

REQUEST FOR BUGETARY ESTIMATE

Ref.: HSCC /Med. Eqpt./01 dt. 26.12.2025

HSCC (India) Ltd. intends to invite On-line bids from eligible bidders, in single stage two bid system for supply, installation, testing, commissioning & handing-over of various Medical Equipment for a Reputed Hospital in Amaravati for items Annexed at Annexure-I. The Technical Specifications are Annexed at Annexure-II.

It is requested to submit the Budgetary Quotation of the Equipments in Company Letter Head, as per the single page format enclosed at Annexure-III, in both Hard & Soft Copy within 03 days of issue of this Notice at following address:

HOD General Manager (Procurement)

HSCC (India) ltd.,

E-6(A), Sector-1,

NOIDA (U.P.) – 201 301.

Soft copy may please be send on following e-mail ID:

procurement@hsccltd.co.in

HOD(Proc),
HSCC (I) Ltd

LHMC EQUIPMENT LIST		ANNEXURE-I
Sl. No.	Equipment Name	Qty
1	High END ICU Ventilator with all Accessories	3
2	Multidisciplinary Operating Microscope	1

Annexure -II

Multidisciplinary Operating Microscope

Working distance:

200mm-500 mm continuously variable through motorized multifocal lens, activated through Handgrips and through touch screen control panel. Should have manually adjustable override.

Magnification range:

Magnification range up to 18x or better without using additional magnification multiplier / changer activated through Handgrips and through touch screen control panel. Should be possible to adjust the speed of the motorized magnification / zoom through touch screen. Should have manually adjustable override.

Focusing:

Motorized via multifocal lens activated through Handgrips and through touch screen control panel. Should be possible to adjust the speed of the motorized fine focus through touch screen. Should have manually adjustable override.

Eyepieces:

Pair of high eye point wide field push-in eyepieces 12.5x magnification with eye guards and magnetic locks, diopter setting from -8D to +5D, also suitable for spectacles wearers

Light Source:

Should have maintenance-free LED illumination providing Xenon like intensities at 5500K or more with lamp lifetime of 40,000 working hours or more.

Light Threshold Mechanism:

Should have threshold mechanism in order to protect tissue from inadvertent light exposure the system must offer respective safety mechanisms system information when exceeding individual light threshold.

Automated Illumination Field Diameter:

Should have built in automatic zoom-synchronized illumination field diameter, with manual override and reset feature. Automatic Iris Control or AutoIris (critical)

Automated illumination control:

Should have Automated Illumination which limits the maximum light intensity for the selected working distance. Brightness control should be linked to working distance. Illumination also can be controlled by hand switch or foot switch.

Focus and Zoom Link Mechanism:

Should have ability to automatically adapt the focusing speed to the magnification and also have provision to automatically reduce preselected focusing speed when a higher magnification is used.

Handgrips:

The system have adjustable, ergonomic handgrips, symmetrical and attached clearly above the bottom edge of microscope, multifunctional key assignment with minimum 4 freely programmable keys each side and a joystick for software guided balancing and should be independent programmable (left / right)

Binocular tube:

0-180 degree Tiltable binocular tube for Main Surgeon with wide field push-in eyepieces 12.5x magnification with eye guards and magnetic locks, diopter setting from -8D to +5D, also suitable for spectacles wearers.

Software Guided Balancing:

The system must provide software guided balancing of all system axes without any manual knob rotation for axis adjustments.

Axis Dampening:

Should provide motors on all system axis to avoid the vibrational dampening effect and ensuring rock-solid stability. Enabling surgeon to have complete and steady focus.

Automatic Draping:

Microscope should be able to allow activating drape suction facilitated by an automatic air vacuum for sterile, obstruction free microscope handling and for easier usage of drape to maintain sterility during surgery.

1-CMOS HD Camera:

Fully Integrated 1-CMOSHD 1080pVideoCamera inbuilt inside the head of the microscope (Camera not Visible from outside) So that maximum resolution will display & record.

Full HD Medical Display:

Full HD Medical grade touch screen display system attached with the microscope system. (No External Monitor /detachable monitor will be acceptable). The display should show the number of videos and images taken and start / stop of the video recording.

HD Recording:

Full HD Integrated Video Recording system with integrated HDD of minimum 1TB in built inside the microscope and external HDD of minimum 1TB.

