

## Full HD Surgical Endoscopy Camera

Full HD Surgical Endoscopy Camera

Our Full HD Endoscopy camera delivers a natural colour reproduction and convines through the bril-liant and sharp detail rendition. The camera feature all technical characteristics and is ideal for a wide range of applications.



**CAT NO. SK 2000** 

#### **Product benefits**

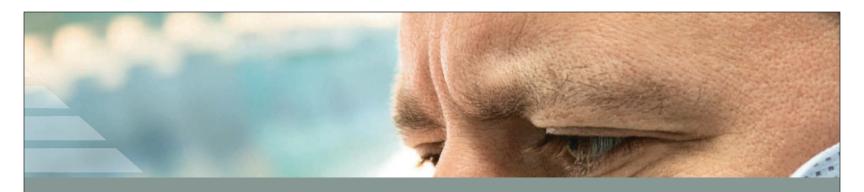
- 1/1.8" CMOS digital signal processor
- Manual white balance •
- Automatic gain
- Submersible camera head and cable
- C-Moun
- Main switch illuminated

Resolution	1920 x 1080 pixels				
Video output	HDMI(1080 P@60hz), DVI(1080 P@60hz) SDI (1080 @ 60hz), CVBS (720 X 576)				
Frame Rate	60 F/s				
Functions on the front panel and camera head	Whit balance and Freeze				
Scope of delivery	CPU, camera head with 3m cable, mains cable, BNC cable				



High-resolution digital medical camera with soakable camera head, PAL Technical data:

Image Sensor	1/1.8" CMOS			
Resolution	1920 x 1080			
Frame Rate	60f/s			
Exposure	Global			
Button Function	Freeze, white balance etc.			
CCU Image Processing Board				
Output	HDMI (1080 P@60hz) , DVI (1080 P@60hz)			
	SDI (1080 I@60hz) , CVBS (720 x 576)			
Image Processing	Noise reduction, color rendition, edge enhancement, contrast adjustment, image magnification, dead pixel elimination			
Light Source	Multiple modes for light sources of LED, Xenon Lamp etc.			
White Balance	One button for automatic white balance			
Photometry	2 types - Average/Peak, optional region			
Parameter Adjustment	Brightness, R/G/B Saturation, Sharpness, Max. Gain, Gamma, Magnification, Mirror			
Panel Button	Menu, White Balance, Freeze, Save etc.			
Image Saving	Resolution: 1920 x 1080, Format: BMP,			
	Quality: Non-destructive, Memory: SD card			
Menu Language	English			
Recording Board (Optional)				
Model				
Video Saving	Resolution: 1920 x 1080, Format: TS			
	Code Rate: 19Mbps			
Image Saving	Resolution: 1920x1080, Format: JPG			
Interface	Input : HDMI, Output : HDMI			
interface	Memory: USB			
USB Drive	Flash Memory or HDD, FAT32			



THE HD TV Adapter convince through the new developed, increased lens system. This lens system which is calculated in HD quality, allow images of higher contrast and brilliant sharpness. The compact construction and the ergonomically adapted focusing enable an easier handling.







Vario TV Adapter

TV21.001L

TV-Adapter focal length f=21,25,28,35mm for SD Cameras Technical data's:

- Camera screw thread: C-Mount
- Standard-coupling enables the adaptability of camera to all endoscopes with DIN 58105
- Focusable
- One-lens system
- submersible for medical application



Stork Medical Display Serves Over 2 Billion Patients

# SK270AG

## **Surgical Monitor**

STORK surgical monitor equip with full HD LCD panel, with accurate colour reproduction, smooth dynamic image display, and wide viewing angles. It meets today's rapid change for medical display, and can clearly and accurately observe the surgical spots in minimally invasive surgery (MIS). White frame, waterproof design, antibacterial treatment, fully compliant with electromagnetic regulations, multiple video input and output interfaces. These make the product full meet the requirements of various endoscopes, operating rooms, and ICU display.



