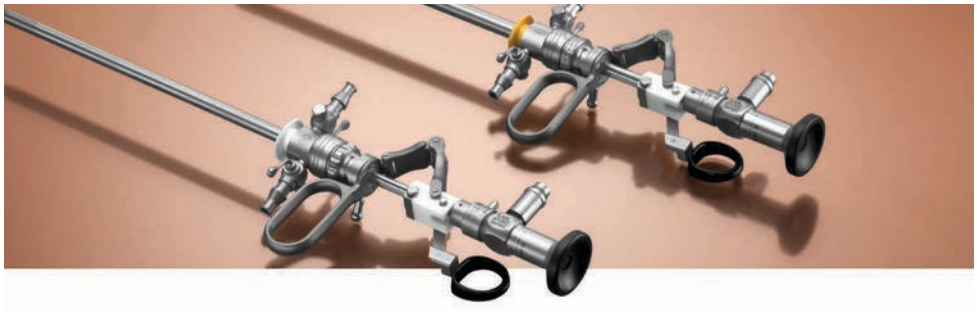
Bipolar Resectoscopes



KARL STORZ—ENDOSKOPE
THE DIAMOND STANDARD

Bipolar Resection: Making Intra-Uterine High Frequency Surgery Safer and More Effective

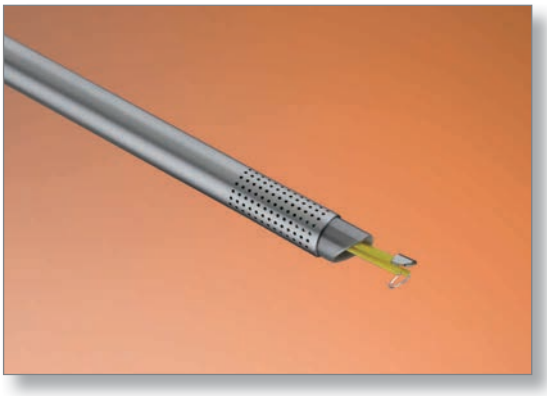
A bipolar resectoscope is equipped with a working electrode and an inactive electrode. The current flows through the tissue and is restricted to the area between the two electrode's loops at the end of the working electrode, under visual control of the surgeon. Saline solution can be used as distention media in bipolar surgery. Bipolar electrodes need an electrolytic solution to conduct the electrical flow, and when the activated bipolar electrode is not in contact with the tissue the electrolyte solution dissipates it. When the loop is sufficiently close to tissue, the high bipolar voltage spike arc between the electrodes converts the conductive sodium chloride solution into a non equilibrium vapor layer or "plasma effect" containing energy-charged sodium particles. Once formed, this plasma effect can be maintained at lower voltages. With tissue contact, there is disintegration of tissue via molecular dissociation.

In our experience and also in the analysis of published data, it appears very clear that the bipolar resectoscope adds considerable advantages in comparison to a unipolar one.

In bipolar surgery the current flow through the tissue is restricted to the area between the electrode's loop under visual control of the surgeon, while in unipolar technique the current goes through several tissues outside the surgeon's control before it can come back to the generator via the neutral electrode placed on the patient's skin. So the risk of thermal injuries of distant organs or tissue by direct contact with instruments, imperfection of insulation or diffusion of the current, is reduced in the bipolar technique. It has a minor risk of interference on other electronic equipment (ECG, pacemaker and others) simultaneously connected to the patient. Furthermore, there is reduced stimulation of peripheral nerves including the obturator nerve, because no current flow takes place through the body of the patient. Another concern in gynecological conventional unipolar resection is about fluid absorption leading to hyponatriemia, hypervolemia and glycine toxicity. Fluid overload syndrome is very dangerous for the patient leading to neurotoxic coma and even death in the worst cases. Most of the morbidities of the overflow syndrome are related to the use of hypotonic non-electrolyte irrigation fluid. The use of saline solution as distention media is the major advantage of the bipolar procedure. Saline solution is easily metabolized, is not toxic, can be used in a higher quantity and it is also less expensive than conventional hypotonic solution. According to our experience, the bipolar system is technically superior, more cost-effective and safer in comparison to the unipolar one.

