

PVMS OF MEDICAL EQUIPMENT	
Clinical Specialty	Clinical Specialty OT General Surgery
Generic Name	Operating Laproscope Adult
Clinical Purpose	Laparoscope is used for the surgical procedure in which fine instruments are inserted through the abdominal wall to view the organs in the abdomen or permit small scale surgery.
Technical Specifications	
<p>Imaging system should have backward and forward compatibility and modularity for future upgrade and with latest image enhancement modules for better image quality and identifications of the land marks and pathology for better outcomes of the surgery. The laparoscope and all allied components of these specifications shall be provided with full HD minimum of 1920 x 1080 pixels with the method of Progressive Scanning.</p> <p>Telescope</p> <ul style="list-style-type: none"> • Diameter 10mm,0 degree working length 290-310mm. • 10mm straight,30 degree view working length 290-310mm. • 5mm straight forward 0 degree. • 5mm frward oblique 30 degree. <p>Camera Full HD</p> <ul style="list-style-type: none"> • Camera control unit and video camera head,Pal System. • Resolution 1920X1080 pixels progressive scan. • Integrated(image processing model)/separate. • Power supply 100-240 VAC 50Hz. <p>Special Features Required</p> <ul style="list-style-type: none"> • Automatic while balance. • Powerful video signal processing. • Image enhancement modes. • Picture and picture mode control via camera head button/monitor. • Control of peripheral i.e light source,recording system paraeter via camera head buttons. • Still image capturing in Full D quality (JPEG) format via camera head buttons. • Video capturing in full HD quality (MPEG 4 format) via camera head buttons. • Grid & pointer mode for teaching and training purpose. • 20 individual preset or better. • 20 patient data backup or better. • Should have compatibility with future upgrade like flexible scope,3D or better or equivalent. • Max. resolution:1920X1080 pixel,progressive scan. <p>Video Output</p> <ul style="list-style-type: none"> • Composite signal to BNC socket. • S-video signal to 4-pin DIN Socket(2X). • RGB signal to D-sub Socket. • Dv signal to DV Socket (only with DV module). • SDI signal to BNC socket (only with SDI module) (2X). • HDTV signal to DVI-D socket. 	

Monitor

- Medical graded full HD/LCD/LED 26 inch from the same manufacturer/supplied by the same manufacturer.

Imported Trolley

Light Source

- 300 watt xenon/ led with all standard accessories,(the replacments of lamps shall be the responsibility of the supplying firm during warranty period.
- Light guide cable,diameter 6mm or more,length minimum 200 to 300 cm.

Electronic CO2 Insufflator

40-50 liter/min,complete in all respect with all standard accessories.

Clip applicators

Trocar with trocar sleeve 10mm Approx.

Trocar with trocar sleeve 5mm Approx.

High flow veress needle.

Suction Irrigation System complete in all respects with all standard accessories.

Reducing sleeve.

Integrated/separate medical graded video recorder with storage capacity of 500GB or more.

Accessories

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- (i) Online 2KVA UPS with 30 min backup to be provided locally.
- (ii) CO2 Cylinder 240CFT with complete accessories (to be supplied locally) certified by respective Agency.
- (iii) Imported storage boxes for instruments and optics.
- (iv) Imported disinfection boxes.
- (v) Standard cleaning set as per manufacturer recommendations for cleaning of tubular shafts and other instruments.
- (vi) Diathermy leads Autoclaveable.
- (vii) Bipolar forceps and lead.

LIST OF INSTRUMENTS REQUIRED FOR GENERAL SURGERY

Note: the minor variation in size and type of the instruments would be acceptable.

The size of instruments is approximate. The mentioned shape and style of instruments is for reference and may be quoted their equivalent.

• Hasson Cone:

Trocar size 10/11 mm (with color code) with cannula & multifunction valve, length 10.5 cm, pyramidal tip & conical tip one.

• Trocar size 5/6 mm (with color code) cannula & multifunction valve length 6cm, conical tip & 8.5 cm pyramidal tip.

• Reduction sleeve 11/5 mm (Compatible).

- Veresspneumo peritoneum needle with spring loaded blunt sty let with leur lock 7cm and 13cm.
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- Maryland dissecting forceps slightly curved with Cannula pin for unipolar coagdia 5mm, length 30-36 cm, insulated, relatable.
 - Dissecting forceps insulated rotatable needle nose.
 - Reddick-Olsen dissecting and grasping Forceps, heavy.
 - Dissecting and Grasping forceps, alligator jaws with connector pin for unipolar coagulation, size 5mm. (rotatable, straight)
 - Dissecting and Grasping Forceps, (Kelly's)with connector pin for unipolar coagulation, size 5mm. length 30-36 cm length, double action jaw.
 - Dissecting and grasping forceps, (Kelly's)with connector pin for unipolar coagulation, size 5mm36 cm length, double action jaw grasping forceps with teeth with connector pin for unipolar coagulation, size 5mm double action jaw with ratchet.
 - Multifunction grasping forceps, 1x2 teeth with connector pin for unipolar coagulation, size 5mm
 - Bowel grasping forceps, two rows of traumatic teeth without connector pin for unipolar coagulation, size 5/10mm.
 - Bowel Grasping Forceps With connector pin for unipolar coagulation, size 5/10mm.
 - Babcock Grasping Forceps rotating, dismantling with connector pin for unipolar coagulation, size 5/10mm. (with ratchet).
 - Babcock Grasping Forceps rounded without connector pin for unipolar coagulation, size 5/10mm.
 - Claw forceps, single/double/action jaw, with teeth, size 5/10mm, length 33-36, 01short, rotating consisting of metal handle with ratchet, outer tube, insulated, forceps insert.
 - Clip applicator (medium large) & medium, rotating, ratchet with clips.
 - Tenaculum forceps, rotating, size 5/10 mm, length 33-36 cm, and metal handle with ratchet, outer tube, insulated, and forceps insert.
 - Metzenbaum scissors, curved rotating, with connector pin for unipolar coagulation, size 5 mm, length 33-36 cm insulated handle, outer tube, insulated.
 - Curved/angled scissors, rotating, size 5mm, length 33-36cm: insulated handle, outer tube, insulated.
 - Micro scissor curved 5mm, insulated with diathermy .
 - Hook scissor single action jaws, size 5 mm, length 33-36 cm: insulated handle, outer tube, insulated, insert.
 - Scissor straight 5mm insulated with diathermy.
 - L Shaped dissecting electrode /diathermy size 5mm, insulated, length 33-

	<p>36 cm (L-hook dissector).</p> <ul style="list-style-type: none"> • Coagulating and dissecting electrode, spatula-shaped, blunt with connector pin for unipolar coagulation, size 5 mm, working length 33-36cm. • (Injection) Aspiration needle 5mm. • Biopsy forceps insulated (5mm). • Bipolar diathermy electrode . • Uterine cannula, with 2 cones, large and small spring-loaded fixation for forceps with luer-lock adaptor for cleaning. • Uterine tenaculum forceps, length 22cm. • Suction and coagulation cannula, 3mm, with connector pin for unipolar coagulation, 30cm. • Dissecting electrode l and j shaped. • Needle holder 5 mm • Needle grasper 5 mm • Thread manipulator 5 mm • Retractor 10 mm (3 blade) • Knot pusher
Optional (If Any)	<ul style="list-style-type: none"> • Paeds mode availability low flow insufflator • Accessories infrared light source • Medical graded full HD LCD/LED /4K