**MEDICAL DISPLAY EXPERT** 



#### **Product Features**

#### 1. Accurate colour reproduction

Stork surgical monitors use 12BIT technology, which can linearly express more that 68.7 billion colors, so as to accurately restore the colour of human tissue during minimally invasive surgery, and the surgeon can make more accurate judgements.

#### 2. Good layering

The professional monitor os stork endoscopic operating room adopts the highest-level medical LCD panel, which has good colour, high brightness and high contrast. So doctors could better distinguish various tissues in the operation and see a clear and transparent clinical images during the operation.

#### 3. Smooth dynamic images

The response time of stork surgical monitors is less than 20ms, so that it can smoothly present the surgical images from SD to HD, clearly showing the bleeding situation and other delicate operations during the operation, without smear and jitter.

#### 4. Meeting the requirements of operating room purification and anti-interference

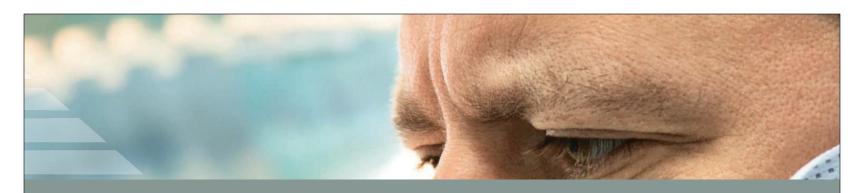
Stork surgical monitors adopts a white dust-free design, which meets the requirements for purification of surgical equipment in the operating room. The metal-enclosed design can effectively prevent dust and liquid pollution during the operation. The body of the metal shell and the built-in shielding circuit can effectively prevent the interference of electronic surgical equipment such as high-frequency electrosurgical equipment, ensures the stability of the surgical display.

#### 5. Multiple I/O interface

The Stork surgical monitor is compatible with a variety of analog and digital signals, and has good compatibility with the camera systems of the world's major hard and soft lens brands.

## **Specification**

MODEL No.	SK270AG				
Back light	LED				
Diagonal size	27"				
Display area size	622.4 (H) x 364.2 (V)mm				
Resolution	1920 x 1080 (HD 1080p)				
Aspect ration	16:9				
Dot pitch	0.3114 (H) x 0.3114 (V)mm				
Response time (typ)	14ms				
Maximum brightness	1000cd/m <sup>2</sup>				
Contrast	1000:1				
Color depth (LUT)	68.7 Billion Colours (12bit)				
Viewing angle	≥178°				
Lookup table (LUT)	GAMMA 1.8, GAMMA 2.0, GAMMA 2.2, GAMMA 2.4, GAMMA 2.6, DICOM				
Video input	DVI-I, CVBS, S-VIDEO, YPbPr, RGBS, SDI, HDMI, VGA				
Video output	CVBS, SDI, DVI-D				
Power requirements	100 ~ 240V, 50/60Hz				
Maximum power	84W				
Shell colour	WHITE				
External dimensions with base	647 x 481 x 237.5mm				
External dimensions without base	647 x 398.2 x 65.4mm				
Net weight (with base)	16 Kg				
Net weight (without base)	10 kG				
Installation standard	VESA: 100*100mm				
Certification	CCC, CE, CECP				



#### LAPAROSCOPE



#### **Neue HD Optiken**

#### Erhöhte Lebensdauer

#### DEHNUNGSFREIE GLASFASERN

Das System wurde so konzipiert, dass die Glasfasern dehnungsfrei befestigt sind. Somit wird weniger Stress auf das Gesamtsystem im Besonderen auf die Lichteintritts- und Lichtaustrittsflächen gebracht, was zu einer verbesserten Lebensdauer führt.

#### GOLD-STANDARD

Das Planglas unserer Endoskope wird nach dem neuesten Stand der Technik nicht lediglich verklebt, sondern mit Goldlot verlötet. Das Eindringen von Feuchtigkeit wird besser unterbunden und deshalb sind unsere Endoskope dichter und widerstandsfähiger.

#### Klare und helle Sicht

Für eine klare und einzigartige Sicht bieten unsere Endoskope erstklassige HD-Qualität. Zusammen mit der optimierten Beleuchtung resultiert ein sehr helles und klares Bild, reich an Kontrast.

