

BRIHANMUMBAI MUNICIPAL CORPORATION OF GREATER MUMBAI

T.N.M.C. & B.Y.L. Nair Ch. Hospital, Mumbai- 400008,

Department of Anesthesia.

Expression of Interest

Subject- To invite Expression of Interest from vendors to supply a Trans Esophageal Echocardiography (TEE) machine System for the use of Anaesthesiology Department, T.N.M.C. & B.Y.L. Nair Ch. Hospital through CSR fund received through PPF BYL Nair Hospital from Mazgaon Dock Shipbuilders Limited (MDL)

T.N.M.C. & B.Y.L. Nair Ch. Hospital is a tertiary referral center with 1623 beds. Being the 1st major hospital in South Mumbai. Being a Tertiary Health care center, a lot of patients for Cardiac surgery and Critical patients are brought to this hospital. All of these patients need Cardiac surgery or ICU management. Trans Esophageal Echocardiography (TEE) machine system is an advanced point of care monitor for such patients. For this propose we urgently require Trans Esophageal Echocardiography (TEE) machine system at the Anaesthesiology Department, T.N.M.C. & B.Y.L. Nair Ch. Hospital, The machine will also be useful in training of Resident doctors and fellows.

For procurement of Trans Esophageal Echocardiography (TEE) machine system for Anaesthesiology department, it is proposed to invite "Expression of Interest" from vendors to supply the same for monitoring patients undergoing cardiac surgery and critical patients in Anaesthesiology department, T.N.M.C. & B.Y.L. Nair Ch. Hospital.

To supply required Trans Esophageal Echocardiography (TEE) machine system, vendors should obtain **Application Form** from **Dean Office on 23.09.2024 to 30.09.2024** and submit all required documents on or before **30.09.2024**, up to 1.00 pm in the drop box in Dean Office, OPD building, ground floor of T.N.M.C. & B.Y.L. Nair Ch. Hospital. This will be a 2 stage EOI comprising of 2 packets; Packet A - relevant documents related to the technical specifications along with the duly filled Application form AND Packet B- Commercial documents (quotation in the prescribed format). **Packet A will be opened on 01.10.2024 & packet B will be opened on 07.10.2024** in the Dean's Office

SPECIFICATIONS FOR TRANSESOPHAGEAL ECHOCARDIOGRAPHY (TEE) MACHINE SYSTEM FOR DEPARTMENT OF ANAESTHESIOLOGY, T.N.M.C. & B.Y.L. NAIR CH. HOSPITAL, MUMBAI

Sr. No.	Technical particulars/Description as per tender.
1	System must be a state of the art model with all digital beam former with super computed signal processing and clinically proven imaging technologies.

2	System must be offered with the Adult 3D TEE application.
3	The system should be light weight and economically designed
4	Fast booting of the system is required for point of care applications. Boot up time should not exceed 90 seconds. <u>Specify time.</u>
5	System must be offered with a minimum of 900000 digital processed channels per image frame. Original technical data sheet should be enclosed in the technical bid to support the number of channels on the systems. <u>If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the Channels of the offered system.</u>
6	System must be offered with a minimum 15 inch High Resolution Integrated Flat Panel Display monitor with High resolution.
7	System must be offered with frequency compounding facility. Other equivalent Technology can also be offered. <u>Processing technology in technical bid should be highlighted.</u>
8	System must be offered with 2D and 3D, M - mode, Colour M- mode, Anatomical M-mode (On Stored Images), Colour Flow, Pulse Wave Doppler, continuous Wave Doppler and Directional Color Power Doppler.
9	System must be offered with Speckle Reduction Imaging: Image processing technique to remove speckles and clutter artifacts
10	System must be offered with a very high dynamic range of at least 250 dB to pick up subtle echoes. Original technical data sheet should be enclosed in the technical bid to support the Dynamic range in dB. <u>If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the dynamic range of the offered system.</u>
11	Frequency processing facility for the transducers should be 1 - 15 MHz. This must be available without the need for frequency switching.
12	Offline Measurement and Zoom capability should be available.
13	Customized trolley with system for locking the USG unit on it, should be provided for easy transportation of the machine within the hospital.
14	Triplex Imaging should be standard on the system.
15	Transducer Ports: Ports should allow easy attachment and detachment of transducers
16	System must be offered with a 2D frame rate of at least 1000 frames/second. Acquisition frame rate should be clearly mentioned in the technical quote.
17	Must be offered with a single button control for automatic optimization and adjustment of TGC and Receiver Gain to achieve optimal uniformity of image quality and faster scans. This should be demonstrated to the users during technical discussions.
18	System must be offered with Enhanced Tissue Harmonic Imaging and should be standard on the system. This should be based on a real - time digital signal storage and phase cancellation technique to enhance axial and Contrast resolution.
19	Controls for color Doppler: PRF, color gain, position and size of ROI, steering of ROI, color maps and color invert.
20	Controls for pulsed Doppler: Variable sample volume size from 1 to 5 mm or more, steer, PRF, baseline, gain, angle correction, spectral invert.

