

Technical Specifications of Laparoscopic Equipment

Endovision System

- 3 chip video camera system with PAL/NTSC colour system
- 3 chip (3 CCD) Camera head
- BNC connecting cable at least 175 cms long
- S- Video cable at least 175 cms long
- Video printer cable
- Power cable
- Should have digital zoom facility and Automatic white balancing
- Should be fully Immersible

Light source

- Xenon light source 300 watt
- Consistent constant colour temperature
- Xenon arc Lamp with life of 500 working Hours
- One spare Xenon arc lamp
- Power supply 100-240 V
- Connecting cable

CO₂ insufflator

- High quality high flow insufflator with flow rate 20 liters per minute
- Should have automatic pressure and flow control
- High and low intra abdominal pressure alarm/warning signal
- Silicon tubing 2 in number (Autoclavable)
- Connecting cable
- Sterile filter (1 pack of 10)

Universal wrench (1 in number)

High quality pin type CO₂ cylinders (2 in number)

Power supply 100-240 V

CO₂ regulator

Telescope

High quality distortion free telescope 10 mm diameter 0⁰ fully autoclavable

Incorporated fiber optic light

Fiber optic light cable 300 cm long (autoclavable)

Minimum working length 30 cms

Monitor

Medical grade monitor 19 Inches or above

Flat screen

PAL/NTSC colour system

Resolution 1280x1024 SDI

Should have S-Video RGB

Should have output for video/printer

100-240 V

Mains cord

BNC cable

Wall or stand mount

Hand instruments

- 1 Varess pneumoperitoneum needle with spring loaded blunt stylet with leur lock length 12 cm or above (1 no.)
- 2 Trocar 11 mm (which can accommodate 10 mm telescope & 10 mm instruments) with pyramidal tip, magnetic ball valve, multiple function valve length 10cms or above, insufflations stop cock (3 in nos.)

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- 3 Trocar 11 mm consisting of trocar only with blunt tip without valve with insufflation stopcock with 2 flanges for fixation of sutures (1 no.)
- 4 Trocar 6 mm (which can accommodate 5 mm telescope & 5 mm instruments) with pyramidal tip with stop cock with multifunction valve length 10 cms or above (3 in nos.)
- 5 Reducer 11 to 5 mm (1 no.)
- 6 Reduction sleeve 11 to 5 mm (1 no.)
- 7 Click line dissecting and grasping forceps 5 mm without ratchet
- 8 Maryland dissecting and grasping forceps 10 mm heavy jaws double action with ratchet (1 no.)
- 9 Grasping forceps 5 mm with ratchet (1 no.)
- 10 Hook scissors single action jaws without ratchet (1 no.)
- 11 Metzenbaum scissors double action jaws curved blades with length 10 to 12 mm without ratchet (1 no.)
- 12 Clip applicator 10 mm length 30cms or more for application of ligaclips LT-300 & LT-400 (1 no.)
- 13 Needle holder 5 mm self aligning with disengagable ratchet with Tungsten Carbide insert (1 no.)
- 14 Dissecting and coagulating L - hook 5 mm 35 cms long or above (1 no.)
- 15 Dissecting and coagulating spatula 5 mm (1 no.)
- 16 Suction and irrigation cannula 5 mm with trumpet valves for suction and irrigation with stop cock (1 no.)
- 17 Claw forceps 10 mm heavy single action jaws with ratchet (1 no.)
- 18 Puncture and aspiration needle 5 mm with leur lock connection working length 35 cms or more (1 no.)
- 19 Bowel grasper Babcock forceps 5 mm (1 no.)
- 20 Knot pusher 5mm (1 no.)
- 21 Palpation probe 20 cms long with markings 2 mm (1 no.)
- 22 Stone extractor 10 mm (1 no.)
- 23 Bipolar forceps 5 mm with cable (1 no.)
- 24 Fan shaped liver retractor (1 no.)
- 25 BERCI Fascial closure instruments for subcutaneous ligature of trocar incisions 2.8 mm length 17 cms. (1 no.)
- 26 Monopolar high frequency cord with plug for HF-unit 300 cms. Long
- 27 Voltage stabilizer for the lap. Equipment (1 no.)
- 28 Trolley to house endovision system, co2 insufflator, light source and monitor (1 no.)

* **Note:**

All the hand operating instruments should be rotatable, insulated, autoclavable having pin for monopolar coagulation.



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Vendor to arrange for pre dispatch inspection/demonstration if required

The whole equipment should have warranty of 12 months from the date of commissioning

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Prequalifying Perquisites

Vendor should submit the name, address and contract details of the customers to whom offered item/similar items has been supplied in the past.

BHEL may ask the vender arrange satisfactory performance certificate of the equipment from his customer.



(DR. SK GUPTA)
HEAD (SURGERY)