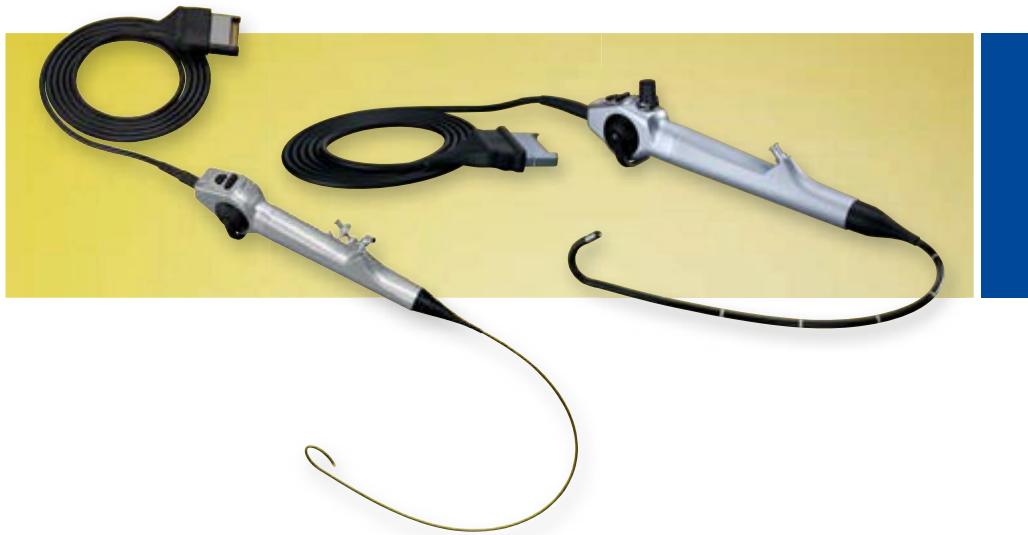


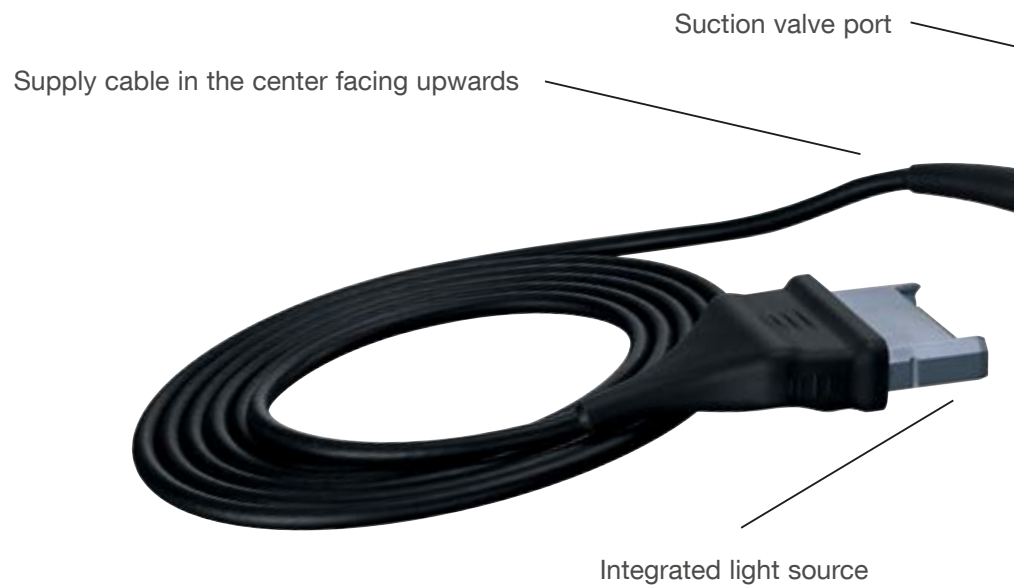
Flexible Video Choledochoscopes



The New HD Video Choledochoscope 11292VHK

New technologies and improved handling* combined in one product

To meet increasing demands on image quality in choledochoscopy, the new video choledochoscope is equipped with a high-resolution image chip (HD). Furthermore, handling has been improved through the integration of an LED light source and the positioning of the connecting cable.* In addition, the choledochoscope features a new atraumatically rounded distal tip.

