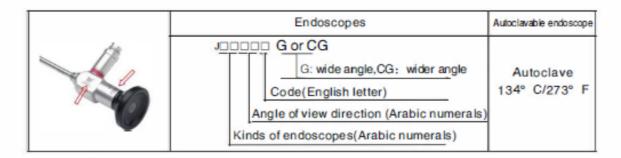
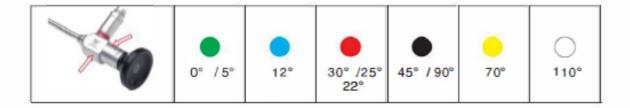
Code of endoscope

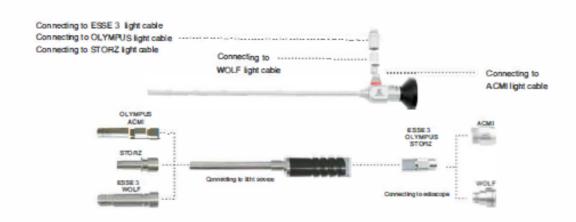




Mark of color code

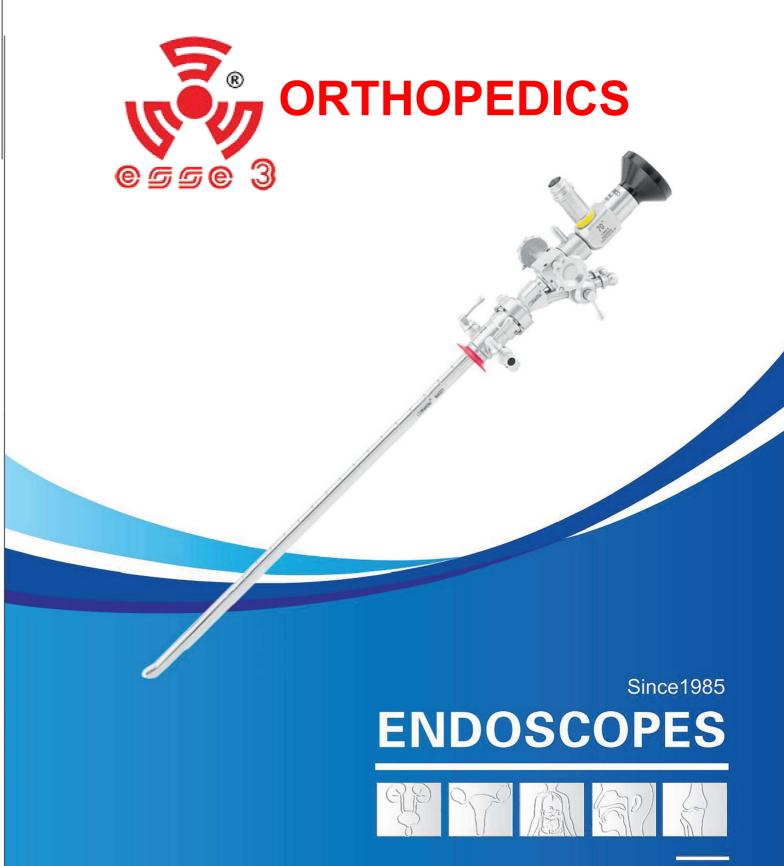


• How to connect the light cable



The picture is only for reference. Please refer to the real object.





Arthroscope GJ-3



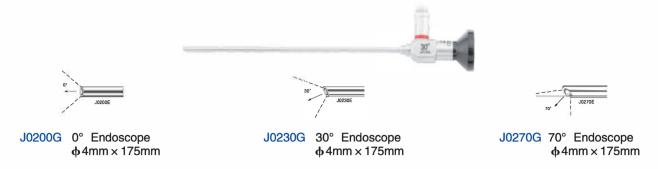
Product features

- Endoscope adopts imported stainless steel material
- Endoscope adopts German optic glass.light fiber and light cone
- Adopt the patented technology of rod optical lens, clear field of view
- With direction index, sapphire lens cover never abrasion
- The autoclavable endoscope can be chosen
- The operation instruments adopt imported stainless steel material,no coating, good anti-corrosion function
- Stainless steel valve, easy for maintenance, avoid damaging