Hinzu kommt eine erhöhte Schärfentiefe, dass das Verändern des Arbeitsabstandes ohne Nachfokussierung möglich macht.

Beste Bildqualität durch Verminderung der chromatischen Aberration und Reflektion.

#### Verbesserte Beleuchtung

Für unsere neue Familie HD-Endoskope wurde ein besonderer Schwerpunkt auf die Schaffung von homogener und scharfkantiger Beleuchtung gelegt.

#### **New HD Endoscopes**

#### **Increased durability**

#### FLOATING GLASS FIBRES

The endoscopes are designed, so that the glass fibers are mounted without continuous tension. This results in less stress on the overall mechanical system, in particular on the light entrance and light exit surfaces. This enhances the life expectancy and improves service life.

#### GOLD STANDARD

According the latest state of the art, the sightglass is fixed in place with gold solder instead of glue. This guarantees a better fit and improves protection against ingress of moisture. Additionally it enables the occurring stress during any autoclave-cycle to better dispense.

#### Clear and bright view

For a clear and unique view our endoscopes offer high HD quality. Together with the optimized illumination they offer a very bright and clear picture, which is rich in contrast.

Added to this is an increased depth of field, which enables the user to change the working distance without having to refocus.

We also offer best image quality by reducing the chromatic aberration and reflections.

#### Better illumination

For our new family HD endoscopes, special emphasis was placed on the creation of homogeneous and sharp-edged lighting.

#### Φ HD 10mm Endoscope

S800B 0° Endoscope (Angle of field: 70°)

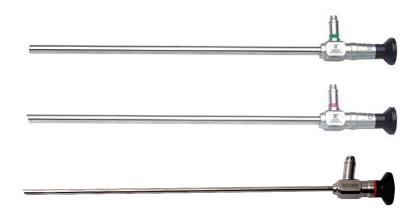
Φ 10mm x 325mm

S830B 30° Endoscope (Angle of field: 70°)

Ф 10mm x 325mm

#### Φ HD 5mm Laparoscope

S1830 30° Endoscope  $\Phi$  5mm x 290mm





## **ENDOSCOPY LED LIGHT SOURCE**

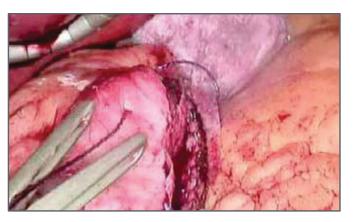


- As powerful as a 300W Xenon light source
- LED lifespan up to 50,000 hours
- Daylight color temperature\*\* for optimum contrast











## LIGHT SOURCE SPECIFICATIONS

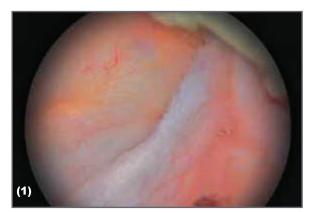
### Specifications

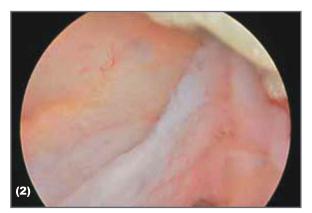
- LED Technology
- Light intensity of a 300W light source
- Color temperature : 6500°K
- LED lifetime : up to 50.000h
- Laparoscopic LED light source

- Automatic over temperature protection
- Size (D x W x H): 300 x 310 x 120mm
- Weight: 3000g
- Power consumption: 140 VA
- Input voltage: 100-230 VAC / 50-60 Hz
- Compatible with Storz type light cables (Olympus in option)
- Continuous service

#### Regulatory & Environment

- Operating Temperature range: +10°C / +40°C
- Operating Relative Humidity range: 30 to 75%
- Transport and storage Temperature range : -10°C / +45°C
- Transport and storage Relative Humidity range: 20 to 85%
- Operating, Transport and Storage Atmospheric pressure
- range: 700hPa to 1060hPa





