EMS MEMORIAL CO-OPERATIVE HOSPITAL & RESEARCH CENTRE
PERINTALMANNA

Technical specifications of Medical Equipment

QUOTATION NOTICE FOR PURCHASE OF MEDICAL EQUIPMENT

EMCH / QTN /GEN / 08 / 2024 29TH June 2024

Sealed quotations are invited from reputed manufacturers / authorised suppliers / dealers for the supply and installation of **Cath Lab, Biphasic Defibrillator, Syringe pumps, Infusion pumps, Ventilators, Operation theatre tables, Multi Para Monitors, Automated Microtome etc**

Technical specifications of the equipment can be obtained from www.emshospital.org.in/about/tender

Quotations should be in Two sealed covers

- First cover super scribed " Technical cover" should include technical specifications, list of installations etc
- Second cover super scribed "Commercial cover" should include commercial terms such as Price, Warranty terms, tax if any, AMC / CMC details for next 5 years, cost of consumable / spare parts / consumables regularly required etc.
- Technical quotations will be scrutinized by a technical committee.
- Technically qualified quotations will only be considered for opening of Commercial quotations. L1 will be considered for further negotiation.

Sealed quotations addressed to The General Manager, EMS Memorial Cooperative Hospital, Perintalmanna should reach the Administrative Office of the hospital on or before **15th July 2024 , 4 PM**

General Manager

June 2024

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CATH LAB

1. The offer shall be for single -plane flat panel digital cardiovascular angiography system and ancillary equipment capable of meeting the essential requirements of a cathlab usable for Cardiology as well as Neurology purpose. The platform should be able to accommodate all the up-gradations required later (as and when required) to add on more and more special features.

2. The equipment should be of the state of the art design, incorporating all the latest facilities and modern concepts of digital angiography systems. Only a single model of such system should be quoted . All components must be compatible with the main system and with each other.

3. The main Angiography system should be FDA approved & comply with BARC & AERD guidlines. Copies of certificates should be attached.

4. The model quoted must be latest & most advanced and spares & services must be available for at least 10 years which means company will be responsible for maintaining the equipment all 10 years in full working condition with at least 95% uptime.

5. Warranty 2 years should be inclusive of all spares including X-ray tube. The CMC Rates offered should also include all spares including X-ray tube .Warranty /CAMC should be inclusive of all equipment irrespective of their manufacturing companies which are included in the package to ensure timely and effective performance of the machines.

Technical Specifications

1. GANTRY

1.1. Floor /ceiling gantry with better maneuverability.

1.2. Facility for motorized / combined positioning / rotating of stand from the floor / ceiling pivot for improved work flow and for ease of operation from both left and right side of the patient in addition to zero degree normal head end position(better access at head-end)

1.3. Patient access should be possible from either left or right side and head end side

1.4. Head to toe coverage of minimum of 210 cm , whole body imaging without repositioning the patient should be possible.

1.5. Gantry depth should be 90 cm or more for better groin access.

1.6. Gantry should move at 25deg /sec or higher rotation / angulations speed with non – contact sensing mechanism (no collision protection switches).

1.7. Gantry rotation/ angulation (RAO & LAO) at least +/-125/120 deg respectively and +-45 degree CRAN/CRAUD (Better preference will be given for better movements).

1.8. Storage and recall of atleast 30 gantry position should be possible.

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2. TABLE

2.1. Table with Full body coverage with atleast 210cm length & motorized up/down.

2.2. Free floating 4 way table top, least radiation attenuation, at least 200kgs+ atleast 50kgs of additional weight for resuscitation in the metal free over hang area without having to retract the table back on its base .

2.3. The table should support radial as well as femoral type procedures.

2.4. Table should be with wide carbon fibre table top and with restraining facilities.

2.5. Table sided controls should be available for c-arm, table and collimator movements, low dose option and online selection of QCA , Road map, DSA and other protocols.

