

## **Expression of Interest.**

**Subject-** To invite Expression of Interest from Original Equipment Manufacturer /Vendor / Distributor to supply of Anaesthesia Workstation for Dept of CVTS KEM Hospital through MPLAD Fund.

King Edward Memorial Hospital is one of the leading tertiary care, public hospitals in the metropolis of Mumbai that provides basic as well as specialized services to needy patients from all over the country. With a glorious legacy of 96 years and currently catering to over 1.8 million out-patients and 85,000 in-patients annually, the institute is among the top ranked medical institutes in India. The CSR Wing of the Social Service Department has been working hard to raise funds to procure advanced medical equipment for various medical and surgical specialty and super specialty departments of KEM, with the objective of providing state of the art facilities to the underprivileged sections of our society.

Through MPLAD funds, we wish to purchase a Anaesthesia Workstation for Dept of CVTS KEM Hospital. For purchase of the above equipment, it is proposed to invite "Expression of Interest" from Original Equipment Manufacturer /vendors / Distributor, to supply the same to KEM Hospital. To supply Anaesthesia Workstation. Original Equipment Manufacturer /vendors / Distributor should purchase a form, from Poor Box Charity Fund, KEM Hospital from 10/01/24 to 19/01/24 in working hours and all proposals with the required documents should be submitted on or before 19/01/24 (by 1.00 pm) Department of CVTS, CVTC Building, ground floor, KEM Hospital, Parel, Mumbai 400012. With Two packet System (i.e. Packet A is a Administrative & Technical Documents & Packet B is a commercial) do not disclosed the price other than commercial packet. The packet will be open in front of Heart Transplant Committee as per schedule decided by committee.

**BRIHANMUMBAI MUNICIPAL CORPORATION OF GREATER MUMBAI**

**King Edward VII Memorial Hospital,  
CSR Wing, Social Service Department,  
Parel, Mumbai 400012**

**Specifications For Anaesthesia Workstation for Dept of CVTS KEM Hospital**

<b>Name of Equipment</b>	<b>Description</b>
<b>Specification of Equipment</b>	<b><u>Anaesthesia Workstation for Dept of CVTS KEM Hospital</u>  Attached to ANNEXURE IV</b>

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**General Conditions :**

<b>Warranty period</b>	Comprehensive warranty on equipment and all spares shall be three years. Inclusion and exclusion of Warranty documents should be clearly stipulated.
<b>CMC</b>	<b><u>Comprehensive Maintenance Contract (CMC)</u></b> 1) After the warranty of 3 years period is over, five years Comprehensive Maintenance Contract (CMC) will have to be entered into with the terms and conditions mentioned in the documents as per BMC norms. List of spare parts / consumables will be submit by supplier with cost freeze in advance for the warranty and CMC period. 2) The successful supplier must ensure that all the required spares/consumables and services are available during warranty and CMC period and 2 years after that, duly backed by the principal.
<b><u>Delivery &amp; Installation Period</u></b>	1) Supplier should give free delivery at user department of KEM Hospital within 30 days or as soon as possible from the date of receipt of purchase order. 2) Installation and commissioning of equipment shall be done within 7 days from the delivery of the equipment.

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**GENERAL  
REQUIRE  
MENTS:**

- 1) Price should include GST charges & any other charges (Supplier needs to submit basic cost of equipment and GST rate in prescribed format).
- 2) The above equipment shall be new and manufactured from virgin materials.
- 3) It is mandatory to provide free installation & training for use of equipment.
- 4) The equipment should have warranty of three years as described in the terms and condition document. The warranty and CMC shall cover the list of spare parts and the rate of which shall be valid for total 8 years (warranty 3 years and CMC 5 years) irrespective of whether those are treated as consumables or otherwise.
- 5) After the warranty period is over, five years Comprehensive Maintenance contract (CMC) will have to entered into with the terms and conditions mentioned in the documents as per BMC norms. List of spare parts / consumables will be submitted by supplier with cost freeze in advance for the warranty and CMC period
- 6) It should be European CE certified along with declaration of conformity or USFDA approved.
- 7) 3 years comprehensive warranty followed by 5 years comprehensive maintenance contract.
- 8) Demonstration of quoted model is compulsory and to be given at an end user site.
- 9) User list with address and phone number to be provided
- 10) The Successful supplier must ensure that all the required spares/consumables and services are available during warranty and CMC period.
- 11) All the requirements of this supply shall be sourced from the original equipment manufacture of the model quoted
- 12) Power supply: 230 V, 50 Hz. The main supply voltage variation may be maximum 15% and frequency variation maximum 3%.