Comparison of homogeneity of light between a Xenon (1) and the LED (2) light source

#### **CT No.: SK FB900**





**CT No.: SK LA300** 



#### CO2 INSUFFLATOR



**CAT No.: SK4500** 

Increase Set Pressure, Set Flow

Decrease Set Pressure, Set Flow

Air (optional)

Mode

Reset Gas Volume used

Connector for gas warmer

CO<sub>2</sub> Outlet

Output Pressure Range: 5 - 45 mmHg

Output Flow Range: 1 - 45 LPM

**Output Gas Temperature: Body Temp.** 

Input Power: 100 - 264 VAC, 50-60 Hz

Accessories: High pressure regulator

PU tube for CO2 gas inlet

Heater assembly for CO2 gas warming

STORK CO2 Insufflator comes extremely handy during Laproscopic Surgeries. It provides optimum CO2 flow required to maintain CO2 pressure. CO2 flow is adjusted very quickly which caters to a very small flows in the beginning, through veresse needle, continuously varying leakages throughout surgery and high flow requirements when suction is applied. It delivers warm gas for patient comfort. Pressure setting can be adjusted from 5 mm Hg to

4.5 mmHg in steps of 1 mm Hg. CO2 flow can be adjusted from 1 Litre to 45Litres in steps of 1 Litre. Mode of operation, set pressure, actual pressure, set flow, actual flow and total volume of CO2 gas used are shown on front panel by bright displays. Soft touch buttons are provided on front panel. Secured connection is provided for warmer. Buzzer sounds in case of over pressure. There is a visual indication and buzzer in case of no- CO2-gas condition. Flow blockage at patient end is sensed and flow is immediately stopped. It is resumed after 5 seconds. Internal pressure regulator is used for safe operation. Switch Mode Power Supply is used, which works over the range of 100 VAC to 240 VAC input voltage. One year warranty is provided against workmanship. It is an indigenous product. Machine will be supported with repairs at reasonable cost for at least 5 years.



## Forceps disassembling instruction

law insert

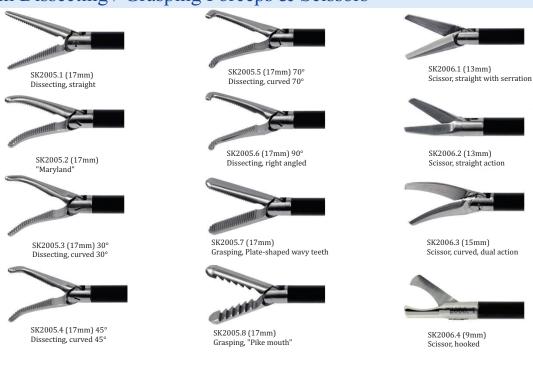
One forcep disassemble into 3 parts
Jaw insert + Insulated sheath tube + Handle

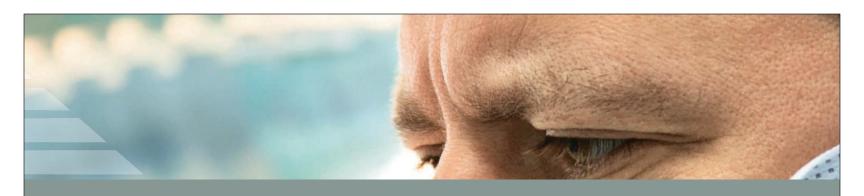
Disassembly instruction:
Step 1 : Press button
Step 2 : Elevate the rear handle
Step 2 : Elevate the rear handle
Step 3 : Extract the sheath with insert
Step 4 : Hold the jaw insert and rotate, the extract the insert

