

SHIYIN MEDICAL

ENDOSCOPE CAMERA SYSTEM COMPLETE SOLUTION



Shanghai Shiyin Photoelectric Instrument Co., Ltd.



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Company Profile



Shanghai Shiyin Photoelectric Instrument Co., Ltd. was established in 2009, located in Shanghai Nanhui Industrial Park. It is a high-tech manufacturing enterprise engaged in the research, development, production, sales and service of medical HD endoscope camera system. The company is "independently innovative, continuous improvement, and accumulated". The spirit of 'pursuit of excellence' continues to innovate, applying high-end cutting-edge technology to the field of medical minimally invasive endoscopy, providing customers with medical HD endoscope overall solutions.

The company specializes in the production of intelligent dual-mode 3D endoscope camera system, 4K UHD endoscope camera system, digital Full HD endoscope camera system, endoscope remote control system, gas insufflator, irrigation pump, medical monitors, medical LED cold light source, intelligent fume extracting system, fhd surgery video recorder, endoscopy heater, medical trolley, instruments and other general-purpose minimally invasive solutions, which can fully meet the needs of customers in clinical departments.



International Cooperation





Operation



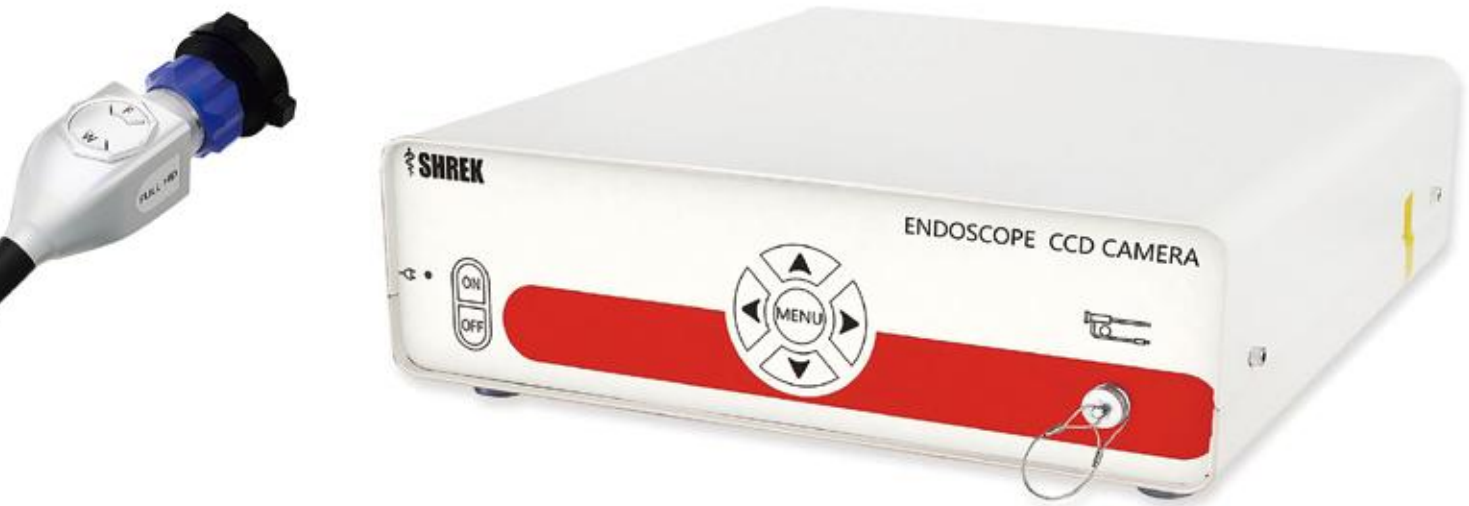


Contents

Medical endoscope camera	01
Medical endoscope HD USB camera	05
HD Portable endoscopy unit	07
LED medical cold light source	16
FHD Medical Monitor	19
4K UHD Medical Monitor	20
CO ₂ Insufflator	21
Endoscopy Pump	24
Irrigation Pump	25
Full HD video recorder	26
Intelligent Fume-extracting System	27
Endoscopy Heater	28
Cleaning Machine	29
Laparoscopy hand instruments	30
Hysteroscopy surgery and inspection instruments	34
Arthroscopy instruments	36
Urology surgery and inspection instruments	38
ENT surgery and inspection instruments	40

SY-GW700C

Medical Endoscope Camera



Functions and advantages:

1. Standard 900lines, effective pixels is 1280(H)*720(V).
2. Full intelligent automatic white balance with one click(White balance and freeze buttons on the camera head)
3. Solving electromagnetic interference of energy platform during operation (such as ultrasonic knife, plasma knife, electrosurgical unit, etc.).
4. Camera head waterproof: IP8X, to prevent water from entering the camera head during the surgery

Technical parameters:

Specifications	Parameters
Image Sensor	1/3 CCD
Effective pixels	1280(H)*720(V)
Scan mode	Interlacing scan
Horizontal resoution	900TVLines
Focusing range	≥(2~200)mm
SNR	≥50dB
Brightness	ODS adjustable
Video output	BNC*2, VGA
Min lumination	F1.2 ≤ 0.5Lux
Certification	CE , ISO9001,ISO13485

SY-GW800C-N

Medical HD Endoscope Camera



Functions and advantages:

- 1.Intelligent digital full HD 1000lines HD-1080P, Effective pixels is 1920(H)*1080(V).
- 2.Full intelligent automatic white balance with one click(White balance and freeze buttons on the camera head)
- 3 Solving electromagnetic interference of energy platform during operation (such as ultrasonic knife, plasma knife, electrosurgical unit, etc.)
- 4.Camera head waterproof: IP8X, to prevent water from entering the camera head during the surgery.
- 5.Extinction speed is less than 0.2s, which can solve the operation delay of surgical images and reduce visual fatigue.

Technical parameters:

Specifications	Parameters
Image Sensor	1/2.8 CMOS
Effective pixels	1920(H)*1080(V)
Scan mode	Progressive scan
Horizontal resoution	1000TVL (1080P)
Focusing range	≥(2~200)mm
SNR	≥50dB
Brightness	ODS adjustable
White balance	Auto/ manual
Min lumination	F1.2 ≤ 0.5Lux
Certification	CE , ISO9001,ISO13485
Video output	HDMI*4, SDI*1, BNC*1 VGA*1

SY-GW900C-N

Medical FHD Endoscope Camera



Functions and advantages:

1. Intelligent digital full HD 1100lines HD-1080P, Effective pixels is 1920(H)*1080(V). Full intelligent automatic white balance with one click(White balance and freeze buttons on the camera head)
2. 5 " touch LCD screen, wear-resistant, scratch resistant, fastness,quick-witted.
3. Solving electromagnetic interference of energy platform during operation (such as ultrasonic knife, plasma knife, electrosurgical unit, etc.)
4. Camera head waterproof: IP8X, to prevent water from entering the camera head during the surgery.
5. Extinction speed is less than 0.2s, which can solve the operation delay of surgical images and reduce visual fatigue.
6. Professional camera head and special needs of doctors are customized to meet the needs of different departments.
7. Free button and surgery mode switch button(Laparoscopy, Hysteroscopy, ENT, PTED, Urology, Fiber), OEM service.
8. The color reproduction capability and image geometric distortion of this device have passed the test of relevant national institutions.
9. 4* HDMI outputs required for clinical applications. 1080P Intelligent digital full HD output.(1 for medical monitor; 2 recorder or workstation port; 3 our APP remote live broadcast)

Technical parameters:

Specifications	Parameters
Image Sensor	1/1.8 CMOS
Effective pixels	1920(H)*1080(V)
Scan mode	Progressive scan
Horizontal resoution	1100TVL(1080P)
Focusing range	≥(2~200)mm
SNR	≥50dB
Brightness	ODS adjustable
White balance	AWC/MWC
Min lumination	F1.2 ≤ 0.5Lux
Certification	CE , ISO9001,ISO13485
Scanning Frequency	N:60HZ P:60HZ
Video output	VGA*1, BNC*1, HDMI*4 SDI*1

SY-GW1000C-N

Medical Full HD Endoscope Camera



Functions and advantages:

1. Intelligent digital full HD 1200lines HD-1080P, Effective pixels is 1920(H)*1080(V).
2. Full intelligent automatic white balance with one click(White balance and freeze buttons on the camera head)
3. Double 5 " touch LCD screen, wear-resistant, scratch resistant, fastness, quick-witted.
4. Solving electromagnetic interference of energy platform during operation (such as ultrasonic knife, plasma knife, electrosurgical unit, etc.)
5. Camera head waterproof: IP8X, to prevent water from entering the camera head during the surgery.
6. Extinction speed is less than 0.2s, which can solve the operation delay of surgical images and reduce visual fatigue.
7. Professional camera head and special needs of doctors are customized to meet the needs of different departments.
8. 4* HDMI outputs required for clinical applications.

1080P Intelligent digital full HD output.(1 for medical monitor;
2 recorder or workstation port; 3 our APP remote live broadcast)

Technical parameters:

Specifications	Parameters
Image Sensor	1/1.8 CMOS
Effective pixels	1920(H)*1080(V)
Scan mode	Progressive scan
Horizontal resoution	1200TVL(1080P)
Focusing range	≥(2~200)mm
SNR	≥50dB
Brightness	ODS adjustable
White balance	AWC/MWC
Min lumination	F1.2 ≤ 0.5Lux
Certification	CE , ISO9001,ISO13485
Scanning Frequency	N:60HZ P:60HZ
Video output	VGA*1, BNC*1, HDMI*4 SDI*1