Endoscope



• Sheath, Prism puncture needle, Blunt obturator



Forceps



G5003ZT Anterior Horn Punch, left curved G5013.2 Straight Punch 5.6mm × 115mm

3.5mm \times 125mm



G5003YT Anterior Horn Punch, right curved 5.6mm × 115mm

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ORTHOPEDICS

Forceps



G5004YT 90° Punch, right curved 7mm × 125mm



G5004ZT 90° Punch,left curved 7mm × 125mm



G5014.1 Duck-jaw Punch,left curved 4.8mm × 122mm

Right angle probe

G5901

Right angle probe \$\phi 3mm \times 120mm

G5902

Right angle probe φ5mm × 120mm

Scissors

ORTHOPEDICS



G5302T 20° Scissors, left curved

5.5mm × 125mm

G5303T 20° Scissors, right curved 5.5mm × 125mm

G5302.2 60° Scissors, right curved 7.1mm \times 125mm

G5302.1 60° Scissors, left curved 7.1mm × 125mm



• Tissue Grasper



G5001 Tissue Grasper 3.3mm × 125mm with/without lock



G5001T Tissue Grasper 4.0mm × 125mm with/without lock

Light cable



U9910EB

Disinfection box 293mm × 84mm × 42mm



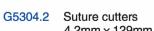
• Knife, Curette, Bone file

			G5408	Meniscus knife φ3mm × 105mm)
G5401	Hook knife φ3mm × 105mm		G5409	Rosette knife φ3mm × 105mm	25
G5403	Backward knife φ3mm × 105mm	-	G5410	Half-round knife φ3mm x 105mm	
G5404	Spade knife,straight φ3mm×105mm		G5411	Currette ф3mm×105mm	0
G5911N	Currette φ3mm × 105mm		G5915N	Bone file φ3mm × 105mm	(3)
G5406N	Banana Knife φ3mm x 105mm	and the same of th			

• Suture cutters, Suture passers

G5003.1 Suture grasper 4mm × 165mm







G5903.1 Suture passers 4.4mm × 136mm

G5903.1 Suture passers needle core 2.0mm × 25.5mm



U8724 Light cable φ4mm×2m ϕ 4mm \times 3m

1.Connecting to ESSE 3 fountain Connecting to WOLF fountain 2.Connecting to STORZ fountain

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• Trocar cannula. Trocar



• Punch forceps, Meniscus grasping forceps, Synovium forceps

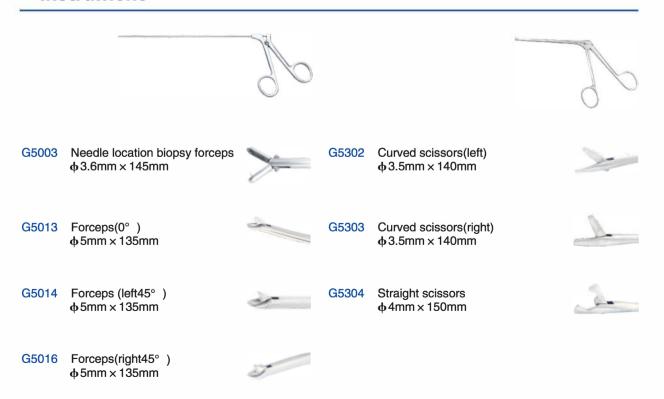
G5001 Meniscus grasping forceps φ5mm x 135mm

G5004 Punch forceps φ5mm x 150mm

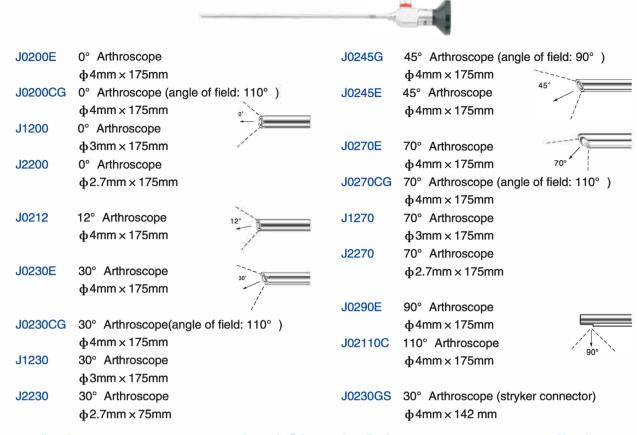
G5002 Synovium forceps, straight φ4mm x 140mm