## Handles



## 5mm Dissecting / Grasping Forceps & Scissors





## 5mm Grasping forceps



SK2006.1 (16mm) Scissor, curved with single ball tip



SK2007 (14mm) Grasping, extracting with 2x3 teeth



SK2007.1 (17mm) Grasping, blunt with wavy teeth



SK2007.4 (18mm) Grasping, atraumatic with grid flat teeth



SK2007.5 (15mm) Grasping, fenestrated and hollow



SK2007.6 (2x3) (15mm) Grasping, distal 2+3 claws with wavy teeth



SK2007.7 (10mm) Grasping, jaw cup with wavy teeth border



SK2007.8 (18mm) Grasping, atraumatic jaw cup, fenestrated



SK2007.9 (21mm) Gallbladder grasping, distal horizontal teeth, fenestrated



SK2007.1 (21mm) Grasping, plate-shaped, atraumatic, fenestrated



SK2007.11 (21mm) Grasping, distal horizontal teeth with hollow



SK2007.12 (32mm) Grasping, distal pyramidal-shaped teeth,



SK2007.13 (25mm) Grasping, long nose with pyramidal-shaped teeth



SK2007.14 (30mm) Grasping, plate-shaped, concave-convex jaw



SK2007.15 (20mm) Mesentery grasping, fenestrated



SK2007.16 (30mm) Grasping, distal 2+3 claws, single action



SK2007.17 (35mm) Intestinal grasping, plate-shaped, fenestrated



SK2007.18 (30mm) Grasping, long nose, distal horizontal teeth with hollow



SK2007.19 (17mm) Grasping, "Pike mouth with spoon, distal grid flat teeth



SK2007.21 (2x3) (17mm) Grasping, distal 2+3 claws



SK2007.22 (21mm) Appendix grasping, fenestrated and hollow



SK2007.23 (35mm) Grasping, long nose plate-shaped with vertical groove



SK2007.24 (17mm) Grasping, spiked



SK2007.25 (21mm) Universal grasping forcep



SK2007.26 (17mm) Grasping, distal 2+3 claws with horizontal serration



SK2007.27 (17mm) Grasping, distal 2+3 claws with horizontal serration, fenestrated



SK2007.28 (21mm) Grasping, atraumatic



## Trocar, Adaptor, Sealing Cap



Magnectic flap valve

SK2016.12 Φ 5.5mm

SK2016.13 Ф10.5mm SK2016.14 φ11mm

 $\begin{array}{cccc} \text{SK2016.15} & \varphi & 6 mm \\ \text{SK2016.16} & \varphi & 12.5 mm \end{array}$ 

#### 110mm

Magnectic flap valve with protection

SK2016.20 φ 5.5mm

SK2016.21 Φ 6mm

SK2016.22 Ф 10.5mm

SK2016.23 Φ 11 mm

SK2016.38 Φ 12.5mm

### 110mm

Magnectic plate valve with

retaining thread

SK2016.17 Φ 5.5mm

SK2016.18 Φ 10.5mm

SK2016.24 φ 6mm

SK2016.25 φ 12.5mm SK2016.35 Φ 11mm

Magnectic flap valve with retaining

thread, protection

SK2016.30 Φ

SK2016.31 Φ 10.5mm

SK2016.32 Φ 6mm

SK2016.33 Φ 12.5mm SK2016.34 Φ 11mm



Trumpet valve SK2016.65 Φ10.5mm

SK2016.66 Ф 5.5mm

110mm

Trumpet valve with protection

SK2016.67 Φ10.5mm

SK2016.68 Ф 5.5mm



SK6002.1 Sealing Cap Φ5mm



SK6002.2 Sealing Cap Φ10mm



SK6002.3 Sealing Cap φ 12.5mm



SK6001.1 Cross-type membrance valve



Cross-type



SK 2016.10 110mm

110mm

SK 2016.5

SK 2016.6

SK 2016.8

SK 2016.9

Cross-type membrance valve

Cross-type membrance valve

10.5mm

5.5mm

11mm

12.5mm

6 mm

with protection

SK2016.3 Φ 10.5mm

SK2016.4 Φ 5.5mm

SK2016.7 Φ11mm

SK2016.28 Φ 6mm

SK2016.3A φ10.5mm

SK2016.4A Φ 5.5mm





Cross-type membrance valve with retaining thread, protection SK2016.36 p 10.5mm SK2016.37 Φ 5.5mm



