

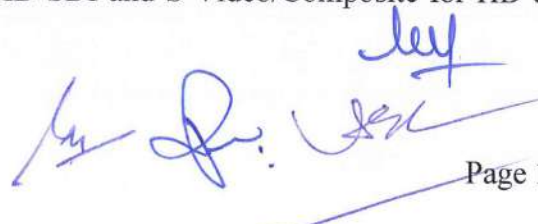
## SPECIFICATIONS FOR HD LAPAROSCOPIC SET

**A Full High-Definition Laparoscopy Surgery Set should consist of the following items:**

1. Full HD Video Image Processor
2. 3 Chip CCD/CMOS Full HD Camera Head with IR Compatibility
3. 26" Full HD Medical Grade Monitor
4. Laparoscopic Telescopes:
5. Light Source
6. Light Guide Cable-2 pcs
7. High Flow Insufflator (45L or more)
8. Full HD Recording Device
9. Surgical Trolley

### **1) Full HD Video Image Processor:**

1. Should be of the latest series/model and have the following specifications:
2. A full high-definition processor should have a resolution of 1920x1080 pixels with a 16:9 aspect ratio.
3. Should have the provision of Optical image enhancement of capillary vessels and fine patterns in the superficial layer of mucosa for early detection of lesions.
4. Should have the facility of IR (ICG) visualization.
5. Should have 5 or more Default User Preset for different surgical disciplines including IR
6. Should have a touch panel for easy access to system functions & settings
7. Automatic Shutter and microprocessor-controlled Automatic Gain Control
8. Should have modes for maintaining uniform brightness and brightening of dark areas in Endoscopic Image
9. Should have a USB slot for capturing HD/SD Endoscopic Still Images
10. Should have the provision of storing 20 user settings & 50 Patient data
11. Should have one output each for DVI/HD-SDI and S-Video/Composite for HD & SD videos



12. Should be compatible with all kinds of videoscopes of the same make OEM without adding any hardware post installation.

2) **3 Chip CCD/CMOS Full HD Camera Head**

1. The 3 Chip CCD/CMOS full HD camera head should be of Eyepiece type & have a resolution of 1920x1080 pixels with a 16:9 aspect ratio.
2. Should have integrated optical zoom coupler ranging from 0.9x to 1.8x and can be varied seamlessly
3. Should have 2 or more programmable buttons which can be configured through the processor
4. The camera head should have a focus range between 15-33mm and should have provision to focus Images from Coarse to fine patterns
5. Camera Head should provision for Real-time correction of Pixel Defect
6. Camera Head & coupler should be one piece.
7. Camera head should be compatible with ETO/Sterrad, V-Pro means of Sterilization
8. Should be IR compatible

3) **26" or higher Full HD Medical Grade Monitor: Should have the following specifications:**

1. 26 inches or more full HD monitor with TFT/LCD Screen with LED backlit having a resolution of 1920X1080
2. It should support an Aspect ratio of 16:9.
3. Should have multi-modality display compatibility (PIP/POP).
4. It should be from the same OEM.
5. It should have at least 2 HD inputs and 2 HD outputs for parallel display.
6. It should be supplied with a compatible stand and cables.

4) **Laparoscopic Telescopes: Should have the following specifications:**

1. 10mm 30 degrees IR Telescope working length of 300mm or more- 1



2. 5mm 30 degrees IR Telescope working length of 300mm or more- 1
3. It should have Full HD compatible Optics for better contrast & colour reproduction
4. should be completely distortion-free
5. It should have a Quick lock for attachment of video adaptors
6. It should have a large field of view and depth of focus
7. It should be Autoclavable & supplied in an autoclavable Tray from the same OEM.
8. It should be from the same OEM.

**5 Power full white LED light source and 300-watt xenon IR light source Qty. 1 each**

1. A powerful LED light source (equivalent to 300 xenon) and 300-watt IR xenon light source. Qty. 1 each
2. The LED Light Source should be with special filter light for observation of capillary vessels and fine patterns in the superficial layer of mucosa for early detection of lesions
3. Automatically adjust light intensity to achieve ideal illumination
4. Should have an emergency lamp facility

**6 Light Guide Cable- Qty 2pcs**

1. It should have High resistance protection against mechanical and thermal stress
2. It should have a diameter of 4.0mm or more with a high fiber density
3. It should have a Small bending radius for comfortable use
4. It should be 3 Meters or more in Length
5. It should be from the same OEM.

**7 High Flow Co2 Gas 45L/min or more Insufflator:** Should have the following specifications:

1. Should be digital, microprocessor controlled & automatic type
2. Should have a flow rate of 45 liters or more with a pressure range adjustable to 0 to 30m Hg.
3. Should have a Large digital display on the front panel Set Pressure, Actual Pressure, Flow Rate & Volume
4. Should have small cavity mode for EVH & Pediatric surgery
5. Should have Powerful Insufflation with a flow rate of 40 L/Min or more

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6. Should have optical and acoustic alarms for Overpressure, Tube Clogging & insufficient supply of gas.
7. It should have an integrated/separate facility for Smoke and mist Evacuation during the surgery.
8. It should be supplied with Pin and din index connectors to connect small/big gas cylinders with co2 regulators, a High-pressure hose pipe, silicon tubings to connect with trocars, and a wrench.
9. It should be from the same OEM.