SY-HD7020

Medical endoscope HD USB camera 1080P



Connection: Laptop or desktop

TO USB CABLE



Adapter

Mobile phone

TO USB CABLE



Medical monitor

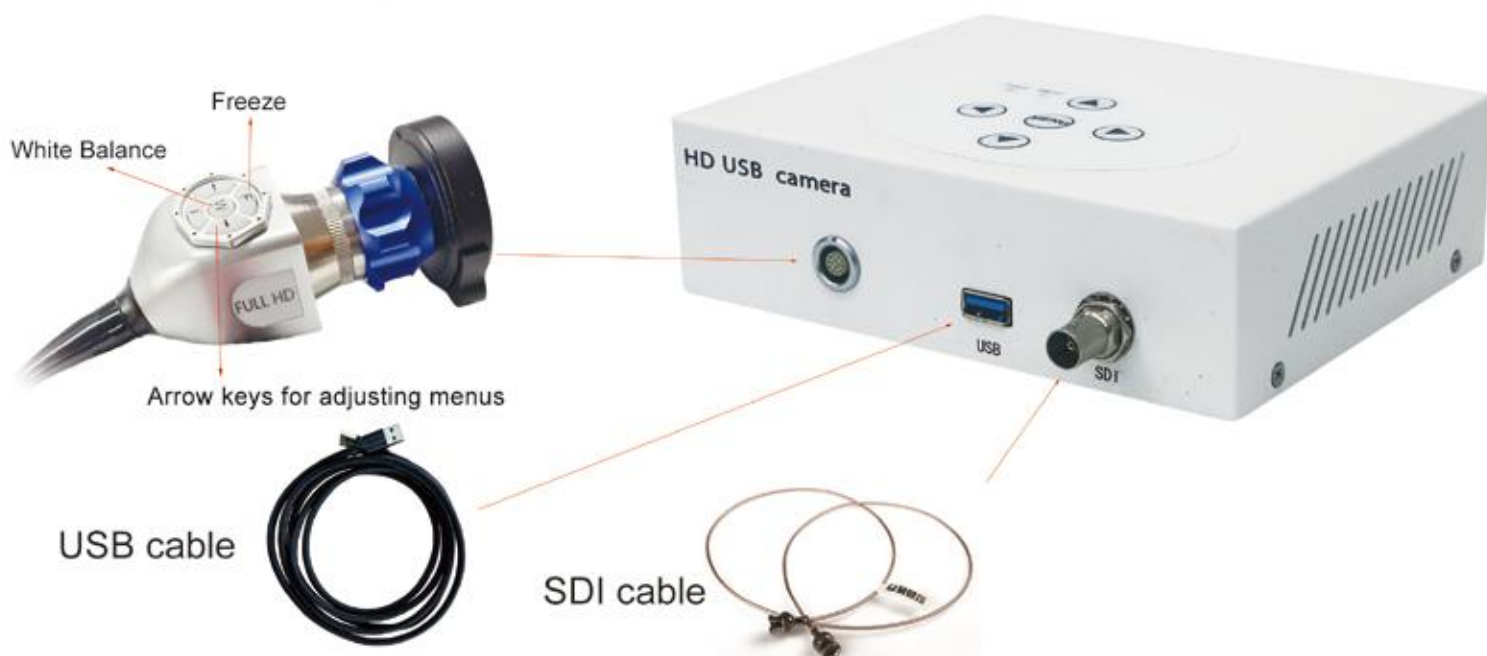
TO SDI CABLE

Technical parameters:

Specifications	Parameters
Image Sensor	1/2.8 CMOS
Scan mode	Progressive scan
Effective pixels	1920(H)*1080(V)
Horizontal resolution	1000 TVL
Brightness	ODS adjustable

SY-HD7021

Medical endoscope HD USB camera 1080P



Connection: Laptop or desktop

TO USB CABLE



Adapter

Mobile phone

TO USB CABLE



Medical monitor

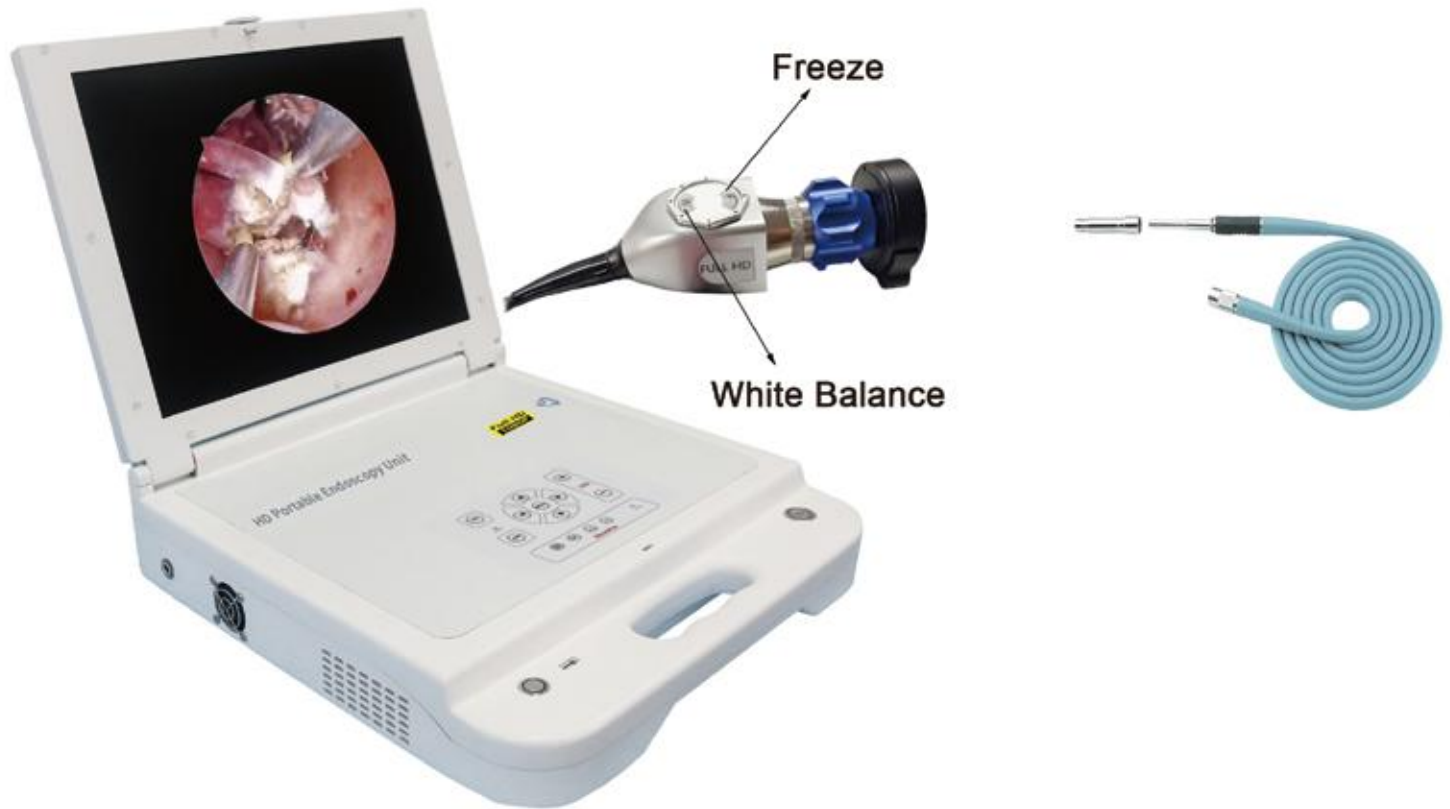
TO SDI CABLE

Technical parameters:

Specifications	Parameters
Image Sensor	1/2.8 CMOS
Scan mode	Progressive scan
Effective pixels	1920(H)*1080(V)
Horizontal resolution	1100 TVL
Brightness	ODS adjustable

SY-GW612

Portable HD Endoscope Camera Unit



- 4 in 1, camera + LED light source + monitor+ HD recorder.
- High brightness, 80watts LED.
- Medical grade HD monitor, 17 inch.
- With suitcase, easy to carry.
- Suitable for diagnosis and surgery.
- Application: Laparoscopy, Gynecology, Urology, ENT, Orthopedics, etc.



Detailed parameter as following table:

Medical Monitor				
LCD screen	17”			
Color	10.7 billion			
Aspect Ration	5:4			
Endoscope Full HD Camera				
Image device	1/2.8 CMOS		SNR	≥50dB
SY	PAL		Brightness	ODS Adjustable
Scanning system	2:1 Progressive		White balance	Auto/MANUA
Scanning mode	Progressive scanning		AG	Low/medium/high/off grade adjustable
Horizontal Resolution	1000TVL		Minimum Illumination	F1.2≤0.11Lx
OSD Control-Menu	Built in	external	DNR	3D VOX
LED Light Source				
Input power	80VA		Light output hole diameter	φ (10±0.10) mm
Light source	LED		Working conditions	5°C ~ + 40°C
Brightness	≥1,200,000Lux		Storage conditions	-40°C ~ + 55°C
Color temperature	≥6500k		Continuous working hours	>4h
HD Recorder				
Specifications	Parameters		External U flash disk	Max 64G
Recording format	MP4		External mobile HDD	Max 2T
Recording quality	MAX 18Mbps @1080P 30Fps		Recorder interface	Support USB disk & removable hard disk

SY-GW605

Portable HD Endoscope Camera Unit

- Intelligent digital Full HD
Effective pixels is 1920(H)*1080(V)
- Multi-output: HDMI*2, SDI, CVBS, VGA, USB
- Application: Laparoscopy, Gynecology,
Urology, ENT. Orthopedics, etc.
- Medical Endoscope Full HD Camera
& Medical Monitor & HD Recorder
& LED Light Source



Detailed parameter as following table:

Medical Monitor			
LCD screen	17”		
Color	10.7 billion		
Aspect Ration	5:4		
HD Recorder			
Specifications	Parameters	External U flash disk	Max 64G
Recording format	MP4	External mobile HDD	Max 2T
Recording quality	MAX 18Mbs @1080P 30Fps	Recorder interface	Support USB disk & removable hard disk



Endoscope Full HD Camera				
Image device	1/1.8 CMOS		SNR	≥50dB
SY	PAL		Brightness	ODS Adjustable
Total Pixels	N:2010(H) *1108(V)	P:2010(H) *1118(V)	Backlight processing	Wide dynamic(rank adjustable) /backlight compensation/ strong inhibition
Effective Pixels	N:1920(H) *1080(V)	P:1920(H) *1080(V)	Synchronous syetem	Internal Synchronization
Scanning system	2:1 progressive		White balance	Auto/MANUA
Scan frequency	N:60HZ P:60HZ		Acutance &saturation	Turn om/off grade adjustable
Scanning mode	Progressive scanning		AG	Low/medium/high/ off grade adjustable
Horizontal Resolution	1000TVL		Minimum Illumination	F1.2≤0.11Lx
Electronic shutter	1/50(60)S-1/60,000s		Rollovers	on/off
OSD Control-Menu	Built in	external	DNR	3D VOX
LED Light Source				
Input power	80VA		Light output hole diameter	φ (10±0.10) mm
Light source	LED		Working conditions	5°C ~ + 40°C
Brightness	≥1,200,000Lux		Storage conditions	-40°C ~ + 55°C
Color temperature	≥6500k		Continuous working hours	>4h

