**, spoon-shaped, oval, fenestrated, for biopsy and foreign bodies removal
- 10371 U **Same**, universal, for biopsy and foreign bodies removal



10371 HL
10371 H



10371 J



10371 KL
10371 K



10371 LL
10371 L



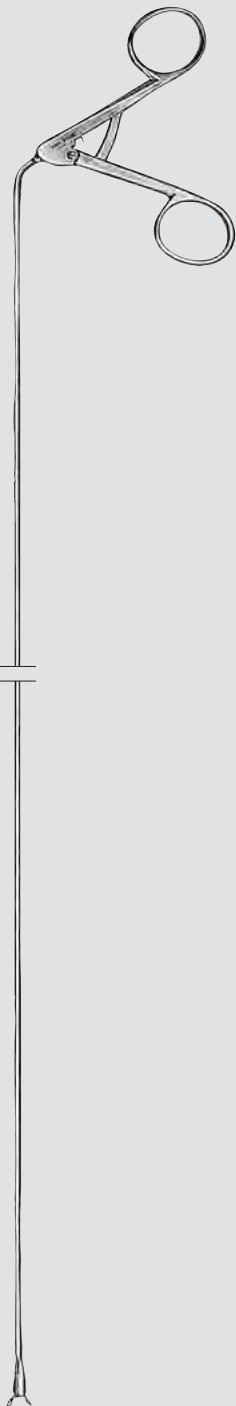
10371 P



10371 UL
10371 U

Esophagoscopic Forceps

Double action jaws



Sheath diameter 1.5 mm, working length 35 cm

- 10372 HL **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 1.5 mm, working length 35 cm
- 10372 JL **Same**, pointed, serrated, for coins and flat foreign bodies
- 10372 KL **Same**, for peanuts and soft foreign bodies
- 10372 LL **Same**, spoon-shaped, round, for biopsy
- 10372 UL **Same**, universal, for biopsy and foreign bodies removal

Sheath diameter 1.5 mm, working length 25 cm

- 10372 H **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 1.5 mm, working length 25 cm
- 10372 K **Same**, for peanuts and soft foreign bodies



10372 HL
10372 H



10372 JL



10372 KL
10372 K



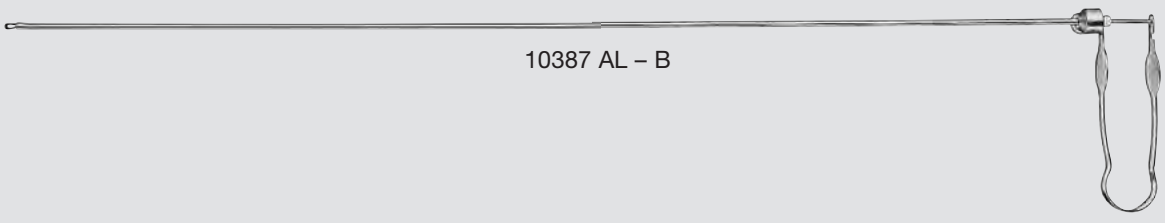
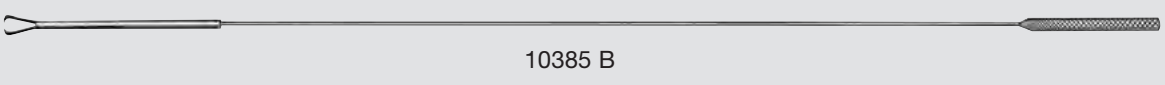
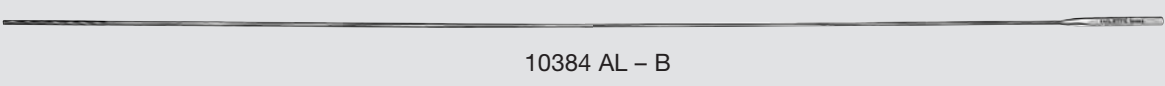
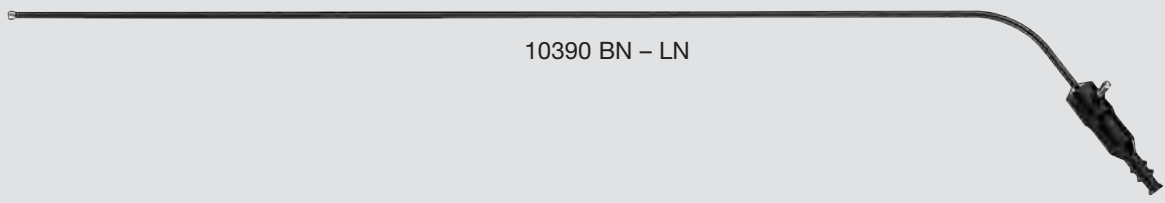
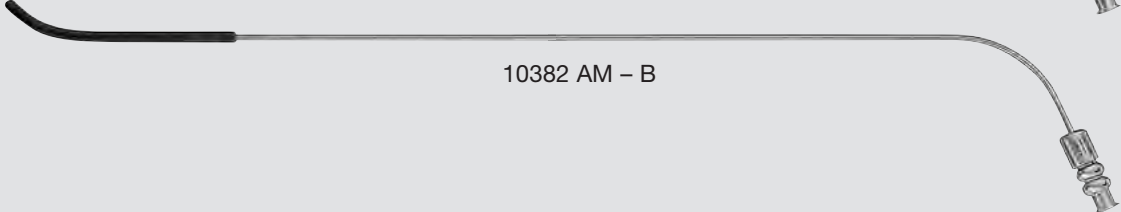
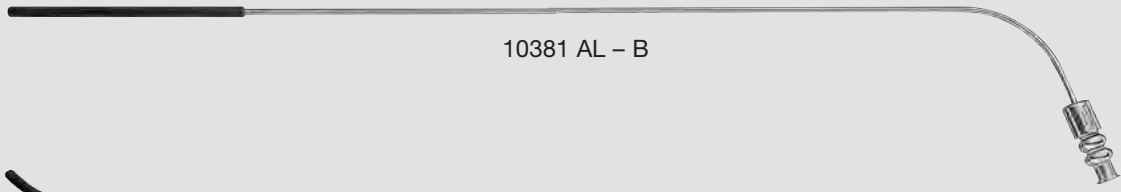
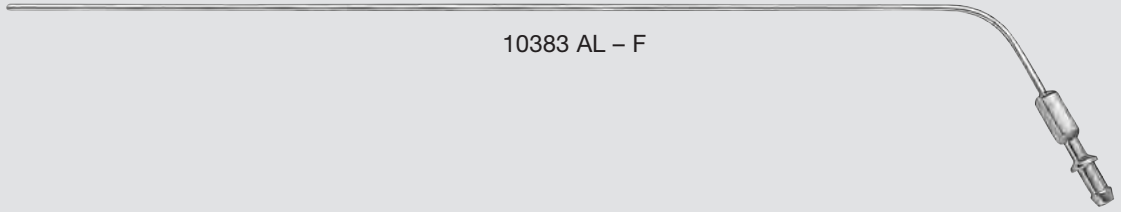
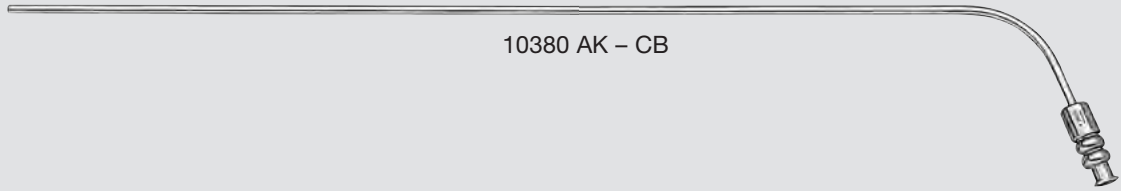
10372 LL



10372 UL

Accessories for Esophagoscopy

Suction Tubes, Cotton Carriers and Sponge Holders



11-981

Accessories for Esophagoscopy

Suction Tubes, Cotton Carriers and Sponge Holders

Working length 60 cm

10380 AX	Suction Tube , diameter 4 mm
10384 AX	Cotton Carrier

Working length 55 cm

10380 AL	Suction Tube , diameter 4 mm
10383 AL	Same , with cut-off hole
10381 AL	Suction Tube , with rubber tip, straight, diameter 4 mm
10390 LN	Coagulating Suction Tube , insulated, with connector pin for unipolar coagulation, diameter 4 mm
10384 AL	Cotton Carrier
10387 AL	Sponge Holder , with spring handle

Working length 45 cm

10380 AM	Suction Tube , diameter 4 mm
10381 AM	Suction Tube , with rubber tip, straight, diameter 4 mm
10381 BL	Same , diameter 2 mm
10382 AM	Same , curved
10383 AM	Suction Tube , with cut-off hole, diameter 3 mm

Working length 35 cm

10380 CB	Suction Tube , diameter 2 mm
10380 B	Same , diameter 3 mm
10380 AK	Same , diameter 4 mm
10383 B	Suction Tube , with cut-off hole, diameter 3 mm
10383 BL	Same , diameter 5.5 mm
10381 B	Suction Tube , straight, with rubber tip, diameter 2 mm
10382 B	Same , curved
10390 BN	Coagulating Suction Tube , insulated, with connector pin for unipolar coagulation, diameter 3 mm
10384 B	Cotton Applicator
10385 B	Sponge Holder
10387 B	Sponge Holder , with spring handle

Working length 30 cm

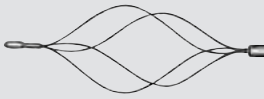
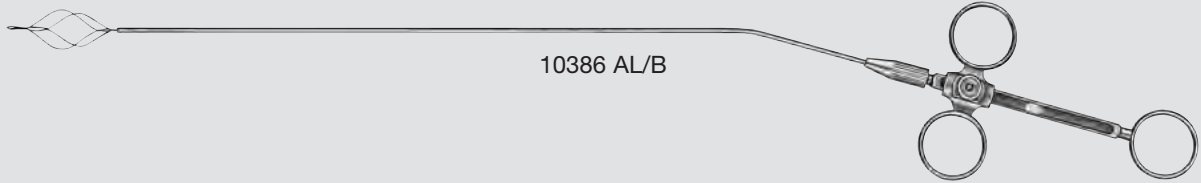
10383 DD	Suction Tube , with cut-off hole, diameter 2 mm
10383 F	Same , diameter 3 mm

Working length 25 cm

10380 C	Suction Tube , diameter 2 mm
---------	-------------------------------------

Accessories for Esophagoscopy

Foreign Body Baskets



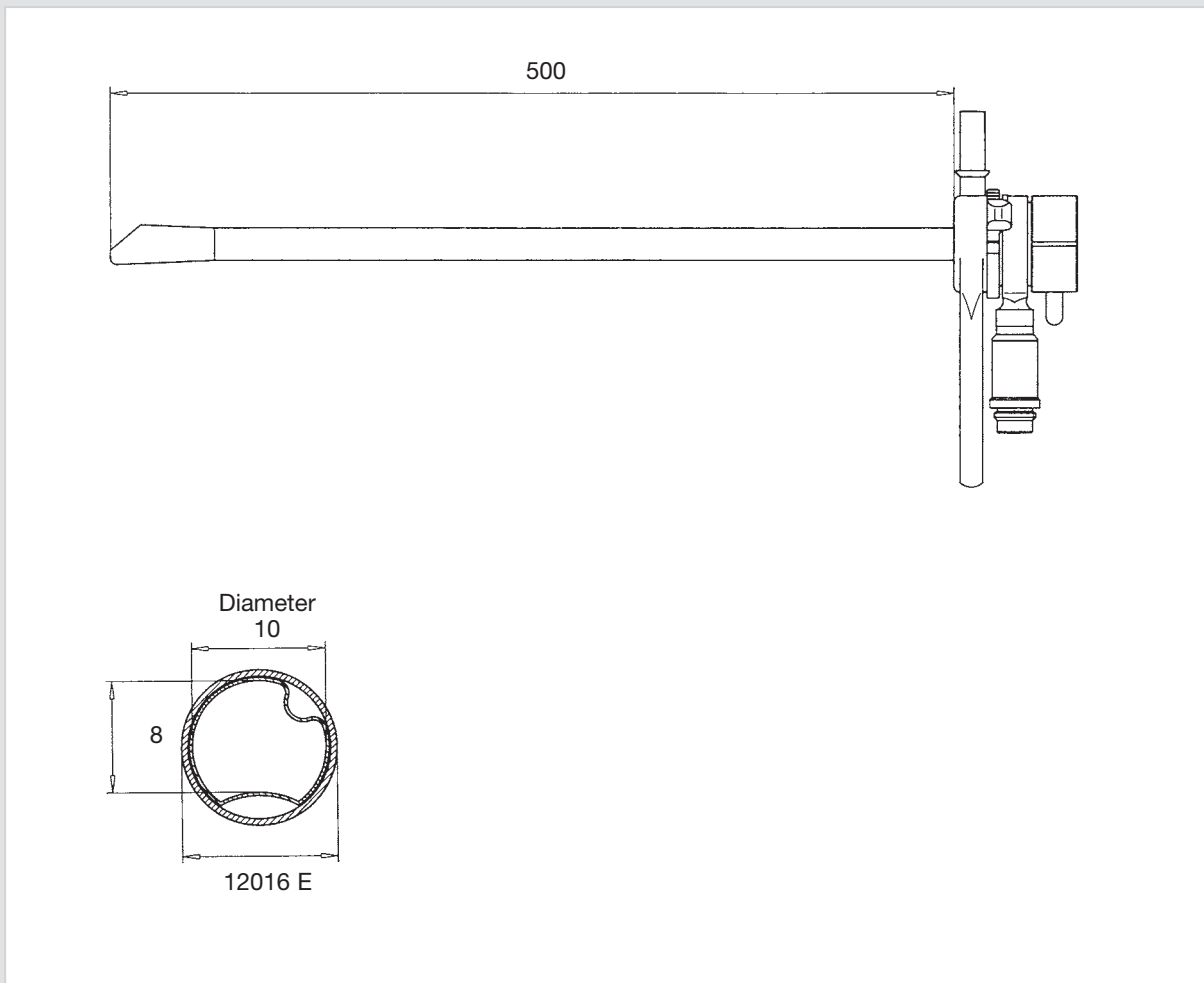
10386 AL

Foreign Body Basket, with ring handle, working length 55 cm

10386 B

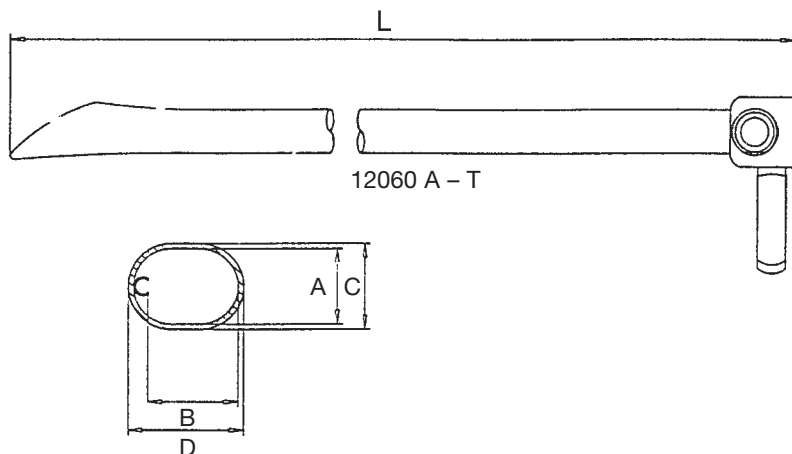
Same, working length 35 cm

Dimensions of Esophagoscope 12016 E



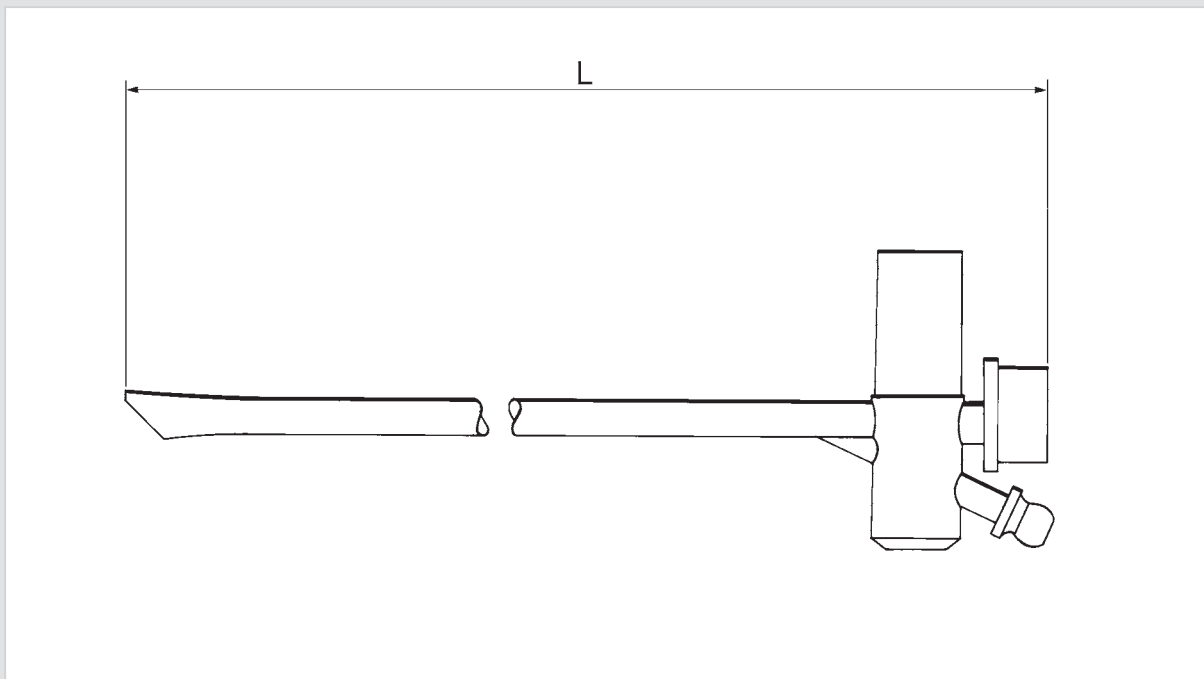
Art. No.	Working Length	Outer Diameter Size	Telescopes	Optical Forceps
12016 E	50 cm	11	12015 AA	12016 K, 12016 L, 12016 M, 12016 N, with 12015 AA

Dimensions of Esophagoscope 12060



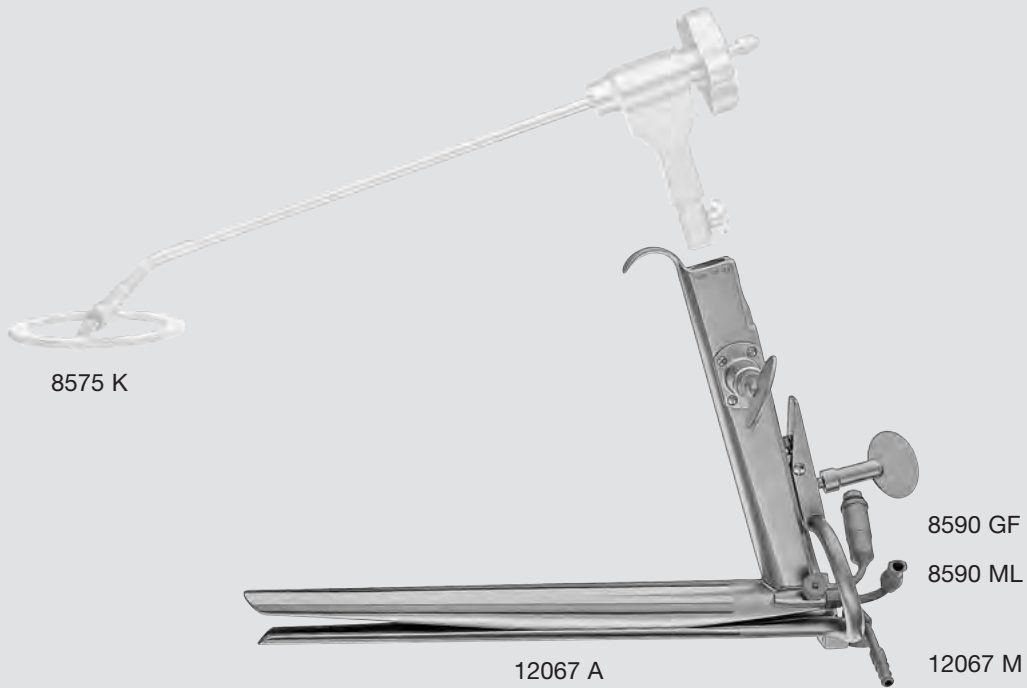
Art. No.	Total Length - L -	Inner Diameter Size - A x B -	Outer Diameter Size - C x D -	Telescopes	Optical Forceps
12060 A	50 cm	11 x 12	12 x 16	12015 AA with 12016 X	12016 K, 12016 L, 12016 M, 12016 N, with 12015 AA
12060 AU	35 cm	11 x 12	12 x 16	12015 AA	
12060 AV	40 cm	11 x 12	12 x 16	12015 AA	
12060 AW	45 cm	11 x 12	12 x 16	12015 AA	
12060 AX	55 cm	11 x 12	12 x 16	12015 AA	-
12060 B	30 cm	11 x 12	12 x 16	10324 AA	10378 CF, 10378 HF, 10378 KF, 10378 KSF, 10378 L, 10378 U, 10378 S, with 10324 AA
12060 C	50 cm	9 x 10	10 x 14	12015 AA with 12016 X	12016 K, 12016 L, 12016 M, 12016 N, with 12015 AA
12060 CV	40 cm	9 x 10	10 x 14	12015 AA	
12060 CX	55 cm	9 x 10	10 x 14	12015 AA	-
12060 D	30 cm	9 x 10	10 x 14	10324 AA	10378 CF, 10378 HF, 10378 KF, 10378 KSF, 10378 L, 10378 U, 10378 S, with 10324 AA
12060 E	50 cm	7 x 8	8 x 12	12015 AA with 12016 X	12016 K, 12016 L, 12016 M, 12016 N, with 12015 AA
12060 EV	40 cm	7 x 8	8 x 12	12015 AA	
12060 F	30 cm	7 x 8	8 x 12	10324 AA	10378 CF, 10378 HF, 10378 KF, 10378 KSF, 10378 L, 10378 U, 10378 S, with 10324 AA
12060 H	30 cm	6 x 6	7 x 9	10324 AA	
12060 R	20 cm	11 x 12	12 x 16	10324 AA	
12060 S	20 cm	9 x 10	10 x 14	10324 AA	
12060 T	20 cm	7 x 8	8 x 12	10324 AA	

Dimensions of Esophagoscope 12030

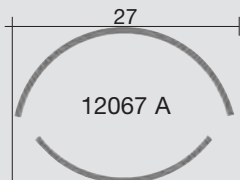


Art. No.	Size	Total Length - L -	Telescopes	Optical Forceps
12030 A	6	30 cm	10324 AA	10378 CF, 10378 HF, 10378 KF, 10378 KSF, 10378 L, 10378 U, 10378 M, 10378 S, with 10324 AA
12030 B	5	30 cm	10324 AA	
12030 C	4	30 cm	10324 AA	
12030 F	3.5	18.5 cm	10020 ATA, 10018 AA	10377 CF, 10377 HF, 10377 KF, 10377 L, 10377 U, with 10020 ATA
12030 G	3	18.5 cm	10018 AA	10374 HF, 10374 L with 10030 AA

WEERDA Distending Diverticuloscope for CO₂ LASER Technique

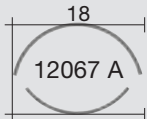


Outer dimensions
in mm:
proximal:



Spread: max. 40
min. 29

distal:



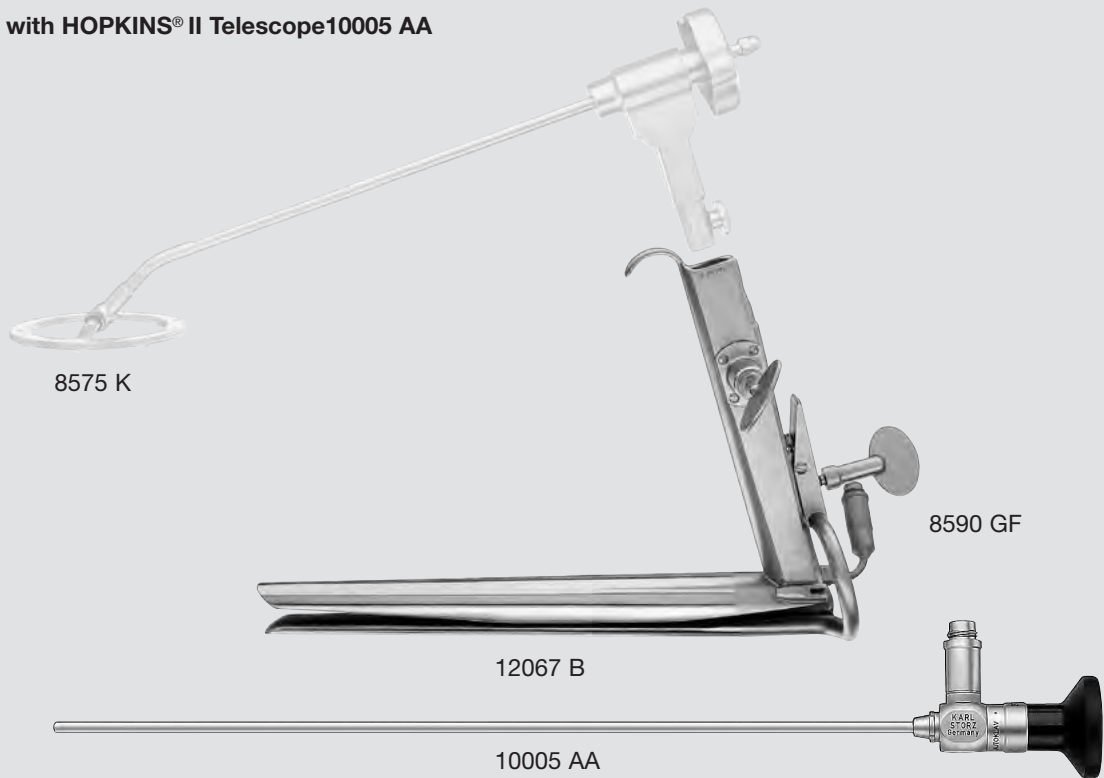
Spread: max. 65
min. 7

- | | |
|---------|---|
| 12067 A | WEERDA Distending Diverticuloscope , length 24 cm, with adaption for Suction Tube 12067 M
Proximal size open: max. 40 x 27 mm
min. 29 x 27 mm
Distal size open: max. 65 x 18 mm
min. 7 x 18 mm |
| 8590 GF | Fiber Optic Light Carrier , for distal illumination, working length 14 cm |
| 8590 ML | Suction Tube , to remove vapor, for LASER treatment, outer diameter 3 mm |
| 12067 M | Suction Tube , to remove vapor, flat, size 6 x 3 mm |
| 8575 K | Laryngoscope Holder and Chest Support , GÖTTINGEN model, with adjustment wheel
including:
Support Rod , movable, with metal ring, diameter 9 cm, length 34 cm |
| | or |
| 8575 KC | BENJAMIN-PARSONS Laryngoscope Holder and Chest Support , GÖTTINGEN model, with adjustment wheel
including:
BENJAMIN-PARSONS Support Rod , movable, with metal ring, diameter 12 cm and 2 lateral set screws, length 34 cm |

Components see chapter 13, SPARE PARTS AND ACCESSORIES

WEERDA Distending Diverticuloscope for Stapling Technique

For use with HOPKINS® II Telescope 10005 AA

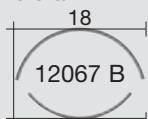


Outer dimensions
in mm:
proximal:



Spread: max. 40
min. 29

distal:



Spread: max. 65
min. 7

12067 B

WEERDA Distending Diverticuloscope, length 24 cm, without adaptor for Suction Tube 12067 M

Proximal size open: max. 40 x 27 mm
min. 29 x 27 mm

Distal size open: max. 65 x 18 mm
min. 7 x 18 mm

10005 AA

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

8590 GF

Fiber Optic Light Carrier, for distal illumination, working length 14 cm

8575 K

Laryngoscope Holder and Chest Support, GÖTTINGEN model, with adjustment wheel including:

Support Rod, movable, with metal ring, diameter 9 cm, length 34 cm

or

8575 KC

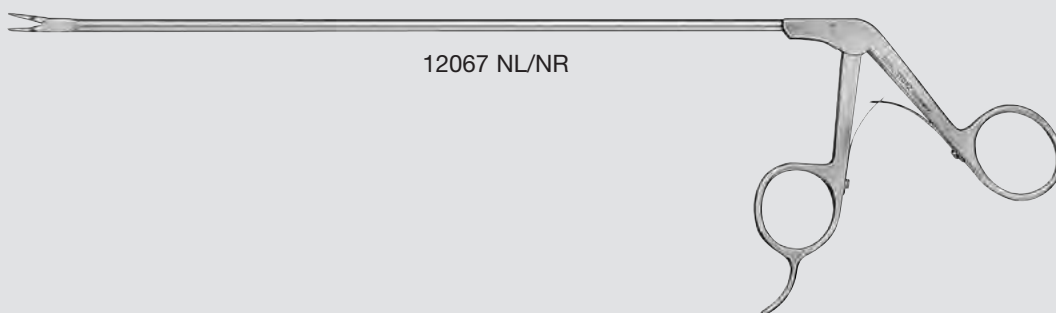
BENJAMIN-PARSONS Laryngoscope Holder and Chest Support, GÖTTINGEN model, with adjustment wheel including:

BENJAMIN-PARSONS Support Rod, movable, with metal ring, diameter 12 cm and 2 lateral set screws, length 34 cm

Components see chapter 13, SPARE PARTS AND ACCESSORIES

Instruments for Diverticulosopes

Clip Forceps



12067 NL/NR



12067 NL

Clip Forceps, jaws curved to left, working length 30 cm, for use with Clip 8665 T



12067 NR

Same, jaws curved to right



8665 T

Clip, titanium LT 200, medium, 5 mm, sterile, package of 36 cartridges with 6 clips each, for use with Forceps 8665 L/R, 12067 NL/NR

BRONCHOSCOPY TRACHEOSCOPY

FLEXIBLE BRONCHOSCOPES

40-57

RIGID BRONCHOSCOPES
FOR ADULTS

58-70

RIGID BRONCHOSCOPES
FOR CHILDREN

71-89

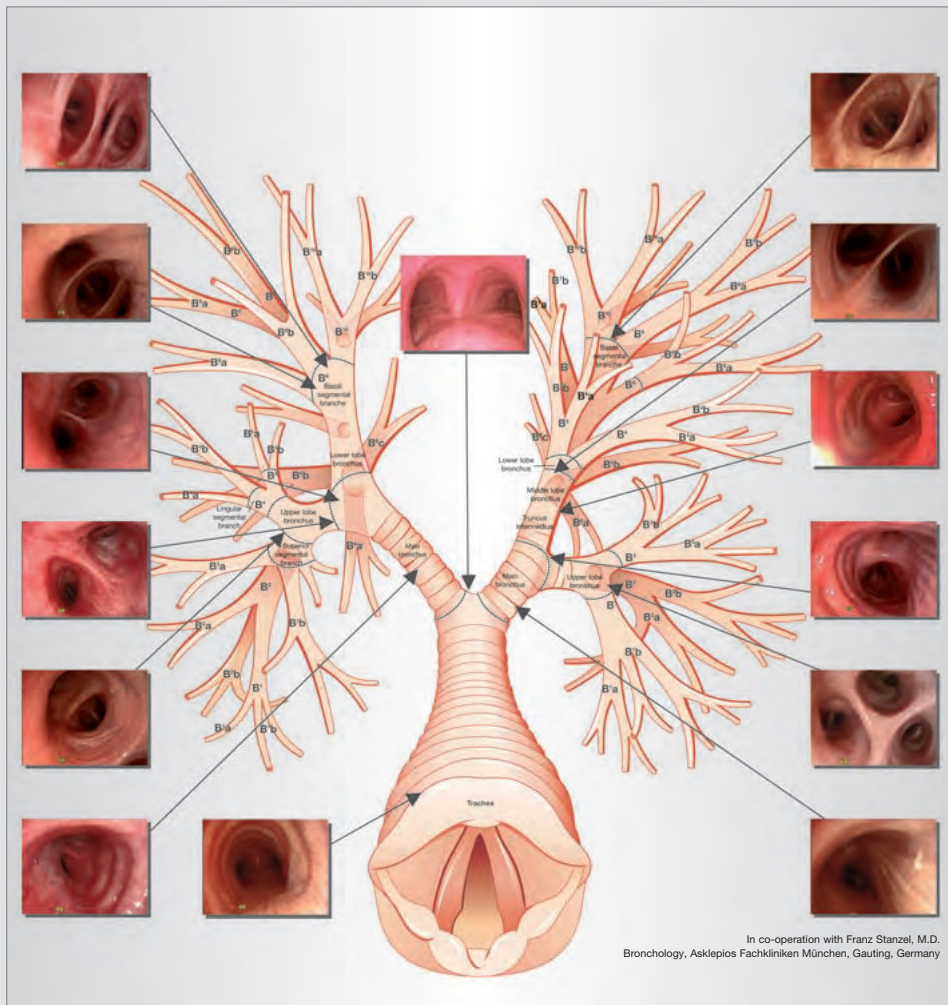


Indications for flexible bronchoscopy:

- For routine examinations
- Treatment of acute respiratory problems in the intensive care unit
- Suction under visual control
- Use of catheters and brushes for cytology
- For obtaining secretions for bacteriological tests
- Localization of bleeding sites in the case of hemoptysis
- Functional examination when respiratory tract is unstable
- Therapeutic suction and irrigation
- Transbronchial lung biopsy
- Selective bronchiography
- Autofluorescence and photodynamic diagnosis

Indications for rigid bronchoscopy:

- Hemoptysis
- Tracheal stenosis
- Foreign body removal
- All bronchological interventions such as bougienage, removal of threads, hemostasis by means of electrocautery or laser
- Laser treatment
- Removal of tumors
- Confirmation of cell type in the case of previous, non-diagnostic fiber-optic bronchoscopy
- Removal of excess fibrin, mucous plugs
- Bronchography
- Autofluorescence and photodynamic diagnosis



In co-operation with Franz Stanzel, M.D.
Bronchology, Asklepios Fachkliniken München, Gauting, Germany

Video Bronchoscope for Autofluorescence ^{NEW}

for use with TELECAM SL II FI SCB 20 2130 11U1

STORZ
KARL STORZ — ENDOSKOPE

KARL STORZ is expanding its line of flexible bronchoscopes with the new video bronchoscope with a distal chip for autofluorescence diagnosis. Users who no longer wish to miss out on the high image quality of videoscopes can now take advantage of the quality products of KARL STORZ in this field, too.

Whereas in the past comparatively heavy fiber optic endoscopes with a separate camera head were used in video endoscopy, this system delivers excellent color

fidelity in both the white light and autofluorescence modes. An integrated button on the handle of the video bronchoscope allows rapid switching between the white light and the blue light modes.

In combination with the TELECAM SL II FI SCB control unit and the D-LIGHT C/AF, the new video bronchoscope for autofluorescence diagnosis offers outstanding image sharpness as well as excellent brightness and representation of detail.



3-11

Further information and accessories for the video bronchoscope for autofluorescence
see chapter 4, AUTOFLUORESCENCE

Video Bronchoscope for Autofluorescence ^{NEW}

for use with TELECAM SL II FI SCB 20213011U1

STORZ
KARL STORZ — ENDOSKOPE



11900 AP

11900 AP **Video Bronchoscope for Autofluorescence and White Light Diagnosis, color system PAL, including mounted Suction Unit 11900 AE, for use with TELECAM SL II FI SCB 20213011U1**

Working channel: 2.3 mm
Direction of view: 0°
Angle of view: 120°
Deflection: up 180°, down 100°
Depth of view: 3 – 50 mm
Working length: 61 cm
Outer diameter: 6.2 mm

11900 AN **Same, NTSC**

Following accessories included:

27677 KV **Case**
20213070 **Video Connecting Cable**
13272 **Mouth Piece**
11001 KL **Biopsy Forceps**, spoon-shaped, round, flexible, double action jaws, diameter 1.8 mm, working length 120 cm
13242 LX **Leakage Tester**, with blower and manometer
11025 XE **Pressure Compensation Cap**, for ventilation during gas sterilization
27651 B **Cleaning Brush**, flexible, length 100 cm
13991 SS **Irrigation Tube**, for working channel
27656 B **Instrument Oil**, 50 ml
13990 SFN **Protective Film**

Optional accessories see pages 52-53

Further information and accessories for the video bronchoscope for autofluorescence
see chapter 4, AUTOFLUORESCENCE

Video Bronchoscope

for use with TELECAM SL II SCB 20 2130 11
and TELE PACK 20 0430 12-020/20 0431 12-020



11900 BP

11900 BP **Video Bronchoscope, PAL**, including mounted Suction Unit 11900 AE,
for use with TELECAM SL II SCB 20 2130 11 and TELE PACK
20 0430 12-020

Working channel: 2.3 mm
Direction of view: 0°
Angle of view: 120°
Deflection: up 180°, down 100°
Depth of view: 3 – 50 mm
Working length: 61 cm
Outer diameter: 6.2 mm

11900 BN **Same, NTSC**, for use with TELECAM SL II SCB 20 2130 11
and TELE PACK 20 0431 12-020

Following accessories included:

27677 KV **Case**
20 2130 70 **Video Connecting Cable**
13272 **Mouth Piece**
11001 KL **Biopsy Forceps**, spoon-shaped, round, flexible, double
action jaws, diameter 1.8 mm, working length 120 cm
13242 LX **Leakage Tester**, with blower and manometer
11025 XE **Pressure Compensation Cap**, for ventilation during gas
sterilization
27651 B **Cleaning Brush**, flexible, length 100 cm
13991 SS **Irrigation Tube**, for working channel
27656 B **Instrument Oil**, 50 ml
13990 SFN **Protective Film**

Optional accessories see pages 52-53

Further camera systems and light sources suitable for use with video bronchoscopes
see catalog TELEPRESENCE

Video Bronchoscope

for use with TELECAM SL II SCB 20 2130 11
and TELE PACK 20 0430 12-020/20 0431 12-020



- 11900 AE **Suction Unit**, set for Video Bronchoscopes 11900 AP/AN
and 11900 BP/BN, **autoclavable**
including:
Suction Valve
Valve Adaptor
Connecting Cable, package of 10
Suction Cylinder
Rubber Leaflet Valve, package of 10

Please note:

Further instruments suitable for use with Video Bronchoscopes 11900 AP/AN and 11900 BP/BN
with diameter ≤ 1.8 mm, see pages 50-55

TELECAM camera systems see catalog TELEPRESENCE

Components see chapter 13, SPARE PARTS AND ACCESSORIES

TELE PACK – The Mobile Compact Solution

Documentation Terminal for Video Bronchoscope

Because of the large number and size of units needed, such as camera, light source, printer and monitor, doctors frequently encounter space problems. The **TELE PACK** documentation terminal by KARL STORZ offers the perfect solution for these problems.

TELE PACK provides a multifunctional and compact solution that has been designed for all fields of specialty – use it as an endoscopic video unit in the ER, as a compact system at the doctor's office or as a secondary system in the OR. KARL STORZ **TELE PACK** comprises the following functional units:

- Camera Control Unit
- Cold Light Source: 24 watt HiLux high performance light source
- Storage of image and audio data on a PCMCIA memory card
- Integrated LCD color monitor
- Integrated keyboard

Additional Features:

- Still image
- World power supply 100 – 240 VAC, 50/60 Hz
- Connector for external monitor and additional peripheral units, e.g. video recorder, video printer etc.



TELE PACK – The Mobile Compact Solution

Documentation Terminal for Video Bronchoscope



20 0430 12-020 PAL KARL STORZ TELE PACK

including:

CF Memory Card, 128 MB, incl. PCMCIA adaptor

Mains Cord

BNC/BNC Video Cable, length 180 cm

S-Video (Y/C) Connecting Cable, length 180 cm

Adaptor, for connecting video bronchoscopes to TELE PACK

200431 12-020 NTSC KARL STORZ TELE PACK

including:

CF Memory Card, 128 MB, incl. PCMCIA adaptor

Mains Cord

BNC/BNC Video Cable, length 180 cm

S-Video (Y/C) Connecting Cable, length 180 cm

Adaptor, for connecting the video bronchoscope to TELE PACK

Specifications:

Power input	72 W
Power supply	100-240 VAC, 50/60 Hz/12VDC
Dimensions w x h x d	305 x 145 x 285 mm (folded)
Weight	5.6 kg
Video output	- Composite signal at BNC socket - S-Video signal to 4-pin Mini-DIN socket (2x)
Video input	Composite signal at BNC socket
Input	Keyboard input for character generator and control functions at 6-pin Mini-DIN socket
Control output	2x 3.5 mm stereo jack plug (ACC 1, ACC 2)

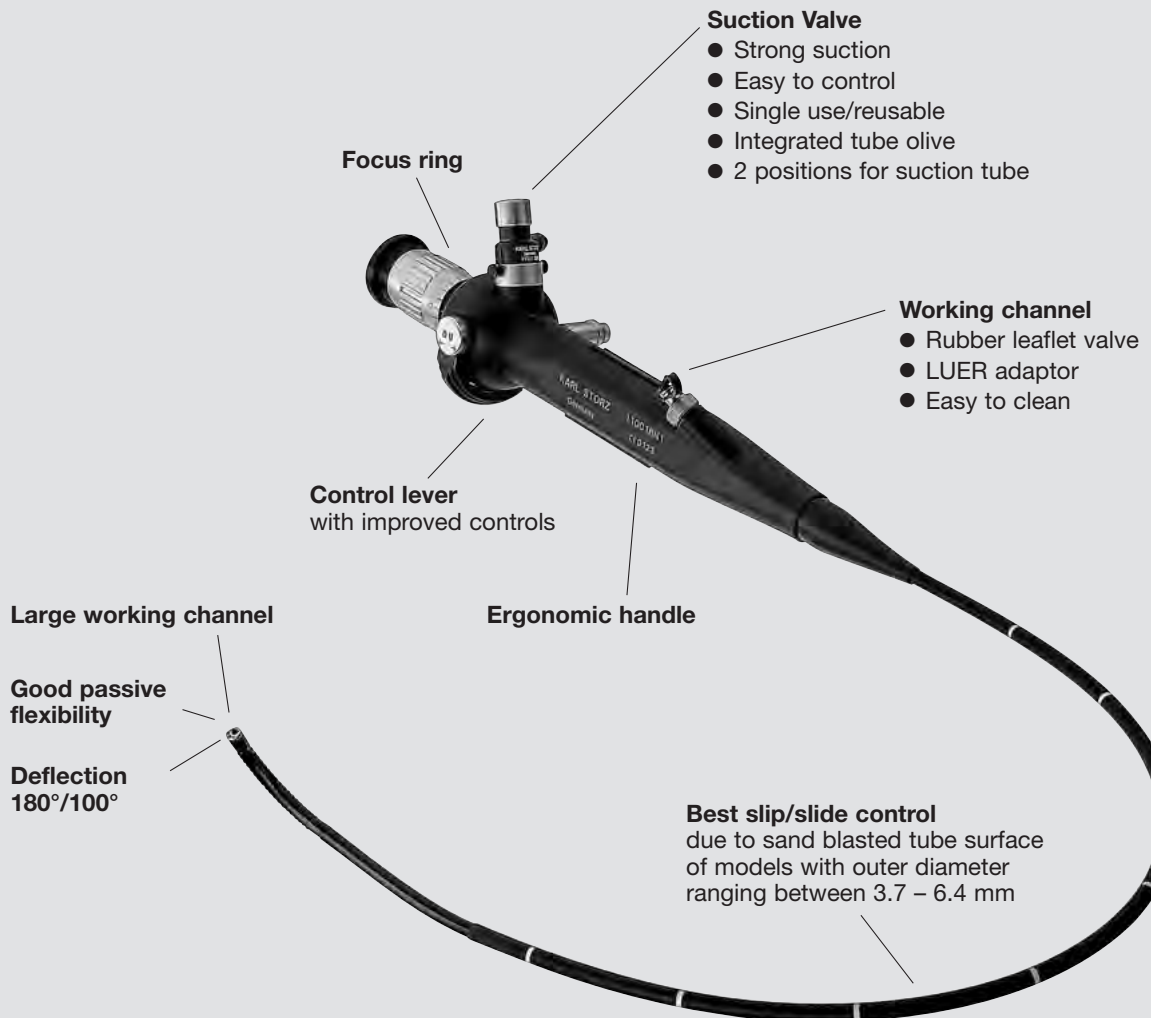
Illumination	- Lamp type: light arc lamp (HiLux) - Color temperature: 5500 K - Power output: 24 W
Storage format	- Number of pixels in BMP (PAL): 768 x 600 - Number of pixels (NTSC): 640 x 508
TFT color display	12" monitor
LCD display	16-bit color depth
LCD display resolution	800 x 600
Certified to:	IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601 and CE according to MDD, protection class 1/BF

Components see chapter 13, SPARE PARTS AND ACCESSORIES


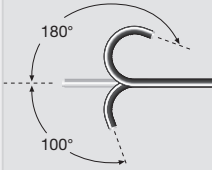

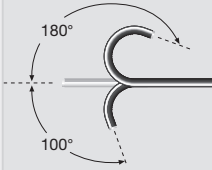

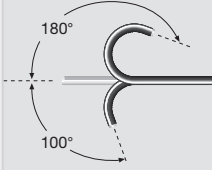

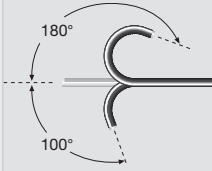

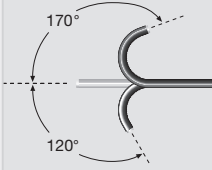

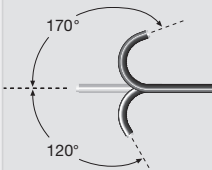
Broncho-Fiberscopes

Special Features:

- Large viewing angle and movable distal tip facilitates orientation
- Working channel for the use of operating instruments
- Functional: simultaneous suction and application of medication via removable suction valve
- Waterproof, fully immersible for cleaning and disinfection
- Simple leakage test takes only a few minutes and requires no additional accessories
- Gas-sterilizable with EtO and FO gas, Steris® and Sterrad®
- Recommended for use in conjunction with KARL STORZ ENDOVISION® TELECAM SL II PDD SCB System
- Exceptional optical quality of both lens and fiber optic image transmission bundle
- Resistant construction and robust mechanical components ensure long life of the instrument.



Broncho-Fiberscopes

Broncho-Fiberscopes	Art. No.		Deflection up/down	Direction of view	Angle of view
6.4 mm x 54 cm Broncho-Fiberscope	11004 BC			0°	110°
5.6 mm x 54 cm Broncho-Fiberscope	11009 BC			0°	110°
5 mm x 54 cm Broncho-Fiberscope for Adults	11001 BN			0°	110°
3.7 mm x 54 cm Broncho-Fiberscope for Children	11002 BD			0°	90°
2.8 mm x 54 cm Broncho-Fiberscope	11003 BC			0°	90°
2.8 mm x 70 cm Broncho-Fiberscope, for examining segmental bronchi	11005 BC			0°	90°

11-981








Broncho-Fiberscopes for Autofluorescence see chapter 4, AUTOFLUORESCENCE
Accessories included in delivery and optional accessories see pages 50-55

	Working length	Total length	Working channel inner diameter	Distal tip outer diameter	Accessories (included in delivery)						
					Case	Pressure Comp. Cap	Leakage Tester	Mouth Piece	Cleaning Brush	Biopsy Forceps	Grasping Forceps
	54 cm	82 cm	2.8 mm	6.4 mm	27677 BB	11025 E	13242 XL	13272	27651 C	11001 KL	11002 KS
	54 cm	82 cm	2.6 mm	5.5 mm	27677 BB	11025 E	13242 XL	13272	27651 C	11001 KL	11002 KS
	54 cm	82 cm	2.3 mm	5.2 mm	27677 BB	11025 E	13242 XL	13272	27651 B	11001 KL	11002 KS
	54 cm	82 cm	1.5 mm	3.6 mm	27677 BB	11025 E	13242 XL	13272	27651 AL	11003 MA	11003 MB
	54 cm	82 cm	1.2 mm	2.5 mm	27677 BB	11025 E	13242 XL	13272	27651 AK	11003 MA	11003 MB
	70 cm	98 cm	1.2 mm	2.5 mm	27677 BB	11025 E	13242 XL	13272	27651 AL	11003 MA	11003 MB

Accessories


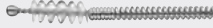



for Broncho-Fiberscopes and Video Bronchoscopes

for use with

Accessories included			Dia- meter	Length	11004 BC	11009 BC	11001 BN	11002 BD	11003 BC	11005 BC	11900 AP/AN	11900 BP/BN
	11003 MB	Grasping Forceps , flexible, double action jaws	1 mm	110 cm	-	-	-	●	●	●	-	-
	11002 KS	Grasping Forceps , alligator, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11003 MA	Biopsy Forceps , oval, flexible, double action jaws	1 mm	110 cm	-	-	-	●	●	●	-	-
	11001 KL	Biopsy Forceps , spoon-shaped, round, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11025 E	Pressure Compensation Cap , for ventilation during gas sterilization			●	●	●	●	●	●	-	-
	11025 XE	Same			-	-	-	-	-	-	●	●
	13242 XL	Leakage Tester , with bulb and manometer			●	●	●	●	●	●	-	-
	13242 LX	Same			-	-	-	-	-	-	●	●
	13272	Mouth Piece			●	●	●	●	●	●	●	●

Accessories

for Broncho-Fiberscopes and Video Bronchoscopes

Accessories included			for use with							
			11004 BC	11009 BC	11001 BN	11002 BD	11003 BC	11005 BC	11900 AP/AN	11900 BP/BN
	27651 C	Cleaning Brush , round, flexible, outer diameter 4 mm, for working channel diameter 2.4 – 3.6 mm, length 230 cm	●	●	-	-	-	-	-	-
	27651 B	Cleaning Brush , round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm	-	-	●	-	-	-	●	●
	27651 AL	Cleaning Brush , round, flexible, outer diameter 2 mm, for working channel diameter 1.2 – 1.8 mm, length 150 cm	-	-	-	●	-	●	-	-
	27651 AK	Cleaning Brush , round, flexible, outer diameter 2 mm, for working channel diameter 1.2 – 1.8 mm, length 75 cm	-	-	-	-	●	-	-	-
	20213070	Video Connecting Cable	-	-	-	-	-	-	●	●
	13991 SS	Irrigation Tube	-	-	-	-	-	-	●	●
	27656 B	Instrument Oil , 50 ml, silicone-free	-	-	-	-	-	-	●	●
	13990 SFN	Protective Film	●	●	●	●	●	●	●	●

5-061




Optional Accessories

for Broncho-Fiberscopes and Video Bronchoscopes

			for use with									
			Dia- meter	Length	11004 BC	11009 BC	11001 BN	11002 BD	11003 BC	11005 BC	11900 AP/AN	11900 BP/BN
	11002 KT	Grasping Forceps , alligator, round, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11002 KU	Grasping Forceps , spoon-shaped, serrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11002 KX	Grasping Forceps , alligator, serrated, 3x 4 teeth, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11002 KZ	Grasping Forceps , serrated, 1x 2 teeth, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11001 KM	Biopsy Forceps , spoon-shaped, round, with spike, fenestrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11001 KN	Biopsy Forceps , spoon-shaped, oval, fenestrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	11001 KP	Biopsy Forceps , spoon-shaped, oval, with spike, fenestrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	-	-	-	●	●
	13250 KL	Biopsy Forceps , spoon-shaped, round, fenestrated, flexible, double action jaws	2.3 mm	120 cm	●	●	-	-	-	-	-	-
	13252 KS	Grasping Forceps , alligator, flexible, double action jaws	2.3 mm	120 cm	●	●	-	-	-	-	-	-

Optional Accessories

for Broncho-Fiberscopes and Video Bronchoscopes

			for use with							
			11004 BC	11009 BC	11001 BN	11002 BD	11003 BC	11005 BC	11900 AP/AN	11900 BP/BN
	10770 B	Button Electrode , flexible, with connector pin for unipolar coagulation, diameter 1.7 mm, length 80 cm	●	●	●	-	-	-	●	●
	11007 BS	Brush , for cytology, outer diameter 1.7 mm, working length 80 cm, with Handle 13266 H and Outer Tube 11007 S	●	●	●	-	-	-	●	●
	11007 E	Brushes , package of 10	●	●	●	-	-	-	●	●
	11007 S	Outer Tube , outer diameter 1.7 mm, working length 80 cm, for Brush 11007 BS, package of 10	●	●	●	-	-	-	●	●
	13266 H	Handle , for Brush 11007 BS	●	●	●	-	-	-	●	●
	11008	Suction Catheter , diameter 1.7 mm, length 100 cm, with Adaptor 10479 F	●	●	●	-	-	-	●	●

Optional Accessories

for Broncho-Fiberscopes

for use with

			11004 BC	11009 BC	11001 BN	11002 BD	11003 BC	11005 BC
	11008 E	Catheter , 5 Fr., without adaptor	•	•	•	-	-	-
	10479 F	Adaptor , for Suction Catheter 10468 D, 10478 D and 11008 E	•	•	•	-	-	-
	11301 CA	Leaflet Valve , for single use, package of 20	•	•	•	•	•	•
	11301 CB	Suction Valve , reusable	•	•	•	•	•	•
	11301 CD	Irrigation Adaptor , for suction valve attachment, for fiberscopes	•	•	•	•	•	•
	11301 CE	Suction Valve , for single use, package of 20	•	•	•	•	•	•
	11301 BM	Adaptor , for leakage test, for Belimed washer-disinfectors	•	•	•	•	•	•

Optional Accessories

for Broncho-Fiberscopes

		for use with					
		11004 BC	11009 BC	11001 BN	11002 BD	11003 BC	11005 BC
	11301 FF2 Adaptor for MIELE Cleaning Machines, with security valve, for automatic leakage test of flexible KARL STORZ endoscopes	•	•	•	•	•	•
	11301 GG2 Adaptor, for cleaning and disinfecting the irrigation and working channels of flexible endoscopes, for MIELE-ETD washer-disinfectors	•	•	•	•	•	•
	11301 HH Adaptor for BHT Cleaning Machines, for automatic leakage test of flexible KARL STORZ endoscopes	•	•	•	•	•	•
	11301 KK2 Adaptor, for working channel, for MIELE washer-disinfectors (ETD 03), 11301 FF2 and 11301 GG2 has to be added to order	•	•	•	•	•	•
	11301 D4 LED Battery Light Source for Endoscopes, with coarse thread, LED technology, can be connected to all KARL STORZ endoscopes, brightness > 50,000 lux, burning time > 120 min, weight approx. 150 g ready for use, suitable for surface disinfection, with 2 Photo Batteries 121306 P	•	•	•	•	•	•
	121306 P Photo Battery, Lithium 3 V, CR 123 A						

Special features:

- High suction performance of 30 l/min
- Particularly low noise and vibration
- Fast vacuum build-up to 85 kPa
- Maintenance-free cylinder/piston system
- Very easy to use
- Hydrophobic bacterial filter protects pump
- Problem-free cleaning
- For use in the doctor's office or hospital




- 25 3200 01 UNIMAT® 30, Suction Pump Set,**
power supply 230 VAC, 50/60 Hz
including:
Bacterial Filter
Secretion Bottle, 2 l
Bottle Cap, with grip
Connecting Tube, short
Patient Tube
Overflow Case
Mains Cord, length 300 cm
VACUsafe Promotion Pack Suction*
- 25 3200 01C Same,**
power supply 115 VAC, 50/60 Hz

Specifications:

Suction performance	30 l/min
Vacuum	up to 85kPa, 640 mmHg
Power supply	115/230 VAC, 50/60 Hz
Dimensions w x h x d	245 x 345 x 282 mm
Weight	7 kg
Certified to	IEC 601-1, CE label acc. to MDD

Rated power/ power consumption	1A, 100 Watt (115 VAC) 0.45 A, 100 Watt (230 VAC)
Protection class	protection class I, BF, IPX 1
Inspections & certifications	MDD 93/42 EWG, EN 60601-1, EN 60601-1-2, EN 10079-1, ISO 9001, UL 2601-1

*  mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany







Optional accessories for UNIMAT® 30 see page 57

Components see chapter 13, SPARE PARTS AND ACCESSORIES




Optional Accessories

for UNIMAT® 30

Accessories

	for Bronchoscopy:	
	10432 N	Aspirator , for collecting secretions, with cut-off hole, with Spare Glass 10432 E, can be connected to suction tubes or suction catheter
	10432 T	Same , without cut-off hole
	25 3200 80	Bacterial Filter
	25 3200 81	Secretion Bottle , 2 l
	25 3200 82	Bottle Cap , with grip
	25 3200 85	Overflow Case
	25 3200 83	Connecting Tube , short
	25 3200 84	Patient Tube
	400 A	Mains Cord , length 300 cm
	29005 PH	Pump Holder , for attaching suction pump UNIMAT® 30 25 3200 01 to equipment cart, for mounting to 2 Standard Equipment Rails 29003 GS

Single-use accessories from mtp*

	VACUsafe Canister , 1.5 l, 2 l and 3 l	
	VACUsafe Suction Bag , 1.5 l, 2 l, 3 l, with filter for single use, color code: green	
	Gelling Granulate , in 20 g bag	
	VACUsafe Suction Tube , with red and blue multiadaptor for single use, unsterile, length 170 cm	
	VACUsafe Connecting Tube , with green multiadaptors, unsterile, length 30 cm	
	VACUsafe Canister Holder , for 25 x 10 mm and 34 x 8 mm rails	

