

MAHARAJA AGRASEN MEDICAL COLLEGE AGROHA (HISAR)

CORRIGENDUM

(Date & Specifications - Laparoscopy Machine)

E-Tender is invited vide tender ID No. **2024_HRY_366563_1** for Supply and Installation of Laparoscopy Machine at Maharaja Agrasen Medical College, Agroha (Hisar). The last date of submission is extended up to **01/05/2024** at 17:00 PM. and technical bid will be opened on **02/05/2024** at 11:00AM. Details may be seen at <https://etenders.hry.nic.in/nicgep/app>

The following amendment in DNIT

The specification of equipment as per **Annexure-B** has been changed. A new specification has been uploaded. The quantity of this equipment will be remain 2 nos.


Medical Superintendent
For Director

Department of General Surgery

Specifications of advanced 4K HD Fluorescence Endo-Vision Unit

All products should be US FDA & European CE approved, Mix & Match is not allowed i.e., all the components should be from the same manufacturer.

Category for Camera System for 4K Clarity with Fluorescence		
Sr. No:	Item	Technical Specification
01 Cat. A	LAPAROSCOPY SET	<p>1. 4k CAMERA SYSTEM- 3 Chip CMOS (with Fluorescence)</p> <ul style="list-style-type: none"> • The system should be Digital endoscopic video camera with progressive scan to guarantee genuine 4K. • Resolution of 3840 X 2160 pixels and 1920 x 1080 should also be selectable. • Should provide both 4K output and Full HD output • Full 4K High-Definition Video Image processor should have excellent image quality with progressive scan with 50 or 60Hz, which offers higher picture quality & eliminates virtually all motion artifacts. • Should be ICG compatible for fluorescence. • Control of ICG fluorescent viewing from the camera head. • System should be capable of Near Infrared Fluorescence Imaging with below features: <ul style="list-style-type: none"> a) White Light Image with super imposed display of fluorescence. b) Fluorescence signal in white light image with dark color background. c) Automatic adjustment of light intensity to prevent the issues of glare. d)Controllable feature of increasing or decreasing fluorescence gain and intensity. • Programmable buttons on camera head to adjust the cavity backlighting and intensity of ICG. • Integrated gain/shutter/enhancement with automatic brightness control • Automatic identification and brightening of dark image areas without lag time, without increasing foreground glare. Automatic intensification of color contrast levels. • Should have AE (Automatic Exposure)/ Auto light • Should provide at least 7 or more user preset • Pixels: 3840 X 2160 & 1920 x 1080 pixels, both should be selectable • Video Output: All port should be 4K and HD compatible • Pixels 3840 X 2160 Pixels • AGC: Microprocessor controlled



Department of General Surgery

		<ul style="list-style-type: none">• Lens: Digital Zoom Lens, $f = 15-24\text{mm}$• Color Gamut should be BT2020 for 4K• Control Button: Should have 4 buttons with at least 3 of them freely programmable• Input: Keyboard / Touch Screen input for character generator• Power Supply: - 200-240 VAC 50/60 Hz• Certified to IEC 601-1, 601-2-18, CSA 22.2 No. 601, UL 2601 and CE according to MDD, protection class I/CF <p>2. Fiber Optic Cable - 2 in nos.</p> <p>2 fiber optic cables Length should be 300 cm or more</p> <p>3. LED Light Source Equivalent to 300-Watt Xenon</p> <ul style="list-style-type: none">• Red, Green & Blue LED based cold light source• Color temperature should be approximate 5500K or more.• Should be ICG compatible for fluorescence.• System should be capable of Near Infrared Fluorescence Imaging with below features:<ul style="list-style-type: none">a) White Light Image with super imposed display of fluorescence.b) Fluorescence signal in white light image with dark color background.c) Automatic adjustment of light intensity to prevent the issues of glare.d) Should have facility to use Infra-Red Illuminating Optical Fibers for Ureter Identification.• Should have Lamp life approximate 2000 hours or more.• Lumens: 1500 and above (illumination index)• Power supply should be 85-260VAC, 50-60 Hz.• Should have Universal socket to accept Fiber Optic Cable of any make.• Digital display for intensity and lamp life consumed in hours• Power consumption should not be more than 375 VA• Should be under BF Class I <p>4. 32" or more 4k (UHD) Medical Grade Monitor</p> <ul style="list-style-type: none">• Ultra High Definition (HD) of 32" or wider screen.• Resolution of 3840 x 2160 & 1920 x 1200• Medical imaging systems for Minimally Invasive Surgical (MIS) and interventional procedures.• Fully compatible with OR video control applications.• Surgeon specific user selectable settings.
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Department of General Surgery