2.6 Table should be capable of swiveling for emergency patient shifting purposes

3. DETECTOR

3.1. Flat detector of latest generation. 1024 X 1024 matrix at 15/30 fps with 16 bit digitization.

3.2. Diagonal length of 35 cm at least, which is suitable for cardiology. TAVI as well as neurology applications .

3.3. 2 formats of zoom.

3.4. DQE of the entire detector: not less than 65%, higher prefrred: pls pecifey in spec.

3.5. Min pixel pitch of atleast 185 µm, lower prefrred for better resolution .

3.6. The system should have a facility to remove the anti-scatter grid on the detector for ensuring lower dose in pediatric imaging.

4. X RAY

4.1. X-ray generator should be 100 KW latest technology high frequency generator with facility to automatically adjust the dose according to the size of patient.

4.2. Noise-free, oil/water cooled, rotating anode X ray tube with spiral groove bearing/ liquid metal lubricant for faster cooling should be provided.

4.3. The tube/ generator should be with switching technology to reduce soft radiation.

4.4. Tube should have atleast 2 focal spots and suitable for Neurology purpose (larger not more than 1mm) .

4.5. The X ray tube should have high cooling rate, with technology for continues and noiseless operation and capable of pulsed fluoroscopy on both focal spots.

4.6. Tube with anode heat capacity above 3 MHU and cooling rate of atleast 6000W

4.7. In case anode heat capacity is less than 3 MHU cooling rate must be 10000W or more.

4.8. Additional beam filtration up to 0.9mm cu equivalent.

4.9. Automatic different filter sizes protocols at the table side.

4.10. System should be capable of delivering minimum 2500W continuous fluoro power with flouroscopy Ma range minimum 180 or better .

4.11. Mention all advanced dose reduction features and should be provided as standard.

4.12. Automatic adaptive filtration should be available with 3 level filters as standard

5. MONITORS:

5.1. EXAM ROOM:

5.1.1. Total 3 or more nof 19'' LCD -TFT Medical grade monitors or equivalent in single monitor for live.& Reference ,stent enhancement images and vitals monitoring

5.1.2. Data display on monitor should also be available for arm, table geometry readings and system messages.

5.1.3. Monitor should be ceiling mounted with up/down movement and have capability of sliding view from left and right of the patients.

5.1.4. Facility for sharing some of the monitors for display of stent enhancement images, IVUS, FFR and EP should be possible.

5.2. CONSOLE ROOM:

5.2.1. Total 2 or more no of 19''LCD-TFT Medical Grade monitors or equivalent in single monitor for patient registration & reporting , live and reference images or single monitors with equivalent .

5.2.2. An additional ordinary slave monitor for hemodynamic monitoring.

5.3. ALL MONITORS SHOULD BE MEDICAL GRADE HAVING:

5.3.1. Flicker free, distortion-free

5.3.2. High resolution

5.3.3. High contrast

5.3.4. Wide viewing angle

5.3.5. brightness at least 400cd/m2

5.3.6. Automatic gain, brightness control

6. IMAGE PROCESSING, STORAGE AND APPLICATIONS

6.1 At least 100,000 images on line in 1024 X 1024 matrix or equivalent (mention bit level) with immediate replay to be available in the main system hard disk(not reckoning the storage space in the CD station).

6.2. Images can be acquired at 3.75/7.5/15/30 images per second speed in fluoro acquistations.

6.3. Images can be acquired at 7.5/15/30 images per second speed in cine acquistations.

6.4. Pulsed fluoroscopy should be available at above frame rates.

6.5. Advanced image processing technique for

6.5.1. Real time edge enhancement.

6.5.2. Real time harmonization.

6.5.3. Real time noise reduction and dose correction algorithms.

6.6. All above techniques must be applied real time in fluoro as well as acquisition. Please conform.

6.7. Clinically validated QCA online in the exam room.

6.8. It should be possible to do QCA from table side.

6.9. It should be also possible to do QCA in the console room.

6.10. System should be capable of virtual collimation of the shutters and wedges in the last image to reduce the X ray dose .