Prof. Dr. Luca Mencaglia,
Scientific Director
Centro Oncologico Fiorentino
Florence, Italy

Reusable Bipolar Standard Resectoscope

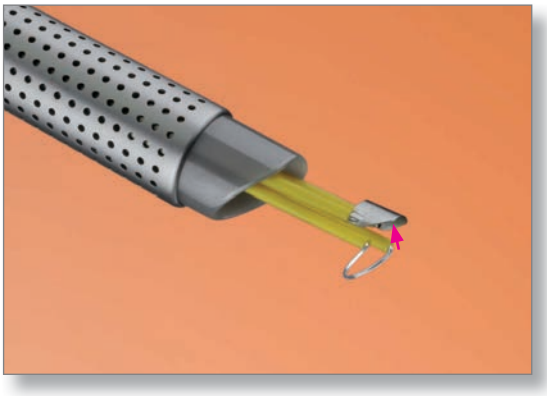


Resection in saline solution

By working with normal saline solution, the danger of TUR syndrome is significantly reduced.

Easy to use – great benefits

The bipolar working element can be used with all KARL STORZ standard resectoscope sheaths and telescopes.



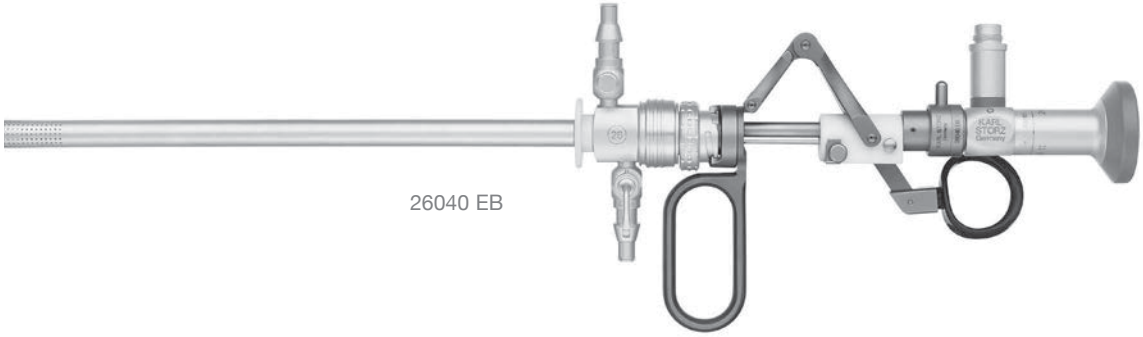
High level of safety

The direct current return via the electrode prevents a current flow via the sheath.

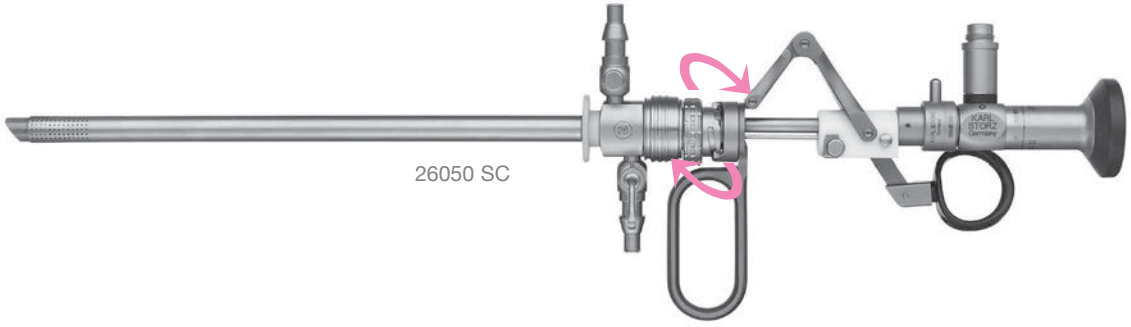
Outstanding resection performance

The use of KARL STORZ AUTOCON® II 400 ensures a very deep coagulation effect during cutting.