Beam Splitter:

Should have undetachable and Integrated Beam Splitter (not Visible from outside)

Stereo co observer:

Should have stereo co observation attachment with 90 degree binocular tube for side assistant with wide field push-in eyepieces 12.5x magnification with eye guards and magnetic locks, diopter setting from -8D to +5D, also suitable for spectacles wearers.

Integrated Beam Splitter:

The attachment should not move in case the head is tilted in forward or backward direction. The microscope must offer integrated tube rotation for better ergonomic observation.

Manual Override:

Should have manual adjustment with separate knob to adjust Zoom, Focus and light aperture manually during emergency or malfunction of microscope.

User Programming:

Programming for starting illumination, Magnification, working distance, zoom speed & focus speed for at least 8-9 different users. In emergency manual operation of Zoom & Focus is a must as manual override with independent knobs on optics carrier.

Wireless Network Package:

Microscope should enable WLAN and Wi-Fi Hot Spot functionality for wireless shared network data exchange and Wi-Fi connection to mobile devices. Also, should allow for network access to data via web browser

Remote Access:

The system must provide an interface and a function for fast internet remote diagnosis to be operated via the central touch screen user interface.

	Technical Specification Ventilator
S. N o.	General Specification
1	Advance technology, external <u>compressed air</u> based, microprocessor-controlled ICU ventilator suitable for ventilating all categories of patients from Pediatric to adults
2	All the material/equipment should be European CE/US FDA Certified.
3	All the electronic equipment should comply with Electrical Safety conforms to standards for electrical safety conforms to standards for electrical safety IEC 60601-1.
4	All the equipment's power input should be 220- 240 V, 50 Hz.
5	Demonstration of quoted model is must.
6	The volume delivered at the patient connection shall be compensated with regard to breathing system compliance and BTPS
7	The Ventilator should be <u>compressed air</u> based, <u>able to operate on both hospital air supply and external compressor (if available)</u> . Turbine or piston-based ventilators are not acceptable. <u>External</u> Compressor should be from the same manufacturer. Compressor should be US FDA approved. <u>It should be quoted as optional.</u>
	General Requirements
1	Screen size 15" or more touchscreen and should be tiltable for maximum flexibility. It should have ambient light sensor for automatic adjust of screen brightness.
2	Graphic display to have automatic scaling facility for waves.
3	Status indicator for Ventilator mode, Battery life, patient data, alarm settings, clock etc.
4	It should display <u>3</u> waveforms and <u>2</u> loops - PV loop, PF loop & VF loop simultaneously in a single screen
5	It should be possible to choose different user interface layouts <u>and it should be user customizable.</u>
6	Display should have images and context guidance to aid in setting parameters by user
7	It shall be possible to set the inspiratory tidal volume in relation to predicted body weight.
8	It should able to store 72 hours trend data.
9	It should have facility to store screen shots. It should have quick data export facility through usb port.

1 0	The user interface should have display port for connection to slave screen or projector.
1 1	Circuit check for compliance & Leakage compensation for circuit
1 2	Should have the following modes:
a.	volume controlled/ assist mode
b.	pressure controlled/ assist mode
c.	Pressure regulated volume controlled
d.	SIMV Volume controlled with pressure support
e.	SIMV Pressure Controlled with pressure support
f.	SIMV PRVC with Pressure Support
g.	Pressure Support/ CPAP
h.	Non-Invasive ventilation <u>with all pressure and volume modes</u> with leakage compensation
i.	BiVENT/APRV
k.	Volume support <u>with CPAP</u>
	Should be upgradable to algorithmically interactive mode can be used for initiation to weaning. The system shall include a mode which based on patient effort automatically switches between controlled and supported ventilation without generation of apnea alarms. <u>The weaning protocol should have automatic SBT integrated within the mode.</u>
i.	Ventilator should <u>be upgradeable to</u> have <u>dynamic</u> visualization tool for real time monitoring of <u>patient's respiratory status</u> —The visualization changes in terms of color/ <u>width</u> helps in detecting changes in lung <u>compliance, resistance, spontaneous breathing and minute ventilation along with real-time data and</u> optimal adjustments of settings.
k.	Should <u>have</u> High flow oxygen therapy <u>as standard</u> .
l.	Should be upgradable to tool which gives real-time monitoring to allow the user to follow changes in lung mechanics during recruitment strategies and for optimal PEEP settings.
m .	Upgradable to Nasal CPAP as separate mode
1 3	Following settings in ventilator:
a.	Tidal volume <u>20 ml</u> - 3000 ml
b.	Flow pattern Square, decelerating and adaptive flow pattern selection in volume-controlled mode

