

#### FULL HD ENDOSCOPE CAMERA SYSTEM COMPLETE SOLUTION



Shanghai Shiyin Photoelectric Instrument Co., Ltd.

# COMPANY PROFILE

We provide professional complete solution for minimally invasive surgery.

Shanghai Shiyin Photoelectric Instrument Co., Ltd provides total Solutions for professional medical monitor, full HD endoscope camera system, LED cold light source, instruments, endoscope workstation and so on. Besides, we can also provide portable camera system and OEM service. Located in Shanghai Nanhui Industrial Park, we are a medical industry company on R&D, producion and sale. Founded in 2009, till now, we Dedicated to science and technology innovation. Enhance the innovation stimulating mechanism, develope and use medical remote control after-sales service. Increases competitive power of enterprises by cooperating with foreign manufactures. At the same time, provide maintenance of all brands of endoscope camera, rigid endoscope, video endoscope and medical equipment for free. We stress the ways companies benefit society simply by helping customers solving problem.

Our company will be conscientiously implement and observe business regulations. Company policy: market as be realistic and pragmatic, Forge Ahead, continued cooperation. "Blaze New Trails, Focus on Quality, High Integrity Services" for the company purpose. To promote development of the microinvasive medical instrument, building a medical equipment brands, serves for human health.

Our principle business includes all kinds of medical endoscope camera system and accessories, LED medical cold light source, monitor, trolley, medical workatation, gas Insufflator, Irrigation pump, all kinds of rigid endoscope, instruments and related consumable. What's more, we also supply custommade service to fulfill customer demand.

# We provide professional complete solution for minimally invasive surgery.







# **SY-GW1000C-T**

## Intelligent digital full HD Endoscope camera





#### Functions and advantages:

- Intelligent digital full HD 1200lines 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)
- 3. Double 5 " touch LCD screen, wear-resistant, scratch resistant, fastness, quick-witted.
- Solving electromagnetic interference of energy platform during operation ( such as ultrasonic knife, plasma knife, electrosurgical unit, etc.)
- Camera head waterproof: IP8X, to prevent water from entering the camera head during the surgery.
- Extinction speed is less than 0.2s, which can solve the operation delay of surgical images and reduce visual fatigue.
- Professional camera head and special needs of doctors are customized to meet the needs of different departments.

#### **Technical parameters:**

Specifications	Parameters
Image Sensor	1/2.8 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

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)



## Our products:

# One year replacement Three years warranty

Application: Arthroscopy, ENT, PTED, Cystoscopy, Percutaneous Nephrolithotomy, Ventriculoscopy, Hysteroscopy, proctoscopy, Sigmoidoscopy, Resectoscopy(Urology&Gynecology), Plastic surgery, Laparoscopy, Breast augmentation, Thoracoscopy, fiber nasopharyngoscope, fiber bronchoscopy, fiber ureteroscopy, APP hernia repair, etc complete minimally invasive solutions.

Certificates: CE, ISO9001, ISO13485

# SY-GW900C-T

## Intelligent digital full HD Endoscope camera





## Functions and advantages:

- Intelligent digital full HD 1100lines HD-1080P,
   Effective pixels is 1920(H)\*1080(V).
- 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.)
- Camera head waterproof: IP8X, to prevent water from entering the camera head during the surgery.
- Extinction speed is less than 0.2s, which can solve the operation delay of surgical images and reduce visual fatigue.
- Professional camera head and special needs of doctors are customized to meet the needs of different departments.
- 7. The color reproduction capability and image geometric distortion of this device have passed the test of relevant national institutions.
- 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)

Specifications	Parameters
Image Sensor	1/2.8 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



## Our products:

# One year replacement Three years warranty

Application: Arthroscopy, ENT, PTED, Cystoscopy, Percutaneous Nephrolithotomy, Ventriculoscopy, Hysteroscopy, proctoscopy, Sigmoidoscopy, Resectoscopy(Urology&Gynecology), Plastic surgery, Laparoscopy, Breast augmentation, Thoracoscopy, fiber nasopharyngoscope, fiber bronchoscopy, fiber ureteroscopy, APP hernia repair, etc complete minimally invasive solutions.