Reusable Instruments for Intra-Uterine Surgery (26 Fr.)



26040 EB



26050 SC

26105 FA	**HOPKINS® Telescope 12°,** diameter 4 mm, **autoclavable,** fiber optic light transmission incorporated. Color code: black
26040 EBH	**Working Element Set,** bipolar, including: **Working Element,** bipolar 2x **Cutting Loop,** bipolar **Coagulation Electrode,** bipolar, pointed **Coagulation Electrode,** HALF MOON™, bipolar, ball end **Bipolar High Frequency Cord** **Protection Tube** Cutting by means of a spring. In rest position, the electrode tip is inside the sheath.
26040 DBH	**Working Element Set,** bipolar including: **Working Element,** bipolar 2x **Cutting Loop,** bipolar **Coagulation Electrode,** bipolar, pointed **Coagulation Electrode,** HALF MOON™, bipolar, ball end **Bipolar High Frequency Cord** **Protection Tube** Cutting by means of a finger grip. In rest position the electrode is outside the sheath.

26040 SL	**Resectoscope Sheath,** including connecting tube for in- and outflow, for continuous irrigation and suction, 26 Fr., oblique beak, fixed inner sheath 26040 XA with ceramic insulation, for use with Working Elements 26050 E, 26050 D, 26050 V, 26040 EB and 26040 DB, color code: yellow
26050 SL	**Resectoscope Sheath,** including connecting tube for in- and outflow, for continuous irrigation and suction, 26 Fr., oblique beak, rotatable inner sheath 26050 XA with ceramic insulation, for use with Working Elements 26050 E, 26050 D, 26050 V, 26040 EB and 26040 DB, color code: yellow
26050 SC	**Resectoscope Sheath,** including connecting tube for in- and outflow, 26 Fr., oblique beak, inner sheath with ceramic insulation, for use with Working Elements 26050 E, 26050 D, 26050 VN, 26040 EB and 26040 DB, color code: yellow
26040 OC	**Standard Obturator,** for use with Resectoscope Sheaths 26040 SL, 26050 SL and 26050 SC, color code: yellow

26040 GP	**Cutting Loop,** bipolar, 24 Fr., for use with HOPKINS® Telescope 26105 FA, color code: yellow

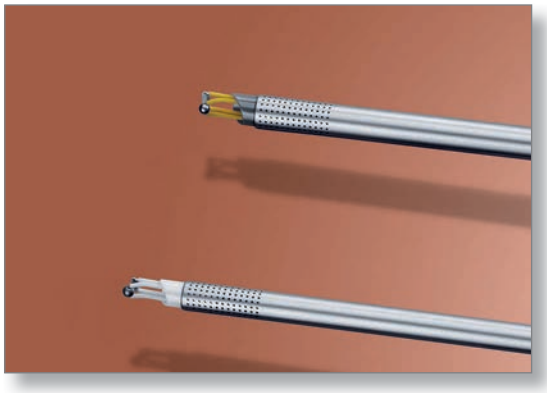
26040 NB	**Coagulation Electrode,** HALF MOON™, bipolar, ball end, 24 Fr., for use with HOPKINS® Telescope 26105 FA, color code: yellow