SK2017.5 Reducer φ10.5mm-φ5.5mm



Adaptor φ10.5mm-φ5.5mm





SK6001.2 membrance valve



SK60003.2 0-ring Φ10.5mm



SK6003.3 0-ring Ф. 5.5mm



## **Rigid Cystoscope**

- ★ Clear imaging
- ★ Simple operation
- \* Easy to clean
- ★ Safe and reliable



Cystoscope



## Rigid Cystoscope Urethro-cystoscopy set





SK010 0 DEGREE **ENDOSCOPE** 4 X 302MM





SK012 30 DEGREE **ENDOSCOPE** 4 X 302MM



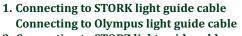
SK013 70 DEGREE **ENDOSCOPE** 4 X 302MM



S1001 Adaptor



S2145 Sealing Cap











S1101.1 Sheath with obturator 16.5 Fr S1102.1 Sheath with obturator 18.5 Fr S1103.1 Sheath with obturator 21 Fr S1104.1 Sheath with obturator 23 Fr





S5010 Light Guide Cable Ф4.5 X 2000mm

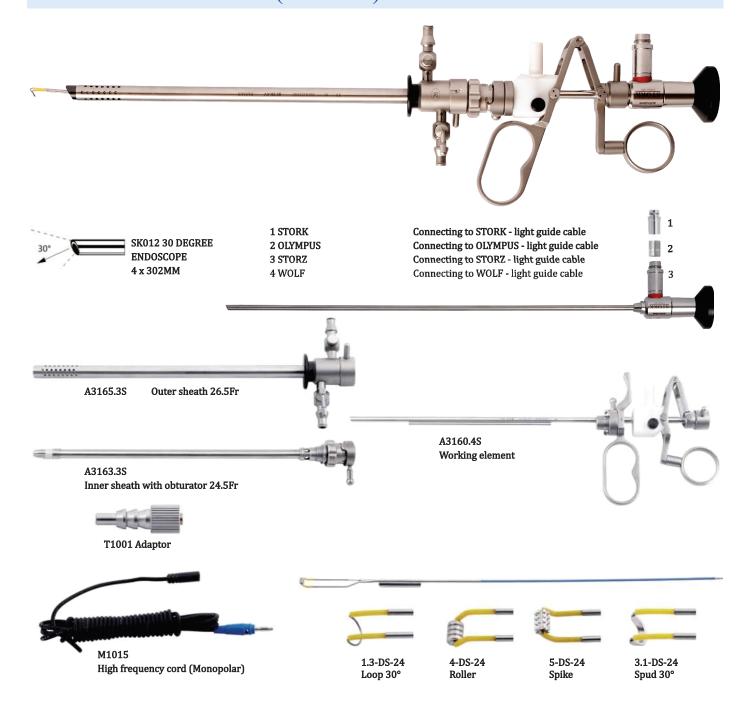


Endoscope Bridge (Single Channel) Endoscope Bridge (Double Channel)





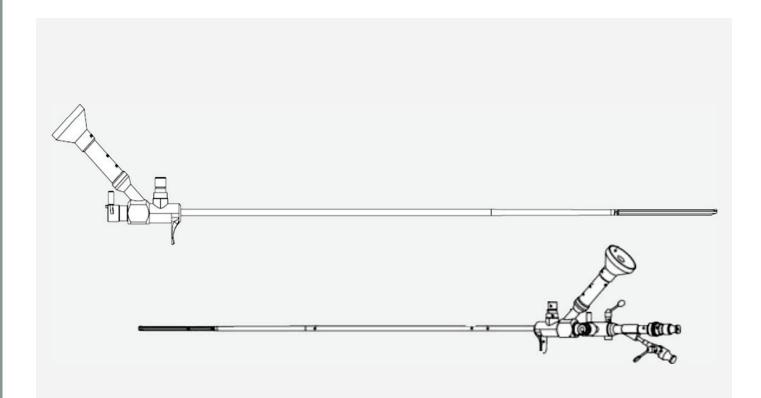
## RESECTOSCOPY SET (Lockable)





