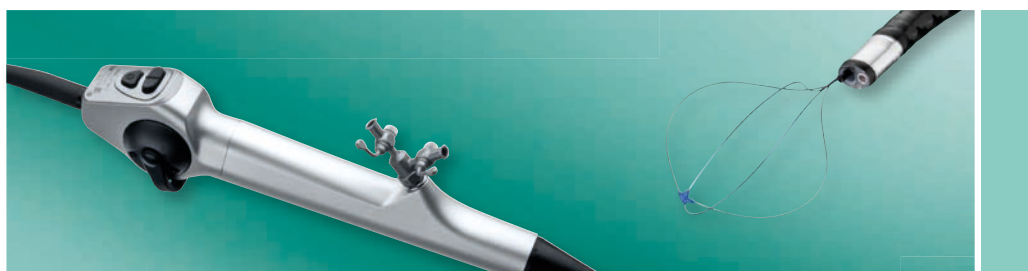


**FLEX-X<sup>C</sup>** – The New Dimension in Imaging  
Flexible Video Uretero-Renoscope  
with enhanced imaging options



# **FLEX-X<sup>C</sup>** – The New Dimension in Imaging

## **When imaging meets the greatest challenges**

KARL STORZ, as a pioneer of endoscopy, offers the FLEX-X<sup>C</sup> flexible video uretero-roscope to provide diagnosis and treatment options for both kidney stones and urothelial carcinoma in the upper urinary tract.

- 2.6x higher resolution
- LED technology ensures homogenous illumination
- Ergonomic handle
- Minimal sheath circumference of 8.5 Fr.
- Maximal deflection of 270° in either direction
- Direct transmission of hand movements through to the distal end thanks to high torque stability
- Laserite ceramic insert prevents thermal damage

“The number of indications for uretero-rensoscopy have significantly increased in recent years. This trend will become more prevalent in the future due to the distinct tendency towards minimally invasive treatments.

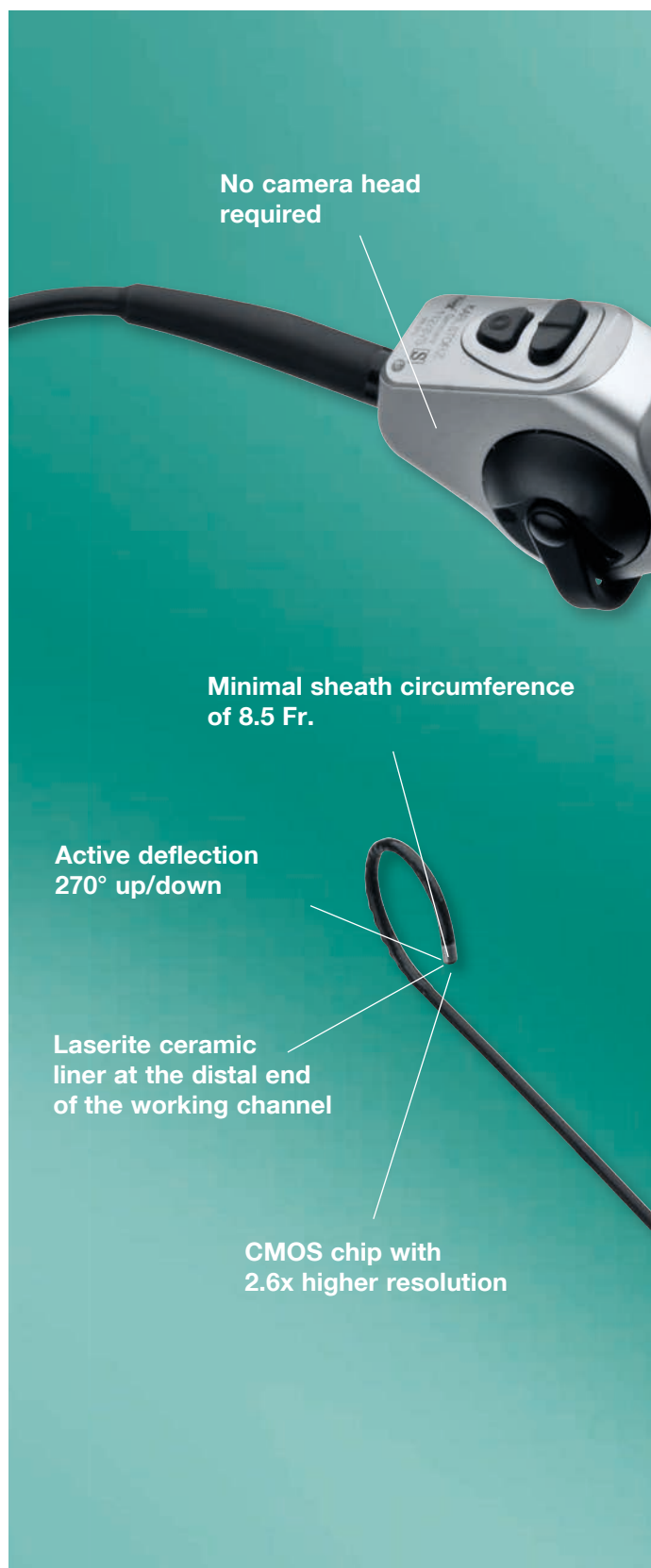
The key points for a successful treatment are:

- Miniaturization of flexible video uretero-rensoscopes (chip-on-the-tip technology)
- High maneuverability
- High image quality
- Efficient Holmium Laser (20 W) combined with a 230 µm laser fiber

Retrograde IntraRenal Surgery (RIRS) represents an achievement for endo-urologists and continues to evolve year after year into better management of patients with upper urinary tract diseases.”

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

Prof. O. TRAXER,  
Hôpital Tenon,  
Paris, France



LED technology,  
no light cable necessary

Ergonomic handle

Torsion-proof sheath

Shock absorber  
system

Torque stability  
1:1 rotation

## Video Uretero-Renoscope KARL STORZ FLEX-X<sup>C</sup>



- High torque stability
- 1:1 implementation of hand movements through to the distal end
- Smooth control
- Infinitely variable 270° deflection (up/down) for visualization of the entire renal collecting system
- Access to various areas of the kidney thanks to an integrated shock absorber system and passive deflection components



- Integrated LED light source allows work without an additional light cable
- Lightweight
- Good angulation properties when using instruments or laser fibers
- Automatic focus



- Sheath circumference of 8.5 Fr.
- Working channel of 3.6 Fr.
- Laserite ceramic insert prevents thermal damage

**Video Uretero-Renoscope FLEX-X<sup>C</sup> in combination  
with the IMAGE1 S™ camera system**



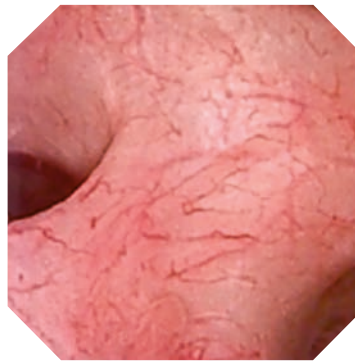
## Innovative Visualization Tools for Surgery and Diagnosis via Homogeneous Illumination and Contrast Enhancement

### CLARA

The CLARA mode uses a dynamic brightness adaptation adaptation in the endoscopic image. The further the brightness values of dark areas are from the average brightness level, the more they are brightened.

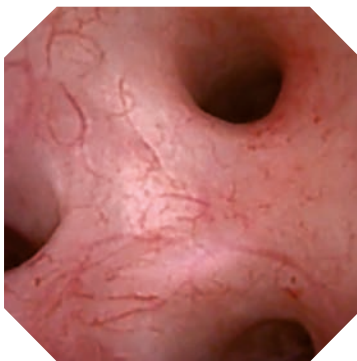


White light image



CLARA

The CHROMA mode offers the possibility of local contrast enhancement in a specific area thanks to extensive analysis of individual image areas. The CHROMA mode, therefore, differs from conventional contrast enhancement modes in that the entire affected area is enhanced and not just the borders.