26040 BL	**Cutting Electrode,** bipolar, pointed, 24 Fr., for use with HOPKINS® Telescope 26105 FA, color code: yellow

26040 JB	**Cutting Loop,** bipolar, straight, 24 Fr., for use with HOPKINS® 26105 FA/BA, color code: yellow

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

Reusable Bipolar Slender Resectoscope



Thinner and More Atraumatic

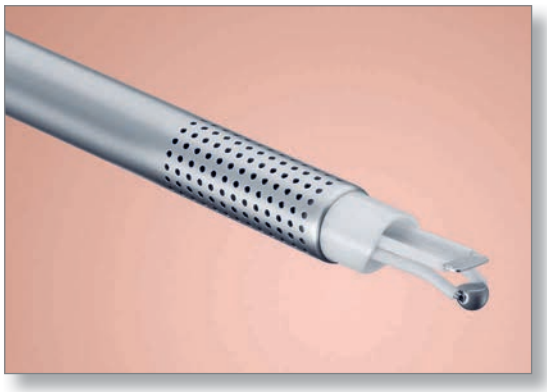
The bipolar slender resectoscope has an outer diameter of only 22 Fr. compared to the bipolar standard resectoscope with 26 Fr. This is especially advantageous in infertile patients, since the thinner diameter makes it possible to enter the cervical canal more easily and more atraumatically.

Compatibility

The bipolar slender working element can be used with all KARL STORZ slender resectoscope sheaths and telescopes.

Habitual Handling

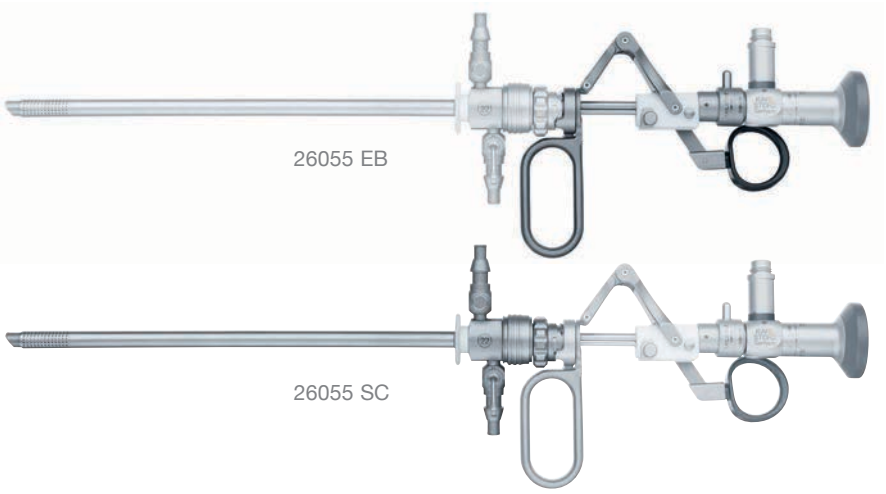
The applications for the HF surgery unit AUTOCON® II 400 from KARL STORZ comply with those of the bipolar standard resectoscope system.



Versatile Applications

As for the KARL STORZ bipolar standard resectoscope, there are also various electrodes available for the bipolar slender resectoscope which allows the surgeon to use it in a wide range of indications.

Reusable Instruments for Intra-Uterine Surgery (22 Fr.)



26020 FA	**HOPKINS® Telescope 12°,** diameter 2.9 mm, length 30 cm, **autoclavable,** fiber optic light transmission incorporated, color code: black
26055 EBH	**Working Element Set,** bipolar including: **Working Element,** bipolar 2x **Cutting Loop,** bipolar **Cutting Electrode,** bipolar, pointed **Coagulation Electrode,** bipolar, ball end **High Frequency Cable,** bipolar **Protection Tube** **Connector with Tube** Cutting by means of a spring. Movable thumb support. In resting position, the electrode tip is inside the sheath.
26055 SL	**Resectoscope Sheath,** including connecting tube for in- and outflow, for continuous irrigation and suction, 22 Fr., oblique beak, **fixed inner sheath** 26055 XB with ceramic insulation, for use with Working Elements 26055 E and 26055 EB, color code: white
26055 SC	**Resectoscope Sheath,** including connecting tube for in- and outflow, 22 Fr., oblique beak, inner sheath 26055 CB with ceramic insulation, for use with Working Elements 26055 E and 26055 EB, color code: white
26055 LD	**Resectoscope Sheath,** including connecting tube for in- and outflow, for continuous irrigation and suction, 22 Fr., oblique beak, **rotatable inner sheath** 26055 XE with ceramic insulation, for use with Working Elements 26055 E and 26055 EB, color code: white
26055 BO	**Resectoscope Sheath,** including connecting tube for inflow, 19 Fr., oblique beak, with LUER-Lock stopcock and Obturator 26055 CO, for use with Working Elements 26055 E and 26055 EB
26055 CO	**Standard Obturator,** for use with Resectoscope Sheaths 26055 SL/SC/LD color code: white

Reusable Electrodes

for use with Bipolar Slender Resectoscope (22 Fr.)