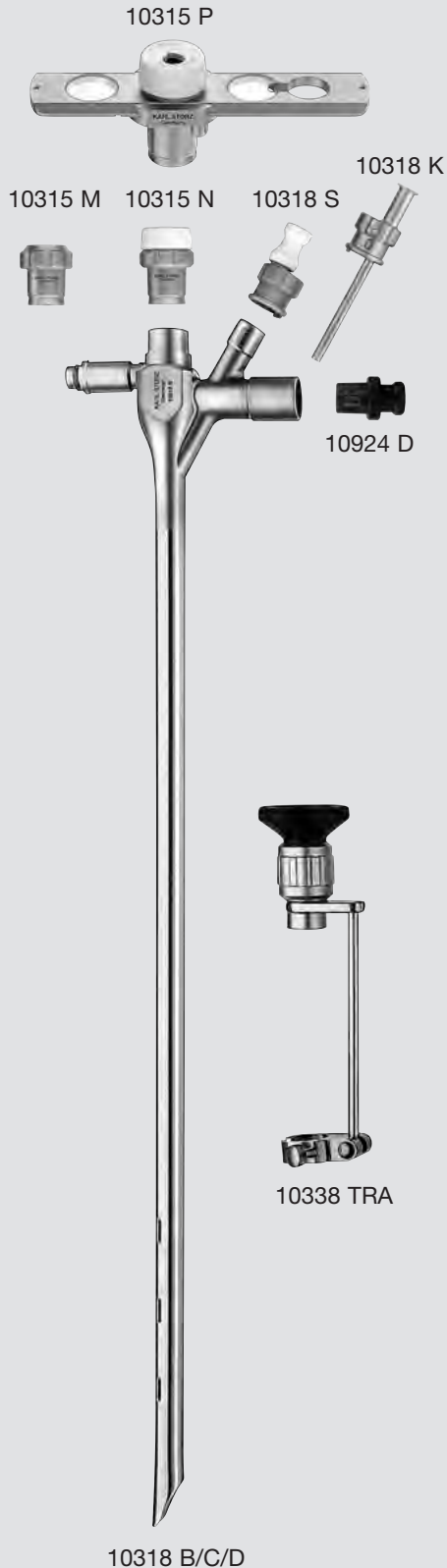
*



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Universal Bronchoscopes for Adults

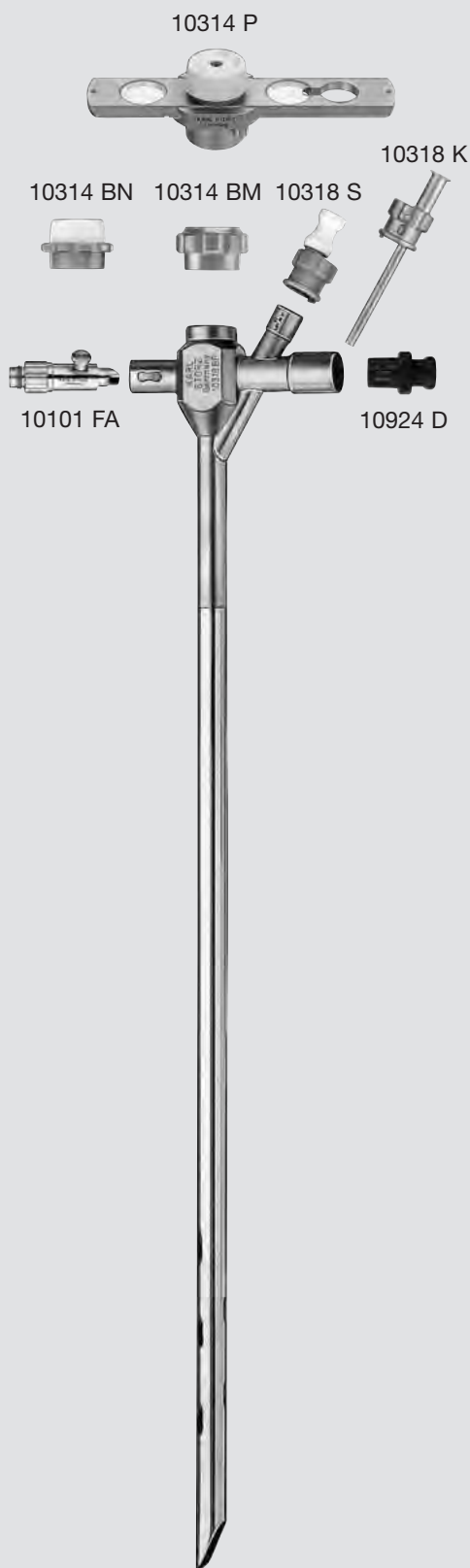
Standard model with fiber optic light carrier for distal illumination



- 10318 B **Universal Bronchoscope**, with Fiber Optic Light Carrier 10318 L, size 8.5, length 43 cm
- 10318 C **Same**, size 7.5
- 10318 D **Same**, size 6.5
- 10315 M **Glass Window Plug**
- 10315 N **Rubber Telescope Guide**
- 10315 P **FLUVOG Adaptor**, with sliding glass window plug, sealing cap, notched lens and keyhole opening, movable
- 10318 K **Injection Cannula**, for positive pressure assisted ventilation system, LUER-Lock, outer diameter 3.5 mm
- 10318 S **Instrument Guide**, for suction catheter
- 10338 TRA **Adjustable Magnifier**, autoclavable, swing-away type, with ring adaption
- 10924 D **Adaptor**, for respirator
- NEW** 10924 DL **Adaptor**, for respirator, long version

Universal Bronchoscopes for Adults

with proximal illumination



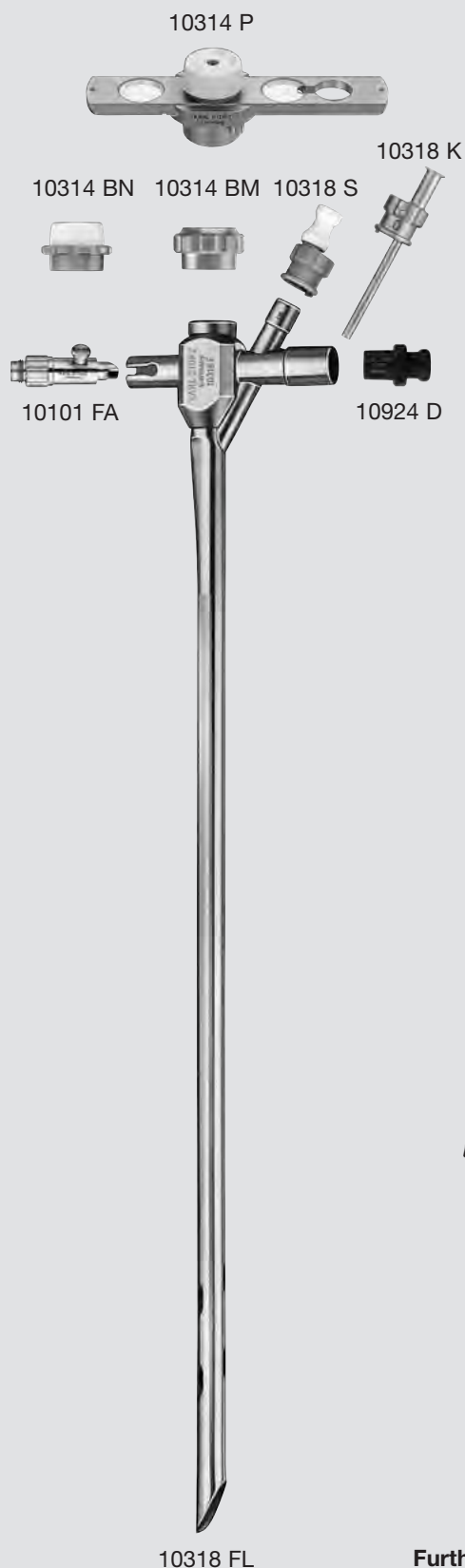
Special features:

- Absence of distal light carrier does not restrict inner diameter
- Prismatic Light Deflector 10101 FA inserted proximally ensures best illumination and enables full use of lumen through operating instruments
- Excellent view of operation area
- Smooth lumen allows insertion of flexible bronchoscopes

- 10318 BP **Bronchoscope Tube Universal**, without distal fiber optic light carrier, for use with proximally insertable Prismatic Light Deflector 10101 FA, size 8.5, length 43 cm
- 10318 CP **Same**, size 7.5
- 10318 DP **Same**, size 6.5
- 10101 FA **Prismatic Light Deflector, autoclavable**, with connection to fiber optic light cable
- 10314 BM **Glass Window Plug**
- 10314 BN **Rubber Telescope Guide**
- 10314 P FLUVOG **Adaptor**, with observation window, cap with rubber seal and with window, adjustable
- 10318 K **Injection Cannula**, for positive pressure assisted ventilation system, LUER-Lock, outer diameter 3.5 mm
- 10318 S **Instrument Guide**, for suction catheter
- 10924 D **Adaptor**, for respirator
- NEW** 10924 DL **Adaptor**, for respirator, long version

Full Lumen Operating Tracheo-Bronchoscopes

with proximal illumination



Special features:

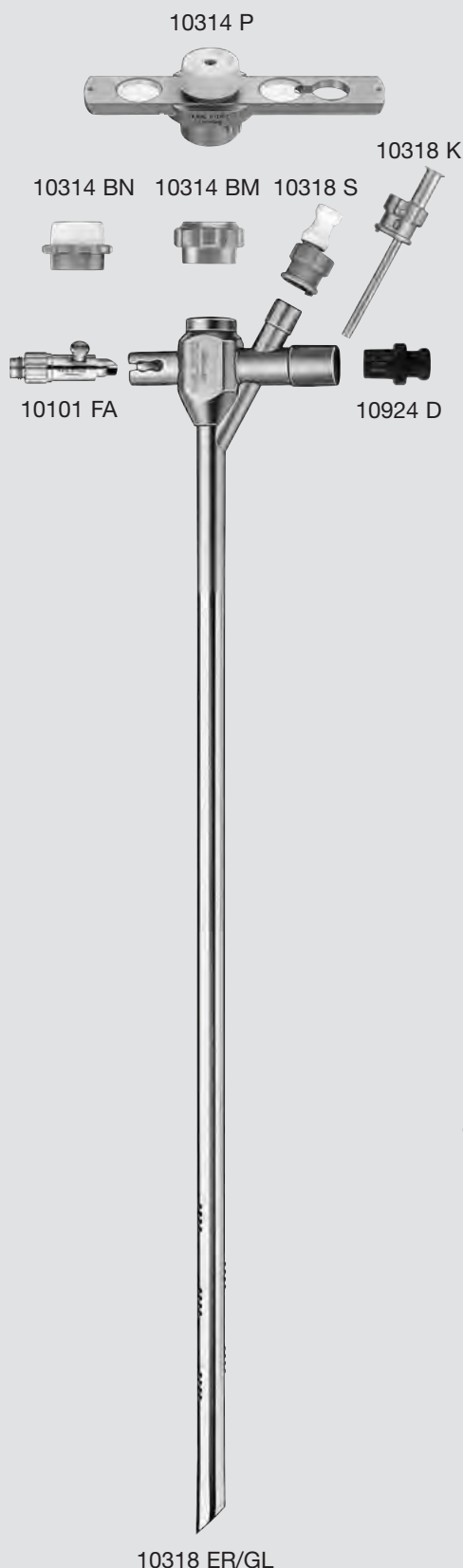
- Absence of distal light carrier does not restrict inner diameter
- Prismatic Light Deflector 10101 FA inserted proximally ensures best illumination and enables full use of lumen through operating instruments
- Excellent view of operation area
- Round inner diameter allows insertion of bronchial bougies ranging between 30 up to 37 Fr.
- Especially suitable for the application of stents
- Distal end of tracheoscopes without lateral holes for more effective oxygen supply in the axial direction, i. e. in case of tumors in the upper tracheal area

- | | |
|---------------------|---|
| 10318 F | Full Lumen Operating Tracheoscope,
size 12 mm, length 33 cm |
| 10318 FL | Full Lumen Operating Bronchoscope,
size 12 mm, length 43 cm |
| 10318 G | Full Lumen Operating Tracheoscope,
size 14 mm, length 33 cm |
| 10101 FA | Prismatic Light Deflector, autoclavable,
with connection to fiber optic light cable |
| 10314 BM | Glass Window Plug |
| 10314 BN | Rubber Telescope Guide |
| 10314 P | FLUVOG Adaptor, with observation window,
cap with rubber seal and with window,
adjustable |
| 10318 K | Injection Cannula, for positive pressure
assisted ventilation system, LUER-Lock,
outer diameter 3.5 mm |
| 10318 S | Instrument Guide, for suction catheter |
| 10924 D | Adaptor, for respirator |
| NEW 10924 DL | Adaptor, for respirator, long version |

Further tracheoscopes see catalog ENT,
ESOPHAGOSCOPY – BRONCHOSCOPY, chapter 10, LARYNGOSCOPY

Full Lumen Operating Tracheo-Bronchoscopes

with proximal illumination



Special features:

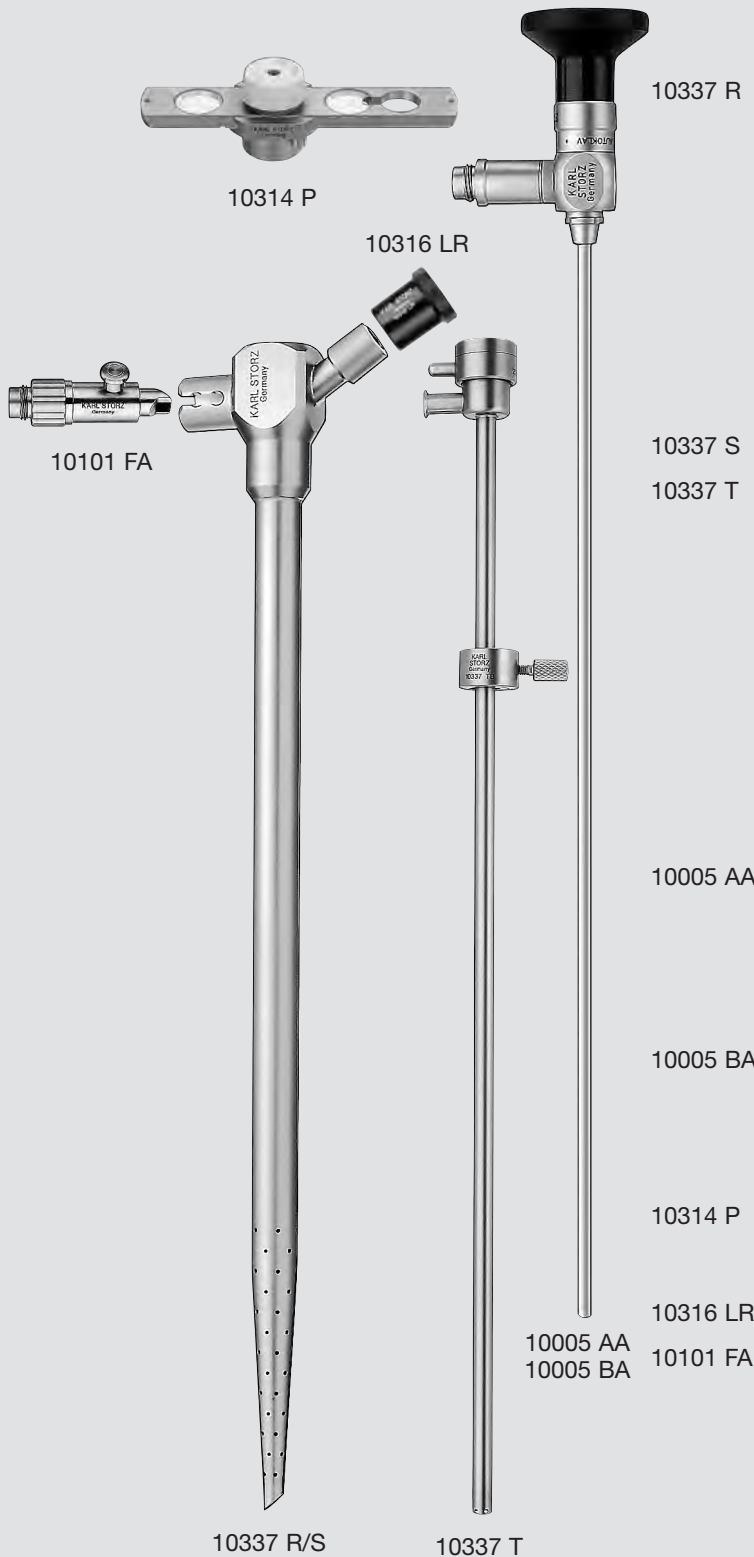
- Absence of distal light carrier does not restrict inner diameter
- Prismatic Light Deflector 10101 FA inserted proximally ensures best illumination and enables full use of lumen through operating instruments
- Excellent view of operation area
- Round inner diameter allows insertion of bronchial bougies ranging between 30 up to 37 Fr.
- Distal end beveled 45°, round airholes; especially suited for the application of stents.

- 10318 ER **Full Lumen Operating Bronchoscope**, size 11 mm, length 43 cm, modified for application of stents, distal end with lateral airholes and 45° oblique beak, for use with Prismatic Light Deflector 10101 FA, color code: green
- 10318 GL **Same**, size 14 mm, color code: red
- 10101 FA **Prismatic Light Deflector, autoclavable**, with connection to fiber optic light cable
- 10314 BM **Glass Window Plug**
- 10314 BN **Rubber Telescope Guide**
- 10314 P **FLUVOG Adaptor**, with observation window, cap with rubber seal and with window, adjustable
- 10318 K **Injection Cannula**, for positive pressure assisted ventilation system, LUER-Lock, outer diameter 3.5 mm
- 10318 S **Instrument Guide**, for suction catheter
- 10924 D **Adaptor**, for respirator
- NEW** 10924 DL **Adaptor**, for respirator, long version

Dilatation Tracheoscopes

NEW

GRONINGEN Model



Optical Dilatation Tracheoscope, GRONINGEN model, rigid, with distance markings, for dilation of stenosis and tumors in the upper trachea, distal tapered with lateral ventilation holes, proximal with attachment for oxygen, outer diameter 12 mm, length 30 cm, for use with HOPKINS® II Telescopes 10005 AA and BA, Prismatic Light Deflector 10101 FA, Adaptor for Respirator 10316 LR and adjustable FLUVOG attachment, with window and Rubber Seal 10314 P

Same, outer diameter 8 mm

Optical Intubation Tracheoscope, GRONINGEN model

including:

Sheath, for insertion of endotracheal tubes under optical control, proximal with LUER-Lock and distal with lateral holes for anesthetic gases, outer diameter 5.5 mm, length 30 cm, for use with HOPKINS® II Telescopes 10005 AA and BA

Distance Ring, with fixation screw for length adjustment of the endotracheal tubes

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

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

FLUVOG Adaptor, with observation window, cap with rubber seal and with window, adjustable

Adaptor, for respirator

Prismatic Light Deflector, **autoclavable**, with connection to fiber optic light cable

Components see chapter 13, SPARE PARTS AND ACCESSORIES

10320 AA

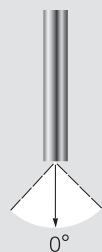


For use with Bronchoscopes 10318, Optical Forceps 10350 and Deflecting Device 10357

10320 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

10320 BA **HOPKINS® Forward-Oblique Telescope 30°**, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

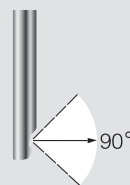
10320 DA **HOPKINS® Lateral Telescope 90°**, diameter 5.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, color code: blue



10320 AA



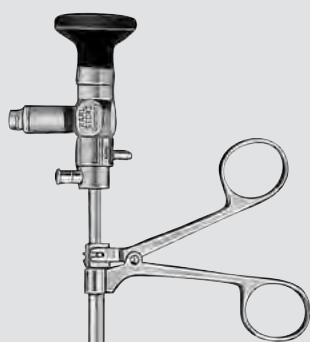
10320 BA



10320 DA

Telescopes for Autofluorescence and Photodynamic Diagnosis (PDD) see chapter 4, AUTOFLUORESCENCE

10320 AA/BA



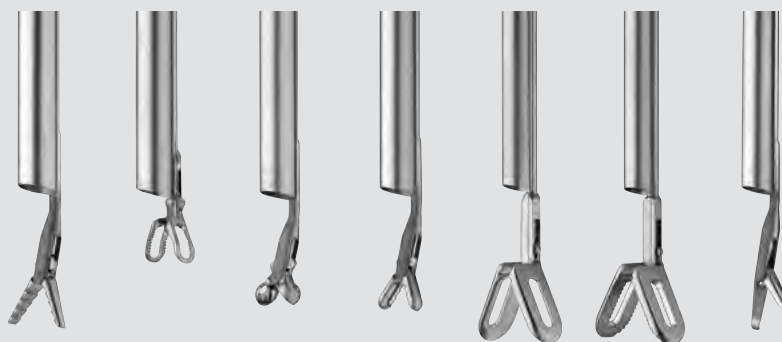
10350 L

Special features:

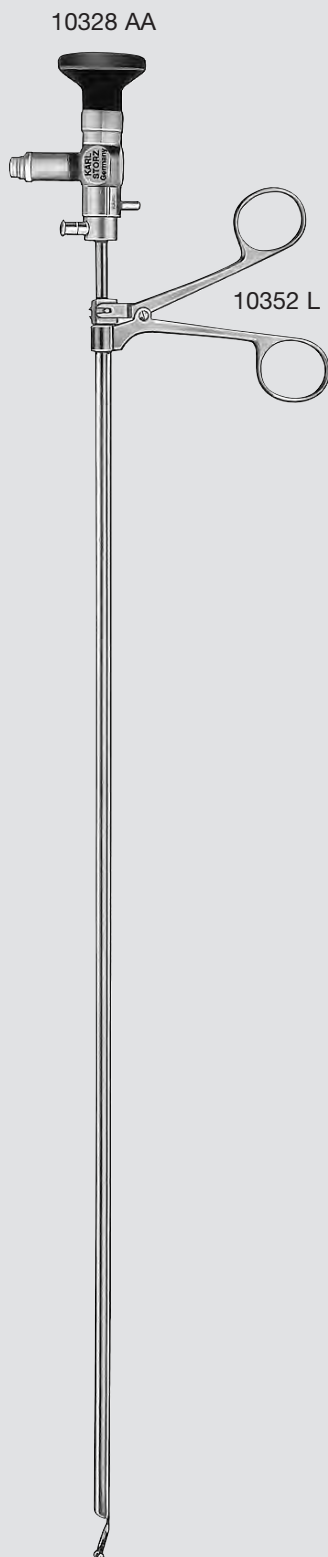
- The jaws of the forceps and the region of biopsy are well visualized prior to and during the procedure.
- Foreign bodies can now be removed quickly under optical control.
- The spring-action handle of the grasping forceps prevents excess pressure being applied to the foreign body.
- The depth of cut during biopsy is much easier to assess.

For use with HOPKINS® Telescopes 10320 AA/BA and Universal Bronchoscopes 10318 B – CP, size 8.5 up to 7.5

- | | |
|---------------------|---|
| 10350 HF | Optical Forceps , alligator, for hard foreign bodies, large jaws, with spring-action handle |
| 10350 KF | Optical Forceps , for peanuts and soft foreign bodies, with spring-action handle |
| 10350 L | Optical Forceps , spoon-shaped, round, for biopsy |
| 10350 U | Optical Forceps , universal, for biopsy, for the removal of foreign bodies and denatured tissue |
| NEW 10350 M | Optical Forceps , large jaws, sharp, for removing large fragments of tissue, for use with HOPKINS® Telescope 10320 AA |
| NEW 10350 MS | Optical Forceps , large jaws, blunt, serrated, for removing large foreign bodies, for use with HOPKINS® Telescope 10320 AA |
| NEW 10350 ST | Optical Forceps , for repositioning and removing stents, one fixed jaw |



10350 HF 10350 KF 10350 L 10350 U 10350 M 10350 MS 10350 ST



Special features:

- The jaws of the forceps and the region of biopsy are well visualized prior to and during the procedure.
- Foreign bodies can now be removed quickly under optical control.
- The spring-action handle of the grasping forceps prevents excess pressure being applied to the foreign body.
- The depth of cut during biopsy is much easier to assess.

For use with HOPKINS® Telescope 10328 AA and Universal Bronchoscopes 10318 B – DP, size 8.5 to 6.5

10328 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 4.5 mm, length 50 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

10352 H **Optical Forceps**, alligator, for hard foreign bodies

NEW 10352 KF **Optical Forceps**, for peanuts and soft foreign bodies, with spring-action handle

10352 L **Optical Forceps**, spoon-shaped, round, for biopsy

10352 U **Optical Forceps**, universal, for biopsy, for removal of foreign bodies and denatured tissue



10352 H



10352 KF



10352 L



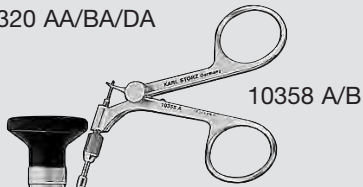
10352 U

Steerable Optical Instruments

for Biopsy

Working length 43 cm

10320 AA/BA/DA



For use with **Universal Bronchoscopes with distal illumination 10318 B/C, size 8.5 and 7.5 and HOPKINS® Telescopes 10320 AA/BA/DA**

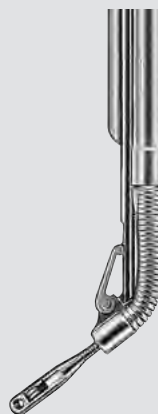
10357 **Deflecting Device**, with telescope guiding tube from proximal to distal end

Instruments for use with Deflecting Devices 10357:

10358 A **Flexible Forceps**, spoon-shaped, for biopsy, for removal of denaturated tissue, working length 60 cm

10358 B **Flexible Biopsy Forceps**, spoon-shaped, small size, for perbronchial lung biopsy, working length 65 cm

10357



10357
10358 A

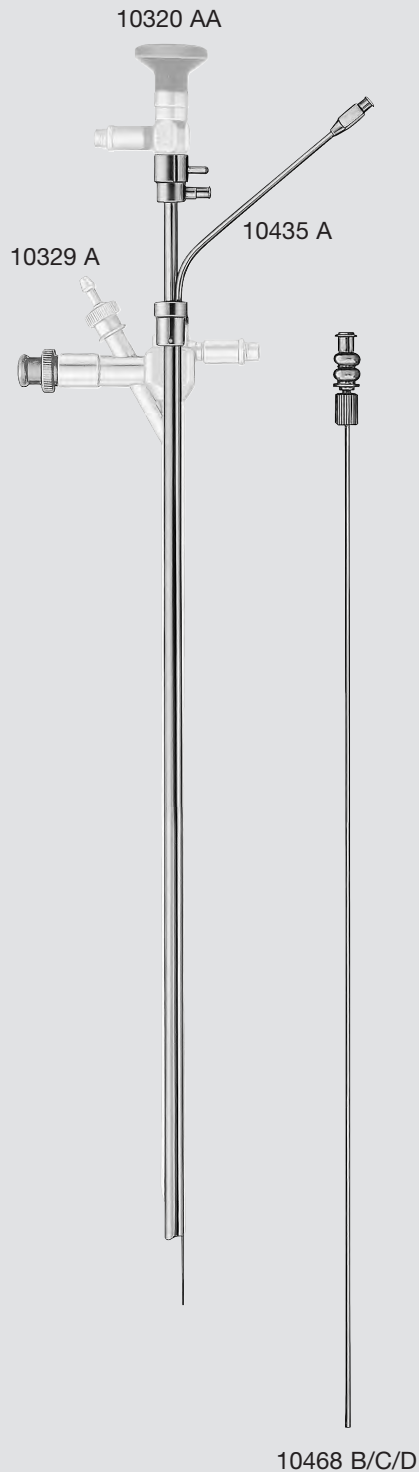


10357
10358 B

The jaws of the Flexible Biopsy Forceps 10358 A can be mechanically pressed against the intact mucosa. This enables collecting material which would slip off a conventional forceps during tangential grasping.

Rigid Instrument Guide

with Antifog System
Accessories



For use with HOPKINS® Telescope 10320 AA and Universal Bronchoscopes 10318 B – D, size 8.5 to 6.5

10329 A **Instrument Guide**, with A. F. (anti-fog) device, can be attached to bronchoscope

Instruments for use with HOPKINS® Telescope 10320 AA and Instrument Guide 10329 A

10435 A **Puncture Needle**, for puncture biopsy, diameter 1.4 mm, working length 48 cm, for histology

10468 B **Suction Catheter**, 7 Fr., with Adaptor 10479 B

10468 C **Same**, 6 Fr., with Adaptor 10479 C

10468 D **Same**, 5 Fr., with Adaptor 10479 F

10478 D **Suction Catheter**, 5 Fr., only, package of 6

10479 B **Adaptor**, for Suction Catheter 10468 B/10478 B

10479 C **Same**, for Suction Catheter 10468 C/10478 C

10479 F **Same**, for Suction Catheter 10468 D/10478 D

Oxygen is directed at the lens through a channel in Instrument Guide 10329 A which prevents fogging of the telescope.

Tracheobronchial stents are widely used in bronchology. Indications are primarily malignant and benign tracheobronchial stenoses, but may also include tracheo-esophageal fistula and, to a certain extent, tracheobronchial malacia. It concerns mostly patients who cannot undergo surgery for functional and/or prognostic reasons. Of the three basic stent types available, i.e. polymer, metal and hybrid, the DUMON silicone stent is the most commonly used worldwide¹⁾. Since the beginning of the 90s, this stent is available in various sizes and diameters, also as bifurcation stent. Within 10 years, the “Dumon stent” has de facto acquired “gold standard” status²⁾.

A rigid bronchoscope is required to facilitate stent placement. Not only does this instrument enable insertion of this so-called “foreign body”, it also – if necessary – performs repositioning and extraction. Prior to stent placement, all other interventions, such as LASER treatment, tumor resection and stenosis dilatation, are performed.

The stenosis/fistula are then measured. A stent with the appropriate diameter and length is selected on the basis of existing endobronchial conditions. A “rule of thumb” is to select a stent that is approx. two millimeters thicker than the outer diameter of the bronchoscope with the largest diameter, which is to be passed through the stenosis. In the case of malignant stenosis, the distal and proximal end of the stent should be in between 0.5 cm and 1.0 cm longer than the stenosis, in order to pass it successfully.

The silicone stent must be folded before placement in the bronchial system. KARL STORZ has designed a special applicator system for this purpose. The stent to

be deployed is first placed in the folding block, folded and then advanced through the applicator system. Care should be taken that the stent and applicator is lubricated with a lubricant suitable for use with endoscopes. The applicator system can then be pushed through the bronchoscope or tracheoscope. The stent is “released” when the applicator system and the broncho/tracheoscope is withdrawn. X-Ray control is often helpful, but not absolutely necessary. Should repositioning be required, the stent can be moved backwards and forwards with an optical foreign body forceps.

Silicone bifurcation stents can also be placed using this applicator system.

Please note: the FREITAG dynamic stents are not suitable for this applicator system. These require a stent forceps²⁾ specifically designed by KARL STORZ for this purpose.

References:

- ¹⁾ Dumon JF: *A dedicated tracheobronchial stent. Chest 1990;97:328-332*
- ²⁾ Freitag L: *„Tracheobronchiale Stents“ in Interventional Bronchoscopy, 171-185, Karger, Basel, 2000*

H. TONN, M.D.,
Head Physician
Klinikum Hannover Oststadt,
Klinik für Pneumologie,
Hannover, Germany

Please note:

The TONN Stent Applicators 10520, 10530, 10540 and 10550 are available from:

NOVATECH SA
Z.I. Athélia III – Voie Antiope
13705 La Ciotat Cédex
FRANCE
Tel: +33 (0) 890 710 608
Fax: +33 (0) 890 710 609

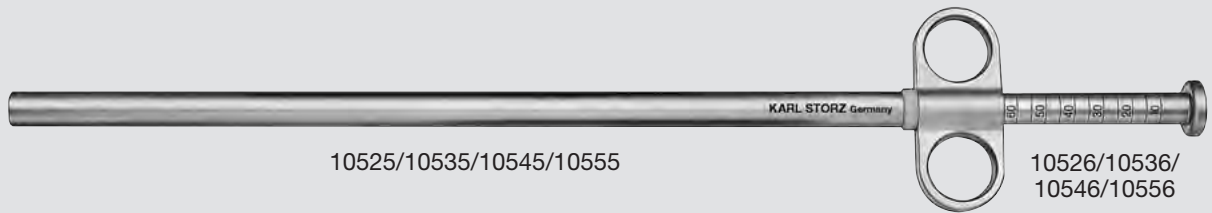
TONN Stent Applicator



10521/22/23, 10531/32/33, 10542, 10552



10524/10534/10544/10554



10525/10535/10545/10555

10526/10536/
10546/10556

10520 TONN **Stent Applicator**, for placement of DUMON tracheobronchial silicone stents with outer diameter 14 – 18 mm and max. 10 cm length, for use with Full Lumen Operating Tracheoscope 10318 GL, size 14 mm, length 43 cm, color code: blue
including:
Basic Block
Folding System
Clamping Rod
Loading Rod
Introducer Tube, with 2-ring handle
Pusher

10530 TONN **Stent Applicator**, for placement of DUMON tracheobronchial silicone stents with outer diameter 14 – 18 mm and max. 16 cm length, for use with Full Lumen Operating Tracheoscope 10318 GL, size 14 mm, length 43 cm, color code: red
including:
Basic Block
Folding System
Clamping Rod
Loading Rod
Introducer Tube, with 2-ring handle
Pusher

10540 TONN **Stent Applicator**, for placement of DUMON tracheobronchial silicone stents with outer diameter 8 – 13 mm and max. 10 cm length, for use with Full Lumen Operating Bronchoscope 10318 ER, size 11 mm, length 43 cm, color code: green
including:
Basic Block
Folding System
Clamping Rod
Loading Rod
Introducer Tube, with 2-ring handle
Pusher

10550 TONN **Stent Applicator**, for placement of DUMON tracheobronchial silicone stents with outer diameter 9 – 12 mm and max. 6 cm length, for use with Bronchoscope Tube Universal 10318 DP, size 6.5 mm, length 43 cm, color code: white
including:
Basic Block
Folding System
Clamping Rod
Loading Rod
Introducer Tube, with 2-ring handle
Pusher

Please note: TONN stent applicators are available from NOVATECH see page 68
Full Lumen Operating Tracheo-Bronchoscopes 10318 ER/GL see page 61
Components see chapter 13, SPARE PARTS AND ACCESSORIES

The Placement of Bifurcated Airway Stents – Technique and Instruments

The placement of airway stents has become an increasingly accepted means of palliation for patients with stenoses of the central airways. While straight silicone or metal stents are relatively easy to implant, placement of bifurcated stents seems to be more complicated.

Indications for the use of Dynamic-Stents are strictures and malacia of the trachea, tumor infiltration or compression of the bifurcation, or tracheoesophageal fistulas. The insertion method and the instrument developed especially for this procedure are presented here.

Rigid bronchoscopy is performed under general anesthesia with muscle paralysis. After photoressection of obstructing tissues or dilation of benign strictures the rigid bronchoscope/tracheoscope is removed and the larynx aperture is focused on with a normal laryngoscope.

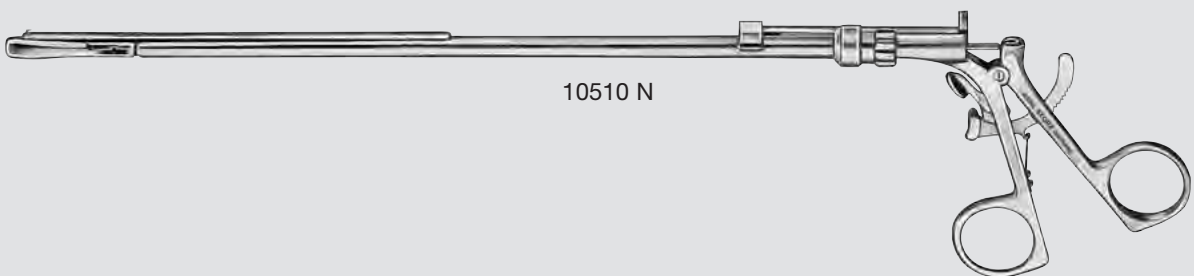
The bifurcated stent is grasped from inside with a stent forceps. By closing the jaws the bronchial limbs of the stent are narrowed to facilitate the passage through the vocal cords and the stenosis. The stent is intubated with the forceps similarly to the intubation of an endotracheal tube. After passing the larynx and the compressed areas of the trachea the ratchet of the handle is released and the forceps is carefully opened. One can easily feel how the bronchial limbs glide into the main bronchi as the forceps saddles the carina.

Then a movable pusher mounted on the instrument is used to anchor the stent while the grasping part of the forceps is withdrawn. After complete removal of the forceps the patient is reintubated with a short bronchoscope or tracheoscope and stent position and function are checked. A thin flexible bronchoscope is used to aspirate any mucus and contrast medium if this has been used. Special care is taken that the right upper bronchial lobe is not blocked by the limb of the stent.

Although placement is usually possible without visual control it is further facilitated and safer under x-ray fluoroscopy. For very critical situations with tumor invasion close to the carina we used 4 ml of contrast medium to mark the narrowed trachea and the bifurcation. Under fluoroscopic control all stents could be positioned without complications. We have not seen a single tear or a perforation but one has to be aware of this potential hazard when placing a stent.

Theoretically placement of bifurcated stents with the method described could be performed without rigid bronchoscopy. Using the stent forceps, the whole procedure takes less than a minute. However, because of potential complications, we strongly recommend that only those surgeons and chest physicians should place stents who are familiar with all bronchoscopic techniques including rigid bronchoscopy.

*Prof. L. FREITAG, M. D.,
D. GRESCHUCHNA, M. D.*



10510 N



10510 N

FREITAG Stent Forceps, for the placement of dynamic stents including:
Handle, with ratchet
Outer Sheath
Forceps Insert
Pusher

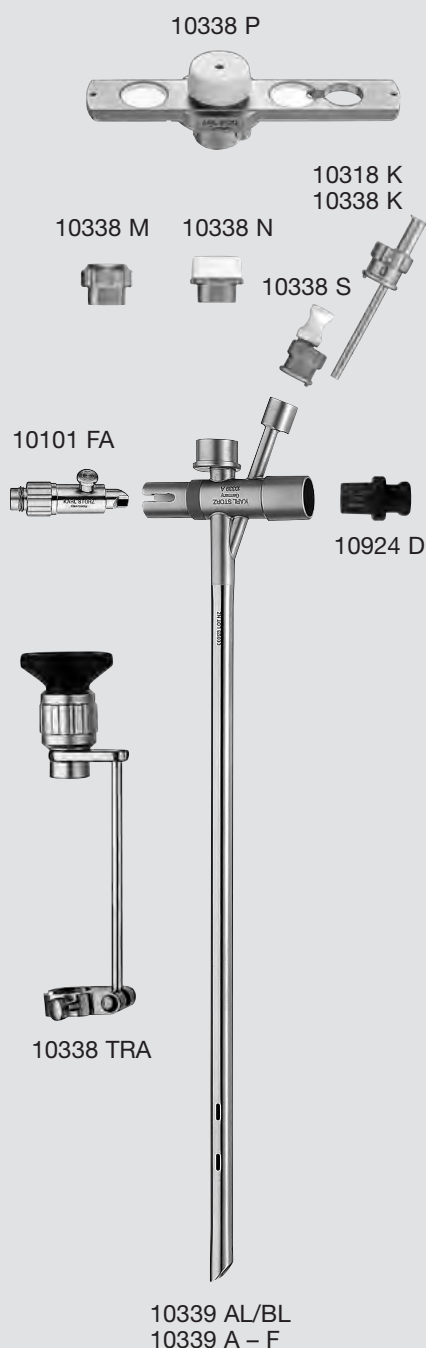
Components see chapter 13, SPARE PARTS AND ACCESSORIES

Pediatric Bronchoscopes

with proximal illumination

Special Features:

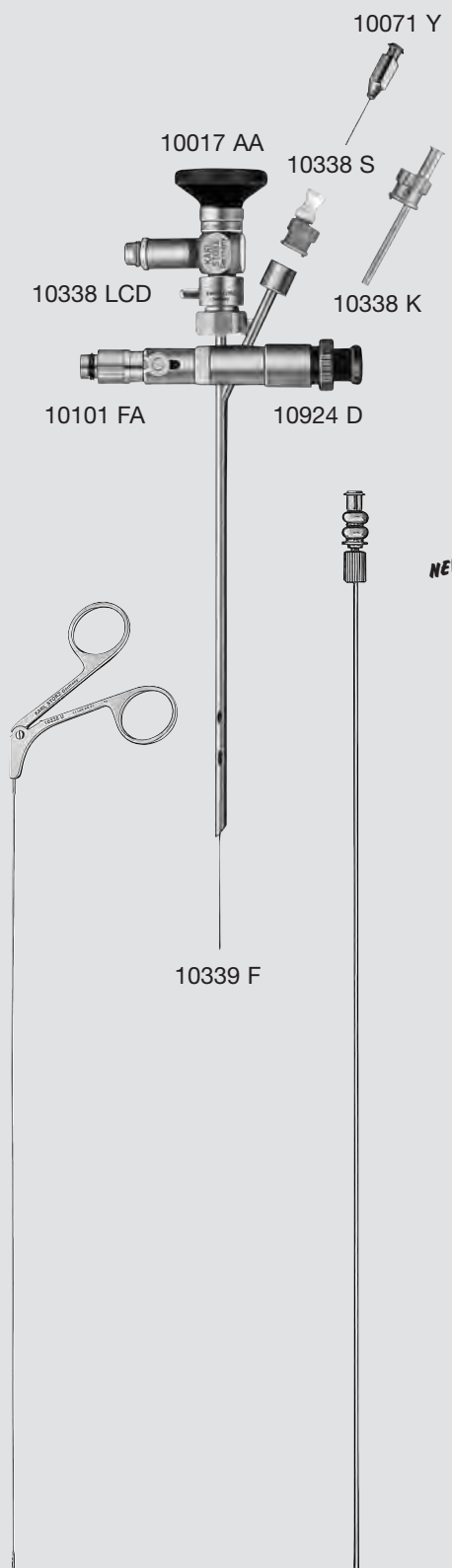
- Absence of distal light carrier does not restrict inner diameter
- Prismatic Light Deflector 10101 FA inserted proximally ensures best illumination and enables full use of lumen through operating instruments
- Excellent view of operation area
- Lateral channel for introducing suction catheters and fine instruments



- | | |
|---------------------|---|
| 10339 AL | DOESEL-HUZLY Bronchoscope , size 6, length 40 cm |
| 10339 BL | Same , size 5 |
| 10339 A | DOESEL-HUZLY Bronchoscope , size 6, length 30 cm |
| 10339 B | Same , size 5 |
| 10339 BB | Same , size 4.5 |
| 10339 C | Same , size 4 |
| 10339 G | Same , size 3.7 |
| 10339 CD | Same , size 3.5 |
| 10339 EEE | Same , size 3 |
| 10339 CC | DOESEL-HUZLY Bronchoscope , size 4, length 26 cm |
| 10339 GG | Same , size 3.7 |
| 10339 DD | Same , size 3.5 |
| 10339 EE | Same , size 3 |
| 10339 D | DOESEL-HUZLY Bronchoscope , size 3.5, length 18.5 cm |
| 10339 E | Same , size 3 |
| 10339 F | Same , size 2.5 |
| 10101 FA | Prismatic Light Deflector, autoclavable , with connection to fiber optic light cable |
| 10338 M | Glass Window Plug |
| 10338 N | Rubber Telescope Guide , for use with telescopes and optical forceps |
| 10338 P | FLUVOG Adaptor , with sliding glass window plug, sealing cap, notched lens and keyhole opening, movable |
| 10338 S | Guide Piece , for suction catheter, short, bronchoscope for children and infants |
| 10338 TRA | Adjustable Magnifier, autoclavable , swing-away type, with ring adaption |
| 10924 D | Adaptor , for respirator |
| NEW 10924 DL | Adaptor , for respirator, long version |
| 10318 K | Injection Cannula , for positive pressure assisted ventilation system, LUER-Lock, outer diameter 3.5 mm |
| 10338 K | Injection Cannula , for positive pressure assisted ventilation system, LUER-Lock, outer diameter 2.7 mm, for use with Bronchoscopes 10339 E/EE/F |

Instrument Set for Neonates

for Endoscopic Treatment of Tracheo-Esophageal Fistulae

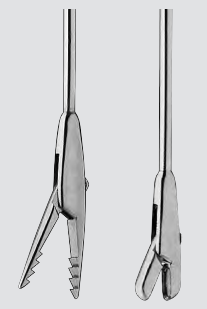


Instrument set for neonates for endoscopic treatment of tracheo-esophageal fistulae

- 10339 F DOESEL-HUZLY **Bronchoscope**, size 2.5, length 18.5 cm
- 10101 FA **Prismatic Light Deflector, autoclavable**, with connection to fiber optic light cable
- 10017 AA **HOPKINS® II Straight Forward Telescope 0°**, diameter 1.9 and 2.1 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green
- 10338 LCD **Telescope Bridge**, for fixed position between bronchoscope and telescope
- 10071 Y **Injection Cannula**
- 10338 S **Guide Piece**, for suction catheter, short, bronchoscope for children and infants
- 10924 D **Adaptor**, for respirator
- NEW** 10924 DL **Adaptor**, for respirator, long version
- 10338 K **Injection Cannula**, for positive pressure assisted ventilation system, LUER-Lock, outer diameter 2.7 mm, for use with Bronchoscopes 10339 E/EE/F

For use with working channel of Bronchoscopes 10339 A/B/BB/C – G, under control of HOPKINS® Telescopes 10324 AA/10020 ATA/10018 AA/10017 AA

- 10338 U **Forceps**, alligator, spoon-shaped, single action jaws, semiflexible, sheath diameter 1 mm, working length 35 cm
- 10338 X **Forceps**, spoon-shaped, for biopsy, single action jaws, semiflexible, sheath diameter 1 mm, working length 35 cm
- 10468 B **Suction Catheter**, 7 Fr., with Adaptor 10479 B
- 10468 D **Suction Catheter**, 5 Fr., with Adaptor 10479 F



10338 U 10338 X

10338 U/X

10468 B/D

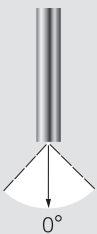
10339 F



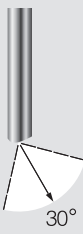
10338 LCD



10338 R/RK/RL



10018 AA
10020 ATA
10005 AA
10324 AA
10023 ABA



10324 BA

For use with 18.5 cm DOESEL-HUZLY Bronchoscopes 10339 D/E, telescope can be fixed in the bronchoscope when using Telescope Bridge 10338 LCD

10018 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 2.7 mm, length 18 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

For use with 30 cm DOESEL-HUZLY Bronchoscopes 10339 A/B/BB/C/CD/G, telescope can be fixed in the bronchoscope when using Telescope Bridge 10338 LCD

10020 ATA **HOPKINS® Straight Forward Telescope 0°**, diameter 2.9 mm, length 30 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

10005 AA **HOPKINS® II Straight Forward Telescope 0°**, enlarged view, diameter 4 mm, length 30 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

For use with 30 cm DOESEL-HUZLY Bronchoscopes 10339 A/B/BB/C/CD/G, telescope adjustable in the bronchoscope when using Rubber Telescope Guide 10338 N

10324 AA **HOPKINS® Straight Forward Telescope 0°**, diameter 2.9 mm, length 36 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

10324 BA **HOPKINS® II Forward-Oblique Telescope 30°**, diameter 2.9 mm, length 36 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

For use with 40 cm DOESEL-HUZLY Bronchoscopes 10339 AL/BL, telescope adjustable in the bronchoscope when using Rubber Telescope Guide 10338 N

10023 ABA **HOPKINS® Straight Forward Telescope 0°**, diameter 2.8 mm, length 44 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

For use with Telescopes 10017/10018/10020/10005 AA

10338 LCD **Telescope Bridge**, for fixed position between bronchoscope and telescope

For use with Telescope 10324 AA

10338 RK **Telescope Bridge**, for fixed position between HOPKINS® Telescope 10324 AA and Bronchoscopes 10339 A/B/BB/C/CD/EEE/G

10338 RL **Telescope Bridge**, for fixed position between HOPKINS® Telescope 10324 AA and Bronchoscopes 10339 CC/DD/EE/GG

For use with Telescope 10005 AA

10338 R **Telescope Bridge**, for fixed position between HOPKINS® II Telescope 10005 AA and Bronchoscopes 10339 CC/GG

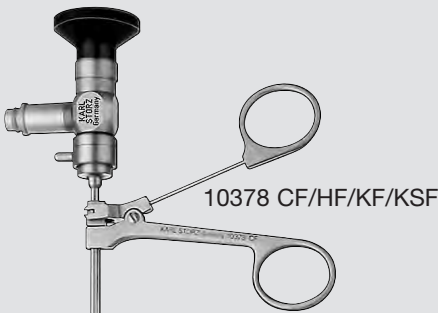
Optical Forceps and Scissors

for Pediatric Bronchoscopes size 6 – 3.5, length 30 cm – 18.5 cm

Special Features:

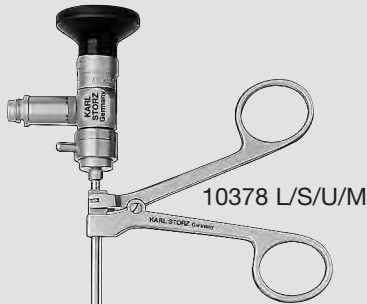
- Newly designed forceps enable removing of foreign bodies under precise optical control not previously possible
- Small size of forceps allows them to be introduced through pediatric bronchoscopes as of size 3.5 and larger in lengths ranging from 18.5 up to 30 cm
- Foreign bodies can be removed quickly and with utmost safety
- Better assessment of the depth of cut when taking biopsies

10324 AA



10378 CF/HF/KF/KSF

10324 AA



10378 L/S/U/M

For use with HOPKINS® Telescope 10324 AA and Bronchoscopes 10339 A – CD

- 10378 CF **Optical Forceps**, 2x 2 teeth, for grasping coins and flat foreign bodies, with spring-action handle
- 10378 HF **Optical Forceps**, alligator, for grasping hard foreign bodies, with spring-action handle
- 10378 KF **Optical Forceps**, with KILLIAN bean jaws, for grasping peanuts and soft foreign bodies, with spring-action handle
- NEW** 10378 KSF **Optical Forceps**, VANCOUVER model, for grasping peanut fragments and soft foreign bodies, with spring-action handle
- 10378 L **Optical Forceps**, spoon-shaped, for biopsy
- 10378 S **Optical Scissors**
- 10378 U **Optical Forceps**, universal, for biopsy and foreign bodies removal
- 10378 M **Optical Forceps**, spoon-shaped, oval, for biopsy, large model



10378 CF

10378 HF

10378 KF

10378 KSF

10378 L

10378 S

10378 U

10378 M

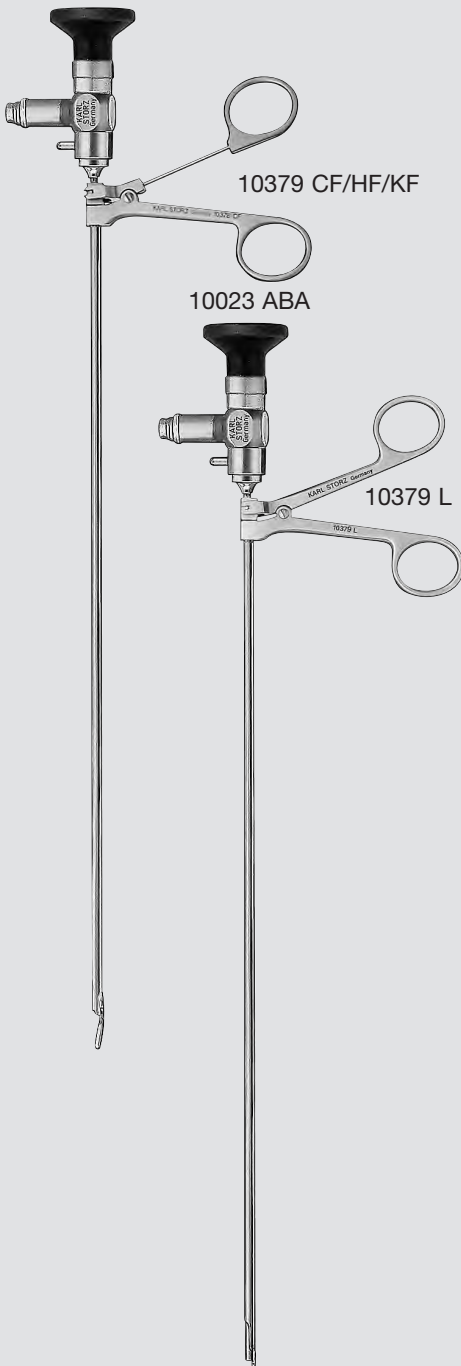
Optical Forceps

for Pediatric Bronchoscopes size 6 and 5, length 40 cm

Special Features:

- Newly designed forceps for hard and soft foreign bodies enable removal under precise optical control not previously possible.
- Foreign bodies can be removed quickly and with utmost safety.
- Better assessment of the depth of cut when taking biopsies

10023 ABA



For use with HOPKINS® Telescope 10023 ABA and Bronchoscopes 10339 A – CD

- 10379 CF **Optical Forceps**, 2x 2 teeth, for grasping coins and flat foreign bodies, with spring-action handle
- 10379 HF **Optical Forceps**, alligator, for grasping hard foreign bodies, with spring-action handle
- 10379 KF **Optical Forceps**, with KILLIAN bean jaws, for grasping peanuts and soft foreign bodies, with spring-action handle
- 10379 L **Optical Forceps**, spoon-shaped, for biopsy

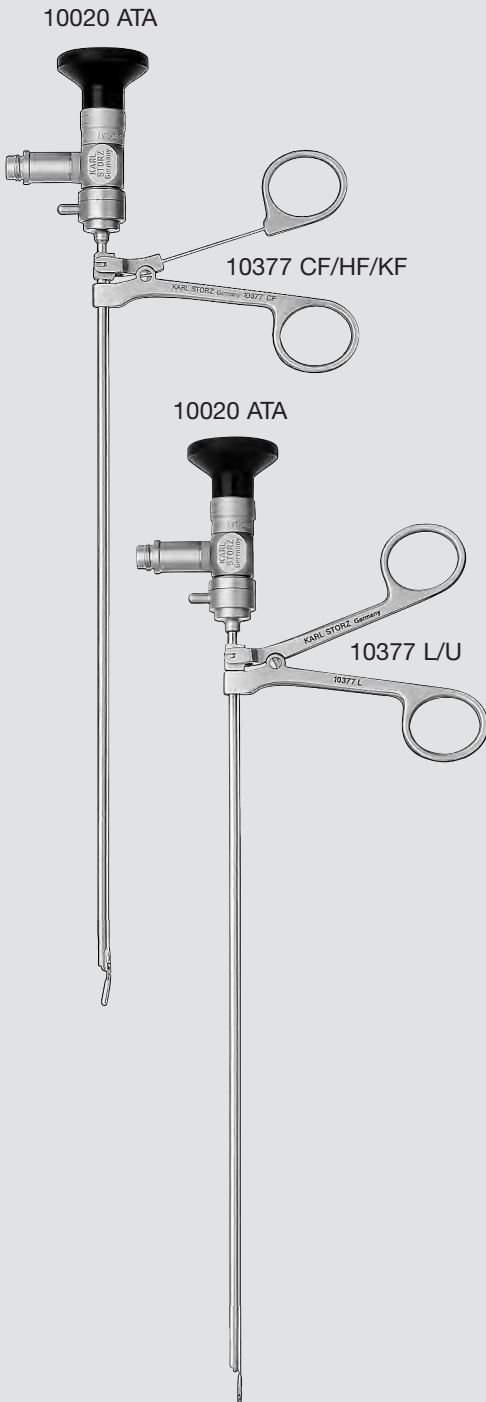


Optical Forceps

for Pediatric Bronchoscopes size 4 – 3.5, length 26 cm – 18.5 cm

Special Features:

- Newly designed forceps for hard and soft foreign bodies enable removal under precise optical control not previously possible.
- Small size of forceps allows them to be introduced through pediatric bronchoscopes as of size 3.5 cm and larger in lengths of 26 cm – 18.5 cm.
- Foreign bodies can be removed quickly and with utmost safety.
- Better assessment of the depth of cut when taking biopsies



For use with HOPKINS® Telescope 10020 ATA and Bronchoscopes 10339 CC/GG/DD/D

- 10377 CF **Optical Forceps**, 2x 2 teeth, for grasping coins and flat foreign bodies, with spring-action handle
- 10377 HF **Optical Forceps**, alligator, for grasping hard foreign bodies, with spring-action handle
- 10377 KF **Optical Forceps**, with KILLIAN bean jaws, for grasping peanuts and soft foreign bodies, with spring-action handle
- 10377 L **Optical Forceps**, spoon-shaped, for biopsy
- 10377 U **Optical Forceps**, universal, for biopsy and foreign bodies removal



10377 CF

10377 HF

10377 KF

10377 L

10377 U

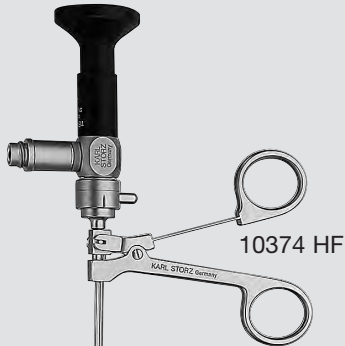
Optical Forceps

for Pediatric Bronchoscopes size 4 – 2.5, length 26 cm – 18.5 cm

Special Features:

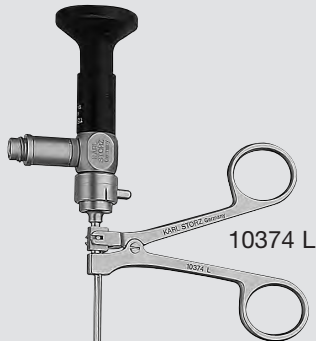
- Small size of forceps allows them to be introduced through pediatric bronchoscopes as of size 2.5 and larger and in lengths ranging from 26 cm – 18.5 cm
- Foreign bodies can be removed quickly and with utmost safety
- Better assessment of the depth of cut when taking biopsies

10030 AA



10374 HF

10030 AA



10374 L

For use with Bronchoscopes 10339 CC/GG/DD/EE/D/E/F

- NEW** 10030 AA **Miniature Straight Forward Telescope 0°**, semirigid, autoclavable, fiber optic light transmission incorporated,
 Direction of view: 0°
 Angle of view: 90°
 Working length: 30.6 cm
 Outer diameter: 1.3 mm
 Color code: green
- NEW** 10374 HF **Optical Forceps**, with alligator jaws, for grasping hard foreign bodies, with spring-action handle
- NEW** 10374 L **Optical Forceps**, spoon-shaped, for biopsy