		<ul style="list-style-type: none"> • Color Depth 8 bit • Aspect ratio 16:10 / 16:9 • Max observation angle: 178-degree vertical horizontal • Inputs: 1x DP, 1 X DVI- D, 1 x12G SDI • Should have Class-I Medical Device Certification. • IEC 601.1 & ISO, CE Approved <p>5. Gas Insufflation Unit with heated gas option- High flow Carbon dioxide 40 liters and above</p> <ul style="list-style-type: none"> a- High degree of patient safety b- Easy to use, microprocessor controlled and software driven for real time pressure measurement c- Clear, adjacent display for set value and actual value allow easy monitoring of Insufflation Process d- Touch keys for precise pre-selection of set values e- Optical and acoustic warning signals in the event of patient overpressure f- Can be controlled with camera head, it makes operating for the surgeon a highly ergonomic and pleasant working experience- optional g- Fully automatic, electronically controlled gas refill (e.g. in case of gas loss when changing instruments) h- Safety – constant monitoring of Intra-abdominal pressure; any overpressure is reduced immediately - automatically i- Should have High Pressure Hose, American connection / pin-Index Connection (CO2), length should be at least 200 cm j- CO2-Bottle (5-10 liter), empty with pin-index connection k- Integrated gas heating for controlled heated and humidified CO2 delivery <p>Specifications of Insufflator system</p> <ul style="list-style-type: none"> a- Gas flow: 40ltrs/minute or above with LCD display with touch interface b- Pressure: 0-30mmHg c- Intra-abdominal pressure gauge: 0-50 mmHg d- Soft approach pressure control for safe recovery of abdominal pressure e- Four mode and visual and audible alarms with min 0.1L flow rate f- Power supply: 100-240 VAC (50/60 Hz) g- Internal leakage detection capability h- It should support recordable devices like USB Flash Drive, USB Hard Drive, Internal hard drive of 500 GB i- Drive, Internal hard drive of 500 GB j- Should have a weight no more than 3 Kg
<p>02 Cat. A</p>	<p>TELESCOPES ICG Compatible</p>	<p>Telescopes - Four (ICG compatible)</p> <ul style="list-style-type: none"> a-Fully Autoclavable -Forward-Oblique Telescope 30°, diameter 10 mm, length 30-36 cm, enlarged view- two in number

Department of General Surgery

		<p>-0(ZERO) degree straight forward enlarged view, 30-36cm, 5 mm in diameter- one in number</p> <p>-Forward-Oblique Telescope 30°, diameter 5mm, length 30-36 cm, enlarged view- one in number</p> <p>b-Should be autoclavable, fiber optic light transmission incorporated</p> <p>c-Wide angled distortion free view</p> <p>d-Fog free and focus free.</p> <p>e-Homogenous Light distribution in the peripheral region</p> <p>f-Eyepiece type connection – for uniform compatibility.</p> <p>g-Equipped with universal adaptor for other light source and light cables</p>
03 Cat. A	UHD/4K Video Recorder	<p>UHD/4K Video recorder (01)</p> <ul style="list-style-type: none"> • Capability of receiving signals and recording video from UHD endoscopic cameras • Ability to transfer captured still and video images to external media using USB. • Camera Head Triggering Control from existing UHD Camera buttons. • Internal recording hard drive should be 1 TB or more. • Video input should be HDMI & DICOM connectivity and Video output 2xHDMI, 4K SDI and FHD SDI. • Capability for simultaneous recording on external device through USB interface on front panel. • Front panels should have touch screen 7” or more and should display recording status. • Device should be registered as safe for medical grade • Should be USFDA & European CE approved.
04 Cat. B	SUCTION & IRRIGATION SYSTEM	<p>Suction and irrigation system with two ways stop cock Cannula 10 mm & 5 mm (one each)</p> <ul style="list-style-type: none"> • Pressure regulated suction and irrigation system for use in Laparoscopy Unit should be with touch screen • Unit should have feature of simultaneous display of set values and actual values, enabling user for continuous monitoring of suction and irrigation parameters • Unit should be supplied with glass/plastic suction bottle 5lt, bottle cap, bottle stand and bottle holder. • Pressure Flow: • LAP 100/300/500 Hg • Flow: LAP: 0-1300ml/min • Suction Pressure regulated: • Power supply: 100-240V AC, 50/60HZ • Certified to: IEC 601-1, CE and MDD • should be supplied with 10 set of irrigation and suction tubing Suction Irrigation cannula thumb control type Size –10mm Suction Irrigation Cannula thumb control type Size –5mm

Department of General Surgery

		Suction and irrigation system should be from the same manufacturer or 3 rd party and should be of Class I category of safety.
05 Cat. B	LAPAROSCOPY TROLLEY	Laparoscopy Trolley a- Equipment Cart rides on 4 antistatic dual wheels equipped with locking brakes, central beam with integrated electrical sub distributors with 6 sockets, grounding plugs b- Should have central monitor holder to mount monitor with height adjustable, swiveling and tilting, loading capacity max. 18 kg, with monitor c- Cart should be compatible to accommodate followings when required. - At least 4 or more shelves - Isolation transformer - Counter balance plate - CO2 cylinder holder d- Cart should be from the same manufacturer as the endo-vision system/OEM and should be of Class I category of safety.

