

## **Expression of Interest**

**Subject- To invite Expression of Interest from vendors to supply 2 D Echo  
Cardiography machine for Cardiology Department in LTMG  
Hospital.**

**LTH/556 / MSW / dt. 29.01.2024**

Dean Poor Box Charity Fund is Charity unit of Lokmanya Tilak Municipal General Hospital. LTMGH is a tertiary referral center with 1900 beds. Cardiology Department requires following equipment's from Member of Parliament (Rajya Sabha), Hon. Shri. Kumar Ketakr's Fund for the sanction 2 D Echocardiography machine for performing basic and advanced cardiac test and treatment for poor and needy patients of LTMG Hospital.

For procurement of 2 D Echocardiography machine, for performing basic and advanced cardiac test and treatment. So we propose to invite "Expression of Interest" from vendors to supply 2 D Echocardiography machine the same for patients treatment in Cardiology Department at LTMG Hospital.

To supply required 2 D Echocardiography machine vendors should obtain **Application Form** from **Social Service Department on 16.02.2024 to 24.02.2024** and submit all required documents on or before **26.02.2024**, up to 03.00 pm in the drop box in Social Service Department, College building, ground floor of LTMG Hospital, application box will be opened on **26.02.2024** at 11.00 am including A,B and C Packet in Dean's Office.

All the document to be provided in bellow mentioned pocket.

Packet A – Description of Documents

Packet B – Technical Specification Documents

Packet C – Quote of Basic Price and GST (price should be quoted with the mention of GST.) = Total cost.

**BRIHANMUMBAI MUNICIPAL CORPORATION**  
**LTMMC & LTMG Hospital,**  
**Social Service Department,**  
**Sion, Mumbai- 400022.**

**SPECIFICATIONS for 2 D Echocardiography machine for Cardiology Department**  
**LTMGHospital Sion, Mumbai**

Sr. No.	Name	2 D Echocardiography machine for basic and advanced cardiac tests. The system must have the following specifications :
	<b>Packet A</b>	<p>1) The above equipment shall be new and manufactured from virgin materials.</p> <p>2) It is mandatory to provide free installation &amp; training for the user department and staff.</p> <p>3) Training of 5 days to Doctor for hands on machine training under supervision.</p> <p>4) Equipment should be provided within 30 days from the date of purchase order.</p> <p>5) All the requirements of this supply shall be sourced from the original equipment manufacturer of the <b><u>model quoted.</u></b></p> <p>6) The equipment's shall have valid CE certificate from notified body/ US FDA approval and documentary evidence to that effect shall be uploaded.</p> <p style="text-align: center;"><b>Manufacture or outhorized distributor should quote. Third party suppliers can't be permitted.</b></p> <p>7) The equipment shall be having warranty of three years as described document elsewhere. The warranty and CMC shall cover the list of the spare parts and the rate of which valid for total 8 years (warranty 3 years and CMC 5 years) irrespective of whether those are treated as consumables or otherwise.</p> <p>8) The equipment should be provided with one hard copy in original of the detailed service manual and operation manual. Further, a soft copy is also required.</p> <p>9) The instrument trolley can be of Indian make.</p> <p>10) Training to Medico Electronics Cell Engineers (MECE) from servicing point of view and to User department from operating point of view.</p> <p>11) Bidder should submit company registration document, PAN Card, Aadhar Card, Last three years audit report and return files and proof of same work done in government hospital all technical details in the form of technical brochures / leaflets for all the equipment's proposed for supply and mentioned in the technical offer in the technical offer.</p> <p>12) List of Bank</p> <p>13) Partnership Deed if any of Vendor.</p> <p>14) Solvency Certificate</p> <p>15) Power of Attorney to sign the tender if original vendor not available.</p>
	<b>Packet B</b>	<b>Specifications for 2 D Echocardiography system High- End</b>

**BRIHANMUMBAI MUNICIPAL CORPORATION**  
**LTMMC & LTMG Hospital,**  
**Social Service Department,**  
**Sion, Mumbai- 400022.**