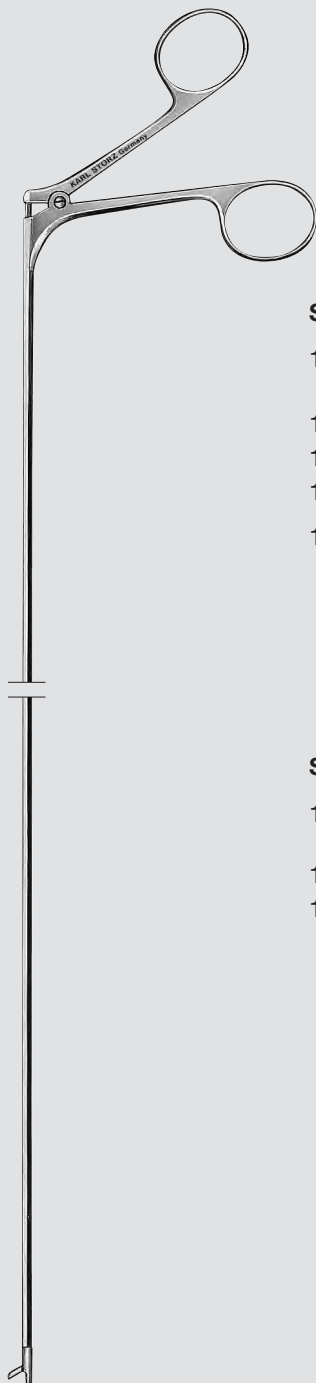
10374 HF



10374 L

Forceps and Scissors for Bronchoscopy

single action jaws



Sheath diameter 2.5 mm, working length 50 cm

- 10366 H **Forceps**, alligator, for hard foreign bodies, single action jaws, sheath diameter 2.5 mm, working length 50 cm
- 10366 K **Same**, for peanuts and soft foreign bodies
- 10366 L **Same**, spoon-shaped, round, for biopsy
- 10366 U **Same**, universal, for biopsy and foreign bodies removal
- 10366 S **Scissors**, straight, for trituration of bone fragments

Sheath diameter 2.5 mm, working length 35 cm

- 10367 H **Forceps**, alligator, for hard foreign bodies, single action jaws, sheath diameter 2.5 mm, working length 35 cm
- 10367 K **Same**, for peanuts and soft foreign bodies
- 10367 L **Same**, spoon-shaped, round, for biopsy



10366 H
10367 H



10366 K
10367 K



10366 L
10367 L



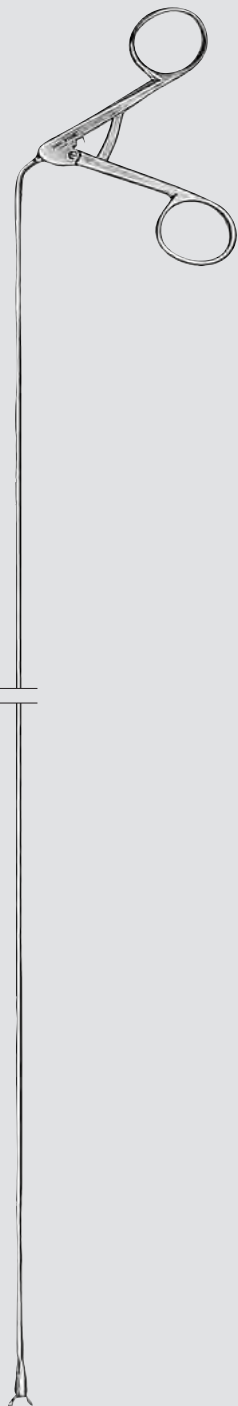
10366 U



10366 S

Forceps for Bronchoscopy

double action jaws



Sheath diameter 2.5 mm, working length 50 cm

- 10370 H **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 2.5 mm, working length 50 cm
- 10370 J **Same**, pointed, serrated, for coins and flat foreign bodies
- 10370 K **Same**, for peanuts and soft foreign bodies
- 10370 L **Same**, spoon-shaped, round, for biopsy
- 10370 M **Same**, spoon-shaped, round, for biopsy, malleable
- 10370 P **Same**, with oval cupped jaws, fenestrated, for biopsy and foreign bodies
- 10370 U **Same**, universal, for biopsy and foreign bodies removal



10370 H



10370 J



10370 K



10370 L



10370 M



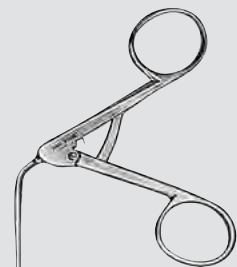
10370 P



10370 U

Forceps for Bronchoscopy

double action jaws



Sheath diameter 2 mm, working length 45 cm

- 10371 HL **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 2 mm, working length 45 cm
- 10371 KL **Same**, for peanuts and soft foreign bodies
- 10371 LL **Same**, spoon-shaped, round, for biopsy
- 10371 UL **Same**, universal, for biopsy and foreign bodies removal

Sheath diameter 2 mm, working length 35 cm

- 10371 H **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 2 mm, working length 35 cm
- 10371 J **Same**, pointed, serrated, for coins and flat foreign bodies
- 10371 K **Same**, for peanuts and soft foreign bodies
- 10371 L **Same**, spoon-shaped, round, for biopsy
- 10371 P **Same**, spoon-shaped, oval, fenestrated, for biopsy and foreign bodies removal
- 10371 U **Same**, universal, for biopsy and foreign bodies removal



10371 HL
10371 H



10371 J



10371 KL
10371 K



10371 LL
10371 L



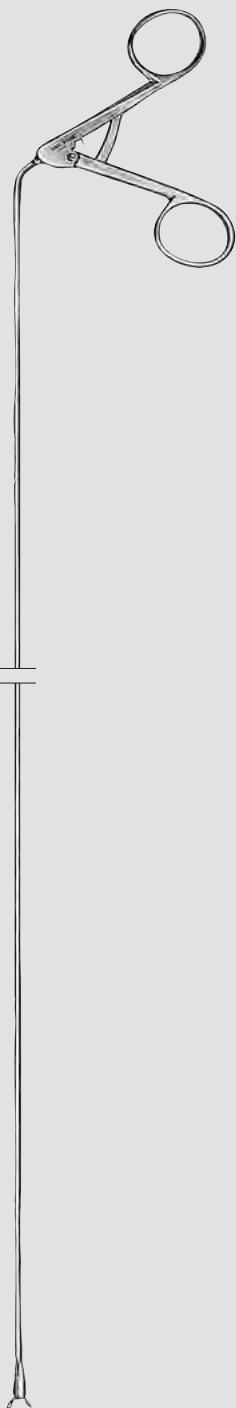
10371 P



10371 UL
10371 U

Forceps for Bronchoscopy

double action jaws



Sheath diameter 1.5 mm, working length 35 cm

- 10372 HL **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 1.5 mm, working length 35 cm
- 10372 JL **Same**, pointed, serrated, for coins and flat foreign bodies
- 10372 KL **Same**, for peanuts and soft foreign bodies
- 10372 LL **Same**, spoon-shaped, round, for biopsy
- 10372 UL **Same**, universal, for biopsy and foreign bodies removal

Sheath diameter 1.5 mm, working length 25 cm

- 10372 H **Forceps**, alligator, for hard foreign bodies, double action jaws, sheath diameter 1.5 mm, working length 25 cm
- 10372 K **Same**, for peanuts and soft foreign bodies



10372 HL
10372 H



10372 JL



10372 KL
10372 K



10372 LL



10372 UL

Accessories for Bronchoscopy

Suction Tubes, Cotton Carriers, Sponge Holders and Catheters

10380 A - H

10383 A - F

10381 A - B

10382 A - B

10390 AN/BN

10384 A/B

10385 A/B

10387 A/B

10388 A

10468 B/C/D

Description of instruments see page 83

Accessories for Bronchoscopy

Suction Tubes, Cotton Carriers, Sponge Holders and Catheters

Working length 50 cm

10380 A	Suction Tube , diameter 4 mm
10380 D	Same , diameter 2.5 mm
10380 H	Same , diameter 5 mm
10383 A	Suction Tube , with cut-off hole, diameter 4 mm
10381 A	Suction Tube , with rubber tip, straight, diameter 4 mm
10382 A	Same , curved
10390 AN	Coagulation Suction Tube , insulated, with connector pin for unipolar coagulation, diameter 4 mm
10384 A	Cotton Applicator
10385 A	Sponge Holder
10387 A	Sponge Holder , with spring handle
10388 A	Sponge Holder , for sterile smears

Working length 35 cm

10380 AK	Suction Tube , diameter 4 mm
10380 B	Same , diameter 3 mm
10380 CB	Same , diameter 2 mm
10383 B	Suction Tube , with cut-off hole, diameter 3 mm
10383 BL	Same , diameter 5.5 mm
10381 B	Suction Tube , with rubber tip, straight, diameter 2 mm
10382 B	Same , curved
10390 BN	Coagulating Suction Tube , insulated, with connector pin for unipolar coagulation, diameter 3 mm
10384 B	Cotton Applicator
10385 B	Sponge Holder
10387 B	Sponge Holder , with spring handle

Working length 30 cm

10383 DD	Suction Tube , with cut-off hole, diameter 2 mm
10383 F	Same , diameter 3 mm

Working length 25 cm

10380 C	Suction Tube , diameter 2 mm
10383 C	Suction Tube , with cut-off hole, diameter 2 mm
10383 CC	Same , diameter 1 mm
10383 D	Same , diameter 3 mm
10383 E	Same , diameter 4 mm

For use through the working channel under control of HOPKINS® telescope:

10468 B	Suction Catheter , 7 Fr., with Adaptor 10479 B
10468 C	Same , 6 Fr., with Adaptor 10479 C
10468 D	Same , 5 Fr., with Adaptor 10479 F

Accessories for Bronchoscopy

Instruments for aspiration, irrigation and puncture biopsy

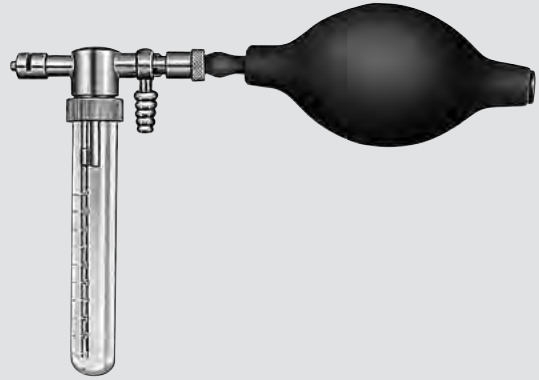


10432 ED



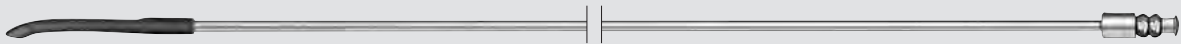
10432 N/T

10434 V



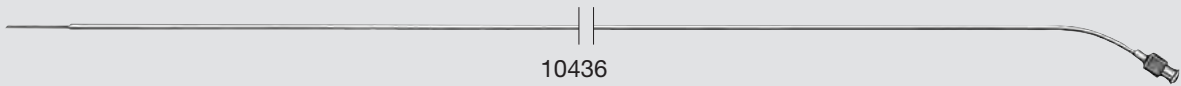
10434

- 10432 N **Aspirator**, for collecting secretions, with cut-off hole, with Spare Glass 10432 E, can be connected to suction tubes or suction catheter
- 10432 T **Same**, without cut-off hole
- 10432 ED **Collection Device**, plastic, for single use, with lid, package of 100, for use with HUZLY Aspirator and Bronchus Irrigator 10434 and Intermediate Ring 10434 Z
- 10434 **HUZLY Aspirator and Bronchus Irrigator**, with Graduated Container 10455 A and Rubber Bulb 437000. After switching manifold from "Irrigation" to "Suction", the injected irrigation fluid is immediately withdrawn again together with the bronchial secretion.



10434 A/B

- 10434 A **Suction Tube**, diameter 4 mm, length 50 cm, for use with HUZLY Aspirator and Bronchus Irrigator 10434
- 10434 B **Same**, diameter 3 mm, length 35 cm



10436

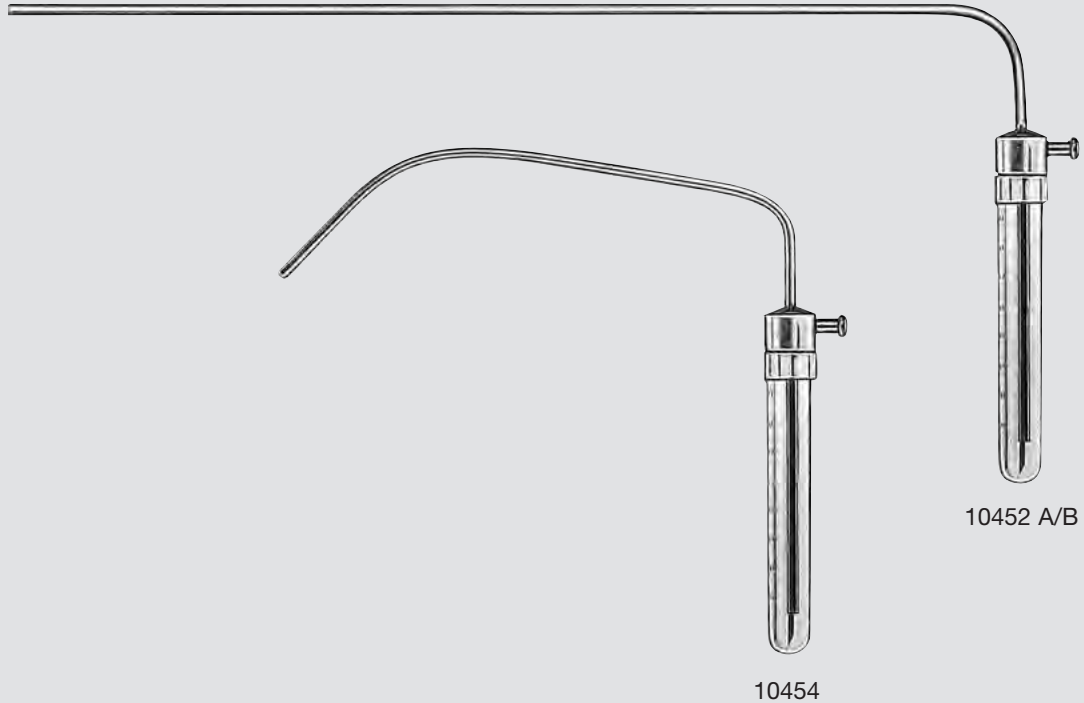
- 10436 **Aspiration Biopsy Needle**, for transbronchial biopsy, distal straight, diameter 1.6 mm, working length 47 cm



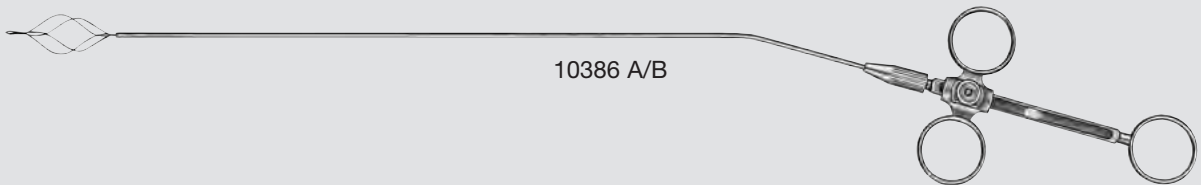
- 10438 **Same**, distally angled

Accessories for Bronchoscopy

Atomizers, Foreign Body Baskets and Brushes



- 10452 A **Bronchial Atomizer**, with Graduated Container 10455 A and Rubber Bulb 437000, length 50 cm
- 10452 B **Same**, length 40 cm
- 10454 **Laryngeal Atomizer**, with Graduated Container 10455 A and Rubber Bulb 40924 H
- 10455 A **Graduated Container**, only, **autoclavable**, for 10434, 10452 A/B and 10454



- 10386 A **Foreign Body Basket**, with ring handle, working length 50 cm
- 10386 B **Same**, working length 35 cm

Accessories for Bronchoscopy

Antifog Solution



15006 B



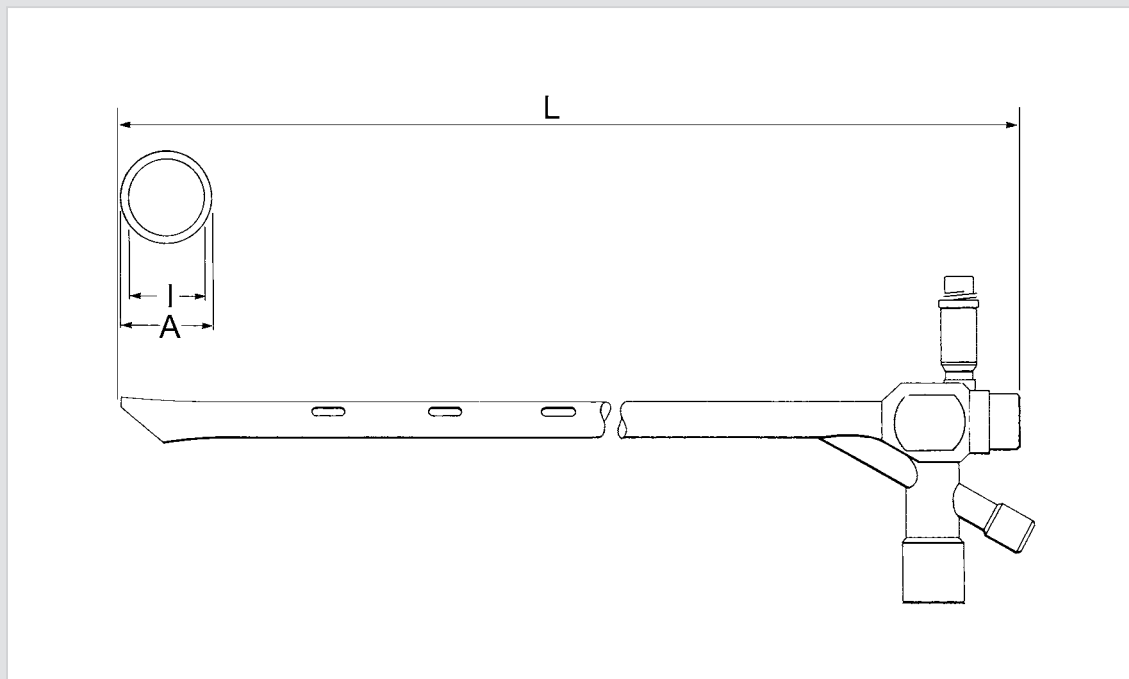
15006 C



15006 D

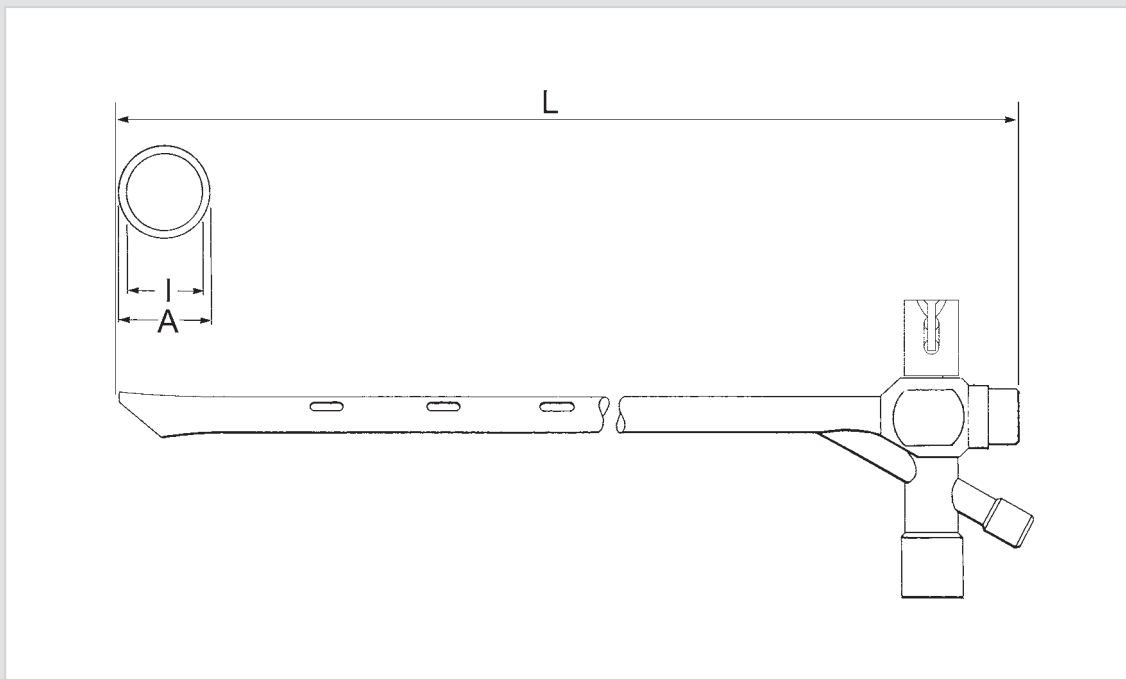
- 15006 B “ULTRA STOP” **Antifog Solution**, 25 ml, pipette bottle
- 15006 C “ULTRA STOP” **Antifog Solution**, 30 ml, sterile, pierce bottle
- 15006 D “ULTRA STOP” **Antifog Solution**, 15 ml, atomizer bottle

Dimensions of Universal Bronchoscopes



Art. No.	Size	Total Length - L -	Inner Diameter - I -	Outer Diameter - A -	Telescopes	Optical Forceps
10318 B	8.5	43 cm	10 mm	11 mm	10320	10350 HF, 10350 KF, 10350 L, 10350 ST, 10350 U, with 10320 AA, 10320 BA
10318 BP	8.5	43 cm	10 mm	11 mm	10320	10350 HF, 10350 KF, 10350 L, 10350 M, 10350 MS, 10350 ST, 10350 U, with 10320 AA, 10320 BA
10318 C 10318 CP	7.5	43 cm	9 mm	10 mm	10320	10350 HF, 10350 KF, 10350 L, 10350 ST, 10350 U, with 10320 AA, 10320 BA
10318 D 10318 DP	6.5	43 cm	8 mm	9 mm	10320	10352 H, 10352 L, 10352 KF, 10352 U, with 10328 AA, 10328 BA

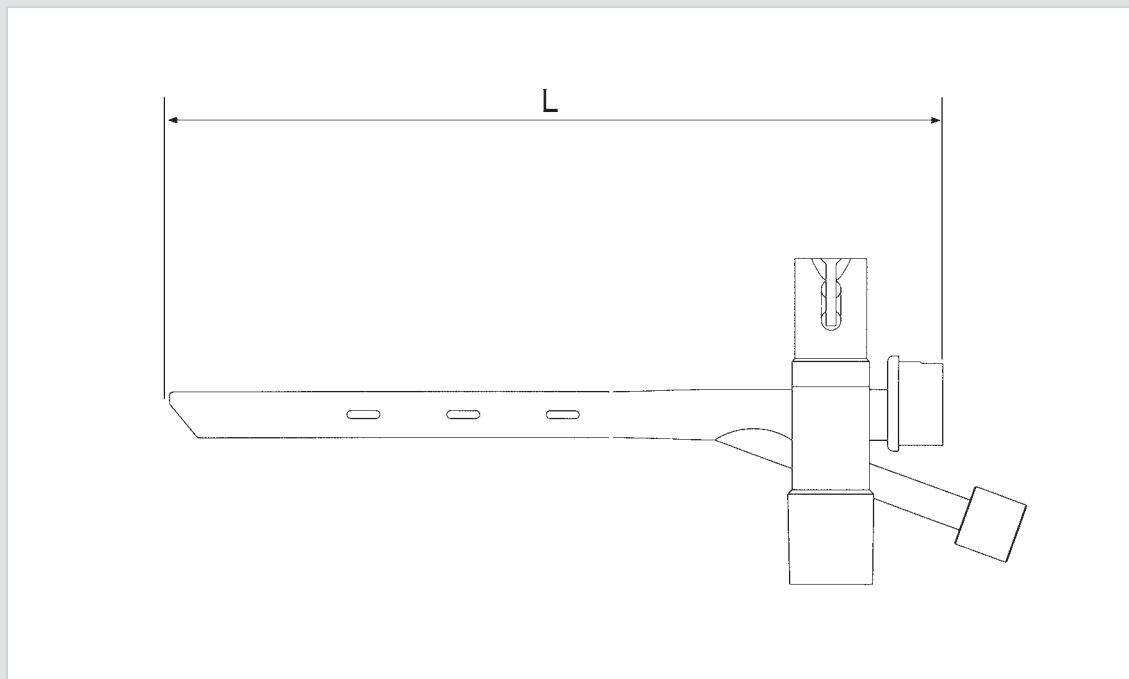
Dimensions of Universal Bronchoscopes



Art. No.	Size	Total Length - L -	Inner Diameter - I -	Outer Diameter - A -	Telescopes	Optical Forceps
10318 G	14	33 cm	13 mm	14 mm	10320	10350 HF, 10350 KF, 10350 L, 10350 M, 10350 MS, 10350 ST, 10350 U, with 10320 AA, 10320 BA
10318 GL	14	43 cm	13 mm	14 mm	10320	
10318 ER	11	43 cm	10 mm	11 mm	10320	

DOESEL-HUZLY Dimensions of Pediatric Bronchoscopes

with proximal illumination



Art. No.	Size	Total Length - L -	Telescopes	Optical Forceps
10339 AL 10339 BL	6 5	40 cm 40 cm	10023 10023	10379 CF, 10379 HF, 10379 KF, 10379 L, with 10023 ABA
10339 A 10339 B 10339 BB 10339 C 10339 G 10339 CD	6 5 4.5 4 3.7 3.5	30 cm 30 cm 30 cm 30 cm 30 cm 30 cm	10324 10020	10378 CF, 10378 HF, 10378 KF, 10378 KSF, 10378 L, 10378 M, 10378 S, 10378 U, 10378 X, with 10324 AA
10339 EEE	3	30 cm	10324 10020	-
10339 CC 10339 GG 10339 DD	4 3.7 3.5	26 cm 26 cm 26 cm	10324 10020	10377 CF, 10377 HF, 10377 KF, 10377 L, 10377 U, with 10020 ATA
10339 EE	3	26 cm	10324 10020	10374 L, 10374 HF
10339 D	3.5	18.5 cm	10018 10020	10377 CF, 10377 HF, 10377 KF, 10377 L, 10377 U, with 10020 ATA
10339 E	3	18.5 cm	10018 10020 10030	10374 L, 10374 HF, with 10030 AA
10339 F	2.5	18.5 cm	10017 10018 10020 10030	10374 L, 10374 HF, with 10030 AA



AUTOFLUORESCENCE

**FLEXIBLE
VIDEO BRONCHOSCOPE
FOR AUTOFLUORESCENCE** *NEW* 93-96

**FLEXIBLE
FIBER BRONCHOSCOPES
FOR AUTOFLUORESCENCE** 97-102

**RIGID TELESCOPES
FOR AUTOFLUORESCENCE** 103

**ACCESSORIES
FOR AUTOFLUORESCENCE** 104-115



The KARL STORZ autofluorescence endoscopy procedure provides a new diagnostic method for visualizing malignant and pre-malignant changes as early as possible. Patients only have a real chance of survival if bronchial carcinomas are diagnosed at an early stage. Due to its state-of-the-art technology, the system is compact and economically viable.

The distinguishing feature of this diagnostic system is the ability to switch from standard white light bronchoscopy into the autofluorescence diagnosis mode at any time by means of the special **D-LIGHT C (AF)** system in conjunction with specifically adapted flexible and rigid bronchoscopes. A feature of autofluorescence display is the combination of excitation and observation technique (German and international patents pending). An especially adapted endocamera (TRICAM® SL-PDD), which is 60 times more light-sensitive than a standard endocamera, complements the diagnostic system.

Autofluorescence utilizes a natural optical effect in the tissue. This examination mode does not involve any special pre-operative treatment of patients. Specifically adapted to the fluorescent structures in the submucosa, the **D-LIGHT C (AF)** system induces autofluorescence in the bronchial submucosa. The thickened epithelium near the area with the tumorous changes causes the light to be dimmer in the suspicious tumor area than in the healthy regions of the bronchial mucosa. This thickening of the epithelium, along with biochemical and tissue-specific causes, means that potentially tumorous areas are darker than the surrounding healthy tissue. Autofluorescence creates the colour contrast required to demarcate potentially tumorous areas.

In addition, the so-called **PDD Mode** offers an additional diagnosis mode which, for example, clearly displays blood vessels.

Previous and current studies show that **autofluorescence** is more effective than white light bronchoscopy alone for the early detection of bronchial carcinomas. Therefore more systematic biopsies can also be performed. Areas that appear to be normal under white light can be examined more closely and reveal clinical findings that would otherwise remain undetected or are easily overlooked.

Fluorescence diagnosis combined with our system for the early diagnosis of tumors is also used in other fields of application. In **ENT**¹⁾ laryngeal carcinomas and their extent can be detected at an earlier stage and more accurately than when viewed with pure white light. In the **oral cavity**²⁾, carcinomas can be diagnosed more precisely by prior topical ALA sensitization as opposed to PDD. Since 1996, PDD has been regularly applied in **Urology**³⁾ to increase detection sensitivity of cystoscopy for bladder carcinomas in situ. In the field of **Gynecology**⁴⁾ the laparoscopic detection rate of endometritis following prior administration of oral ALA has been considerably improved, allowing more optimized treatment. **Neurosurgery**⁵⁾ also uses our components for open PDD-assisted glioblastoma resection.

*F. STANZEL, M. D.,
Zentrum für Pneumologie und
Thoraxchirurgie, Lungenklinik Hemer
Germany*

*Prof. K. HÄUSSINGER, M. D.,
Zentrum für Pneumologie und
Thoraxchirurgie, Fachklinik München-Gauting
Germany*

*R. BAUMGARTNER, M. D.,
Laser-Forschungslabor der
Urologischen Universitätsklinik München-Großhadern,
Germany*

- 1) Prof. Dr. Ch. ARENS, Universitätsklinik für Hals-, Nasen- und Ohrenheilkunde Magdeburg
- 2) Dr. P. SCHLEIER, Klinik for spesialmedisin, oralkirurgisk seksjon, Stavanger, Norway
- 3) Prof. Dr. C. Stief, Urologische Klinik, Klinikum Großhadern, Munich
- 4) PD Dr. E. MALIK, Klinik für Frauenheilkunde und Geburtshilfe, Universität Aachen
- 5) Prof. Dr. W. Stummer, Neurochirurgische Klinik, Universitätsklinikum Münster

Video Bronchoscope for Autofluorescence ^{NEW}

for use with TELECAM SL II FI SCB 20 2130 11U1

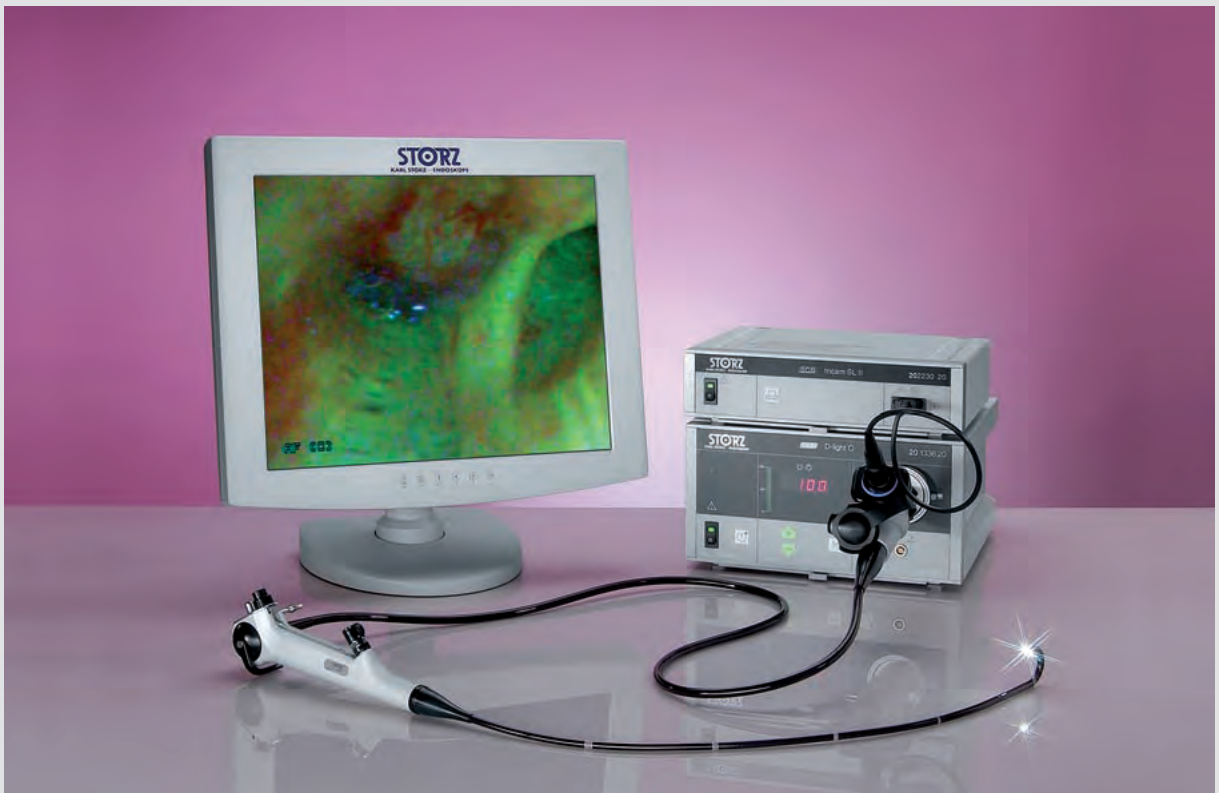
STORZ
KARL STORZ — ENDOSKOPE

KARL STORZ is expanding its line of flexible bronchoscopes with the new video bronchoscope with a distal chip for autofluorescence diagnosis. Users who no longer wish to miss out on the high image quality of videoscopes can now take advantage of the quality products of KARL STORZ in this field, too.

Whereas in the past comparatively heavy fiber optic endoscopes with a separate camera head were used in video endoscopy, this system delivers excellent color

fidelity in both the white light and autofluorescence modes. An integrated button on the handle of the video bronchoscope allows rapid switching between the white light and the blue light modes.

In combination with the TELECAM SL II FI SCB control unit and the D-LIGHT C/AF, the new video bronchoscope for autofluorescence diagnosis offers outstanding image sharpness as well as excellent brightness and representation of detail.



Video Bronchoscope for Autofluorescence *NEW*

for use with TELECAM SL II FI SCB 20 2130 11U1

STORZ
KARL STORZ — ENDOSKOPE



11900 AP

11900 AP

Video Bronchoscope for Autofluorescence and White Light Diagnosis, color system PAL, including mounted Suction Unit 11900 AE, for use with TELECAM SL II FI SCB 20 2130 11U1

Working channel: 2.3 mm
Direction of view: 0°
Angle of view: 120°
Deflection: up 180°, down 100°
Depth of view: 3 – 50 mm
Working length: 61 cm
Outer diameter: 6.2 mm

11900 AN

Same, NTSC

Following accessories included:

27677 KV **Case**
20 2130 70 **Video Connecting Cable**
13272 **Mouth Piece**
11001 KL **Biopsy Forceps**, spoon-shaped, round, flexible, double action jaws, diameter 1.8 mm, working length 120 cm
13242 LX **Leakage Tester**, with blower and manometer
11025 XE **Pressure Compensation Cap**, for ventilation during gas sterilization
27651 B **Cleaning Brush**, flexible, length 100 cm
13991 SS **Irrigation Tube**, for working channel
27656 B **Instrument Oil**, 50 ml
13990 SFN **Protective Film**

Optional accessories see pages 100-102

TELECAM SL II FI SCB ^{NEW}

for use with video bronchoscope for autofluorescence



202130 11U1 TELECAM SL II FI SCB Camera Control Unit

color systems **PAL/NTSC**, with integrated digital Image Processing Module, suitable for fluorescence applications, power supply 100 – 240 VAC, 50/60 Hz

including:

Mains Cord

S-Video (Y/C) Connecting Cable, length 180 cm

Special RGBS Connecting Cable, length 180 cm

Connecting Cable, for controlling peripheral units, length 180 cm

SCB Connecting Cable, length 100 cm

Keyboard, with US-English character set

Specifications:

Video output	- Composite signal at BNC socket - S-Video signal to 4-pin Mini-DIN socket (2x) - RGB signal to 15-pin HD D-Sub socket	Control Unit (CCU)	Dimensions: 305 x 88 x 254 mm (w x h x d)
Input	Keyboard input for title generator and camera functions to 5-pin DIN socket	Weight	2.7 kg
Control output	3.5 mm stereo jack plug (ACC 1, ACC 2, SCB)	Power supply	100-240 VAC, 50/60 Hz
		Certified to	IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601 and CE according to MDD, protection class 1/BF

The system can be operated with KARL STORZ-SCB units.

Optional accessories for TELECAM SL II FI SCB see catalog TELEPRESENCE

Components see chapter 13, SPARE PARTS AND ACCESSORIES

D-LIGHT C/AF-System SCB

for use with video bronchoscope for autofluorescence



20 1336 01-133 Cold Light Fountain D-LIGHT C/AF SCB

power supply 100 – 125/220 – 240 VAC, 50/60 Hz

including:

Mains Cord

SCB Connecting Cable, length 100 cm

One-Pedal Footswitch, one-stage, for switch function

Accessories (required in conjunction with KARL STORZ video bronchoscopes)

487 KVE **Adaptor**, for KARL STORZ light sources for use with KARL STORZ video bronchoscopes

Optional accessories

495 KS **Adaptor**, for standard KARL STORZ fiber optic light cables (not 495 NCS) in conjunction with adaptor for KARL STORZ Video Bronchoscope 487 VE

Specifications:

Lamp type	XENON 15 V, 300 Watt	Dimensions w x h x d	305 x 165 x 335 mm
Color temperature	6000 K	Weight	11 kg
Light outlets	1	Certified to:	IEC 601-1 and UL 544, protection class 1/CF
Light intensity adjustment	continuously adjustable either via a membrane keyboard or KARL STORZ Communication Bus Signal		

Optional accessories for Cold Light Fountain D-LIGHT C/AF SCB, Spare Lamps and Spare Lamp Modules see catalog TELEPRESENCE

The system can be operated with KARL STORZ-SCB units.

Components see chapter 13, SPARE PARTS AND ACCESSORIES


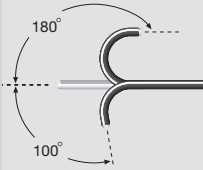

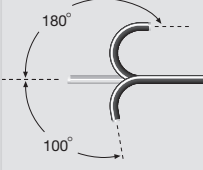

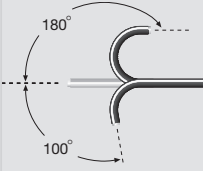
Broncho-Fiberscopes for Autofluorescence

Special Features:

- Large viewing angle and movable distal tip for better orientation
- Working channel for the use of operating instruments
- Functional: simultaneous suction and administration of medication via removable suction valve
- Waterproof, fully immersible for cleaning and disinfection
- Simple leakage test takes only a few minutes and requires no additional accessories
- Sterilizable via EtO and FO gas, Steris® and Sterrad®
- Recommended for use with KARL STORZ ENDOVISION® TRICAM® SL II PDD SCB System
- Exceptional optical quality of both lens and fiber optic image transmission bundle
- Resistant construction and robust mechanical components ensure long life of the instrument.



Broncho-Fiberscopes for Autofluorescence

Broncho-Fiberscopes (AF)	Part No.		Deflection up/down	Direction of view	Angle of view	Working length
6.4 mm x 54 cm Broncho-Fiberscope	11004 BI			0°	110°	54 cm
5.6 mm x 54 cm Broncho-Fiberscope	11009 BI			0°	110°	54 cm
5 mm x 54 cm Broncho-Fiberscope	11001 BI			0°	110°	54 cm



Fluid Light Cable for use with Broncho-Fiberscopes for Autofluorescence and Photodynamic Diagnosis (PDD)

495 FO
495 FP

Fluid Light Cable, diameter 3 mm, length 180 cm
Fluid Light Cable, diameter 3 mm, length 250 cm



39402 A

Plastic Container, for gas or plasma sterilization and storage

	Total length	Working channel inner diameter	Distal tip outer diameter	Accessories (included in delivery)						
				Case	Pressure Comp. Cap	Leakage Tester	Mouth Piece	Cleaning Brush	Biopsy Forceps	Grasping Forceps
	82 cm	2.8 mm	6.4 mm	27677 BB	11025 E	13242 XL	13272	27651 C	11001 KL	11002 KS
	82 cm	2.6 mm	5.5 mm	27677 BB	11025 E	13242 XL	13272	27651 C	11001 KL	11002 KS
	82 cm	2.3 mm	5.2 mm	27677 BB	11025 E	13242 XL	13272	27651 B	11001 KL	11002 KS

Accessories included in delivery:



27677 BB

Case

11025 E

Pressure Compensation Cap, for ventilation during gas sterilization

13242 XL

Leakage Tester, with bulb and manometer



13272

Mouth Piece

27651 B

Cleaning Brush, round, flexible, outer diameter 3 mm, for working channel diameter 1.8 – 2.6 mm, length 100 cm



27651 C

Cleaning Brush, round, flexible, outer diameter 4 mm, for working channel diameter 2.4 – 3.6 mm, length 230 cm



11001 KL

Biopsy Forceps, spoon-shaped, round, flexible, double action jaws, diameter 1.8 mm, working length 120 cm

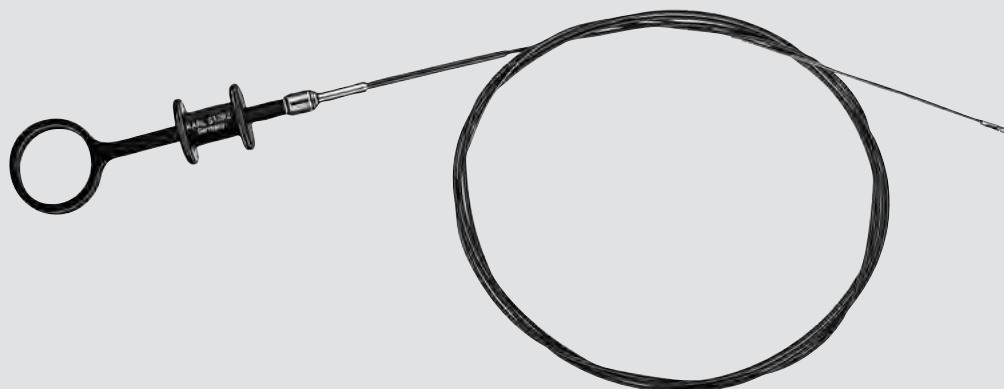









11002 KS

Grasping Forceps, alligator jaws, flexible, double action jaws, diameter 1.8 mm, working length 120 cm

Optional Accessories

for Flexible Bronchoscopes











			Dia.	Length	for use with			
					11004 BI	11009 BI	11001 BI	11900 AP/AN
	11002 KT	Grasping Forceps , alligator jaws, round, flexible, double action jaws	1.8 mm	120 cm	●	●	●	●
	13252 KT		2.3 mm		●	●	-	-
	11002 KU	Grasping Forceps , spoon-shaped, serrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	●
	13252 KU		2.3 mm		●	●	-	-
	11002 KX	Grasping Forceps , alligator jaws, serrated, 3x 4 teeth, flexible, double action jaws	1.8 mm	120 cm	●	●	●	●
	13252 KX		2.3 mm		●	●	-	-
	11002 KZ	Grasping Forceps , serrated, 1x 2 teeth, flexible, double action jaws	1.8 mm	120 cm	●	●	●	●
	13252 KZ		2.3 mm		●	●	-	-
	11001 KM	Biopsy Forceps , spoon-shaped, round, with spike, fenestrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	●
	13250 KM		2.3 mm		●	●	-	-
	11001 KN	Biopsy Forceps , spoon-shaped, oval, fenestrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	●
	13250 KN		2.3 mm		●	●	-	-
	11001 KP	Biopsy Forceps , spoon-shaped, oval, with spike, fenestrated, flexible, double action jaws	1.8 mm	120 cm	●	●	●	●
	13250 KP		2.3 mm		●	●	-	-

Further Accessories for Flexible Bronchoscopes see chapter 3, BRONCHOSCOPY

Optional Accessories










for Flexible Bronchoscopes

			for use with			
			11004 BI	11009 BI	11001 BI	11900 AP/AN
	10770 B	Button Electrode , flexible, with connector pin for unipolar coagulation, diameter 1.7 mm, length 80 cm	●	●	●	●
	11161 KE	Coagulation Electrode , unipolar, flexible, diameter 1 mm, length 110 cm	●	●	●	●
	11007 BS	Brush , for cytology, outer diameter 1.7 mm, working length 80 cm, with Handle 13266 H and Outer Tube 11007 S	●	●	●	●
	11007 E	Brushes , package of 10	●	●	●	●
	11007 S	Outer Tube , outer diameter 1.7 mm, working length 80 cm, for Brush 11007 BS, package of 10	●	●	●	●
	13266 H	Handle , for Brush 11007 BS	●	●	●	●
	11008	Suction Catheter , diameter 1.7 mm, length 100 cm, with Adaptor 10479 F	●	●	●	●
	11008 E	Catheter , 5 Fr., without adaptor	●	●	●	-
	10479 F	Adaptor , for Suction Catheter 10468 D, 10478 D and 11008 E	●	●	●	-

5-06

Optional Accessories

for Flexible Bronchoscopes

			for use with		
			11004 BI	11009 BI	11001 BI
	11301 CA	Leaflet Valve , for single use, package of 20	•	•	•
	11301 CB	Suction Valve , reusable	•	•	•
	11301 CD	Irrigation Adaptor , for suction valve attachment, for fiberscopes	•	•	•
	11301 CE	Suction Valve , for single use, package of 20	•	•	•
	11301 BM	Adaptor , for leakage test, for Belimed washer-disinfectors	•	•	•
	11301 FF2	Adaptor for MIELE Cleaning Machines , with security valve, for automatic leakage test of flexible KARL STORZ endoscopes	•	•	•
	11301 GG2	Adaptor , for cleaning and disinfecting the irrigation and working channels of flexible endoscopes, for MIELE-ETD washer-disinfectors	•	•	•
	11301 HH	Adaptor for BHT Cleaning Machines , for automatic leakage test of flexible KARL STORZ endoscopes	•	•	•
	11301 KK2	Adaptor , for working channel, for MIELE washer-disinfectors (ETD 03), 11301 FF2 and 11301 GG2 has to be added to order	•	•	•

HOPKINS® Telescopes for Autofluorescence

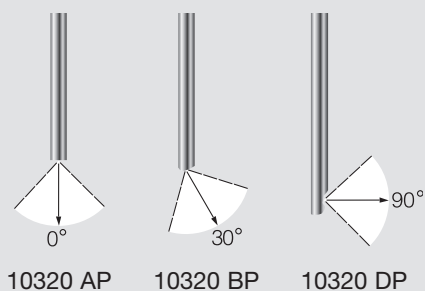
10320 AP – DP



- 10320 AP **HOPKINS® Straight Forward Telescope 0°**, diameter 5.5 mm, length 50 cm, **autoclavable**, for autofluorescence diagnosis, fiber optic light transmission and filter wheel AF/WL incorporated, color code: green
- 10320 BP **HOPKINS® Forward-Oblique Telescope 30°**, diameter 5.5 mm, length 50 cm, **autoclavable**, for autofluorescence diagnosis, fiber optic light transmission and filter wheel AF/WL incorporated, color code: red
- 10320 DP **HOPKINS® Lateral Telescope 90°**, diameter 5.5 mm, length 50 cm, **autoclavable**, for autofluorescence diagnosis, fiber optic light transmission and filter wheel AF/WL incorporated, color code: blue

Fluid Light Cable for use with HOPKINS® Telescopes for Autofluorescence and Photodynamic Diagnosis (PDD):

495 FS **Fluid Light Cable**, diameter 2 mm, length 220 cm



HOPKINS® Telescopes for use with Bronchoscopes
see chapter 3, BRONCHOSCOPY, TRACHEOSCOPY

TRICAM® SL II

Three-Chip Camera System, Color Systems PAL/NTSC,
Digital Imaging Processor

TRICAM® SL II is the endoscopic video platform offered by KARL STORZ for all endoscopically assisted applications and video display of the highest image quality.

Thanks to its ergonomic, compact design, this CCD sensor technology separates the optical image of the 3-CCD image sensor into the three primary colors by means of a specially coated color prism.

Each individual CCD sensor receives a specific color with the maximum line representation.

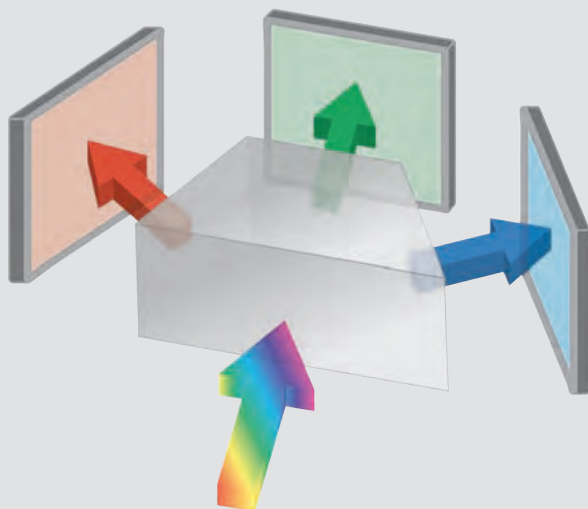
The separate processing of the primary color information red, green, and blue means that all colors can be optimally captured with this process. Furthermore, the use of all three CCD sensors offers up to three times more detail enhancement.

TRICAM® SL II offers a high degree of optoelectronic accuracy and precision.

Signals are processed by means of a digital image processor. The endoscopic image is produced true to the original image. The image processor also assumes automatic image optimization during continuously changing illumination and color conditions. Manual adjustment is therefore no longer necessary.

The user has several preassigned digital-optimization-filters at his disposal for adjustment to rigid, semirigid and flexible endoscopes at the touch of a button.

Video outputs such as Digital-Video (DV) and all analog signal variations are an integral feature of **TRICAM® SL II** standard equipment.



Special Features:

- Best image quality and display due to 3-CCD sensor chip technology
- Enhanced signal quality through Digital Signal Processing (contrast and filter enhancement for rigid, semirigid and flexible endoscopes).
- Optimal image size display, regardless of the telescope used, thanks to patented Parfocal Optical Zoom Lens
- Simplified operation reduces camera movement, i.e. prevents damage to or soiling of the lens
- Constant illumination due to the auto-exposure system ensures seamless transitions between images, regardless of imaging area or available light
- Functionality at the touch of a button with easy-to-programme operating elements via intuitive control of all functions in the sterile area
- Parameters of the OR equipment used, light sources, etc. can be displayed and controlled (KARL STORZ Communication Bus) on the monitor
- Digital video output (DV) for digital recording
- Digital Zoom 1 – 2x can be adjusted to 4 levels
- “Freeze Frame” function can be activated via camera head buttons or an external footswitch
- Fluorescence imaging

TRICAM® SL II

Camera Control Unit SCB



20 2230 11U1 Tricam® SL II Camera Control Unit SCB

color systems **PAL/NTSC**, with **KARL STORZ-SCB** and integrated digital Image Processing Module

Mains Cord

Keyboard, with US-English character set

2x **Connecting Cable**, for controlling peripheral units, length 180 cm

BNC/BNC Video Cable, length 180 cm

S-Video (Y/C) Connecting Cable, length 180 cm

Special RGBS Connecting Cable, length 180 cm

SCB Connecting Cable, length 100 cm

DV Connecting Cable, 6 pin to 4 pin, length 450 cm

Specifications:

Video output	- Composite signal at BNC socket - S-Video signal to 4-pin Mini-DIN socket (2x) - RGBS signal to 4x BNC sockets - DV signal to 6-pin DV socket	Camera Control Unit (CCU)	Dimensions: 305 x 88 x 254 mm (w x h x d)
Input	Keyboard input for character generator and control functions, 6-pin Mini-DIN socket	Weight	2.7 kg
Control output/input	KARL STORZ-SCB to 6-pin Mini-DIN socket (2x), 3.5 mm stereo jack plug (ACC 1, ACC 2)	Power supply	100-240 VAC, 50/60 Hz
		Certified to:	IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601, and CE acc. to MDD, protection class 1/BF

Optional Accessories for TRICAM® SL II see catalog TELEPRESENCE

Components see chapter 13, SPARE PARTS AND ACCESSORIES

TRICAM® SL II

Camera Heads

For use with TRICAM® SL II Camera Control Unit SCB 20 2230 11U1

TRICAM® PDD Three-Chip Pendulum Camera Head



20 2210 39 / 20 2211 39

20 2210 39	PAL	TRICAM® PDD Three-Chip
20 2211 39	NTSC	Pendulum Camera Head

color systems **PAL/NTSC**, soakable, gas-sterilizable, with pendulum system and fixed focus, $f = 14$ mm, 2 freely programmable camera head buttons, for photodynamic early diagnosis

TRICAM® PDD Three-Chip Camera Head



20 2210 37 / 20 2211 37

20 2210 37	PAL	TRICAM® PDD
20 2211 37	NTSC	Three-Chip Camera Head

color systems **PAL/NTSC**, soakable, gas-sterilizable, with integrated Parfocal Zoom Lens, $f = 25 - 50$ mm (2x), 2 freely programmable camera head buttons, for photodynamic early diagnosis

Specifications:

TRICAM® Camera Heads	PDD Three-Chip Pendulum Camera Head	PDD Three-Chip Camera Head
PAL	20 2210 39	20 2210 37
NTSC	20 2211 39	20 2211 37
Image sensor	3x ¼" CCD chip	3x ½" CCD chip
Pixels	752 x 582 (PAL)	752 x 582 (PAL)
Output signal H x V	768 x 494 (NTSC)	768 x 494 (NTSC)
Resolution (horizontal)	min. 750 lines	min. 750 lines
Dimensions	Diameter 29-37 mm, length 117 mm	37 x 47 mm, length 124 mm
Weight	170 g	240 g
Min. sensitivity	F 1.4/3 Lux (standard)	F 1.4/3 Lux (standard)
Lens	Pendulum system, fixed focus, $f = 14$ mm	Integrated Parfocal Zoom Lens, $f = 25-50$ mm
Grip mechanism	Standard eyepiece adaptor	Standard eyepiece adaptor

Optional accessories for TRICAM® SL II see catalog TELEPRESENCE

D-LIGHT C/AF System SCB

Special Features:

- For photodynamic early diagnosis in bronchoscopy
- Facility for switching between reduced white light, autofluorescence mode and Protoporphyrin IX fluorescence mode (optional)
- With integrated KARL STORZ Communication Bus (KARL STORZ-SCB)



20 1336 01-133 Cold Light Fountain D-LIGHT C/AF SCB

power supply 100 – 125/220 – 240 VAC, 50/60 Hz
including:

Mains Cord

SCB Connecting Cable, length 100 cm

One-Pedal Footswitch, one-stage, for switch function

Specifications:

Lamp type	XENON 15 V, 300 Watt	Dimensions w x h x d	305 x 165 x 335 mm
Color temperature	6000 K	Weight	11 kg
Light outlets	1	Certified to	IEC 601-1 and UL 544, protection class 1/CF
Light intensity adjustment	continuously adjustable, either via a membrane keyboard or KARL STORZ Communication Bus Signal		

Spare Lamps and Spare Lamp Modules for Cold Light Fountains D-LIGHT C/AF SCB

see catalog TELEPRESENCE

The system can be operated with KARL STORZ-SCB units.

Components see chapter 13, SPARE PARTS AND ACCESSORIES

The Compact Documentation Solution

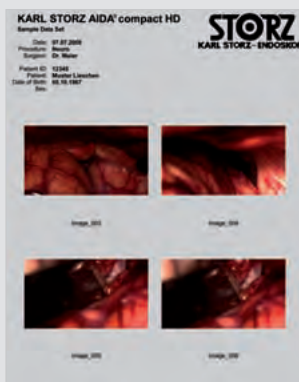
The new KARL STORZ AIDA® compact NEO advanced/standard system combines all the required functions for integrated and precise documentation in a single system. All functions are centrally controlled via touch screen, footswitch, camera head buttons or voice control directly from the sterile area.



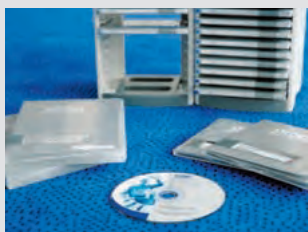
AIDA compact NEO advanced/standard: Voice control



AIDA compact NEO advanced/standard: Review screen



AIDA compact NEO advanced/standard: Automatic creation of standard reports



AIDA compact NEO advanced/standard: Efficient archiving

Data Acquisition

AIDA compact NEO advanced/standard records still images, video sequences (in HD quality) and spoken comments of findings and intraoperative procedures directly from the sterile area. Recordings are activated at a finger tip via touch screen, voice control, footswitch or camera head buttons.

Live display of camera images on the touch screen enables immediate monitoring and selection of the recorded data.

Flexible Review

Before final archiving, the saved data can be viewed or listened to and processed on the review screen. Data no longer required can be simply deleted.

Individual images, video and audio sequences can be renamed and given more meaningful names. A pre-defined selection list with keywords simplifies and speeds up data entry.

A voice entry of the case report can even be recorded while viewing video and image files.

Automated Data Archiving

Once a treatment is completed, AIDA compact NEO advanced/standard automatically stores the data on a DVD, creates a standard report, and prints it as an overview if required.

Multisession and Multipatient

Efficient data archiving is assured as the data of several patients can be saved on a DVD, a USB stick or optionally on Blu-ray.

