### Item No. 24

# ULTRASONIC CUTTING AND COAGULATING DEVICE WITH ADVANCE BIPOLAR VESSEL SEALING SYSTEM

- System should have a universal connector to connect Ultrasonic energy and Advanced RF energy instruments.
- Ultrasonic and bipolar energy in the system must work separately and at no point in combination.
- · System should have automatic instrument recognition.
- System should be CE approved.
- System should have a touch screen display for fast and setup, operation and onscreen diagnostics.
- System should have a high-resolution display with wide viewing angles.
- System should have the ability for software updates via USB memory stick.
- System should be a single generator that provides Ultrasonic energy and Advanced RF energy technology for soft tissue dissection and vessel sealing
- System should have a potential equalization terminal for compatibility with other medical systems requiring such connections
- System should conform to the following international standards EN (IEC) 60601-1, EN (IEC) 60601-1-2, EN (IEC) 60601-2-2, EN (IEC) 60601-1-8
- System should provide Class 1 protection against electric shock
- System should have a single footswitch for operating ultrasonic energy or advanced RF energy instruments
- System should have the ability to select handswitch or footswitch activation or both for Ultrasonic and advanced RF energy instruments and the ability to change selection during use
- System should have English language as default
- System should not have minimal lateral thermal spread more than 1 mm.
- · System should not have an auto switch off mechanism.
- · System should have standby mode to ensure safety.
- System should come equipped with system diagnostics and troubleshooting guide to pin point any problems in the systems.
- System should have onscreen warning display system for generator overheating, generator software upgrade, handpiece errors and instrument errors
- System should be able to power ultrasonic energy instruments with 55.5 KHz frequency and have the ability to power ultrasonic energy instruments in the frequency range of 30-80 KHz in future
- The hand piece for the system should come with an inbuilt transducer.
- System should be compatible for open surgery and for laparoscopic surgery.
- System should be compatible with both 5mm and 10mm instruments.
- System should have atleast 5 power settings levels with power level display for ultrasonic energy instruments.
- System should be able to power energy instruments with microprocessor controlled bipolar electrosurgical radiofrequency technology with a quasisinusoidal forced impedance output.
- System should be equipped with smart advanced RF energy technology to measure the tissue impedance and control the power delivery.
- System should be equipped with advanced RF energy technology that can simultaneously seal and transect vessels up to and including 7mm, large tissue pedicles and vascular bundles.

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- System should be equipped with advanced RF energy technology that provides temperature controlled energy delivery which should maintain tissue temperature approximately at 100 degree Celsius.
- System should have Advanced RF Energy hand instruments with a unique electrode configuration to minimize the lateral thermal spread.
- System should have Advanced RF Energy hand instruments with technology to deliver high compression uniformly across seal area.
- System should have Advanced RF Energy hand instruments that provide tissue / vessel seal strength to withstand bursting pressure of 7 times the systolic pressure.
- All hand probes for open and lap procedures should be able to simultaneously cut and coagulate tissues.
- System should be able to power advanced RF energy hand instruments of 5mm shaft diameter for both open & laparoscopic procedures with round trip (5mm tip width) in the following shaft lengths (14cm, 25cm, 35cm & 45cm) and should be both hand & foot activated.
- Systems should be able to power ultrasonic energy hand instruments of 5mm shaft diameter for both open & laparoscopic procedures with the following specifications
- System should comprise of the following Hardware:
  - 1 Generator
  - 2 Footswitch & Cable

#### Accessories:

- 1 Handpiece (Transducer)
- 2 Handpiece (Blue)
- 3 Generator Cart
- 4 Adaptors for ultrasonic
- 5 advanced RF energy instruments

Open Surgery Instruments (Ultrasonic cutting and coagulation device):

- 9cm shaft, curved, tapered tip for precise dissection, seals 5 mm vessels, as well as lymphatic with16 mm active blade & 240-degree activation, triggers support multiple hand positions.
- 2. 17cm shaft, curved, tapered tip for precise dissection, seals 5 mm vessels, as well as lymphatic with16 mm active blade & 240-degree activation, triggers support multiple hand positions.
- 3. 5mm Hand Activated Curved Coagulating Shears capable of sealing blood vessels upto 5mm in diameter, 23 cm shaft length, ergonomic handle
- 4. Curved Blade having telescoping shaft (10cm-14cm) with integrated hand activation control buttons.
- 5. Dissecting Hook having telescoping shaft (10cm-14cm) with integrated hand activation control buttons.

