



A New Generation of Pressure-Controlled PCNL Systems



NAGELE Modular Minimally Invasive PCNL System



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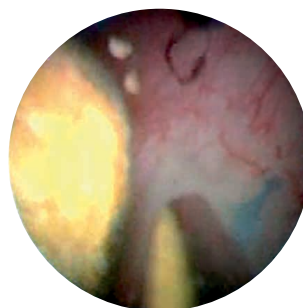
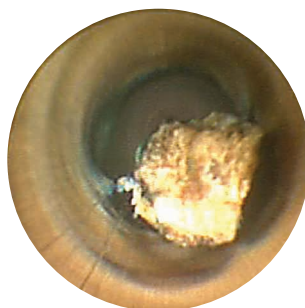
In an era where computed tomography is used to confirm stone-free status, the trend towards endourological stone treatment has become more firmly established. However, the initial euphoria surrounding the introduction of the third generation of flexible uretero-renoscopes has subsided due to limitations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

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

The key features of our system – single step dilation; automatic pressure control; stone extraction in the irrigation flow (= vacuum cleaner effect) and the possibility to close the access tract using a gelatin-thrombin matrix in conjunction with ultrasound-guided puncture of the kidney – allow atraumatic and effective stone treatment with fewer complications.

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

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



Modular Minimally Invasive PCNL System



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

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

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

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

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Prof. Dr. med. U. NAGELE,
Landeskrankenhaus,
Hall in Tirol, Austria

The New Family of MIP Systems and Innovative Features



Versatility



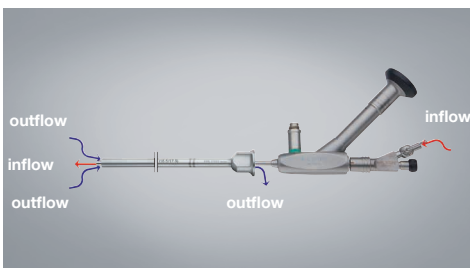
The right instrument is available for every stone indication. The systems stand out due to their quality and durability.

One-step bougie



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

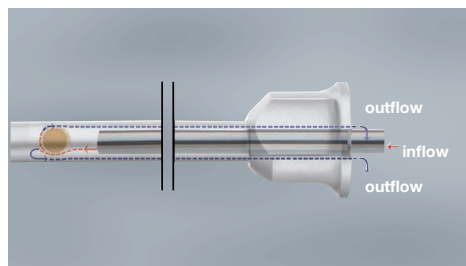
Innovative pressure management



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

Efficient stone retrieval with the “vacuum cleaner effect”

The hydrodynamic effect (“vacuum cleaner effect”) achieved by the innovative inflow and outflow constellation makes it possible to retrieve stones without grasping forceps or stone baskets. A continuous irrigation flow also enables the residue-free elimination of small stone fragments and calculus dust.



Direct closure of the access tract

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

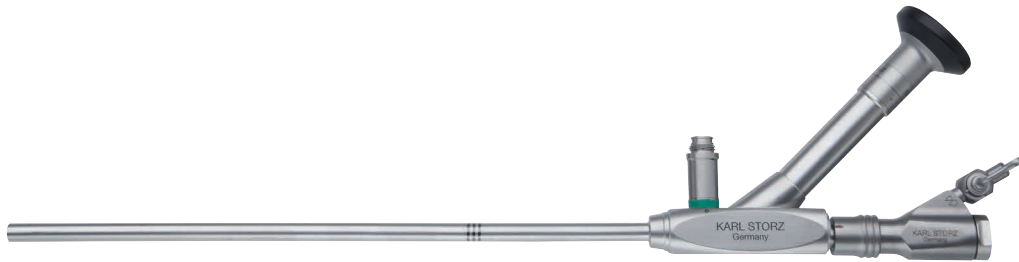


Longer sheaths for the “supine technique”

To meet the needs of the emerging market trend for the “supine technique”, KARL STORZ now offers dedicated “supine sheaths” for all MIP systems for the first time. As the supine sheaths can be used with standard telescopes, this offers the user a flexible, yet cost-effective solution.



MIP L – Percutaneous Nephroscope



27840KAK Nephroscope for MIP L, autoclavable

Specifications:

Instrument sheath:	19.5 Fr.
Working channel:	12.4 Fr. for use with instruments up to 11.5 Fr.
Telescope:	HOPKINS® rod lens telescope
Length:	22 cm
Eyepiece:	angled

The following accessories are included in delivery:



27840GP **Instrument Port with Sealing System and Quick Release Lock, 1 channel**



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



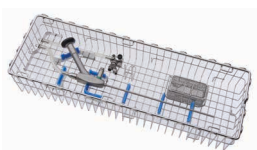
27502 **LUER-Lock Tube Connector, with stopcock, dismantling**



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

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

30160XB **Seal, package of 10**



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

Dilators, Sheaths and Applicators

for MIP L



27840AA **One Step Dilator**, 23/24 Fr., with central channel and a second eccentric channel for guide wires, for use with 23/24 Fr. Operating Sheaths 27840BA/27840BAS

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



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

27840BB **Same**, 25/26 Fr.