Instrument

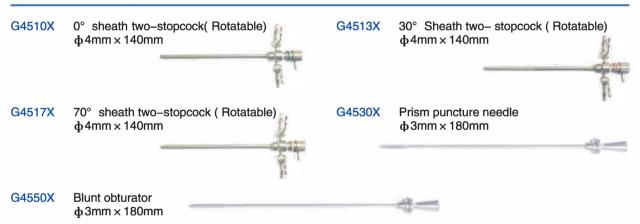
ORTHOPEDICS



Accessories of arthroscope (Endoscope)



• Arthroscope accessories (Sheath, Prism puncture needle)



Forceps

G5046N	Punch forceps 45° (Right) φ4.5mm ×130mm	G5016N	Punch forceps 45° (Left) φ4.5mm × 130mm
G5046AN	Punch forceps 90° (Right) φ4.5mm × 130mm	G5016AN	Punch forceps 90° (Left) φ4.5mm × 130mm
G5004N	Joint pliers forceps \$\phi 4.5\text{mm} \times 130\text{mm}\$		

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Unilateral Biportal Endoscopy UBE



Product features

ORTHOPEDICS

- Endoscope adopts imported stainless steel material
- Endoscope adopts German optic glass.light fiber and light cone
- Adopt the patented technology of rod optical lens, clear field of view
- With direction index, sapphire lens cover never abrasion
- The autoclavable endoscope can be chosen
- The operation instruments adopt imported stainless steel material,no coating, good anti-corrosion function
- Stainless steel valve, easy for maintenance, avoid damaging





• Endoscope



J0200G

0° Endoscope Φ4mm × 175mm



J0230G

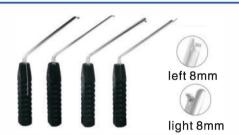


Nerve hook-probe

Y5604W Nerve hook–probe 4mm × 108mm Y5610WZ Nerve hook–probe

8mm × 108mm,left
Y5610WY Nerve hook–probe

Y5608W Nerve hook-probe 8mm x 108mm



Suction tube, Dilator

8mm × 108mm, right

Y4403WA Suction tube ••3mm

Y4403WB Suction tube

Y5627W2 Dilator φ7mm

Dilator Φ7mm × 200mm

Bone currette

Y5913WF Bone currette

3mm straight

Y5913W Bone currette 3mm curved

Y5913WZ Bone currette 5mm bar curved



Bone chisel

Y5405WA1 Bone chisel 5mm straight Y5405WZ Bone chisel 5mm left curved Y5405WS Bone chisel 5mm triangle

Y5405WB1 Bone chisel 5mm curved Y5405WY Bone chisel 5mm right curved



• Retractor Sheets, Spring retractor sheets

Y5615W1 Retractor sheets 50mm

Y5615W2 Retractor sheets 60mm

Y5615W3 Retractor sheets

Y5615W4 Retractor sheets 80mm

Y5615W2A Spring retractor sheets Depth 60mm

Y5615W3A Spring retractor sheets Depth 70mm

Y5615W4A Spring retractor sheets



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handle

Dilator

ORTHOPEDICS



Y5625W1 Dilator Y5631W Dilator

 ϕ 5mm \times 200mm ϕ 11mm \times 155mm

Y5627W1 Dilator Y5633W Dilator ϕ 7mm \times 185mm

 ϕ 13mm \times 140mm

Y5629W Dilator Y5635W Dilator

> Φ 9mm \times 170mm ϕ 15mm \times 125mm

• Hammer, Round nerve stripper, Probe

Y5936W Hammer ф25mm

Y5931W Probe

125mm

Y5940W Muscle stripper 125mm



Nerve Stripper

Y5944W Nerve stripper

3mm Double head straight/bend

Y5946WA Nerve stripper 6mm straight

Y5946WB Nerve stripper

6mm little curved

Y5945W Nerve stripper

Graft rod

 ϕ 6.8mm \times 167mm

Y5906W

5mm Double head straight/bend

Y5946WB1 Nerve stripper 6mm curved

• Intervertebral disc reamer, Curved funnel, Graft rod, Cage adjusting rod

Y5908W Curved funnel ϕ 8mm × 165mm

Intervertebral disc reamer

 ϕ 8mm \times 200mm

Cage adjusting rod ϕ 6mm \times 170mm

• Rongeur, Rotating Detachable Kerrison Rongeurs

Y5014QW1A Detachable Rongeur rod 1mm × 170mm	Y5015QW2	Rongeur(straight) 2mm × 220mm	
Y5014QW2A Detachable Rongeur rod 2mm × 170mm	Y5015QW3	Rongeur(straight) 3mm×220mm	straight
Y5014QW3 Detachable Rongeur rod 3mm × 170mm	Y5015QW4	Rongeur(straight) 4mm × 220mm	
Y5014QW4 Detachable Rongeur rod 4mm × 170mm	Y5016QW	Rongeur(up curved) 2mm × 200mm	up curved
Y5014QW5 Detachable Rongeur rod 5mm × 170mm			rod