Data Management and Documentation

KARL STORZ AIDA® compact NEO advanced/standard

Special features:

- Digital storage of still images with a resolution of 1920 x 1080, video sequences in 720p and audio files
- DICOM/HL7 interface package
- Sterile, ergonomic operation via touch screen, voice control, camera head buttons and/or footswitch
- Automatic recognition of connected camera systems at HD-SDI/SD-SDI inputs (of IMAGE1 camera systems at SD-SDI input only)
- Efficient archiving on DVD, CD-ROM, USB stick and multipatient
- Network storage possible
- Optional connection to PACS, RIS and HIS
- Automatic creation of standard reports
- Computers and monitors for use in the OR area certified according to EN 60601-1
- Compatible with KARL STORZ Communication Bus (SCB) and OR1™ AV system NEO
- KARL STORZ AIDA® compact NEO advanced/standard as an attractive, digital alternative to video printers, video recorders and dictating machines



20 0409 13-EN* **KARL STORZ AIDA® compact NEO advanced**

Documentation system for digital storage of still images, video sequences and audio files, power supply 115/230 VAC, 50/60 Hz

including:

KARL STORZ AIDA® control NEO, with integrated DVD/CD writer, Blu-ray reading possible

AIDA compact HD Frame Grabber Card

PS/2 Compact Keyboard, US-English, with cover

KARL STORZ AIDA® compact NEO Software, with voice control and software protection

KARL STORZ USB Stick, 2 GB

2x **Connecting Cables**, for controlling peripheral units, length 180 cm

BNC/BNC Video Cable, length 180 cm

BNC Connecting Cable, length 30 cm

DVI-D Connecting Cable, length 180 cm

Mains Cord

Connecting Cable, Mini-DIN plug to BNC socket, length 150 cm

20 0409 12-EN* **KARL STORZ AIDA® compact NEO standard**

Documentation system for digital storage of still images, video sequences and audio files, power supply 115/230 VAC, 50/60 Hz

* Available in the following languages: DE, ES, FR, IT, NL, NO, PT, PL, RU, DK, SE, JP, CN

Specifications:

Video systems	- PAL - NTSC	Video formats	- MPEG2
Signal inputs	- S-Video (Y/C) - Composite - RGB (standard only) - SD-SDI (standard only) - HD-SDI (standard only) - DVI-D (advanced only)	Audio formats	- WAV
Image formats	- JPG - BMP	Storage media	- DVD+R - DVD+RW - DVD-R - DVD-RW - CD-R - CD-RW - USB stick

Accessories

for AIDA compact NEO advanced/standard

KARL STORZ TFT Flat Screens



W29519 N



W29519 NB

KARL STORZ TFT Flat Screens	19"
Desktop with Pedestal	W29519 N
Wall-mounted with VESA 100-adaption	W29519 NB
Inputs:	
SDI	●
HD-SDI	●
RGBS	●
S-Video	●
Composite	●
SOG	●
DVI-D	●
Fiber Optic	–
VGA	●
Outputs:	
SDI	●
HD-SDI	●
RGBS	●
S-Video	●
Composite	●
DVI-D	●
Signal format displays:	
4:3	●
5:4	●
16:9	●
16:10	●
Picture-in-Picture (PiP, HD – SD)	●
Picture-in-Picture (PiP, HD – HD)	●
PAL/NTSC compatible	●
Picture-Perfect Technology	●

Accessories included in delivery:

- 400 A **Mains Cord**, length 300 cm
- 9419 PS **Power Supply**
- 9526 SF **Pedestal** 19", 24" and 26" monitors

W29519 N 19" KARL STORZ TFT Flat Screen

Desktop with pedestal, color systems **PAL/NTSC**, max. screen resolution 1280 x 1024, power supply 100 – 240 VAC, 50/60 Hz

W29519 NB 19" KARL STORZ TFT Flat Screen

Wall mounted with VESA 100 adaption, color systems **PAL/NTSC**, max. screen resolution 1280 x 1024, power supply 100 – 240 VAC, 50/60 Hz

including:

External 24VDC Power Supply

Mains Cord

Signal cables: S-Video, BNC, SXGA

Specifications:

KARL STORZ TFT Flat Screens	19"
Desktop with Pedestal	W29519 N
Wall-mounted with VESA 100-adaption	W29519 NB
Brightness	300 cd/m ²
Max. viewing angle	178° vertical
Pixel distance	0.294 mm
Reaction time	10-16 ms
Contrast ratio	600:1
Mount	100 mm VESA
Weight	6.8 kg
Rated power	65 Watt
Operating conditions	0-38 °C
Storage	-20-60 °C
Relative humidity	5-85%, non-condensing
Dimensions w x h x d	465 x 400 x 98 mm
Power supply	100-240 VAC
Certified to	EN 60601-1, UL 60601-1, MDD 93/42/EEC, protection class IPX 1

Accessories

for AIDA compact NEO advanced/standard

KARL STORZ Touch Screens



20 0904 03/20 0904 06



20 0904 01/20 0904 05

KARL STORZ Touch Screens	15"	19"
Desktop with Pedestal	20 0904 03	20 0904 06
Wall-mounted with VESA 75/100-adaption	20 0904 01	20 0904 05
Inputs:		
VGA	●	●
SVGA	●	●
XGA	●	●
SXGA	-	●
Screen Diagonal:		
38 cm	●	-
48 cm	-	●
Max. Screen Resolution:		
1024 x 768	●	-
1280 x 1024	-	●

Specifications:

KARL STORZ Touch Screens	15"	19"
Desktop with Pedestal	20 0904 03	20 0904 06
Wall-mounted with VESA 75/100-adaption	20 0904 01	20 0904 05
Monitor type	TFT-LCD monitor with active matrix	TFT-LCD monitor with active matrix
Display	304 x 228 mm	376 x 301 mm
Touch Screen	AccuTouch	AccuTouch
Colors	16 million with pixel shading	16 million with pixel shading
Brightness	250 cd/m ² (typ.)	250 cd/m ² (typ.)
Viewing angle	Horizontal 80° Vertical 80°	Horizontal 85° Vertical 85°
Contrast ratio	400:1 (typ.)	500:1 (typ.)
Monitor reaction time	25 ms	25 ms
Pixel distance	0.30 mm	0.29 mm
Input signal level	0.7 Vpp	0.7 Vpp
Rated power	48 VA	90 VA
Connections	- D-Sub - VGA-compatible analog-RGBS	- D-Sub - VGA-compatible analog-RGBS
Power supply	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
Certified tot	EN 60601-1, CSA 22.2 No. 601.1, UL 2601-1	EN 60601-1, CSA 22.2 No. 601.1, UL 2601-1
Mechanical values	- Weight: max. 6.5 kg - Dimensions w x h x d: 375 x 356 x 205 mm	- Weight: max. 10.5 kg - Dimensions w x h x d: 432 x 467 x 251 mm

20 0904 01 15" KARL STORZ Touch Screen

Wall or swivel-arm mounting, VGA/SVGA/XGA, resolution max. 1024 x 768 (XGA mode), power supply 100 – 240 VAC, 50/60 Hz, incl. 3 touch screen covers

including:

Touch Pen, for KARL STORZ touch screens

Adaptor, VESA 75

Signal cables: RS 232, SVGA

20 0904 03 15" KARL STORZ Touch Screen

Desktop, VGA/SVGA/XGA, resolution max. 1024 x 768 (XGA mode), power supply 100 – 240 VAC, 50/60 Hz, incl. 3 touch screen covers

including:

Touch Pen, for KARL STORZ touch screens

Pedestal, for 15" KARL STORZ Touch Screen

Signal cables: RS 232, SVGA

20 0904 05 19" KARL STORZ Touch Screen

Wall or swivel-arm mounting, VGA/SVGA/XGA/SXGA, resolution max. 1280 x 1024 (SXGA mode), power supply 100 – 240 VAC, 50/60 Hz, incl. 3 touch screen covers

including:

Touch Pen

Signal cables: RS 232, SVGA

20 0904 06 19" KARL STORZ Touch Screen

Desktop, VGA/SVGA/XGA/SXGA, resolution max. 1280 x 1024 (SXGA mode), power supply 100 – 240 VAC, 50/60 Hz, incl. 3 touch screen covers

including:

Touch Pen

Pedestal

Signal cables: RS 232, SVGA

Accessories:

20 0904 81 Mains Adaptor, for 15" KARL STORZ Touch Screen

20 0903 31, with 300 cm low voltage cable

20 0904 88 Same, with 10 m low voltage cable

20 0904 85 Mains Adaptor, for 19" KARL STORZ Touch Screen

20 0904 37, with 300 cm low voltage cable

20 0904 89 Same, with 10 m low voltage cable

20 0903 86 Touch Pen, for KARL STORZ touch screens

20 0904 86 Pedestal, for 15" KARL STORZ Touch Screen **20 0903 31**

20 0904 87 Pedestal, for 19" KARL STORZ Touch Screen **20 0903 37** and **20 0904 37**

041165-20* Sterile Cover, for 15" KARL STORZ touch screen

041265-20* Sterile Cover, for 19" KARL STORZ touch screen

Accessories

for AIDA compact NEO advanced/standard

	29005 SZ	Monitor Swivel Arm , height and side adjustable, can be mounted on the left or on the right side, swivel range 180°, reach 600 mm, for side boom as of 800 mm, loading capacity max. 14 kg, with monitor holder VESA 75/100, for Equipment Cart 29005 LAP/GU/BAS
	20 0402 73	Bar Code Scanner
	9370 TQ	Color Ink Jet Printer , with horizontal paper feed, incl. mains cord, USB printer cable, length 200 cm, black and color ink jet cartridges
	9370 TP	Photo Ink Jet Printer Paper , for use with Printer 9370 TE/TH/TI/TL/TRN/TQ
	9371 LA	Color Laser Printer , including mains cord, USB printer cable, length 200 cm
	20 0902 34U	PS/2 Compact Keyboard , US-version, with cover
	20 0402 32	PS/2 Silicone Keyboard , German version, washable, disinfectable
	20 0104 30	Two-Pedal Footswitch , two-stage

Accessories

for AIDA compact NEO advanced/standard

20 0402 72	SVGA Connecting Cable , length 600 cm
20 0400 73	RS 232 Connecting Cable , length 600 cm
20 0400 74	Printer Cable , length 300 cm
20 0401 74	Printer Cable , length 500 cm
20 0103 70	Potential Equipotential Cable , length 200 cm
20 0102 70	Potential Equipotential Cable , length 500 cm
W20475	OR1™ Network Isolator , for galvanic decoupling of units with RJ45 network connection (100 Mbit)
20 0900 34	Ethernet Network Board , 10/100 Mbit/s
20 0900 37	Fiber Optic Network Board , 100 Base-FX (SC)
20 0901 71	Fiber Optic Network Cable , length 100 cm, LWL-patch cable with ST and SC plugs, configured
20 0900 36	Media Converter , converts a ST-Port 100 Base-FX to a RJ45 100 Base-TX, including power supply
20 0400 76	RJ45 Network Cable , length 500 cm
20 2040 80	CD-R , 700 MB, package of 10
20 2040 81	DVD+RW , 4.7 GB, package of 5
20 2040 82	DVD+R , 4.7 GB, package of 10
20 2040 83	DVD-R , 4.7 GB, package of 10



MEDIASTINOSCOPY

**DISTENDING
VIDEO MEDIASTINOSCOPE** 119-121

VIDEO MEDIASTINOSCOPES 122-123

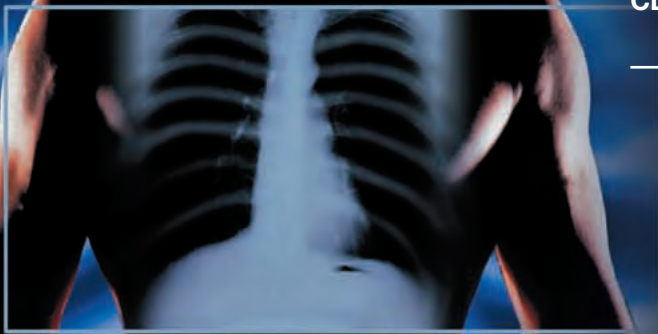
**CARLENS
MEDIASTINOSCOPES** 124

**DISMANTLING
INSTRUMENTS** 125-126

**NON-DISMANTLING
INSTRUMENTS** 127-128

**INSTRUMENTS WITH
CONNECTOR PIN FOR
UNIPOLAR COAGULATION** 129-130

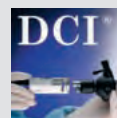
CLIP FORCEPS 131



DCI® Camera Systems

Special Features:

- **KARL STORZ ENDOVISION® DCI® Endoscopy System (Direct Coupled Interface)**
- **2 programmable function keys on the DCI® camera head for controlling camera functions and other peripheral units**
- **Compatible with KARL STORZ IMAGE1 and IMAGE 1 HUB™ HD camera control units**
- **Safe, simple and simultaneously operating image and light transmission**
- **Offers a consistent, optimum image size**
- **Ergonomic handling as DCI® camera is integrated in the DCI® video mediastinoscope handle**
- **Camera cover specifically adapted to the DCI® camera can be inserted with the camera into the handle**



22 2600 31-3 / 22 2601 31-3

22 2600 31-3	PAL	IMAGE 1
22 2601 31-3	NTSC	D1 One-Chip DCI® Camera Head

color systems **PAL/NTSC**, soakable, gas-sterilizable, fixed focus, f = 16 mm, 2 freely programmable camera head buttons, **for use with DCI® HOPKINS® telescopes**



22 2010 11U1	IMAGE 1 HUB™ HD Camera Control Unit SCB
--------------	--

for use with IMAGE1 FULL HD and IMAGE1 standard one- and three-chip camera heads, max. resolution 1920 x 1080 pixels, with integrated **KARL STORZ-SCB** and integrated digital Image Processing Module, color systems **PAL/NTSC**, power supply 100 – 240 VAC, 50/60 Hz

including:

Mains Cord

S-Video (Y/C) Connecting Cable

2x **Connecting Cable**, for controlling peripheral units

DVI-D Connecting Cable

SCB Connecting Cable

Keyboard, with US English character set

22 2010 11U102	Same, with SDI module
----------------	------------------------------

including (deviates from 22 2010 11-1):

IMAGE 1 HUB™ HD Camera Control Unit SCB, with SDI module

BNC/BNC Video Cable

Optional accessories for IMAGE1 system see catalog TELEPRESENCE

Components see chapter 13, SPARE PARTS AND ACCESSORIES

LINDER/HÜRTGEN Distending DCI® *NEW* Video Mediastinoscope

The mediastinoscopy method first used by Carlens in 1959 has developed from being a difficult and complicated method to an intervention under direct visual control with low mortality and morbidity due to the introduction of the video mediastinoscope.

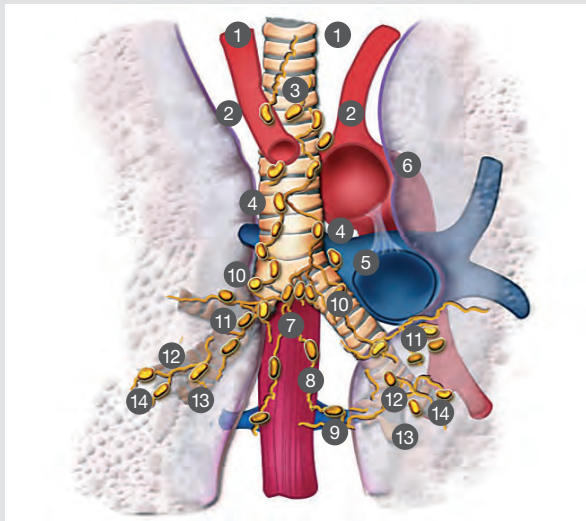
Endoscopic visualization with the video mediastinoscope allows precise dissection of mediastinal structures and enhances diagnostic sensitivity. With the advancement of the method of classical diagnostic mediastinoscopy to video-assisted mediastinal lymphadenectomy (VAMLA), the demands made on the

mediastinoscope has also increased. The new video mediastinoscope developed by KARL STORZ is an instrument that meets these requirements.

The new distending video mediastinoscope from KARL STORZ allows the surgical approach to be extended to single-handed use by turning the adjustment wheels in the handle, enabling complex endoscopic interventions to be performed on the mediastinum.

Special Features:

- **Straightforward and ergonomic control of adjustment wheels for distension**
- **Ergonomic handle with slot for the DCI® camera head**
- **Holding arm integrated, bimanual work also possible**
- **Greater freedom of movement due to height adjustment of blade upper and underside**
- **Integrated irrigation and suction channels**
- **Atraumatic blade shape**
- **Special cover for DCI® camera; cover can be inserted with camera into the handle**



Superior Mediastinal Nodes

- ① Highest Mediastinal
- ② Upper Paratracheal
- ③ Pretracheal
- ④ Lower Paratracheal
- ⑤ Subaortic
- ⑥ Para-aortic

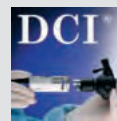
Inferior Mediastinal Nodes

- ⑦ Subcarinal
- ⑧ Paraesophageal
- ⑨ Pulmonary Ligament

N1 Lymph Nodes

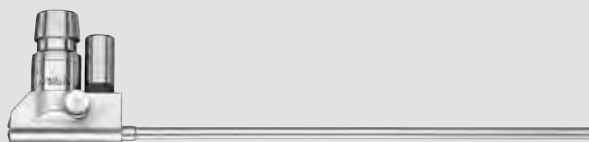
- ⑩ Hilar
- ⑪ Interlobar
- ⑫ Lobar
- ⑬ Segmental
- ⑭ Subsegmental

LINDER/HÜRTGEN Distending DCI® *NEW* Video Mediastinoscope

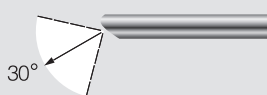


10972 SP

10972 SP LINDER/HÜRTGEN **Distending DCI®**
Video Mediastinoscope, length 20 cm



10970 BA



10970 BA **DCI® HOPKINS® Forward-Oblique Telescope 30°**,
diameter 4 mm, length 14 cm, **autoclavable**, fiber
optic light transmission incorporated, with 90°
adaption to the DCI® video camera



495 DC **Fiber Optic Light Cable**, diameter 3.5 mm,
length 320 cm, for DCI® camera heads and
DCI® telescopes

Please note:

As sterile covers for the KARL STORZ DCI® camera head, we recommend the use of elastic camera head covers by:



mtp medical technical promotion gmbh
Take-Off GewerbePark 46
D-78579 Neuhausen ob Eck
Germany
Telephone: +49/74 67/9 45 04-0
Fax: +49/74 67/9 45 04-99

Optimization of a Tried and Tested Procedure

The development of video-assisted operative techniques in recent years has opened up new vistas in surgery. Although new fields of application are being included almost daily, the development of new instruments have mainly focused on the field of abdominal surgery and – to a lesser extent – thoracoscopy.

In conjunction with KARL STORZ, a mediastinoscope was designed which can create a video recording of a mediastinoscopy. As the instrument channel of the mediastinoscope remains unchanged, surgical intervention can still be performed under direct visual control. The in-built telescope also facilitates coupling a video camera and creating a video recording during the procedure.

*Prof. T. LERUT, M. D.,
Leuven, Belgium*

The advantages of this system are:

- The operation can also be performed under direct visual control even with the inserted telescope and video camera.
- Standard mediastinoscopy is, due to the narrow working channel, very difficult to teach. As simultaneous recording and display on a monitor is possible, several people can view the operation at the same time. This greatly improves the facility for teaching this procedure.
- Mediastinoscopy is accepted worldwide as the procedure of choice for staging lung cancer. However, the methods of obtaining biopsies seem to vary considerably. Recording the procedure would therefore result in more accurate diagnosis when the evaluation of diagnostic findings differ (e.g. as with focal lymph nodes).
- Widespread use of video recordings internationally could lead to a better understanding and standardization of the procedure.



Fig. 1: Anterior surface of the trachea with tracheal rings, left tracheobronchial lymph nodes in situ



Fig. 2: Pretracheal lymph nodes – right paratracheal lymph nodes prior to removal

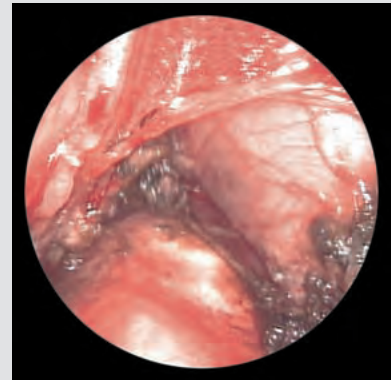


Fig. 3: Pretracheal and paratracheal lymph nodes after removal (Fig. 2); view of the front surface of the trachea and the superior vena cava

*Images and captions courtesy of
Dr. S. EGGELING, Universitätsklinikum Freiburg, Abteilung Thoraxchirurgie, Germany*

LERUT DCI® Video Mediastinoscope

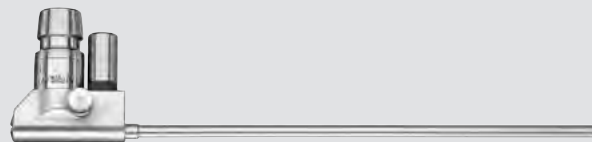


10971 MV

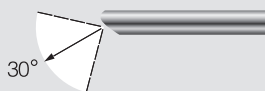
10971 MVS

10971 MV LERUT DCI® Video Mediastinoscope, with proximal lateral slit, length 15 cm

10971 MVS LERUT DCI® Video Mediastinoscope, with uninterrupted lateral slit, length 15 cm



10970 BA



10970 BA DCI® HOPKINS® Forward-Oblique Telescope 30°, diameter 4 mm, length 14 cm, **autoclavable**, fiber optic light transmission incorporated, with 90° adaption to the DCI® video camera



495 DC **Fiber Optic Light Cable**, diameter 3.5 mm, length 320 cm, for DCI® camera heads and DCI® telescopes

Please note:

As sterile covers for the KARL STORZ DCI® camera head, we recommend the use of elastic camera head covers by:



mtp medical technical promotion gmbh
 Take-Off GewerbePark 46
 D-78579 Neuhausen ob Eck
 Germany
 Telephone: +49/74 67/9 45 04-0
 Fax: +49/74 67/9 45 04-99



10970 A

- 10970 A CARLENS **Mediastinoscope**, with proximal lateral slit, with Fiber Optic Light Carrier 10970 AE, length 13 cm

- 10970 B CARLENS **Mediastinoscope**, with proximal lateral slit, with Fiber Optic Light Carrier 10970 BE, length 17 cm

With the new generation of **MediaFIT™** instruments, the proven forceps in mediastinoscopy obtain improved ergonomics, preparation and user-friendliness.

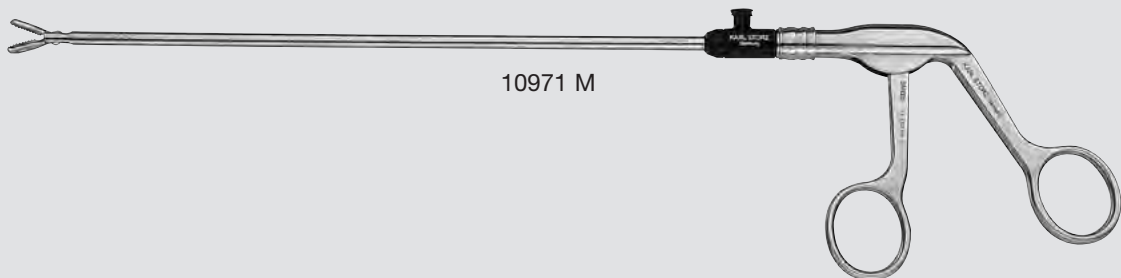
Completely detachable, the new **MediaFIT™** forceps series meets the highest demands in instrument preparation. No more inaccessible channels or other dirt traps ensures cleaning, disinfection and sterilization without residue. This makes perfect hygiene the easiest thing in the world – without compromising on the quality offered by conventional instruments.

MediaFIT™ instruments not only meet the highest quality demands: the ergonomic handle design and a great variety of proven forceps inserts makes work easier and ensures that you will not miss your conventional instruments. The slim construction provides a clear view and full freedom of movement.

The dismantling system makes it possible to combine one handle with all jaw types. This enables a compact instrument setup as well as easy exchange/repair of individual components, providing significant economic benefits.

Special Features:





- Slim construction provides a clear view and full freedom of movement
- Proven quality and jaw design of existing mediastinoscopy instruments for precise work
- Ergonomic handle design for comfortable use even over long periods of times
- Modular construction enables efficient and economic instrument use
- Can be completely disassembled into the following components:
 - Handle
 - Outer sheath
 - Working insert
- Instrument cleaning is straightforward and safe
- Autoclavable



Size 5 mm

Length	Handle
21 cm	550000



Working Insert	Order number of the complete instrument
10900 M	10971 M
 — 15 —	MediaFIT™ MAASSEN Sponge and Dissecting Forceps
10900 GO	10971 GO
 — 24 —	MediaFIT™ Biopsy Forceps, oval jaws, size 8 x 16 mm
10900 GP	10971 GP
 — 20 —	MediaFIT™ Biopsy Forceps, oval jaws, size 6 x 12 mm
10900 GR	10971 GR
 — 8 —	MediaFIT™ Biopsy Forceps, spoon-shaped jaws, jaw diameter 5 mm

MediaFIT™ Outer Sheath



10970

10970

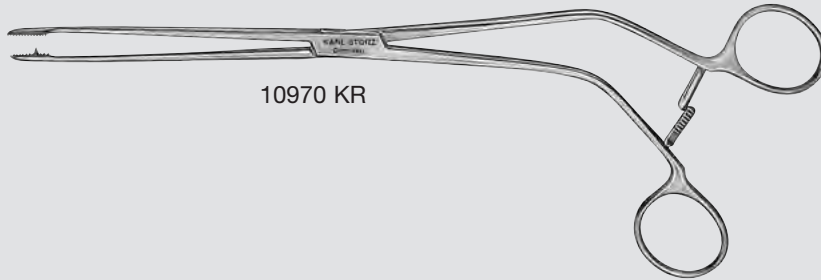
MediaFIT™ Outer Sheath, diameter 5 mm, length 21 cm

Please note:

For **MediaFIT™** instruments only the **individual component parts** are numbered. The catalog number of the **entire instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **white** background of the table above.

Sponge and Dissecting Forceps

Lengths 20 and 30 cm



10970 KR



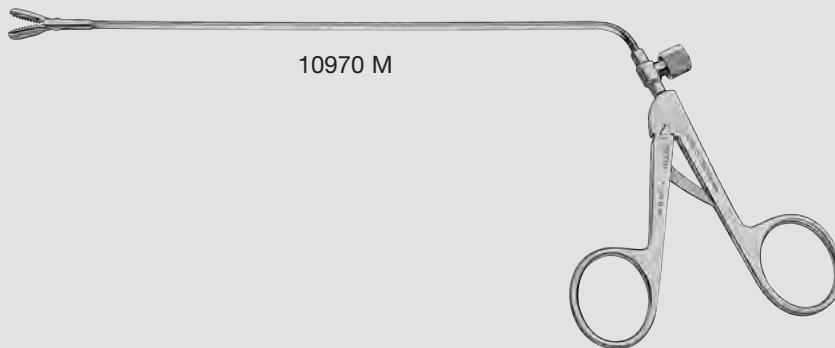
10970 K

Sponge and Dissecting Forceps,
length 20 cm



10970 KR

Sponge and Dissecting Forceps,
with ratchet, length 20 cm



10970 M



10970 M

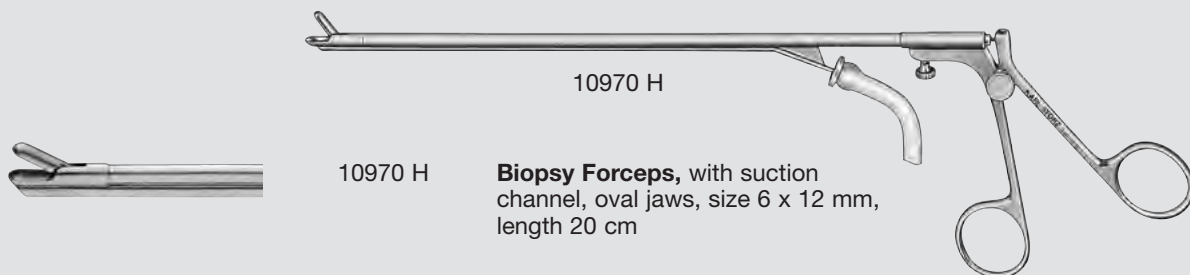
MAASSEN Sponge and Dissecting Forceps,
length 20 cm

10970 ML

Same, length 30 cm

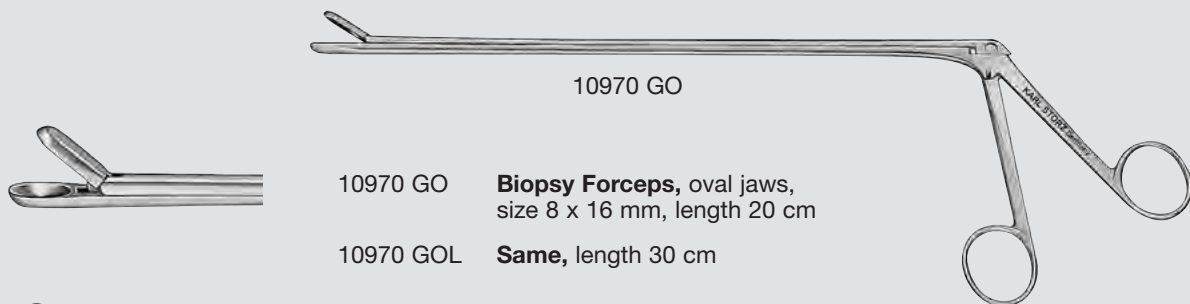
Biopsy Forceps

Length 20 and 30 cm



10970 H

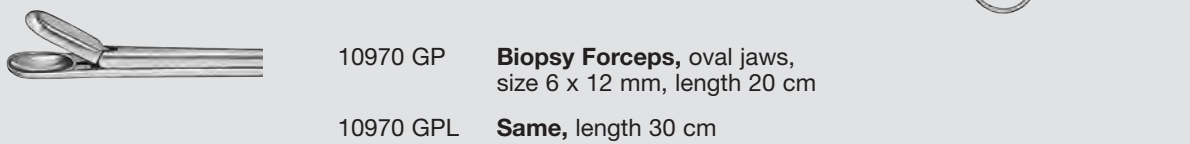
10970 H **Biopsy Forceps**, with suction channel, oval jaws, size 6 x 12 mm, length 20 cm



10970 GO

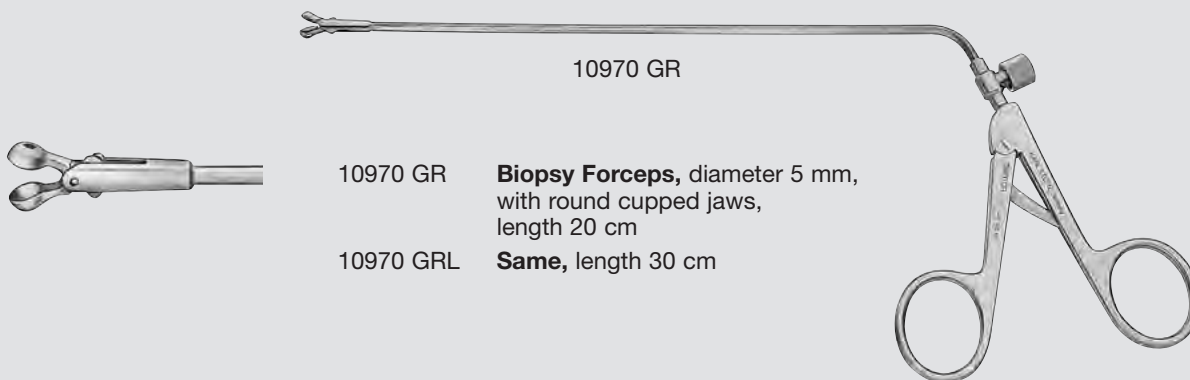
10970 GO **Biopsy Forceps**, oval jaws, size 8 x 16 mm, length 20 cm

10970 GOL **Same**, length 30 cm



10970 GP **Biopsy Forceps**, oval jaws, size 6 x 12 mm, length 20 cm

10970 GPL **Same**, length 30 cm



10970 GR

10970 GR **Biopsy Forceps**, diameter 5 mm, with round cupped jaws, length 20 cm


10970 GRL **Same**, length 30 cm

Biopsy Forceps, Scissors


CLICK^{line} – rotating, dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm




Length	Handle
	33151
25 cm	

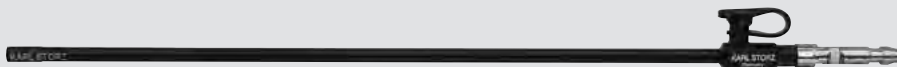
Single action jaws

Working Insert	Order number of the complete instrument
34250 MB	34151 MB
 — 15 —	CLICK^{line} MANHES Biopsy Forceps

Double action jaws

33250 MK	33151 MK
 — 12 —	CLICK^{line} METZENBAUM Scissors, double action jaws, curved

CLICK^{line} Metal Outer Sheath, insulated



33250

33250

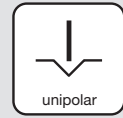
CLICK^{line} Metal Outer Sheath, insulated, with irrigation connector for cleaning, size 5 mm, length 25 cm




Please note:

For **CLICK^{line}** instruments only the **individual component parts** are numbered. The number of the entire **instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **red** background of the table above.

Coagulating Suction Tubes, Aspiration Cannulas

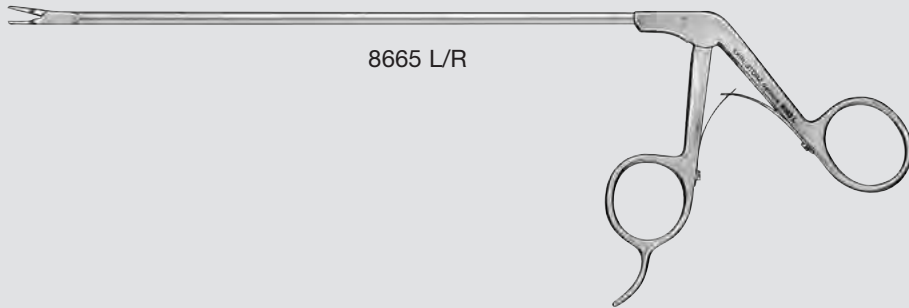
Length 20 and 30 cm



		10971 EN	
	NEW	10971 EN	Coagulation and Suction Cannula , insulated, with connector pin for unipolar coagulation, diameter 5 mm, length 20 cm
	NEW	10971 ENL	Same , length 30 cm
		10972 EN	
	NEW	10972 EN	Coagulation and Suction Cannula , curved distally, insulated, with connector pin for unipolar coagulation, angled handle, diameter 5 mm, length 20 cm
	NEW	10972 ENL	Same , length 30 cm
		10970 P	
		10970 P	Aspiration Cannula , length 20 cm including: Injection Needle , package of 12
		10970 PL	Aspiration Cannula , length 30 cm including: Injection Needle , package of 12
		10970 PS	Silicone Tubing , with LUER-Lock adaptor, for connecting Aspiration Cannula 10970 P/PL to suction syringe

Components see chapter 13, SPARE PARTS AND ACCESSORIES

Clip Forceps



8665 L/R



8665 L

Clip Forceps, jaws angled to left, working length 22 cm, for use with Clip 8665 T

12067 NL

Same, working length 30 cm



8665 R

Clip Forceps, jaws angled to right, working length 22 cm, for use with Clip 8665 T

12067 NR

Same, working length 30 cm



8665 T

Clip, titanium LT 200, medium, 5 mm, sterile, package of 36 cartridges with 6 clips each, for use with Forceps 8665 L/R, 12067 NL/NR



SINGLE-PUNCTURE THORACOSCOPY

**TELESCOPE AND
OPTICAL INSTRUMENTS**

135

TROCARS

136

ACCESSORIES

137-138



Single-Puncture Thoracoscopy

In diagnostic thoracoscopy, patients are often administered soporifics, sedatives, analgesics or local anesthetics intravenously. In contrast to surgical thoracoscopy, which is performed under general anesthesia, the patient is responsive during the entire procedure. Consequently, the objective is to cause the least inconvenience to the patient.

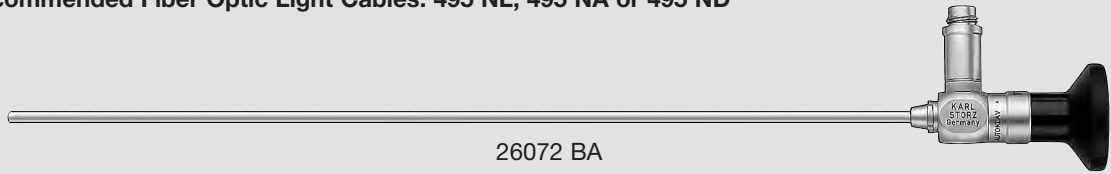
The new optical biopsy forceps with corresponding HOPKINS® telescope for diagnostic thoracoscopy allows work through an access port of only a few millimeters. The minimal diameter enables the introduction of the forceps into all **6 mm trocars**. Biopsies can be performed with the utmost precision under direct visual control.

Telescope and Optical Instruments ^{NEW}

for the 1-Port Method

Diameter 4 mm, length 29 cm
for use with optical instruments

Recommended Fiber Optic Light Cables: 495 NL, 495 NA or 495 ND



26072 BA

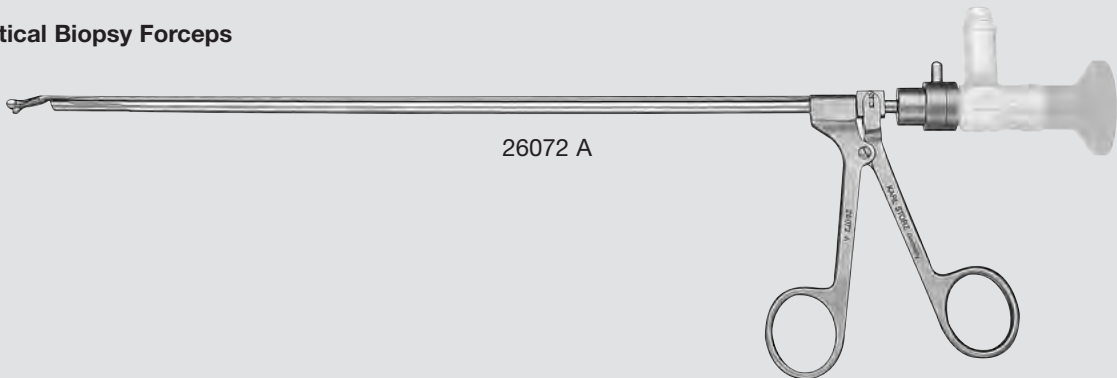


26072 BA

HOPKINS® II Forward-Oblique Telescope 30°, enlarged view, diameter 4 mm, length 29 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red

Size 5 mm
Trocar size 6 mm

Optical Biopsy Forceps



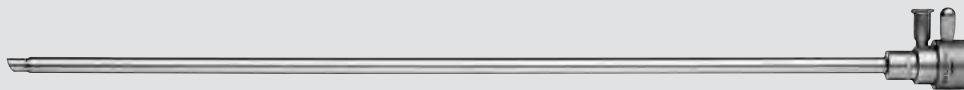
26072 A



26072 A

Optical Biopsy Forceps, double action jaws, for use with HOPKINS® II Telescope 26072 BA

Optical Suction Tube



26072 SU



26072 SU

Optical Suction Tube, for use with HOPKINS® II Telescope 26072 BA

Optical Powder Blower



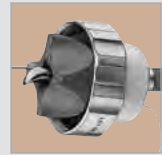
26072 TK

Optical Powder Blower, with atomizer and rubber bulb, for use with HOPKINS® II Telescope 26072 BA

Fiber Optic Light Cables see catalog TELEPRESENCE

Trocars with Flexible Cannulas



**Size 6 mm
with silicone leaflet valve**



Cannula



Trocar only

Size:		6 mm
Working length:		8.5 cm
Color code:		black
	Trocar, with blunt tip including: Cannula, flexible, with silicone leaflet valve Trocar only	30120 NOL 30120 NL 30120 NO
Accessories	Plastic Cannula, autoclavable, for flexible trocars, package of 5 	30120 X



**Size 6 mm
without valve**



Cannula

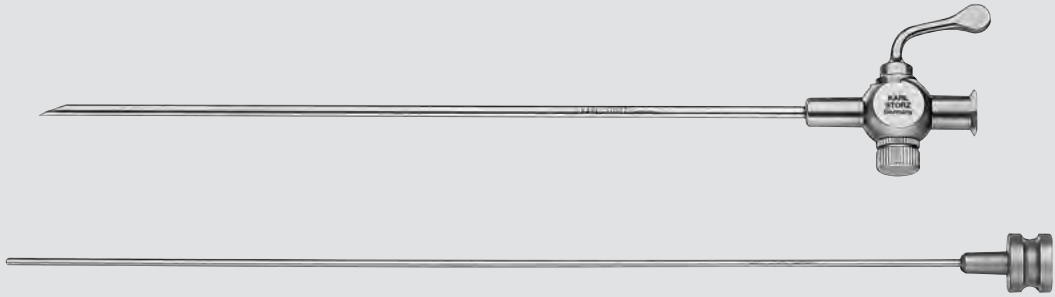


Trocar only

Size:		6 mm
Working length:		8.5 cm
Color code:		black
	Trocar, with blunt tip including: Cannula, flexible Trocar only	40120 NAL 40120 NL 40120 A
Accessories	Plastic Cannula, autoclavable, for flexible trocars, package of 5 	30120 X

Application Cannula for Thoracic Drainage, RAMEL Pleurabiopsy Needle

Application Cannula for Thoracic Drainage



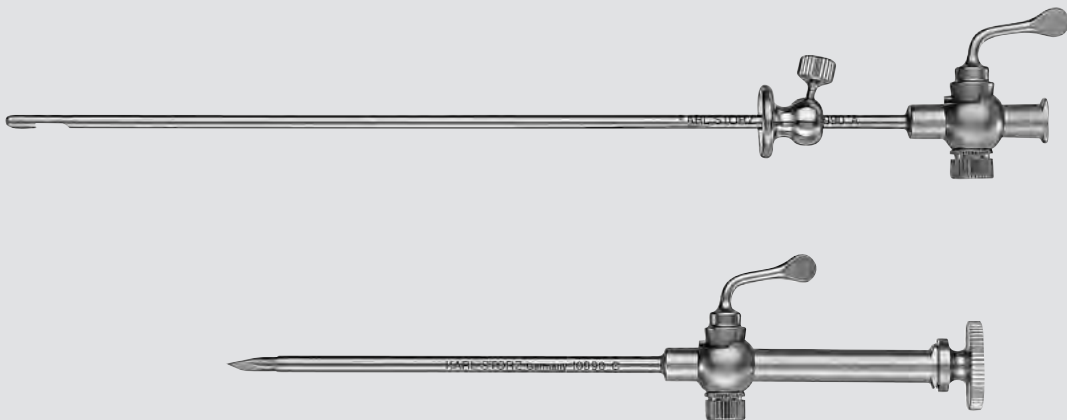
NEW 10995

Application Cannula for Thoracic Drainage including:

Outer Cannula, with insufflation stopcock,
diameter 2.1 mm, length 15 cm

Inner Cannula, blunt tip, diameter 1.5 mm,
length 16.5 cm

RAMEL Pleurabiopsy Needle



10990

RAMEL Pleurabiopsy Needle

including:

Biopsy Needle, with LUER-Lock, with stopcock

Rider, with stop screw

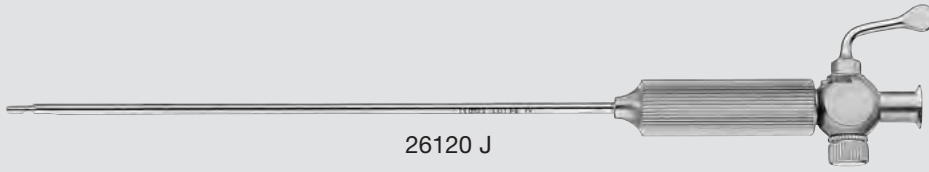
Cannula, with LUER-Lock, with stopcock, size 3 mm,
working length 6.5 mm

Trocar only, with pyramidal tip

Components see chapter 13, SPARE PARTS AND ACCESSORIES

Pneumoperitoneum Needle

Pneumoperitoneum Needle



26120 J



26120 J

VERESS **Pneumoperitoneum Needle**, with spring-loaded blunt inner cannula, LUER-Lock, **autoclavable**, diameter 2.1 mm, length 10 cm

VIDEO-ASSISTED THORACOSCOPIC SURGERY (VATS)

**HOPKINS® II TELESCOPES AND
ENDOCAMELEON®** 140-144

TROCARS 145-148

**HANDLES FOR THORACIC
SURGERY** 149-151

**CLICK'line® FORCEPS, DISSECTING
AND GRASPING FORCEPS** 152-156

**CLICK'line® FORCEPS AND SCISSORS
WITH CONNECTOR PIN FOR
UNIPOLAR COAGULATION** 157-158

**RoBi® FORCEPS AND SCISSORS
WITH CONNECTOR PIN FOR
UNIPOLAR COAGULATION** 159-164

POWDER BLOWERS 165

SUCTION AND IRRIGATION TUBES 166-167

**COAGULATION SUCTION TUBES
AND DISSECTING ELECTRODES** 168-169

**OTHER INSTRUMENTS
FOR VIDEO-ASSISTED
THORACOSCOPIC SURGERY** 170-171

NEEDLE HOLDERS 172-176

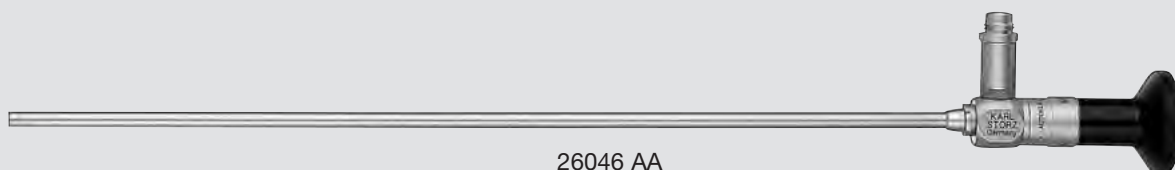


HOPKINS® II Telescopes

Diameter 5 mm, length 29 cm

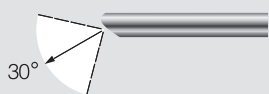
Trocar size 6 mm

Recommended Fiber Optic Light Cables: 495 NL, 495 NA or 495 ND



26046 AA

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



26046 BA

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



26046 FA

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

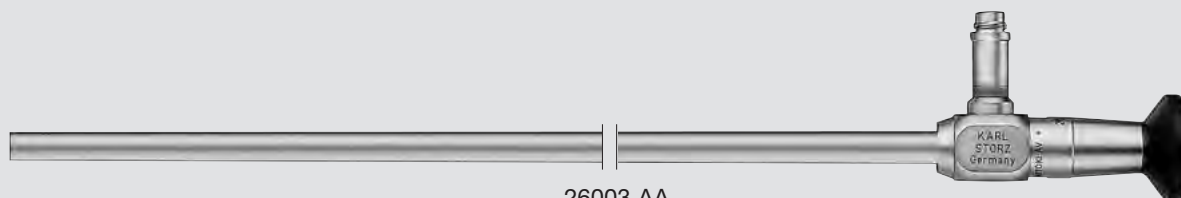
Trocars for use with telescopes diameter 5 mm see page 146
Fiber Optic Light Cables see catalog TELEPRESENCE

HOPKINS® II Telescopes

Diameter 10 mm, length 31 cm

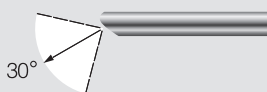
Trocar size 11 mm

Recommended Fiber Optic Light Cables: 495 NB, 495 NCS or 495 NE



26003 AA

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



26003 BA

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

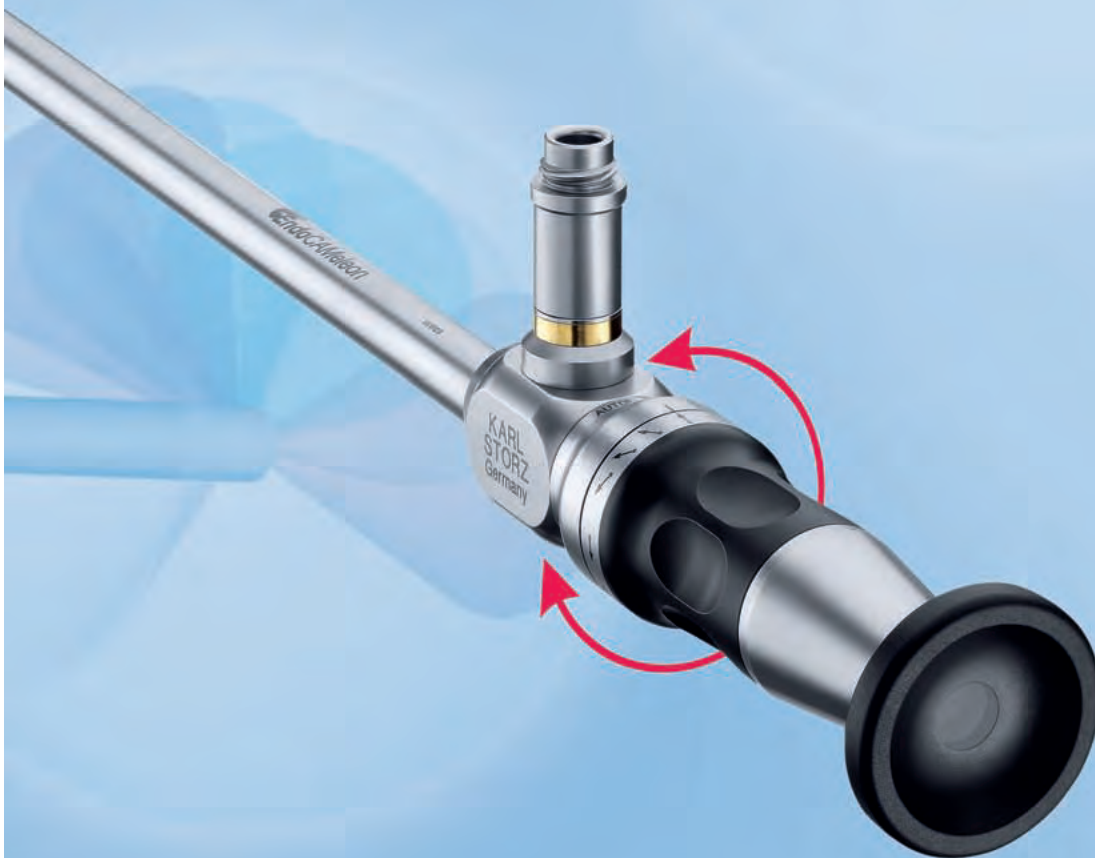


26003 FA

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

ENDOCAMELEON® *NEW*

STORZ
KARL STORZ — ENDOSKOPE



 **EndoCAMEleon®**

3-11



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. However, surgeons were restricted to the selected direction of view throughout surgery or had to perform an intraoperative telescope change during the procedure.

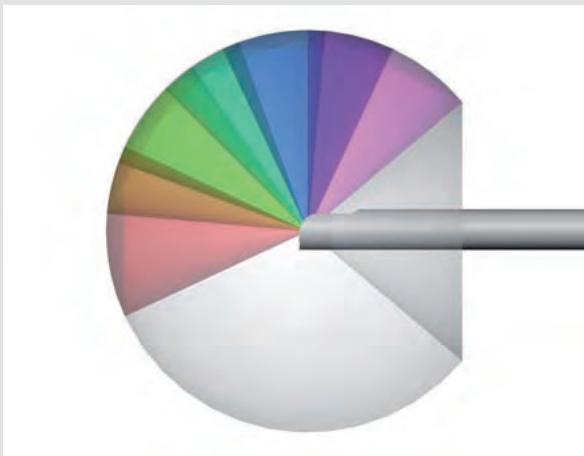
To prevent this predicament in the future, we developed the ENDOCAMELEON®: a telescope that allows you to adjust the desired direction of view – also during surgery – between 0° and 120°.

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. Control over instrument movement is possible throughout the entire procedure and hemorrhages can

be visualized and controlled even in previously inaccessible areas. 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 cm

Trocar size 11 mm

Recommended Fiber Optic Light Cables: 495 NB, 495 NCS or 495 NE

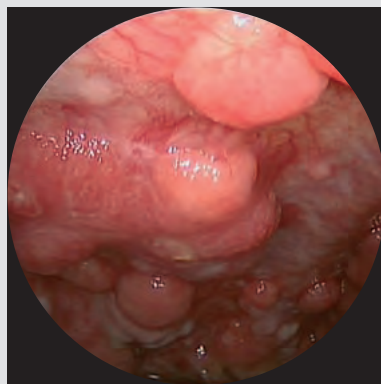
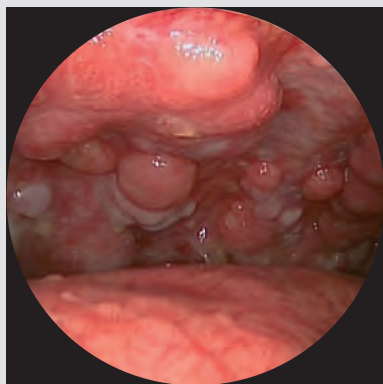
Special Features:

- 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

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



Images courtesy of
Dr. V. HAAS, HELIOS Klinikum Krefeld, Abteilung Thoraxchirurgie, Germany

Trocars for use with telescopes diameter 10 mm see pages 146, 148
Fiber Glass Light Cables see catalog TELEPRESENCE



Trocars with Flexible Cannulas



Sizes 6 and 11 mm



Cannula

Trocar only

Size:		6 mm
Working length:		8.5 cm
Color code:		black
	Trocar, with blunt tip including: Cannula, flexible Trocar only	40120 NAL 40120 NL 40120 A
Accessories	Plastic Cannula, autoclavable, for flexible trocars, package of 5 	30120 X

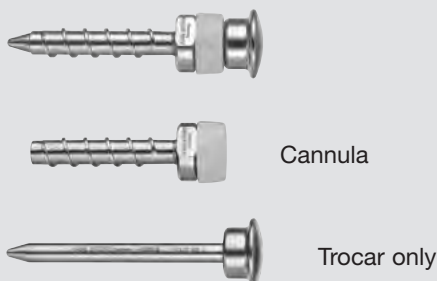
Size:		11 mm
Working length:		8.5 cm
Color code:		green
	Trocar, with blunt tip including: Cannula, flexible Trocar only	40123 NAL 40123 NL 40123 A
Accessories	Plastic Cannula, autoclavable, for flexible trocars, package of 5 	30123 X


Note: Instruments with curved jaws or distal angled sheaths should be used with trocars having flexible cannulas!

For **KARL STORZ trocars** only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown above in **bold** print, does not appear on the instrument.

Trocars

Sizes 6, 11 and 13 mm



Size:		6 mm	
Working length:		4 cm	6 cm
	Trocar, with blunt tip	40160 AB	40160 CD
	including:		
	Cannula Trocar only	40160 A 40160 B	40160 C 40160 D
Size:		11 mm	
Working length:		4 cm	6 cm
	Trocar, with blunt tip	40103 AB	40103 CD
	including:		
	Cannula Trocar only	40103 A 40103 B	40103 C 40103 D
Size:		13 mm	
Working length:		4 cm	6 cm
	Trocar, with blunt tip	40107 AB	40107 CD
	including:		
	Cannula Trocar only	40107 A 40107 B	40107 C 40107 D

Note: Instruments with curved jaws or distal angled sheaths should be used with trocars having flexible cannulas!

For **KARL STORZ trocars** only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown above in **bold** print, does not appear on the instrument.

Trocars with 45° LUER-Lock Connector

HEIDELBERG Model

Size 11 mm



Fig. 1: Introduction of trocar with 45° LUER-Lock connector



Fig. 2: A syringe is attached to the LUER-Lock connector



Fig. 3: Introduction of HOPKINS® telescope



Fig. 4: Clear image without blood residue on the HOPKINS® telescope



Fig. 5: Blood residue on the HOPKINS® telescope following contact with the lung surface

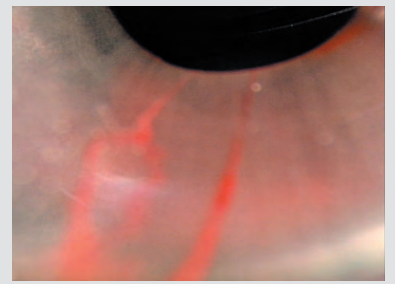


Fig. 6: HOPKINS® telescope is withdrawn into the trocar channel and irrigation is performed with 10 ml NaCl under pressure. Clear visibility is restored; then the HOPKINS® telescope is advanced again

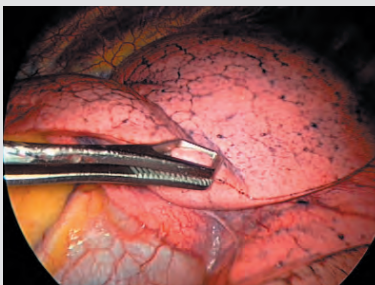


Fig. 7: Dissection is continued without the need to readjust the HOPKINS® telescope, trocars or instruments

Prof. Dr. H. DIENEMANN,
Thoraxchirurgie,
Thoraxklinik am Universitätsklinikum,
Heidelberg, Germany

Trocars with 45° LUER-Lock Connector

HEIDELBERG Model


Size 11 mm



Cannula



Trocar only

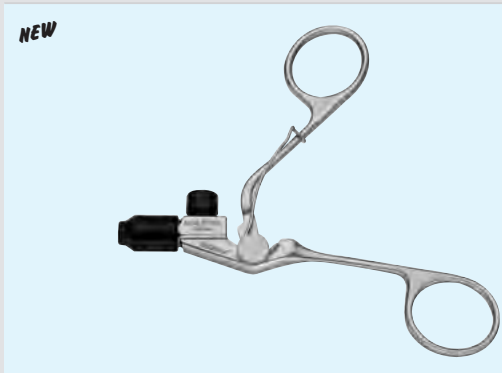
Size:		11 mm
Working length:		8.5 cm
	Trocar , HEIDELBERG model, with blunt tip including:	40103 ELX
	Cannula , with 45° LUER-Lock connector	40103 EL
	Trocar only	40103 X

Note: Instruments with curved jaws or distal angled sheaths should be used with trocars having flexible cannulas!

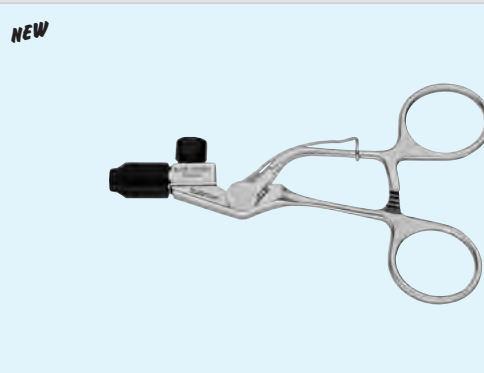
For **KARL STORZ trocars** only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown above in **bold** print, does not appear on the instrument.

Metal Handles for Thoracic Surgery

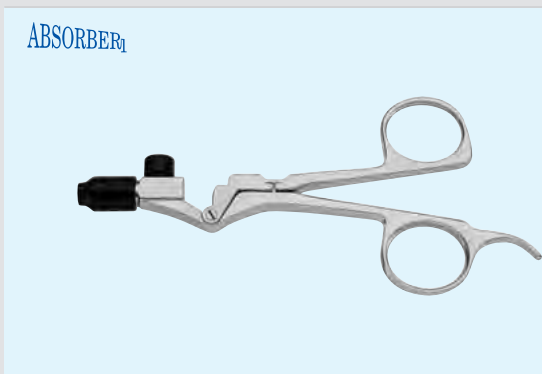
CLICK'line® – dismantling, without connector pin for unipolar coagulation



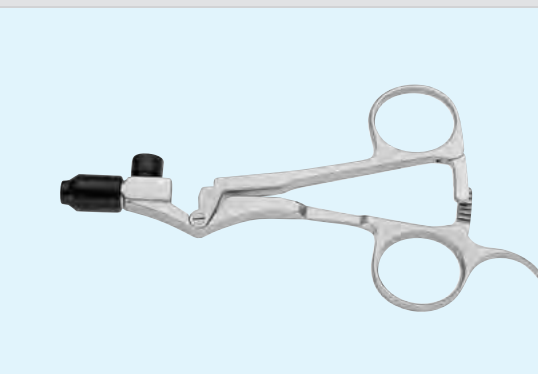
33144 PF **CLICK'line® MOURET Metal Handle**, without ratchet, axial, with 4 locking positions for **CLICK'line®** outer sheaths with working inserts



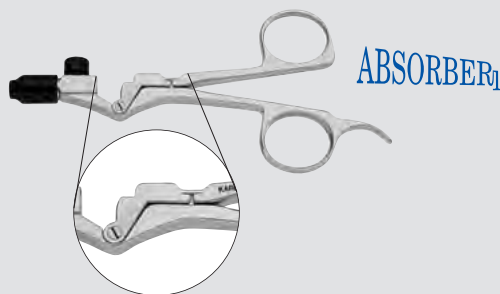
33144 P **CLICK'line® MOURET Metal Handle**, with hemostat style ratchet, axial, with 4 locking positions for **CLICK'line®** outer sheaths with working inserts



33137 PF **CLICK'line® Metal Y-Handle**, with ABSORBER1® geometry, axial, with 4 locking positions for **CLICK'line®** outer sheaths with working insert



33137 PR **CLICK'line® Metal Y-Handle**, with ratchet, axial, with 4 locking positions for **CLICK'line®** outer sheaths with working insert



Special Feature:

When the grasping branches are closed, the special ABSORBER1® geometry absorbs the developing force before the full clamping power is transferred to the jaws. The user can, therefore, grasp sensitive structures by exerting less, yet firm, pressure on the jaws.