**8 Full HD Recording Device:** Should have the following specifications:

1. A high-definition video recorder system with a real-time recording facility for videos & still images
2. Should have an internal hard disk drive of at least 2 TB or more and should have the facility of recording on Blu-Ray Disc / DVD Disc or USB memory stick if required by the user.
3. The recorder should have the Following inputs of HD-SDI, Composite video & S-video inputs for recording from various sources.
4. The recorder should have one output each for HD-SDI, Composite video & S-video for routing the image if required
5. Should also have facility for one channel audio recording in real-time with Endoscopy image
6. The recording should be MPEG 4 AVC / H.264 format with a maximum native resolution of 1920x1080 pixels depending on the input selected.
7. It should be from the same OEM.

**9 Trolley:** An OEM Trolley which is compatible with the quoted monitor is to be provided to to accommodate all equipment.

1. It should be stainless steel trolley with 4 antistatic dual castors with 2 locking brakes.
2. It should have required number of shelves to adjust all the equipment.
3. It should have cable manger.
4. It should have power box with concealed wiring for providing electrical connections of proper rating to all the units suitable for Indian plugs.



**Conditions for tenderer:**

1. All accessories should be from the same Original Equipment Manufacturer for the main unit.
2. Instruments must be ISO certified and a copy should be enclosed. (The ISO Certificate must be issued by any organization accredited by the Bureau of Indian Standard or accredited by the international accrediting forum "IAF" (Certificate to be attached).
3. Should USA FDA and/ or European CE be approved by 4 digits notified body.
4. Electrical safety conforms to standards for electrical safety IEC-60601-1 General Requirements and IEC-60601-2-25 Safety of Electrocardiograms. (Or equivalent BIS Standard).
5. Other necessary certifications if any required will be provided by the bidder for the smooth functioning of the machine.
6. Installation process should be performed by O.E.M trained service engineers/ service representatives on OEM letterhead or Service Report within 15 days of supply, with the mandatory provision of providing preventive services visit of OEM trained Service Engineer/ Service Representative quarterly per year till the completion of warranty period (i.e., 20 visits for the first 05 years) & further quarterly visits (04 visits/year) year till the completion of CMC period.
7. The equipment should have a Brand name/ Model Number embossed/etched on the equipment.
8. All the technical specifications in the compliance statement must be supported by Original Literature from the firm/ O.E.M with highlighting Numbering & flagging of all technical certificates.
9. Offered Equipment should have a strong Government Installation base.
10. Offered Equipment should have a Regional Sales Service Centre of the Original Equipment Manufacturer in the region for a 95 % uptime guarantee.
11. For the offered main unit, the essential, optional required consumables'/accessories' shelf life should be declared on the Original Equipment Manufacturer's letterhead.
12. In case of technical snag/failure/breakdown the response time for the inspection should be within 24 hours and repair within 05 days otherwise provide a service machine/ alternate arrangement to be made till the period of recovery of the breakdown of the unit, failing which attracts penal action as per the decision of institute/ hospital.

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13. For offered equipment the Training of technical staff and users should be performed by Original Equipment Manufacturer trained Service Engineers at the proper designated place- at bidders' cost.
14. Company should quote their latest model and need to provide an affidavit for the same.
15. As a tendering process the Demonstration of the offered Equipment is Mandatory at hospital/institute premises or other designated places at the bidder's cost.
16. The bidder must comply with the General Financial Rules and their modifications if any issued by the Government of India- 2017.
17. Any bidder from a country that shares a land border with India will be eligible to bid in the tender only if the bidder is registered with the Competent Authority (i.e., Registration certificate issued by the Ministry of Commerce and Industry (Department for Promotion of Industry and Internal Trade- DPIIT after October 2020). If any such bidder is not registered with DPIIT they will be liable for technical disqualification.
18. Principal (OEM) must authorize only one agent to be quoted in the bid otherwise multiple quotes through different agents in the same bid will be canceled.
19. The Bidder and its OEM both have to submit a notarized affidavit on the Indian Non-Judicial Stamp Paper of Rs.100/- that the bidder has not quoted the price higher than the current financial year and last financial year supplied to any government Institute/ Organization/ reputed Private Organization. OEM also has to submit that the price quoted by the bidder in the bid is on its behalf and the lowest in the current and last financial year in the country. Therefore, if at any stage it has been found that the supplier and its OEM have quoted lower rates than those quoted in this bid; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier and any excess payment if any, will become immediately payable to the Institute (the purchaser). The bid will be outright rejected if such an affidavit is not submitted. (Part of technical bid).
20. Guarantee / Warranty Period: Separate offers of Comprehensive Maintenance Contract (CMC on main equipment) and Annual Maintenance Contract (AMC on main equipment) for further 5 years after expiry of 5 years of warranty (i.e., 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> years) in rupees only (and on basis of percentage of price) should be included in a financial bid in the absence of which the offer is liable to be rejected. Payment for CMC/AMC shall be made only after the warranty expiry of 5 years, in case the Institute (the purchaser) decides to avail of CMC/AMC services. Contract for CMC/AMC shall be decided on expiry of warranty but rates (not more than 5% inclusive of all taxes for 6<sup>th</sup> to 10<sup>th</sup> year) will be frozen at the price of an issued purchase order before the release

of payment by the Institute (the purchaser). However, the Institute (the purchaser) may decide not to enter into any CMC/AMC contract without assigning any reason for the same, which shall be binding upon the bid.

21. Should provide 5-year CMC. CMC cannot be more than 5% of the contract value.
22. System configured application-specific educational video tutorials shall be provided as standard with the system.
23. Details of service outlet in India to render services during 5 years warranty period.
24. The principals must give a certificate if the supplier/vendor is changed during the course of the guarantee/warranty period, the principals would be responsible for the upkeep/maintenance of the quote/supplied equipment, besides honouring all the terms and conditions of CMC/AMC in letter and spirit.