Certificates: CE, ISO9001, ISO13485

# SY-GW800C-N

## Medical Full 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.

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



# Our products:

# One year replacement Three years warranty

Application: Arthroscopy, ENT, PTED, Cystoscopy, Percutaneous Nephrolithotomy, Ventriculoscopy, Hysteroscopy, proctoscopy, Sigmoidoscopy, Resectoscopy(Urology&Gynecology), Plastic surgery, Laparoscopy, Breast augmentation, Thoracoscopy, fiber nasopharyngoscope, fiber bronchoscopy, fiber ureteroscopy, APP hernia repair, etc complete minimally invasive solutions.

Certificates: CE, ISO9001, ISO13485

# SY-GW700C

## Medical endoscope camera



## Functions and advantages:

- 1. Standard 700lines, effective pixels is 752(H)\*582(V).
- Full intelligent automatic white balance(Patented technology: no one step white balance, don't need adjust white balance every time when you turn on it. Save operation time. Natural Color Technology
- 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

Specifications	Parameters
Image Sensor	1/3 CCD
Effective pixels	752(H)*582(V)
Scan mode	Interlacing scan
Horizontal resoution	700TVLines
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



# Our products:

# One year replacement Three years warranty

Application: Otolaryngology, ENT, Cystoscopy, Hysteroscopy, Arthroscopy, PTED, etc.

Certificates: CE, ISO9001, ISO13485

# **NEW** 3D Digital full HD endoscope camera system



Application: Laparoscope, Arthroscope, ENT, PTED(percutaneous transforaminal endoscopic discectomy), Sigmoidoscope, Ventriculoscope, Urology resectosscope, Plastic surgery endoscope, APP hernia repair, Breast implant endoscope, Thoracoscope, Hysteroscope, Fiber choledochoscope, Lacrimal passage, Minimally invasive varicose veins, etc.

#### Partial cases of 3D laparoscopic surgery



## Definition of 4K Ultra HD

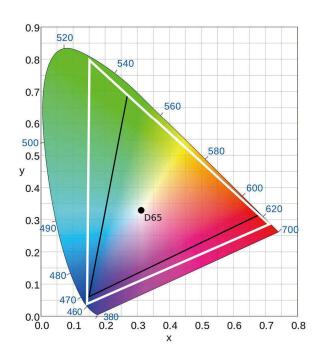
The "UHD" standard released by the International Telecommunication Union (ITU), with a physical resolution of 3840x2160 (4Kx2K) and above, which is called Ultra HD. It is twice the width and height of the Full HD (1920X1080) and four times of the area.

4K resolution is 4 times of 1080P  $3840 \times 2160 = 1920 \times 2 \times 1080 \times 2$ 





Name	Pixel layout	Resolution	Pixel number
FHD	R G B R G B	1920xRGB (3)x1080 1 pixel = 3 seed pixels (R,G,B)	6.2M Colors
UHD (4K×2K) RGB	R G B R G B	3840xRGB (3)x2160 1 pixel = 3 seed pixels (R,G,B)	24.9M Colors (=FHD×4)



#### **Advantages of 4K Ultra HD**

**Core image:** CMOS sensor:1/1.8 Original imported sensor parts, processor: More than 8 million Ultra HD processing system

Ultra Clear Coating: Ultra high resolution ≥(3840\*2160) Real color, Ultra Clear Coating, super delicate

**More precise:** More meticulous observation of histopathology and vascular to operation. Real field of view can effectively improve visibility during surgery

More intelligent: 7" high-definition intelligent control screen, easier and more convenient to operate.

**More secure:** Effective reduction of surgical time and ensure that doctors and patients are safer under the same conditions

Application: General surgery, Gynecology, ENT, Urology, Orthopedics, Plastic surgery, Aorectal etc.

# **Composition of 4K Ultra HD**



4K Ultra HD Medical Monitor



4K Ultra HD Endoscope Camera System



4K Ultra HD Camera head



4K Laparoscope



High brightness LED Light Source



Light Cable



#### 4K Ultra HD Monitor Technical parameters:

Specifications	Parameters			
Туре	a-Si TFT-LCD			
Resolution	3840 ( RGB ) *2160 UHD			
Screen	43寸			
Aspect ration	16:9 (H:V)			
Pixel arrangement	RGB vertical			
Display brightness	350 cd/m <sup>2</sup>			
Contrast	1000-1			
Viewing angle	89°			
Response time	6ms			
Supported color	16.7M			
Frame frequency	60HZ			
Power	70W			
Power supply	GSPT120A24-R7B			
Interface type	VGA DVI HDMI USB DP			
Voltage supply	DC24V			
Application environment	Endoscopic surgery video display and medical teaching demonstration display			
Display area	941.184(H) x 529.416(V)mm			
External dimension	964.6(H)x555.4(VI)x29.1(T)mm			
Weight	27Kg			
Additional function	Support remote maintenance and parameter guidance adjustment; compatible with video sources such as FHD, HD and SD etc.			