27840BAS **Operating Sheath**, for the supine position, 23/24 Fr., working length 18 cm, for continuous irrigation and suction

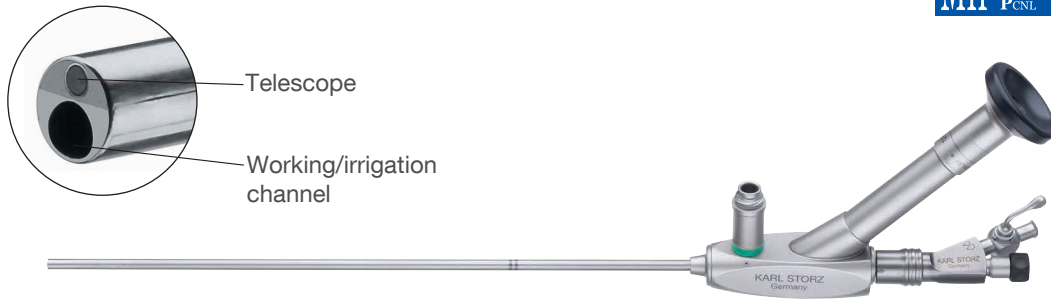
27840BBS **Same**, 25/26 Fr.



27840CF **Applicator for Sealant**, including sheath and rod, for use with Operating Sheaths 27840BA/27840BB

27840CFS **Applicator for Sealant**, for the supine position, including sheath and rod, for use with Operating Sheaths 27840BAS/27840BBS

MIP M – Percutaneous Nephroscope



27830KAK Nephroscope for MIP M, autoclavable

Specifications:

Instrument sheath:	12 Fr.
Working channel:	6.7 Fr. for use with instruments up to 5 Fr.
Telescope:	Fiber optic system
Direction of view	12°
Length:	22 cm
Eyepiece:	angled

The following accessories are included in delivery:



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



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



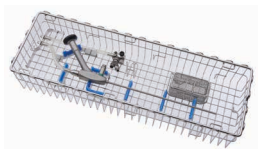
27500 **LUER-Lock Tube Connector, male, tube diameter 9 mm**



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



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



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

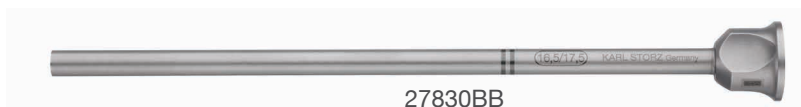
Dilators, Sheaths and Applicators

for MIP M



27830AB

- 27830AA **One Step Dilator**, with central channel for guide wires, for use with 15/16 Fr. Operating Sheaths 27830BA/27830BAS
- 27830AB **One Step Dilator**, with central channel and a second eccentric channel for guide wires, for use with 16.5/19.5 Fr. Operating Sheaths 27830BB/27830BBS
- 27830AC **One Step Dilator**, with central channel for guide wires and distal curved channel for deflection of guide wires, for use with 21/22 Fr. Operating Sheaths 27830BC/27830BCS



27830BB

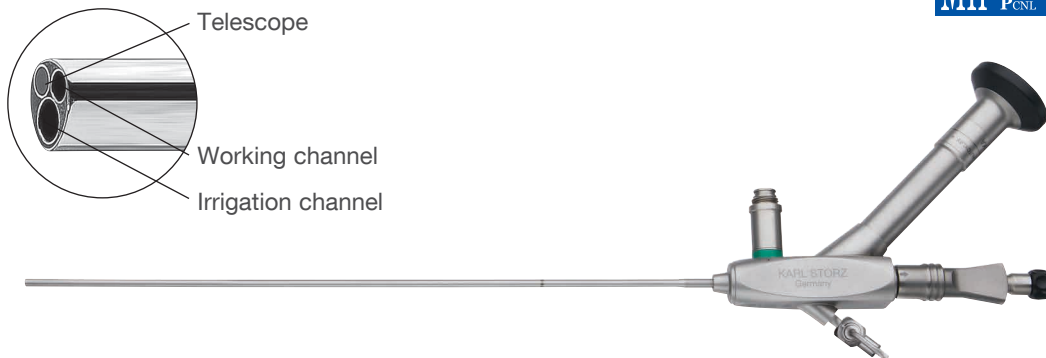
- 27830BA **Operating Sheath**, 15/16 Fr., working length 15 cm, for continuous irrigation and suction
- 27830BB **Same**, 16.5/17.5 Fr.
- 27830BC **Same**, 21/22 Fr.
- 27830BAS **Operating Sheath**, for the supine position, 15/16 Fr., working length 18 cm, for continuous irrigation and suction
- 27830BBS **Same**, 16.5/17.5 Fr.
- 27830BCS **Same**, 21/22 Fr.
- 27830BK **Operating Sheath for Children**, 16.5/17.5 Fr., working length 7.5 cm, for continuous irrigation and suction