Open Surgery Instruments (Bipolar vessel sealing device):

- 1. Hand probes with 5mm shaft diameter, 14cm long with 5mm tip width.
- 2. Hand probes with 5mm shaft diameter, 25cm long with 5mm tip width.
- 3. Hand probe with, 22cm long shaft and 40mm jaw length

Laparoscopic Surgery Instruments (Ultrasonic cutting and coagulation device):

- 1. 5mm Lap Hand Activated Curved Coagulating Shears capable of sealing blood vessels upto 5mm in diameter, 36 cm shaft length, ergonomic handle.
- 2. 5mm Lap Hand Activated Curved Coagulating Shears capable of sealing blood vessels upto 5mm in diameter 45 cm shaft length, ergonomic handle.
- 3.
- 4. 5mm Lap Dissecting Hook, 32 cm long

Laparoscopic surgery instrument (Bipolar vessel sealing device):

- 1. Laparoscopic probe probes with 5mm shaft diameter, 35cm long with 5mm tip width.
- 2. Laparoscopic probes with 5mm shaft diameter, 45cm long with 5mm tip width.

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3. Articulating Laparoscopic probe probes with 5mm shaft diameter, 35cm long with 5mm tip width, Probe should have ability to articulate 45-50\* both sides.

Should have European CE and FDA approved.

Rates for all consumables items should be quoted separately in price price-bid.

# TECHNICAL SPECIFICATION FOR "HIGH DEFINITION/RESOLUTION" PAEDIATRIC VIDEO GASTROSCOPE SYSTEM

The Endoscopy system must be Suitable to produce High Resolution & High Magnification Images of GI Tract with ability to detect early cancers and pre – neoplastic lesions by optical image enhancement system.

"The system must have the facility to provide the images with optical chromo endoscopy by using NBI/SPIES or similar technology".

# Pediatric Video Gastroscope - Should have

- Ability to produce High Resolution true color video images
- 8x magnification for optimal diagnostics
- 2x electronic zoom
- Ergonomic control body for fatigue free working
- Excellent Deflection
- Recessed air / water nozzle with directional flow channel for effective irrigation of optics

# **Technical Specification**

Sheath Diameter  Working channel diameter  Working length  Deflection of distal tip(up – down)  Deflection of distal tip (left – right)	Not more than 5.9 mm	
	2 mm or more  110 cm or more  210° – 100°  120° - 120°	

# HIGH DEFINITION VIDEO PROCESSOR

#### Special Features:

- System should be on High Definition platform, Max resolution 1080p
- Should provide full screen image with wide angle.
- Fully compatible to the color systems PAL & NTSC
- Individual contrast and brightness adjustments in 3 levels
- Automatic control of Xenon Light Intensity
- Digital Zoom Function
- Should have USB interface at front panel for Image & Video storage & rear for compatible USB Printers
- Should have variety of output connections option (HD-SDI, RGB, DVI, S-Video and composite etc.)

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# XENON LIGHT SOURCE

XENON light source should be easy to operate and offer outstanding light delivery in compact design. Required Features:

- Optimal light delivery
- Excellent brightness with daylight spectrum
- Individually adjustable luminous / light intensity
- Lamp Life cycle indicator
- Easy lamp replacement
- Integrated insufflations pump with minimum 3 output levels

Monitor: System should be supplied with a 19" High Definition Medical Grade Monitor (LED / LCD) Max Resolution 1280 x 1024

# **Suction Machine**

The Machine should offer quiet, low vibration operation, thus creating a pleasing environment for carrying out examinations and facilitating stress-free, concentrated work.

Should have

- 1- High suction capacity of 30 liters/minute
- 2- Maintenance free cylinder and piston system
- 3- Hydrophobic bacterial filter to protect the pump
- 4- Easy to clean

#### Technical data:

Suction capacity: 30 liters/minute

Vacuum:

up to 85kPa, up to 640mmHg

Line voltage:

115VAC, 50/60Hz

230VAC, 50/60 Hz

Dimensions:

345mm × 245mm × 282 mm (H×W×D)

Weight:

Not More than 7Kg

Protection Class: Protection class I; BF; IPX I

# **Equipment Cart**

Should be from the same endoscope manufacturer company (Mother Company) and have following specifications-

Equipment cart, rides on 4 antistatic dual wheels, 2 equipped with locking brakes (front), 3 fixed shelves, 1 with handles, mains switch in vertical beam, 1 drawer unit with lock, integrated cable conduits in both vertical beams, 1 set of non-sliding stands for units, double rear panel with integrated electrical sub distributors with 12 sockets, holder for power supplies, potential earth connectors and cable winding on the outside, 1 camera holder, 2 equipment rails sidewise, 2 handles sidewise Dimensions: Equipment cart: 530 x 1455 x 645 mm (w x h x d), shelf: 430 x 480 mm (w x d), caster diameter: 125 mm.