#### 4K Ultra HD Endoscope Camera System Technical parameters:

Specifications	Parameters
Image Sensor	1/1.8 CMOS
Total pixels	9.03M
Effective pixels	8M
Resolution	3840*2160
Shortcut function	One step WB/One step Freeze/One step PIP
Video output	HDMI*4, 2.0 2160P output
White balance	AWC/One step WB/MWC
Gamma Correction	0.45
SNR	≥50dB

# Medical endoscope HD USB camera 1080P

# SY-HD7021









Connection:

Laptop or desktop



TO USB CABLE

Mobile phone



TO USB CABLE

Medical monitor



TO SDI CABLE



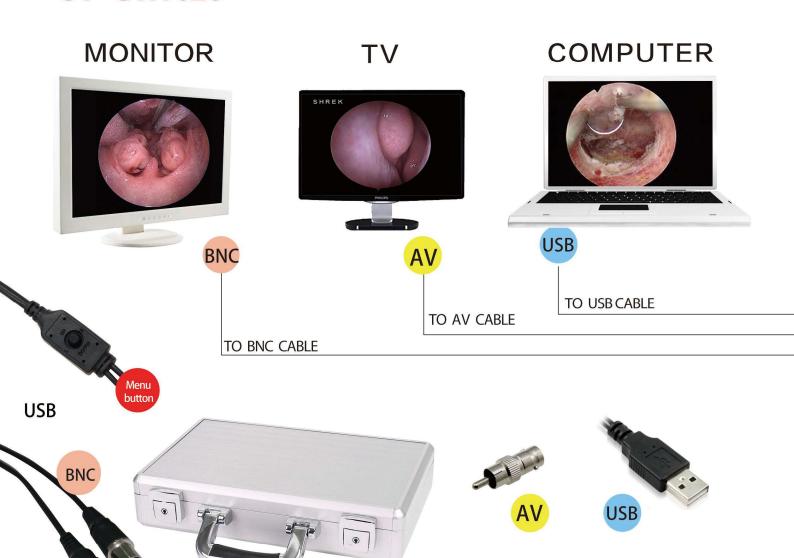




SDI cable

- The original Full HD CMOS chip.
- Multi-output: USB, SDI.(Type C, HDMI adapters optional)
- Extinction speed is less than 0.1s.
- The resolution of endoscope camera is up to 1100 lines, 1080P.
- Camera head waterproof: IPX8, to prevent water during the surgery.
- Supports Windows XP, 7, 8, &10.
- With menu button to adjust parameters.

# Medical endoscope USB camera **SY-GW702C**



#### Connection:

- 1. Laptop or desktop.
- 2、Medical monitor.
- 3、TV

The original import ccd chip.

Multi-output: USB, BNC, AV.

Extinction speed is less than 0.2s.

The resolution of endoscope camera is up to 700lines.

Camera head waterproof: IPX8, to prevent water during the surgery. Supports Windows XP, 7, 8, &10

With menu button to adjust parameters

Dont need driver



- 4 in 1, camera 700lines + LED light source + monitor+ HD recorder.
- Medical grade HDmonitor, 17 inch.
- With suitcase, easy to carry.
- Suitable for diagnosis and surgery.
- Application: Gynecology, Urology, ENT, Orthopedics, etc.