• Nucleus pulposus forceps

Y5014QW Detachable Rongeur Handle

Y5005QW	Nucleus pulposus forceps(straight) 1.6mm × 175mm	
Y5112QW	Nucleus pulposus forceps(straight) 2mm × 145mm	
Y5021QW	Nucleus pulposus forceps(up curved) 1.6mm × 175mm	
Y5122QW	Nucleus pulposus forceps(up curved) 2mm × 145mm	straight up curved
Y5031QW	Nucleus pulposus forceps(toothed) 1.6mm × 175mm	
Y5001QW	Nucleus pulposus forceps(toothed) 2mm x 145mm	toothed

• Nucleus pulposus forceps with rongeur handle

Y5004W Nucleus pulposus forceps with rongeur handle(toothed,straight) 3.0mm × 200mm

Y5003W Nucleus pulposus forceps with rongeur handle(toothed,up curved)

3.0mm × 200mm

Accessories

Light cable ϕ 4mm \times 2m

 ϕ 4mm \times 3m



Disinfection box 293mm × 84mm × 42mm



2. Connecting to STORZ fountain

((ESSE 3)° 71 (TESSE 3)° 72

Endoscope disectomy system YZ-1



Product features

- Endoscope adopts imported stainless steel material
- Endoscope adopts German optic glass.light fiber and light cone
- Adopt the patented technology of rod optical lens, clear field of view
- With direction index, sapphire lens cover never abrasion
- The autoclavable endoscope can be chosen
- The operation instruments adopt imported stainless steel material,no coating, good anti-corrosion function
- Adopt maintenance–free valve







• Cannula

Cannula(one level)

Z5602A1

	ф2.5 × 1.2 × 230mm		ϕ 7 × 6.2 × 150mm
Z5604A2	Cannula(two level) φ4×2.7×195mm	Z5608A6	Cannula(six level) $\phi 8 \times 7.2 \times 135$ mm
Z5605A3	Cannula(three level) φ5×4.2×180mm	Z5609A7	Cannula(seven level) $\phi 9 \times 8.2 \times 120$ mm
Z5606A4	Cannula(four level) φ6 × 5.2 × 165mm		
Z5606B1	Dilator(tine)	Z5606D1	Dilator(double cavity)
Z3000B1	ф6.0×1.7×230mm	2500001	ϕ 6.4 × 1.7 × 230mm
Z5607B1	Dilator(tine) ϕ 7.0 × 1.7 × 230mm	Z5607D1	Dilator(double cavity) $\phi 7.0 \times 1.7 \times 230$ mm

Sheath



Z5607A5

Cannula(five level)

Z4023D3DT Sheath	Z4026G2DT Sheath
------------------	------------------

 ϕ 7.5 × 6.6 × 170mm ϕ 8.5 × 7.6 × 150mm

Trephine

Z6007B2T Trephine

 $\varphi\,7.5\times6.6\times170mm$

Z6008A2T Tephine

 $\phi 8.0 \times 7.1 \times 170$ mm

(Internal marking scales)

• Bone curette, Puncture needle, Guide wire

Z5902A Guide wire ϕ 0.8mm × 450mm Z4505A Puncture needle ϕ 1.6mm × 204mm

Bone curette Z4505C Puncture needle ϕ 2.5mm × 330mm ϕ 1.6mm × 400mm



Z5921

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• Stripper, Hammer

Z5936 Hammer



Z5933A Stripper

ф2.5mm × 330mm

• Probe, Bone chisel

Z5907A Probe $\phi 2.5 \times 330$ mm

ORTHOPEDICS



Z5404 Bone chisel

 Φ 2.5 × 330mm

Nucleus pulposus forceps, Spring forceps

Y5002D Nucleus pulposus forceps(straight)