		The system must be latest generation technologically advanced Digital 2D Echocardiography system for Transthoracic adult, pediatrics, and neonatal applications and upgradeable to fetal echo.
		System must be offered with a minimum of 4milliondigital processed channels. Technical data sheet should be enclosed in technical bid to support the number of channels on the systems. If not mentioned,Please attach a letter from manufacturer along with the technical bid clearly stating the digital processed channels of the offered system.
		System must be offered with a very high dynamic range of at least 280dB to pick up subtle echoes. Dynamic range in Db must be clearly mentioned in the technical quote. System offered lesser than specified parameters will not be considered.
		System must be offered with a minimum 21 inch High Resolution Flat Panel Medical grade Display monitor with nearly infinite position adjustments.
		System should have at-least four Imaging universal active probe ports with electronic switching facility from keyboard without probe adapter.
		Operating modes B-mode,M-Mode, B/M Mode, Doppler Mode,and Colour flow, Power Doppler, DCA/DPA, Contrast Imaging, B/Colour flow, PW Doppler, CW Doppler.
		System should support broad band probes spanning a frequency of 1-22MHz.
		B mode & B colour simultaneous should be available side by side real time display of B-Mode & Colour flow. Digital zoom facility for region of interest in real time and frozen images.
		Image storage facility on in build hard disc or MOD/CD/DVD-RW facility should be available. In built hard disk with minimum capacity of 500 GB. System should have extensive image management capability including thumb nail review, Cineloop editing etc.
		Cine loop as well as cine scroll facility in B mode with storage of 1900 or more images should be available. Cineloop frames should also be available for abdominal contrast applications
		System must be offered with Speckle Reduction Imaging: Image processing technique to remove speckles and clutter artifacts.
		Advanced measurements & calculation package for vascular and cardiac should be available.
		System should be capable of scanning depth of 40cms. Scanning Depth should be clearly mentioned in the technical quote If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the scanning depth of 40cms in the offered system.
		System must be offered with an 2D frame rate of at least 1900 frames/second. Acquisition frame rate should be clearly mentioned in the technical quote If not mentioned Please attach a letter from manufacturer along with the technical bid clearly stating the frame rate of the offered system. Tissue Doppler Imaging should be min 230fps
		System must be offered with 8 TGC slide pot

**BRIHANMUMBAI MUNICIPAL CORPORATION**  
**LTMMC & LTMG Hospital,**  
**Social Service Department,**  
**Sion, Mumbai- 400022.**

		System must be offered with minimum 12-inch-high resolution user interface touch panel.
		System should have THI & should be able to work in combined mode of harmonic imaging and real time compound imaging to get excellent image quality. The system shall offer Tissue Harmonic Imaging in Power Doppler imaging mode for improved sensitivity and specificity in differentiating blood/agent from tissue.
		The system should have Contrast Harmonic Imaging and should have optimization settings to detect the Contrast Agents. Please specify other advanced Technologies to perform better Contrast Harmonic Imaging.
		<p><b>2D Quantification Tools:</b></p> <p>a) Should provide region of interest analysis for contrast imaging, tissue analysis and color Doppler.</p> <p>b) Automated measurements of intima media thickness in carotids and other superficial vessels.</p> <p>c) Automated global and segmental longitudinal strain measurement.</p> <p>d) Strain quantification for measuring the myocardial velocity from Color Tissue Doppler (TDI) datasets and derive the displacement, strain and strain rate along user-defined M-Lines and overlay opening and closing of aortic and mitral valves on SQ curves to display Left Ventricle mechanical events.</p> <p>e) The system should have tools to automatically draw region of interest based on the selected anatomical view, and generates LV Ejection Fraction (EF), End Systolic Volume (ESV) and End Diastolic Volume (EDV). It should also provide an in-depth report displaying areas, volumes and advanced parameters for LV systolic and diastolic function including LV Ejection Fraction (EF), Peak Ejection Rate (PER), Peak Rapid Filling Rate (PRFR) and Atrial Filling Fraction (AFF).</p>
		<b>Auto Strain LA &amp; RV</b> should be provided standard.
		Automatic real time & frozen tracing of instantaneous peak velocity & instantaneous mean velocity (or frequency) should be available. Triplex Imaging should be standard on the system.
		<b>24. SYSTEM MUST BE THE FOLLOWING TRANSDUCERS (Total four transducers for two machines)</b>
		Phased array 1–5 MHz ( $\pm 1$ MHz) broadband adult Echo Transducer with 2000 elements for 2D Echo-cardiography with Bi-plane imaging to acquire two simultaneous views for increased throughput. Must have Tissue Harmonic Imaging, must attach original technical data sheet of transducer to specify the above technology used in the transducer: <b>TOTAL TWO NOS.</b>
		3–8 MHz ( $\pm 1$ MHz) Pediatric Echo Transducer for Pediatric and small adult Cardiology imaging. Must have Tissue Harmonic Imaging, must have smaller footprint than the adult echo transducer. Must attach original technical data sheet of transducer to specify the above technology used in the transducer: <b>TOTAL ONE NO.</b>
		4-12 MHz Broadband 2D linear transducer for vascular Doppler imaging: <b>TOTAL ONE NO.</b>
		<b>Live 3D Adult TEE</b> matrix/Purewave/Single crystal technology transducer with 2500 elements and 2 to 7MHz ( $\pm 1$ MHz) operating frequency range, electronically rotatable