Further **CLICK'line®** handles see catalog LAPAROSCOPY

Metal Handles for Thoracic Surgery

CLICK'line® – dismantling, without connector pin for unipolar coagulation



33131 P **CLICK'line® Metal Handle**, with 4 locking positions for **CLICK'line®** outer sheaths with working inserts



33131 PS **CLICK'line® Metal Handle**, with lateral locking button, with 4 locking positions for **CLICK'line®** outer sheaths with working inserts



33133 P **CLICK'line® Metal Handle**, with hemostat style ratchet, with 4 locking positions for **CLICK'line®** outer sheaths with working inserts

Further **CLICK'line®** handles see catalog LAPAROSCOPY

Metal Handles for Thoracic Surgery

CLICK'line® – dismantling, with connector pin for unipolar coagulation



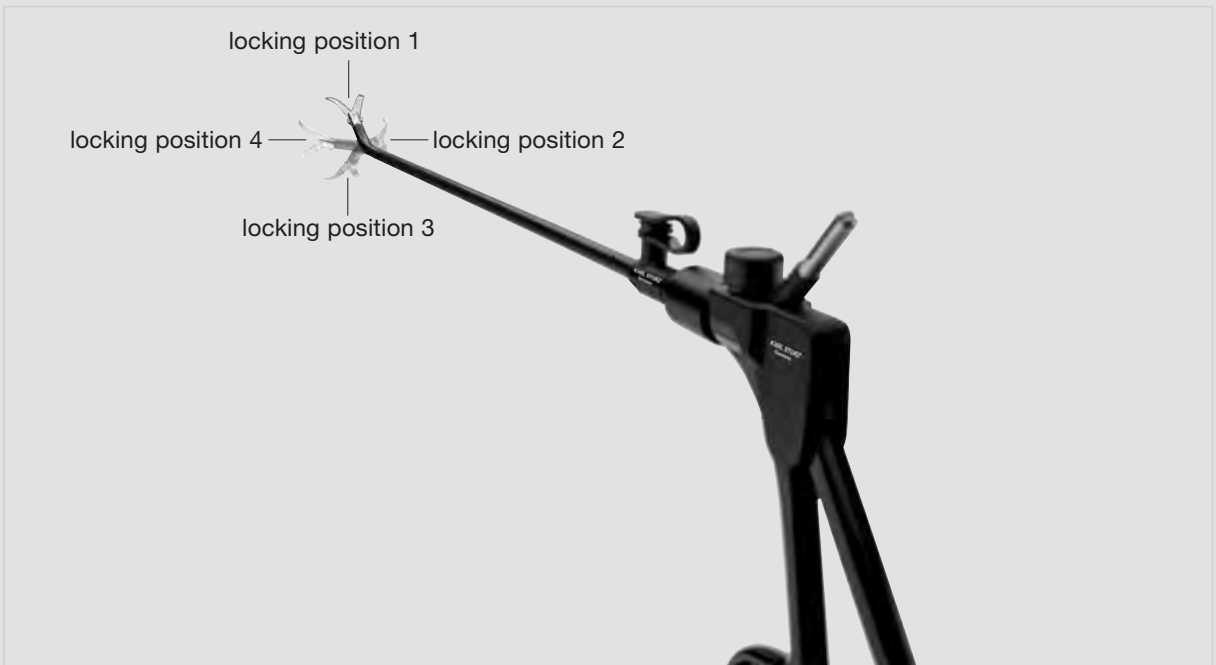
33125 P **CLICK'line® Metal Handle**, insulated, with 4 locking positions for **CLICK'line®** outer sheaths with working inserts



33127 P **CLICK'line® Metal Y-Handle**, insulated, with 4 locking positions for **CLICK'line®** outer sheaths with working inserts

When the grasping branches are open, the **CLICK'line®** outer sheath with working insert can be separated from the handle at a simple push of a button. Conversely,

reassembly to one of the 4 locking positions on the handle is fast and safe. This enables the user to secure the jaws in a specific locking position as required.



Please Note: Constructive Safety Measures!

For electrical safety reasons, insulated metal handles can only be assembled with insulated outer sheaths.







Further CLICK'line® handles see catalog LAPAROSCOPY

Forceps

CLICK*liné* – dismantling, without connector pin for unipolar coagulation

Size 5 mm

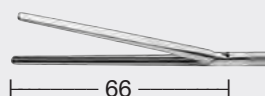
Trocar sizes 6 and 11 mm

Length	Handle					
	33144 PF	33144 P	33137 PF	33137 PR	33131 P	33133 P
28 cm	<i>NEW</i> 	<i>NEW</i> 	<i>ABSORBER₁</i> 			

Single action jaws

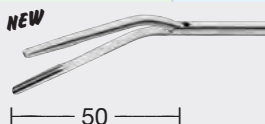
Trocar size 6 mm

Outer Sheath with Working Insert	Catalog number of the complete instrument					
43210 LG	43244 LGF	43244 LGP	43237 LGF	43237 LGR	43231 LGP	43233 LGP



CLICK*liné* Parenchymal Forceps, atraumatic, straight jaws

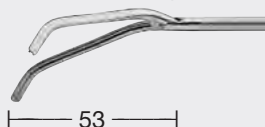
43210 LH	43244 LHF	43244 LHP	43237 LHF	43237 LHR	43231 LHP	43233 LHP
----------	-----------	-----------	-----------	-----------	-----------	-----------



CLICK*liné* Lung Forceps, atraumatic, single curved jaws

Trocar size 11 mm

43210 LS	43244 LSF	43244 LSP	43237 LSF	43237 LSR	43231 LSP	43233 LSP
----------	-----------	-----------	-----------	-----------	-----------	-----------



CLICK*liné* Parenchymal Forceps, atraumatic, double curved jaws





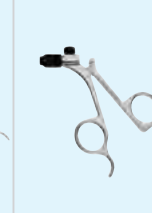

Please note:

For CLICK*liné* instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **blue** background of the table above.


Forceps

CLICK^{liné} – dismantling, without connector pin for unipolar coagulation


Size 5 mm
Trocar size 6 mm

Length	Handle					
	33144 PF	33144 P	33137 PF	33137 PR	33131 P	33133 P
28 cm	<i>NEW</i> 	<i>NEW</i> 	<i>ABSORBER_{R1}</i> 			

Single action jaws

Outer Sheath with Working Insert	Catalog number of the complete instrument					
43210 LL	43244 LLF	43244 LLP	43237 LLF	43237 LLR	43231 LLP	43233 LLP
 47	CLICK ^{liné} Lung Forceps, atraumatic, curved jaws, fenestrated					

Percutaneous approach

43210 LR	43244 LRF	43244 LRP	43237 LRF	43237 LRR	43231 LRP	43233 LRP
 42	CLICK ^{liné} Lung Nodule Forceps, atraumatic, curved jaws, fenestrated					

Please note:

For CLICK^{liné} instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **blue** background of the table above.

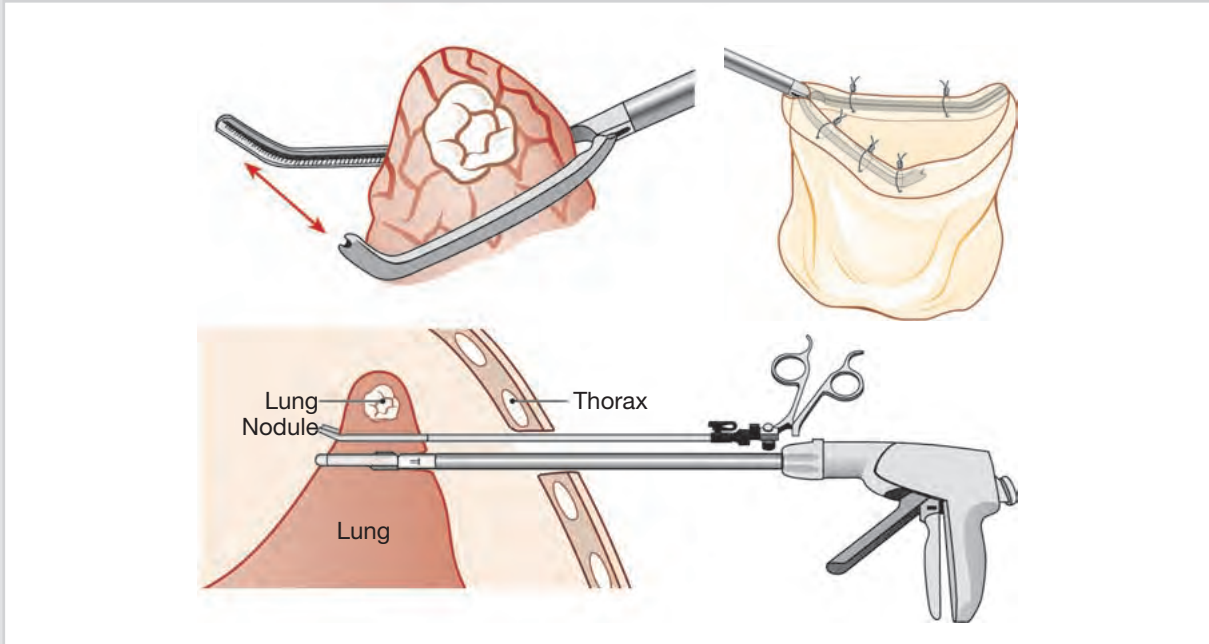
Forceps for Linear Stapler

CLICK^{line} – dismantling, without connector pin for unipolar coagulation

In addition to the double curved Parenchymal Forceps 43231 LSP employed for lung wedge resection in the widely used 3-port technique, a single curved Parenchymal Forceps 43231 LVS allows insertion parallel to the stapler when using the 2-port technique (see illustration).

To extract the specimen without coming into contact with the chest wall and to save time and costs, an extraction bag can be attached to the same parenchymal forceps.

*Dr. A. LINDER,
Lungenklinik Hemer,
Dr. M. HÜRTGEN,
Katholisches Klinikum, Koblenz,
Germany*



Please note:

The extraction bag for single use is available from mtp.
For further information, please contact:



mtp medical technical promotion gmbh
Take-Off GewerbePark 46
D-78579 Neuhausen ob Eck
Germany
Telephone: +49/74 67/9 45 04-0
Fax: +49/74 67/9 45 04-99

Forceps for Linear Stapler


CLICK'liné – dismantling, without connector pin for unipolar coagulation

Size 5 mm

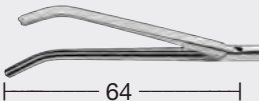
Trocar size 6 mm

Special Features:

- Lateral locking button on the handle does not interfere with the linear stapler
- Secure atraumatic grasping

Length	Handle
28 cm	33131 PS 

Single action jaws

Outer Sheath with Working Insert	Catalog number of the complete instrument
43210 LV 	43231 LVS CLICK'liné Parenchymal Forceps , atraumatic, curved jaws, for use with linear stapler

Please note:

The extraction bag for single use is available from mtp.
For further information, please contact:



mtp medical technical promotion gmbh
Take-Off GewerbePark 46
D-78579 Neuhausen ob Eck
Germany
Telephone: +49/74 67/9 45 04-0
Fax: +49/74 67/9 45 04-99

Please note:







For CLICK'liné instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **blue** background of the table above.

Dissecting and Grasping Forceps


CLICK^{liné} – dismantling, without connector pin for unipolar coagulation

Size 5 mm



Trocar size 6 mm

Length	Handle					
	33144 PF	33144 P	33137 PF	33137 PR	33131 P	33133 P
28 cm	<i>NEW</i> 	<i>NEW</i> 	<i>ABSORBER₁</i> 			

Double action jaws

Outer Sheath with Working Insert	Catalog number of the complete instrument					
43210 LP	43244 LPF	43244 LPP	43237 LPF	43237 LPR	43231 LPP	43233 LPP
 — 21 —	CLICK^{liné} KELLY Dissecting and Grasping Forceps					

Single action jaws

43210 MF	43244 MFF	43244 MFP	43237 MFF	43237 MFR	43231 MFP	43233 MFP
 — 24 —	CLICK^{liné} MANHES Dissecting and Grasping Forceps, atraumatic, straight jaws					
43210 MA	43244 MAF	43244 MAP	43237 MAF	43237 MAR	43231 MAP	43233 MAP
 — 17 —	CLICK^{liné} MANHES Grasping Forceps, “Cobra-Jaws”, 1x 2 teeth, straight jaws					

Please note:


For CLICK^{liné} instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **blue** background of the table above.

Dissecting Forceps, Scissors and Biopsy Forceps




CLICK'liné – dismantling, with connector pin for unipolar coagulation

Size 5 mm
Trocar size 6 mm





Length	Handle	
	33125 P	33127 P
28 cm		

Double action jaws

Outer Sheath with Working Insert	Catalog number of the complete instrument	
43210 LK  — 21 —	43225 LKP	43227 LKP
	CLICK'liné KELLY Dissecting Forceps , curved jaws	
43210 LM  — 20 —	43225 LMP	43227 LMP
	CLICK'liné Scissors , curved scissor blades	
43210 LU  — 20 —	43225 LUP	43227 LUP
	CLICK'liné Scissors , distally angled sheath, curved scissor blades, scissor blades open horizontal to angulation	

Single action jaws

43210 MT  — 15 —	43225 MTP	43227 MTP
	CLICK'liné Scissors , distally angled sheath, scissor blades open parallel to angulation	
43210 DU  — 14 —	43225 DUP	43227 DUP
	CLICK'liné CUSCHIERI Biopsy Forceps , distally angled sheath	

Please note:



For **CLICK'liné** instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **red** background of the table above.

Grasping Forceps

CLICK*line*® – dismantling, with connector pin for unipolar coagulation

Size 10 mm
Trocar size 11 mm

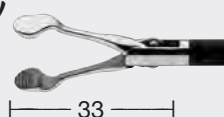


Length	Handle	
	33125 P	33127 P
30 cm		

Double action jaws

Working Insert	Catalog number of the complete instrument	
43710 BLS	43725 BLS	43727 BLS

NEW



CLICK*line*® BABCOCK Grasping Forceps, round jaws, long

CLICK*line*® Metal Outer Sheath, insulated



33500 K

33500 K

CLICK*line*® Metal Outer Sheath, insulated, with LUER-Lock connector for cleaning, size 10 mm, length 30 cm

Please note:

For CLICK*line*® instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **red** background of the table above.

General Information

Ergonomics of the Chosen Instrument

A prerequisite for endoscopic surgery is the selection of ergonomic instruments. The number, location and size of trocars are the primary elements that the surgeon has to coordinate. In addition, there are essential questions associated with optimal performance of the actual endoscopic intervention, i.e., which instruments will be used and where. Although there are several solutions, they are dependent on specific rules. These rules combine the basic principles of surgery with the rules of endoscopic surgical ergonomics.

The Basic Principles of Surgery

Surgery comprises three fundamental phases: dissection – incision – hemostasis. For every individual surgical intervention, the surgeon has to recognize the organ (dissection), control the organ (hemostasis) and work on the organ (section). This surgical rule of three can only be realized if the tissue is properly exposed, which further implies that it is possible to grasp the tissue. For this reason, the surgical activities can also be subdivided as follows: dissection – incision – hemostasis – grasping. An instrument is ideal if it can be used to implement all four functions.

Endoscopic Ergonomics

Small diameters are often used in laparoscopy. Due to mechanical problems that frequently occur with these micro instruments, multifunctional instruments are very difficult to implement. The use of electrical current, which enables multifunctionality, creates an additional difficulty.

Furthermore, the operating surgeon is forced to make decisions due to the limited number of trocars, their operating site determined at the start of the intervention, and the optimization of instrument functions. After deciding on the location and number of trocars, the essential question is: Which instrument will be used where? This decision depends extensively on the functions of the instruments.

Choice of Functions

The instrument functions have to correspond to the surgical requirements. Because it is difficult to produce an instrument that provides all of the necessary functions, certain decisions have to be made. We focused on grasping, dissection and coagulation of the dissected tissue. The following tasks can be carried out using the bipolar forceps presented here:

- Grasping: The instrument is capable of grasping tissue. It is designed to grasp fine tissue, such as the peritoneum, although it can also grasp stronger sections of tissue, such that the tissue can be exposed regardless of circumstances.

- Dissection: The jaws can be opened by the surgeon. The force exerted on the handle is transferred to the tissue and permits dissection.
- Coagulation: This occurs between the jaws and is limited to the tissue situated between the jaws. This safety factor and the gripping capacity were the reasons for our decision in favor of this bipolar technique.

Choice of Energy

It is a well-known fact that bipolar energy is safer than monopolar energy due to the fact that the surgeon controls the power being used at all times. There is no danger from an electrical current. Nevertheless, the dispersion of heat around the coagulated area can result in a tissue burn. Active gripping restricts this effect and the dispersion is controlled. Through more or less heavy compression of the tissue, the surgeon can alter the tissue impedance and, thus, modify the dispersion of electrical energy. The power used generally depends on the size of the jaws selected. The lower the selected energy, the longer the exposure time and, as a result, the more extensive the heat dispersion.

The Grasping Function

General Information



One characteristic of laparoscopy is that no retraction device is used. To compensate for this, the surgeon requires a gripping instrument. Simple distention is

insufficient. As a result, he requires an instrument with which the tissue can be grasped precisely so that another instrument can be used. The surgical assistant normally has a gripping instrument. However, a single instrument is not enough and it is important that the surgeon also has a gripping instrument.

The Shape of the Jaws

Various jaws are available. These vary in regard to size and gauge. Generally, the jaws have a rough toothing. With these, thicker and heavier sections of tissue can be grasped. Smaller jaws have finer toothing. With these, more fragile sections of tissue can be grasped. The precision of coagulation is dependent on the gauge of the jaws. The finer the gauge of the jaws, the more precise the coagulation.

- Microbipolar jaws are suitable for vascular, urological, infertility procedures and tubal reanastomosis where fine precision is required. The smaller biarticulate jaws are excellent for handling delicate tissues like the vessels, ureters and fallopian tubes. These are also suitable for tying intracorporeal knots.



- KELLY jaws are very popular in general laparoscopic procedures as the shape of the biarticulate jaws allows the surgeon to achieve precise dissection and coagulation.

- Fenestrated jaws featured here have fine atraumatic serration. Jaws are biarticulate and the broad jaws enable a strong grasping function.
- Monoarticulate jaws are appropriate on oncological procedures especially during lymph node dissection as one jaw remains stable to reduce trauma while the other jaw takes on the main dissecting role.

The Coagulation Function

The Bipolar Energy



Bipolar energy is precise and safe at the same time. The path of electrons is always known. They move from the generator to the forceps, flowing through the

tissue located between the jaws and return directly via the forceps cable to the generator. A neutral electrode is unnecessary. This prevents any risk of electrical burns. Coagulation, however, occurs by means of heating the tissue. If the tissue is heated too severely or the exposure times are too long, there is a risk that burns will occur around the operating site. To restrict this effect, the exposure times have to be limited and modified according to the tissue impedance. In contrast to conventional bipolar forceps, these allow the pressure applied to the tissue to be altered and, as a result, the impedance to be changed. The more the tissue is compressed, the greater the impedance. The surgeon can alter the impedance of the tissue held by the forceps via the handle, and, thereby, alter the coagulation time. In this manner, the heat dispersion can be controlled.

The Energy Density

The indicated power varies according to the size of the jaws. The thicker the jaws, the higher the power has to be. In principle, work proceeds with powers in the order of 30 to 50 watts. The density of energy transferred to the tissue is directly relative to the size of the jaws. The narrower the jaws, the greater the energy. Therefore, in

order to coagulate a tissue zone with precision, the surgeon has to select a high power setting. With thicker jaws,



he has to choose a higher power setting (50 watts), but with a shorter exposure time. With thinner jaws, he has to select a lower power setting of approximately 35 watts.

Application Mode

The rules for the application of bipolar energy are very precise. After selecting the power, the surgeon applies the energy with as short an exposure time as possible. After performing the coagulation, the incision is restricted to the coagulated area, i.e., the tissue that has become white. As soon as the tissue becomes pink in color again, the incision is interrupted and coagulation is continued at the spot where the incision is being made. Soiling of the jaws changes the distribution of energy. In extreme cases, coagulation is no longer possible. To avoid hemorrhaging resulting from insufficient coagulation, the electrodes (the jaws of the forceps) have to remain clean. Soiling of the jaws can be prevented by the following measures:

- Selection of the appropriate power, dependent on the size of the jaws
- Application with short exposure times
- Avoiding coagulation in blood. Even if the coagulation proceeds correctly, blood coagulates on the jaws causing them to become soiled. Correct, preventive coagulation is, therefore, the best preventive measure.

The Dissection Function

Interest

The dissection of tissue found its way into the endoscopic technique relatively late. The working principle of bipolar energy initially consisted of coagulating "as much tissue as possible." This surgical technique resulted from both the lack of experience among surgeons, as well as the features of bipolar instruments. Conventional forceps, for example, have no joint between the jaws. Closure of the jaws generally proceeds by sliding an external tube. Opening is usually passive. The grasping function of these instruments was very imprecise and dissection was impossible. Nevertheless, dissection is the prerequisite for precision surgery. By using dissection, tissue can be identified or secured in such a way that no other organs are involved.

Application Mode



Dissection proceeds through introduction of the instrument tip between the tissue surfaces. By opening the handle, the

jaws can be moved and the tissue surfaces spread apart. The force which is transferred to the tissue can be felt in the handle and, thus, enables precise dosing for dissection.

Instrument Features

Characteristics



This instrument is a bipolar instrument with two insulated jaws. By means of the specific joint, this insulation can

be maintained. Insulation of the jaws is made possible by an intermediate ceramic layer. In this manner, current leakage is impossible. This insulation is optimum at 2,500 volts. The forceps are rotatable, detachable and autoclavable.

Rotation

Rotation is an essential feature of bipolar forceps. It permits the following:

- Through rotation, the tissue can be grasped at a correct 90° angle, coagulated and cut. This is an essential prerequisite for correct gripping, the dissection of tissue and coagulation restricted to the affected tissue.
- As for all instruments equipped with a single movable jaw, it is important to perform a rotation to position this jaw at the ideal location to which the force of dissection should be applied.

Disassembly

It has to be possible to disassemble the forceps so that inserts can be exchanged and the forceps can be cleaned easily. Thanks to the quick-change system RoBi®, the inserts can be exchanged during surgery and according to surgical requirements.

Cleaning

In its disassembled condition, the forceps can be cleaned more easily. The collection of tissue remnants at the rear end of the jaws is limited by the recess provided at this location. In spite of the toothing, the jaws can be cleaned simply. Cleaning after surgery is

facilitated if the jaws are soaked for a few minutes. By brushing the jaws with a soft brush, tissue remnants can be removed before the forceps are sterilized.

Sterilization

The instrument can be reused. Sterilization is performed in an autoclave at 134°C.

Precautions

When activating the bipolar instrument, it is important to ensure that there is no critical viscera in contact with the length of the instrument. Before stepping on the pedal, the surgeon must ensure that only the tissue concerned are grasped between the two jaws of the forceps. This is to prevent unintentional thermal injury.

Conclusions

The selection of functions for an instrument is made according to the surgical requirements and the technical prerequisites. If laparoscopies are being performed, the surgeon must make these decisions himself. Modern endoscopic surgery is performed using two hands. Optimization of the endoscopic intervention is dependent on the number and selection of functions that are possible for the surgeon with his two hands. We have decided on grasping, dissection and coagulation with one hand. These functions are performed by means of the bipolar forceps. If simple distention of the tissue using the instrument is also taken into account, the surgeon has four functions at his disposal, all possible with one hand. This multifunctionality optimizes endoscopic intervention, which in this way becomes simpler, faster and safer.

Nomenclature

RoBi® stands for “rotating bipolar instruments” and describes an innovative and compatible range of instruments that are distinguished by the following features:

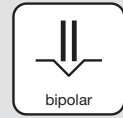
- bipolar
- rotatable
- detachable handle, sheath and interior
- specific joint mechanism

RoBi® Bipolar Dissecting Forceps ^{NEW} and Scissors

Sheath curved, rotating, dismantling, with connector pin
for bipolar coagulation

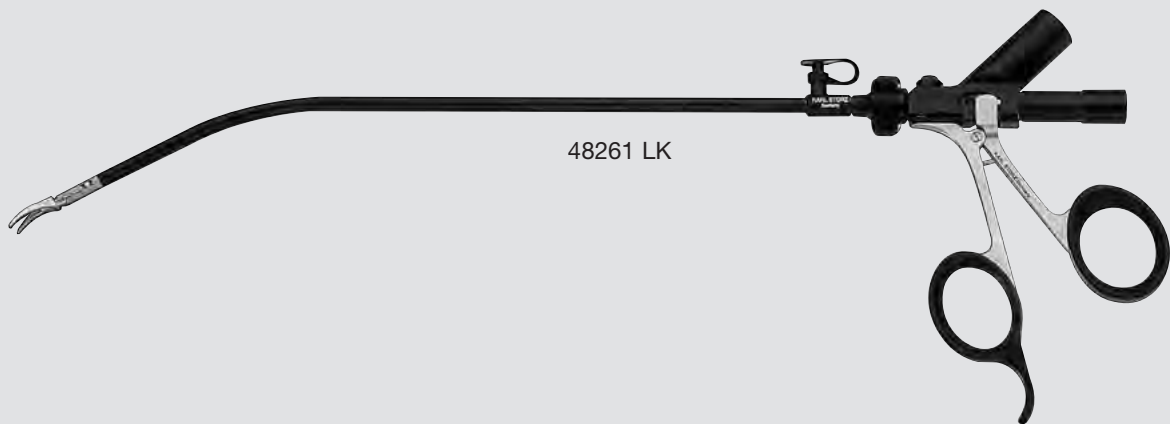
STORZ
KARL STORZ — ENDOSKOPE

Size 5 mm
Trocar size 6 mm



Special Features:

- Curved sheath specially designed for thoracoscopy
- Jaws with robust hinge for optimized bipolar grasping and dissecting
- Slim construction
- Can be disassembled into the following parts:
 - Handle
 - Working insert with outer sheath
- Top mounted 45° high frequency connector pin takes the cable away from the operative field
- Instrument cleaning is straightforward and safe
- Autoclavable



RoBi® Bipolar Dissecting Forceps and Scissors ^{NEW}


Sheath curved, rotating, dismantling, with connector pin for bipolar coagulation


Size 5 mm
Trocar size 6 mm




Length	Handle
28 cm	38161 


Double action jaws

Outer Sheath with Working Insert	Catalog number of the complete instrument
48210 LK 	48261 LK RoBi® KELLY Dissecting Forceps , sheath distally angled

48210 LM 	48261 LM RoBi® Scissors , sheath distally angled, scissor blades open vertically to angulation
---	--

48210 LU 	48261 LU RoBi® Scissors , sheath distally angled, scissor blades open horizontally to angulation
---	--

Single action jaws

48210 MT 	48261 MT RoBi® Scissors , sheath distally angled, scissor blades open horizontally to angulation
---	--

Please note:


For RoBi® instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **red** background of the table above.

RoBi® Bipolar Grasping Forceps and Scissors


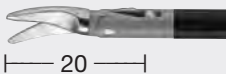
Straight sheath, rotating, dismantling, with connector pin for bipolar coagulation, CLERMONT-FERRAND model

Size 5 mm
Trocar size 6 mm



Length	Handle
	38161
30 cm	

Double action jaws

Working Insert	Catalog number for the complete instrument
38210 MD	38261 MD
 19	KELLY RoBi® Grasping Forceps, CLERMONT-FERRAND model, especially suitable for dissection
38210 MW	38261 MW
 20	METZENBAUM RoBi® Scissors, CLERMONT-FERRAND model, curved, for cutting and bipolar coagulation

RoBi® Metal Outer Sheath, insulated



38200

38200

RoBi® Metal Outer Sheath, insulated, with LUER-Lock irrigation connector for cleaning, size 5 mm, length 30 cm

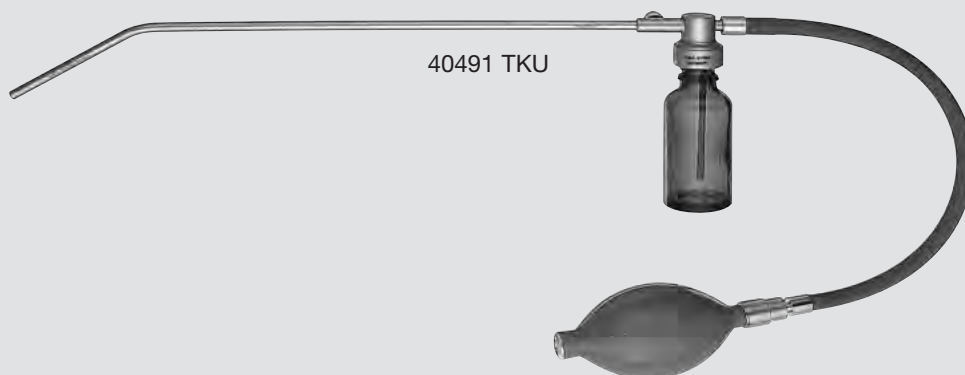
Please note:

For RoBi® instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **red** background of the table above.

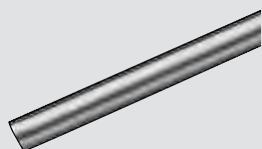
Powder Blowers

Size 5 mm

Trocar size 6 mm



40491 TKU



40491 TKU

Powder Blower, with rubber bulb, distally angled sheath, size 5 mm, length 30 cm

including:

Sheath

Rubber Bulb

Tube

Bottle



40491 TK

Powder Blower, with rubber bulb, straight sheath, size 5 mm, length 30 cm

including:

Sheath

Rubber Bulb

Tube

Bottle



40492 TK

Powder Blower, with rubber bulb, straight sheath, size 5 mm, length 42 cm

including:

Sheath

Rubber Bulb

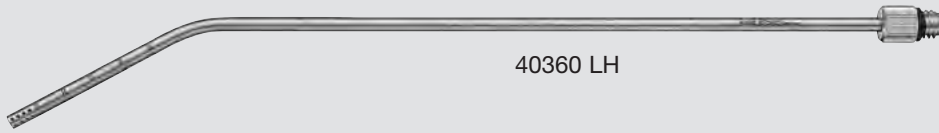
Tube

Bottle

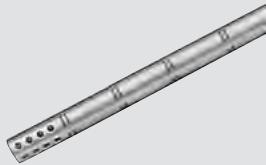
Components see chapter 13, SPARE PARTS AND ACCESSORIES

Suction and Irrigation Tubes

Size 5 mm
Trocar size 6 mm



40360 LH

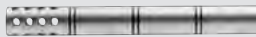


40360 LH

Suction and Irrigation Tube, with lateral holes, distally angled sheath, size 5 mm, length 28 cm



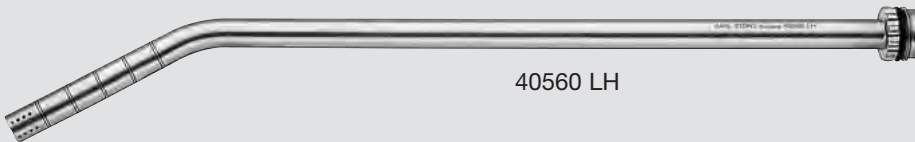
37260 LH



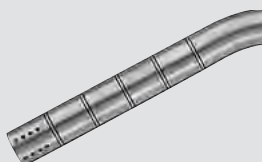
37260 LH

Suction and Irrigation Tube, with lateral holes, size 5 mm, length 30 cm

Size 10 mm
Trocar size 11 mm



40560 LH



NEW

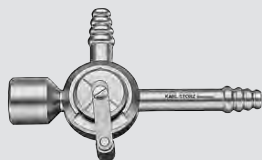
40560 LH

Suction and Irrigation Tube, with lateral holes, distally angled sheath, size 10 mm, length 28 cm

Handles for use with suction and irrigation tubes see page 167

Handles for Suction and Irrigation Tubes

For use with suction and irrigation tubes size 5 and 10 mm



30805

Handle with Two-Way Stopcock, for suction and irrigation, **autoclavable**, for use with Suction and Irrigation Tubes 37260 LH, 40360 LH and 40560 LH



37112 A

Suction and Irrigation Handle, straight, with clamping valve, for suction and irrigation, **autoclavable**, for use with Suction and Irrigation Tubes 37260 LH, 40360 LH and 40560 LH



37113 A

Suction and Irrigation Handle, pistol grip, with clamping valve, for suction and irrigation, **autoclavable**, for use with Suction and Irrigation Tubes 37260 LH, 40360 LH and 40560 LH

Tubing Sets for use with Suction and Irrigation Handles



031133-10*

Tubing Set, for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A and 37113 A



031134-10*

Tubing Set, for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A and 37113 A in combination with silicone tube inner diameter 5 mm at the patient end

Please note:

For KARL STORZ suction and irrigation handles we recommend the use of tubing sets specially designed for these handles from:

*



mtp medical technical promotion gmbh
 Take-Off GewerbePark 46
 D-78579 Neuhausen ob Eck
 Germany
 Telephone: +49/74 67/9 45 04-0
 Fax: +49/74 67/9 45 04-99

Coagulation Suction Tubes, Dissecting Electrodes

Size 5 mm
Trocar size 6 mm

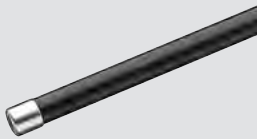


With connector pin for unipolar coagulation



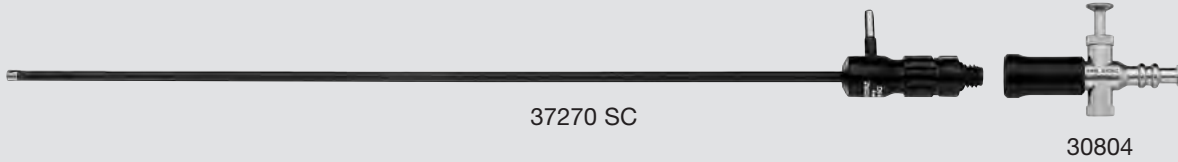
40170 LB

30804



40170 LB

Coagulation Suction Tube, with connector pin for unipolar coagulation, distally angled sheath, size 5 mm, length 28 cm



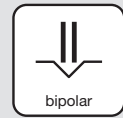
37270 SC

30804

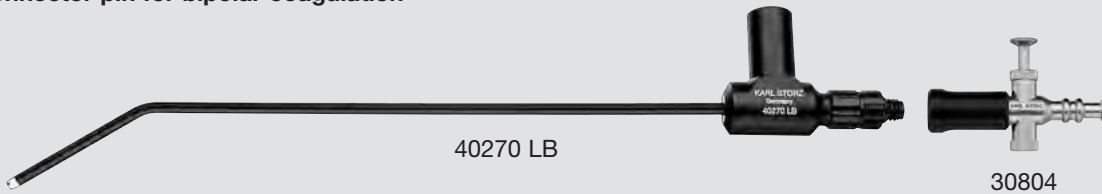


37270 SC

Coagulating and Dissecting Electrode, with suction channel, with connector pin for unipolar coagulation, size 5 mm, length 30 cm



With connector pin for bipolar coagulation



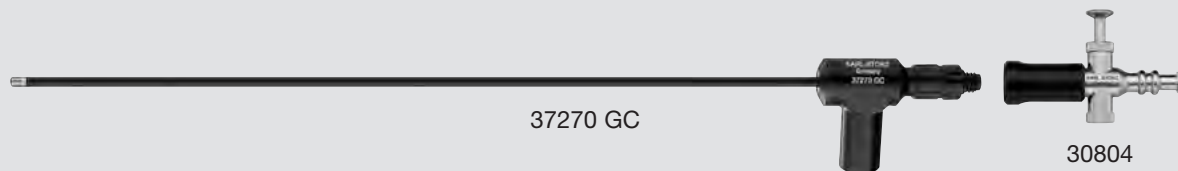
40270 LB

30804



40270 LB

Coagulation Suction Tube, with connector pin for bipolar coagulation, distally angled sheath, size 5 mm, length 28 cm



37270 GC

30804



37270 GC

GORDTS and CAMPO Coagulating Suction Tube, with connector pin for bipolar coagulation, size 5 mm, length 30 cm

30804

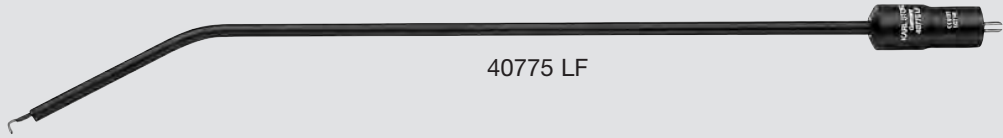
Handle with Trumpet Valve, for suction or irrigation, **autoclavable**, for use with 5 mm coagulating suction tubes and 5 mm suction and irrigation tubes

Dissecting Electrodes

Size 5 mm
Trocar size 6 mm



With connector pin for unipolar coagulation



40775 LF



40775 LF

Dissecting Electrode, L-shaped, insulated, with connector pin for unipolar coagulation, distally angled sheath, size 5 mm, length 28 cm



26772 UF

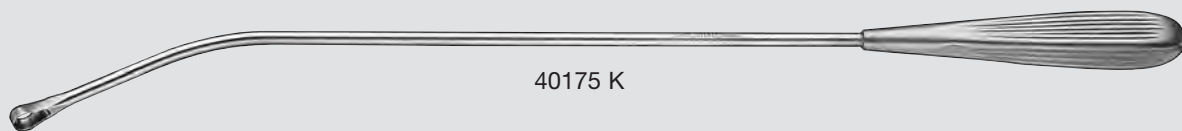


26772 UF

Coagulating and Dissecting Electrode, L-shaped, insulated, with connector pin for unipolar coagulation, size 5 mm, length 30 cm

Curette for Pleura Abrasion, Surgical Sponge Holder

Curette for Pleura Abrasion
Size 10 mm
Trocar size 11 mm



40175 K



NEW 40175 K

Curette for Pleural Abrasion, distally angled sheath, spoon-shaped, length 28 cm

Surgical Sponge Holder
Size 5 and 10 mm
Trocar size 6 and 11 mm



32540 PT



32340 PT

Surgical Sponge Holder, self-retaining, size 5 mm, length 30 cm

including:

- Handle**
- Outer Sheath**, insulated
- Sponge Holder Insert**



32540 PT

Surgical Sponge Holder, self-retaining, size 10 mm, length 30 cm

including:

- Handle**
- Outer Sheath**, insulated
- Sponge Holder Insert**

Spherical sponges recommended for size 5 mm:

DIN 61630/VM 20 (6 x 6 cm) or spherical sponge for similar geometry and basis weight.

Spherical sponges recommended for size 10 mm:

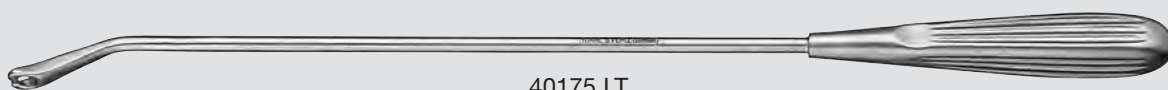
DIN 61630/VM 24 (8 x 8 cm) or spherical sponge for similar geometry and basis weight.

Handle 32121 can be used with both 5 mm and 10 mm surgical sponge holders.

Components see chapter 13, SPARE PARTS AND ACCESSORIES

Palpation Probe, Knot Tier

Size 5
Trocar size 11 mm



40175 LT



40175 LT

Palpation Probe and Knot Tier,
distally angled sheath, size 5 mm,
length 28 cm

Size 5
Trocar size 6 mm



26175 T



26175 T

Palpation Probe, with cm-markings,
size 5 mm, length 36 cm



26596 SK

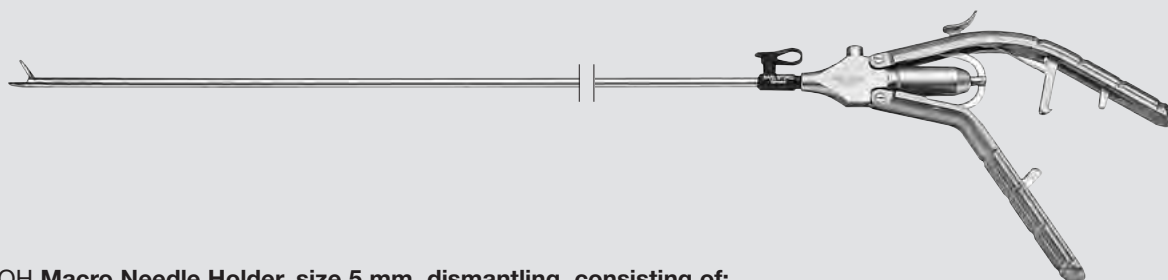


26596 SK

KOECKERLING Knot Tier,
for extracorporeal knotting,
size 5 mm, length 36 cm

KOH Macro Needle Holder ^{NEW}

dismantling



KOH Macro Needle Holder, size 5 mm, dismantling, consisting of:

- Handle
- Outer sheath
- Working insert

Cleaning and sterilization are gaining increasing importance for KARL STORZ as a manufacturer of surgical instruments.

Similar to all our surgical instruments, the cleaning and hygiene of our needle holders also play an important role. Our KOH macro needle holders feature consistent

effectiveness and precision, with significantly improved cleaning results achieved by dismantling the instrument. The handle, outer sheath and inner part can be cleaned and sterilized separately for perfect results.

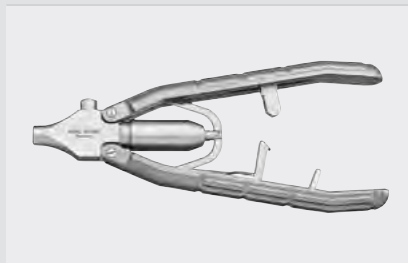
The reusable dismantling design offers the user the following benefits:

- Can be disassembled into three separate components
- Fully autoclavable
- Cleaning adaptor
- Choice of six different handles and three different working inserts
- With tungsten carbide inserts
- Environmentally correct: In the event of damage, only the component with the defect needs to be replaced
- User-friendly and ergonomic handling

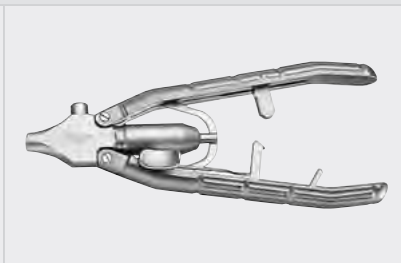
Handles and Outer Sheaths ^{NEW}

KOH Macro Needle Holders, dismantling

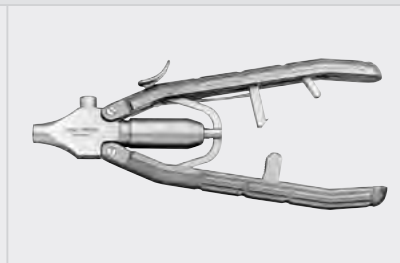
Handles, axial and pistol grip, with disengageable ratchet



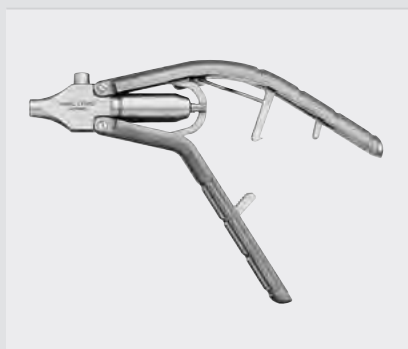
30173 AR **Handle**, axial, with **disengageable** ratchet, ratchet position right



30173 AL **Handle**, axial, with **disengageable** ratchet, ratchet position links



30173 AO **Handle**, axial, with **disengageable** ratchet, ratchet position on top



30173 PR **Handle**, pistol grip, with **disengageable** ratchet, ratchet position right



30173 PL **Handle**, pistol grip, with **disengageable** ratchet, ratchet position left



30173 PO **Handle**, pistol grip, with **disengageable** ratchet, ratchet position on top

Metal Outer Sheath

Size 5 mm

Trocar size 6 mm



30173 A


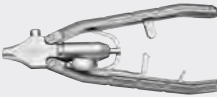

30173 A

Metal Outer Sheath, with LUER-Lock connector for cleaning, size 5 mm, length 33 cm




KOH Macro Needle Holders ^{NEW}

dismantling, axial handles

Size 5 mm
Trocar size 6 mm

Length	Handle		
	30173 AR	30173 AL	30173 AO
33 cm			

Single action jaws

Working Insert	Catalog number for the complete instrument		
30173 R	30173 RAR	30173 RAL	30173 RAO
	KOH Macro Needle Holder , jaws curved to right, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 L	30173 LAR	30173 LAL	30173 LAO
	KOH Macro Needle Holder , jaws curved to left, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 F	30173 FAR	30173 FAL	30173 FAO
	KOH Macro Needle Holder , straight jaws, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		

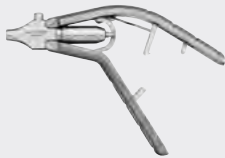

Please note:

For dismantling needle holders only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument.




KOH Macro Needle Holders ^{NEW}

dismantling, pistol-grip handles

Size 5 mm
Trocar size 6 mm

Length	Handle		
	30173 PR	30173 PL	30173 PO
33 cm			

Single action jaws

Working Insert	Catalog number for the complete instrument		
30173 R	30173 RPR	30173 RPL	30173 RPO
	KOH Macro Needle Holder , jaws curved to right, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 L	30173 LPR	30173 LPL	30173 LPO
	KOH Macro Needle Holder , jaws curved to left, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		
30173 F	30173 FPR	30173 FPL	30173 FPO
	KOH Macro Needle Holder , straight jaws, with tungsten carbide inserts, for use with suture material size 0/0 to 7/0		

Please note:

For dismantling needle holders only the **individual component parts** are numbered. The catalog number for the **complete instrument**, as shown above against the **white** background, is not on the instrument.

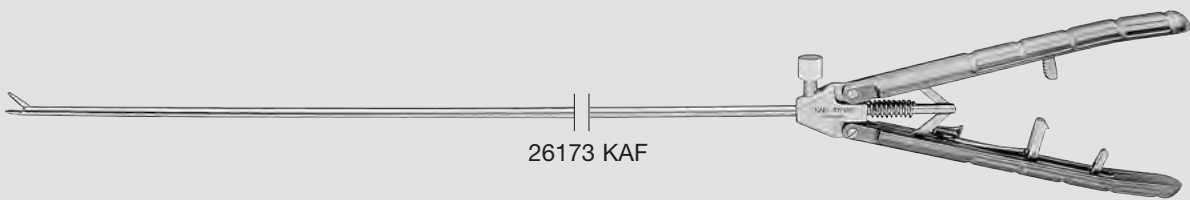
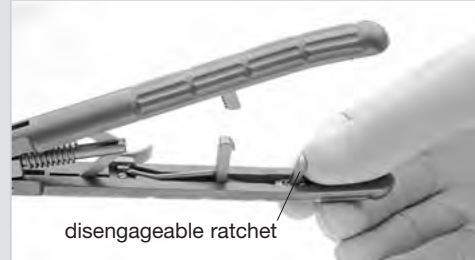
KOH Macro Needle Holder

Size 5 mm

Trocar size 6 mm

Special Features:

- Tungsten carbide inserts for secure and reliable needle positioning as well as long durability
- Smooth, precise adjustable ratchet for easy and safe needle positioning
- Ergonomically designed handle for relaxed work
- Needle sizes BV, SH or CT1



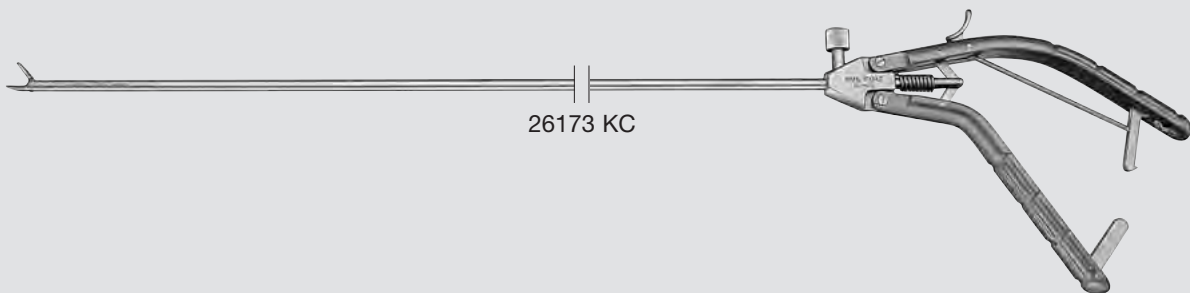
26173 KAF KOH **Macro Needle Holder**, with tungsten carbide insert, ergonomic straight handle, with disengageable ratchet, ratchet position right, jaws straight, size 5 mm, length 33 cm, for use with suture material size 0/0 to 7/0 and needle sizes BV, SH or CT-1



26173 KAL **Same**, jaws curved to left



26173 KAR **Same**, ratchet position left, jaws curved to right



26173 KL KOH **Macro Needle Holder**, with tungsten carbide insert, ergonomic handle with ratchet, jaws curved to left, size 5 mm, length 33 cm, for use with suture material size 0/0 to 7/0 and needle sizes BV, SH or CT-1



26173 KC **Same**, jaws curved to right

Please note: Using the needle holder with a needle larger than recommended may result in a mechanical damage to the instrument.

ENDOSCOPIC TRANSTHORACIC SYMPATHECTOMY

TELESCOPES AND TROCARS	178-179	
------------------------	---------	--

SCISSORS, DISSECTING AND GRASPING FORCEPS	180-181	
---	---------	--

LUNG AND GRASPING FORCEPS	182	
---------------------------	-----	--

DISSECTING ELECTRODES	183	
-----------------------	-----	--

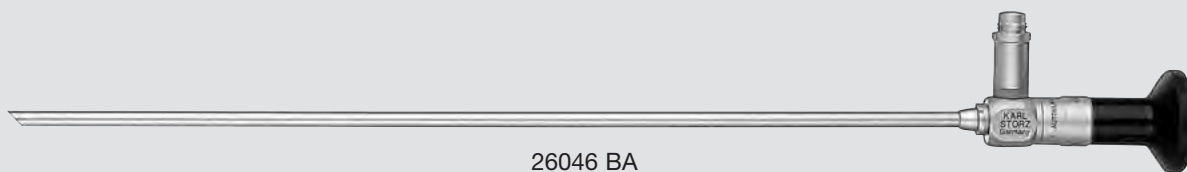


HOPKINS® II Telescopes

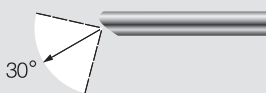
Diameter 5 mm, length 29 cm

Trocar size 6 mm

Recommended Fiber Optic Light Cables: 495 NL, 495 NA or 495 ND



26046 BA



30°

26046 BA

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

Fiber Optic Light Cables see catalog TELEPRESENCE



Trocars with Flexible Cannulas

Size 6 mm



Cannula

Trocar only

Size:		6 mm
Working length:		8.5 cm
Color code:		black
	Trocar, with blunt tip including: Cannula, flexible Trocar only	40120 NAL 40120 NL 40120 A
Accessories	Plastic Cannula, autoclavable, for flexible trocars, package of 5 	30120 X

Note: Instruments with curved jaws or distal angled sheaths should be used with trocars having flexible cannulas!

For **KARL STORZ trocars** only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown above in **bold** print, does not appear on the instrument.




Further trocars see chapter 7, VIDEO-ASSISTED THORACOSCOPIC SURGERY (VATS), pages 145-146

Scissors, Dissecting and Grasping Forceps



CLICK^{line} – dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm
Trocar size 6 mm

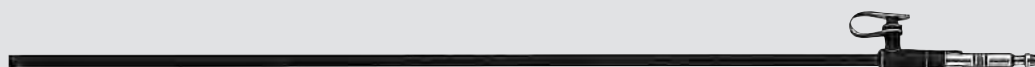


Length	Handle		
	33125 P	33127 P	33151
30 cm			

Double action jaws

Working Insert	Catalog number of the complete instrument		
34210 MS	34225 MSP	34227 MSP	34251 MS
 — 18 —	CLICK ^{line} METZENBAUM Scissors, with LUER-Lock adaptor for cleaning, curved		
33210 MD	33225 MDP	33227 MDP	33251 MD
 — 16 —	CLICK ^{line} KELLY Dissecting and Grasping Forceps, with LUER-Lock adaptor for cleaning		

CLICK^{line} Metal Outer Sheath, insulated



33200

33200

CLICK^{line} Metal Outer Sheath, insulated, with LUER-Lock connector for cleaning, size 5 mm, length 30 cm

Further handles for CLICK^{line} instruments with connector pin for unipolar coagulation
see catalog LAPAROSCOPY.

Please note:

For CLICK^{line} instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **red** background of the table above.

Scissors, Dissecting and Grasping Forceps



CLICK'linē – dismantling, insulated,
with connector pin for unipolar coagulation

Size 5 mm
Trocar size 6 mm



Length	Handle		
	33125 P	33127 P	33151
28 cm			

Double action jaws

Outer Sheath with Working Insert	Catalog number of the complete instrument		
43210 LU  — 20 —	43225 LUP	43227 LUP	43251 LU
CLICK'linē Scissors, sheath distally angled, curved scissor blades, scissor blades open horizontally to angulation			
43210 LK  — 21 —	43225 LKP	43227 LKP	43251 LK
CLICK'linē KELLY Dissecting Forceps, curved jaws			

Further handles for CLICK'linē instruments with connector pin for unipolar coagulation
see catalog LAPAROSCOPY

For curved instruments with connector pin for unipolar coagulation we recommend CLICK'linē Handles 33125 P and 33127 P with locking positions.







Please note:

For CLICK'linē instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **red** background of the table above.

Lung Forceps, Grasping Forceps

without connector pin for unipolar coagulation

Size 5 mm
Trocar size 6 mm

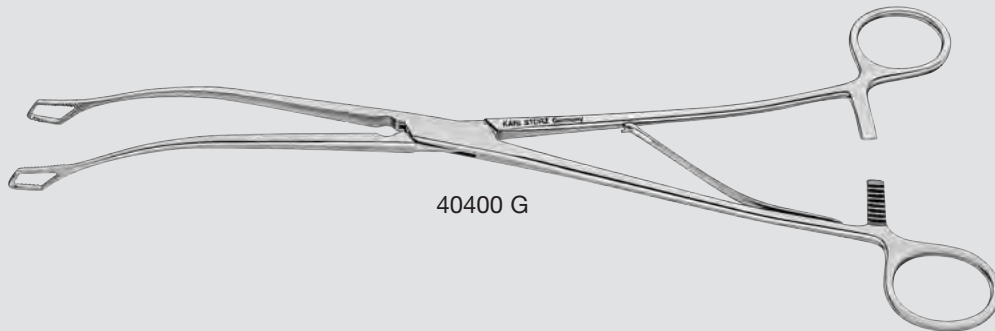
Length	Handle					
	33144 PF	33144 P	33137 PF	33137 PR	33131 P	33133 P
28 cm	<i>NEW</i> 	<i>NEW</i> 	<i>ABSORBER</i> 			

Single action jaws

Outer Sheath with Working Insert	Catalog number of the complete instrument					
43210 LL	43244 LLF	43244 LLP	43237 LLF	43237 LLR	43231 LLP	43233 LLP



CLICKliné Lung Forceps, atraumatic, curved jaws, fenestrated



40400 G

40400 G

Grasping Forceps, with ratchet, self-opening, fenestrated jaws, S-shaped, medial joint, length 33 cm

Please note:

For **CLICKliné** instruments only the **individual component parts** are numbered. The catalog number for the **complete instrument** does not appear on the instrument. Please take this number from the numbers indicated in the **blue** background of the table above.

Dissecting Electrodes

with connector pin for unipolar coagulation

Size 5 mm
Trocar size 6 mm



26772 UF



26778 UF

Coagulating and Dissecting Electrode, L-shaped, insulated, with connector pin for unipolar coagulation, size 5 mm, length 43 cm



26772 UF

Coagulating and Dissecting Electrode, L-shaped, insulated, with connector pin for unipolar coagulation, size 5 mm, length 30 cm



40775 LF



40775 LF

Dissecting Electrode, L-shaped, insulated, with connector pin for unipolar coagulation, distally angled sheath, size 5 mm, length 28 cm



THORACOTOMY AND VIDEO-ASSISTED MINI-THORACOTOMY

HEADLIGHTS 187

**SCHÖLLHORN
MULTI-RETRACTOR** 188-189

RIB SPREADER 190-191

TELESCOPES AND TROCARS 192-193

**INSTRUMENTS FOR GRASPING,
DISSECTING AND CUTTING** 194-198

RETRACTORS 199

**SUCTION AND IRRIGATION TUBES
AND DISSECTING ELECTRODES** 200-202

**INSTRUMENTS FOR SUTURE
AND LIGATURE** 203



HEADLIGHT KS60 ^{NEW}

with cold light illumination

Special Features:

- Luminous field can be focused – adjustable from 20 to 80 mm at a working distance of 40 cm – resulting in brightness of over 175,000 lux
- Double lens system provides outstanding illumination in the depths of the operating field
- Precise delineation and no luminous field color margins
- Homogeneous illumination of the luminous field without shadows
- Newly designed, lightweight headband provides improved comfort, also suitable for a small head size, can be adjusted both horizontally and vertically
- Sterilizable handle allows adjustment under sterile conditions, moveable and height adjustable
- Light cable is divided in the head area, ensuring even distribution of weight
- Extremely robust and flexible light cable due to special protective casing
- Convenient light cable length of 290 cm provides greater freedom of movement



310060

Headlight KS60, with double lens system and Y-fiber optic light cable, >175,000 lux, illuminated area adjustable from 20 – 80 mm with 40 cm working distance, with removeable and sterilizable Focus Handle 310065

including:

Headband, fully adjustable, with Forehead Cushion 078511, with cross band, including holder for Headlight 310063

Y-Fiber Optic Light Cable, with special protective casing for Headlight 310063, length 290 cm

Clip with Band, for attaching the fiber optic light cable to OR clothing



310061

Same, including:

Y-Fiber Optic Light Cable, with 90° deflection to the light source

Components see chapter 13, SPARE PARTS AND ACCESSORIES

SCHÖLLHORN Multi-Retractor

for thoracic surgery

Since the first successful thorax operation as a method of therapy for tuberculosis towards the end of the 19th century, techniques for thoracotomy have become increasingly atraumatic.