6.11. System should be capable of measuring and displaying patient dose.

6.12. System should capable of storage and display of dynamic fluoro sequences.

6.13. System should be capable for printing /sending dicom images on the dicom printer/ laser camera.

6.14. Lower frame speeds of 1,2,4 or 6 images /sec or carotid/ renal /abdominal aortic application.

6.15. True on-line DSA at above selectable frame speeds.

6.16. System should be have road mapping facility wherein subtracted roadmap is superimposed on live fluoroscopy.

6.17. The system should have on-line & off-line coronary and left ventricular analysis program.

6.18. The software should have auto calibration facility for stenosis measurement with edge enhancement and geometrical and densitometry calculations.

6.19. The analysis should be possible from table side in the examination room and from the control room.

6.20 Selection of stent enhancement and the DSA should be possible from the examination room.

6.21. Virtual collimation, LIH ,auto or programmable cu filtration should be possible.

6.22. The system should have facility to visualize estimated local patient dose all along the exam.

6.23. Better stent viewing HW and SW to significantly improve localized stent visibility in addition to any in built software for stent visibility improvement .

6.24. The stent visualization tool should improved all and any kind of software, hardware, image processing tools for improving, enhancing or in any other way augmenting the visualisation of stent shutters , visualization of stents relative to vessel wall for bifurcation, trifurcation, BVS scaffold viewing and should be the latest and mos technologically advanced version.

6.25. Stent viewing SW should have capability of showing fade-in fade out of lumen for better stent visibility in relation to coronary artery wall.

6.26. Real time noise reduction and dose correction algorithm.

6.27. System should be capable to give structured dose reports .

6.28. Fluro save software

7. SINGLE HEAD PRESSURE INJECTOR

7.1. Single head pressure injector of reputed make with 200nos. Of 100ml disposable sterile syringes sets should be provided.

7.2. Pressure 300psi with flow rate 0.1 to 10ml/s .

7.3. Volume 180ml .

Battery operation preferred.

8. HEMODYNAMIC MONITOR

8.1 Hemodynamic monitor with minimum 2 Invasive pressure , minimum 3 channel ECG,SPO2, NIBP with monitoring facility. It should have 19” display on the monitor carriage

9. ACCESSORIES TO BE QUOTED WITH THE SYSTEM

9.1. Suitable UPS with 15 minutes back up for complete system.

9.2. A ceiling suspended focus lamp with adjustable arm and removable handle for sterilizing should be provided.

9.3. A remote intercom facility between examination room and console room.

9.4. Lead apron light weight coat type-8 no.

9.5. Lead apron light weight skirt and vest type-8 nos.

9.6. Bismuth lead apron cap -8(weight less).

9.7. Thyroid shield 12 no.

9.8. Lead goggles 12 no.

9.9. Ceiling suspended radiation protection-1 no.

9.10. Table mounted lower body radiation protection.

9.11. Lead glass window 100 X 80 cms.

10. WORKSTATION AND ARCHIVING :

10.1. A state of the art stand alone workstation should be provided.

10.2. Facility for acquired images to be transferred to the workstation seamlessly with out interrupting the procedure

10.3. Workstation should be able to archive 1000 patient data and to upgrade in future if required to higher capacitys with easy retrieval by name , date of procedure or cath namber.

10.4. The system should be able to read CD /DVD from outside sources with QCA facility and facility to transfer the scenes to the procedure room

10.5. DICOM 3 based CD and DVD recording for dynamic cardiac image recording on CD .

10.6. DICOM CD 's to have review software embedded for instant review in any PC .

11. OTHERS :

11.1. Other unique features if any to be quoted as optional.

11.2. OCT ,IVUS ,FFR integration should be possible . (scope of same to be quoted in both technical and finacial bid)

11.3. Doctors , nurses and operators training at site by specialist from supplier

11.4. Scope of turnkey works with responsibility matrix to be mentioned (in technical bid only).

11.5. The scope should include details of site requirements and all pre-installation works to be done.

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MANDATORY DOCUMENTS TO BE SUBMITTED ALONG WITH TECHNICAL BID

- Compliance statement with technical specification
- Product datasheet,
- Details of service division
- Sales authorization letter from Manufacturer.
- Details of installations
- Company representative should counter sign the purchase order confirming the terms and conditions in the purchase order.
- AERB type approval certificate for Tube and Machine
- CE & FDA certificates
- Company representative should counter sign the purchase order confirming the terms and conditions in the purchase order.