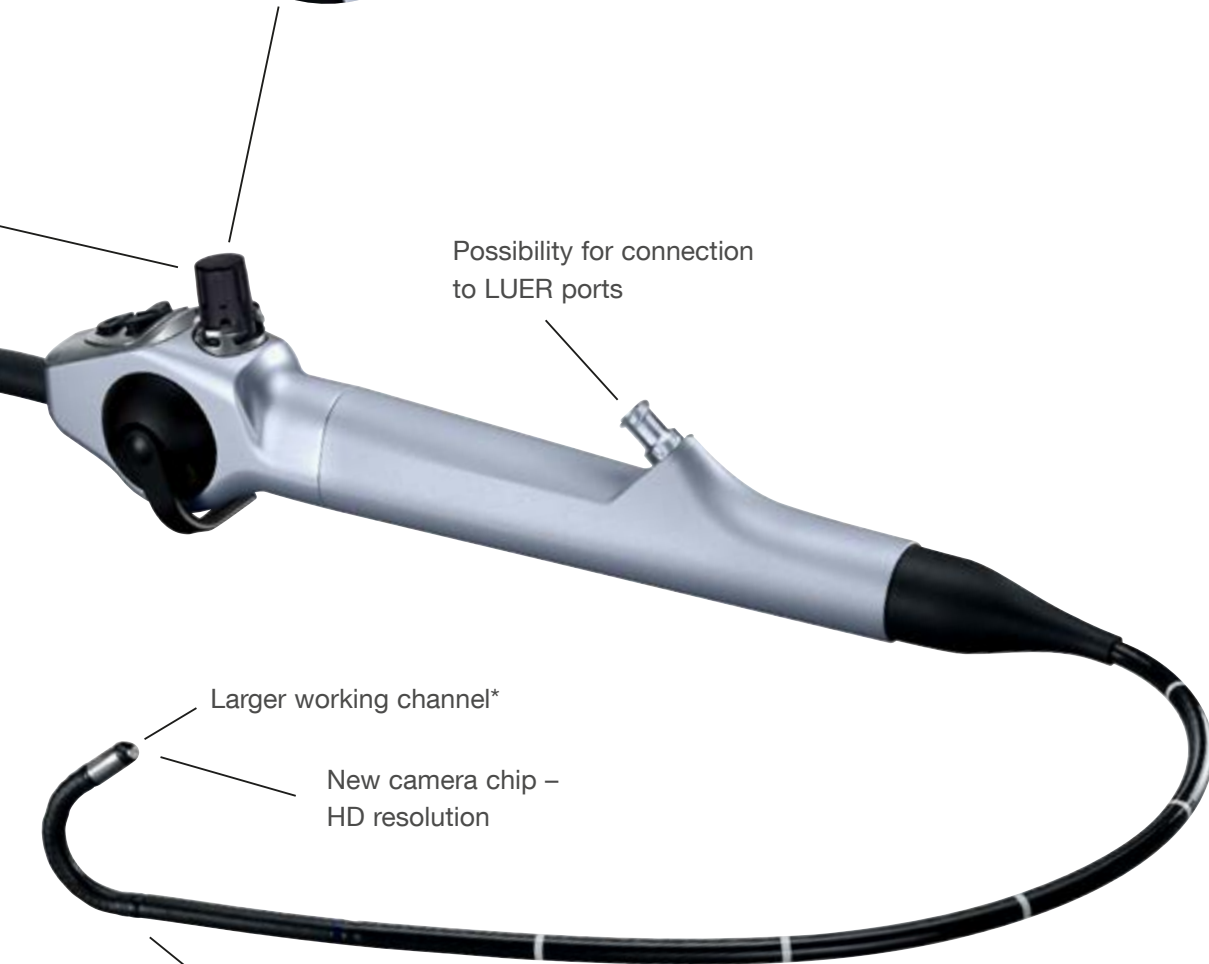


* in comparison to the previous models 11292VPK/VPUK

NEW



Seal for
suction channel



Possibility for connection
to LUER ports

Larger working channel*

New camera chip –
HD resolution



Distal tip –
atraumatic shape

Video Choledochoscope 11292VHK

HD image quality

New camera chip: Replacing the previous CCD chip technology with the future-oriented CMOS technology delivers a HD resolution that guarantees high-resolution imaging. The details and colors of the endoscopic image are clear and lifelike and thus allow – in combination with the KARL STORZ S-Technologies – improved visualization of the anatomical structures under observation.