Thoracotomies/sternotomies are standardized, even if there are different schools of thought regarding the types of thoracic incisions used.

In addition to conventional posterolateral thoracotomy, the muscle-sparing anterolateral thoracotomy approach is now gaining widespread acceptance.

Similar to minimally invasive video-assisted thoracoscopic surgery, which uses increasingly smaller trocars and telescopes, the development of the KARL STORZ standard retractor has led to a more atraumatic intercostal approach in standard thoractomies.

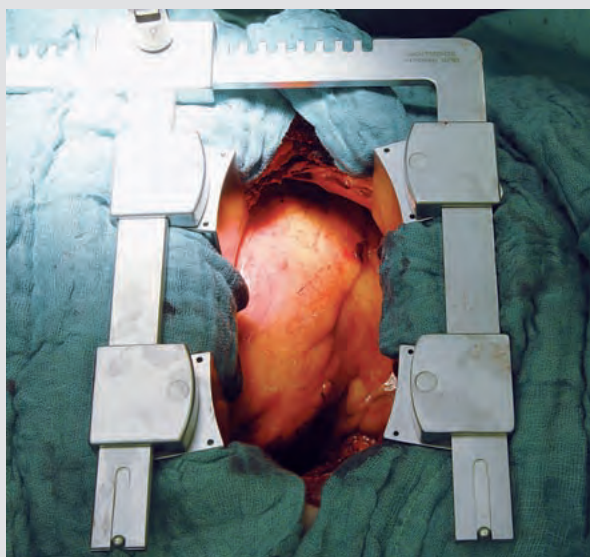
Freely movable, convex blades, which are specially adapted to the rib curvature and the anatomy, can be placed in the required position on the retractor frame and are fully adjustable. This individual adjustment of axial tensile force enables more atraumatic thoracotomy to be performed and reduces the likelihood of the so-called post-thoracotomy pain syndrome.

The thorax retractor is completed by a special fiber optic light carrier connected to the cold light source. The light carrier is malleable and has a rotating head. It can be mounted in any position on the retractor frame, providing optimal illumination of the OR site.

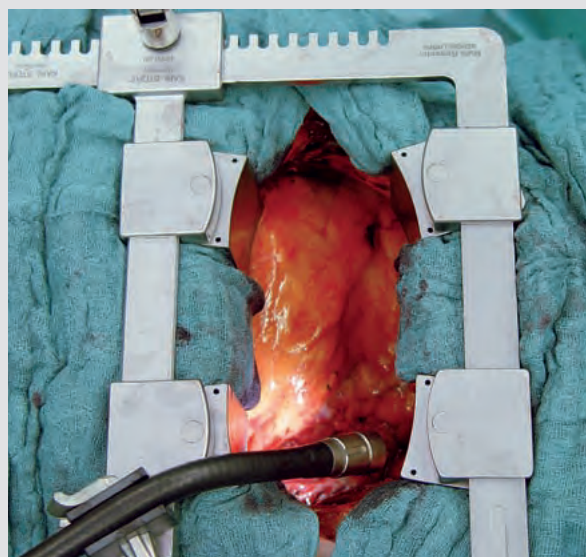
The flexibility of the light carrier combined with the possibility of placing the retractor in any position delivers improved illumination of the surgical field without problems. Moreover, the universal fixation device for mounting the light carrier can be attached to any conventional retractor system.

All retractor components, including the light carrier and universal fixation device, are sterilizable by autoclave at 134 °C so that use is unrestricted.

*O. Schega, M.D.
Chief Physician, Thoracic Surgery
Johanniter-Krankenhaus Treuenbrietzen, Germany*



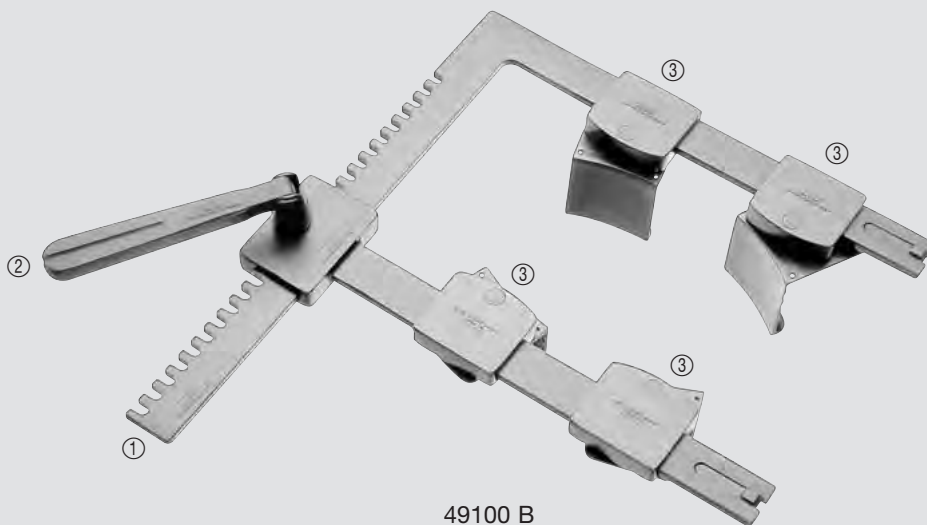
Thoracotomy site with retractor



Thoracotomy site with retractor and light guide

SCHÖLLHORN Multi-Retractor

for thoracic surgery



49100 B

49100 B SCHÖLLHORN Standard Retractor

including:

- ① **Retractor Frame**, 25 x 22 cm, including Lever 49100 BS
- ② **Lever**, spare part
- 4x **Moveable Blade**, freely adjustable, height 30 mm
- ③ 4x **Moveable Blade**, freely adjustable, height 40 mm
- 4x **Moveable Blade**, freely adjustable, height 50 mm



49100 LS

49100 LS Fiber Optic Light Carrier Extension

including:

- ① **Fiber Optic Light Carrier**, malleable, for illumination of the operating field
- ② **Universal Holding Device**, for Fiber Optic Light Carrier 49100 L, for use with rectangular retractor frames with profile min. 5 x 15 mm to max. 8 x 34 mm and round components with profile min. 10 to max. 16 mm

Components see chapter 13, SPARE PARTS AND ACCESSORIES

Instruments for Video-Assisted Mini-Thoracotomy

Prof. GIUDICELLI, Prof. FUENTES and Dr. OTTOMANI

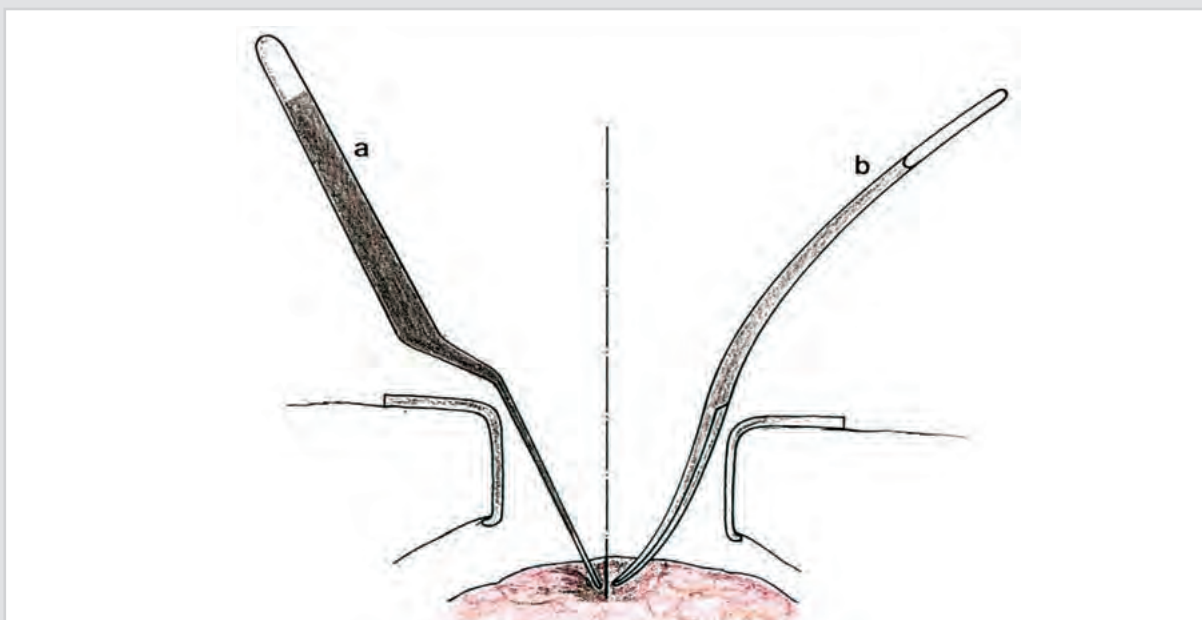
Operating Instruments

Following initial attempts to use tubular instruments employed in the field of pelviscopy, we soon opted for more specific instruments similar to conventional instruments, but with a number of features suitable for video-assisted thorax surgery.

Prof. R. GIUDICELLI, M. D.,
Marseille, France

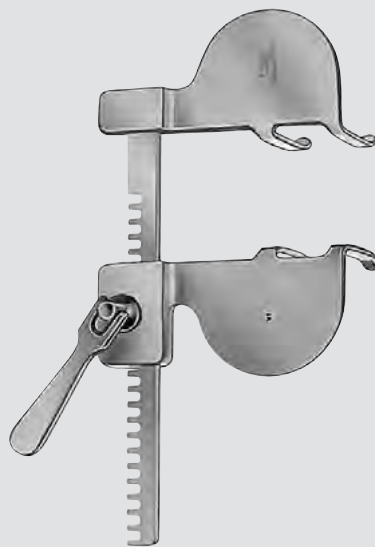
Special features of these instruments:

- Curved instruments, which follow the curvature of the thorax, as well as S-shaped instruments which impede the field of vision as little as possible and retain the minithoracotomy port (as shown below)
- Long instruments which facilitate access to the outermost regions of the thorax (apex of the lung, costo-diaphragmal sinus)
- Instruments with medial and non-distal joints which open widely even in narrow areas.



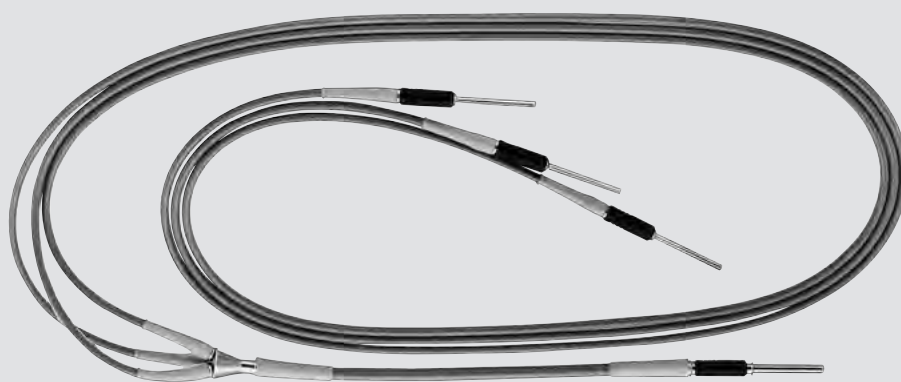
*S-shaped instruments which keep the operative field clear
(a) forceps, (b) scissors*

Rip Spreader, Percutaneous Fiber Optic Light Cable



40110 A

- 40110 A GIUDICELLI/FUENTES/OTTOMANI **Rib Spreader**, self-retaining, blade depth 40 mm, blade width 30 mm
- 40110 B **Same**, blade depth 60 mm



495 CD

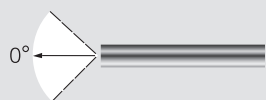
- 495 CD **Percutaneous Fiber Optic Light Cable**, length 300 cm, with three percutaneous illumination ports, each 5 mm in diameter, each 5 cm in length

HOPKINS® II Telescopes

Diameter 10 mm, length 31 cm

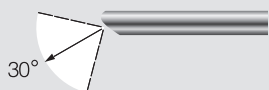
Trocar size 11 mm

Recommended Fiber Optic Light Cables: 495 NL, 495 NA or 495 NE



26003 AA

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



26003 BA

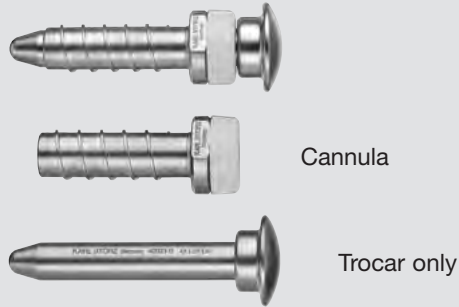
HOPKINS® II Forward-Oblique Telescope 30°, enlarged view, diameter 10 mm, length 31 cm, **autoclavable**, fiber optic light transmission incorporated, color code: red


Further **HOPKINS® Telescopes** see chapter 7, VIDEO-ASSISTED THORACOSCOPIC SURGERY (VATS), pages 140-144

Fiber Optic Light Cables see catalog TELEPRESENCE

Trocars

Size 11 mm



Size:		11 mm	
Working length:		4 cm	6 cm
	Trocar, with blunt tip	40103 AB	40103 CD
	including:		
	Cannula	40103 A	40103 C
	Trocar only	40103 B	40103 D

3-11

For **KARL STORZ trocars** only the individual components are numbered. The catalog number for the **entire assembled trocar**, as shown above in **bold print**, does not appear on the instrument.

Further Trocars see chapter 7, VIDEO-ASSISTED THORACOSCOPIC SURGERY (VATS), pages 140-144



40400 A



40400 A **Forceps**, atraumatic, bayonet-shaped, insulated, length 22 cm



40400 C

40400 C **Forceps**, atraumatic, bayonet-shaped, insulated, length 20 cm



40400 B



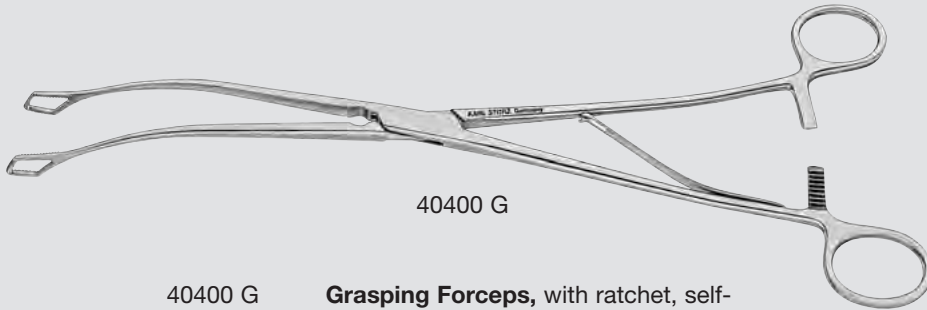
40400 B **Forceps**, with multiple teeth, bayonet-shaped, insulated, length 22 cm



40400 D

40400 D **Forceps**, with multiple teeth, bayonet-shaped, insulated, length 20 cm

Grasping Forceps



40400 G

40400 G

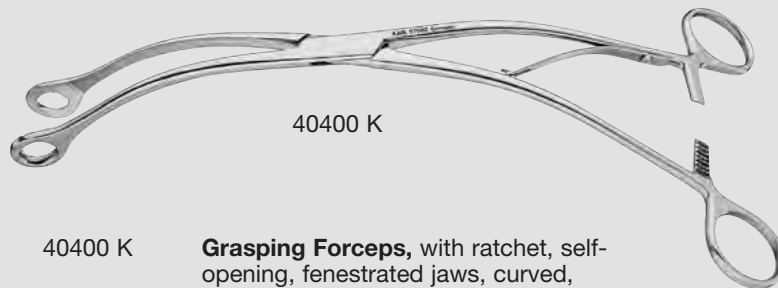
Grasping Forceps, with ratchet, self-opening, fenestrated jaws, S-shaped, medial joint, length 33 cm



40400 H

40400 H

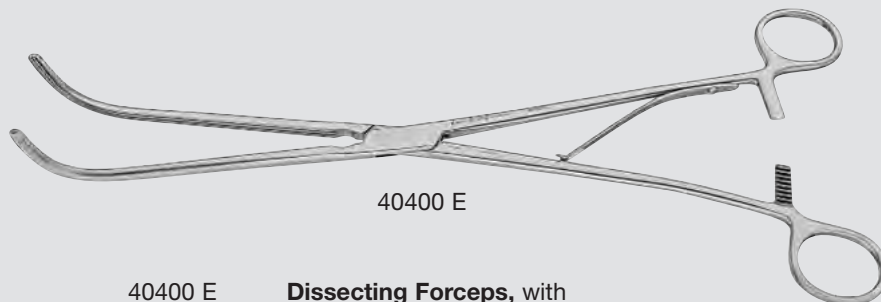
Grasping Forceps, with ratchet, self-opening, fenestrated jaws, S-shaped, medial joint, length 28 cm



40400 K

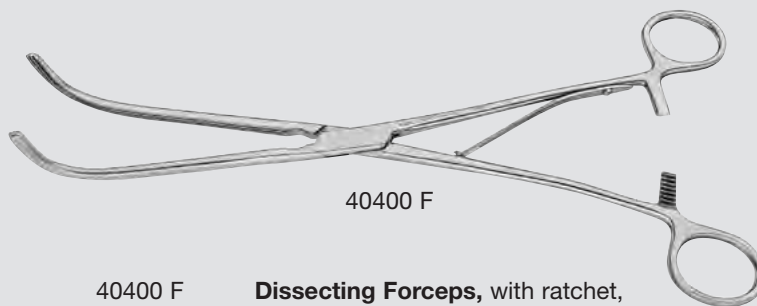
40400 K

Grasping Forceps, with ratchet, self-opening, fenestrated jaws, curved, medial joint, length 28 cm



40400 E

40400 E **Dissecting Forceps**, with ratchet, self-opening, S-shaped, medial joint, length 33 cm



40400 F

40400 F **Dissecting Forceps**, with ratchet, self-opening, S-shaped, medial joint, length 28 cm

Dissecting Scissors



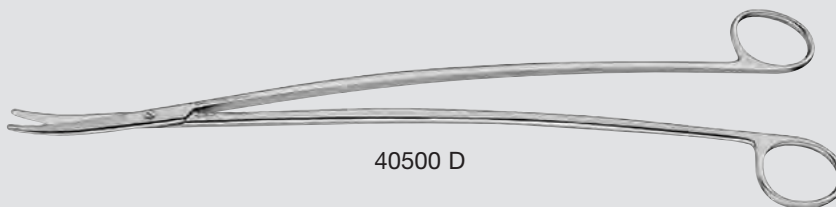
40500 B

40500 B **Dissecting Scissors**, S-shaped,
medial joint, length 33 cm



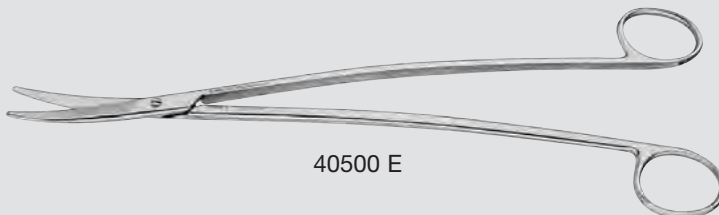
40500 C

40500 C **Dissecting Scissors**, S-shaped,
medial joint, length 28 cm



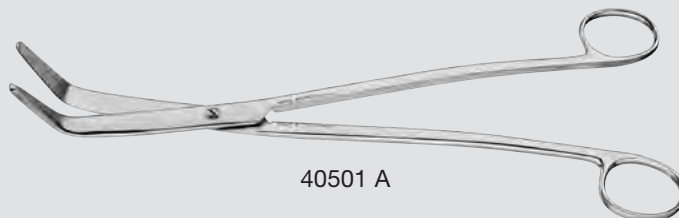
40500 D

40500 D **Dissecting Scissors**, S-shaped,
distal joint, length 33 cm



40500 E

40500 E **Dissecting Scissors**, S-shaped,
distal joint, length 28 cm



40501 A

40501 A **Dissecting Scissors**, S-shaped, distal end angled, medial joint, length 26 cm



40500 A

40500 A **Tubular Dissecting Scissors**, S-shaped, single action jaws, length 35 cm

Retractors



40600 A



40600 A

Retractor, S-shaped, with 3 teeth, length 27 cm

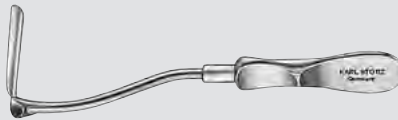


40600 B



40600 B

Retractor, distal end curved, with 3 teeth, length 27 cm



40111 A

40111 A

Retractor, S-shaped, blade depth 50 mm, length 80 mm



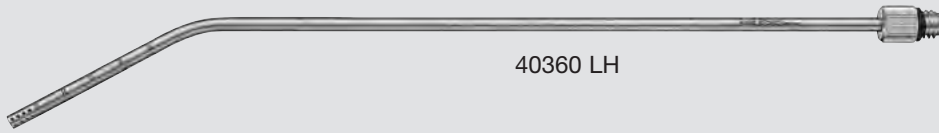
40600 D

40600 D

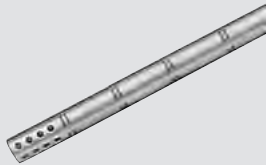
Lung Spatula, S-shaped, length 27 cm

Suction and Irrigation Tubes

Size 5 mm
Trocar size 6 mm



40360 LH



40360 LH

Suction and Irrigation Tube, with lateral holes, distally angled sheath, size 5 mm, length 28 cm



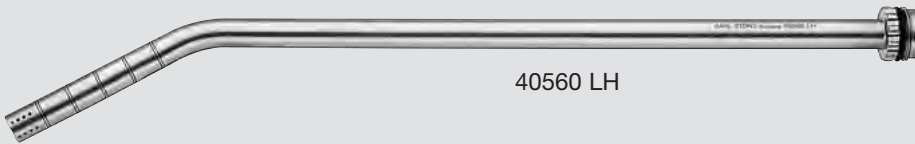
37260 LH



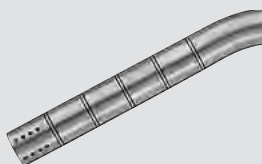
37260 LH

Suction and Irrigation Tube, with lateral holes, size 5 mm, length 30 cm

Size 10 mm
Trocar size 11 mm



40560 LH



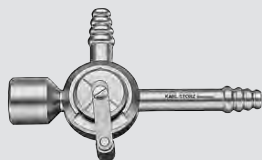
NEW

40560 LH

Suction and Irrigation Tube, with lateral holes, distally angled sheath, size 10 mm, length 28 cm

Handles for Suction and Irrigation Tubes

For use with suction and irrigation tubes size 5 and 10 mm



30805

Handle with Two-Way Stopcock, for suction and irrigation, **autoclavable**, for use with Suction and Irrigation Tubes 37260 LH, 40360 LH and 40560 LH



37112 A

Suction and Irrigation Handle, straight, with clamping valve, for suction and irrigation, **autoclavable**, for use with Suction and Irrigation Tubes 37260 LH, 40360 LH and 40560 LH



37113 A

Suction and Irrigation Handle, pistol grip, with clamping valve, for suction and irrigation, **autoclavable**, for use with Suction and Irrigation Tubes 37260 LH, 40360 LH and 40560 LH

Tubing Sets for use with suction and irrigation handles



031133-10*

Tubing Set, for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A and 37113 A



031134-10*

Tubing Set, for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A and 37113 A in combination with silicone tube inner diameter 5 mm at the patient end

Please note:

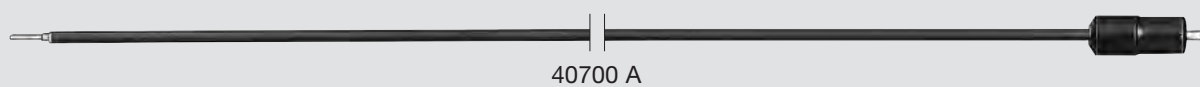
For KARL STORZ suction and irrigation handles we recommend the use of tubing sets specially designed for these handles from:

*



mtp medical technical promotion gmbh
 Take-Off GewerbePark 46
 D-78579 Neuhausen ob Eck
 Germany
 Telephone: +49/74 67/9 45 04-0
 Fax: +49/74 67/9 45 04-99

Unipolar Coagulating Electrodes

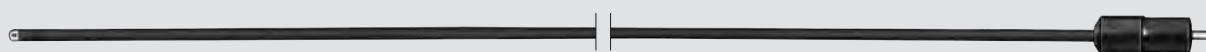


40700 A



40700 A

Electrode, knife tip, malleable, with connector pin for unipolar coagulation, length 40 cm

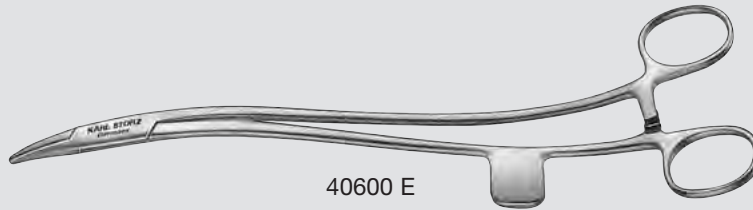


40700 B



40700 B

Electrode, ball tip, malleable, with connector pin for unipolar coagulation, length 40 cm



40600 E

40600 E **Needle Holder**, S-shaped,
with ratchet, length 27 cm



40600 C



40600 C **Sling Passer**,
length 25 cm



26596 T



26596 T **Knot Tier**, for extracorporeal
knotting, size 5 mm, length 36 cm



VISUALIZATION SYSTEM FOR MICROSURGERY



VITOM® 25 *NEW*
Visualization System for Microsurgery



3-11

The VITOM® 25 from KARL STORZ represents a revolutionary new way of displaying surgical procedures in a high quality and ergonomic manner.

The VITOM® 25 is based on the renowned HOPKINS® II rod lens system from KARL STORZ. With the help of a holding system, the VITOM® 25 is placed at a working distance of 25 – 60 cm above the surgical site, giving the surgeon more room to work.

The small size of the VITOM® 25 reduces space requirements in the OR to a minimum. Thanks to the slim and compact design, the surgical field is not obstructed and even long instruments can be used with ease. The VITOM® 25 provides excellent depth of field, magnification, contrast and color reproduction, which are the prerequisites for FULL HD display and recording.

The first-class enlarged image can be observed via a FULL HD monitor from a convenient distance by the surgeon and the assistant as well as the entire OR team.

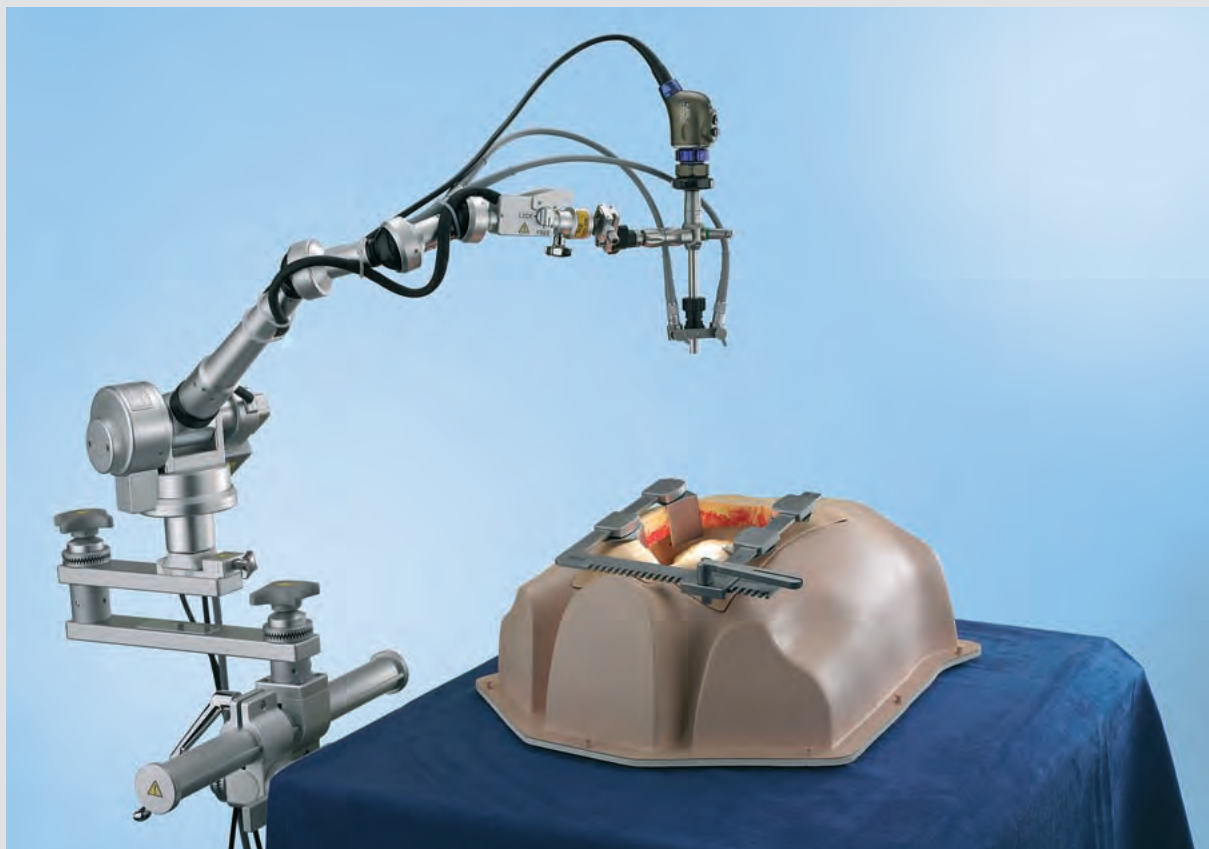
The VITOM® 25 system has proven to be an excellent alternative to OR illumination cameras, loupes or operating microscopes in various surgical disciplines.

The VITOM® 25 has integrated illumination, which can be enhanced by an optional illuminator.

The system allows further use of existing units. A FULL HD endoscope imaging solution from KARL STORZ can also be used with the VITOM® 25 exoscope.

The VITOM® 25 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



Exoscope and Illumination



Camera and Display



Holding System



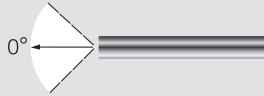
Documentation System



KARL STORZ AIDA® compact NEO

Holding Arm systems see chapter 11, HOLDING SYSTEMS
KARL STORZ AIDA® compact NEO see catalog KARL STORZ OR1™

Diameter 10 mm, length 11 cm

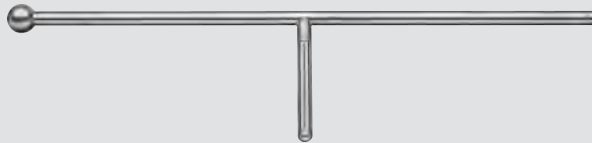


20 9160 20

20 9160 20

VITOM® 25 HOPKINS® II Straight Forward Telescope 0°, working distance 25 – 60 cm, diameter 10 mm, length 11 cm, **autoclavable**, fiber optic light transmission incorporated, color code: green

Fiber Optic Light Cables 495 NE and NVB recommended



20 9180 20

20 9180 20

VITOM® 25 Distance Rod, length 25 cm

optional:



20 9170 00

20 9170 00

VITOM® 25 Illuminator, for straight forward telescopes 0°, 2 adjustable lenses with holding device for VITOM® 25, **autoclavable**

Y-Fiber Optic Light Cable 495 UV recommended

Fiber Optic Light Cables see catalog TELEPRESENCE

Cold Light Fountain XENON 300 SCB

Special Features:

- Extremely high light intensity due to 300 Watt Xenon lamp
- Built-in antifog pump
- With integrated KARL STORZ Communication Bus (KARL STORZ-SCB)



20 1331 01-1 Cold Light Fountain XENON 300 SCB

power supply 100 – 125/220 – 240 VAC, 50/60 Hz
including:

Mains Cord

Silicone Tubing Set, length 250 cm

SCB Connecting Cable, length 100 cm

Specifications:

Lamp type	XENON 15 V, 300 Watt	Dimensions w x h x d	305 x 165 x 335 mm
Color temperature	6000 K	Weight	7.96 kg
Light outlets	1	Certified to:	IEC 601-1 and UL 544, protection class 1/CF
Light intensity adjustment	continuously adjustable via a membrane keyboard or KARL STORZ Communication Bus Signal		

Spare Lamps and Spare Lamp Modules for Cold Light Fountains XENON see catalog TELEPRESENCE

IMAGE 1 HUB™ HD

HD Camera Control Unit

Special Features:

- Maximum resolution and the consistent use of the 16:9 aspect ratio guarantee FULL HD.
- Endoscopic and microscopic camera systems are equipped with three CCD chips that support the 16:9 input format as well as capturing images with a resolution of 1920 x 1080 pixels.

The benefits of FULL HD (High Definition) for medical applications are:

- Up to 6 times higher input resolution of the camera delivers more detail and depth of focus.
- Using 16:9 format during image acquisition enlarges the field of vision and supports ergonomic viewing.
- The brilliance of color enables optimal diagnosis.
- Lateral view is enhanced by 32% when the endoscope is withdrawn slightly, providing the same image enhancement as a standard system. Any vertical information loss is restored and the lens remains clean.



222010 11U102 IMAGE 1 HUB™ HD Camera Control Unit SCB, with SDI Module

for use with IMAGE1 FULL HD and IMAGE1 standard one- and three-chip camera heads, max. resolution 1920 x 1080 pixels, **with integrated SDI (Serial Digital Interface) module, KARL STORZ-SCB** and integrated Image Processing Module, color systems PAL/NTSC, power supply 100 – 240 VAC, 50/60 Hz

including:

Mains Cord

BNC/BNC Video Cable

S-Video (Y/C) Connecting Cable

2x **Connecting Cables**, for controlling peripheral units

DVI-D Connecting Cable

SCB Connecting Cable

Keyboard, with US English character set

Specifications:

Signal-to-Noise Ratio	IMAGE 1 HUB™ HD, three-chip camera systems ≥ 60 dB	Control Output /Input	- KARL STORZ-SCB at 6-pin Mini-DIN socket (2x) - 3.5 mm stereo jack plug (ACC 1, ACC 2), - Serial port at RJ-11 - USB port (only IMAGE 1 HUB™ HD with ICM) (2x)
AGC	Microprocessor-controlled	Dimensions w x h x d	305 x 89 x 335 mm
Video Output	- Composite signal to BNC socket - S-Video signal to 4-pin Mini-DIN socket (2x) - RGBS signal to D-Sub socket - SDI signal to BNC socket (only IMAGE 1 HUB™ HD with SDI module) (2x) - HD signal to DVI-D socket (2x)	Weight	2.95 kg
Input	Keyboard for title generator, 5-pin DIN socket	Power supply	100-240 VAC, 50/60 Hz
		Certified to:	IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601-1 and CE acc. to MDD, protection class 1/CF

Optional accessories for IMAGE 1 HUB™ HD see catalog TELEPRESENCE

IMAGE1 HD

Camera Heads for Endoscopy and Microscopy

For use with IMAGE 1 HUB™ HD Camera Control Unit SCB 222010 11U102



22 2200 55-3

NEW 22 2200 55-3 **50 Hz** **IMAGE1 H3-Z**
60 Hz **Three-Chip FULL HD Camera Head**

max. resolution 1920 x 1080 pixels, progressive scan, soakable, gas- and plasma-sterilizable, with integrated Parfocal Zoom Lens, focal length $f = 15 - 31$ mm (2x), 2 freely programmable camera head buttons, for use with color systems **PAL/NTSC**

Accessories




533 TVA

- 040112-40* **Camera Cover**, folded inside out, 13 x 242 cm, sterile, package of 25, for use with all standard endoscopic video camera systems
- 040112-160* **Same**, package of 160
- 533 TVA **Adaptor, autoclavable**, permits telescope changing under sterile conditions

Specifications:

IMAGE1 HD Camera Head	H3-Z
50 Hz	22 2200 55-3 (PAL/NTSC) (50/60 Hz)
Image Sensor	3x 1/3" CCD chip
Pixel Output Signal H x V	1920 x 1080
Dimensions	Diameter 32-44 mm, length 114 mm
Weight	246 g
Min. Sensitivity	F 1.4/1.17 Lux
Optical Interface	Integrated Parfocal Zoom Lens., $f = 15-31$ mm
Grip Mechanism	Standard eyepiece adaptor
Cable	non-detachable
Cable Length	300 cm

*  mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Optional accessories for IMAGE 1 HUB™ HD see catalog TELEPRESENCE

IMAGE 1 HUB™ HD

HD Monitor



9524 N/NO
9526 N/NO



9524 NB/NBO
9526 NB/NBO

KARL STORZ HD Flat Screens	24"		26"	
Desktop with pedestal	9524 N	9524 NO	9526 N	9526 NO
Wall-mounted with VESA 100-adaption	9524 NB	9524 NBO	9526 NB	9526 NBO
Inputs:				
SDI	●	●	●	●
HD-SDI	●	●	●	●
RGBS	●	●	●	●
S-Video	●	●	●	●
Composite	●	●	●	●
SOG	●	●	●	●
DVI-D	●	●	●	●
Fiber Optic	—	●	—	●
VGA	●	●	●	●
Outputs:				
SDI	●	●	●	●
HD-SDI	●	●	●	●
RGBS	●	●	●	●
S-Video	●	●	●	●
Composite	●	●	●	●
DVI-D	●	●	●	●
Displayable Signal Formats:				
4:3	●	●	●	●
5:4	●	●	●	●
16:9	●	●	●	●
16:10	●	●	●	●
Picture-in-Picture (PiP, HD – SD)	●	●	●	●
Picture-in-Picture (PiP, HD – HD)	●	●	●	●
PAL/NTSC compatible	●	●	●	●
Picture-Perfect Technology	●	●	●	●

The following accessories are included:

Mains Cord, length 300 cm

External 24VDC Power Supply

Pedestal (only 9524 N/NO and 9526 N/NO)

The systems can be operated with KARL STORZ-SCB units.

Video Connecting Cables see catalog TELEPRESENCE

HOLDING SYSTEMS

MECHANICAL HOLDING SYSTEMS 216-217

ELECTRICAL HOLDING ARM 218-221

PNEUMATIC HOLDING SYSTEM 222-226



Mechanical Holding Systems

with KSLOCK



Special Features:

- Simple, fast and accurate positioning
- New, reinforced versions of various articulated stands
- Five joint functions enable a large number of different positions
- All five joint functions and instruments can be fixed by means of the mechanical central clamp KSLOCK.
- Variable height adjustment by using the socket
- Socket for use with European and United States standard rails
- Ergonomical positioning at the operating table
- Eases the work routine of the assistant
- Instruments and telescopes are clamped securely
- Steady imaging of the operation field
- Modular composition using individual elements
- Maintenance-free solid construction
- Autoclavable


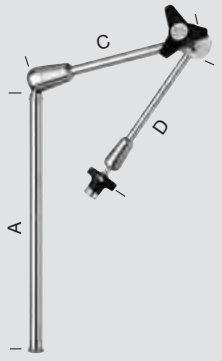
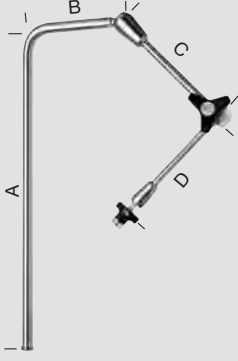
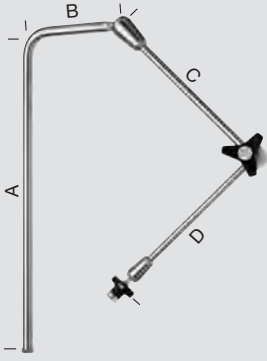
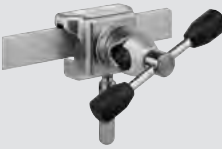








28272 RLC

Mechanical Holding Systems

with KSLOCK



Socket	Articulated Stand					
28172 HK	28272 HA		28272 HB		28272 HC	
						
28172 HR						
	A 30 cm	B -	A 48 cm	B 15 cm	A 48 cm	B 15 cm
	C 20 cm	D 17 cm	C 20 cm	D 17 cm	C 27 cm	D 24 cm
Clamping Jaw	Catalog number for the complete holding system					
28272 UG	28272 KGA		28272 KGB		28272 KGC	
	28272 RGA		28272 RGB		28272 RGC	
	Clamping Jaw , metal, with axial intake, for use with all square-headed KARL STORZ telescopes, clamping range 16.5 – 23 mm					
28272 UK	28272 KKA		28272 KKB		28272 KKC	
	28272 RKA		28272 RKB		28272 RKC	
	Clamping Jaw , metal, with axial intake, for use with instrument, irrigation and telescope sheaths, clamping range 4.8 – 12.5 mm					
28272 UL	28272 KLA		28272 KLB		28272 KLC	
	28272 RLA		28272 RLB		28272 RLC	
	Clamping Jaw , universal, clamping range 0 – 18 mm					
28272 UF	28272 KFA		28272 KFB		28272 KFC	
	28272 RFA		28272 RFB		28272 RFC	
	Clamping Jaw , for use with all KARL STORZ polymer housing fiberscopes					
28272 UU	28272 KUA		28272 KUB		28272 KUC	
	28272 RUA		28272 RUB		28272 RUC	
	Clamping Jaw , for use with all KARL STORZ polymer housing fiberscopes					
Clamping Cylinder						
	28272 C		Clamping Cylinder , for flexible mounting of 10 mm telescopes to telescope sheath, autoclavable . The clamping cylinder allows vertical movement and rotation of the telescope.			

ENDOCRANE™ Holding System *NEW*

The ENDOCRANE™ holding arm is the system of choice if a particularly fast, accurate and safe positioning of instruments or endoscopes is required, i.e. in neurosurgery, laparoscopy or orthopedics.

The ENDOCRANE™ holding arm helps surgeons and assistant surgeons save time as the positioning of instruments and telescopes is faster and easier than with a manual holding system.

The system also relieves the assistant surgeon of camera guidance and delivers steady images.

The ENDOCRANE™ holding system features a special piezoelectric locking joint mechanism. This achieves

positioning without misalignment as well as rapid locking (30 ms), meeting the demands of a clinical setting.

The system can be used with one hand and the large working radius of 50 cm allows variable use. A holding capacity of 20 N (2 kg) is possible in any position.

The holding arm features a fail-safe function which prevents a loss of retention force in the case of malfunction, i. e. power failure.

The system is very compact and can be mounted directly on standard OR table rails.



28272 EC

ENDOCRANE™ Holding System *NEW*

Product Features

- **Safety**

The fail-safe function of the ENDOCRANE™ prevents loss of retention force and ensures that the arm does not collapse in case of malfunction.

- **Accuracy**

ENDOCRANE™ offers accurate positioning without misalignment. This is indispensable for critical applications such as neurosurgery.

- **Speed**

The piezoelectric principle enables the joints of the ENDOCRANE™ to close in 30 ms and ensures a holding force of 20 N in all positions.

- **Convenience**

The ENDOCRANE™ system allows single-handed use via the handle.

- **Flexibility**

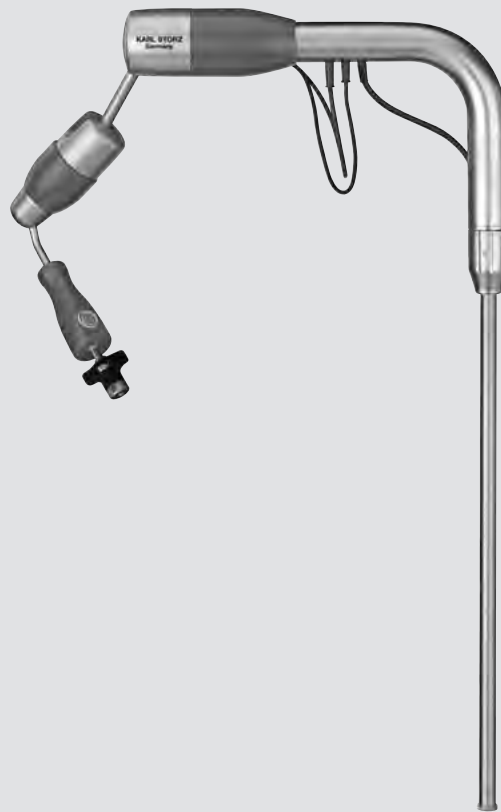
ENDOCRANE™ is equipped with the proven KARL STORZ rapid coupling, which ensures fast and secure mounting of various clamping jaws. The ENDOCRANE™ handle also has a manual ball joint to allow convenient fine adjustment.

- **Hygiene**

Der ENDOCRANE™ holding arm is equipped with a sterile cover during use. This guarantees 100% hygiene as well as safety and ensures that the system is in continuous use.



ENDOCRANE™ Holding System ^{NEW}



28272 EC

- 28272 EC **ENDOCRANE™**, piezoregulated holding arm, including stand including:
- Socket**, to clamp to the OR table
 - Control Unit**
 - Cover***, sterile, package of 25
 - Spring Balance**
 - Mains Cord**



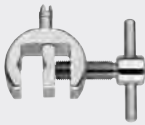






mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Components see chapter 13, SPARE PARTS AND ACCESSORIES

ENDOCRANE™ Holding System ^{NEW}


Clamping Jaws

	28272 UG	Clamping Jaw , metal, for use with all square-headed KARL STORZ HOPKINS® telescopes, clamping range 16.5 to 23 mm, with quick release coupling KSLOCK (male)
	28272 UK	Clamping Range , metal, with axial intake, for use with instrument, irrigation and telescope sheaths, clamping range 4.8 to 12.5 mm, with quick release coupling KSLOCK (male)
	28272 UL	Clamping Jaw , universal, clamping range 0 to 18 mm, with quick release coupling KSLOCK (male)
	28272 UF	Clamping Jaw , for use with all KARL STORZ polymer housing fiberscopes, with quick release coupling KSLOCK (male)
	28272 UU	Clamping Jaw , for use with instrument, irrigation and telescope sheaths
	28272 C	Clamping Cylinder , for flexible mounting of 10 mm telescopes to telescope sheath, autoclavable . The clamping cylinder allows vertical movement and rotation of the telescope. For use with Clamping Jaw 28272 UG and 28272 UK as well as POINT SETTER Universal Adaptor 10 – 15 mm
	040146-01*	Cover , sterile
	040146-25*	Cover , sterile, package of 25

Specifications:

Arm:		Control Unit	
Maximum holding capacity	2 kg/20 N	Power supply	100 – 240 VAC
Working radius	500 mm/19.7"	Mains frequency	50/60 Hz
Swivel range	360°	Weight	5 kg/11.0 lbs
Maximum locking time	30 ms (fail-safe)	Dimensions (w x h x d)	305 x 80 x 305 mm
Weight of holding arm and stand	7 kg/15.4 lbs		
Protection against electric shock	Type CF		
Type of protection	IP 50		

3-11

*  mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Specifications subject to change without notice.

POINT SETTER Holding System

NEW

STORZ
KARL STORZ — ENDOSKOPE

The POINT SETTER holding system is the perfect solution for positioning endoscopes as well as cameras, retractors or other instruments.

The POINT SETTER holding arm is mounted directly to the operating table and features safe, simple and reliable use.

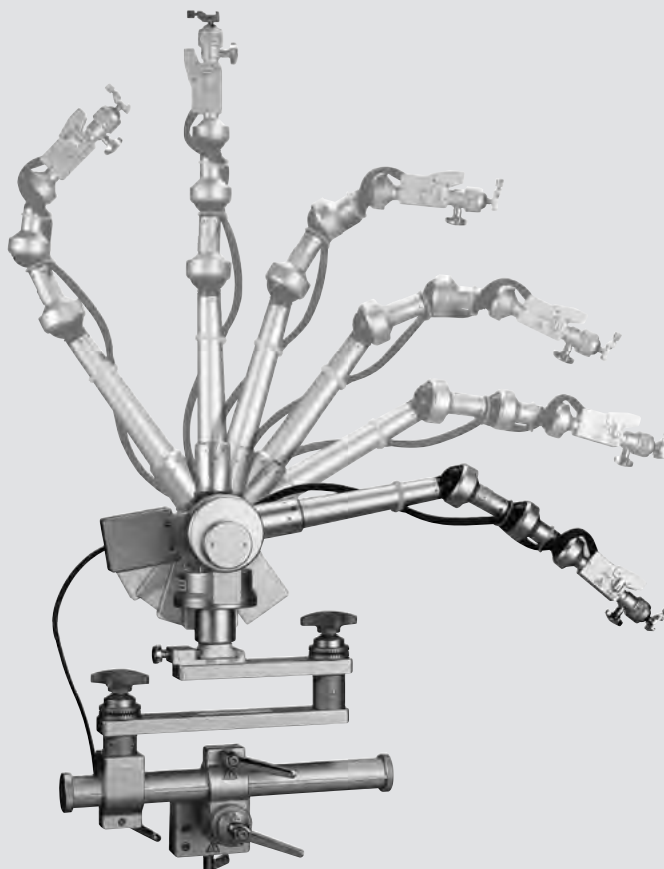
The patented self-locking pneumatic system ensures perfect safety, eliminating the need for additional error-prone electronics.

Furthermore, the POINT SETTER holding arm allows convenient single-handed use. Pressing and holding the control button on the handle releases the arm for quick and accurate positioning. The POINT SETTER arm locks as soon as the button is released.

The flexible OR table adaptor and the arm length of 650 mm provides more work space. Combined with a holding capacity of 2 kg this makes the POINT SETTER an ideal tool for surgical interventions.

Special Features:

- The self-locking pneumatic system ensures that low, fluctuating or deficient gas pressure does not affect the stability of the arm.
- A press of a control button releases the arm immediately for quick positioning.
- Side guards prevent accidental activation of the POINT SETTER arm.
- A locking mechanism offers additional safety.
- A manual ball joint at the tip of the handle enables convenient fine-tuning.
- Special surface structure for uniform and smooth movement as well as accurate positioning
- Precise positioning without forward or backward motion
- The POINT SETTER arm is very robust and has high torsional stiffness to ensure low oscillation and high reliability.



POINT SETTER Holding System

NEW

Product Features

● Perfect Safety

The POINT SETTER arm operates according to an innovative, self-locking principle similar to a spring-loaded brake. This makes it totally safe and reliable. Low, fluctuating or deficient gas pressure does not effect arm stability. The arm cannot collapse even if all pressure tubes are cut off.

● Recoil-free Positioning

The POINT SETTER arm enables very precise positioning without recoil or backlash. This is particularly important, especially if the system is used for nerve or brain retraction.

● Convenient Use

The POINT SETTER arm was designed for single-handed use. Pressing the control button releases the arm immediately and enables quick positioning. The control button has an elevated side guard that prevents unintentional activation of the POINT SETTER arm. A locking mechanism offers additional safety.

● Manual Fine-tuning

A manual ball joint at the tip of the handle enables convenient fine-tuning.

● Uniform Movement

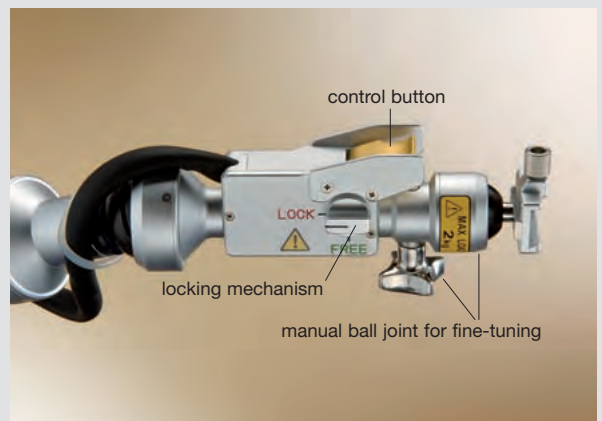
The connector joints of the POINT SETTER arm have a special surface structure for uniform and smooth movement.

● Balanced System

The POINT SETTER Arm is counterbalanced to ensure optimal movement. This is particularly important to ensure that the surgeon's fine-motor control remains unhindered during complex interventions.

● Robust Design

The POINT SETTER arm is very robust and has high torsional stiffness for low oscillation and high reliability.



POINT SETTER Holding System ^{NEW}



28172 WS

28172 WS **POINT SETTER**, pneumatic holding system with OR table adaptor including:

Universal Adaptor, for use with telescopes diameter 10 – 15 mm

Universal Adaptor, for use with telescopes diameter 5 – 10 mm

Universal Adaptor, 10 – 15 mm, pediatric

Adaptor, for KARL STORZ fiberscopes

Pressure Hose Schrader, length 600 cm, for USA and Asia

Case, for POINT SETTER arm

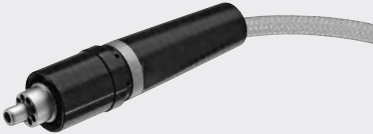
Drape, for single use, sterile, package of 10

POINT SETTER Holding System ^{NEW}

Alternative and Spare Connecting Tubes



28172 WA **Connecting Tube**, for POINT SETTER, Dräger, length 600 cm



28172 WB **Connecting Tube**, for POINT SETTER, Dräger air motor, length 600 cm



28172 WC **Connecting Tube**, for POINT SETTER, compressor, length 600 cm



28172 WN **Connecting Tube**, for POINT SETTER, Schrader, length 600 cm

Accessories and Miscellaneous Material



200310 02 **Air Compressor**, for POINT SETTER, 0 – 8 bar, power supply 230 VAC, 50/60 Hz including:
Connecting Tube, for Calcusplit®
Connecting Tube, for POINT SETTER, length 600 cm

200310 02 C **Air Compressor**, for POINT SETTER, 0 – 8 bar, power supply 115 VAC, 50/60 Hz including:
Connecting Tube, for Calcusplit®
Connecting Tube, for POINT SETTER, length 600 cm



28272 C **Clamping Cylinder**, for flexible mounting of 10 mm telescopes to telescope sheath, **autoclavable**. The clamping cylinder allows vertical movement and rotation of the telescope. For use with Clamping Jaw 28172 UG and 28272 UG as well as Universal Adaptor 10 – 15 mm

28172 WD **Drape**, for single use, sterile, package of 10

Components see chapter 13, SPARE PARTS AND ACCESSORIES

STOR-E Transport Cart ^{NEW}

for POINT SETTER Holding Arm

With the aid of the transport cart, the POINT SETTER holding system can be easily transported into the OR. The components of the POINT SETTER holding system

are safely suspended from the cart at a convenient height. This enables easy and quick mounting to standard OR table rails.