- Standard warranty : 2 years
- The Model quoted must be latest and most advanced and spare and service must be available for at least 10 years which means company will be responsible for maintaining the equipment all 10 years in full working conditions at least 95 % Up time. AMC and CAMC Rate should be quoted in price bid for 8 years
- The plat form should be able to accommodate all the up gradations required later (as when required) to add on more and more special features with no additional cost
- Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA (US)/ STQC CB Certificate/ STQC S Certificate or a valid detailed electrical and functional safety test report from ERTL. Copy of the certificate/ test report shall be produced along with the technical bid
- In case of failure of Equipment/Accessories/ Instruments, standby arrangements must be provided within 48 Hours.
- Better preference will be given for user friendliness and better features

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BIPHASIC DEFIBRIILLATOR

- Biphasic and Manual type with synchronization mode.
- Compact and light weight.
- Energy selction 5 J to 200 J or above in steps.
- Momentary energy selection access on front pannel.
- Should have adult and pediatric paddles integrated on same handle.
- Momentary charge key on front panel and on the apex hand.
- Monitor should display selected and delivered energy
- Should have disarm facility.
- Sync message should display in case of selection of synchronization mode.
- Energy should be delivered within 30 ms after the detected R wave in synchronization mode.
- Charging time should be maximum 5 sec for 200 J & 8 sec for maximum energy level of the defibrillator.
- Should have battery backup for 50 discharges of 200 J .
- Should have ECG inputs through paddles or 3 lead cables.
- Should have display for selected ECG input source (I,II,III,paddles).
- Lead off messages should appear with alert tone.
- Amplitude gain of ECG waveform should be adjustable.
- Should have display for heart rate.
- Should have alarm high and low HR with a provision for alarm silence mode.
- Should have an inbuilt thermal recorder.
- Should have enable/disable option for printer.
- Should operate on mains 230 V, 50 Hz
- Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA(US)/STQC CB Certificate/ STQC S Certificate or valid detailed electrical and functional safety test report from ERTL. Copy of the certificate / test report shall be produced along with the technical bid.
- All standard accessories with pacing pads – 10 Nos, 2 Bottles of Jelly & 12 Rolls of thermal paper along with the unit
- **Other terms and Conditions**
  - ✓ Pacing & AED with voice prompt to be quoted separately as optional
  - ✓ Standard Warranty : 2 years.

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- ✓ AMC and CMC Rates after Warranty period should be quoted in Price bid for next 8 years.
- ✓ Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA (US)/STQC CB Certificate/ STQC S Certificate or valid detailed electrical and functional safety test report from ERTL. Copy of the certificate/ test report shall be produced along with the technical bid?
- ✓ The Model quoted must be latest and most advanced and spare and service must be available for at least 10 years which means company will be responsible for maintaining the equipment all 10 years in full working conditions at least 95 % Up time. AMC and CAMC Rate should be quoted in price bid for 8 years
- ✓ In case of failure of Equipment/Accessories/ Instruments, standby arrangements must be provided within 48 Hours .
- ✓ Better preference will be given for user friendliness and better features
- ✓ Please attach a copy of