- **Noticeably higher resolution thanks to camera chip in high definition**

Integrated light source: An LED has been integrated into the handle. Combining the HD chip quality with LED technology delivers much brighter images than those provided by fiberoptic models. Furthermore, an external light source is no longer required. This makes the previous model's bulky plug geometry with extra camera and light cables obsolete.

- **Integrated LED technology with automatic exposure**

Improved handling

Supply cable: The new HD video choledochoscope requires only one supply cable for the camera control unit. The cable is positioned in the center and exits from the top of the handle so that ergonomic handling for both left- and right-handed users is ensured. Moreover, a special light cable as well as manual white balance is no longer necessary. Consequently, the choledochoscope works on a plug-and-play system that is easy to use and balanced in the hand.

- **Central supply cable**

Distal tip: A new atraumatically shaped tip makes insertion into the bile ducts easier.

- **5.3 mm tip with atraumatic shape**

Detachable LUER port: Various attachments are available to the user.

- **Detachable LUER port for better reprocessing**

NEW



Optimized suction and working channel

Suction valve port: The new video choledochoscope can be equipped with a suction valve as an option. As required, either a single-use suction valve or a reusable valve can be used. If suction is not required, there is a possibility to seal off the suction valve port.

- **Optional suction valve**

Larger working channel: The new HD video choledochoscope features a larger working channel* to ensure better irrigation, even when instruments are already inserted.

- **2.3 mm working channel**

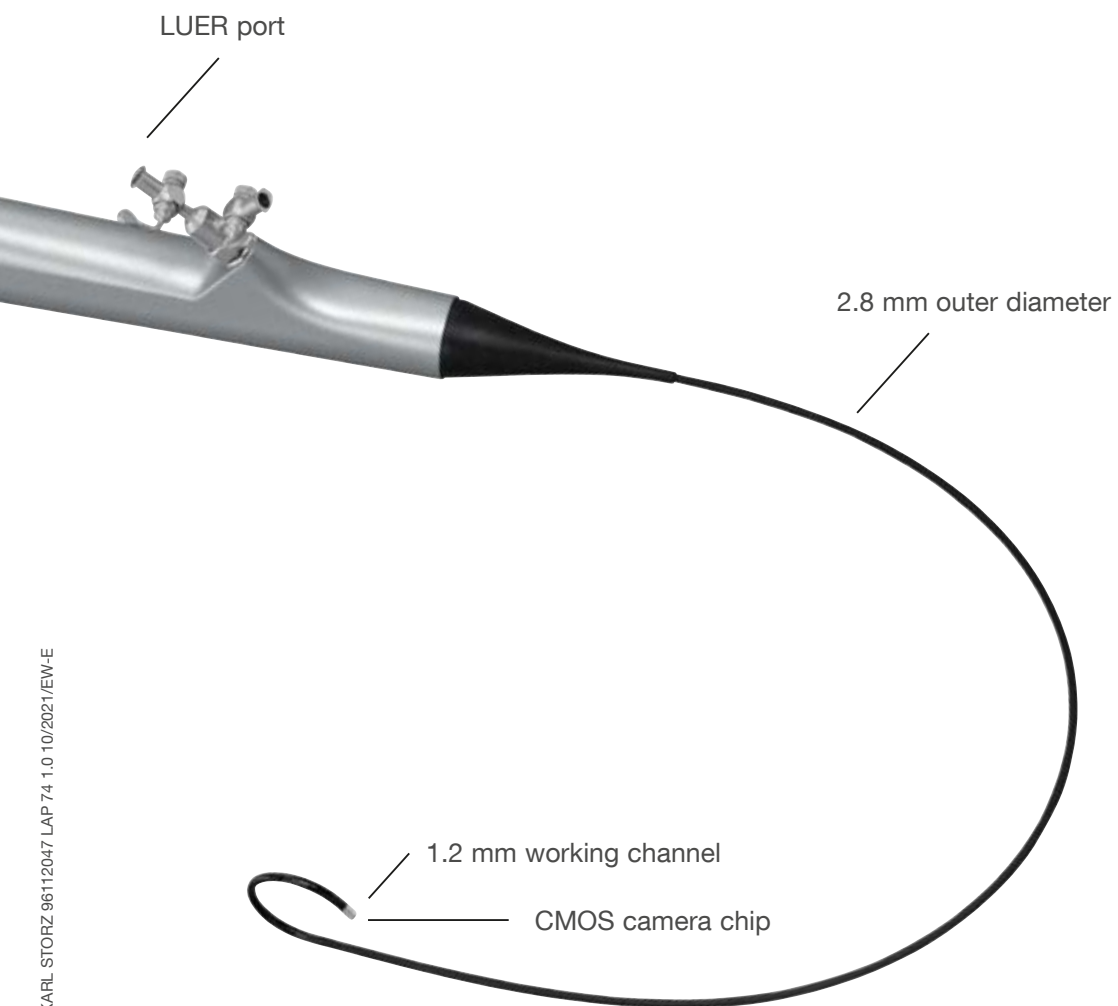
* in comparison to the previous models 11292VPK/VPUK