**BRIHANMUMBAI MUNICIPAL CORPORATION**  
**LTMMC & LTMG Hospital,**  
**Social Service Department,**  
**Sion, Mumbai- 400022.**

		array from 0° to 180°, Electrocautery suppression with Speckle Reduction, harmonic imaging, M-mode, color M-mode, colorflow, PW Doppler, CW Doppler. Must attach original technical data sheet of transducer to specify the above technology used in the transducer. <b>TOTAL ONE NO.</b>
		<b>24 System should be supplied with the following peripheral devices:</b>
		2 KVA ONLINE UPS.
		<b>25. The below requirement must be quoted separately as field upgrade. (Will be considered for technical evaluation only. Not considered for L1 derivation)</b>
		4–12 MHz neonatal Echo Transducer for Pediatric and small adult Cardiology imaging. Must have Tissue Harmonic Imaging, must have broadband technology for excellent Image quality. Must have smaller footprint than the pediatrics echo transducer. Must attach original technical data sheet of transducer to specify the above technology used in the transducer.
		<b>Live 3D Adult TEE</b> matrix/Purewave/Single crystal technology transducer with 2500 elements and 2 to 7MHz ( $\pm 1$ MHz) operating frequency range, electronically rotatable array from 0° to 180°, Electrocautery suppression with Speckle Reduction, harmonic imaging, M-mode, color M-mode, colorflow, PW Doppler, CW Doppler. Must attach original technical data sheet of transducer to specify the above technology used in the transducer.  Following software should be supplied with Adult TEE transducer. <ul style="list-style-type: none"> <li>• Live 3D assessment of mitral valve anatomy and associated structures.</li> <li>• 3D LAA to quickly get left atrial appendage related measurement from a 3D TEE data set.</li> </ul>
		Transesophageal 2D transducer 3 to 8 MHz ( $\pm 1$ MHz) operating frequency range Electrocautery suppression with Speckle Reduction, harmonic imaging, M-mode, color M-mode, color flow, PW Doppler, CW Doppler for <b>Pediatric TEE</b> application. Must have smaller footprint than the adult echo transducer. Must attach original technical data sheet of transducer to specify the above technology used in the transducer.
		Mandatory certifications: <ol style="list-style-type: none"> <li>a) US FDA</li> <li>b) MII Class I or Class II certificate</li> <li>c) ISO</li> </ol>
		<b>WARRANTY and TECHNICAL SUPPORT</b>
		<ol style="list-style-type: none"> <li>i. Three years Comprehensive Warranty on all spares and accessories including all probes <b>(INCLUDING TEE probe)</b> and should provide technical support for required spares and consumable for 7 years after warranty period is over.</li> <li>ii. After three years warranty is over, five years Comprehensive Maintenance Contract (CMC) on basic equipment and all spares and accessories including the adult, pediatric and vascular probes.</li> <li>iii. It should follow international standard and safety requirement</li> </ol> All standard accessories