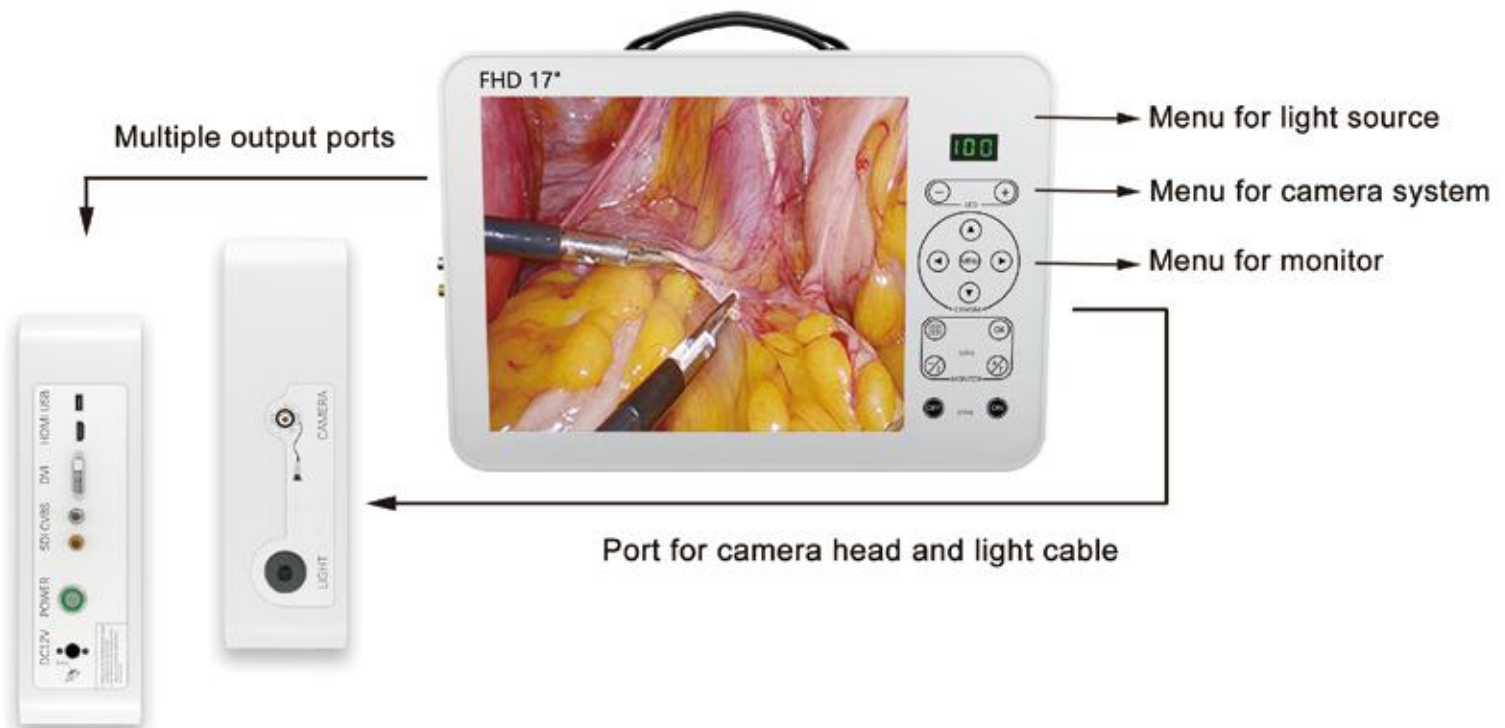
SY-GW617

Portable FHD Endoscope Camera Unit

- **Full HD:** 1920*1080P
- **Multi-mode:** laparoscopy, hysteroscopy, ENT, fibberscope, etc.
- **Multi-language:** English, Spanish, Russian, French, Portuguese
- **Multi-function:** take pictures, video recording, eliminate moiré, etc.
- **Application:** Laparoscopy, Gynecology, Urology, ENT, Orthopedics, etc.



Medical Full HD Endoscope Camera & Medical Monitor & HD Recorder & LED Light Source





Detailed parameter as following table:

Medical Monitor	
LED screen	17"

HD Recorder			
Recording quality	MAX 18Mbps @1080P 30Fps	External U flash disk	Max 64G
Recording format	MP4	External mobile HDD	Max 2T

Endoscope Full HD Camera			
Image device	1/1.8 CMOS	SNR	≥50dB
Scan frequency	N:60HZ P:60HZ	White balance	Auto/MANUA
Total Pixels	N:2010(H)*1108(V) P:2010(H)*1118(V)	Scanning mode	Progressive scanning
Horizontal Resolution	1100TVL	Minimum Illumination	F1.2≤0.11Lx

LED Light Source			
Input power	100 VA	Brightness	≥1,200,000Lux
Light source	LED	Color temperature	≥6500k

SY-GW621

Portable FHD Endoscope Camera Unit



Camera head: Freeze & WB button



- **Full HD:** 1920*1080P.
- **Multi-mode:** laparoscopy, hysteroscopy, ENT, fibberscope, etc.
- **Multi-language:** English, Spanish, Russian, French, Portuguese.
- **Multi-function:** take pictures, video recording, eliminate moiré, etc.
- **Application:** Laparoscopy, Gynecology, Urology, ENT, Orthopedics, etc.

Medical Full HD Endoscope Camera & Medical Monitor & HD Recorder & LED Light Source



It can be connected to large screens.
Can connect to multiple screens.
for teaching, research, training, and
other applications.





Detailed parameter as following table:

Medical Monitor	
LED screen	21"

HD Recorder			
Recording quality	MAX 18Mbps @1080P 30Fps	External U flash disk	Max 64G
Recording format	MP4	External mobile HDD	Max 2T

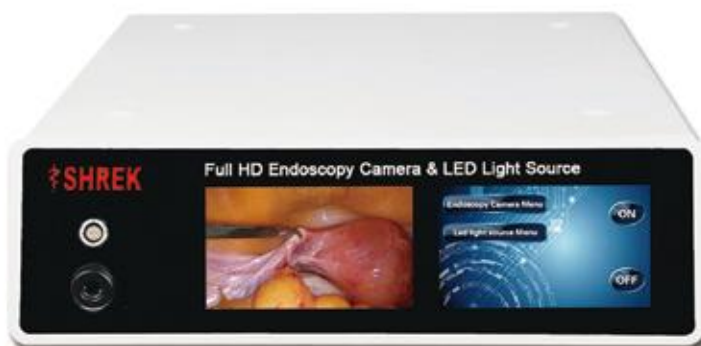
Endoscope Full HD Camera			
Image device	1/1.8 CMOS	SNR	≥50dB
Scan frequency	N:60HZ P:60HZ	White balance	Auto/MANUA
Total Pixels	N:2010(H)*1108(V) P:2010(H)*1118(V)	Scanning mode	Progressive scanning
Horizontal Resolution	1200TVL	Minimum Illumination	F1.2≤0.11Lx

LED Light Source			
Input power	120VA	Brightness	≥1,200,000Lux
Light source	LED	Color temperature	≥6500k

SY-GW901

Medical FHD Endoscope Camera Unit

- Adopt 3CCD technique, 1080 video output HD, good stereoscopic.
- Double intelligent 5" LCD touch screen, more convenient to operate
- Two buttons on camera head: F: Freeze, W: White Balance
- Multi-output: HDMI*4, SDI, BNC, VGA
- Application: laparoscopy, hysteroscopy, arthroscopy, ENT, urology etc..



HD Recorder

Recording format	MP4	Recorder interface	Support USB disk & removable hard disk
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HD Endoscopy Camera

Image device	1/2.8 CMOS		Scan frequency	N:60HZ P:60HZ
Effective pixels	N:1920(H)*1080(V)	P:1920(H)*1080(V)	Horizontal Resolution	1200TVL

LED Light Source

Input power	100VA	Light source	LED
Brightness	≥1,200,000Lux	Color temperature	≥6500K

SY-GW202L

Endoscope LED Cold Light Source



Functions and advantages:

1. Imported key component: adopted imported medical LED, strong stability, good anti-seismic property.
2. Long service life: working time more than 20,000~40,000 hours, minimizing the need to replace the bulb, cost saving.
3. Colour temperature purity: natural light 6500k.
4. High brightness, great transparency, excellent color rendering, great three-dimensional sense of the surgery.
5. Good compatibility: international standard light guide cable, to connect with most of brands, like Storz, Olympus, Wolf etc.

Technical parameters:

Specifications	Parameters
Power supply	AC100-240V 50/60HZ
Light source	Led light
Effective optical power	≥100mW
Input power	60VA
Noise	≤55dB(A)
Working environment	5°C~40°C
Atmospheric pressure	860hPa~1060hPa
Host fuse	T2AL 250V AC
Light out	Diameter (10±0.30) mm

SY-GW800L-N

Endoscope LED Cold Light Source



- ✓ Imported key component: adopted imported medical LED, strong stability, good anti-seismic property.
- ✓ Long service life: working time more than 20,000~40,000 hours, minimizing the need to replace the bulb, cost saving.
- ✓ Colour temperature purity: natural light 6500k.
- ✓ High brightness, great transparency, excellent color rendering, great three-dimensional sense of the surgery.
- ✓ Good compatibility: international standard light guide cable, to connect with most of brands, like Storz, Olympus, Wolf etc.

Technical parameters:

Specifications	Parameters
Power supply	AC100-240V 50/60HZ
Light source	Led light
Effective optical power	$\geq 100\text{mW}$
Input power	80VA
Noise	$\leq 55\text{dB(A)}$
Working environment	5°C~40°C
Atmospheric pressure	860hPa~1060hPa
Host fuse	T2AL 250V AC
Light out	Diameter (10 $\pm$ 0.30) mm



Light guide cable



SY-GW1000L-N

Endoscope LED Cold Light Source



Light guide cable
2m/2.5m/3m(customizable)

Functions and advantages:

1. 5 intelligent touch LCD screen reinforced tempered glass, wear-resistant, scratch resistant, super sensitive control.
2. Color temperature $6000\pm 500K$, natural light, no stray lights, great transparency, excellent color rendering, great three-dimensional sense of the surgery.
3. Imported key component: adopted medical imported LED module, strong stability good anti-seismic property.
4. Long working life, it is more than 20 ,000-40,000 hours, no need to change bulbs frequently, cost saving.
5. Avoiding bulb failure during the operation, which will affect the operation progress and ensure the operation quality and safety.
6. Good compatibility: International standard light guide cable, to connect with most of brands, like Storz, Olympus, Wolf etc.