The CMOS Video Choledochoscope 11292VSK/VSUK

To optimally complement the well-established mechanical properties of the KARL STORZ Video Choledochoscopes 11292VSK/VSUK – deflection, sheath diameter and direct transmission of hand movements – the image quality of the second 11292VSK/VSUK generation has been further enhanced.

With the CMOS camera chip, it was possible to more than double the resolution of previous models.





Video Choledochoscope 11292VSK/VSUK

CMOS camera chip

New camera chip: The 11292VSK/VSUK is equipped with a new CMOS camera chip in order to meet increasing demands on image quality in choledochoscopy. The CMOS camera chip delivers more than double the resolution of previous models.

Integrated light source: Combining the CMOS chip with LED technology delivers much brighter images than those provided by fiber-choledochoscopes.

Convenient handling

Supply cable: The 11292VSK/VSUK requires only one supply cable for the camera control unit. The cable is positioned in the center and exits from the top of the handle so that ergonomic handling for both left- and right-handed users is ensured.

A special light cable as well as manual white balance is no longer necessary. Consequently, the choledochoscope works on a plug-and-play system.

- **Central supply cable, exiting from the center**
- **Handling is the same for both left- and right-handed users**

Distal tip: The minimal distal diameter makes insertion into the bile ducts easier.

- **2.8 mm tip with atraumatic shape**

Intuitive deflection mechanism: The CMOS video choledochoscope is available with both positive and contrapositive deflection mechanisms. With the positive deflection mechanism, a downward movement of the lever mechanism now causes a downward movement of the endoscope tip.

- **Deflection possible with just a move of the thumb**
- **Positive and contrapositive deflection mechanism**

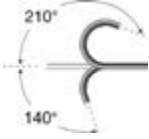
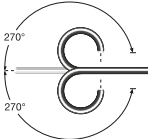
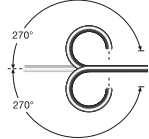


Working channel

The CMOS video choledochoscope is equipped with a working channel for insertion of the desired instrument.

- **Working channel with a diameter of 1.2 mm**

KARL STORZ Video Choledochoscopes in Comparison

Order no.	Deflection of distal tip	Direction of view	Working length	Working channel	Sheath size	Suction
11292VHK with positive deflection mechanism		0°	37 cm	7 Fr./ 2.3 mm	16 Fr./ 5.3 mm	yes
11292VSK with positive deflection mechanism		0°	70 cm	3.6 Fr./ 1.2 mm	8.5 Fr./ 2.8 mm	no
11292VSUK with contra-positive deflection mechanism		0°	70 cm	3.6 Fr./ 1.2 mm	8.5 Fr./ 2.8 mm	no

Further information and a product video (on using Video Choledochoscope 11292VSK) is available here:



To view the product video, please scan the QR code with your mobile telephone.