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VENTILATOR

Make : pls specify

Model : pls specify

Year of launch : pls specify

Manufacturing Country : pls specify

I. Ventilation modes

1. Assist and Controlled mode - Volume and pressure
2. SIMV/V and SIMV/P.
3. Bi-level Ventilation with 100 % Oxygen support
4. CPAP and PEEP.
5. Facility for Non-Invasive ventilation including control and support
6. Dual mode PRVC or equivalent
7. Spontaneous weaning modes: ASV/PAV+/ Auto flow / Equivalent
8. Lung protection tools /equivalent technology
9. Pressure support ventilation with PS 35 cm of water or above

II. Should have real time monitoring for:

1. Peak -Pressure, Plateau -Pressure, Mean - Pressure, PEEP Pressure and Weaning Parameters
2. Exhaled tidal volume and Minute Volume
3. Inhaled tidal volume
4. FiO2
5. Lung mechanics - - Resistance, Compliance, Occlusion Pressure, intrinsic PEEP

III. Patient category: Adult and Pediatric

IV. Ventilation parameters: -

1. Tidal volume
    a. 200 – 2000 mL (Adult patient).
    b. 20 to 300 mL (Paediatric mode).
2. Respiratory rate- 5 - 80 BPM or more.
3. Pressure - 0 - 100 cm H2O including PEEP.
4. Inspiratory Peak flow- maximum of 180litre/min.

5. Minute volume - 1 - 30 l/min.
6. Oxygen Concentration - 21 -100 %
7. PEEP/CPAP - 40 cm H2O
8. Deceleration flow pattern in CMV should be available
9. Trigger flow & pressure 1 to 10
10. NIV modes facility
11. Spontaneous mode –CPAP

V Standard Accessories (with each machine): -

1. Patient circuit (Adult, Autoclavable and reusable) – 1 complete set.
2. Patient circuit (pediatric , Autoclavable and reusable) - 1 complete set.
3. HME-25each
4. Bacterial and viral filter - 25nos each
5. Medical Nebulizer with vibrating mesh technology with particle size less than 3 microns - Volume compensated - Complete set.
6. Heated Humidifier with one chamber adult - 1 No.
7. O2 pressure regulator with 5 meters hose (conversion kit) - 2 no
8. Hose for O2 connection with connector - 5 mts.
9. Test lung - 1 No.
10. Expiratory Transducer/ Sensor/ Valves , Autoclavable and reusable- 2 Nos
11. NIV mask (large & medium reusable) - 2 nos

VI. Features

1. The ventilator should be inbuilt compressor and additional air is not required for functioning
2. Back up mode for apnea.
3. Full alarm system for all ventilator settings and monitored values.
4. Touch screen Monitor (12" or higher size) graphical display for real time display of three waveforms. Should display minimum 2 scalars simultaneously and 2 loops.
5. Monitoring of all patient data in graphical and numerical form should be possible with trend facility for minimum 24 hours with HIS Compatibility.
6. Direct access to vital settings

7. Inbuilt, secure expiratory flow sensor with expiratory valve and transducer. It should be Autoclavable as a unit (including expiratory valve, flow sensor) and reusable. Expiratory flow sensor should work on hot wire/electromagnetic/Ultrasonic / differential pressure principle. The unit should be rugged and with a history of trouble free operation
8. PEEP valve should be built in.
9. Patient circuit should have a separate inspiratory and expiratory limb with water traps.
10. Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA (US) .Copy of the certificate/ test report shall be produced along with the technical bid
11. O 2 sensor and flow sensor should be covered in Warranty / CAMC period
12. All accessories except the patient circuit should cover in Warranty / CAMC

VII Pneumatic Gas Sources:

1. Should have a Gas delivery system by soundless (not more than 50 decibel at 1 meter distance) external integrated compressor from the same manufacturer. In case of compressor failure it should also be operable with compressed air/oxygen supply of 45 to 60 psi. European CE Certificate for compressor should be provided. Price should quote separately.
2. Replacement guarantee should be provided for battery, flow sensors, expiratory valve and oxygen sensor for the entire 2 years warranty period and also the rate offered for CMC should include the replacement guarantee for battery, flow sensors and oxygen sensor and expiratory valve.
3. The unit must be supplied with good quality moisture filter

VIII. Power Source: -

1. 220/240 V Ac 50 Hz supply.
2. Internal battery (maintenance free) with 1 hour minimum operating time for the ventilator

IX Mounting

Mounting Trolley / cart mounting for easy transportation, from the same Manufacturer.