26055 GP

Cutting Loop, bipolar, 21 Fr.,
for use with HOPKINS® Telescope
26020 FA/27020 FA,
color code: white

26055 NB

Coagulation Electrode, bipolar,
ball end, 21 Fr., for use with HOPKINS®
Telescope 26020 FA/27020 FA,
color code: white

26055 BL

Coagulation Electrode, bipolar, pointed, 21 Fr.,
for use with HOPKINS® Telescope
26020 FA/27020 FA,
color code: white

280

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

AUTOCON® II 400 HF Surgery Unit

for Interdisciplinary High Frequency Surgery

- **Interdisciplinary use**
- **HF unit with a 6.5" touch screen for simple, safe, ergonomic operation and cleaning**
- **Preprogrammed settings available for certain procedures; settings for other procedures can be additionally programmed easily and quickly**
- **Multifunctional socket allows the use of bipolar resection in saline solution**

We recommend the use of our bipolar resectoscope together with the AUTOCON® II 400 from KARL STORZ. The unit has a preprogrammed setting for the bipolar resection called “Saline-Bi-HYST, Gynecology”, which can be easily chosen using the touch screen. A three-pedal footswitch is used to activate the bipolar HF-generator. A multifunctional HF cable with integrated mode recognition is connected with the unit and the bipolar resectoscope. From the operating field, the return current is then transferred back to the unit directly via an integrated bipolar cable, without any use of the plate return electrode on the patient’s leg.

20535201-125 **AUTOCON® II 400 High-End Set, SCB,**
power supply 220-240 VAC, 50/60 Hz, HF connecting sockets:
bipolar combination, multifunction, unipolar 3-pin + Erbe,
neutral electrode combination 6.3 mm jack and 2-pin,
System requirements: SCB R-UI Software Release 20090001-43 or higher
including:
Mains Cord
SCB Connecting Cable, length 100 cm

Necessary Accessories:

20017831 **Three-Pedal Footswitch,** for use with HF generator AUTOCON® II 400

Notes

Notes

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

Consent to receive electronic information

❑ Yes, I agree to receive future information by email at the following address:

Email

Name

Department / Practice

Street address

ZIP, Town

Signature

I agree to my data being stored at KARL STORZ for this purpose. I can withdraw my consent at any time and without giving reasons by emailing KARL STORZ at info@karlstorz.com. KARL STORZ will not make these data available to third parties.

96122014 GYN 21-9 06/2014/EW-E

ENDOWORLD®

WWW.KARLSTORZ.COM

KARL STORZ GmbH & Co. KG
Mittelstraße 8, 78532 Tuttlingen, Germany
Postbox 230, 78503 Tuttlingen, Germany
Phone: +49 (0)7461 708-0
Fax: +49 (0)7461 708-105
E-Mail: info@karlstorz.de
www.karlstorz.com

KARL STORZ Endoscopy-America, Inc.
2151 East Grand Avenue
El Segundo, CA 90245-5017, USA
Phone: +1 424 218-8100
Phone toll free: 800 421-0837 (US only)
Fax: +1 424 218-8525
Fax toll free: 800 321-1304 (US only)
E-Mail: info@ksea.com

96122014 GYN 21-9 06/2014/EW-E

Health
made in Germany

www.health-made-in-germany.com

STORZ
KARL STORZ — ENDOSKOPE
THE DIAMOND STANDARD