27830CF

- 27830CF **Applicator for Sealant**, including sheath and rod, for use with Operating Sheaths 27830BA/27830BB/27830BC
- 27830CFS **Applicator for Sealant**, for the supine position, including sheath and rod, for use with Operating Sheaths 27830BAS/27830BBS/27830BCS
- 27001GG **Instrument Port with Sealing System and Quick Release Lock**, large, 1 channel, for use with accessories up to 6 Fr. (diameter 2 mm) in combination with Nephroscope for MIP M 27830KA

MIP XS/S – Percutaneous Nephroscope



27820KAK Nephroscope for MIP XS/S, autoclavable

Specifications:

Instrument sheath:	7.5 Fr.
Working channel:	2 Fr.
Sep. irrigation channel:	3 Fr.
Telescope:	Fiber optic system
Length:	24 cm
Eyepiece:	angled

The following accessories are included in delivery:



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



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



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



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



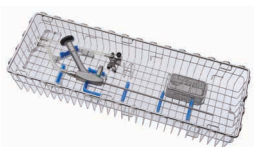
27001E **Insertion Aid, for guide probes**



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



39501XRV **Multiport Bridge**



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

Dilators, Sheaths and Applicators

for MIP XS/S



Dilator and operating sheaths for MIP XS



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



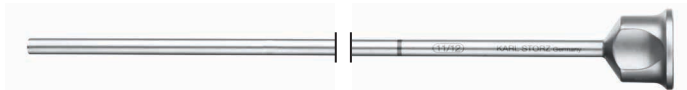
27820BA **Operating Sheath**, 8.5/9.5 Fr., working length 15 cm

27820BAS **Operating Sheath**, for the supine position, 8.5/9.5 Fr., working length 18 cm

Dilator and operating sheaths for MIP S



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



27820BB **Operating Sheath**, 11/12 Fr., working length 15 cm, for continuous irrigation and suction

27820BBS **Operating Sheath**, for the supine position, 11/12 Fr., working length 18 cm, for continuous irrigation and suction

27820BK **Operating Sheath for Children**, 11/12 Fr., working length 7.5 cm, for continuous irrigation and suction

Applicator for MIP XS/S



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

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

Optional Accessories

for MIP L



27290F

Forceps, for grasping stone fragments and coagula, with fenestrated jaws and U-spring handle, 11.5 Fr., length 38 cm, color code: red-black



27290H

Forceps, for grasping larger stones and stone fragments, with triple serrated jaws and U-spring handle, 10.5 Fr., length 38 cm, color code: red-black



27290K

Forceps, for grasping larger stones and stone fragments, with fenestrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black



27290M

Forceps, for grasping larger stones and stone fragments, with serrated jaws and ring handle, double action jaws, 10.5 Fr., length 38 cm, color code: red-black



27294S

Knife, straight, with 3-ring handle, 10.5 Fr., length 38 cm, color code: red-black

27294SK

Knife, only



27294SH

Knife, sickle-shaped, with 3-ring handle, 10.5 Fr., length 38 cm, color code: red-black

27294SB

Knife, only



27840DS

Seal, for Instrument Port 27840GP, bore 0.7 mm, package of 10, for use with thin lithotripsy probes

Optional Accessories

for MIP M



27840LIK **LASER Hand Instrument**, distal tip bent upwards, fixation for LASER fibers and sealing system, working length 35 cm, for use with Nephroscope for MIP L 27840KA and Instrument Port MIP L 27840GP as well as LASER fibers up to diameter 1 mm including:
Cleaning Adaptor
Seal, package of 10



27830FK **Forceps for Foreign Body Removal**, double action jaws, flexible, 5 Fr., length 40 cm