## Detailed parameter as following table:

Medical Monitor									
LCD screen		17"							
Color					10.7 billion				
Aspect Ratio	n				5:4				
			Endosco	pe C	CD Camera				
Image device	1/3 C	CD			SNR	≥50dB			
SY	PAL				Brightness	ODS Ad	djustal	ble	
Total Pixels	N:811	(H)*50	08(V) P:795(H)*596 (V)		Backlight processing	Wide dy / backlig	namio	c (rank adjustable) mpensation/strong inhibition	
Effective Pixels	N:768	(H)*49	94(V) P:752(H)*582 (V)		Synchronous system	Internal	Sync	hronization	
Scanning system	2:1 int	terlace	ed		White balance	ATW1/A	ATW2	/MANUA	
Scan frequency	N:15.7	734KH	Z 59.94HZ P:15.635KHZ	50HZ	Acutance &saturation	Turn on	/off gr	rade adjustable	
Scanning mode	Interla	ced s	canning		AG	Low/me	ow/medium/high/off grade adjustable		
Horizontal Resolution	700T\	/L			Minimum Illumination	F1.2≤0.5lx			
Electronic shutter	N:1/60	)S-110	0000sec P:1/50S-120000s	ec	Rollovers	on/off			
OSD Control-Menu	Built in	It in external			DNR	2D VOX			
			LED	Ligh	t Source				
Input pov	ver		60VA	L	Light output hole diameter			φ ( 10±0.10 ) mm	
Light sou	rce		LED		Working conditions			5°C ~ + 40°C	
Brightne	ss		≥490,000Lux		Storage conditions			-40°C ~ + 55°C	
Color temper	ature		≥6500k	-	Continuous working hours >		>4h		
			ŀ	ID R	ecorder				
Specification	s	Parameters			External U flash disk		ı	Max 64G	
Recordering format		MP4		External mobile HDD			Max 2T		
Recordering quality		MAX 18Mbs @1080P 30Fps		I	Recorder interface			Support USB disk & removable hard disk	

#### Portable Medical HD Endoscope Camera System

- Unique TC (true color) reduction technology making color more vivid.
- Preposition anti-glare, anti-fingerprint, protective glass, avoid splash liquid pollution.
- FHD, use top medical IPS high-definition panel, specifically for medical applications.
- The original import chip , digital signal.
- The resolution of endoscope camera is up to 1000lines.
- Extinction speed is less than 0.2s.
- Camera head waterproof: IPX8, to prevent water duiring the surgery.
- 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, no stray lights.
- High brightness: 490,000Lux, great transparency, excellent color rendering, great three-dimensional sense of the surgery.





Specifications	Parameters
Screen	21"
Resolution	1920*1080
Aspect Ration	16:9
Input Signal	DVI
Image Sensor	1/2.8 CMOS
Language	Chinese/English/Korean
Effective pixels	P:1920(H)*1080(V)
Scanning Frequency	N:60HZ P:60HZ
Scan mode	Progressive scan
Horizontal resolution	1000TVL
Brightness	ODS adjustable
Min illumination	F1.2≤0.1Lux
Input power	50VA
Light source	Led light
Effective optical power	≥100mW
Brightness(Lux)	≥490000lx
Color temperature	≥6500K
Surface temperatures	≤60°C
Flat thermal of light source	≤80°C
Machine power	50VA

## Portable HD endoscopy unit

 Adopt 3CCD technique, 1080 video output HD, good stereoscopic.

• Multi-output: HDMI, BNC

• Application: hysteroscopy, arthroscopy, ENT

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



#### Detailed parameter as following table:

Medical Monitor						
LCD screen		21"				
Resolution		1920*1080				
Aspect Ration		16:9				
Port	Camera head	Camera head port-1pc; Light cable socket-1pc; Usb port-1pc;				
	1	HD Recorder				
Specifications	Parameters	Parameters External U flash disk Max 64G				
Recordering format	MP4 External mobile HDD Max 2T					
Recordering quality	MAX 18Mbs @1080P 30Fps	Recorder interface	Support USB disk & removable hard disk			