ф2.7mm × 380mm

Z5012B1 Nucleus pulposus forceps(straight) $\phi 2.5$ mm $\times 330$ mm

Y5001A1B Nucleus pulposus forceps(straight) ф3.3mm × 380mm



Y5002D2/Z5013B1B Nucleus pulposus forceps(up curved) ф3.4mm × 380mm/ф3.5mm × 330mm

Y5013/Z5042B1B

Spring forceps ϕ 2.5mm × 380mm/ ϕ 2.5mm × 330mm



Cutting forceps

Y5031 Cutting forceps(straight)

ф2.7mm × 380mm

Cutting forceps(straight) Z5022B1

 $\phi 2.5 \text{mm} \times 330 \text{mm}$



Y5031.1T Cutting forceps(up curved)

 ϕ 2.8mm \times 360mm



Rotating Detachable Rongeurs

Y5014QW3A Rotating Detachable Rongeurs ϕ 3.4 × 2.7 × 305mm



Y5014QW Handle for Detachable Rongeurs

Accessories

U8724

Light cable ϕ 4mm \times 2m ϕ 4mm \times 3m



1.Connecting to ESSE 3 fountain Connecting to WOLF fountain 2.Connecting to STORZ fountain

Disinfection box 480mm $\times 135$ mm $\times 70$ mm



Endoscope Disectomy System YZ-1



Product features

- Endoscope adopts imported stainless steel material
- Endoscope adopts German optic glass.light fiber and light cone
- Adopt the patented technology of rod optical lens, clear field of view
- With direction index, sapphire lens cover never abrasion
- The operation instruments adopt imported stainless steel material, no coating, good anti-corrosion function
- Stainless steel valve, easy for maintenance, avoid damaging

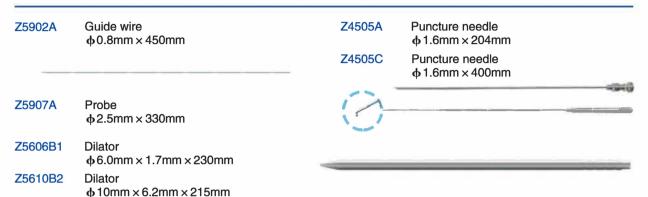




Sheath, Trephine



• Guide wire, Puncture needle, Probe, Dilator



• Stripper, Bone chisel, Bone currette, Hammer



• Nucleus pulposus forceps, Rotating Detachable Rongeurs, Handle for Detachable Rongeurs



U8724 Light cable ϕ 4mm \times 2m ϕ 4mm \times 3m 1. Connecting to ESSE 3 fountain

U9910ZK Disinfection box 480mm × 135mm × 70mm



Connecting to WOLF fountain

2. Connecting to STORZ fountain

(TESSE 3)° 77

ORTHOPEDICS

HD Camera System

- ◆ Type: SD-HD668P
- HD output:1920(H)x1080(V)
- ♦ Image sensor:2.86-inch ultra-low voice global exposure CMOS
- ♦ Output signal:Dual HDMI、Dual DVI
- Sharpness:1080p
- Frame frequency:60FPS
- Minimal illumination:5Lx at F5.5
- Power source condition: AC 220V 50Hz
- Input power:35VA
- ♦ Optical connector size:Rigid endoscope connector: Φ32 ± 0.1mm
- ♦ Working environment:Temperature +10° C~+40° C Humidness 30%~75%
- Barometric pressure 860hpa~1060hpa



◆ Security type: Class I BF type application part

SD-LED Medical cold light source



Medical cold light source **ESD-LED**

- ◆ Power source condition:220V、50Hz
- ♦ Input power:150VA
- ◆ Spectral properties: ①Color rendering index: ≥90

2 Color temperature: 3000k~7000k

- ◆ Total luminous flux: ≥410lm
- ◆ Output aperture: 10 ± 0.050mm
- ♦ Working noise: <35dB
- ♦ Electrical safety should meet the GB9706.1-2007 standard

Perfusion pump for endoscope





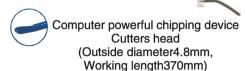
Perfusion pump for endoscope

- ♦ The cavity speculum filling pupm QB-1 is an open pressure equipment.It is easy and convenient to clean the liquid in the
- ♦ It takes stepping electrical motor. When the equipment drives. It is steady and makes low noise.
- Pressure and flow is controlled by computer automatically, when the power is over,the computer will cut off electric source automatically, and when the power recovers, the equipment will be in normal situation. Meanwhile, control equipment is safe and reliable.
- ♦ The range of pressure is 2- 53Kpa, the range of flow is 0.1-1L/min.The number is showed on the equipment, and it can adjust the number according to the need.
- ◆ Cavity speculum filing pump QB-1 has the ability of memory. When you open the equipment, it can show the power and flow stated last time.