Compatibility

For use with IMAGE1 S™ Camera Control Unit, TELE PACK+ and TELECAM C3



11292VHK

11292VSK/11292VSUK

IMAGE1 S™ camera system*



TELE PACK+**



TELECAM C3***



For use with compatible monitors



For use with compatible monitors



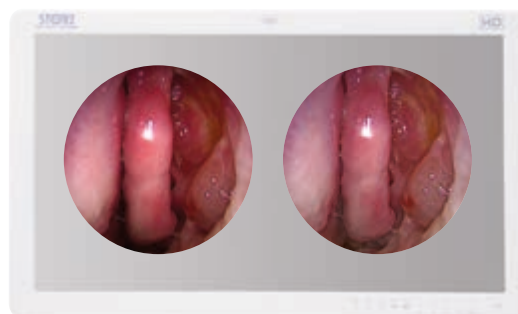
* 11292VS/11292VSU: as of SW 3.1, 11292VH: as of SW 4.1

** 11292VS/V11292SU: as of SW 1.0, 11292VH: as of SW 2.1

*** 11292VS/11292VSU: as of SW 1.0, 11292VH: as of SW 2.0

In addition to the quantity (number) of pixels, the quality of the individual pixels is also significant for the overall quality of the endoscopic image. With this in mind, KARL STORZ attaches great importance to correct color representation and sensors with the best possible light intensity. Furthermore, S-Technologies help to overcome the current limitations of endoscopic imaging.

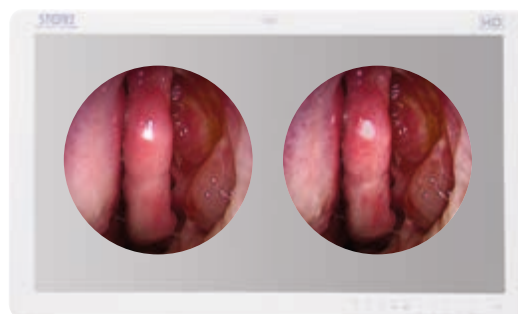
Structures that are located farther away often appear much darker because light intensity is inversely proportional to the square of the distance from the source. The entire image information for this area is missing. Even increasing the light intensity does not help in this case as this is limited, on the one hand, by the size of the telescope and, on the other hand, it causes overexposed areas in the image. Based on a sophisticated software algorithm, CLARA provides an image with homogenous illumination as it dynamically brightens up dark areas in the background.



Standard image

CLARA

Contrast is also an extremely important factor in endoscopic imaging. To provide the user with the best possible support, electronic contrast enhancement has been a standard feature in all standard camera systems for decades. This contrast enhancement, however, is very non-specific and results in enhanced contrast for structures that are already easily identifiable by shifting brightness values. CHROMA, on the other hand, focuses more on enhancing contrast in structures that are difficult to identify.



Standard image

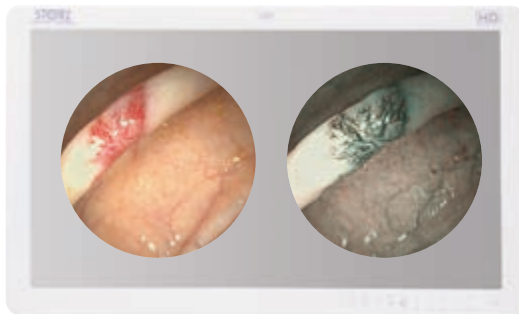
CHROMA

As the wish for greater contrast and a more homogenous illumination often coincide, CLARA + CHROMA offers a combination of both these technologies.

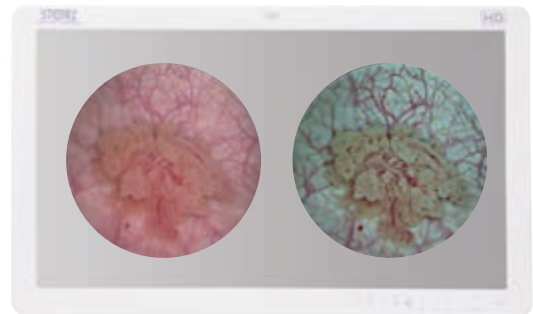


Standard image CLARA + CHROMA

SPECTRA* takes individual user needs for improved differentiation of highly vascularized and other areas of interest into consideration. By modulating the green, blue and red channels, these areas can be highlighted. This offers an alternative to the standard white light image.



Standard image SPECTRA* A



Standard image SPECTRA* B

* Not for sale in the U.S.