Endoscope Full HD Camera								
Image device	1/2.8 CMOS				SNR	≥50dB		
SY		P	AL		Brightness	ODS Adjustable		
Total Pixels		N:2010(H) P:2010(H) *1108(V) *1118(V)		Backlight processing	/backl	namic(rank adjustable) ight compensation/ crong inhibition		
Effective Pixels		920(H) 080(V)	P:1920(H *1080(V	5	Synchronous syetem	Internal Synchronization		
Scanning system		2:1 pro	gressive		White balance	25	Auto/MANUA	
Scan frequency		N:60HZ	: P:60HZ		Acutance &saturation	Turn om/off grade adjustable		
Scanning mode	Р	rogressiv	e scanning	)	AG	Low/medium/high/ off grade adjustable		
Horizontal Resolution	1200TVL			Minimum IIIumination	F1.2≤0.11Lx			
Electronic shutter	:	1/50(60)\$	5-1/60,000s		Rollovers		on/off	
OSD Control-Menu	В	Built in	externa	I	DNR	3D VOX		
			LED	Ligh	nt Source			
Input power		100	IVA	I	ight output hole dia	iameter φ ( 10±0.10 ) n		
Light source		LED		Working condition		ions 5°C ~ + 40°C		
Brightness		≥1,90	0,000Lux		Storage condition	conditions -40°C ~ + 55°		
Color temperatu	re	≥6!	500k		Continuous working hours >4h		>4h	

## Portable HD endoscopy 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							
Screen size		17"					
Color		10.7 billion					
Aspect Ration		5:4					
	HD Recorder						
Specifications	Parameters	External U flash disk	Max 64G				
Recordering format	MP4	External mobile HDD	Max 2T				
Recordering quality	MAX 18Mbs @1080P 30Fps	Recorder interface	Support USB disk & removable hard disk				

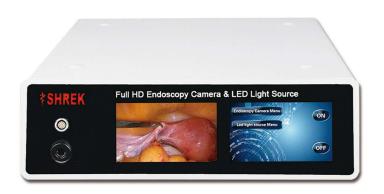




Endoscope Full HD Camera							
Image device	1/1.8 CMOS		SNR		≥50dB		
SY		P	AL		Brightness	OI	OS Adjustable
Total Pixels		010(H) 108(V)	P:2010(F *1118(\	250	Backlight processing	/backl	namic(rank adjustable) ight compensation/ crong inhibition
Effective Pixels		920(H) 080(V)	P:1920(F *1080(V	5	Synchronous syetem	Interr	al Synchronization
Scanning system		2:1 prog	gressive		White balance	8	Auto/MANUA
Scan frequency		N:60HZ P:60HZ		Acutance &saturation	Turn om/off grade adjustable		
Scanning mode	Р	Progressive scanning		AG	Low/medium/high/ off grade adjustable		
Horizontal Resolution		1100TVL		Minimum IIIumination		F1.2≤0.11Lx	
Electronic shutter		1/50(60)\$	5-1/60,000s		Rollovers		on/off
OSD Control-Menu	В	Built in external		ľ	DNR		3D VOX
	LED Light Source						
Input power	80VA		ı	Light output hole dia	ameter φ ( 10±0.10 ) mr		
Light source		L	ED		Working condition	ions 5°C ~ + 40°C	
Brightness		≥1,200,	,000Lux		Storage condition	Storage conditions -40°C ~ + 5	
Color temperatu	Color temperature ≥6500k			Continuous working	hours	>4h	

#### Full HD Endoscope Camera & LED Light Source

- 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				
Recordering format	MP4	Recorder interface	Support USB disk & removable hard disk		

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	1100TVL	

LED Light Source					
Input power	nput power 80VA Light source LED				
Brightness	≥1,200,000Lux	Color temperature	≥6500K		

# SY-GW900L-T

## Medical LED light source





## Functions and advantages:

- 5 intelligent touch LCD screen reinforced tempered glass, wear-resistant, scratch resistant, super sensitive control.
- Color temperature ≥ 3000K-7000K, natural light, no stray lights, great transparency, excellent color rending, great three-dimensional sense of the surgery.
- 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.
- Avoiding bulb failure during the operation, which will affect the operation progress and ensure the operation quality and safety.

## **Technical parameters:**

Specifications	Parameters
Power supply	AC100-240V 50/60HZ
Light source	Led light
Effective optical power	≥100mW
Color temperature	≥3000-7000K
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

6. Good compatibility: International standard light guide cable, to connect with most of brands, like Storz, Olympus, Wolf etc.

## SY-GW800L-N



# **LED** medical cold light source

- √ Imported key component: adopted imported medical LED, strong tability, 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: 490,000Lux, 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.