Power system (used with laser shredding endoscope)







- ◆ Speed adjustment range:200rpm/min~6000 rpm/min (forward and reverse)
- 200rpm/min~3000 rpm/min (round trip) With stepless speed regulation function
- Flushing flow: The controller has flushing function Maximum flow is 15ml/min (no-load) Adjustable flow
- The maximum output torque of hand-held motor shall not be less than 36mN · M
- ♦ Working noise: < 65db
- Full LCD display, touch screen control
- Flushing linkage control: when the flush switch is on, press the foot switch to flush automatically, and release the foot switch to stop automatically
- ♦ Power source: 220V 50/60HZ
- ◆ Overall power≤180VA

• Automatic high flow CO₂ insufflator



Automatic high flow CO2 insufflator

- Gas flow and abdominal pressure are controlled by microcomputer technology automatically.
- Pulse gas supply can be adjusted by setted abdominal pressure and actual abdominal pressure value automatically according to advanced pulse gas supply principle.
- Gas cylinder pressure, the actual abdominal pressure and air flow are displayed by light beam.
- ♦ With the electrical safety protection system, when the pressure is too high,inflation needle is jammed or gas pressure is insufficient, audible and visual alarm will work.

ES-QG-II

Inlet pressure:0.28~0.6MPa Setted abdominal pressure:5~25mmHg Set flow:0~30L/min

• Uteri auto inflate and pressure



Uteri auto inflate and pressure ES-U9522 DG-1

It is used for gynecology endoscope and operation. In order to make the field of view clear, uterus is inflated by gas pressure

- ♦ Power:220V ± 22V 50Hz ± 1Hz
- Power rating 30W
- ♦ Power rang 1Kpa~~30Kpa
- Adjusting step length 1Kpa
- Setting pressure 1~30Kpa
- Alarm pressure 30Kpa

ELECTRICAL EQUIPMENT

(TESSE 3)°125 (TESSE 3)°126

Compute powerful chipping device ES-BXQ-1

- Integrating planing power and negative pressure suction
- φ 4.2mm cutters, larger internal suction space, peak flow 28L/min
- ♦ Vacuum degree: 88kPa
- Imported cutters, ultra-low vibration, effective protection of endoscope
- Simple operation, sensitive response, three-speed adjustable

Peritoneum cleaner



Peritoneum cleaner ES-QXQ-1000J

Peritoneum Cleaner QXQ-1000J is used for irrigations and suctions of organs in cavity under the laparoscopic surgery in order to make the field of view clear and clean the feculence prevent from pollution and adhesion after the operation

- The peritoneum cleaner is controlled by computer, adjusted the positive pressure and negative pressure according to the user's demands
- It can positive pressure irrigate and negative pressure suck, it can be matched single tube with double channels suction unit (D4403,D4403A) for irrigation and suction and exchange frequently.
- ♦ Washing pressure: 75 ±5KPa Suction pressure: ±65 t 5KPa

• ESSE 27/24-inch full-HD surgical special monitor





ELECTRICAL EQUIPMENT

ESSE Monitor

- Size:27 inches(16:9)
- Contrast:1000:1 Max Resolution:3840x2160
- ♦ Viewing Angle:178/178 Response Time:8ms
- Appearance and structure: white metal shell with high strength, fast heat dissipation and anti-interference
- ♦ Power source: DC12V Installation standard: VESA 100x100mm
- ♦ Built-in curve: more than ten kinds of medical display curves
- Color: 1.07B
 Brightness: 800cd/m²
- ♦ Input Interface:DVI/HDMI2.0/VGA/DP/USB
- Size:24 inches(16:10)
- ♦ Contrast:1000:1 Max Resolution:1920x1200
- ♦ Viewing Angle:178/178 Response Time:5ms
- Appearance and structure: white metal shell with high strength, fast heat dissipation and anti-interference
- Power source: External power supply 24V Installation standard;
 VESA 100x100mm
- ♦ Built-in curve: more than ten kinds of medical display curves
- ♦ Color:1.07B Brightness:650 ± 10%cd/m²
- Input Interface:DVI/VGA/VIDEO/S-VIDEO/YPBPR/HDMI/SDI (for choice)