Technical parameters:

Specifications	Parameters
Power supply	AC100-240V 50/60HZ
Light source	Led light
Effective optical power	$\geq 100mW$
Input power	100VA
Noise	$\leq 55dB(A)$
Working environment	$5^{\circ}C\sim 40^{\circ}C$
Atmospheric pressure	860hPa~1060hPa
Host fuse	T2AL 250V AC
Light out	Diameter (10 ± 0.30) mm

FHD Medical Monitor



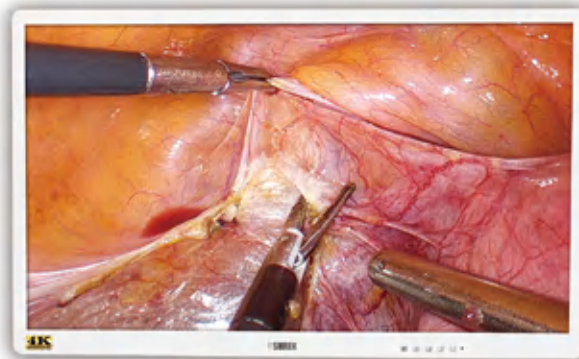
Monitor adopts the latest LED backlight drive technology and high performance I/P conversion. It only needs 5ms speed response time and no delay .

1080P HDMI output interface which makes visual effect clearer. 10.7 billion colors, more natural ,real and delicate image.

Top LED LCD, 178° ultra-wide angle of view omnibearing color reproduction display. With AR anti-glare layer.

Product name	15"Monitor	21"Monitor	24"Monitor	27"Monitor
Display size	304(H)*228(V)mm	517(H)*325(V)mm	518.4(H)*325(V)mm	535(H)*428(V)mm
Dot pitch(diagonal)	0.297(V)*0.297(H)mm	0.297(V)*0.297(H)mm	0.297(V)*0.297(H)mm	0.297(V)*0.297(H)mm
Maximum resolution	1024 x 768	1920 x 1080P	1920 x 1080P	1920 x 1080P
Display color	16.2M	8-bit	10-bit	10-bit
Contrast	700: 1	1000: 1	1000: 1	1300: 1
Brightness	450 cd/ m ²	700 cd/ m ²	700 cd/ m ²	700 cd/ m ²
Response time	8ms	8ms	8ms	8ms
Viewing angle (CR≥10)	178° (H) 178°(V)	178° (H) 178°(V)	178° (H) 178°(V)	178° (H) 178°(V)
Power	60W	70W	80W	90W
Signal interface	BNC, DVI, DP, VGA, USB,	BNC, DVI, DP, VGA, USB, SDI		
Input voltage	100-240VAC, 50-60Hz, 1.4A 12V±8.5A,102W MAX			
Working environment	Temperature 5°C-45°C Humidity5%-95%			

4K UHD Medical Monitor



32" BT320S

43" BT430S

55" BT550S

Advantages:

It has an oversized surgical field that allows doctors to see the whole picture and reduces the need for nurses to move back and forth looking for positions.

Noise suppression enhances the image quality and purity.

The suppression of strong light and the compensation of weak light make the image smoother.

Stronger smoke penetration capability makes surgery easier to operate.

Images with greater depth of field prevent the doctor from adjusting the focus back and forth, greatly reducing the surgery time.

Product name	4K 32"Monitor	4K 43"Monitor	4K 55"Monitor
Display size	698.4(H)*392.85(V)mm	941.184(H)*529.416(V)mm	1209.6(H)*680.4(V)mm
Dot pitch(diagonal)	0.36375(V)*0.12125(H)mm	0.297(V)*0.297(H)mm	0.297(V)*0.297(H)mm
Maximum resolution	3840×2160 UHD	3840×2160 UHD	3840×2160 UHD
Display color	10-bit	10-bit	12-bit
Contrast	1400: 1	1400: 1	1400: 1
Brightness	700 cd/ m ²	700 cd/ m ²	1000 cd/ m ²
Response time	6ms	6ms	6ms
Viewing angle (CR≥10)	89/89/89/89 (Min.)	89/89/89/89 (Min.)	89/89/89/89 (Min.)
Power	100W	120W	150W
Signal interface	HDMI、DVI、DP、VGA、USB	DVI、HDMI、DP、VGA、USB	DVI、HDMI、DP、VGA、USB
Input voltage	100-240VAC, 50-60Hz, 1.4A 12V=8.5A,102W		
Working environment	Temperature 0°C-50°C Humidity5%-95%		

SY-GWQ300

CO₂ Insufflator



Function Characteristic:

Use MOTORALA pressure sensor , three - way pressure observe and control , large flow air supply. Long life , safe and reliable.

- Fully automatic , quiet operation
- Automatic safety alarm function
- Dual gas filtering and decompression design

Technical Parameters:

Supply voltage : AC110~230V Range of flw : 10~30L/min
Power : 40VA Noise : ≤50dB
Range of press : 5~25mmHg

- 3 level flow rate
- Pulse gas supply design for great safety

Decompression watch	Pressure tube	Filter	Pneumoperitoneum needle
High pressure watch	Silicone tube	Connector	Insufflator connector

ACCESSORIES

SY-GWQ400

CO₂ Insufflator



High pressure tube with gaspurification
and decompression function



Technical Parameters:

Power supply : AC100~240V
Power frequency : 50Hz
Power : 120VA
Fuse : T2AL250V
Environment temperature : 10°C~40°C

Performance indicators:

- 1.With heating function
- 2.Gas pressure control range: 5~25mmHg
- 3.Pressure control precision: 2mmHg
- 4.Gas velocity range: 0~40L/min, variable speed
- 5.Gas velocity allowance: 20%
- 6.Pressure alarm: it provides a sound alarm When the Cylinder pressure is lower than 0.3MPa.

Function Characteristic:

- Variable speed of flow
- Light and acoustic alarm,safe and reliable
- Long life,stable property
- Large LCD display, with heating function, large flow output

Decompression watch	Pressure tube	Filter	Pneumoperitoneum needle
High pressure watch	Silicone tube	Connector	Insufflator connector

ACCESSORIES

SY-GWQ550

CO₂ Insufflator



High pressure tube with gaspurification
and decompression function



Technical Parameters:

Power supply : AC100~240V
Power frequency : 50Hz
Power : 120VA
Fuse : T2AL250V
Environment temperature : 10°C~40°C

Performance indicators:

- 1.With heating function
- 2.Gas pressure control range: 5~30mmHg
- 3.Pressure control precision: 2mmHg
- 4.Gas velocity range: 10/20/30/40/50/55L/min
- 5.Pressure alarm: it provides a sound alarm When the Cylinder pressure is lower than 0.3MPa.

Function Characteristic:

- Variable speed of flow
- Light and acoustic alarm,safe and reliable
- Long life,stable property
- 7" LCD screen, more convenient, more accurate and smarter to operate
- With heating function

Decompression watch	Pressure tube	Filter	Pneumoperitoneum needle
High pressure watch	Silicone tube	Connector	Insufflator connector

ACCESSORIES

SY-GWC200

Endoscopy Pump



Products introduction:

Washing and suction the effluent or fragment in the enterocoelia surgery

Function Characteristic:

Irrigate and suction alternately

Large flow

Adjusted irrigate and suction pressure as the need

Reflux prevention to prevent the effluent into the pump

Technical Parameters:

Supply voltage: 110~230V 50HZ

Power: 50VA

Range of pos-pressure: 10~50kPa

Range of neg-pressure: -50~-10kPa

Noise: <= 70dB



Silicone tube



Wash needle



Effluent bottle

ACCESSORIES

SY-GWG200

Irrigation Pump



- Used in orthopaedics , Gynecology and Urology systems
- Sterile tubing sets with sensor
- Emulsion tube and shim are replaceable
- High sensitivity pressure sensor

Function Characteristic:

Use roller pump to get large flow , irrigation tube can be autoclavable sterilization to avoid secondary pollution.

Pressure is adjustable on request and real time monitored.

Technical Parameters:

Supply voltage :110 ~230V 50HZ

Power : 150VA

Range of press : 15~400mmHg(2~53.3kPa)

Range of flw : 0.1~1.0L/min

Noise : ≤70dB



Irrigation tube



Thrusting
needle



Silastic



Connector

ACCESSORIES

SY-GWGX200

Irrigation Pump with suction



- Used in Orthopaedics , Gynecology and Urology systems
- Sterile tubing sets with sensor
- Emulsion tube and shim are replaceable
- High sensitivity pressure sensor
- With suction function

Function Characteristic:

Use roller pump to get large flow , irrigation tube can be autoclavable sterilization to avoid secondary pollution.

Pressure is adjustable on request and real time monitored.

Technical Parameters:

- | | |
|--|-----------------------------------|
| ✓ Irrigation Pressure Range : 50-400mmHg (6.7-53.3kPa) | ✓ Power : ~100-240V,50/60Hz |
| ✓ Irrigation Flow Range : 0.1-1.2L/min | ✓ Input Power : 100VA |
| ✓ Suction Pressure Range : 5-30kPa | ✓ Total Noise of the Host : ≤50dB |



Irrigation tube



Effluent bottle



Silastic



Connector



Silicone tube

ACCESSORIES

SY-R100

Full HD video recorder



Easy to carry and connect.

Imported aluminum & independent protective device of power.

Can connect with any endoscope camera system .

Apply to gynecology, ENT, obstetrics, urology,orthopedics, chest surgery, general surgery, etc.

Can record HD&SD videos. (HDMI & BNC signal)

High-quality HD recorder helps to show the surgery process actually.

Can used for experts to do academic exchange and report.