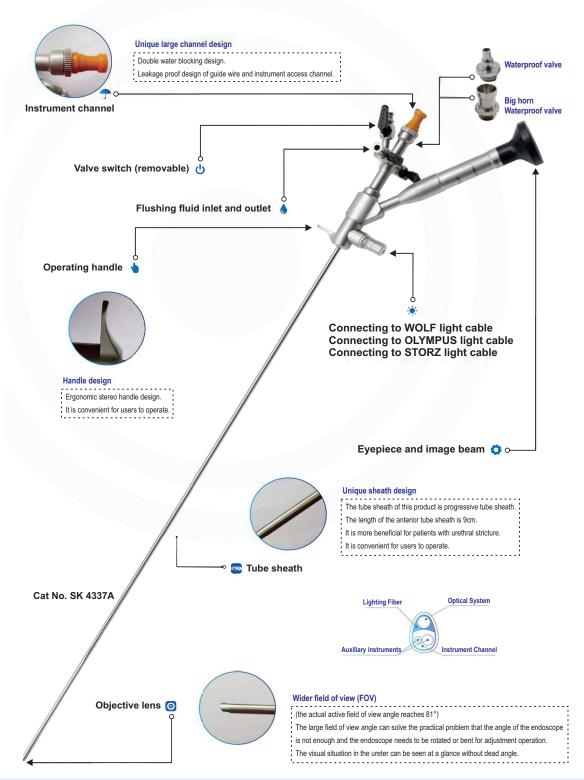
## Ureterorenoscope

- ★ Clear imaging
- ★ Simple operation
- **Easy to clean**
- ★ Safe and reliable



Ureterorenoscope



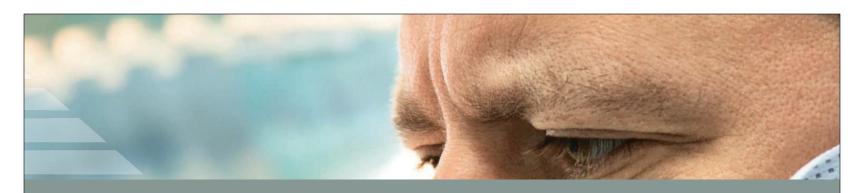




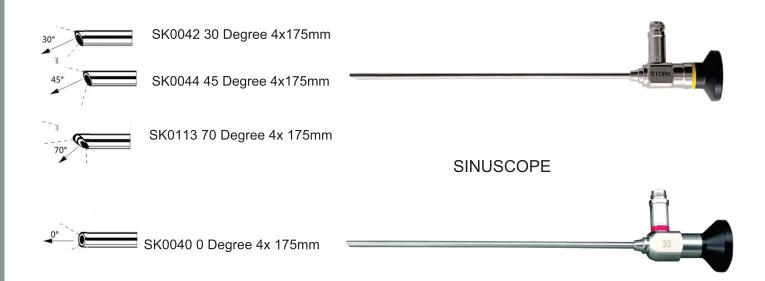
#### **General Notes**

- Endoscope adopt imported stainless steel material, assembled in Germany
- Adopt the imported image bundles, can stand proper bending
- Eliminate the reticulate pattern in the field of view, make image clear
- With direction index, sapphire lens cover, never abrasion
- Sleek insert part, tapering outer sheath, avoid scratches
- The angle of direction is 0°, field angle is 81°, easy to observe the position of instrument in the field of view
- Separate endoscope from water valve and instrument, easy to disinfect and operate
- All instruments adopt imported stainless steel material
- Double water valves make the perfusion smooth

Model	mm	Degree	Fr.	mm	Maximum Size (Fr.)	Comparision Remarks
SK 4337A	6	81	6/7.5	430	1x5/2x3	8705.402 Adult split type



## STORK SINUSCOPE



- 1. Endoscope adopts imported stainless steel material
- 2. Endoscope adopts German optic glass light fiber and light cone
- 3. Adopt the patented technology of rod optical lens, clear field view
- 4. With direction index, sapphire lens cover never abrasion
- 5. The autoclave endoscope can be chosen