Endoscope image system



Endos**cope image system**ES-NYX-1

Convenient operation process, efficient and simple functions;

- High-resolution synchronous display of real-time dynamic images;
- Digitally capture images to ensure that they are clear and realistic;
- It has the function of real-time local clipping and blackout collection;
- Large capacity and high quality dynamic video storage system;
- ◆ The software supports calibration、 measurement of length and area、 and automatic placement of measured values:
- Basic operations such as zooming in, zooming out, mirroring and rotating images are supported;
- Support image brightness and contrast adjustment, text and region annotation and other functional processing;
- The diagnostic report supports multiple modes and respects the working habits of doctors. You can click input, select input, fill in the blank, and text input;
- There is no limit to the size of printing paper. You can choose to print paper so that it can be used with the hospital standard medical record folder.

Endoscope Imaging System

- CPU: high-end
 Acquisition card: high-definition imported chip
- ♦ Memory: 4G Display: 19.5-inch LCD
- Hard disk: 1T
 Printer:all-in-one machine
- Graphics card: integrated graphics card Trolley: medical trolley
- Output interface: 3-way output of S terminal interface and AV video interface



- Multi-department application mode is provided, including Thoracoscope、Fiber-optic、Hysteroscope、Cystoscope、ENT and Laparoscope, etc
- ◆ 7-inch LCD screen, real-time image display
- High waterproof camera, which can be soaked and disinfected
- Menu memory function, can switch different endoscope modes
- The main machine has fiber-optic mode, which can be connected to the fiber mirror for use
- With image freezing, 4-level image magnification, image horizontal and vertical mirroring functions
- The camera handle has three function keys, brightness increase, brightness decrease and image freeze(This key can also be set & white balance function in the menu)
- Power : AC 220V ± 22V 50Hz ± 1Hz
- Output power: 35VA
- ♦ Image pixels: 1920 (H) x 1080 (V) (2.073 million pixels)
- Scanning standard: 1125 lines, 60 frames
- Video output: dual HDMI, dual DVI
- Minimal illumination: 5Lx at F5.5
- ◆ ESD-HD668P Endoscope Image System
- ◆ ESD-LED Medical cold light source
- ◆ ES-QG- | Automatic high flow Co₂ insufflator
- ◆ ES-QB-1 Perfusion pump for endoscope
- Trolley
- ◆ ESSE Monitor

((TESSE3)°127

ELECTRICAL EQUIPMENT

4K Medical Endoscope Camera System



Product features

- Color reproduction, closer to eye vision The 4K medical endoscope camera system can reproduce the color, generally same as the original.
- Supporting high color reproduction Clear display of organ tissue and nature color, improve the surgery safety.
- Large picture, large field of view Immersive observation, help doctors focus on the surgery
- 4K HD laparoscope with Ultra HD Resolution Display tiny blood vessels, tiny nerves and tissue levels accurately. Images are more clear smooth
- With two electronic dyeing functions The 4K medical endoscope camera system includes features such as vascular enhancement and special spectra.

• 4K 3 Chips camera system



4K 3 Chips camera system

- Power supply: 220V、50HZ
- Input power: 80VA
- Camera resolution: 3824x2160
- Image sensor: CMOS sensor
- Output video signal: HDMI 2.0 4K Ultra HD output

Medical Endoscope LED cold light source



Medical Endoscope LED cold light source

- Supply voltage: 220V
- Input power: 125VA
- Power frequency: 50HZ
- Spectral properties: ①Color rendering index: ≥90 2Color temperature:3000k~7000k
- Total luminous flux:>550lm
- Working environment:Temperature +10° C~+40° C Humidness 30%~75%
- Barometric pressure 860hpa~1060hpa
- Medical monitor (High-quality SONY customized)32/55" monitor extends surgical view



Medical monitor LMD-X3200MC LMD-X550MC

- Size: 32 inches
- Resolution(H*V): 3840x2160
- Aspect ratio: 16:9
- Backlight: LED
- Consume electricity: Approx. 163W (maximum)
- Weight: Approx. 11.8kg (SU–600MD optional bracket not assemblied)
- Size: 55 inches
- Resolution(H*V): 3840x2160
- Aspect ratio: 16:9
- Backlight: LED
- Consume electricity: Approx. 290W (maximum)
- Weight: Approx. 27kg

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