Specifications	Parameters
Recording format	MP4
Recording quality	MAX 18Mbs@1080P 30fps
Recording interface	USB disk and Removable hard disk
External U flash disk	MAX 128G
External mobile HDD	MAX 2T
Input signal	BNC、HDMI
Output signal	HDMI
Resolution	Input/output/Record 720×480 (60p) , 720×576 (50p) 1280×720 (50p) , 1280×720 (50p) 1920×1080 (50i) , 1920×1080 (60i) 1920×1080 (24p) , 1920×1080 (25p) 1920×1080 (30p) , 1920×1080 (50p) 1920×1080 (60p)

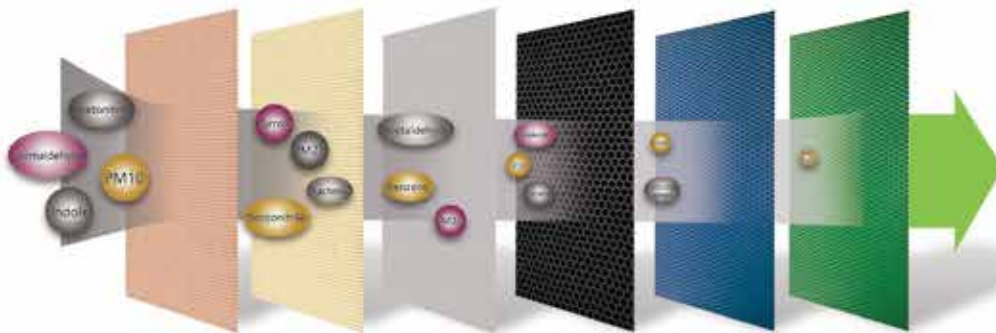
SY-GW721

Intelligent Fume-extracting System



Functional and advantages

1. Keep the surgery image clearly visible, accurately determine the cause of the tissue, smokeless interference accurately determine the cause of tissue, no smoke interference.
2. Intra-abdominal surgery to purify smoke and prevent harmful gases.



Specifications	Parameters
Power	AC110~230V
Frequency	60HZ
Input power	60VA
Control method	Capacitive touch
Display method	5 "LCD display
Noise	≤70dB
Filtration system	Custom filter
Smoking stall	3 stall
Service life	average of 20 surgeries
Size	L*W*H 340*350*108mm
Default flow	1L/min
Accessory	Intake hose/Single pedal

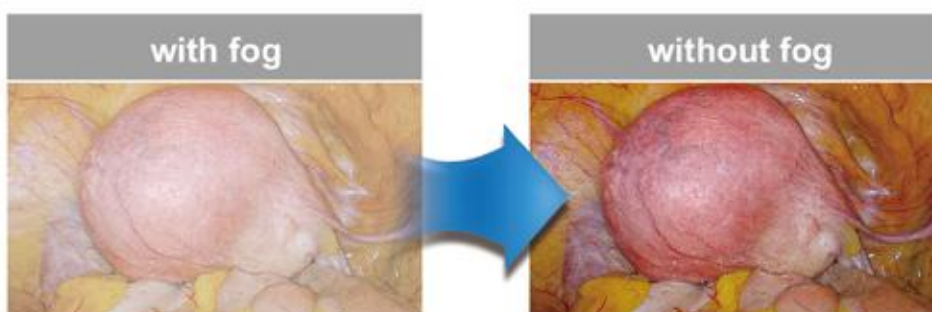


SY-GW722

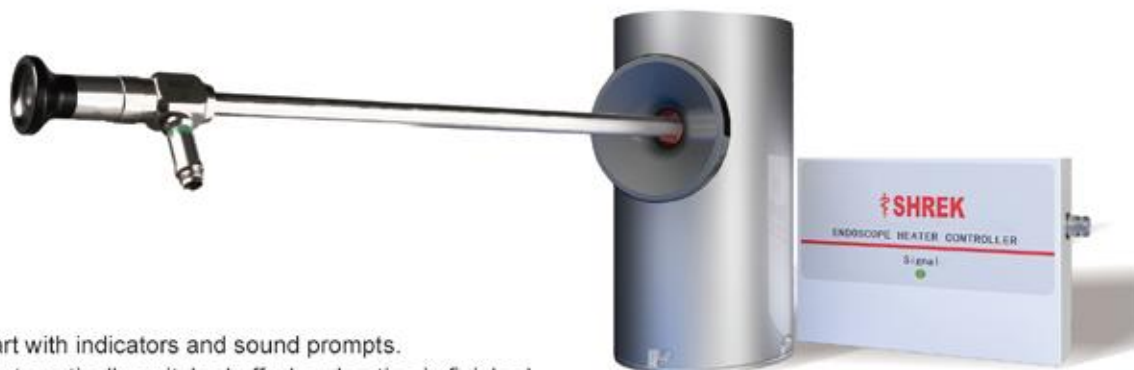
Endoscopy Heater



With the development of modern medical technology, minimally invasive surgery is widely carried out clinically, and laparoscopic surgery is an important part of minimally invasive surgery. Clear surgical visibility is key to the safety of laparoscopic surgery, so anti-fog treatment of laparoscopic lenses is essential. In the process of endoscopy surgery, due to the difference between the cavity temperature and external temperature, some water vapor encountered cold laparoscopic lens easily condensed to form a layer of fog, affecting the clarity of the field presented on the display.



Over the years, the clinical use of traditional lens warm-up method for anti-fog treatment, but in practice, the method often occurs hot saline sprinkling, scalding, lens tip-over and other phenomena, increasing the chances of intraoperative contamination and lens damage.



- Automatic induction start with indicators and sound prompts.
- Heating time 10-15S, automatically switched off when heating is finished, with indicators and sound prompts.
- Temperature protection.
- The temperature does not exceed 55 degrees during heating, effectively protecting the life of endoscope.
- Dedicated disinfect basket is optional.
- Portable suitcase, easy to carry, and protect product effectively.

SY-GW6211

Cleaning Machine

Application:

SY-GW6211 is mainly used for the cleaning of vessels and metal surgical instruments in the hospital.

Component:

Host, water cannon, high-pressure air gun, multi-functional nozzle, quick connector, pipeline system, control system filter, and tap.



Parameter:

Specifications	Parameters
Output air pressure	0.4MPa±20%
Output water pressure	0.35MPa±20%
Rate of work	800VA
Power	AC110~220V 50HZ
Environment temperature	5℃~40℃
Relative humidity	≤80%
Barometric pressure	(700~1060) hpa
Noise	≤70dB

ENT Treatment Unit

SY-ENT0722A



- SY-ENT0722A is the most popular ENT treatment unit. It has a large table surface and extra cabinet and drawers for placing ENT computer station, printer and documents. For small clinic room, doctor doesn't need to place another work desk, SY-ENT0722A is a economic solution.
- To fulfill most ENT diagnose application, SY-ENT0722A is designed to be able to attach various of medical equipment, for extending functionality, like ENT patient chair, endoscope camera, cold light source, medical monitor, etc.

Accessories			
Metal host	1	Compressor	1
Electronic control system	1	Vacuum pump	1
Hiccup damper	1	Instrument tray	2
Spray gun	3	Ointment jar	3
Blow gun	1	X-ray viewing lamp bracket	1
Suction gun	1	Endoscope integrated machine bracket	1
Endoscope defogger	1	Sewage collection system	1
LED inspection light	1	LED backlit X-ray viewing lamp	1
Total height:1560mm		Table size:1600* 600* 780mm	

SY-ENT0725A

ENT treatment unit

Intergrates FHD Endoscope Camera
& LED cold Light Source



Advantage:

- ✓ Touch screen operation
- ✓ Automation control system
- ✓ Built-in noise insulation design
- ✓ Spray gun/blow gun/suction gun system
- ✓ Laryngoscope pre-heating
- ✓ Blow off system
- ✓ Swivel doctor stool
- ✓ Manual patient chair

Composition of the ENT treatment table:

Accessories			
Metal host	1	Compressor	1
Electronic control system	1	Vacuum pump	1
Hiccup damper	1	Instrument tray	2
Spray gun	3	Ointment jar	3
Blow gun	1	X-ray viewing lamp bracket	1
Suction gun	1	Endoscope integrated machine bracket	1
Endoscope defogger	1	Sewage collection system	1
LED inspection light	1	LED backlit X-ray viewing lamp	1
Table size:1600* 600* 780cm, G.W:250kg			

FHD Endoscope Camera :

Specifications	Parameters
Image Sensor	1/1.8 CMOS
Effective pixels	1920(H)*1080(V)
Scan mode	Progressive scan
Horizontal resoution	1000TVL (1080P)
Focusing range	≥(2~200)mm
SNR	≥50dB
Brightness	ODS adjustable

LED Light Source :

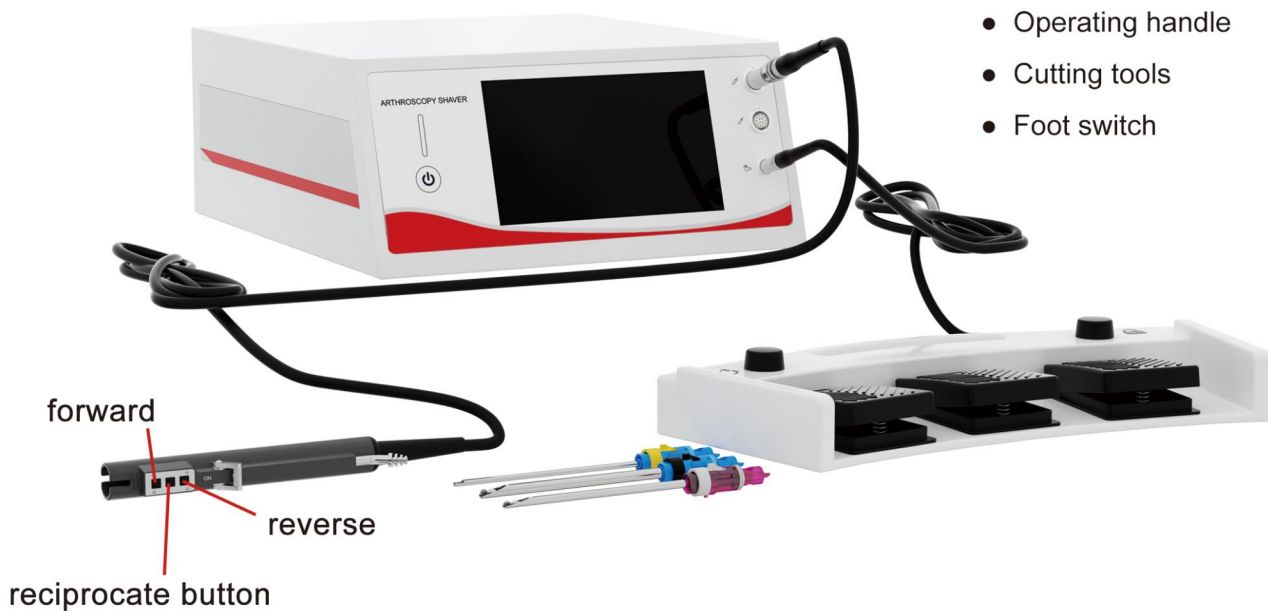
Specifications	Parameters
Light out	Diameter (10±0.30) mm
Light source	Led light
Effective optical power	≥100mW
Input power	100VA
Noise	≤55dB(A)
Working environment	5°C~40°C
Atmospheric pressure	860hPa~1060hPa

SY-DG300

Arthroscopy shaver

Composition:

- The host
- Operating handle
- Cutting tools
- Foot switch



- Equipped with the most advanced brushless motor in the world, the maximum speed can reach 12000RP
- Supports dual-channel operation at the same time.
- The handle supports high and low speed switching.
- Supports handle and foot pedal control equipment operation.
- Supports high temperature and high pressure, low temperature plasma sterilization.
- The foot pedal can achieve infinite speed adjustment, waterproof IPX8.