d.	Mandatory respiratory rate 5-150 breaths per minute
e.	Inspiratory time 10 to 80% of breath cycle time
f.	Inspiratory plateau 0 to 60% of inspiratory time
g.	Rise time 0 to 20% of inspiratory time
h.	SIMV rate 4 to 60 breaths/min
i.	PEEP 0 to 50 cm H2O
j.	PS/PC above PEEP 0 to 60 cm H2O
k.	FiO2 21 to 100%
l.	End expiration (% of peak flow) : 1- 70
m.	Triggering Flow & Pressure trigger must be available
n.	I:E 1:10 - 4:1
o.	It should have a bias flow of 2 L/min for adult
p.	
	<u>Should have flow sensor with hot-wired anemometry technology for precise and better infection control.</u>
14	Continuous monitoring/display of the following parameters:
a.	Ppeak , Pplat , Pmean ,Pdrive, PEEP, Compliance- Cstat & Cdyn, Resistance - Ri & Re, Inspiratory tidal volume, TV/PBW, , time constant, Expiratory tidal volume, MV inhaled, MV exhaled, MV spn, I:E Ratio, Inspiratory Time, RR Total, FiO2, Leakage fraction, end expiratory flow and elastance
b.	Alarm volumes adjustable
c.	At least 1000 episodes of alarms recordable
15	Should have the ability to calculate and display
a.	Intrinsic PEEP
b.	Occlusion Pressure
c.	SBI
d.	Inspiratory & Expiratory hold
16	Should have color coded alarms with on -screen troubleshoot checklist to address active alarm. Audio and visual alarms for the following conditions.
	- Apnea
	- High/low airway pressure
	- High/low respiratory rate
	- High/low minute volume
	- Low battery
	- Equipment malfunctioning
	- Power switch from AC to DC
	- Low battery
	- Alarm limits should be adjustable
	- Should have a temporary mute function (for at least 2 minutes)
	- Alarms should have different audiovisual codes based on priority
	direct access to active alarm settings in one touch
17	It should be possible to visually detect alarms from 360 degree around the system.
18	Should have integrated nebulizer, which should be synchronized with inspiration. It should be based on <u>pneumatic/vibrating mesh technology</u> with capability of delivering less than 3-micron particle size.
19	Should be upgradable to mainstream EtCo2 monitoring and display capnogram, <u>and volumetric CO2 parameters like VCO2, VTCO2, Slope Phase 3, Vds/VTe.</u>
20	Should have battery backup of minimum <u>30</u> minutes. Battery should be hot swappable.
21	RS 232 Interface for communications with networked devices.
22	Automatic pre-& post-oxygenation and stand-by function for suctioning
23	Should be supplied with permanent O2 cell or company will replace free of cost during the warranty and CMC period

24	Expiratory block should be single piece autoclavable and no routine calibration required. It should be interchangeable with same make units.
25	System Configuration Accessories, spares and consumables
26	Ventilator
a.	Ventilator, trolley and support arm
b.	Reusable Masks - 01 No.

ANNEXURE-III

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BUGETARY QUOTATION

1)	Sr. No. of Equipment:	
2)	Name of Item:	
3)	Model No.:	
4)	Name of manufacturer & Address:	
5)	Contact Details of the Firm submitting Budgetary Quotation:	
6)	Budgetary Cost of Equipment including Standard Warranty and All Taxes and Duties from Warehouse to consignee i.e. Delhi	
7	Warranty	
8	CMC	
	The Budgetary Cost of Equipment includes the following:	
	1)	All Taxes & Duties on FOR basis.
	2)	Insurance till installation.
	3)	Inclusive of Warranty.
	4)	Delivery - within 10 days from the date of issue of Purchase Order
	5)	Installation within 07 days from the date of Delivery
	6)	Cost inclusive of 3 rd Party Inspection by reputed Agencies i.e. SGS / Llyod / TUV / Bureau Veritas

NOTE:

1. Please enclose a copy of Last Purchase Order for the same Model (preferably from a Govt. Institute).
2. Copy of Catalogue / Brochure / Product Data Sheet etc to be submitted.

(Sign & Stamp of Firm)