White light image



CHROMA

# IMAGE1 S

## Innovative Visualization Tools for Surgery and Diagnosis by Shifting the Color Spectrum

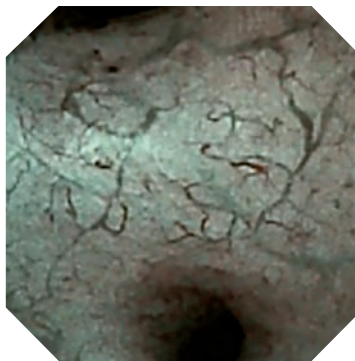
### SPECTRA\*

SPECTRA A\*\* filters out the deep red parts of the visible spectrum and expands the remaining color components. SPECTRA B\*\*\* shifts the color channels in order to reduce diffuse and dominant red light. This offers the user an alternative display for endoscopic images, especially the red areas.

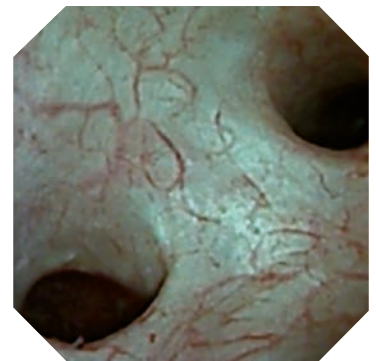
SPECTRA\* offers two different modes so that the user can select the display that suits best.



White light image



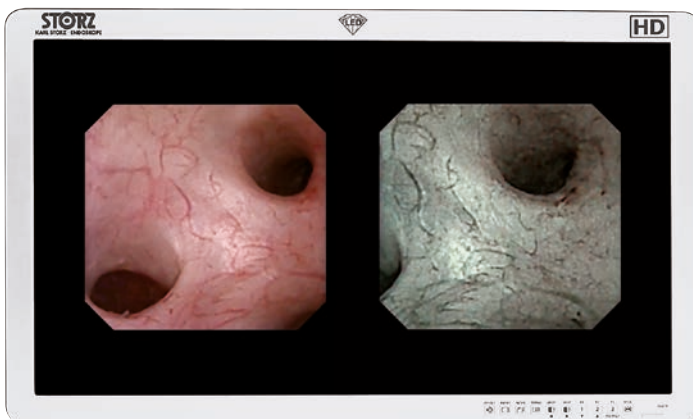
SPECTRA A\*\*



SPECTRA B\*\*\*

### Side-by-side view

### Simultaneous display of white light and IMAGE1 S™ images



The simultaneous display of a white light image and an image in the visualization mode enables a direct comparison of tissue structures on the monitor during surgery.

\* SPECTRA: Not for Sale in the U.S.

\*\* SPECTRA A: Not for Sale in the U.S.

\*\*\* SPECTRA B: Not for Sale in the U.S.

Endoscopic images courtesy of: Professor Knoll, Clinic for Urology, Sindelfingen Clinics, Klinikverbund-Südwest, Sindelfingen, Germany

# Flexible Video Uretero-Renoscope

## for access to the entire upper urinary tract

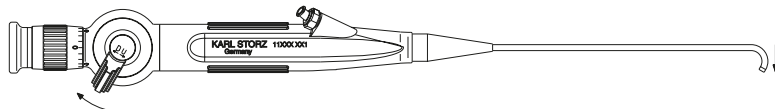
### Intuitive Deflection Mechanism

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

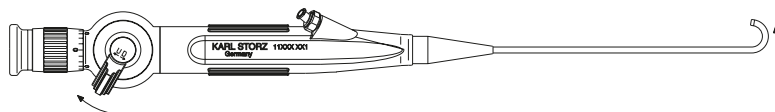
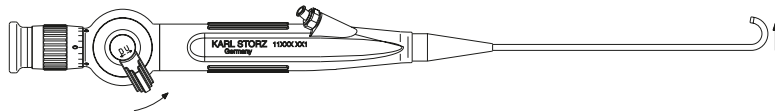
KARL STORZ answers this challenge by offering a choice of deflection mechanisms: either positive or contrapositive. With positive ("European") deflection, a downward movement of the lever mechanism causes an upward movement of the endoscope tip, and vice versa. Reverse this orientation by choosing the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

Either way, a simple flexion of the thumb on the deflection lever sweeps the endoscope tip into some of the most challenging areas of the anatomy, such as the lower pole calyces of the kidney. Additionally, the intuitive design means you will never have to struggle to distinguish up from down – or down from up.