Blades:



Grinding head
Φ5.9*130mm

- **Connect to grinding head:**
Speed: 500~**12000RPM**



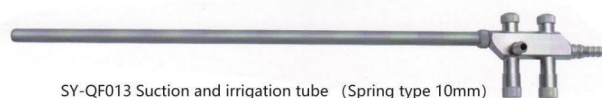
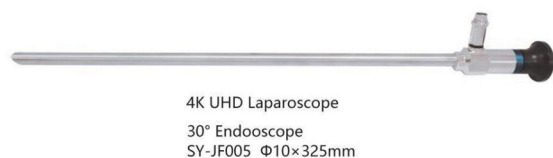
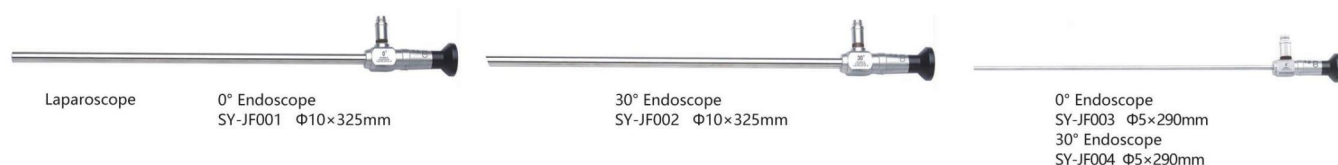
Cutting head
Φ4.2*130mm

- **Connect to cutting head:**
Forward, reverse: 100~**6000RPM**
Reciprocate: 100~3000RPM

Specifications	Parameters
Input voltage	220VAC
Input frequency	50Hz
Input power	650VA
Handle weight	Less than 630g (excluding cable)
Disinfection and sterilization method	High temperature and high pressure steam sterilization/low temperature plasma sterilization
Display	Touch screen
Interface	Power socket, foot switch interface, RS232 interface, handle interface A, handle interface B, USB interface, Ethernet interface.
Electric shock protection type	Class I
Working mode	Continuous operation
Working temperature	5°C~40°C
Working humidity	30%~80%, non-condensing
Working atmospheric pressure	700hPa ~ 1060hPa

Laparoscope

Laparoscopy hand instruments



SY-EH001.1
Plastic clip L



SY-EH001.2
Plastic clip M



SY-EH001.3
Plastic clip S



SY-EH002.1
Clip S



SY-EH002.2
Clip M



SY-EH002.3
Clip ML



SY-EH002.4
Clip L



SY-QF037.4
Sealing cap
Φ5mm



SY-QF037.5
Sealing cap
Φ10mm



SY-QF037.6
Sealing cap
Φ12.5mm



SY-QF038.1
Cross-shaped sealing
cap Φ5mm



SY-QF038.2
Cross-shaped sealing
cap Φ10mm



SY-QF135.1
Sealing ring
Φ5mm



SY-QF135.2
Sealing ring
Φ10mm

Laparoscope

SY-QF015.1
Reducer(short head)Φ10mm



SY-QF015.6
Reducer(long head)Φ10-5mm



SY-QF015.3
Reducer Φ10-5x100mm



Trocar (Cross); Trocar(Cross with safety); Trocar (Cross with reducer)



Trocar (Cross)
SY-QF026.1 Φ5×105mm
SY-QF026.2 Φ10×105mm



Trocar (Cross with safety)
SY-QF027.1 Φ5×105mm
SY-QF027.2 Φ10×105mm



Trocar (Cross with reducer)
SY-QF028.1 Φ10×105mm
SY-QF028.2 Φ12×105mm



Trocar (Magnetic)
SY-QF029.2 Φ5×105mm
SY-QF029.3 Φ10×105mm



SY-QF023.1 Spring forceps
Φ5 x 330mm



SY-QF023.2 Spring Forceps (Long)
Φ5×330mm



SY-QF008.1 Electric hook with suction



SY-QF005.1 Electric coagulation
with suction&irrigation



SY-QF006 Electric spade



SY-QF049.3 Aspiration needle Φ2.2mm



SY-QF049.2 Aspiration needle Φ1.8mm



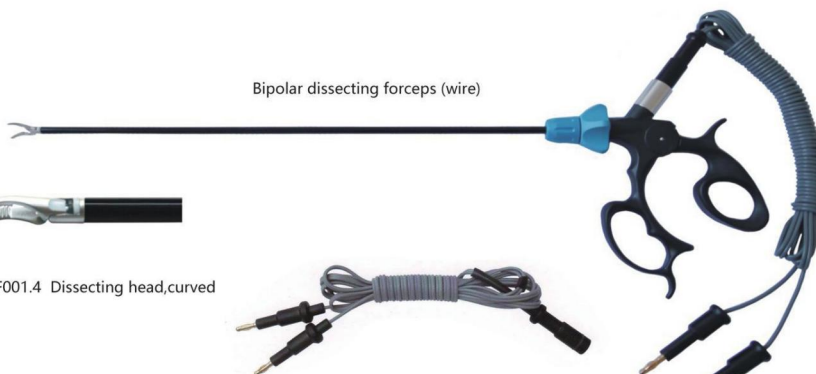
Bipolar dissecting forceps Φ5×330mm



SY-QF001.5 Automatic head



SY-QF001.4 Dissecting head,curved

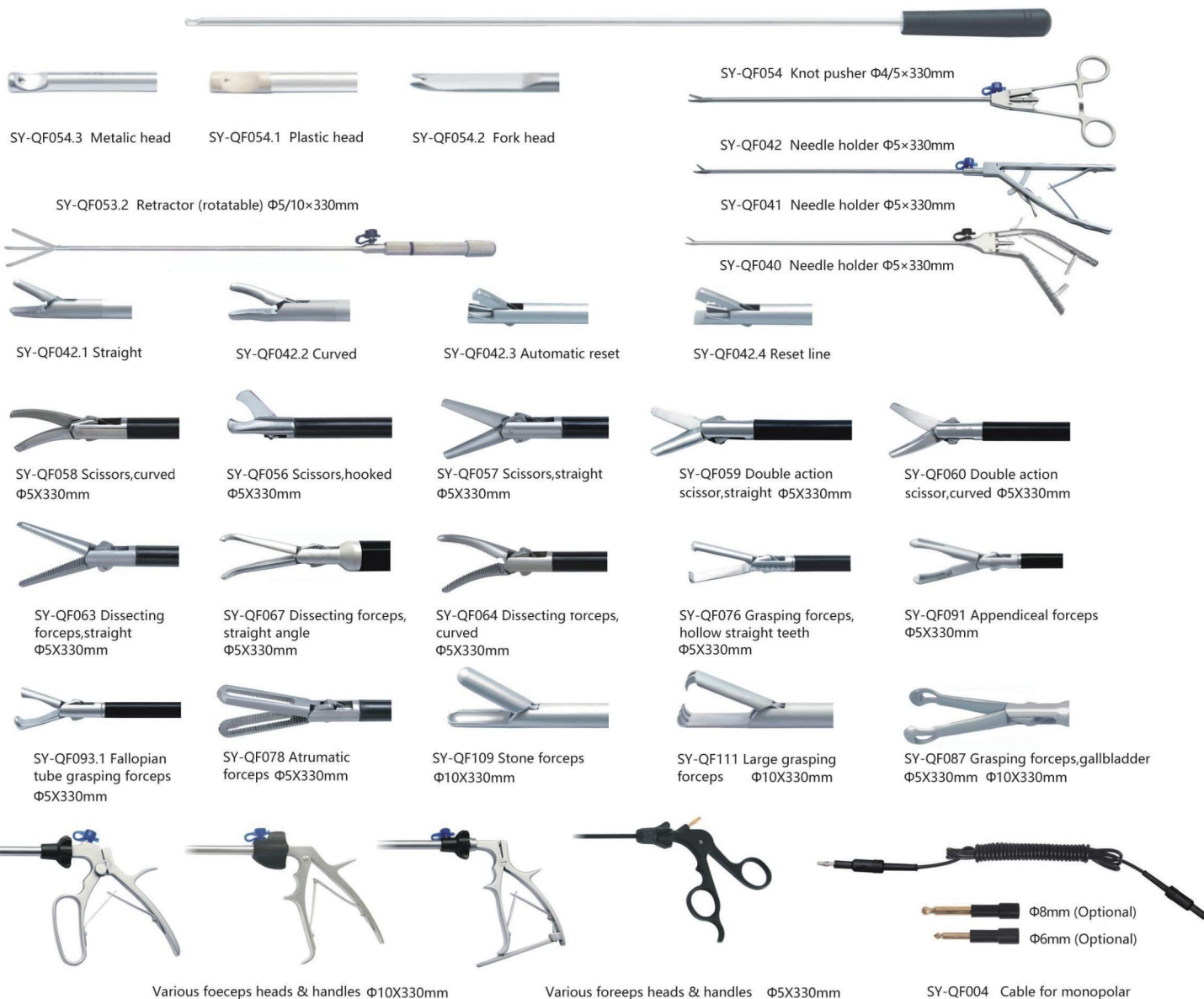


Bipolar dissecting forceps (wire)



SY-QF003 Cable for bipolar forceps

Laparoscope



SY-GWQ300
Co2 Insufflators



SY-GWC200
Endoscopic pump



SY-DP300
Electrosurgical Unit



Laparoscope

Morcellator (SY-ZMO-1)