Specifications	Parameters
Input power	60VA
Power supply	AC100-240V 50/60Hz
Light source	Led light
Effective optical power	≥100mW
Brightness(Lux)	≥490000lx
Color temperature	≥6500K
Noise	≤55dB(A)
Surface temperatures	≤60°C
Flat thermal of light source	≤80°C
Working environment	5°C ~ 40°C
Atmospheric pressure	860hPa ~1060hPa
Machine power	50VA
Host fuse	T2AL 250V AC
Light power	≥100mW
Light out	Diameter (10±0.10)mm



# SY-GW800L



# LED medical 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: 490,000Lux, 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.

Specifications	Parameters
Input power	50VA
Power supply	AC100-240V 50/60Hz
Light source	Led light
Effective optical power	≥100mW
Brightness(Lux)	≥490000lx
Color temperature	≥6500K
Noise	≤55dB(A)
Surface temperatures	≤60°C
Flat thermal of light source	≤80°C
Working environment	5°C ~ 40°C
Atmospheric pressure	860hPa ~1060hPa
Machine power	50VA
Host fuse	T2AL 250V AC
Light power	≥100mW
Light out	Diameter (10±0.10)mm



# SY-GW700L



# **LED** medical 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: 190,000Lux, 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.

Specifications	Parameters
Input power	30VA
Power supply	AC100-240V 50/60Hz
Light source	Led light
Effective optical power	≥100mW
Brightness(Lux)	≥190000lx
Color temperature	≥6500K
Noise	≤55dB(A)
Surface temperatures	≤60°C
Flat thermal of light source	≤80°C
Working environment	5℃ ~ 40℃
Atmospheric pressure	860hPa ~1060hPa
Machine power	30VA
Host fuse	T2AL 250V AC
Light power	≥100mW
Light out	Diameter (10±0.10)mm



# **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	SXGA 1024 x 768	SXGA 1920 x 1080	SXGA 1920 x 1080	SXGA 1920 x 1080	
Display color	16.2M	10.7 billion colors	10.7 billion colors	10.7 billion colors	
Contrast	700: 1	700: 1	700: 1	700: 1	
Brightness	450 cd/ m <sup>2</sup>	450 cd/ m <sup>2</sup>	450 cd/ m <sup>2</sup>	450 cd/ m <sup>2</sup>	
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	30W-40W	40W	40W-50W	40W-50W	
Standby power	5W 5W 5W			5W	
Signal interface	BNC/1 , DVI/1 , DP/1 , VGA/1 , USB/1				
Power output	100-240VAC, 50-60Hz, 1.4A 12V≕8.5A,102W MAX				
Working environment	Т	Temperature 5°C-45°C Humidity5%-95%			





#### 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	32"Monitor	43"Monitor
Display size	698.4(H)*392.85(V)mm	941.184(H)*529.416(V)mm
Dot pitch(diagonal)	0.36375(V)*0.12125(H)mm	0.297(V)*0.297(H)mm
Maximum resolution	1920(RGB)×1080 , FHD	3840(RGB)×2160 , UHD
Display color	16.7M (8-bit)	16.7M (8-bit)
Contrast	1200: 1	1000: 1
Brightness	350 cd/ m <sup>2</sup>	350 cd/ m <sup>2</sup>
Response time	8/10 (Typ.)(Tr/Td) (ms)	6ms
Viewing angle (CR≥10)	89/89/89/89 (Min.)	89/89/89 (Min.)
Power	8.16-10.8W	70W
Signal interface	HDMI×2	DVI×1,HDMI×1,DP×1,VGA×1,USB×1
Power output	100-240VAC, 50-60Hz,	1.4A 12V 8.5A,102W MAX
Working environment	Temperature 0°C-50°C Humidity5%-95%	

# **SY-Q400**

#### CO<sub>2</sub> Insufflator





External CO2 gas filter

High pressure tube with gaspurification and decompression function

#### **Technical Parameters:**

Power supply: AC220V Power frequency: 50Hz Input power: 320VA Fuse: T2AL250V

Environment temperature : 10°C~40°C

#### Performance indicators:

- 1.With heating function
- 2.Gas pressure control range: 5mmHg~25mmHg
- 3. Pressure control precision: 2mmHg
- 4.Gas velocity range: 0L/min~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 connecter

**ACCESSORIES** 

# **SY-Q300**

#### CO<sub>2</sub> Insufflator





External CO2 gas filter High pressure tube with gaspurification and decompression function