27830FL **Biopsy Forceps**, double action jaws, flexible, 5 Fr., length 40 cm

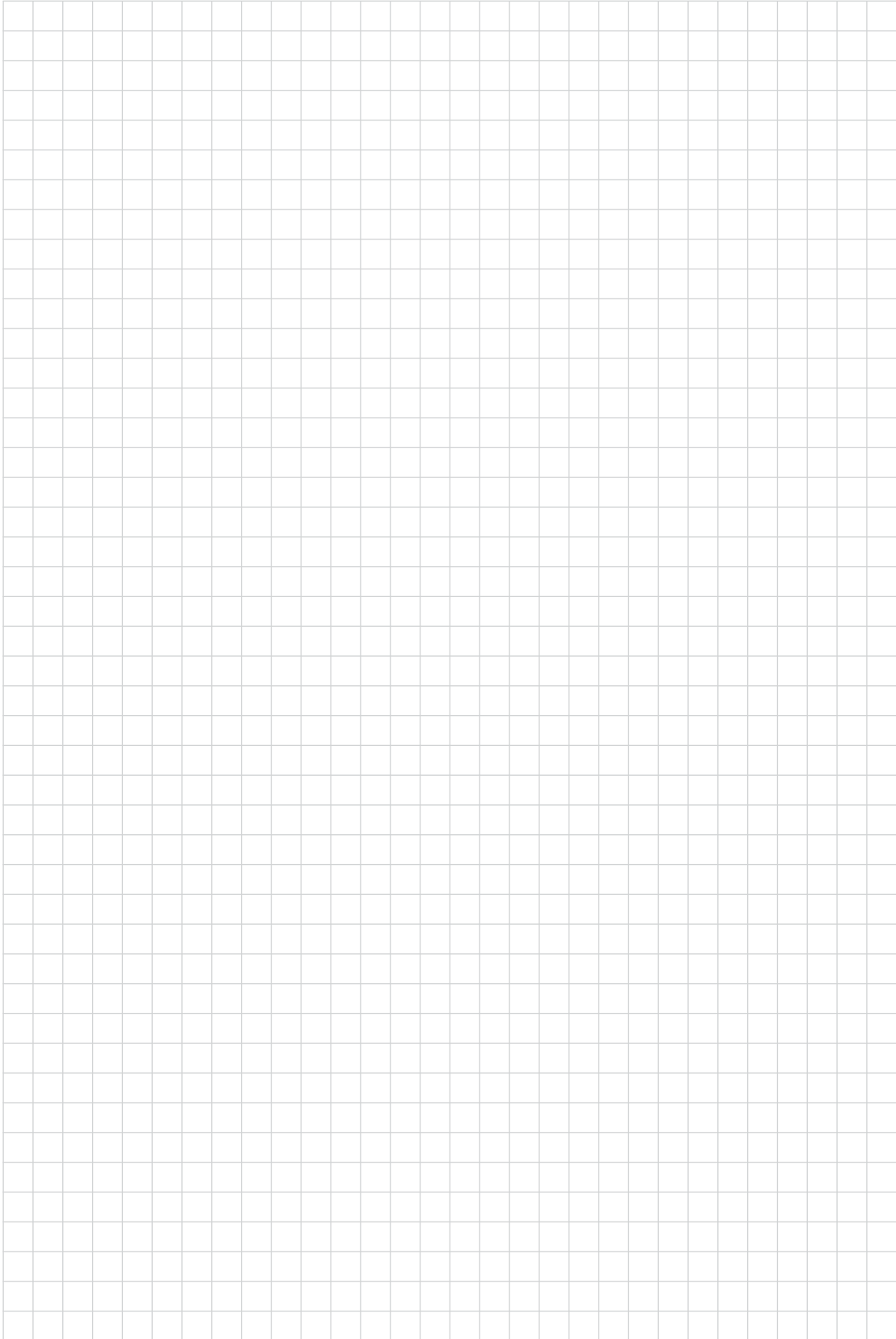


27830S **Scissors**, single action jaws, semiflexible, 5 Fr., working length 40 cm



27830H **Forceps**, rigid, for grasping large stones and stone fragments, with triple serrated jaw parts and U-spring handle, 5 Fr., length 36 cm

Notes



Notes

A large grid of 26 columns and 48 rows, suitable for taking notes. The grid lines are thin and light gray.

It is recommended to check the suitability of the product for the intended procedure prior to use.
Please note that the described products in this medium may not be available yet in all countries due to different regulatory requirements.

More than
75
Years

*Shaping the Future
of Endoscopy with you*

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THE DIAMOND STANDARD

KARL STORZ SE & Co. KG
Dr.-Karl-Storz-Straße 34, 78532 Tuttlingen/Germany
Postbox 230, 78503 Tuttlingen/Germany
Phone: +49 7461 708-0
Fax: +49 7461 708-105
E-Mail: info@karlstorz.com

www.karlstorz.com