SY-QQ004 Utering grasping forceps $\Phi 10\text{mm}$

SY-QQ003 Utering grasping forceps $\Phi 5\text{mm}$

SY-QQ008 Utering moving bar $\Phi 5\text{mm}$

SY-QQ009 Knot pusher

SY-QQ005 Myoma drill $\Phi 5\text{mm}$

SY-QQ006 Myoma drill $\Phi 10\text{mm}$

SY-QQ007 Measuring probe $\Phi 5\text{mm}$

SY-QQ011 Guiding probe $\Phi 10\text{mm}$

SY-QQ010 Uterine manipulator

SY-QQ012 Resector $\Phi 15\text{mm}$

SY-QQ013 Resector $\Phi 18\text{mm}$

SY-QQ014 Resector $\Phi 15\text{mm}$

SY-QQ015 Resector $\Phi 18\text{mm}$

Trocar cannula

SY-QQ016 $\Phi 15\text{mm}$

SY-QQ017 $\Phi 18\text{mm}$

SY-QQ023 Cervix
forceps (straight)

SY-QQ022 Cervix
forceps (curved)

Reducer

SY-QQ019 $\Phi 15\text{-}5\text{mm}$

SY-QQ018 $\Phi 18\text{-}5\text{mm}$

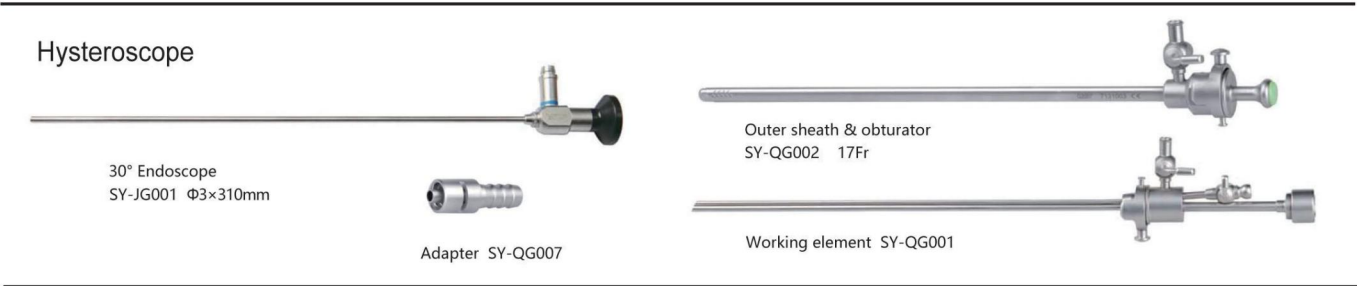
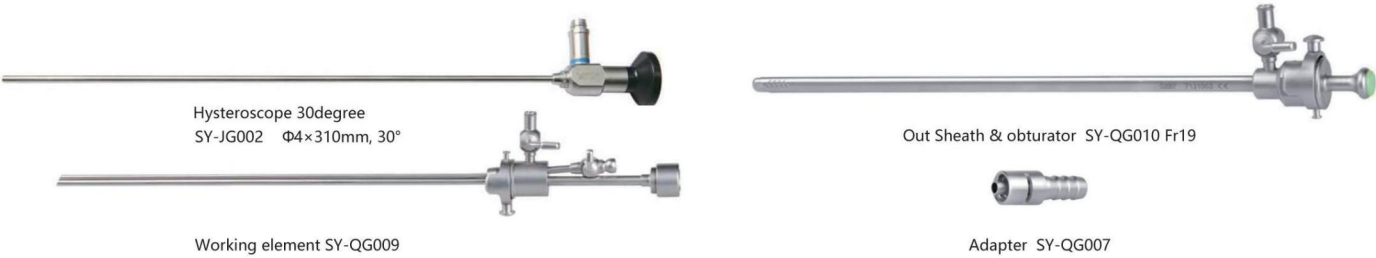
Dilator

SY-QQ021 $\Phi 10\text{-}15\text{mm}$

SY-QQ020 $\Phi 10\text{-}18\text{mm}$

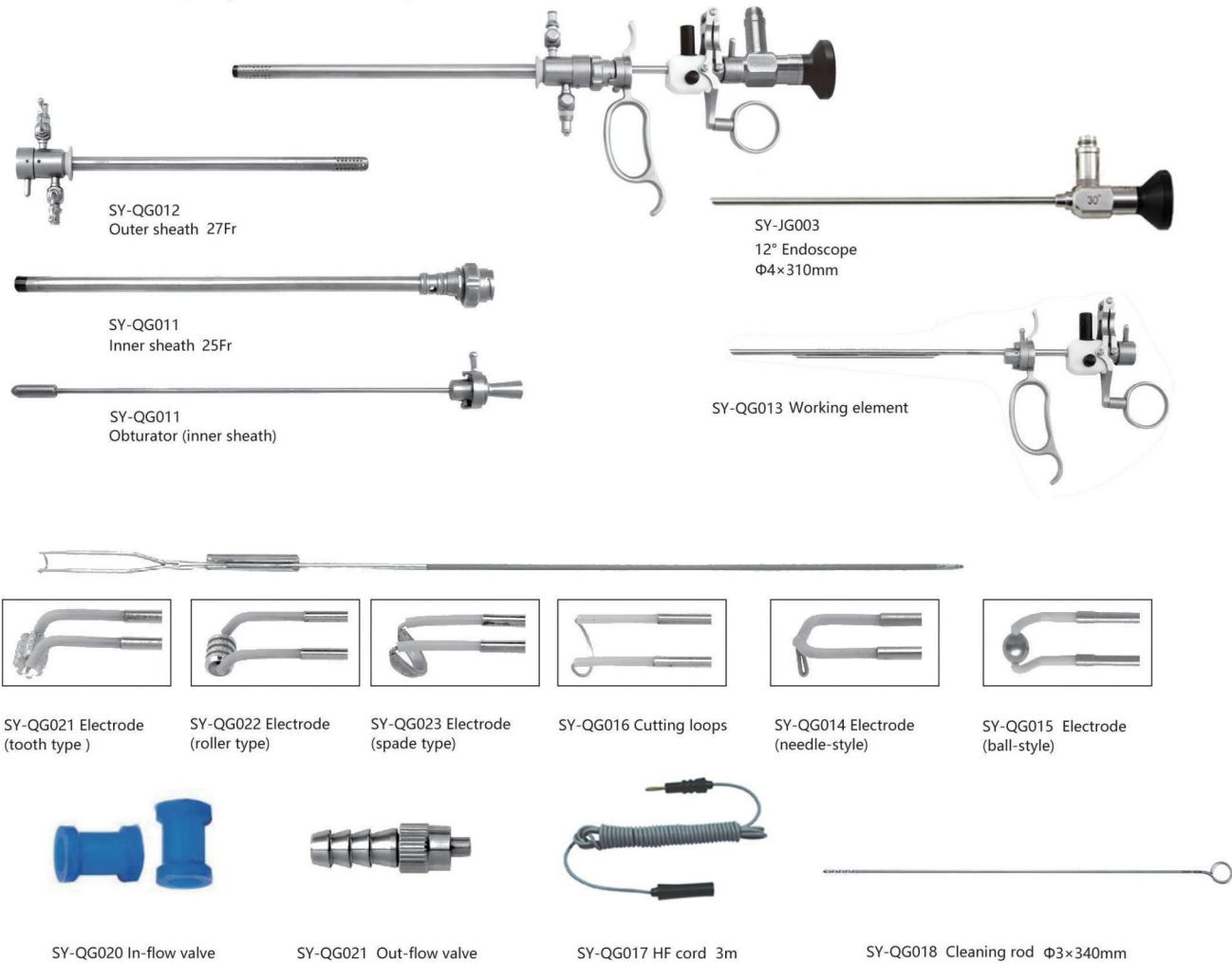
Gynecology

Hysteroscopy surgery and inspection instruments



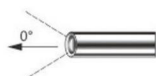
Gynecoscopy

Resectoscope (SY-ZHSR-1)



Arthroscope

Arthroscopy instruments (SY-ZAR-1)



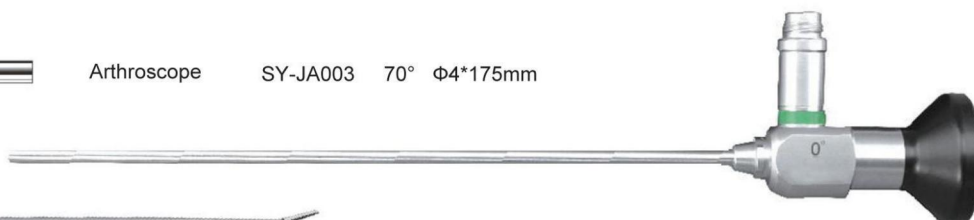
Arthroscope SY-JA001 0° Φ4*175mm



Arthroscope SY-JA002 30° Φ4*175mm



Arthroscope SY-JA003 70° Φ4*175mm



Arthroscopy forceps



SY-QA001 Φ4.5×130
Foreign body forceps



SY-QA002 Φ4.5×130
Biopsy forceps



SY-QA003 Φ4.5×130
Joint Pliers



SY-QA004 Φ4.5×130
Meniscus Forceps (Straight)



SY-QA005 Φ4.5×130
Meniscus Forceps (Left)



SY-QA006 Φ4.5×130
Meniscus Forceps (Right)



SY-QA007 Φ4.5×130
Hook Scissors



SY-QA008 Φ4.5×130
Scissor (Left)



SY-QA009 Φ4.5×130
Scissor (Right)



SY-QA014 3mm
SY-QA015 5mm
Spherical Probe



SY-QA016 3mm
Hook Knife



SY-QA017 3mm
Cutting Knife



SY-QA018 3mm
Reversed Knife

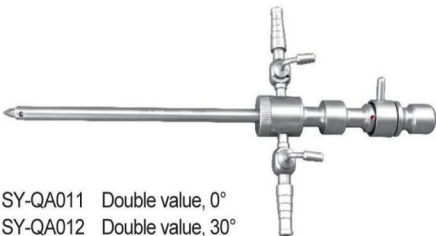


SY-QA019 3mm
Semicircle-shaped Knife

Arthroscope



SY-QA010 $\Phi 4.5 \times 130$
Sheath



SY-QA011 Double value, 0°
SY-QA012 Double value, 30°
SY-QA013 Double value, 70°
Sheath



SY-GWG200 Irrigation Pump



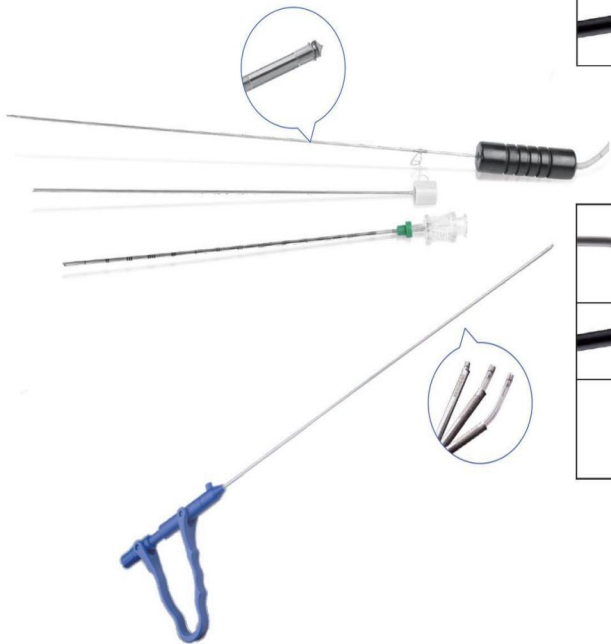
Shaver SY-DG100



Plasma surgery system



	Shape: Cutter head 20° Pin number: Ring type Outer diameter: 3.2mm Working length: 135mm Usage: Accurate ablation of Articular cartilage, Femoral ankle, Tibia, and Patella, suitable for Chondromalacia.
	Shape: Cutter head 90° Pin number: 14 Outer diameter: 4.0mm Working length: 135mm Usage: Multipin electrode output, suitable for large areas of soft tissue ablation, suitable for shoulder and knee joints.