#### **Function Characteristic:**

## **Technical Parameters:**

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

Supply voltage: ~220V 50HZ Range of flw: 10~30L Power: 40VA Noise : ≤50dB

Range of press: 5~25mmHg

3 level flow rate

Pulse gas supply design for great safety

Dual gas filtering and decompression design

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

**ACCESSORIES** 

# **SY-G200**

#### **Irrigation Pump**



- Used in orthopaedics, Gynecology and Urology systems
- Sterile tubing sets with sensor, a peristaltic pump, with two channels
- Emulsion tube and shim are replaceable (5pce, L:approx.16cm)
- 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 : ~220V 50HZ

Power: 150VA

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

Range of flw: 0.1~1.0L/min

Noise : ≤70dB



# **SY-C200**

#### 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: ~220V 50HZ

Power: 50VA

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

Noise: <= 70dB



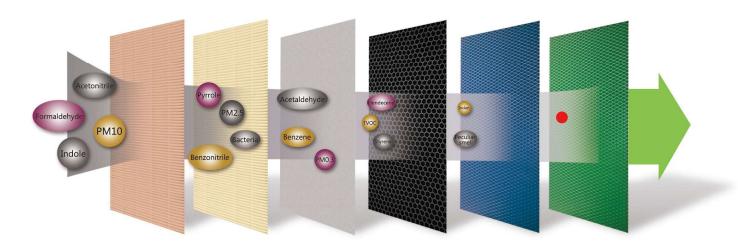
# Intelligent Fume-extracting System



#### 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.
- 3. Avoiding tissue protein degradation and gasification due to the use of high frequency power, ultrasonic scalpel during surgery.
- 4. The smoke generated during the operation will be instantly removed from the smoke and purified into a healthy air that the body can absorb.
- 5. The third gear intelligent control automatically removes the smoke speed, no need for personnel operation.
- 6. Simple operation, full core intelligent LED touch menu.
- 7.Pedal and smart touch screen, two boot modes, smokeless auto off.
- 8.It is suitable for minimally invasive endoscopic system of various brands in the world.
- 9. Application: General surgery, Urology, Gynecology and other laparoscopic surgery.

Layer 1 filtration Layer 2 filtration Layer 3 filtration Layer 4 filtration Layer 5 filtration Layer 6 filtration



PM10 filter	PM2.5 filter	ULPA Ultra- efficient filter	GX Activated carbon	Catechin filter	Spongy silver ion
Ecological negative oxygen ion generation technology with pollutant collection function;     Adsorption and collection of pollutants to improve purification efficiency and achieve ultra-fine purification.	1. Deeply purify harmful tissue gases such as spores and bacteria below 2µm; 2. Effectively filter PM2.5 particles.	1. ULPA is based on HEPA and has been enhanced to enhance the filtration efficiency of HEPA; 2. The filtration efficiency of ULPA reached over 99.9999% for particles over 0.3 micron.	It has the function of reducing harmful gas oxidation and decomposition;     Effectively filter virus bacteria; Adsorb and lock pollutants to prevent secondary pollution;     Effectively filter TVOC gas.	Remove the smell of bacteria and smoke caused by ultrasonic force, Electrosurgical unit and tissue cutting.	Silver ions (Ag+) can strongly adsorb the protease of the bacterial body and quickly combine with it to destroy the protease of the bacterial body, leading to bacterial death.

Specifications	Parameters
Power	AC220
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-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)		

# **ENT Treatment Unit SY-GW2100T**





#### **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. It is a ecnomic solution.

To fulfill most ENT diagnose application, it 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.

# Configuration



#### **Standard Configuration**

Metal unit body	1	Compressor	1
Electronic control system	1	Vacuum pump	1
Noise & vibration insulator	1	Instrument tray	2
Spray gun	3	Ointment jar	3
Blowing gun	1	Built in trash bin	1
Suction gun	1	Built in used instrument tray	1
Endoscope heater	1	Endoscope placement	3
LED inspection light	1	Sewage collect system	1

# **Trolley TC130**



- Product description
- Total size: 1250(H) x 610(W) x 620(D)
- Plate size: 503(W) x 460(D)
- Net weight: 28kg
- Carton packing size: 1230(L) x 630(W) x 230(H)
- Contain power socket
- The spacing of the plates can be adjusted



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

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