**BRIHANMUMBAI MUNICIPAL CORPORATION**  
**LTMMC & LTMG Hospital,**  
**Social Service Department,**  
**Sion, Mumbai- 400022.**

**GENERAL REQUIREMENTS :-**

- 1) All the above equipment's shall be new and manufactured from virgin materials. All the requirements of this supply shall be necessarily sourced from the original equipment manufacturer of the model quoted except printer, which shall not be necessarily sourced from the original equipment manufacturer of the model quoted but should be compatible with the quoted model. In case the machine is imported, no import substitution is permitted neither before the award nor after the award for any part or accessory. Third party inspection certificate should be applied from the port of origin of shipping of equipment (from the parent company's country of origin.
- a-2) Demonstration of quoted model is compulsory. Service training to MEC Engineer and operational training to user Department is mandatory.
- b) i) Equipment shall operate on 230 V single phase 50 Hz electric supply. The necessary protective relaying/circuitry shall be there with the machines. The mains voltage supply variation maybe maximum +/- 10% and frequency variation maximum +/- 3%.
- ii) Tropicalization : Operating Temperature : 40C  
Storage Temoerature : 60C  
RalativeHumidity : Up to 90% non condensing
- c) The equipment's and all accessories should be CE Certified by European Notified Body (under MDD) along with declaration of conformity or US FDA approved for offered model and accessories.  
In case of CE (Class-I) following documents are required to be enclosed:
- i) Declaration of conformity by manufacturer or EU representative of Manufacturer for the quoted model.
- ii) Documentary evidence regarding firm registered with EEA (European Economic Area) Competent authority is required.  
**Or** European Representative registered with EEA (European Economic Area) Competent authority appointed by firm is required.  
**Or** Other documents like certificates from notified body along with declaration of conformity.
- d) The equipment's shall be having warranty of three years as described in the tender document elsewhere. The warranty and CMC shall cover the list of the spare parts and the rate of which valid for total 8 years (warranty 3 years and CMC 5 years) irrespective of whether those are treated as consumables or otherwise. The successful bidder has to ensure that all the required spares and services are available during the period of CMC and 2 years after the contract period of eight years.
- e) The equipment's should be provided with one hard copy in original of the detailed service manual and operation manual, a soft copy is also required.

**BRIHANMUMBAI MUNICIPAL CORPORATION**  
**LTMMC & LTMG Hospital,**  
**Social Service Department,**  
**Sion, Mumbai- 400022.**

<b>Packet C</b>	Quote of Basic Price and GST (price should be quoted the mention of GST.) = Total cost. Eight years comprehensive warranty from date of installation. The tender documents should be signed by vendor, company stamp and lowest quotation would be awarded the contract. No false information and Documents will be Entertained.
---------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**If any doubt or any query about above mentioned work you can contact with  
Mr. Shantaram Mane (Community Development Officer LTMG Hospital  
Sion) Mob 9819733707**

**Sd/- 15.02.2024**

**Dr. Prakash Gaikwad,  
Head of Department,  
Social Service Department,  
LTMG Hospital,  
Sion, Mumbai – 400 022.**

**Sd/- 15.02.2024**

**Dy. Dean,  
LTMG Hospital,  
Sion, Mumbai – 400 022.**

**Sd/- 15.02.2024**

**Dr. P. J. Nathani,  
Professor & Head,  
Cardiology Department,  
LTMMC & LTMG Hospital,  
Sion, Mumbai – 400 022.**

**Sd/- 15.02.2024**

**Dean,  
LTMMC & LTMG Hospital,  
Sion, Mumbai – 400 022.**