	Shape: Cutter head 90° Pin number: 18 Outer diameter: 4.0mm Working length: 135mm Usage: Multipin electrode output, suitable for large areas of soft tissue ablation, suitable for shoulder and knee joints
	Shape: Cutter head 30° Pin number: 7 Outer diameter: 2.8mm Working length: 82mm Usage: Designed for Arthroscopy of the wrist, ankle, and elbow joints to improve surgical efficiency.
	Shape: Cutter head 45° Pin number: 12 Outer diameter: 3.6mm Working length: 135mm Usage: Gasification, cutting and hemostasis of the knee synovium and the stenosis of the posterior horn of meniscus.

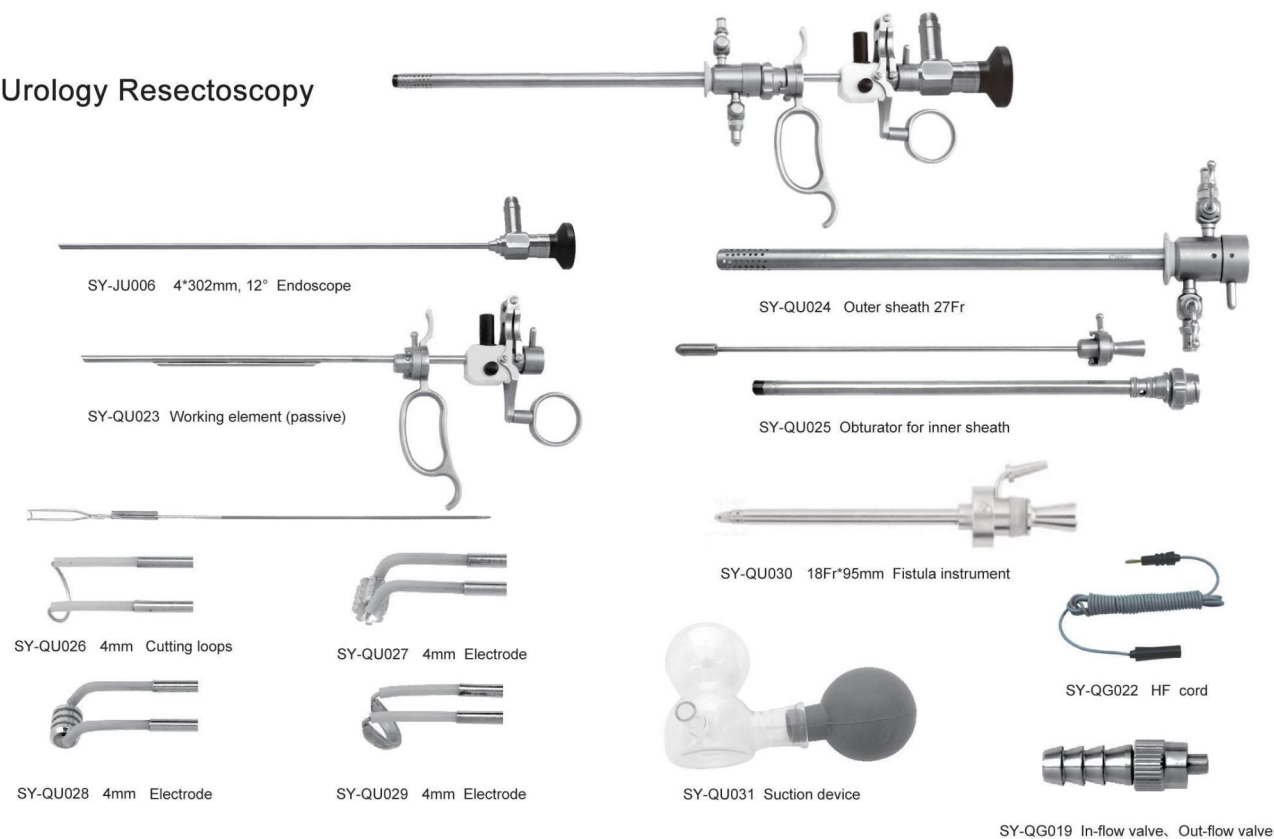
Urology

Urology surgery and inspection instruments

Urethral cystoscopy (SY-ZCSR-1)



Urology Resectoscopy



Urology



Ureteroscope
Φ7.5 x 425mm (Channel of instrument 5.4Fr)
Φ8.5 x 425mm (Channel of instrument 6Fr)



Nephroscope



Dilator 6Fr, 7Fr, 8Fr, 9Fr, 10Fr, 11Fr, 12Fr, 14Fr



0°Endoscope



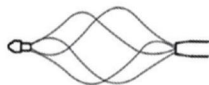
Sheath φ21 x 210mm



Rigid biopsy forceps
5Fr×580mm
4Fr×580mm



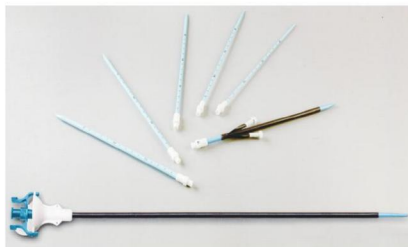
Rigid foreign body forceps
SY-QU032 4.5Fr×600mm



Stone basket
5Fr×630mm



Double J pipe
4Fr, 4.8Fr, 5Fr, 6Fr, 7Fr, 8Fr



Minimally dilator drainage set
Dilator:8Fr, 10Fr, 12Fr,
14Fr, 16Fr, 18Fr, 20Fr, 22Fr, 24Fr
Peeling sheath:
14Fr, 16Fr, 18Fr, 20Fr, 22Fr, 24Fr
Sheath:10Fr, 12Fr, 14Fr
Drainage tube:8Fr, 10Fr,
12Fr, 14Fr, 16Fr, 18Fr, 20Fr, 22Fr



Wire
0.032"
0.035"



Pneumatic impact crusher



Handle director



Waterproof Down controller



Outlet tube



Handle disinfection plug

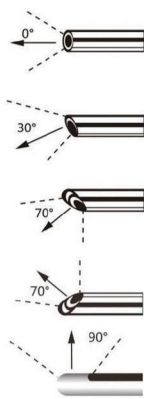


Holmium laser



ENT

ENT surgery and inspection instruments



Otoscope

4*90mm, 0°	SY-JE002	2.7*90mm, 0°	SY-JE012
4*90mm, 30°	SY-JE004	2.7*90mm, 30°	SY-JE014
4*90mm, 70°	SY-JE006	2.7*90mm, 70°	SY-JE016
4*110mm, 0°	SY-JE003	2.7*110mm, 0°	SY-JE013
4*110mm, 30°	SY-JE005	2.7*110mm, 30°	SY-JE015
4*110mm, 70°	SY-JE007	2.7*110mm, 70°	SY-JE017

Sinuscope

2.7*175mm, 0°	SY-JB005
2.7*175mm, 30°	SY-JB008
2.7*175mm, 70°	SY-JB009

Laryngoscope

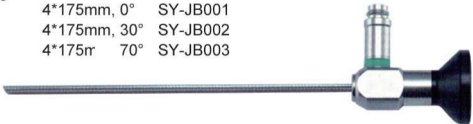
8*180mm, 70°	SY-JH001
8*180mm, 90°	SY-JH003
6*180mm, 70°	SY-JH002
6*180mm, 90°	SY-JH004



ENT shaver

SY-DE200





Endoscope

4*175mm, 0°	SY-JB001
4*175mm, 30°	SY-JB002
4*175mm, 70°	SY-JB003



Nasal sinuses scissors
(Straight)
SY-QW061



Nasal sinuses scissors
(Left)
SY-QW062



Nasal sinuses scissors
(Right)
SY-QW063



Nasal sinuses 0°
SY-QW064



Nasal sinuses 30°
SY-QW065



Nasal sinuses 45°
SY-QW066



Nasal sinuses 90°
SY-QW067



Rongeur sinuses pliers
(Front)
SY-QW068



Rongeur sinuses pliers
(Back)
SY-QW069

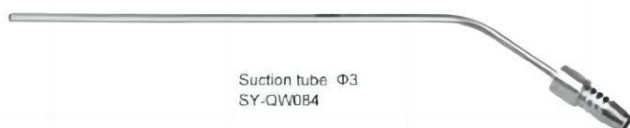
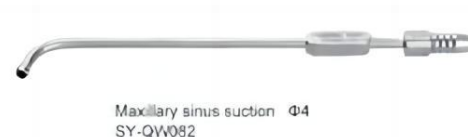


Polpus forceps
SY-QW070



Grasping forceps
SY-QW071

ENT





Laparoscope, Hysteroscope, Arthroscope, ENT, PTED(percutaneous transforaminal endoscopic discectomy), MED(Micro Endo Disc System), Cystoscope, Percutaneous nephroscope, Ventriculoscope, Proctoscope, Sigmoidoscopy/proctosigmoidoscope, Urology resectoscope, Hairdressing Magnifier, Bromhidrosis endoscope, Breast implant endoscope, Thoracoscope, Fibrolaryngoscope, Fiber choledochoscope, Fiber bronchoscope, Fiber ureteroscope, TAPP hernia repair, lacrimal passage, Minimally invasive varicose veins, etc.

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