21	Controls for 2D mode: Total gain, depth, dynamic range.
22	The system should have Three Probe Port Connectivity and should have 1 hour battery backup
23	System should have extensive image management capability including thumb nail review, Cine loop editing. Following should be provided with the machine
	1)Adult 3D TEE with Customizable TEE Probe button
24	Machine should be CE Europe/ US FDA standards approved.
25	Machine must have at least 3 years warranty and 5 years CAMC thereafter.
26	TEE Probe should be covered minimum for 1 year of warranty from the date of installation.
27	TEE probes rates are to be declared in consumables list for purchase post warranty if required.
28	Both probe's price must be quoted as part of consumables list - Adult and Pediatric TEE
29	The price of Adult Tee probe should be fixed for the next 5 years after delivery of the machine
30	<u>Five years CMC is required after completion of warranty period is over</u>
31	Price should include supply and installation
32	Please quote separate prices for all modules, and the basic monitor unit. The exact numbers of each module may be varied.
33	Technical support, spares and consumables should be provided as needed, for 5 years after warranty period is over.
34	All software upgrades should be provided free of cost during the period of warranty and CMC
35	All modules should be defibrillator- and surgical diathermy proof.
36	The system should follow international safety standards for medical use viz marking US FDA and European CE
37	Past performance certificate should be provided as per tender specifications.
38	User list to be provided with contact numbers.
39	Demonstration is compulsory and within 15 days of intimation.
40	DICOM: DICOM should be a standard feature to manage the stored data within the hospital and interface to PACS system for centralized reporting and printing.
41	Image Management: Compatible software to archive the stored images on Personal Computer via USB port or an external memory device such as Flashcard / USB pen drive etc should be provided. This will enable easy reporting and efficient data management system.
42	Data Management: Internal non-volatile memory – approximately for 4 patients. Export PC/MAC@BMP, JPEG images to a USB device.
	GENERAL SPECIFICATIONS
	Environmental factors

1	The unit shall be capable of operating continuously in ambient temperature of 300°C and relative humidity of 80%
2	Pre Requisites should be clearly spelt out in terms of room requirements.
	Power Supply
1	Power input should be 220-240VAC, 50Hz fitted with Indian plug
2	Resettable overcurrent breaker shall be fitted for protection
3	Suitable Servo controlled Stabilizer/CVT
4	UPS of suitable rating with voltage regulation and spike protection for 30 minutes back up.
	Standards, Safety and Training
1	Should be FDA or CE approved product
2	Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
3	The product shall comply to IEC 60601-2-37 ed1: Medical Electrical Equipment - Part 237: Particular Requirements for the Safety of Ultrasonic Medical Diagnostic and Monitoring Equipment
4	Type of protection against electric shocks -- Class I electric shocks for ultrasound probes Type "BF", For ECG electrodes Type 'CF"
5	Manufacturer/Supplier should have ISO certification for quality standards.
	Documentation
1	User manual in English
2	Service manual in English
3	List of important spare parts and accessories with their part number and costing available in stock with the supplier.
4	Certificate of Calibration and inspection from the factory
5	Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.
6	List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
	General specification for tendering procedure
1	It Should provide 3 years comprehensive warranty, followed by 5 years CMC. Technical support requires spares and consumables should be ensured for two years after initial 3+5 years period is over.
2	It should be CE certified by European Notified body (under MDD) along with declaration of conformity or US FDA approved.
3	Demonstration of quoted model is compulsory.
4	Power Supply: 230 V +/- 15%, 50Hz +/- 3%.
5	Servicing training to MEC engineers and operational training to user department.
6	Operating and detail service manual should be provided.
7	Tropicalization: Operating Temperature: 40°C, Storage temperature: 60°C Relative Humidity: Upto 90% non-condensing

The Installation Report & necessary documents will be submitted to the Donor, The Donor will deposit the payment in Nair Poor Patient fund (PPF) and payment will be made by Nair PPF after receiving payment from donor.

If any doubt or any query about above mentation work you can contact at the Dean's office –
Tel. No. 02223027125/ 02223027101

SD/-
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