Flexible Video Choledochoscopes

Recommended for the choledochal approach (choledochal duct)



The new HD video choledochoscope is available in the following set:

11292VHK **Flexible HD Video Choledochoscope Set**, positive deflection, with suction channel and integrated light source, deflection of distal tip 210°/140°, direction of view 0°, angle of view 100°, working channel inner diameter 7 Fr./2.3 mm, sheath size 16 Fr./5.3 mm, working length 37 cm

The following accessories are included in delivery:

11301P	Seal for Suction Valve Port
11025E	Pressure Compensation Cap
27677SX	Case
13242XL	Leakage Tester
11272X	Applicator and Guide Tube
28172GE	Applicator
27023TF	Stone Basket
11014L	LUER Port with Stopcocks
100010-10	Sealing Cap "Endoscopic Seal"
110940-50	Cleaning Brush
11301CD1	Irrigation Adaptor

Recommended for the transcystic approach (cystic duct)



The CMOS video choledochoscope is available in two different sets:

11292VSK **Flexible Video Choledochoscope Set**, positive deflection, integrated light source, steerable, deflection of distal tip 270°/270°, direction of view 0°, angle of view 90°, working channel inner diameter 3.6 Fr./1.2 mm, sheath size 8.5 Fr./2.8 mm, working length 50 cm

The following accessories are included in delivery:

27677X	Case
11025E	Pressure Compensation Cap
13242XL	Leakage Tester
11293F	Applicator and Guide Tube
11003KD	Biopsy Forceps , flexible, 3 Fr./1 mm, length 75 cm
11003KC	Grasping Forceps , flexible, 3 Fr./1 mm, length 75 cm
27023TD	Stone Basket , 2.5 Fr./0.83 mm, length 120 cm
27014Y	LUER-Adaptor , with seal
27550N	Seal , for instrument ports, package of 10
27001RA	Cleaning Adaptor
110931-50	Cleaning Brush , brush diameter 1.7 mm, length 125 cm, unsterile, for single use, package of 50

11292VSUK **Same**, with contrapositive deflection mechanism

Optional Accessories for 11292VHK



11301CE1 **Suction Valve**, for single use,
package of 20



11301CB1 **Suction Valve**, reusable



11301P **Seal**, for suction valve port,
for sealing the suction channel



11014L **LUER Port with Stopcocks**, attachment to working
channel, for the connection of irrigation tubing and the
insertion of instruments



100010-10 **Sealing Cap "Endoscopic Seal"**,
for working channels of 3-7 Fr. instruments,
for single use, sterile, package of 10



11001SL **Biospy Forceps**, flexible, double action jaws, oval,
5 Fr./1.67 mm, length 60 cm



11002SS **Grasping Forceps**, flexible, double action jaws,
5 Fr./1.67 mm, length 60 cm



27023TF **Stone Basket**, nitinol, with tip, helical,
3 Fr., length 120 cm, 4 wires,
basket diameter 16 mm, sterile, for single use

STERILE 



11301CD1 **Irrigation Adaptor**, for machine cleaning, reusable



110940-50 **Cleaning Brush**, with double-sided brush,
length 90 cm, brush diameter 2.6 mm, unsterile,
for single use, package of 50, for use with flexible
endoscopes with working channel diameters 2-2.3 mm



39406AS **Plastic Container for Flexible Endoscopes**, suitable
for gas and hydrogen peroxide (Sterrad®) sterilization
and storage, external dimensions (w x d x h):
550 x 260 x 90 mm, for use with one flexible endoscope



11272X **Applicator and Guide Tube**, for use with trocars
size 7 mm



28172GE **Applicator**, for use with Guide Tube 11272X and trocars,
size 11 mm

Optional Accessories for 11292VSK and 11292VSUK



11293F **Applicator and Guide Tube**, for use with trocars size 6 mm



11003KD **Biopsy Forceps**, flexible, double action jaws, 3 Fr., length 75 cm



11003KC **Grasping Forceps**, flexible, double action jaws, 3 Fr., length 75 cm



110931-50 **Cleaning Brush**, length 125 cm, brush diameter 1.7 mm, unsterile, for single use, package of 50, for use with flexible endoscopes with working channel diameters 1.2-1.5 mm



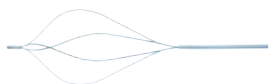
27014Y **LUER-Adaptor**, with seal



27550N **Seal**, for Instrument Ports 27001G, 27001GF, 27001GH, 27001GP, LUER-Adaptors 27014Y, 26252BS, 26252BL, package of 10, single use recommended



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



27023TD **Stone Basket**, nitinol, with tip, helical, 2.5 Fr., length 120 cm, 4 wires, basket diameter 16 mm, sterile, for single use



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75
Years

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