THE SCOPE, HIGH DEFINITION VIDEO PROCESSOR, XENON LIGHT SOURCE, SUCTION MACHINE AND TROLLEY SHOULD BE FROM THE SAME COMPANY

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### Item No. 26

# Paediatric cystoscope / Resectoscopy

1. Cystourethroscope for Neonates and Children

## A. Telescopes:

- Telescope (one each) Autoclavable 134 C/273°F with enlarged image & brightness size 1.9mm, 0°
- 2. Telescope (one each) Autoclavable 134 °C 273°F with enlarged image and britness size 1.9mm, 25°
- B. Sheath with obturator with fixed inigation channel with stop cock.
- 1. Size 7.5 Fr. (one each) for diagnostic use with 0 telescope
- 2. Size 8.5Fr. (one ech) with instrument port capacity 3 Fr.
- 3. Size 9.5 Fr. (one each) with instrument port capacity 4 Fr.
- a) Electrode : (one each)
- 1. Button electrode, flexible uniploar, 580mm length and 3 Fr. Size
- 2. Button electrode, flexible, unipolar, 580 mm length and 4 Fr. size.
- Cystoresectoscope for Neonates and Children
- A. Sheath with obturator with fixed inigation channel with stopcock with distal end insulated size 9 Fr. (one each) with instrument port capacity 3 Fr.
- B. Adaptor (bridge) one each for examination and probing with one instrument port of 3 Fr. capacity
- C. Accessories:
- a) Electrodes
- 1. Coagulating electrodes for resectoscope with telescope of 1.9 mm angled 90 retrograde. Sickle shaped with distal ball (Two each)
- 2. Cutting electrode for resectoscope with telescope of 1.9mm (2 each)
- b) Rigid grasping forceps: for stent removal length 580 mm size 3 Fr. (one) Rigid grasping forceps: for stent removal length 580mm, size 5 Fr. (one)
- c) Biopsy forceps: Length 260 mm, size 3 Fr. (one)

Biopsy forceps: Length 260mm, size 5 Fr. (one)

- 3. Fibre optic cable: (one)
- 1.6mm diameter, 1.8m long.
- 4. Light Source (One)

15 V, 150 watt, Twin bulb, halogen

- 3) Cystouretheroscope for children
- 1. A. Telescope

Telescope (one each) Autoclavable 134 °Cl 273 °F with enlarged image and brightness size 2.7mm, 00

e 2.7mm, 00

Telescope (one each) Autoclavable 134 °Cl 273 °F, with enlarged image and brightness size 2.7 mm 25°

- 2. B Sheath with outurator with fixed inigation channel with stop cock
- 1. Size 11 Fr. (One each) for diagnostic use with 0 degree telescope
- 2. Size 12 Fr. (One each) with one instrument port capacity
- 3. Size 13 Fr. (One each) with two instrument ports capacity
- C. Electrodes (two)

Button electrode flexible unipolar, 580 mm length and 5 Fr. Size

4). Cystoresectoscope: for Children

A. Sheath with obturater with fixed irrigation channel with stopecock with distal end insulated.

Size 11.5 Fr. (One each) with instrument port capacity 5 Fr.

B. Adaptor (Bridge) (one)

For examination with out instrument port

- C. Working element with passive cutting action (one)
- D. Accessories

#### A. Electrodes

- 1. Coagulating electrode for resectoscope with telescope of 2.7mm, angled 90° retrograde, Sickle shaped with distal ball – 6 Nos.
- Cutting electrode for resectoscope with telescope of 2.7mm 3 nos.

#### NOTE

- 1. The supplied instruments should have warranty period of 3 years.
- 2. Supplier company will have to give training to doctors and staff of operation theatre regarding the handling and maintenance of the instrument.
- 4. Supplier should have local service station to provide immediate repairs of any break down of the instruments and to provide the spare parts and disposable articles, as and when required by the users of supplied instruments.
- 5. The instrument should not be refurbished one and it should be fresh supply from original manufacturer of the instruments
- 6. All the above instruments and equipments must be having relevant CE certification as well as IEC certification. applicable to medical instruments.
- All eligible companies should be OEM and should have ISS 9001 certification or 46001 certification. Additionally instruments should have been tested in accordance with ICE 601-1 international. Apart from this, companies having their own service centres in India will be highly preferred.

related disposables separately