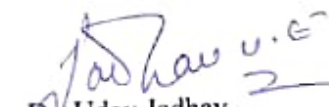
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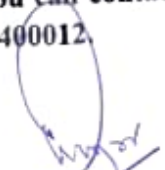
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- 13) The equipment shall have valid CE mark / US FDA approved and documentary evidence to that effect needs to be submitted.
- 14) Training to Medical Electronics Cell Engineers from servicing point of view and to user department from operating point of view is compulsory.
- 15) Supplier should submit all technical details in the form of technical brochures / leaflets for all the equipment proposed for supply and mentioned in the technical offer.


The supplier should submit documents mention in check list attached herewith.

If any doubts or any query about above mentioned work, you can contact Heart Transplant Committee / Dept of CVTS, KEM Hospital, Parel, Mumbai - 400012.

  
Dr. Uday Jadhav  
Prof & Head, Dept of  
CVTS  
GSMC & KEMH

  
Dr. Ajay Mahajan  
Prof & Head, Dept of Cardiology  
GSMC & KEMH  
Department of Cardiology  
SETH, GSMC & KEMH,  
Parel, Mumbai - 400 012.

  
Dr. Dwarkanath Kulkarni  
Prof & Head of unit,  
Dept of CVTS  
GSMC & KEMH

  
Dr. Sanjeeta Umbarkar  
Prof & head, Dept of Cardiac Anaesthesia  
GSMC & KEMH

  
Dean,  
GSMC & KEMH

Dr. Sanjeeta Umbarkar  
Professor & head Of Dept.  
Cardiac Anaesthesia  
Seth G. S. Medical College &  
KEM Hospital, Mumbai.

Dean, K.E.M.H. & Seth G.S.M.C.,  
Parel, Mumbai - 400 012.

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**King Edward VII Memorial Hospital,  
Department of cardiovascular and Thoracic  
surgery, Parel, Mumbai 400012**

**Check list of Documents to be submitted as per the order given below.**

<b>Sr No</b>	<b>Administrative Documents</b>	<b>Sr. No.</b>	<b>Technical Documents</b>
1	Authorization Certificate	1	Technical Offer
2	Undertaking about CMC for 5 year after 3 year warranty period is over will be follows as per BMC norms	2	List of Consumables (Applicable in Warranty & CMC Period)
3	Signed copy of Terms & Condition of EOI Document	3	Comparison of EOI specification v/s Quoted equipment specification
4	Firm/Company/ Sanstha Registration Certificates	4	Experience Certificate
5	Partnership deed (If applicable)	5	Past Performance Certificate of Quoted Equipment.
6	Pan Card with Photograph.(Only for Indian Bidder)	6	Copy of valid CE certificate OR copy of valid USFDA approval as mentioned in General Conditions (Technical specifications).
7	GST Registration Certificate as applicable	7	Technical brochure of quoted model
8	Import / Export license issued by competent authority( if applicable)	8	List of Spare Parts (Applicable in Warranty & CMC Period)
9	Power of Attorney to sign the tender		
10	Special Annexure for GST		
11			
12			
13			
14			

**Authorized Signature of the Bidder  
with Official Seal & Address**

## Medium End Anesthesia Workstation

### A. Basic Unit:

1. The unit should be a cost-effective, flexible anesthesia workstation for performing and monitoring inhalation anesthesia, suitable for Adult as well neonate up to 2 kg body weight.
2. The Anaesthesia Workstation should have In-built Ventilator with Colored minimum 7.5 inch TFT display, integrated CO2 absorber, vaporizers and Multi parameter monitor with Anaesthesia Gas Monitoring Facility, All these components should be of the same manufacturer or brand with their label on each component.
3. The unit should be able to connect to Central pipeline & there should be provision of One PIN Index Yoke to connect to One Emergency Gas Cylinder of O2 & N2O each. Pipeline inlet for Oxygen, Air, Nitrous Oxide. Color coded gages for cylinder and pipeline supply should be present.
4. The unit should have Powder Coated Steel Trolley with 4 Wheels & min 2 Drawers & the front wheels should have locking device. The unit should have Rail on one side to mount other equipment.
5. Gas delivery system: Machine shall provide dual cascading rotameter for O2 & N2O and single for Air for accurate mixing. It should work for low flow.
6. Hypoxic guard to provides a nominal minimum 25% concentration of oxygen in O2/N2O mixture. It should have proven hypoxia guard design using the Pin-valve Mechanism or equivalent mechanism.
7. Oxygen Flush : Range: 25 to 75 L/min.
8. It should be equipped with Power on self-test routine, with machine checkout for leaks and calibration of sensors.
9. The unit should have Common Gas Outlet for using open circuit & the unit should have easy change over from open circuit to closed circuit or vice-versa.
10. International Standards: - The unit should comply with International Standards & should have CE Marking, EN/IEC 60601-1, Quality Systems- Medical Devices Certification.