Special Features:

- Mobile and safe storage of the POINT SETTER holding arm
- Faster installation and readiness of the POINT SETTER for immediate use in the OR
- Offers space for the POINT SETTER with standard OR table adaptor, connecting tube, sterile covers and small parts



20 0200 59

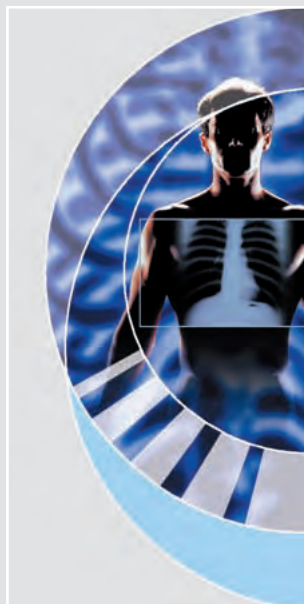
20 0200 59 **STOR-E Transport Cart**, for the POINT SETTER holding arm including: **Attachment**, POINT SETTER set **Tray**

Components see chapter 13, SPARE PARTS AND ACCESSORIES

UNITS AND ACCESSORIES



INSUFFLATORS
SUCTION AND IRRIGATION SYSTEMS
HIGH FREQUENCY SURGERY UNITS



- **INSUFFLATORS**
- **SUCTION AND IRRIGATION SYSTEMS**
- **HIGH FREQUENCY SURGERY 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 overall KARL STORZ product line includes the following categories of units with accessories:

- **Insufflators**
- **Suction and Irrigation Systems**
- **Motor Systems**
- **Lithotripsy Systems**
- **Units for High Frequency Surgery**

Electronic CO₂ ENDOFLATOR® SCB

Recommended System Configuration

Special Features:


- High degree of patient safety
- Easy to use
- Clear, adjacent displays for set value and actual value facilitate monitoring of the insufflation process
- Touch keys for precise preselection of set values
- Optical and acoustic alarm signals in the event of patient overpressure
- Fully automatic, electronically controlled gas refill (e. g. in case of gas loss when changing instruments)
- Secuvent® Safety System: Constant monitoring of intraabdominal pressure; any overpressure is reduced immediately
- SCB model with connections to the KARL STORZ Communication Bus (KARL STORZ-SCB)



26 4305 08-1 **Electronic CO₂ ENDOFLATOR® SCB**, power supply 100 – 240 VAC, 50/60 Hz including:
Mains Cord
Silicone Tubing Set, sterilizable
Universal Wrench
SCB Connecting Cable, length 100 cm
CO₂/N₂O Gas Filter*, sterile, for single use, package of 10

Specifications:

Operating Mode	Operating mode	Secuvent® Safety System	●
Gas Flow	0-20 l/min	Power Supply	100-240 VAC, 50/60 Hz
Pressure	0-30 mmHg (3990 Pa)	Dimensions w x h x d	305 x 164 x 233 mm
Gas	CO ₂	Weight	6 kg
Measuring/Control System	electronic	Certified to	IEC 601-1, CE acc. to MDD
Parameter Display	- Insufflation pressure - Intraabdominal pressure: 0-50 mmHg (6650Pa) - Gas flow: 0-20 l/min - Gas consumption: 0-999 l		

*  mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Optional Accessories for Electronic CO₂ ENDOFLATOR® SCB see pages U 6-7

Components see chapter 13, SPARE PARTS AND ACCESSORIES

Electronic CO₂ ENDOFLATOR® SCB

System Components

CO₂ Bottle, Pin-Index connector



26 4000 91 empty
26 4000 93 filled

CO₂ Bottle, German connector



26 4000 90 empty
26 4000 92 filled

High Pressure Tube, Pin-Index connector



20 4000 22 length 55 cm
20 4000 28 length 102 cm

High Pressure Tube, German connector



20 4000 21 length 55 cm
20 4000 27 length 102 cm

High Pressure Tube, ISO connector



20 4002 22 length 102 cm

Low Pressure Tube, for central CO₂ gas supply



20 4000 26 length 300 cm

UNIT SIDE

PATIENT SIDE

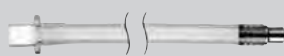


CO₂/N₂O Gas Filter, sterile, for single use



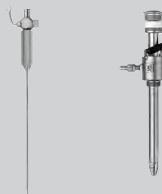
031122-10*

Silicone Tube, for insufflation



20 4001 43

VERESS Pneumoperitoneum Cannula



26120 J

30103 WX







11-98z



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany







Optional Accessories

for Electronic CO₂ ENDOFLATOR® SCB

	26120 J 26120 JK 26120 JL	VERESS Pneumoperitoneum Needle , with spring-loaded blunt inner cannula, LUER-Lock, autoclavable , diameter 2.1 mm, length 10 cm Same , length 7 cm Same , length 13 cm
	26120 L	Localization Cannula , LUER-Lock, diameter 0.8 mm, length 12 cm, for use with Syringe 26003, 10 ml
	20 4000 32	High Pressure Inline Gas Filter
	20 4001 43	Silicone Tubing Set , sterilizable
	26 4000 90 26 4000 92	CO₂ Bottle , empty, with German connection Same , filled
	26 4000 91 26 4000 93	CO₂ Bottle , empty, with Pin-Index connection Same , filled

Optional Accessories

for Electronic CO₂ ENDOFLATOR® SCB

	<p>20 4000 21 CO₂ High Pressure Tube, American connection/German connection, length 55 cm</p> <p>20 4000 27 Same, length 102 cm</p>
	<p>20 4000 22 CO₂ High Pressure Tube, American connection/ Pin-Index connection, length 55 cm</p> <p>20 4000 28 Same, length 102 cm</p>
	<p>20 4002 22 CO₂ High Pressure Tube, American connection/ISO connection, length 102 cm</p>
	<p>20 4004 21 Low Pressure Tube, for the central CO₂ gas supply, length 150 cm</p> <p>20 4004 23 Same, length 100 cm</p> <p>20 4000 26 Same, length 300 cm</p> <p>20 4004 25 Same, length 600 cm</p>
	<p>20 0903 70 SCB Connecting Cable, length 60 cm</p>
	<p>031122-25* Gas Filter, sterile, for single use, package of 25</p>

HAMOU® ENDOMAT® SCB

Suction and Irrigation System,
Recommended System Configuration

Special Features:


- Irrigation function is performed by a roller pump
- Maximum parameters for LAP and HYST mode are automatically fixed by the choice of the tubing set
- Precise presetting of suction and irrigation parameters via touch keys
- Adjacent display scales for set values and actual value ensure safe monitoring of suction and irrigation levels
- With connections to KARL STORZ Communication Bus (KARL STORZ-SCB)



26 3310 09-1 HAMOU® ENDOMAT® SCB
power supply 100 – 240 VAC, 50/60 Hz
including:
Mains Cord
3x **HYST Tubing Set***, for single use
3x **LAP Tubing Set***, for single use
SCB Connecting Cable, length 100 cm
VACUsafe Promotion Pack Suction*, 2 l

Specifications:

Pressure regulated	- HYST 0-200 mmHg (26.6 kPa) - LAP 0-400 mmHg (53.2 kPa)	Power Supply	100-240 VAC, 50/60 Hz
Flow regulated	- HYST 0-500 ml/min - LAP 0-1000 ml/min	Dimensions w x h x d	305 x 164 x 233 mm
Suction Pressure regulated	- HYST 0-(-)0.5 bar (-50 kPa) - LAP 0-(-) 0.8 bar (-80 kPa)	Weight	6 kg
		Certified to	IEC 601-1, CE acc. to MDD

*  mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Optional Accessories for HAMOU® ENDOMAT® SCB see pages U 14-16

Components see chapter 13, SPARE PARTS AND ACCESSORIES

HAMOU® ENDOMAT® SCB

System Components

One-Pedal Footswitch



200141 30

LAP Tubing Set

26 3300 41



LAP Tubing Set

031118-10*



UNIT SIDE

PATIENT SIDE



SCB®

Silicone Tubing Set,
for suction,
part 1 of 2



20 3000 42

Filter



031124-10*

Suction and Irrigation Tube



37260 LH

Handle



30805

Bottle Caps
Suction Bottles, 5 l
Bottle Stands
Bottle Stand
Holder



20 3000 34
20 3000 50
20 3000 32
20 3000 33

Silicone Tubing Set,
part 2 of 2



20 3000 42

SUCTION AND IRRIGATION SYSTEMS

5-041



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

ENDOMAT® LC SCB

Roller Pump – Suction or Irrigation System,
Recommended System Configuration

Special features:

- Simple roller pump system, flow-regulated, for irrigation or suction. To improve visibility during irrigation, 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)



20 3303 01-1 **ENDOMAT® LC SCB**,
power supply 100 – 240 VAC, 50/60 Hz
including:

Mains Cord

Silicone Tubing Set, for irrigation, sterilizable

Silicone Tubing Set, for suction, sterilizable

SCB Connecting Cable, length 100 cm

Recommended optional accessories:


20 0142 30 **One-Pedal Footswitch**, two-stage, for activating a higher flow for improved visibility

031119-10* **Tubing Set**, for irrigation, sterile, for single use, with two puncture cannulas, package of 10

031247-10* **Tubing Set**, for suction, sterile, single use, package of 10

Specifications:

Flow	regulated: 0-1000 ml/min	Dimensions w x h x d	305 x 110 x 260 mm
Pressure	non-regulated: max. 1125 mmHg (150 kPa)	Weight	4.5 kg
Suction Pressure	non-regulated: -0.46 bar (-46 kPa)	Certified to	IEC 601-1, CE acc. to MDD
Power Supply	100-240 VAC, 50/60 Hz		

*  mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Optional Accessories for ENDOMAT® LC see pages U 14-16

Components see chapter 13, SPARE PARTS AND ACCESSORIES

ENDOMAT® LC SCB

System Components

One-Pedal Footswitch (optional)



20 0142 30

UNIT SIDE

PATIENT SIDE



SCB®

Silicone Tubing Set



20 3303 40

Silicone Tubing Set, for suction
part 1 of 2



20 3303 41

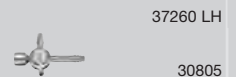
Filter



031124-10*

Suction and Irrigation Tube

Handle



37260 LH

30805

Bottle Caps,
Suction Bottle, 5 l,
Bottle Stand,
Bottle Stand
Holder



20 3000 34
20 3000 50
20 3000 32
20 3000 33

Silicone Tubing Set,
for suction,
part 2 of 2



20 3303 41

SUCTION AND IRRIGATION SYSTEMS

DUOMAT®

Suction and Irrigation System,
Recommended System Configuration

Special Features:


- Simple, powerful suction and irrigation system for universal use
- Suction bottle with overflow protection
- Low noise level



20 3210 08 DUOMAT®
power supply 100 – 120, 230 – 240 VAC, 50/60 Hz
including:
Mains Cord
VACUsafe Promotion Pack Suction*, 2 l

Specifications:

Pressure	non-regulated: max. 400 mmHg (53.2 kPa)	Dimensions w x h x d	305 x 110 x 260 mm
Suction Pressure	non-regulated: max. (-)0.75 bar (-75 kPa)	Weight	5 kg
Power Supply	100-120, 230-240 VAC, 50/60 Hz	Certified to:	IEC 601-1, CE acc. to MDD

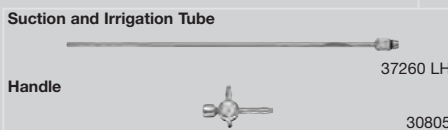
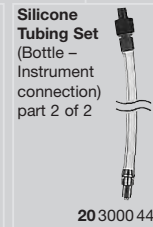
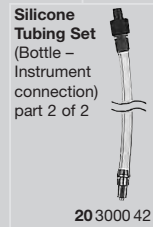
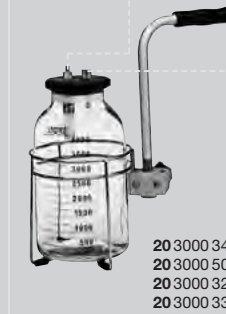
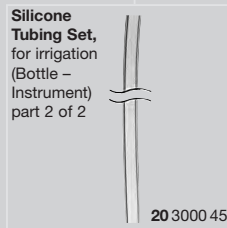
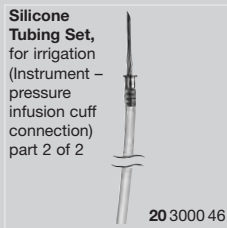
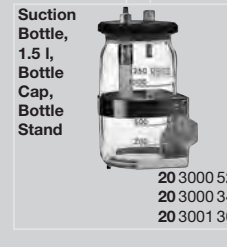
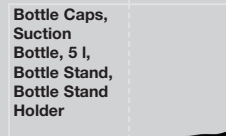
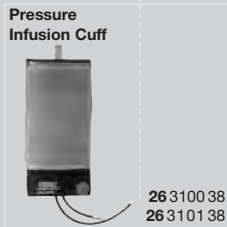
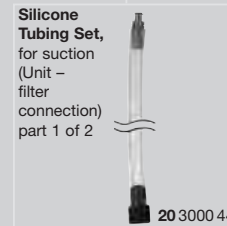
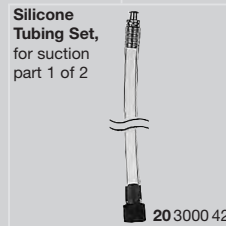
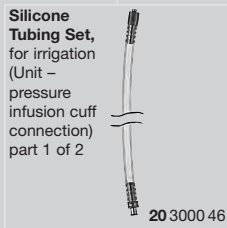
*  mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Optional Accessories for DUOMAT® see pages U 14-16

Components see chapter 13, SPARE PARTS AND ACCESSORIES

UNIT SIDE

PATIENT SIDE



SUCTION AND IRRIGATION SYSTEMS

3-98z



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Optional Accessories








for Suction and Irrigation Systems

for use with

HAMOU®
ENDOMAT® SCB
26 3310 20-1

ENDOMAT® LC SCB
20 3303 20-1


DUOMAT®
20 3210 20

	26 3100 38	Pressure Infusion Cuff, 1.5 l, max. 400 mmHg, sterilizable	-	-	●
	26 3101 38	Pressure Infusion Cuff, 3 l, max. 400 mmHg, sterilizable	-	-	●
	26 3100 35	Bottle Cap, sterilizable, for use with irrigation bottles 1 l and 1.5 l, sterile (cylindrical and quadratic) type Abbott and Baxter Laboratories	-	-	●
	26 3102 35	Bottle Cap, sterilizable, for use with irrigation bottle 1 l, sterile (round), type Fresenius and B. Braun (old type), Delta Pharma (round)	-	-	●
	26 3103 35	Bottle Cap, sterilizable, for use with irrigation bottle 1 l, sterile (round or square), type B. Braun (old type) and Delta Pharma	-	-	●
	20 3000 52	Suction Bottle, 1.5 l, sterilizable	●	-	●
	20 3000 34	Bottle Cap, for suction bottles 1.5 l and 5 l, sterilizable	●	-	●
	20 3001 30	Bottle Stand, for suction bottle 1.5 l or irrigation bottle 1 l	●	-	●
	26 3100 50	Irrigation Liquid Bottle, 1 l, sterilizable	-	-	●

Optional Accessories

for Suction and Irrigation Systems

for use with

		HAMOU® ENDOMAT® SCB 26 3310 20-1	ENDOMAT® LC SCB 20 3303 20-1	DUOMAT® 20 3210 20	
	20 3000 50	Suction Bottle , 5 l, sterilizable	●	●	●
	20 3000 34	Bottle Cap , for suction bottles 1.5 l and 5 l, sterilizable	●	●	●
	20 3000 32	Bottle Stand , for suction bottle 5 l	●	●	●
	20 3000 33	Bottle Stand Holder , for Bottle Stand 20 3000 32	●	●	●
	20 0142 30	One-Pedal Footswitch , two-stage, for activating a higher flow for improved visibility	-	●	-
	20 0141 30	One-Pedal Footswitch , one-stage, for irrigation function	●	●	-
	20 0143 30	Two-Pedal Footswitch , one-stage	●	-	-
	20 3004 82	Connector Set , sterilizable, package of 2, for use with Silicone Tubing Sets 20 3303 40, 20 3303 41 and 20 7116 40	-	●	-
	20 3303 82	Pump Tube , sterilizable, package of 25	-	●	-
	26 3300 41	LAP Tubing Set , reuseable, sterilizable	●	-	-
	031118-10*	LAP Tubing Set , for irrigation, for single use, sterile, package of 10	●	-	-

SUCTION AND IRRIGATION SYSTEMS

5-061










mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Optional Accessories

for Suction and Irrigation Systems

SUCTION AND IRRIGATION SYSTEMS

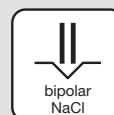
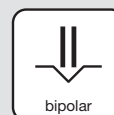
			for use with		
			HAMOU® ENDOMAT® SCB 26 3310 20-1	ENDOMAT® LC SCB 20 3303 20-1	DUOMAT® 20 3210 20
	20 3000 42	Silicone Tubing Set , for suction, sterilizable	●	-	●
	20 3000 44	Silicone Tubing Set , for suction, sterilizable, short	-	-	●
	20 3000 46	Silicone Tubing Set , sterilizable, for use with Pressure Infusion Cuff 26 3100 38, 26 3101 38	-	-	●
	20 3000 45	Silicone Tubing Set , for irrigation, sterilizable, for use with Bottle Caps 26 3100 35, 26 3102 35, 26 3103 35 and Puncture Needle 26173 VG	-	-	●
	20 0900 70	SCB Connecting Cable , length 30 cm	●	●	-
	031124-10*	Filter , to block fluid during suction, for single use, unsterile, package of 10	●	●	●
	031133-10*	Tubing Set , for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A and 37113 A	●	●	●
	031134-10*	Tubing Set , for single use, sterile, package of 10, for use with Suction and Irrigation Handles 37112 A and 37113 A in combination with silicone tube inner diameter 5 mm at the patient end	●	●	●
	mtp*	Receptacle , reusable, 2 l suction bag, with filter, for single use	●	●	●
	mtp*	Tubing Set , for suction, sterile, for single use	●	●	●

*  mtp medical technical promotion gmbh, Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

The New AUTOCON® II 400 SCB HF Unit

Special Features:

- For interdisciplinary use
- Cutting-edge next-generation unit with a convenient, easy-to-disinfect touch screen
- Equipped with 2 bipolar or 2 unipolar HF outputs
- CF outputs for maximum patient and user safety
- Permanent monitoring of the neutral electrode during unipolar use
- 2 footpedals can be connected
- Automatic activation or via handswitch or footswitch
- Self-test for maximum patient and user safety
- Connection sockets individually selectable according to user requirements
- Logical arrangement and color coding of the control elements make the unit extremely simple to operate



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. Given precise operation, this 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 micro-processor 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 the KARL STORZ Communication Bus (SCB). Full integratability of the HF unit in the networked, and even speech-controlled, operating room of the future is already a standard feature (system requirement: RUI software release 2009001-26 or later).

C-Cut mode and LAP-C-CUT mode – the intermittent coagulation-cutting mode with AUTOCON®II 400 SCB

Designed for blood-free cutting during laparoscopy and when using irrigation liquids, the electric current is specially modulated and offers a reproducible coagulation current with high cutting efficiency. This makes time-consuming subsequent coagulation a thing of the past. Using the C-Cut mode thus reduces the need for blood transfusions and saves surgery time. The result is an overall reduction in operating costs, and for the patient it means additional protection.

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 high-end 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.

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

AUTOCON® II 400 SCB

Safety and Special Features

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, AUTOCON® 200

Special Features

Special Features:	AUTOCON® II 400 SCB	AUTOCON® 200
Degree of coagulation can be preselected in several steps: The degree of coagulation measures extent of coagulation depth	●	●
Soft coagulation vs. standard coagulation: Coagulation with unmodulated HF voltage ($U_p < 200$ V); the coagulation electrode can be positioned in direct contact with the tissue without damaging deeper layers of tissue through carbonisation	●	●
Forced coagulation: coagulation with modulated HF voltage ($U_p > 500$ V); To reach deeper coagulation zones, electric arcs are generated between the active coagulation electrode and the tissue. Damage to deeper layers of tissue has to be accepted.	●	●
Autostart function: Manual adjustment of operating time limit for bipolar coagulation	●	—
Voltage-regulated cutting	●	●
Service port for software updates and HF functionality upgrades	●	—
Separate papillo-cut and gastro-cut functions enable fractionated cutting with regulated HF current at different cutting speeds for flexible endoscopy	●	—
Autostart function for bipolar coagulation: Automatic activation of coagulation current as soon as coagulation electrode touches tissue with both branches	●	●
Activation of HF functions possible via footswitch or manual control switch	●	●
Bipolar resection with KARL STORZ bipolar electrotomes	●	—
Bipolar application with NaCl irrigation solutions	●	—
Modular connecting sockets for unipolar and bipolar applications can be selected according to individual requirements	●	—
100 user programs can be stored	●	—
Convenient use via 6.5" Touch Screen	●	—
Switchover function enables switching between two modes within a user program via a footswitch from the sterile area	●	—
Standard version compatible with KARL STORZ Communication Bus (KARL STORZ-SCB)	●	—
Interdisciplinary use	●	—
Spray coagulation: Coagulation with modulated HF voltage ($U_p > 500$ V); Very long arcs enable coagulation of large and bleeding areas of tissue without contact to tissue	●	—
Arc-controlled cutting, unipolar	●	—

AUTOCON® II 400 SCB

Specifications

HF-Modes	Effects	P max. at 500 Ohm	V _p max. at 500 Ohm	Crest Factor	Arc Control	Voltage Control
Unipolar						
TOP-Cut	8	300	950	1.4	●	–
POWER-Cut	8	300	740	1.4	–	●
C-Cut	8	200	1450	3.0	–	●
LAP-C-Cut	8	200	1450	3.0 – 3.8	–	●
Gastro-Cut	4	200	880	1.4	–	●
Papillo-Cut	4	200	880	1.4	–	●
Standard Coag	8	200 (at 50 Ohm)	190	1.4	–	●
Forced Coag	4	120	1800	6.0	–	●
Spray Coag	2	120	4300	7.4	–	●

Bipolar

Bipolar-Cut	8	100	740	1.4	–	●
Saline-C-Cut	8	370	770	1.4	–	●
Saline-Time-C-Cut	8 time 0.1-1 sec.	370	770	1.4	–	●
Saline Coag	8	200 (at 50 Ohm)	190	1.4	–	●
Saline-Time-Coag	8 time 0.1-1 sec.	200 (at 50 Ohm)	190	1.4	–	●
Bipolar Soft Coag	8	120 (at 75 Ohm)	190	1.4	–	●
Bipolar Soft with Auto-Stop	8	120 (at 75 Ohm)	190	1.4	–	●
Bi-Vascular-Safe	8	120 (at 75 Ohm)	190	1.4	–	●

Specifications:

Safety Systems	<ul style="list-style-type: none"> - Automatic Self-Test - Maldosage - Neutral Electrode Safety System (dynamic, two-part, one- and two-part NE) - LF/HF Leakage Current Monitor - Activation Time - Deactivable HF 	Power Supply	20 5352 20-11x: 230 VAC, 50/60 Hz 20 5352 20U11x: 115 VAC, 50/60 Hz
		Dimensions w x h x d	448 x 164 x 345 mm
		Weight	10 kg
		Certified to	IEC 601-1, CE acc. to MDD

AUTOCON® II 400 SCB

High Frequency Surgery Unit,
Recommended System Configurations



AUTOCON® II 400 SCB,
power supply 230 VAC, 50/60 Hz
including:
Mains cord
SCB Connecting Cable, length 100 cm

AUTOCON® II 400 SCB Set	AUTOCON® II 400 SCB	Socket Position			
		1	2	3	4
Standard					
20 5352 01-111	20 5352 20-111	Bipolar 	Bipolar 	Unipolar 3 pin and Erbe 	Neutral Electr. 6.3 mm jack
20 5352 01-112	20 5352 20-112	Bipolar US-2-pin 	Bipolar US-2-pin 	Unipolar 3-pin and Bovie 	Neutral Electr. 2-pin
High-End					
20 5352 01-115	20 5352 20-115	Bipolar 	Bipolar Multifunction 	Unipolar 3 pin and Erbe 	Neutral Electr. 6.3 mm jack
20 5352 01-116	20 5352 20-116	Bipolar US-2-pin 	Bipolar Multifunction 	Unipolar 3-pin and Bovie 	Neutral Electr. 2-pin

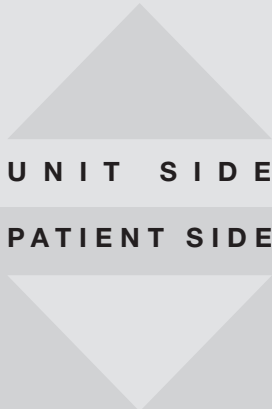
HIGH FREQUENCY SURGERY UNITS

Optional Accessories for AUTOCON® II 400 SCB see pages U 26-28

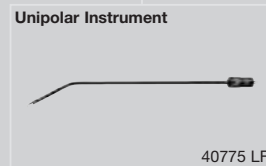
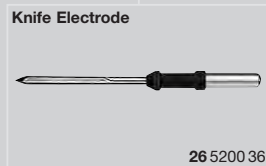
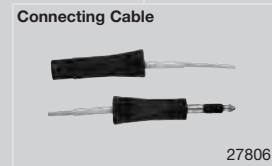
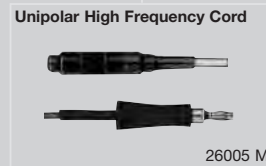
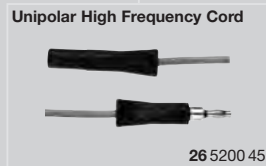
Components see chapter 13, SPARE PARTS AND ACCESSORIES

AUTOCON® II 400 SCB

System Components



SCB®



5-061

HIGH FREQUENCY SURGERY UNITS

AUTOCON® 200

High Frequency Surgery Unit,
Recommended System Configurations



20 5225 01 **AUTOCON® 200**, power supply
200 – 240 VAC, 50/60 Hz
including:
Mains Cord
Adaptor, for unipolar HF output,
diameter 4/5 mm

20 5225 01-010 **AUTOCON® 200**,
with ENDOCUT function,
power supply 200 – 240 VAC, 50/60 Hz
including:
Mains Cord
Adaptor, for unipolar HF output,
diameter 4/5 mm

20 5225 01 C **AUTOCON® 200**, power supply
100 – 120 VAC, 50/60 Hz
including:
Mains Cord
Adaptor, for unipolar HF output,
diameter 4/5 mm

20 5225 01 C 010 **AUTOCON® 200**,
with ENDOCUT function,
power supply 100 – 120 VAC, 50/60 Hz
including:
Mains Cord
Adaptor, for unipolar HF output,
diameter 4/5 mm

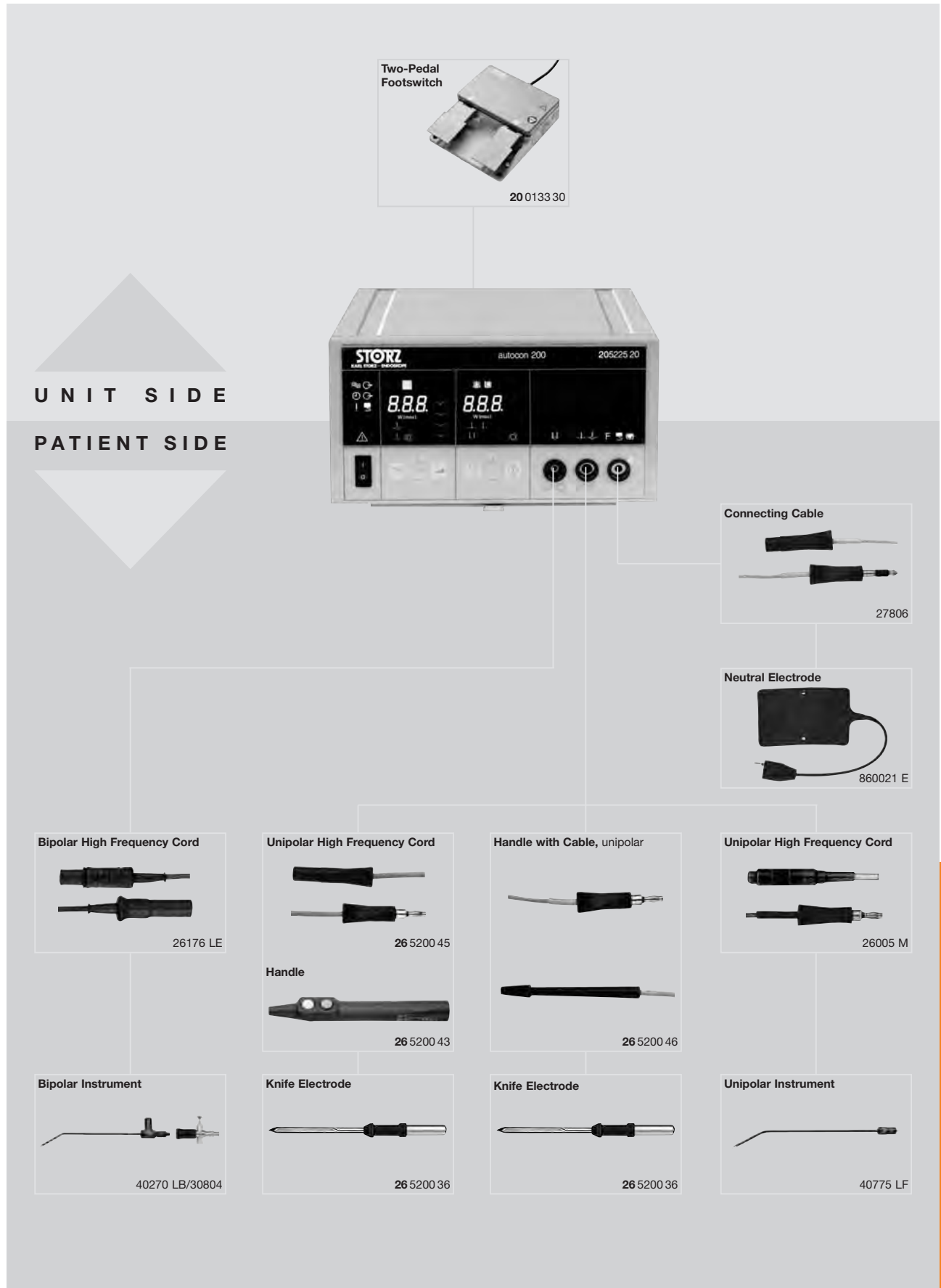
Specifications:

HF Rated Power	<ul style="list-style-type: none"> - Cutting unipolar: 200 Watt/500 Ohm - Coagulation unipolar soft: 120 Watt/125 Ohm unipolar standard: 120 Watt/350 Ohm bipolar: 120 Watt/125 Ohm
Max. Voltage	<ul style="list-style-type: none"> - Cutting unipolar: Vp=600 Volt - Coagulation unipolar soft: Vp=190 Volt unipolar standard: Vp=1300 Volt bipolar: Vp=190 Volt
Output Control	<ul style="list-style-type: none"> - Cutting unipolar: automatic voltage control - Coagulation unipolar soft: automatic voltage control unipolar standard: pulse modulation bipolar: automatic voltage control

Coagulation Degrees	Cutting 4 steps
Autostart	Coagulation bipolar
Autostop	Coagulation unipolar soft
Safety Systems	<ul style="list-style-type: none"> - permanent power control - maldosage - neutral electrode, safety system - automatic self-test
Power Supply	100-120 VAC or 200-240 VAC, 50/60 Hz
Dimensions w x h x d	305 x 164 x 345 mm
Weight	7.7 kg
Certified to:	IEC 601-1, CE acc. to MDD

Optional Accessories for AUTOCON® 200 see pages U 26-28

Components see chapter 13, SPARE PARTS AND ACCESSORIES



5-061

HIGH FREQUENCY SURGERY UNITS

Optional Accessories

for AUTOCON® II 400 SCB and AUTOCON® 200

			for use with	
			AUTOCON® II 400 SCB	AUTOCON® 200
	20 0178 31	Three-Pedal Footswitch , with switch function for switching between mode levels A and B, for use with 20 5352 20-11x	●	-
	20 0178 30	Two-Pedal Footswitch , for use with 20 5352 20-11x	●	-
	20 0178 32	One-Pedal Footswitch , for activating coagulation, for use with 20 5352 20-11x	●	-
	20 0133 30	Two-Pedal Footswitch , for controlling the coagulation and cutting function	-	●
	20 0131 30	One-Pedal Footswitch , for controlling the coagulation function	-	●
	27805	Neutral Electrode , of conductive silicone with 2 rubber ties for attachment, contact surface A = 500 cm ² , for use with Connecting Cable 27806	●	●
	860021 E	Neutral Electrode , made of conductive silicone, with 1 rubber strap for fastening contact face A = 187 cm ² surface area, for use with Connecting Cable 27806	-	●
	27806	Neutral Electrode Connecting Cable , for Neutral Electrodes 27805 and 860021 E, length 400 cm	-111 -115	●
	27806 UR	Neutral Electrode Connecting Cable , for Neutral Electrode 27805	-112 -116	-
	27806 US	Neutral Electrode Connecting Cable , for Neutral Electrode 27802	-112 -116	-
	27802	Neutral Electrode , for single use, contact face divided into two, A = 169 cm ² , package of 50, Connecting Cable 27801 is required	●	●
	27801	Connecting Cable , for connecting Neutral Electrode 27802, length 500 cm	-111 -115	●
	26 5200 43	Electrode Handle , with 2 buttons for activating the unipolar generator, yellow button: unipolar cutting, blue button: unipolar coagulation (Cable 26 5200 45 required)	●	●
	26 5200 45	High Frequency Cable , for Electrode Handle 26 5200 43, length 400 cm	-111 -115	●
	26 5200 46	Electrode Handle , without buttons, with integrated connecting cable, length 300 cm	-111 -115	●

Optional Accessories

Surgery Electrodes Set

for AUTOCON® II 400 SCB and AUTOCON® 200



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



Same, 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

5-061

For use with **Electrode Handle 26 5200 43** and **26 5200 46**
Components see chapter 13, SPARE PARTS AND ACCESSORIES





Optional Accessories

Unipolar and Bipolar High Frequency Cords
for AUTOCON® II 400 SCB and AUTOCON® 200

Unipolar High Frequency Cords

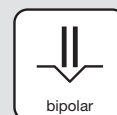
KARL STORZ High Frequency
Instrument Surgery Units








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

Bipolar High Frequency Cords

KARL STORZ High Frequency
Instrument Surgery Units



	26176 LE	Bipolar High Frequency Cord , to KARL STORZ Coagulator 26021 B/C/D, 860021 B/C/D, 27810 B/C/D, 28810 B/C/D, AUTOCON® system (50, 200, 350), AUTOCON® II 400 SCB system (111, 113, 115) and Erbe-Coagulator, T- and ICC-row, length 300 cm
	26176 LM	Bipolar High Frequency Cord , for Martin and Berchtold coagulators, length 300 cm
	26176 L	Bipolar High Frequency Cord , with 2x 4 mm banana plug for KARL STORZ Coagulator 26020 XA/XB and Ellman, length 300 cm
	26176 LA	Bipolar High Frequency Cord , with 2x 4 mm banana plug for KARL STORZ Coagulator 26020 XA/XB and Valleylab, length 300 cm
	26176 LV	Bipolar High Frequency Cord , for KARL STORZ AUTOCON® II 400 SCB (112, 114, 116) and Valleylab coagulators, length 300 cm

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**.

SPARE PARTS AND ACCESSORIES



Introduction

The chapter “spare parts and accessories” lists all KARL STORZ spare parts available for a specific instrument.

Spare parts are available for instruments which are subject to a considerable amount of wear and tear resulting from repeated use in everyday practice.

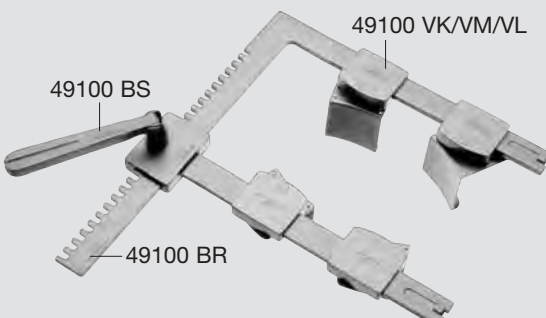



For easy location and reference, an index is available where spare parts are assigned to the order number of the entire instrument or unit.

Exchange

Instructions for use are provided with each spare part to ensure smooth exchange. These instructions can also be accessed via our internet portal – karlstorz.com

Hotline

Queries concerning products, exchange, maintenance and cleaning can be addressed to the KARL STORZ EP1 Hotline: +49 (0)7461/708-490, daily between 8 and 18 h.

Spare parts and accessories for:		Catalog page
49100 B	SCHÖLLHORN Standard Retractor	189
49100 BR	Retractor Frame , 25 x 22 cm, including Lever 49100 BS	
49100 BS	Lever , spare part	
49100 VK	Moveable Blade , freely adjustable, height 30 mm	
49100 VM	Moveable Blade , freely adjustable, height 40 mm	
49100 VL	Moveable Blade , freely adjustable, height 50 mm	
Spare parts and accessories for:		Catalog page
49100 LS	Fiber Optic Light Carrier Extension	189
49100 L	Fiber Optic Light Carrier , malleable, for illumination of the OR field	
49100 LB	Universal Fixation Device , for securing Fiber Optic Light Carrier 49100 L, for use with rectangular retractor frames with profile min. 5 x 15 mm to max. 8 x 34 mm and round components with profile min. 10 to max. 16 mm	
Spare parts		
	495 F Receptacle , diameter 9 mm, for Wolf fiber optic light cable	
		495 G Screw Base , for KARL STORZ fiber optic light cable and Olympus/Winter & Ibe

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

Table of Contents

SPARE PARTS AND ACCESSORIES

TELESCOPES

HOPKINS® and HOPKINS® II Telescopes	SP 3
HOPKINS® Thoroscopes, with integrated working channel	SP 4

MISCELLANEOUS

Rubber Insufflation Bulb, Laryngoscope Holders and Chest Supports	SP 5
Flexible Endoscopes – Video Bronchoscopes	SP 6
Flexible Endoscopes – Suction Unit, KARL STORZ TELE PACK	SP 7
Flexible Bronchoscopes – Broncho-Fiberscopes	SP 8
UNIMAT® 30	SP 9-SP 10
Bronchoscopes for Adults – Universal Bronchoscopes for Adults, Standard Model with Fiber Optic Light Carrier for Distal Illumination	SP 11
Bronchoscopes for Adults – Universal Tracheo-Bronchoscopes with Proximal Illumination	SP 12
Optical Intubation Tracheoscope, TONN Stent Applicators	SP 13
Pediatric Bronchoscopes	SP 14
Esophagoscopes – Esophagoscope Tubes	SP 15
Esophagoscopes – Esophagoscope Tubes, Handle for Esophagoscopes	SP 16
Foreign Body Basket	SP 17
FREITAG Stent Forceps, Fiber Optic Light Carriers	SP 18
Suction Tubes	SP 19
Sponge Holders, CARLENS Mediastinoscopes	SP 20
Cannulas, RAMEL Pleurabiopsy Needle	SP 21

VERESS Pneumoperitoneum Needle, Powder Blowers	SP 22
Suction and Irrigation Tubes	SP 23
Coagulating Suction Tubes, Coagulating and Dissecting Electrodes	SP 24
Surgical Sponge Holders	SP 25
Handles for Suction and/or Irrigation, Macro Needle Holders	SP 26
Outer Sheaths	SP 27-SP 28
Cannulas	SP 29-SP 30
Trocar Valves	SP 31
Tubular Dissecting Forceps, SCHÖLLHORN Multi-Retractor	SP 32
Headlights	SP 33-SP 34
ENDOCRANE™ Air Compressors	SP 35
STOR-E Transport Cart	SP 36

UNITS AND ACCESSORIES

Insufflators	
Electronic CO ₂ ENDOFLATOR® SCB	SP 37
Suction and Irrigation Systems	
HAMOU® ENDOMAT® SCB	SP 38-SP 40
ENDOMAT® LC SCB	SP 41-SP 42
DUOMAT®	SP 43-SP 44
High Frequency Surgery Units	
AUTOCON® II 400 SCB, AUTOCON® 200	SP 45
AUTOCON® 200	SP 46
AUTOCON® 50	SP 47
Surgery Electrodes Set	SP 48

Numerical Index

SPARE PARTS AND ACCESSORIES

Product	Page	Product	Page	Product	Page
031122-10	SP 37	10339 EE	SP 14	10550	SP 13
031124-10	SP 38, SP 42, SP 44	10339 EEE	SP 14	10552	SP 13
040146-25	SP 35	10339 F	SP 14	10554	SP 13
078511	SP 33, SP 34	10339 G	SP 14	10555	SP 13
078681	SP 33, SP 34	10339 GG	SP 14	10556	SP 13
10005 AA	SP 3	10381 A	SP 19	1067800	SP 43
10017 AA	SP 3	10381 AE	SP 19	1069400	SP 9
10018 AA	SP 3	10381 AK	SP 19	1069500	SP 10
10018 BA	SP 3	10381 AL	SP 19	10970 A	SP 20
10020 ATA	SP 3	10381 B	SP 19	10970 AE	SP 20
10020 BA	SP 3	10382 A	SP 19	10970 B	SP 20
10020 CA	SP 3	10382 AE	SP 19	10970 BA	SP 3
10023 ABA	SP 3	10382 AK	SP 19	10970 BE	SP 20
10023 CBA	SP 3	10382 AL	SP 19	10970 EN	SP 24
10030 AA	SP 3	10382 B	SP 19	10970 ENL	SP 24
10101 FA	SP 12, SP 14, SP 16	10386 A	SP 17	10970 P	SP 21
10314 BN	SP 12	10386 AE	SP 17	10970 PE	SP 21
10314 P	SP 12	10386 B	SP 17	10970 PEL	SP 21
10315 N	SP 11	10386 BE	SP 17	10970 PL	SP 21
10315 P	SP 11	10386 VH	SP 17	10990	SP 21
10318 B	SP 11	10387 A	SP 20	10990 A	SP 21
10318 BP	SP 12	10387 AL	SP 20	10990 B	SP 21
10318 C	SP 11	10387 AX	SP 20	10990 C	SP 21
10318 CP	SP 12	10387 B	SP 20	10990 D	SP 21
10318 D	SP 11	10388 A	SP 20	10995	SP 21
10318 DP	SP 12	10390 AN	SP 24	10995 A	SP 21
10318 L	SP 11	10390 BN	SP 24	10995 B	SP 21
10318 S	SP 11, SP 12	10390 LN	SP 24	11001 BI	SP 8
10320 AA	SP 3	10432 E	SP 9, SP 10	11001 BN	SP 8
10320 AP	SP 3	10432 N	SP 9, SP 10	11002 BD	SP 8
10320 BA	SP 3	10432 T	SP 9, SP 10	11003 BC	SP 8
10320 BP	SP 3	10434 A	SP 19	11004 BC	SP 8
10320 DA	SP 3	10434 AE	SP 19	11004 BI	SP 8
10320 DP	SP 3	10434 B	SP 19	11005 BC	SP 8
10320 E	SP 3	10434 BK	SP 19	11009 BC	SP 8
10324 AA	SP 3	10510 AA	SP 18	11009 BI	SP 8
10324 BA	SP 3	10510 B	SP 18	11025 E	SP 8
10324 CA	SP 3	10510 CA	SP 18	11025 XE	SP 6
10328 AA	SP 3	10510 N	SP 18	11301 CA	SP 8
10328 BA	SP 3	10520	SP 13	11301 CB	SP 8
10328 CA	SP 3	10521	SP 13	11301 CD	SP 8
10337 T	SP 13	10522	SP 13	11301 CE	SP 8
10337 TA	SP 13	10523	SP 13	11900 AE	SP 7
10337 TB	SP 13	10524	SP 13	11900 AN	SP 6
10338 N	SP 14	10525	SP 13	11900 AP	SP 6
10338 P	SP 14	10526	SP 13	11900 AS	SP 7
10338 S	SP 14	10530	SP 13	11900 AV	SP 7
10339 A	SP 14	10531	SP 13	11900 AZ	SP 7
10339 AL	SP 14	10532	SP 13	11900 BN	SP 6
10339 B	SP 14	10533	SP 13	11900 BP	SP 6
10339 BB	SP 14	10534	SP 13	11900 VA	SP 7
10339 BL	SP 14	10535	SP 13	12015 AA	SP 3
10339 C	SP 14	10536	SP 13	12016 E	SP 15
10339 CC	SP 14	10540	SP 13	12016 EF	SP 15
10339 CD	SP 14	10542	SP 13	12016 EH	SP 15
10339 D	SP 14	10544	SP 13	12016 EM	SP 15
10339 DD	SP 14	10545	SP 13	12016 EW	SP 15
10339 E	SP 14	10546	SP 13	12016 F	SP 15

Numerical Index

SPARE PARTS AND ACCESSORIES

Product	Page	Product	Page	Product	Page
12016 FF	SP 15	20330301-1	SP 41	26046 FA	SP 3
12016 FM	SP 15	20330320-1	SP 41	26072 BA	SP 3
12030 A	SP 16	20330340	SP 41	26072 T	SP 22
12030 AL	SP 16	20330341	SP 41	26072 TK	SP 22
12030 B	SP 16	20330386	SP 39, SP 40	26120 J	SP 22
12030 C	SP 16	20330393	SP 41	26173 BT	SP 23, SP 26
12030 F	SP 16	20400021	SP 37	26173 KC	SP 26
12030 G	SP 16	20400022	SP 37	26173 KL	SP 26
12061 A	SP 18	20400027	SP 37	26310035-335	SP 44
12061 AX	SP 18	20400028	SP 37	26310087	SP 44
12061 B	SP 18	20400030	SP 37	26330041	SP 39
12061 C	SP 18	20400081	SP 37	26331009-1	SP 38
12061 F	SP 18	20400143	SP 37	26331020-1	SP 38
12061 G	SP 18	20520501	SP 47	26430508-1	SP 37
12061 H	SP 18	20520520	SP 47	26430520-1	SP 37
12061 K	SP 18	20522501	SP 45	26520031	SP 48
12067 VA	SP 3	20522501 C	SP 46	26520032	SP 48
12070	SP 16	20522501-010	SP 46	26520033	SP 48
13242 LX	SP 6, SP 8	20522501C010	SP 46	26520034	SP 48
13242 XA	SP 6	20522520	SP 45	26520035	SP 48
13272	SP 6, SP 8	20522520 C	SP 46	26520036	SP 48
13990 SFN	SP 6	20522520-010	SP 46	26520037	SP 48
13991 DA	SP 7	20522520C010	SP 46	26520038	SP 48
13991 SS	SP 6	20530008	SP 48	26520039	SP 48
149324	SP 22	20530031	SP 48	26520040	SP 48
20020050	SP 36	20535201-111	SP 45	26520041	SP 48
20020053	SP 36	20535201-112	SP 45	26520042	SP 48
20020059	SP 36	20535201-115	SP 45	26770 S	SP 24
20031002	SP 35	20535201-116	SP 45	26770 U	SP 24
20031002 C	SP 35	20535220-111	SP 45	26772 UF	SP 24
20031020	SP 35	20535220-112	SP 45	26778 UF	SP 24
20031020 C	SP 35	20535220-115	SP 45	2719591	SP 39
20041036	SP 7	20535220-116	SP 45	2719891	SP 39
20043012-020	SP 7	20780020	SP 35	2730891	SP 39
20043020-020	SP 7	2084290	SP 43	2731191	SP 39
20090170	SP 37, SP 38, SP 41, SP 45	25320001	SP 9	2731291	SP 39
20213070	SP 6	25320001C	SP 10	2731391	SP 39
2027390	SP 41	25320020	SP 9	2731491	SP 39
2027590	SP 37, SP 38, SP 47	25320020C	SP 10	2731691	SP 39
2027690	SP 45, SP 46	25320080	SP 9, SP 10	2731791	SP 40
2028090	SP 46	25320081	SP 9, SP 10	2732091	SP 40
20300034	SP 38, SP 42, SP 44	25320082	SP 9, SP 10	2732191	SP 40
20300042	SP 38, SP 43	25320083	SP 9, SP 10	27500	SP 38, SP 40, SP 41, SP 43
20300044	SP 43	25320084	SP 9, SP 10	27550 C	SP 11, SP 12, SP 14
20300045	SP 43	25320085	SP 9, SP 10	27630022	SP 35
20300046	SP 43	26003 AA	SP 3	27809	SP 45, SP 46, SP 47
20300180	SP 38, SP 41, SP 43	26003 BA	SP 3	28172 HG	SP 35
20300181	SP 38, SP 43	26003 FA	SP 3	28172 WC	SP 35
20300184	SP 37	26034 AA	SP 4	28272 EC	SP 35
20300185	SP 40	26034 AUA	SP 4	28272 ECS	SP 35
20300482	SP 41	26034 V	SP 4	28272 ECW	SP 35
20300580	SP 38, SP 42, SP 44	26037 ADA	SP 4	29005 AK	SP 36
20321008	SP 43	26037 V	SP 4	29005 PH	SP 9, SP 10
20321020	SP 43	26038 AA	SP 4	2903390	SP 37
20330088	SP 40, SP 41, SP 43	26038 AUA	SP 4	2903490	SP 37
20330185	SP 39	26046 AA	SP 3	29100	SP 8, SP 25, SP 27, SP 28
20330188	SP 39	26046 BA	SP 3	2911590	SP 38, SP 42, SP 44
		26046 BUA	SP 3	30102 A1	SP 31

Numerical Index

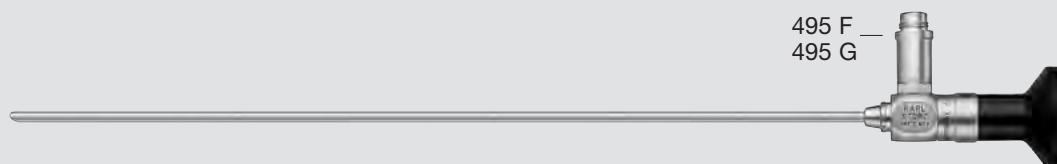
SPARE PARTS AND ACCESSORIES

Product	Page	Product	Page	Product	Page
30103 H1	SP 29	40491 TK	SP 22	547 S	SP 7
30103 H2	SP 29	40491 TKU	SP 22	5902302	SP 31
30103 M1	SP 31	40491 U	SP 22	5905098	SP 20, SP 31
30120 NL	SP 29	40492 T	SP 22	5905610	SP 26
30310 DBL	SP 27	40492 TK	SP 22	5910600	SP 24
30526 Q	SP 18	40493 T	SP 22	5910910	SP 23
30804	SP 26	40493 TK	SP 22	5917800	SP 24
30805	SP 26	40500 A	SP 32	5917900	SP 23, SP 24
310060	SP 33	40560 LH	SP 23	5925000	SP 22
310061	SP 34	40700 A	SP 24	5925300	SP 7
310063	SP 33, SP 34	40700 B	SP 24	5959502	SP 20
310065	SP 33, SP 34	40775 LF	SP 24	600007	SP 6, SP 43
310070	SP 33, SP 34	40800 A	SP 23	600008	SP 43
32121	SP 25	40800 AA	SP 23	6011590	SP 20, SP 26, SP 32
32340	SP 25	40924	SP 5	6127390	SP 14
32340 PT	SP 25	40924 B	SP 5, SP 22	6127490	SP 4, SP 11, SP 12
32540	SP 25	40924 S	SP 5, SP 22	6127590	SP 4, SP 11, SP 12, SP 29, SP 30
32540 PT	SP 25	43210 DU	SP 27	6127890	SP 31
33200	SP 28	43210 LG	SP 27	6189990	SP 23
33250	SP 28	43210 LH	SP 27	6236095	SP 31
33300	SP 28	43210 LK	SP 27	6266690	SP 26
33310 PT	SP 25	43210 LL	SP 27	6266691	SP 26
33400	SP 28	43210 LM	SP 27	6301690	SP 23
33500 K	SP 28	43210 LP	SP 27	6353591	SP 23, SP 26
33510 PT	SP 25	43210 LR	SP 27	6376990	SP 4, SP 22
3430890	SP 12, SP 14, SP 16	43210 LS	SP 27	6377091	SP 4, SP 15, SP 22
37260 LH	SP 23	43210 LU	SP 27	6573890	SP 16
37270 DB	SP 24	43210 LV	SP 27	6860290	SP 9, SP 10
37270 DL	SP 24	43210 MA	SP 27	6871191	SP 15
37270 DW	SP 24	43210 MF	SP 27	6901790	SP 17
37270 GC	SP 24	43210 MT	SP 27	6901890	SP 17
37270 SC	SP 24	48210 LK	SP 27	6985691	SP 29
38200	SP 28	48210 LM	SP 27	6988190	SP 16
400 A	SP 7, SP 9, SP 10, SP 35, SP 37, SP 38, SP 41, SP 43, SP 45, SP 46, SP 47	48210 LU	SP 27	7228790	SP 30
40103 A	SP 30	48210 MT	SP 27	7302990	SP 31
40103 C	SP 30	487 VE	SP 7	7322990	SP 15
40103 CL	SP 30	49100 B	SP 2, SP 32	7416090	SP 30
40103 EL	SP 30	49100 BR	SP 2, SP 32	7616690	SP 31
40103 F	SP 30	49100 BS	SP 2, SP 32	7720590	SP 4, SP 29
40107 A	SP 30	49100 L	SP 2, SP 32	7909890	SP 18, SP 28
40107 C	SP 30	49100 LB	SP 2, SP 32	7944790	SP 18, SP 28
40108 A	SP 30	49100 LS	SP 2, SP 32	812410	SP 21
40108 C	SP 30	49100 VK	SP 2, SP 32	8458190	SP 29
40160 A	SP 30	49100 VL	SP 2, SP 32	8575 AA	SP 3
40160 C	SP 30	49100 VM	SP 2, SP 32	8575 K	SP 5
40160 E	SP 30	495 F	SP 2, SP 3, SP 4, SP 8, SP 11, SP 15, SP 18, SP 32	8575 KA	SP 5
40170 LB	SP 24	495 G	SP 2, SP 3, SP 4, SP 8, SP 11, SP 15, SP 18, SP 32	8575 KB	SP 5
40270 LB	SP 24	495 NY	SP 33	8575 KC	SP 5
40360 LH	SP 23	495 NYW	SP 34	8575 KD	SP 5
40491 T	SP 22	536 MK	SP 7		

Telescopes

HOPKINS® and HOPKINS® II Telescopes

Spare parts and accessories for:		Catalog page
10018 AA	HOPKINS® Straight Forward Telescope 0°	73
10018 BA	HOPKINS® Forward-Oblique Telescope 30°	—
10020 ATA	HOPKINS® Straight Forward Telescope 0°	24, 73
10020 BA	HOPKINS® Forward-Oblique Telescope 30°	—
10020 CA	HOPKINS® Lateral Telescope 70°	—
10023 ABA	HOPKINS® Straight Forward Telescope 0°	73
10023 CBA	HOPKINS® Lateral Telescope 70°	—
10030 AA	Miniature Straight Forward Telescope 0°	25, 77
10320 AA	HOPKINS® Straight Forward Telescope 0°	63
10320 AP	HOPKINS® Straight Forward Telescope 0°	103
10320 BA	HOPKINS® Forward-Oblique Telescope 30°	63
10320 BP	HOPKINS® Forward-Oblique Telescope 30°	103
10320 DA	HOPKINS® Lateral Telescope 90°	63
10320 DP	HOPKINS® Lateral Telescope 90°	103
10320 E	HOPKINS® Retrospective Telescope 120°	—
10324 AA	HOPKINS® Straight Forward Telescope 0°	23, 73
10324 BA	HOPKINS® Forward-Oblique Telescope 30°	73
10324 CA	HOPKINS® Lateral Telescope 70°	—
10328 AA	HOPKINS® Straight Forward Telescope 0°	65
10328 BA	HOPKINS® Forward-Oblique Telescope 30°	—
10328 CA	HOPKINS® Lateral Telescope 70°	—
10970 BA	DCI® HOPKINS® Forward-Oblique Telescope 30°	121, 123
12015 AA	HOPKINS® Straight Forward Telescope 0°	20
12067 VA	HOPKINS® Straight Forward Telescope 0°	—
10005 AA	HOPKINS® II Straight Forward Telescope 0°, enlarged view	37, 62, 73
10017 AA	HOPKINS® II Straight Forward Telescope 0°	72
26003 AA	HOPKINS® II Straight Forward Telescope 0°, enlarged view	141, 192
26003 BA	HOPKINS® II Forward-Oblique Telescope 30°, enlarged view	141, 192
26003 FA	HOPKINS® II Telescope 45°, enlarged view	141
26046 AA	HOPKINS® II Straight Forward Telescope 0°, enlarged view	140
26046 BA	HOPKINS® II Forward-Oblique Telescope 30°, enlarged view	140, 178
26046 BUA	HOPKINS® II Forward-Oblique Telescope 30°, enlarged view	—
26046 FA	HOPKINS® II Telescope 45°, enlarged view	140
26072 BA	HOPKINS® II Forward-Oblique Telescope 30°, enlarged view	135
8575 AA	HOPKINS® II Straight Forward Telescope 10°	—



Spare parts



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



495 G
Screw Base,
for KARL STORZ fiber
optic light cable and
Olympus/Winter & Ibe

Telescopes

HOPKINS® Thoracoscopes, with integrated working channel

Spare parts and accessories for:

Catalog page

26034 AA	HOPKINS® Straight Forward Telescope 0°	—
26034 AUA	HOPKINS® Straight Forward Telescope 0°	—
26038 AA	HOPKINS® Straight Forward Telescope 0°	—
26038 AUA	HOPKINS® Straight Forward Telescope 0°	—
26037 ADA	HOPKINS® Straight Forward Telescope 0°	—



Spare parts



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



6376990
Stopcock, for irrigation connection



495 G
Screw Base, for KARL STORZ fiber optic light cable and Olympus/Winter & Ibe



6377091
Spring Cap

Accessories



26034 V
Adaptor, for working channel, for use with thoracoscopes diameter 10 mm



26037 V
Adaptor for Working Channel, for use with thoracoscopes diameter 8 mm

Spare parts for 26034 V



7720590
Silicone Leaflet Washer



6127590
Sealing Cap, (50/4)

Spare parts for 26037 V



7720590
Silicone Leaflet Washer



6127490
Sealing Cap, (50/3.6)

Rubber Insufflation Bulb, Laryngoscope Holders and Chest Supports

Spare parts and accessories for:

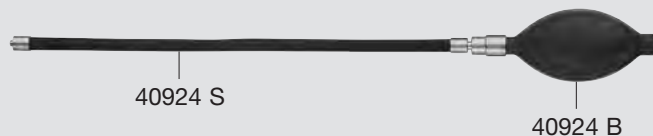
Catalog page

40924 Rubber Insufflation Bulb

20

40924 B **Rubber Bulb**

40924 S **Rubber Tube**



Spare parts and accessories for:

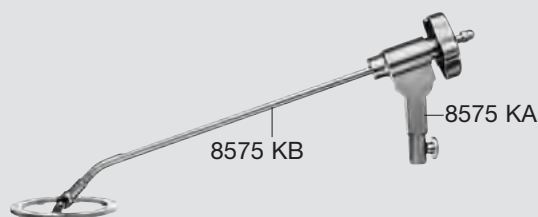
Catalog page

8575 K Laryngoscope Holder and Chest Support, GÖTTINGEN model

36, 37

8575 KA **Laryngoscope Holder, GÖTTINGEN model, with adjustment wheel**

8575 KB **Support Rod, movable, with metal ring, diameter 9 cm, length 34 cm**



Spare parts and accessories for:

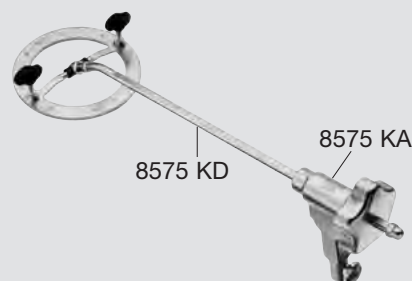
Catalog page

8575 KC BENJAMIN-PARSONS Laryngoscope Holder and Chest Support

36, 37

8575 KA **Laryngoscope Holder, GÖTTINGEN model, with adjustment wheel**

8575 KD **BENJAMIN-PARSONS Support Rod, movable, with metal ring, diameter 12 cm and 2 lateral set screws, length 34 cm**



Flexible Endoscopes

Video Bronchoscopes

Spare parts and accessories for:

Catalog page

11900 AP	Video Bronchoscope for Autofluorescence and White Light Diagnosis, PAL	42, 94
11900 AN	Video Bronchoscope for Autofluorescence and White Light Diagnosis, NTSC	42, 94
11900 BP	Video Bronchoscope, PAL	43
11900 BN	Video Bronchoscope, NTSC	43



Accessories



11025 XE
Pressure Compensation Cap, for ventilation during gas sterilization



13991 SS
Irrigation Tube, reusable, for the working channel of flexible video endoscopes



13272
Mouth Piece



13242 LX
Leakage Tester, with bulb and manometer



13242 XA
Adaptor, for manual leakage test with 13242 XL or automatic leakage test in washer/disinfector



13990 SFN
Protective Film



600007
Luer-Lock Tube Connector, male, tube diameter 6 mm



20213070
Video Connecting Cable, length 60 cm

Flexible Endoscopes

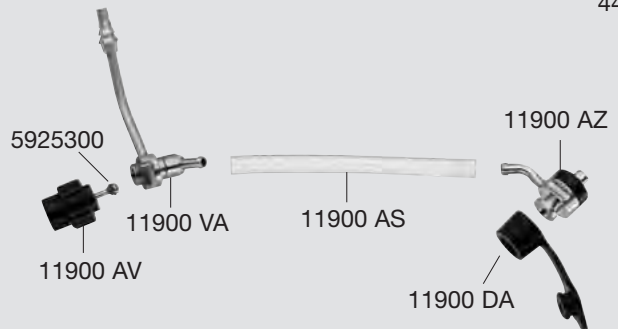
Suction Unit, KARL STORZ TELE PACK

Spare parts and accessories for:

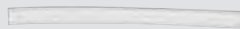
Catalog page

- 11900 AE Suction Unit**
- 11900 AV **Suction Valve**
- 11900 VA **Valve Adaptor**
- 11900 AS **Connecting Tube,**
package of 10
- 11900 AZ **Suction Cylinder**
- 13991 DA **Rubber Leaflet Valve,**
package of 10

44



Spare parts



11900 AS
Connecting Tube,
package of 10



11900 VA
Valve Adaptor,
autoclavable



11900 AZ
Suction Cylinder,
autoclavable



13991 DA
Rubber Leaflet Valve, for
working channel, package
of 10



11900 AV
Suction Valve,
autoclavable



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

Spare parts and accessories for:

Catalog page

20043012-020 KARL STORZ TELE PACK

46

- 20043020-020 **TELE PACK Control Unit, PAL**
- 20041036 **CF Memory Card, 128 MB,**
incl. PCMCIA adaptor
- 400 A **Mains Cord,** length 300 cm
- 536 MK **BNC/BNC Video Cable,** length 180 cm
- 547 S **S-Video (Y/C) Connecting Cable,**
length 180 cm
- 487 VE **Adaptor,** vor connecting video
bronchoscopes to TELE PACK

- 20043112-020 **Same**
including:
20043120-020 **TELE PACK Control Unit, NTSC**



20043020-020

Flexible Bronchoscopes

Broncho-Fiberscopes

Spare parts and accessories for:

Catalog page

11001 BI	Broncho-Fiberscope	98
11001 BN	Broncho-Fiberscope	48
11002 BD	Broncho-Fiberscope	48
11003 BC	Broncho-Fiberscope	48
11004 BC	Broncho-Fiberscope	48
11004 BI	Broncho-Fiberscope	98
11005 BC	Broncho-Fiberscope	48
11009 BC	Broncho-Fiberscope	48
11009 BI	Broncho-Fiberscope	98



Spare parts



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



495 G
Screw Base, for KARL STORZ fiber optic light cable and Olympus/Winter & Ibe

Accessories



11025 E
Pressure Compensation Cap, for ventilation during gas sterilization



11301 CE
Suction Valve, for single use, package of 20



11301 CA
Leaflet Valve, for single use, package of 20



13242 LX
Leakage Tester, with bulb and manometer



11301 CB
Suction Valve, reusable



13272
Mouth Piece



11301 CD
Irrigation Adaptor, for machine cleaning, for fiberscopes



29100
Plug, for LUER-Lock connection for cleaning, black, autoclavable, package of 10

Spare parts and accessories for:

Catalog page

25320001 UNIMAT® 30, Suction Pump Set, 230 VAC

56

25320020 **UNIMAT® 30**, suction pump, power supply 230 VAC, 50/60 Hz

25320080 **Bacterial Filter**

25320081 **Secretion Bottle, 2 l**

25320082 **Bottle Cap, with grip**

25320083 **Connecting Tube, short**

25320084 **Patient Tube**

25320085 **Overflow Case**

400 A **Mains Cord, length 300 cm**

mtp* **VACUsafe Promotion Pack Suction**



Spare parts



1069400
Mains Fuse,
T 0.63 A, L 250 V



6860290
Washer



10432 N
Aspirator, for collecting secretions, with cut-off hole, with Spare Glass 10432 E, can be connected to suction tubes or suction catheter



10432 E
Spare Glass



10432 T
Aspirator, for collecting secretions, without cut-off hole, with Spare Glass 10432 E, can be connected to suction tubes or suction catheter

Accessories



29005 PH
Pump Holder, for attaching suction pump UNIMAT® 30 25320001 to equipment cart, for mounting to 2 Standard Equipment Rails 29003 GS

Spare parts and accessories for:

Catalog page

2532001C UNIMAT® 30, Suction Pump Set, 115 VAC

56

25320020C UNIMAT® 30, suction pump,
power supply 115 VAC,
50/60 Hz

25320080 Bacterial Filter

25320081 Secretion Bottle, 2 l

25320082 Bottle Cap, with grip

25320083 Connecting Tube, short

25320084 Patient Tube

25320085 Overflow Case

400 A Mains Cord, length 300 cm

**mtp* VACUsafe Promotion Pack
Suction**



Spare parts



1069500 Mains Fuse,
T 1.6 A, L 250 V



6860290 Washer



10432 N Aspirator, for collecting
secretions, with cut-off
hole, with Spare Glass
10432 E, can be
connected to suction
tubes or suction catheter



10432 E Spare Glass



10432 T Aspirator, for collecting
secretions, without cut-off
hole, with Spare Glass
10432 E, can be
connected to suction
tubes or suction catheter

Accessories



29005 PH Pump Holder, for
attaching suction pump
UNIMAT® 30 25320001 to
equipment cart, for
mounting to 2 Standard
Equipment Rails 29003 GS



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Bronchoscopes for Adults

Universal Bronchoscopes for Adults,
Standard Model with Fiber Optic Light Carrier for Distal Illumination

Spare parts and accessories for:

Catalog page

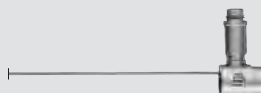
10318 B	Universal Bronchoscope	58
10318 C	Universal Bronchoscope	58
10318 D	Universal Bronchoscope	58



Spare parts



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



10318 L
Fiber Optic Light Carrier,
for bronchoscopes



495 G
Screw Base,
for KARL STORZ fiber
optic light cable and
Olympus/Winter & Ibe

Accessories



10315 P
FLUVOG Adaptor

Spare part for 10315 P



10318 S
Instrument Guide

Spare part for 10318 S



6127490
Sealing Cap, (50/3.6)



27550 C
Sealing Cap, drill hole
diameter 1.2 mm



10315 N
Rubber Telescope Guide

Spare part for 10315 N



6127590
Sealing Cap, (50/4)

Bronchoscopes for Adults

Universal Tracheo-Bronchoscopes with Proximal Illumination

Spare parts and accessories for:

Catalog page

10318 BP	Universal Bronchoscope	59
10318 CP	Universal Bronchoscope	59
10318 DP	Universal Bronchoscope	59



Accessories



10101 FA
Prismatic Light Deflector,
with connection to fiber
optic light cable

Spare part for 10101 FA



3430890
Knurled Cap



10314 P
FLUVOG Adaptor

Spare part for 10314 P



6127490
Sealing Cap, (50/3.6)



10314 BN
Rubber Telescope Guide

Spare part for 10314 BN



6127590
Sealing Cap, (50/4)



10318 S
Instrument Guide

Spare part for 10318 S



27550 C
**Sealing Cap, drill hole
diameter 1.2 mm**

Optical Intubation Tracheoscope, TONN Stent Applicators

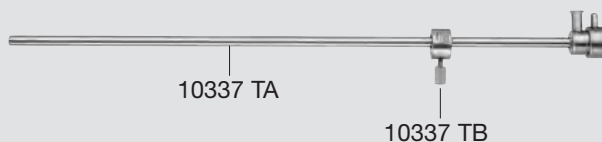
Spare parts and accessories for:

Catalog page

10337 T Optical Intubation Tracheoscope, GRONINGEN model

62

10337 TA Sheath, for insertion of endotracheal tubes under optical control, proximal with LUER-Lock and distal with lateral holes for anesthetic gases, outer diameter 5.5 mm, length 30 cm, for use with HOPKINS® II Telescopes 10005 AA and BA



10337 TB Distance Ring, with fixation screw for length adjustment of the endotracheal tubes

Spare parts and accessories for:

Catalog page

TONN Stent Applicators

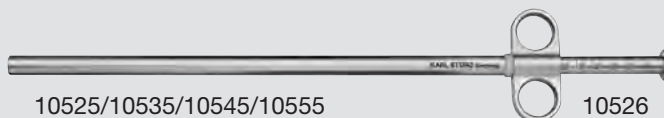
69



10521/10522/10523
10531/10532/10533



10524/10534/10544/10554



10525/10535/10545/10555

10526
10536
10546
10556

TONN Stent Applicators,
color code:

10520
blue

10530
red

10540
green

10550
white

Basic Block

10521

10531

10521

10521

Folding System

10522

10532

10542

10552

Clamping Rod

10523

10533

10523

10523

Loading Rod

10524

10534

10544

10554

Introducer Tube, with 2-ring handle

10525

10535

10545

10555

Pusher

10526

10536

10546

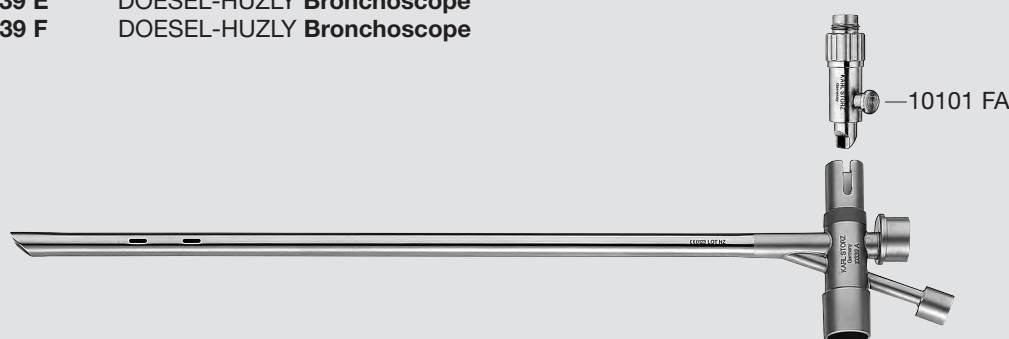
10556

Pediatric Bronchoscopes

Spare parts and accessories for:

Catalog page

10339 AL	DOESEL-HUZLY Bronchoscope	71
10339 BL	DOESEL-HUZLY Bronchoscope	71
10339 A	DOESEL-HUZLY Bronchoscope	71
10339 B	DOESEL-HUZLY Bronchoscope	71
10339 BB	DOESEL-HUZLY Bronchoscope	71
10339 C	DOESEL-HUZLY Bronchoscope	71
10339 G	DOESEL-HUZLY Bronchoscope	71
10339 CD	DOESEL-HUZLY Bronchoscope	71
10339 EEE	DOESEL-HUZLY Bronchoscope	71
10339 CC	DOESEL-HUZLY Bronchoscope	71
10339 GG	DOESEL-HUZLY Bronchoscope	71
10339 DD	DOESEL-HUZLY Bronchoscope	71
10339 EE	DOESEL-HUZLY Bronchoscope	71
10339 D	DOESEL-HUZLY Bronchoscope	71
10339 E	DOESEL-HUZLY Bronchoscope	71
10339 F	DOESEL-HUZLY Bronchoscope	71, 72



Accessories



10101 FA
Prismatic Light Deflector,
with connection to fiber
optic light cable

Spare part for 10101 FA



10338 N
Rubber Telescope Guide

Spare part for 10338 N



3430890
Knurled Cap



6127390
Sealing Cap, (50/2.6)



10338 P
FLUVOG Adaptor

Spare part for 10338 P



10338 S
Guide Piece

Spare part for 10338 S



6127390
Sealing Cap, (50/2.6)



27550 C
**Sealing Cap, drill hole
diameter 1.2 mm**

Esophagoscopes

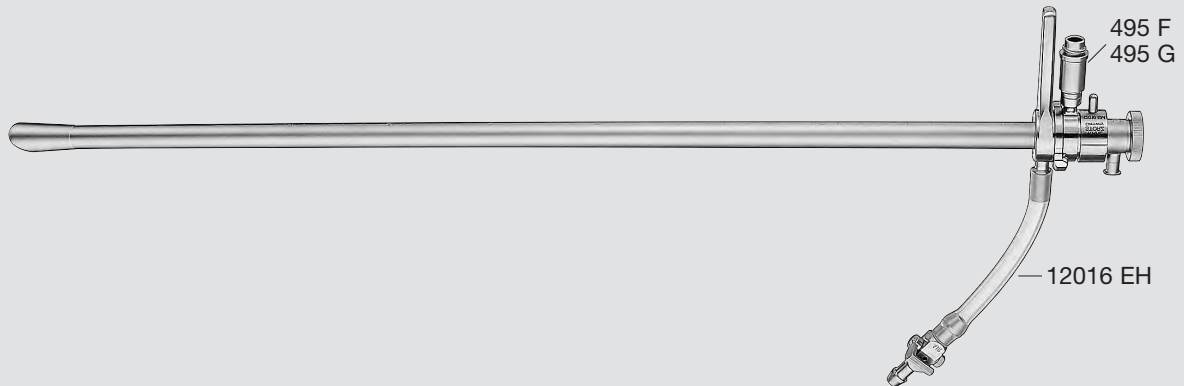
Esophagoscope Tubes

Spare parts and accessories for:

Catalog page

12016 E Esophagoscope Tube
12016 F Esophagoscope Tube

20
—



Spare parts

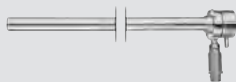


495 F
Receptacle, diameter
9 mm, for Wolf fiber optic
light cable



495 G
Screw Base,
for KARL STORZ fiber
optic light cable and
Olympus/Winter & Ibe

Spare part for 12016 E



12016 EM
Fiber Optic Light Carrier

Spare part for 12016 F



12016 FM
Fiber Optic Light Carrier

Spare part for 12016 E



12016 EF
Esophagoscope Tube,
size 11

Spare part for 12016 F



12016 FF
Esophagoscope Tube,
size 12

Accessories



12016 EH
Stopcock, with tube



12016 EW
Sealing Cap

Spare parts for 12016 EH



6871191
Stopcock



6377091
Spring Cap



7322990
Tube

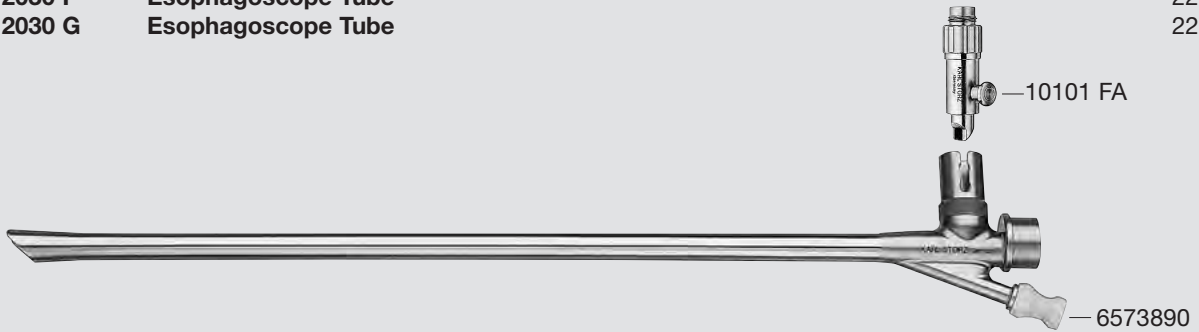
Esophagoscopes

Esophagoscope Tubes, Handle for Esophagoscopes

Spare parts and accessories for:

Catalog page

12030 A	Esophagoscope Tube	22
12030 AL	Esophagoscope Tube	—
12030 B	Esophagoscope Tube	22
12030 C	Esophagoscope Tube	22
12030 F	Esophagoscope Tube	22
12030 G	Esophagoscope Tube	22



Spare part



6573890
Sealing Cap

Accessories



10101 FA
Prismatic Light Deflector,
with connection to fiber
optic light cable

Spare part for 10101 FA

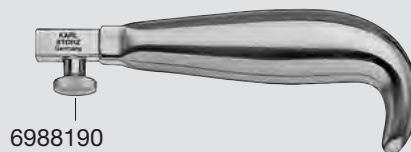


3430890
Knurled Cap

Spare parts and accessories for:

Catalog page

12070	Handle for Esophagoscopes	19
--------------	----------------------------------	----



Spare part



6988190
Knurled Screw

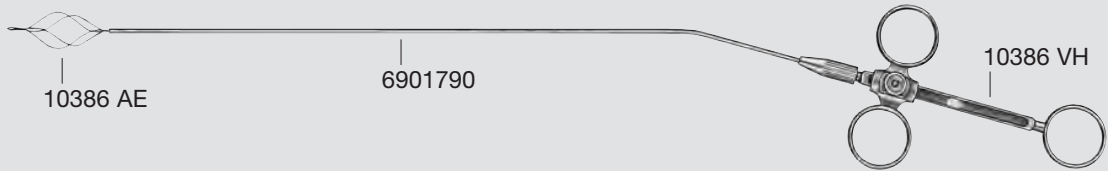
Foreign Body Basket

Spare parts and accessories for:

Catalog page

10386 A Foreign Body Basket

85



Spare parts



10386 AE
Foreign Body Basket,
without handle,
length 50 cm



6901790
Guide Tube



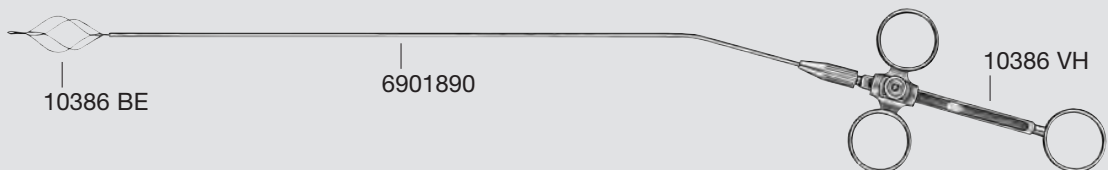
10386 VH
Three-ring Handle

Spare parts and accessories for:

Catalog page

10386 B Foreign Body Basket

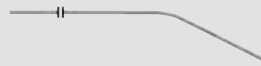
32, 85



Spare parts



10386 BE
Foreign Body Basket,
without handle,
length 35 cm



6901890
Tube



10386 VH
Three-ring Handle

FREITAG Stent Forceps, Fiber Optic Light Carriers

Spare parts and accessories for:

Catalog page

10510 N FREITAG Stent Forceps

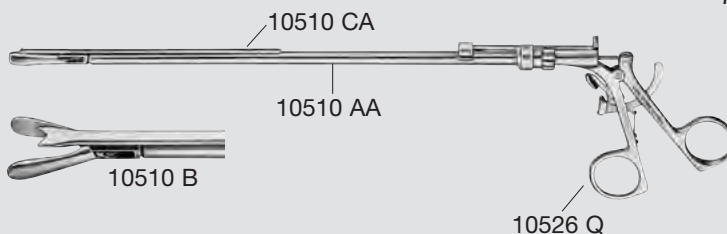
70

30526 Q **Handle, with ratchet**

10510 AA **Outer Sheath**

10510 B **Forceps Insert**

10510 CA **Pusher**



Spare parts



7909890
Halfround Plate



7944790
Silicone Ring

Spare parts and accessories for:

Catalog page

12061 A Fiber Optic Light Carrier

19

12061 AX Fiber Optic Light Carrier

19

12061 B Fiber Optic Light Carrier

19

12061 C Fiber Optic Light Carrier

19

12061 F Fiber Optic Light Carrier

—

12061 G Fiber Optic Light Carrier

—

12061 H Fiber Optic Light Carrier

—

12061 K Fiber Optic Light Carrier

—

495 F
495 G



Spare parts



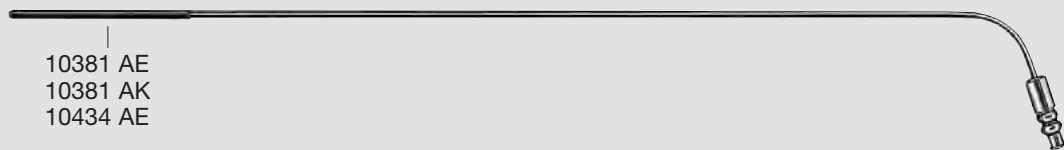
495 F
Receptacle, diameter
9 mm, for Wolf fiber optic
light cable



495 G
Screw Base,
for KARL STORZ fiber
optic light cable and
Olympus/Winter & Ibe

Suction Tubes

Spare parts and accessories for:		Catalog page
10381 A	Suction Tube	83
10381 AL	Suction Tube	31
10381 B	Suction Tube	31, 83
10434 A	Suction Tube	84



Spare parts

Spare part for 10381 A and 10381 AL



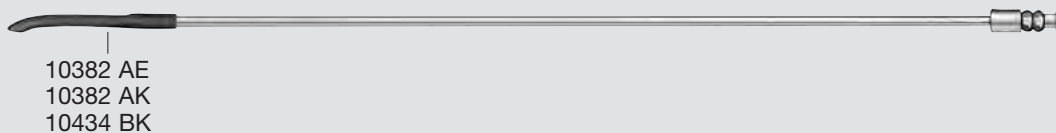
Spare part for 10434 A



Spare part for 10381 B

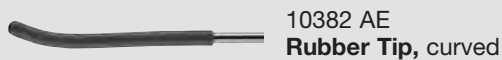


Spare parts and accessories for:		Catalog page
10382 A	Suction Tube	83
10382 AL	Suction Tube	—
10382 B	Suction Tube	31, 83
10434 B	Suction Tube	84

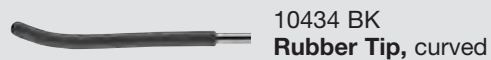


Spare parts

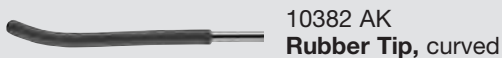
Spare part for 10382 A and 10382 AL



Spare part for 10434 B



Spare part for 10382 B

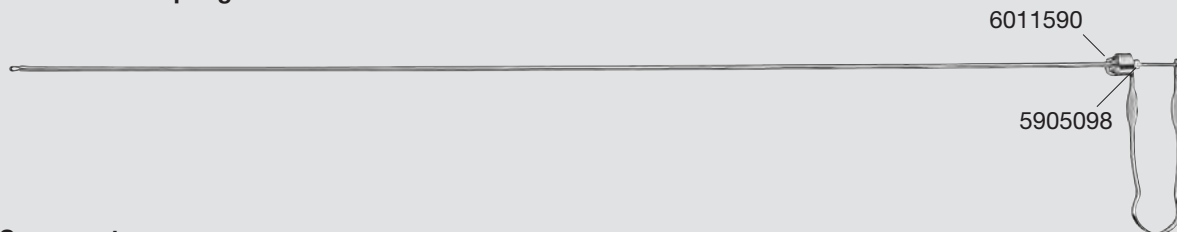


Sponge Holders, CARLENS Mediastinoscopes

Spare parts and accessories for:

Catalog page

10387 A	Sponge Holder	83
10387 AL	Sponge Holder	31
10387 AX	Sponge Holder	–
10387 B	Sponge Holder	31, 83
10388 A	Sponge Holder	83



Spare parts



5905098
Sealing Cap, small



6011590
Plug, for LUER-Lock
adaptor

Spare parts and accessories for:

Catalog page

10970 A	CARLENS Mediastinoscope	124
10970 B	CARLENS Mediastinoscope	124



Spare parts



5959502
Knurled Screw

Spare part for 10970 A



10970 AE
Fiber Optic Light Carrier

Spare part for 10970 B



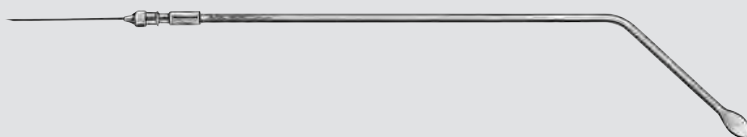
10970 BE
Fiber Optic Light Carrier

Cannulas, RAMEL Pleurabiopsy Needle

Spare parts and accessories for: Catalog page

10970 P **Aspiration Cannula** 130

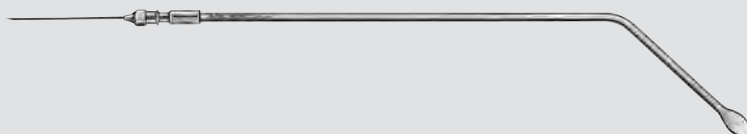
10970 PE **Cannula**
812410 **Injection Needle,**
 package of 12



Spare parts and accessories for: Catalog page

10970 PL **Aspiration Cannula** 130

10970 PEL **Cannula**
812410 **Injection Needle,**
 package of 12



Spare parts and accessories for: Catalog page

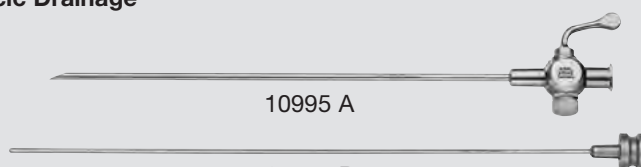
10995 **Application Cannula for Thoracic Drainage** 137

10995 A **Outer Cannula,** with
 insufflation stopcock,
 diameter 2.1 mm,
 length 15 cm

10995 A

10995 B **Inner Cannula,** blunt tip,
 diameter 1.5 mm,
 length 16.5 cm

10995 B



Spare parts and accessories for: Catalog page

10990 **RAMEL Pleurabiopsy Needle** 137

10990 A **Biopsy Needle,** with LUER-
 Lock, with stopcock

10990 A

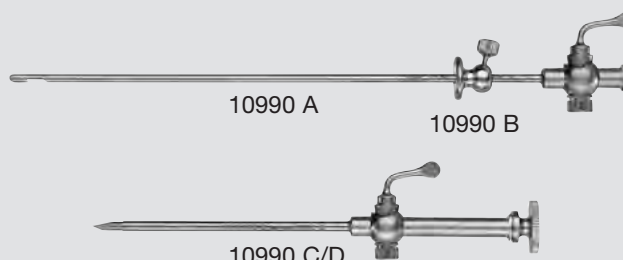
10990 B **Rider,** as stop screw

10990 B

10990 C **Cannula,** with LUER-Lock,
 with stopcock, size 3 mm,
 working length 6.5 mm

10990 D **Trocar only,** with pyramidal tip

10990 C/D



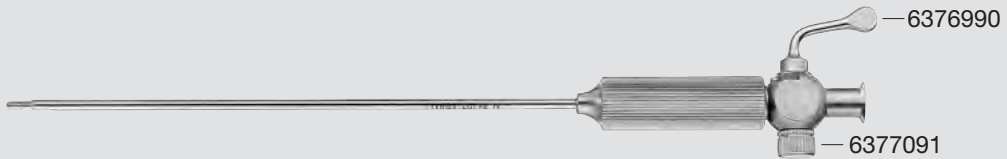
VERESS Pneumoperitoneum Needle, Powder Blowers

Spare parts and accessories for:

Catalog page

26120 J VERESS Pneumoperitoneum Needle

138, U 6



Spare parts



6376990
Stopcock, for
irrigation connection



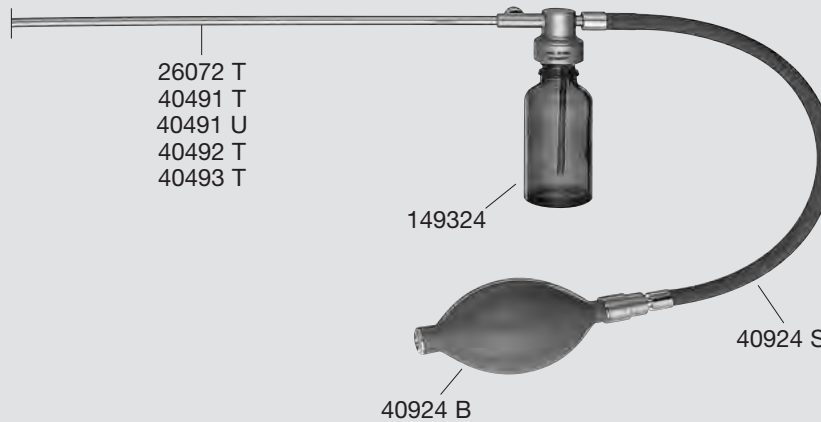
6377091
Spring Cap

Spare parts and accessories for:

Catalog page

Powder Blower

135, 165



Powder Blower	26072 TK	40491 TK	40491 TKU	40492 TK	40493 TK
Sheath	26072 T	40491 T	40491 U	40492 T	40493 T
Rubber Bulb , with LUER-Lock	40924 B	40924 B	40924 B	40924 B	40924 B
Rubber Tube , with LUER-Lock on both ends	40924 S	40924 S	40924 S	40924 S	40924 S
Glass , brown, autoclavable	149324	149324	149324	149324	149324

Spare part



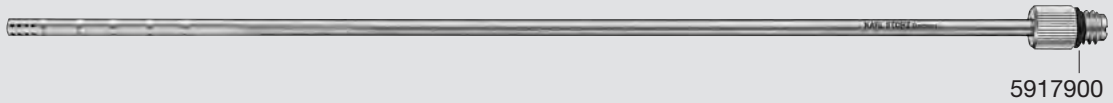
5925000
Silicone Ring

Suction and Irrigation Tubes

Spare parts and accessories for:

Catalog page

37260 LH	Suction and Irrigation Tube	166, 200
40360 LH	Suction and Irrigation Tube	166, 200
40560 LH	Suction and Irrigation Tube	166, 200



Spare part

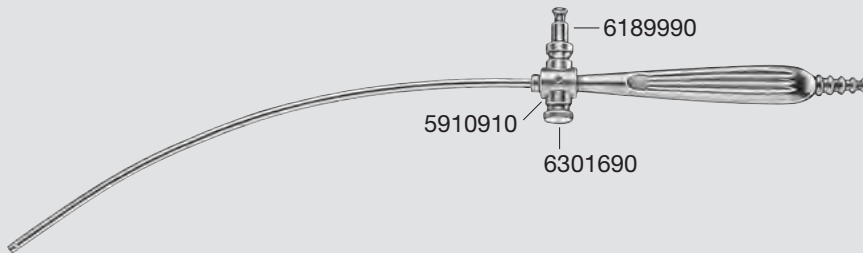


5917900
O-Ring, small

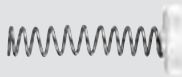
Spare parts and accessories for:

Catalog page

40800 A	Suction Tube	—
----------------	---------------------	---



Spare parts



5910910
Spring



6301690
Screw Cap

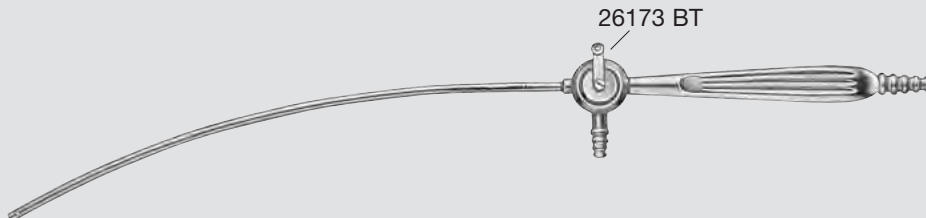


6189990
Piston

Spare parts and accessories for:

Catalog page

40800 AA	Suction and Irrigation Tube	—
-----------------	------------------------------------	---



Spare parts



26173 BT
Stopcock



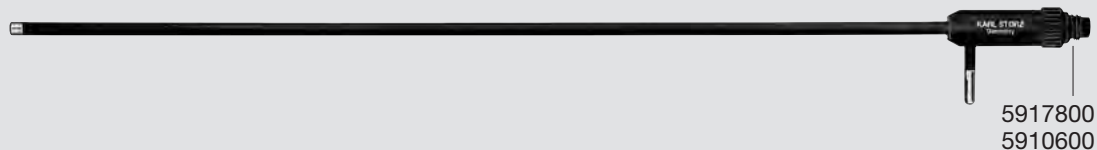
6353591
Spring Cap

Coagulating Suction Tubes, Coagulating and Dissecting Electrodes

Spare parts and accessories for:

Catalog page

10390 AN	Coagulating Suction Tube	83
10390 LN	Coagulating Suction Tube	31
10390 BN	Coagulating Suction Tube	31, 83



Spare parts

Spare part for 10390 AN and 10390 LN



5917800
O-Ring

Spare part for 10390 BN

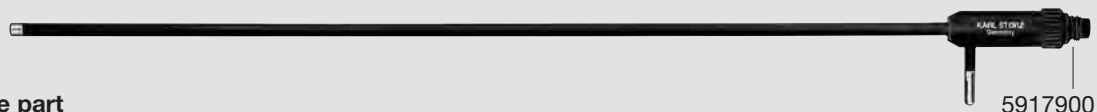


5910600
O-Ring, 3 x 1.5 mm

Spare parts and accessories for:

Catalog page

10970 EN	Coagulating Suction Tube	—
10970 ENL	Coagulating Suction Tube	—
26770 U	Coagulating Suction Tube	—
37270 GC	GORDTS and CAMPO Coagulating Suction Tube	168
37270 DB	Coagulating and Dissecting Electrode	—
37270 DL	Coagulating and Dissecting Electrode	—
37270 DW	Coagulating and Dissecting Electrode	—
37270 SC	Coagulating and Dissecting Electrode	168
40170 LB	Coagulating Suction Tube	168
40270 LB	Coagulating Suction Tube	168



Spare part

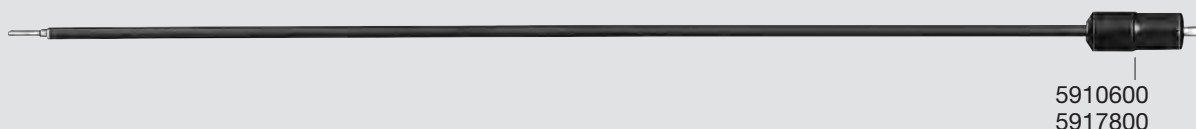


5917900
O-Ring, small

Spare parts and accessories for:

Catalog page

26770 S	Coagulating Electrode	—
26772 UF	Coagulating and Dissecting Electrode	169, 183
26778 UF	Coagulating and Dissecting Electrode	183
40700 A	Electrode	202
40700 B	Electrode	202
40775 LF	Dissecting Electrode	169, 183



Spare parts

Spare part for 26770 S



5910600
O-Ring, 3 x 1.5 mm

Spare part for 26772 UF, 26778 UF, 40700 A/B,
40775 LF



5917800
O-Ring

Surgical Sponge Holders

Spare parts and accessories for:

Catalog page

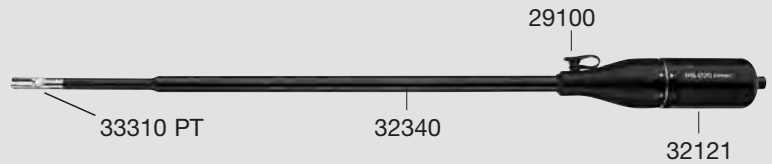
32340 PT Surgical Sponge Holder

170

32121 **Handle**

32340 **Outer Sheath, insulated**

33310 PT **Sponge Holder Insert**



Spare part



29100 **Plug**, for LUER-Lock connection for cleaning, black, autoclavable, package of 10

Spare parts and accessories for:

Catalog page

32540 PT Surgical Sponge Holder

170

32121 **Handle**

32540 **Outer Sheath, insulated**

33510 PT **Sponge Holder Insert**



Spare part



29100 **Plug**, for LUER-Lock connection for cleaning, black, autoclavable, package of 10

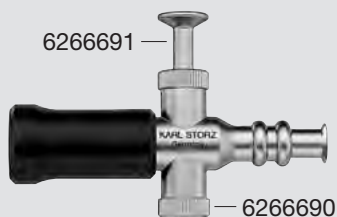
Handles for Suction and/or Irrigation, Macro Needle Holders

Spare parts and accessories for:

Catalog page

30804 Handle with Trumpet Valve

168



Spare parts



5905610
Spring



6266690
Knurled Cap



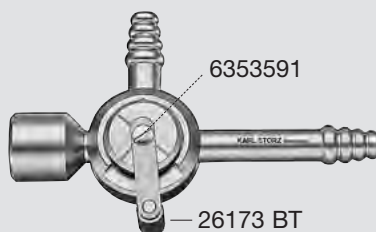
6266691
Piston

Spare parts and accessories for:

Catalog page

30805 Handle with Two-Way Stopcock

167, 201



Spare parts



26173 BT
Stopcock



6353591
Spring Cap

Spare parts and accessories for:

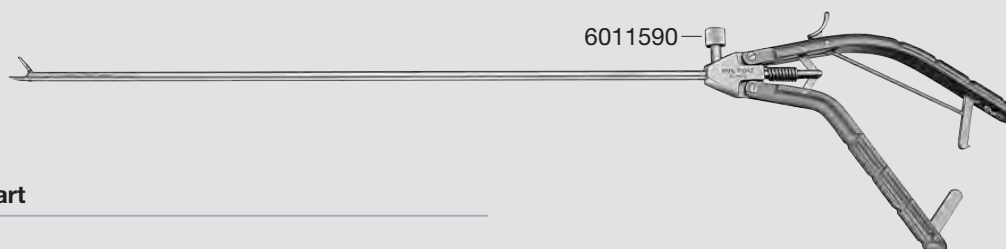
Catalog page

26173 KC KOH Macro Needle Holder

176

26173 KL KOH Macro Needle Holder

176



Spare part



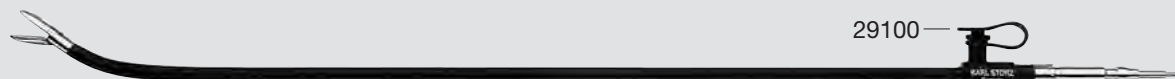
6011590
**Plug, for LUER-Lock
adaptor**

Outer Sheaths

Spare parts and accessories for:

Catalog page

30310 DBL	CLICK'liné Outer Sheath with BLAKESLEY Biopsy Forceps	—
43210 LG	CLICK'liné Outer Sheath with Parenchymal Forceps	152
43210 LH	CLICK'liné Outer Sheath with Lung Forceps	152
43210 LS	CLICK'liné Outer Sheath with Parenchymal Forceps	152
43210 LL	CLICK'liné Outer Sheath with Lung Forceps	152
43210 LR	CLICK'liné Outer Sheath with Lung Nodule Forceps	152
43210 LP	CLICK'liné Outer Sheath with KELLY Dissecting and Grasping Forceps	156
43210 MF	CLICK'liné Outer Sheath with MANHES Dissecting and Grasping Forceps	156
43210 MA	CLICK'liné Outer Sheath with MANHES Grasping Forceps	156
43210 LV	CLICK'liné Outer Sheath with Parenchymal Forceps	155
43210 LK	CLICK'liné Outer Sheath with KELLY Dissecting Forceps	157
43210 LM	CLICK'liné Outer Sheath with Scissors	157
43210 LU	CLICK'liné Outer Sheath with Scissors	157
43210 MT	CLICK'liné Outer Sheath with Scissors	157
43210 DU	CLICK'liné Outer Sheath with CUSCHIERI Biopsy Forceps	157
48210 LK	RoBi® Outer Sheath with KELLY Dissecting Forceps	163
48210 LM	RoBi® Outer Sheath with Scissors	163
48210 LU	RoBi® Outer Sheath with Scissors	163
48210 MT	RoBi® Outer Sheath with Scissors	163



Spare part



29100
Plug, for LUER-Lock
connection for cleaning,
black, autoclavable,
package of 10

Outer Sheaths

Spare parts and accessories for:

Catalog page

38200 **RoBi® Metal Outer Sheath, insulated**

164



Spare part



29100
Plug, for LUER-Lock
 connection for cleaning,
 black, autoclavable,
 package of 10

Spare parts and accessories for:

Catalog page

33200 **CLICK'liné Metal Outer Sheath, insulated**

180

33250 **CLICK'liné Metal Outer Sheath, insulated**

129

33300 **CLICK'liné Metal Outer Sheath, insulated**

–

33400 **CLICK'liné Metal Outer Sheath, insulated**

–

33500 K **CLICK'liné Metal Outer Sheath, insulated**

158



Spare parts



29100
Plug, for LUER-Lock
 connection for cleaning,
 black, autoclavable,
 package of 10



7909890
Halfround Plate



7944790
Silicone Ring

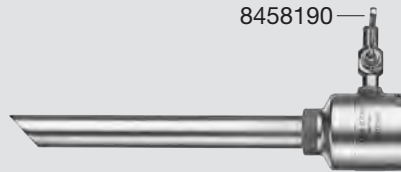
Cannulas

Spare parts and accessories for:

Catalog page

- 30103 H1** Cannula
- 30103 H2** Cannula

—
—



Spare parts



6985691
Spring Cap



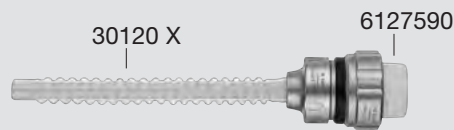
8458190
Stopcock

Spare parts and accessories for:

Catalog page

- 30120 NL** Cannula

136



Spare parts



6127590
Sealing Cap, (50/4)



7720590
Silicone Leaflet Washer

Cannulas

Spare parts and accessories for:

Catalog page

40103 A	Cannula	146, 193
40103 C	Cannula	146, 193
40103 F	Cannula	—
40103 EL	Cannula	148
40103 CL	Cannula	—



Spare part



7228790
Sealing Cap, (60/11)

Spare parts and accessories for:

Catalog page

40107 A	Cannula	146
40107 C	Cannula	146
40108 A	Cannula	—
40108 C	Cannula	—



Spare part



7416090
Sealing Cap, (60/13)

Spare parts and accessories for:

Catalog page

40160 A	Cannula	146
40160 C	Cannula	146
40160 E	Cannula	—



Spare part



6127590
Sealing Cap, (50/4)

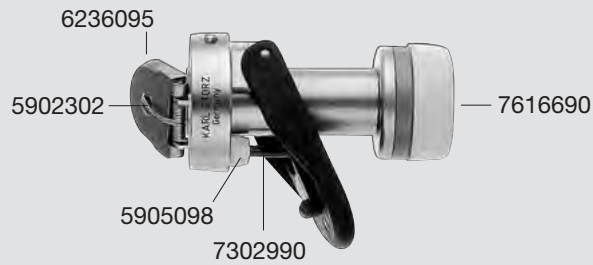
Trocar Valves

Spare parts and accessories for:

Catalog page

30103 M1 Multifunctional Valve

—



Spare parts



5902302
Sealing Screw



7302990
Tappet



5905098
Sealing Cap, small



7616690
Sealing Cap, (60/10)



6236095
Seal

Spare parts and accessories for:

Catalog page

30102 A1 Automatic Valve

—



Spare parts



5902302
Sealing Screw



6236095
Seal



6127890
Sealing Cap, (50/7.5)

Tubular Dissecting Forceps, SCHÖLLHORN Multi-Retractor

Spare parts and accessories for:

Catalog page

40500 A Tubular Dissecting Scissors

198



Spare part



6011590
Plug, for LUER-Lock
adaptor

Spare parts and accessories for:

Catalog page

49100 B SCHÖLLHORN Standard Retractor

189

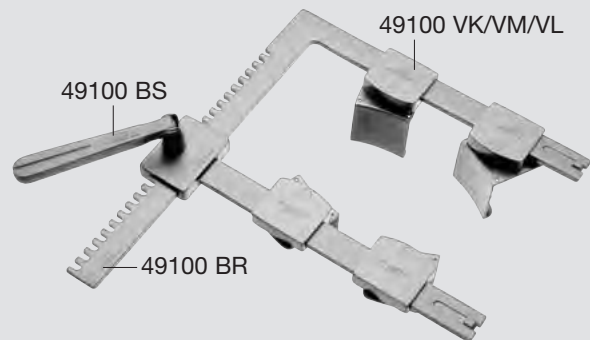
49100 BR **Retractor Frame**, 25 x 22 cm, including
Lever 49100 BS

49100 BS **Lever**, spare part

49100 VK **Moveable Blade**, freely adjustable,
height 30 mm

49100 VM **Moveable Blade**, freely adjustable,
height 40 mm

49100 VL **Moveable Blade**, freely adjustable,
height 50 mm



Spare parts and accessories for:

Catalog page

49100 LS Fiber Optic Light Carrier Extension

189

49100 L **Fiber Optic Light Carrier**, malleable,
for illumination of the OR field

49100 LB **Universal Fixation Device**, for
securing Fiber Optic Light Carrier
49100 L, for use with rectangular
retractor frames with profile
min. 5 x 15 mm to max. 8 x 34 mm
and round components with
profile min.10 to max.16 mm



Spare parts



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



495 G
Screw Base,
for KARL STORZ fiber
optic light cable and
Olympus/Winter & Ibe

Headlights

Spare parts and accessories for:

Catalog page

- 310060 **Headlight KS60**
- 310063 **Headlight KS60**, with removeable and sterilizable Focus Handle 310065
- 310070 **Headband**, fully adjustable, with Forehead Cushion 078511, with cross band, including holder for Headlight 310063
- 495 NY **Y-Fiber Optic Light Cable**, with special protective casing for Headlight 310063, length 290 cm
- 078681 **Clip with Band**, for attaching the fiber optic light cable to OR clothing

187



Spare parts



078511
Forehead Cushion, with push-button lock



310070
Headband, fully adjustable, with Forehead Cushion 078511, with cross band, including holder for Headlights 310060, 310061 and 310063



310063
Headlight KS60, with double lens system and Y-fiber optic light cable, >175,000 lux, illuminated area adjustable from 20 – 80 mm with 40 cm working distance, with removeable and sterilizable Focus Handle 310065



495 NY
Y-Fiber Optic Light Cable, with special protective casing for Headlight 310063, diameter 2 x 2.5 mm, length 290 cm



310065
Handle, with focusing screw, sterilizable

Accessories



078681
Clip with Band, for attaching fiber optic light cable to OR clothing

Headlights

Spare parts and accessories for:

Catalog page

310061 Headlight KS60

187

310063 **Headlight KS60**, with removable and sterilizable Focus Handle 310065

310070 **Headband**, fully adjustable, with Forehead Cushion 078511, with cross band, including holder for Headlight 310063

495 NYW **Y-Fiber Optic Light Cable**, with special protective casing for Headlight 310063, with 90° deflection to the light source, length 290 cm

078681 **Clip with Band**, for attaching the fiber optic light cable to OR clothing



Spare parts



078511
Forehead Cushion, with push-button lock



310070
Headband, fully adjustable, with Forehead Cushion 078511, with cross band, including holder for Headlights 310060, 310061 and 310063



310063
Headlight KS60, with double lens system and Y-fiber optic light cable, >175,000 lux, illuminated area adjustable from 20 – 80 mm with 40 cm working distance, with removeable and sterilizable Focus Handle 310065



495 NYW
Y-Fiber Optic Light Cable, with special protective casing for Headlight 310063, with 90° deflection to the cold light fountain, diameter 2 x 2.5 mm, length 290 cm



310065
Handle, with focusing screw, sterilizable

Accessories



078681
Clip with Band, for attaching fiber optic light cable to OR clothing

Spare parts and accessories for:

Catalog page

28272 EC **ENDOCRANE™**, piezoregulated holding arm

220

28272 ECS **ENDOCRANE™ Arm**, including stand

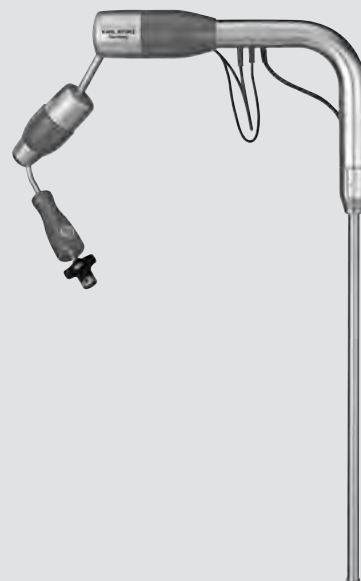
28172 HG **Socket**, to clamp to the OR table

20780020 **Control Unit**

040146-25* **Cover**, sterile, package of 25

28272 ECW **Spring Balance**

400 A **Mains Cord**, length 300 cm



28272 ECS

Spare parts and accessories for:

Catalog page

20031002 **Air Compressor**, for POINT SETTER

225

20031020 **Compressor**, 0 – 8 bar,
power supply 230 VAC, 50/60 Hz

27630022 **Fabric Reinforced Tube**, for Calcusplit®

28172 WC **Connecting Tube**, for POINT SETTER,
length 600 cm



20031002

Spare parts and accessories for:

Catalog page

20031002 C **Air Compressor**, for POINT SETTER

225

20031020 C **Compressor**, 0 – 8 bar,
power supply 115 VAC, 50/60 Hz

27630022 **Fabric Reinforced Tube**, for Calcusplit®

28172 WC **Connecting Tube**, for POINT SETTER,
length 600 cm



20031002 C

STOR-E Transport Cart

Spare parts and accessories for:

Catalog page

20020059 **STOR-E Transport Cart**, for POINT SETTER

226

20020053 **Mobile Stand**, for POINT SETTER

20020050 **Attachment**, POINT SETTER set

29005 AK **Tray**



Insufflators

Electronic CO₂ ENDOFLATOR® SCB

Spare parts and accessories for:

Catalog page

26430508-1 Electronic CO₂ ENDOFLATOR® SCB

U 4

26430520-1 Electronic CO₂ ENDOFLATOR® with KARL STORZ-SCB,
power supply 100 – 240 VAC, 50/60 Hz

400 A **Mains Cord,** length 300 cm

20400143 **Silicone Tubing Set,** sterilizable

20400030 **Universal Wrench**

20090170 **SCB Connecting Cable,** length 100 cm

031122-10* **CO₂/N₂O Gas Filter,** sterile, for single use,
package of 10



26430520-1

Spare part



2027590
Mains Fuse,
100 – 240 VAC, T 2.0 AL
(SB), package of 10

Accessories



20400143
Silicone Tubing Set,
for insufflation, sterilizable

Spare parts for 20400143



20400081
Plastic Connector, male



20300184
**LUER-Lock Tube
Connector,** male, tube
diameter 10 mm



20400022
CO₂ High Pressure Tube,
American connection/Pin-
Index connection,
length 55 cm



20400028
CO₂ High Pressure Tube,
American connection/Pin-
Index connection,
length 102 cm

Spare part for 20400022 and 20400028



2903390
Seal, for use with
CO₂ bottle, Pin-Index
connector



20400021
CO₂ High Pressure Tube,
American/German
connection, length 55 cm



20400027
CO₂ High Pressure Tube,
American/German
connection, length 102 cm

Spare part for 20400021 and 20400027



2903490
Seal, for use with
CO₂ bottle, German
connection

Suction and Irrigation Systems

HAMOU® ENDOMAT® SCB

Spare parts and accessories for:

Catalog page

26331009-1 HAMOU® ENDOMAT® SCB

U 8

26331020-1 HAMOU® ENDOMAT® SCB
with **KARL STORZ-SCB**,
power supply 100 – 240 VAC, 50/60 Hz

400 A **Mains Cord**, length 300 cm

mtp* **HYST Tubing Set**, for single use

mtp* **LAP Tubing Set**, for single use

20090170 **SCB Connecting Cable**, length 100 cm

mtp* **VACUsafe Promotion Pack Suction**, 2 l



26331020-1

Spare part



2027590
Mains Fuse,
100 – 240 VAC, T 2.0 AL
(SB), package of 10

Accessories



20300042
Silicone Tubing Set,
for suction, sterilizable



20300034
Bottle Cap, for suction
bottles 1.5 and 5 l,
sterilizable

Spare parts for 20300042



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



20300181
**LUER-Lock Tube
Connector**, female,
tube diameter 8 mm



20300180
Tubing Connector Set,
for Bottle Cap 20300034

Spare parts for 20300034



20300580
Overflow Case, gray,
for Bottle Cap 20300034



2911590
Plunger Ball, green,
to overflow case,
2 pcs required



031124-10*
Filter, to block fluid during
suction, for single use,
unsterile, package of 10



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Suction and Irrigation Systems

HAMOU® ENDOMAT® SCB

Accessories



26330041
LAP Tubing Set, reusable,
sterilizable

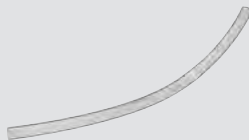
Included in delivery of 2330041



2719591
LAP Pressure Dome,
without silicone tubing set



2719891
LAP Silicone Tubing Set,
without pressure dome



20330386
Pump Tubing LAP,
without connectors,
package of 25



Inflow Tube,
with Y-adaptor



2719591
LAP Pressure Dome,
without silicone tubing set

Spare parts for 2719591



2730891
Lock Ring LAP



2731191
Dome



2731291
Dome Ring



2731391
Sealing Disk, for pressure
relief valve



2731491
Compression Spring LAP



2731691
Plastic Disk



20330185
**Diaphragm for Pressure
Dome**, package of 10



20330188
O-Ring, package of 10

Suction and Irrigation Systems

HAMOU® ENDOMAT® SCB

Accessories



20330386
Pump Tubing LAP,
without connectors,
package of 25

Spare part for 20330386



2731791
Connector Set LAP



Inflow Tube,
with Y-adaptor

Spare parts for inflow tube



Silicone Tubing LAP

Spare parts for Silicone Tubing LAP



20330088
Puncture Needle,
for irrigation bottle



2732191
Y-Adaptor, package of 10



20300185
Tube Connector



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



2732091
Tube Clip, white,
package of 10

Suction and Irrigation Systems

ENDOMAT® LC SCB

Spare parts and accessories for:

Catalog page

20330301-1 **ENDOMAT® LC SCB**

U 10

- 20330320-1 **ENDOMAT® LC with KARL STORZ-SCB**,
power supply 100 – 240 VAC, 50/60 Hz
- 400 A **Mains Cord**, length 300 cm
- 20330340 **Silicone Tubing Set**, for irrigation, sterilizable
- 20330341 **Silicone Tubing Set**, for suction, sterilizable
- 20090170 **SCB Connecting Cable**, length 100 cm



20330320-1

Spare part



2027390
Mains Fuse,
100 – 240 VAC, T 1.0 A
(SB), package of 10

Accessories



20330340
Silicone Tubing Set,
for irrigation, sterilizable



20330341
Silicone Tubing Set,
for suction, sterilizable

Spare parts for 20330340

Spare parts for 20330341



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



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



20330088
Puncture Needle,
for irrigation bottle



20300180
Tubing Connector Set,
for Bottle Cap 20300034



20330393
Pump Tube, sterilizable,
package of 25



20330393
Pump Tube, sterilizable,
package of 25



20300482
Connector Set,
sterilizable, package of 2



20300482
Connector Set,
sterilizable, package of 2

Accessories



20300034
Bottle Cap, for suction bottles 1.5 and 5 l, sterilizable

Spare parts for 20300034



20300580
Overflow Case, gray, for Bottle Cap 20300034



2911590
Plunger Ball, green, to overflow case, 2 pcs required



031124-10*
Filter, to block fluid during suction, for single use, unsterile, package of 10



mtp medical technical promotion gmbh,
Take-Off GewerbePark 46, D-78579 Neuhausen ob Eck, Germany

Suction and Irrigation Systems

DUOMAT®

Spare parts and accessories for:

Catalog page

20321008 DUOMAT®

U 12

20321020 **DUOMAT®**,
power supply 100 – 120, 230 – 240 VAC,
50/60 Hz
400 A **Mains Cord**, length 300 cm
mtp* **VACUsafe Promotion Pack Suction, 2 l**



20321020

Spare parts



1067800
Mains Fuse,
230 – 240 VAC, T 0.2 A
(SB), package of 10



2084290
Mains Fuse,
100 – 120 VAC, T 0.5 A
(SB), package of 10

Accessories



20300045
Silicone Tubing Set,
for irrigation, sterilizable



20300042
Silicone Tubing Set,
for suction, sterilizable

Spare part for 20300045



600008
**LUER-Lock Tube
Connector**, female, tube
diameter 6 mm



20300044
Silicone Tubing Set,
for suction, sterilizable,
short

Spare parts for 20300042 and 20300044



20300046
Silicone Tubing Set,
sterilizable



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

Spare parts for 20300046



20330088
Puncture Needle,
for irrigation bottle



20300181
**LUER-Lock Tube
Connector**, female,
tube diameter 8 mm



600007
**LUER-Lock Tube
Connector**, male,
tube diameter 6 mm



20300180
Tubing Connector Set,
for Bottle Cap 20300034

Accessories



20300034
Bottle Cap, for suction bottles 1.5 and 5 l, sterilizable

Spare parts for 20300034



20300580
Overflow Case, gray, for Bottle Cap 20300034



2911590
Plunger Ball, green, to overflow case, 2 pcs required



031124-10*
Filter, to block fluid during suction, for single use, unsterile, package of 10



26310035-335
Irrigation Bottle including:
Bottle Cap
Irrigation Liquid Bottle

Spare part for 26310035-335



26310087
Seal Set, for bottle caps

High Frequency Surgery Units

AUTOCON® II 400 SCB, AUTOCON® 200

Spare parts and accessories for:

Catalog page

U 22



20535220-111/20535220-112
20535220-115/20535220-116

AUTOCON® II 400 SCB, Set	20535201-111	20535201-112	20535201-115	20535201-116
AUTOCON® II 400 SCB, power supply 230 VAC, 50/60 Hz	20535220-111	20535220-112	20535220-115	20535220-116
Mains Cord, length 300 cm	400 A	400 A	400 A	400 A
SCB Connecting Cable, length 100 cm	20090170	20090170	20090170	20090170

Spare part



2027690
Mains Fuse,
100 – 240 VAC, T 4.0 AL
(SB), package of 10

Spare parts and accessories for:

Catalog page

U 24

20522501	AUTOCON® 200
20522520	AUTOCON® 200, power supply 200 – 240 VAC, 50/60 Hz
400 A	Mains Cord, length 300 cm
27809	Adaptor, for unipolar HF output, diameter 4/5 mm



20522520

Spare part



2027690
Mains Fuse,
100 – 240 VAC, T 4.0 AL
(SB), package of 10

High Frequency Surgery Units

AUTOCON® 200

Spare parts and accessories for:

Catalog page

20522501 C AUTOCON® 200

U 24

20522520 C **AUTOCON® 200**,
power supply 100 – 120 VAC, 50/60 Hz
400 A **Mains Cord**, length 300 cm
27809 **Adaptor**, for unipolar HF output,
diameter 4/5 mm



20522520 C

Spare part



2028090
Mains Fuse,
100 – 120 VAC, T 8.0 AL
(SB), package of 10

Spare parts and accessories for:

Catalog page

20522501-010 AUTOCON® 200

U 24

20522520-010 **AUTOCON® 200**, with ENDOCUT function,
power supply 200 – 240 VAC, 50/60 Hz
400 A **Mains Cord**, length 300 cm
27809 **Adaptor**, for unipolar HF output,
diameter 4/5 mm



20522520-010

Spare part



2027690
Mains Fuse,
100 – 240 VAC, T 4.0 AL
(SB), package of 10

Spare parts and accessories for:

Catalog page

20522501C010 AUTOCON® 200

U 24

20522520C010 **AUTOCON® 200**, with ENDOCUT function,
power supply 100 – 120 VAC, 50/60 Hz
400 A **Mains Cord**, length 300 cm
27809 **Adaptor**, for unipolar HF output,
diameter 4/5 mm



20522520C010

Spare part



2028090
Mains Fuse,
100 – 120 VAC, T 8.0 AL
(SB), package of 10

High Frequency Surgery Units

AUTOCON® 50

Spare parts and accessories for:

Catalog page

- 20520501** **AUTOCON® 50**
- 20520520 **AUTOCON® 50**,
power supply 100/120/230/240 VAC, 50/60 Hz
- 400 A **Mains Cord**, length 300 cm
- 27809 **Adaptor**, for unipolar HF output,
diameter 4/5 mm



20520520

Spare part



- 2027590
Mains Fuse,
100 – 240 VAC, T 2.0 AL
(SB), package of 10

Surgery Electrodes Set

Spare parts and accessories for:

Catalog page

20530008 Surgery Electrodes Set

U 27

- 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 **MAGENAU 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**