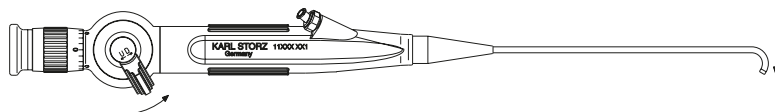
### Choose the active tip deflection mechanism you are most comfortable with



*Positive deflection mechanism*



*Contrapositive deflection mechanism*





## Flexible Video Uretero-Renoscope for access to the entire upper urinary tract

Part No.	Deflection of distal tip	Direction of view	Angle of view	Working length	Working channel inner diameter	Sheath size
11278VSK with positive deflection mechanism		0°	105°	70 cm	3.6 Fr.	8.5 Fr.
11278VSUK with contrapositive deflection mechanism		0°	105°	70 cm	3.6 Fr.	8.5 Fr.

## IMAGE1 S

for use with IMAGE1 S™  
Camera Control Unit



11278VSK/VSUK

IMAGE1 S™ Camera System



TC200EN TC301

for use with all visualization modes







## Flexible Video Uretero-Renoscope for access to the entire upper urinary tract



### Set 11278VSK/VSUK Video Uretero-Renoscope FLEX-X<sup>C</sup>

The following accessories are included:

	11278VS/VSU	<b>Video Uretero-Renoscope FLEX-X<sup>C</sup>, steerable</b>
	27677X	<b>Case</b>
	13242XL	<b>Leakage Tester, with bulb and manometer</b>
	27651AL	<b>Cleaning Brush, round, flexible, outer diameter 2 mm, for working channel diameter 1.2-1.8 mm, length 150 cm</b>
	27014Y	<b>LUER-Adaptor, with seal</b>

## Optional accessories:



11014YK

**Fiber Fixation Set**, for the fixation of laser fibers in the working channels of flexible endoscopes up to diameter 1 mm

including:

**Fiber Fixation**

**Cleaning Adaptor**

**Seal**, package of 10



6927691

**Adaptor for Two-Way Stopcock**,

LUER-Lock with tube connection



11275FE

**Grasping Forceps**, double action jaws, flexible, 3 Fr., length 100 cm



11275ZE

**Biopsy Forceps**, double action jaws, flexible, 3 Fr., length 100 cm



27023LB

**Stone Basket**, nitinol, without tip, straight, 1.9 Fr., length 120 cm, 4 wires, basket diameter 12 mm, sterile, for single use



11770T

**Coagulation Electrode**, unipolar, 3 Fr., length 110 cm

27025P

**Guide Wire**, with ball end, 3 Fr., package of 10



39406AS

**Plastic Container for Flexible Endoscopes**,

especially suited for gas and hydrogen peroxide (Sterrad®) sterilization and storage,

for use with one flexible endoscope,

external dimensions (w x d x h): 550 x 260 x 90 mm



27550N

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



27001RA

**Cleaning Adaptor**

## IMAGE1 S™ Camera System



TC200EN\*

**IMAGE1 S CONNECT®**, connect module,  
for use with up to 3 link modules, resolution 1920 x 1080 pixels,  
with integrated **KARL STORZ-SCB** and digital Image Processing Module,  
power supply 100-120 VAC/200-240 VAC, 50/60 Hz  
including:

**Mains Cord**, length 300 cm

**DVI-D Connecting Cable**, length 300 cm

**SCB Connecting Cable**, length 100 cm

**USB Flash Drive**, 32 GB

**USB Silicone Keyboard**, with touchpad,  
US English character set

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



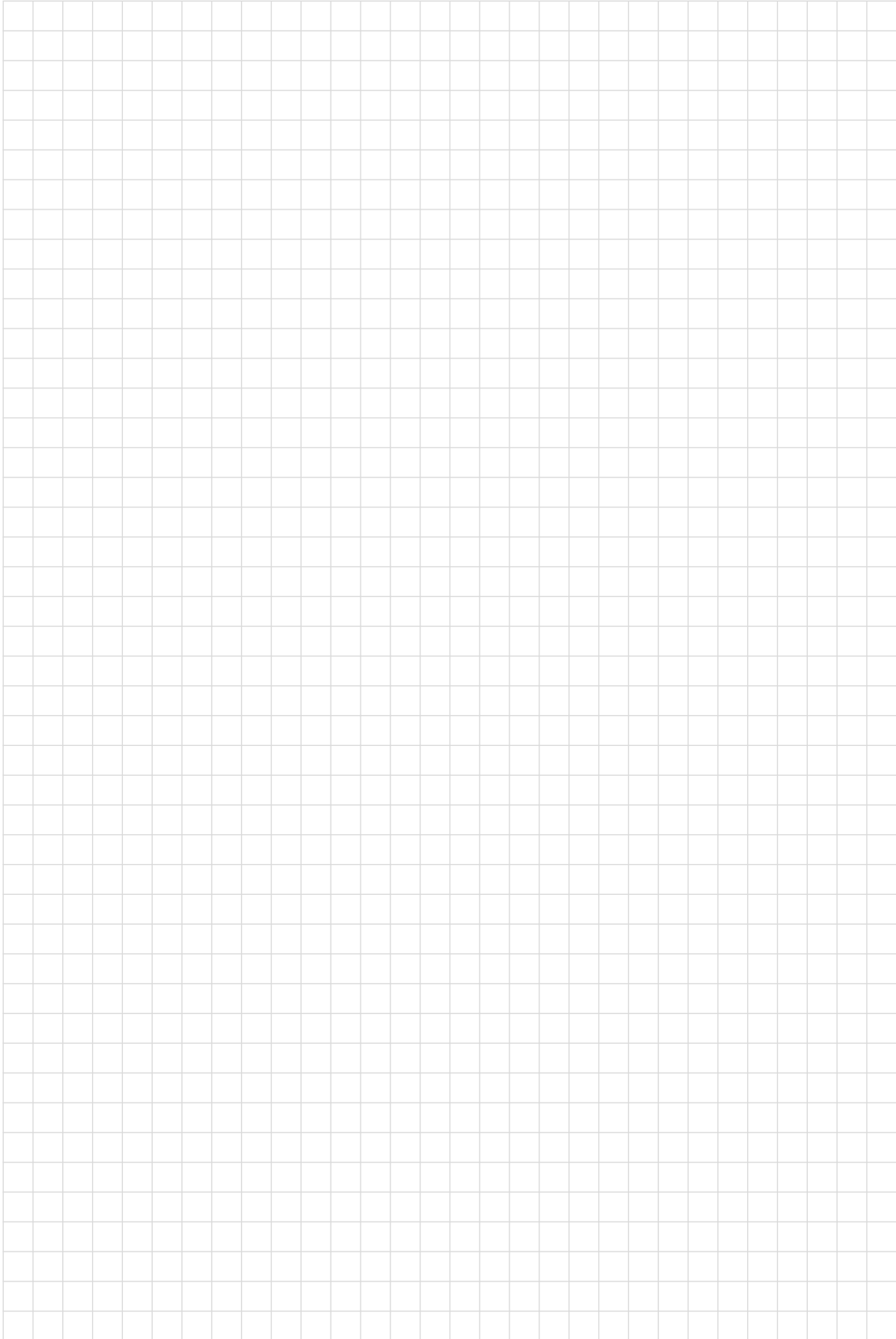
TC301

**IMAGE1 S™ X-LINK**, link module, for use with flexible video endoscopes and one-chip camera heads (up to FULL HD), power supply 100-120 VAC/200-240 VAC, 50/60 Hz, for use with IMAGE1 S CONNECT® TC200EN including:

**Mains Cord**, length 300 cm

**Link Cable**, length 20 cm

# Notes





More than  
**75**  
Years

*Shaping the Future  
of Endoscopy with you*

**STORZ**  
KARL STORZ—ENDOSKOPE

THE DIAMOND STANDARD

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