### B. Breathing system (Close circuit system):

1. It should be integrated to the CO2 absorber of minimum 800 gms & CO2 absorber should be Single/Double chamber design having easy removal & re-fitting during the operation, with CO2 bypass capability.
2. It should have fully autoclavable at 134 deg C. It should have Pressure Graduated Metallic APL Valve, and Inspiratory Valve, Expiratory Valve and Bag to Vent switch to easily move from ventilator to manual bag ventilation.
3. The machine should have patient airway pressure monitoring giving the Pmax, Pmean, and Peep values.

4. Machine shall provide circle mode breathing circuit, - Reusable closed circuit for adult and neonate.
- C. **Vaporizers:** It should have provision to connect Two Selectatec mount vaporizers & the unit should be provided with Two vaporizers equivalent to TEC-8 type, One of Isoflurane & One of Sevoflurane.

D. **Integrated Anesthesia Ventilator: In built Anesthesia Ventilator:**

1. It should have Integrated Microprocessor Controlled & Pneumatically Driven Ventilator with bellows and the same bellows should be useful for Pediatric & Adult Application, thus avoiding change of bellows.
2. The unit should have Fresh Gas De-coupling or Continual fresh gas flow with fresh gas flow compensation during mechanical ventilation.
3. Modes of Ventilation: VCV, PCV, SIMV, PSV - spontaneous mode with apnea backup, manual ventilation, and standby mode.
4. Tidal Volume: Tidal volume delivery 20 to 1500ml (Volume Control).
5. Rate: 4 to 99 bpm
6. Peep: Off, 4 to 25 cms H<sub>2</sub>O
7. Settable I:E ratios: 2:1 to 1:8; Insp Pressure from 5 upto 50cms H<sub>2</sub>O; FiO<sub>2</sub>%: 0 to 100% (increments of 1%)
8. Ventilator shall be capable of 120+ L/min peak flow.
9. It should have a high contrast color min 7.5 inch TFT Display.
10. Alarms: - It should have clear alarms and user information as text messages. It is essential that unit should prompt user for corrective action rather than giving only alarm with no diagnostic message.

E. **Scope of supply with Each machine:**

1. 3 Gas Anaesthesia machine
2. Pin indexed yolks for O<sub>2</sub> and N<sub>2</sub>O
3. Pipeline connections for all the 3 gases
4. Integrated ventilator
5. Semi closed Breathing system
6. CO<sub>2</sub> Bypass
7. ACGO port to connect open circuit/ face mask for O<sub>2</sub> delivery, with separate switch
8. Reusable autoclavable adult patient circuit with face mask of 2 sizes
9. Reusable autoclavable Paed Patient circuit with face mask of 2 sizes
10. Vaporizer for Isoflurane & Sevoflurane
11. Central Gas supply Hoses for all 3 gases-color coded

**Environmental Factors:-**

1. The unit shall be capable of operating continuously in ambient temperature of 10 – 40 deg C and relative humidity of 15-90%.



2. The unit shall be capable of being stored continuously in ambient temperature of 0 - 50 deg C and relative humidity of 15-90%.
3. Shall meet IEC-60601-1-2: 2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility or should comply with 89/366/EEC; EMC directive.

C-11

**F. Power Supply:-**

1. Power input to be 220-240VAC, 50Hz fitted with Indian plug
2. Voltage corrector/stabilizer of appropriate ratings meeting ISI Specifications.
3. (Input 160-260 V and output 220-240 V and 50 Hz)
4. Should provide Suitable Isolation Transformer with true online UPS with maintenance free batteries for minimum one-hour back up should be supplied with the system.

**G. Standards, Safety & Training:-**

1. Should be European CE / US FDA approved product
2. Shall meet the safety requirements as per IEC 60601- Requirements for the safety of electrocardiographic monitoring equipment.
3. Manufacturer & Supplier should have ISO 9001 and ISO 13485 certification for quality standards.
4. All critical components, Anesthesia Workstation and Vaporisers must be from same manufacturer.
5. Should have local service facility. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual

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*Dr. Jayant V. G.*

**DR. JAYANT V. KHANDEKAR**  
 PROF & HEAD OF THE DEPT. OF C.V.T.S.  
 L.T.M.M. College & L.T.M.G. Hospital,  
 Sion Mumbai - 400 022.

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 30-12-23

**Dr. KANAK N. NAGLE**  
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