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- Standard warranty : 2 years
- In case of failure of Equipment/Accessories/ Instruments , standby arrangements must be provided within 48 Hours .
- Better preference will be given for user friendliness and better features

Please attach a copy of

- CE & FDA certificate if any
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MULTI PARA MONITORS

Make : pls specify

Model : pls specify

Year of launch : pls specify

Manifacturing Country : pls specify

- Continuous monitoring type suitable for Adult, Pediatric and Neonatal applications.
- Ergonomic and integrated design to carry out multiple purposes such as bedside, transport etc.
- Universal AC input supply (230 V ± 10%) and upto 120 minutes battery backup.
- Must be internal SMPS type.
- 10.4" built in display with resolution atleast , may have touch screen / user – friendly rotary knob operation and support up to 6 channel waveforms.
- Shall have 72 hours or more graphical and tabular trends @ 1 min or less as least interval with 200 or more sets NIBP and 100 or more alarm reviews and waveform freezing option with full disclosure ECG waveform review .
- 3 level alarm priorities for physiological and technical alarms with adjustable alarm ranges. Individual LED alarm light may have for long distance view.
- Should have slave display facility .
- Need to have parameters ECG/NIBP/SpO2/RR/PR as standard and upgradable Temp/2 IBP/CO2 and thermal printing facility
- ECG: High CMRR , bandwidth: 0.05-150Hz(diagnostic) and 5 Lead ECG with defibrillation proof, ESU protection , pace detection and full arrhythmia/ST analysis.
- SpO2: Numeric display with Pulse Rate, Pulse strength bar, and Pleth waveform . Shall have pitch tone indication function. SpO2 technology will be Nellcor type or equivalent
- NIBP: Measurement mode: MANUAL/STAG (5 minutes) / AUTO (1- 480 minutes).
- Drug dose calculation and titration table display.
- Shall meet IEC specifications and may have US-FDA ,CE certification according to Directive 93/42/EEC.
- Accessories
  a) 3 or 5 -lead ECG cable= 2 nos
  b) SpO2 extension cable with reusable adult and pediatric sensors

c) NIBP cable with 2 adult cuff.

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SYRINGE PUMP

Make : pls specify

Model : pls specify

Year of launch : pls specify

Manufacturing Country : pls specify

1. Should be easy to use and nurse friendly with drug library and dose calculation.
2. Should have automatic syringe size and model detection.
3. Should have large format LCD/TFT Display.
4. Should have a minimum flow rate range from 0.1-1200 ml/hr for 50ml syringe, 0.1-100 ml/hr for 20ml syringe and 0.1-60ml for 10ml syringe.
5. Syringe range from (5 – 50) ml.
6. Should have a flow rate accuracy of ±2%.
7. Should have a bolus rate up to 1000 ml/hr for 50ml syringe.
8. Should have automatic and manual bolus.
9. Should have atleast 3 levels of programmable occlusion pressure.
10. Should have automatic bolus reduction system to avoid accidental bolus delivery after occlusion incident.
11. Should have a rechargeable battery with backup time of minimum 4 hours
12. Pump must trigger following alarms with visual indication:-
    i. Occlusion pressure alarm
    ii. KVO or 3 min pre-alarm
    iii. Syringe empty and volume infused alarm.
    iv. Internal malfunction and battery charge low alarm
    v. Syringe disengaged and incorrectly placed alarm
    vi. Alarm loudness control
    vii. No mains
13. Should work with input 200 to 240V AC 50Hz supply

Other terms and Conditions

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INFUSION PUMP

Make : Please Specify

Model : Please Specify

Manufacturing country : Please Specify

Year of Launch : Please Specify

1. Should be operated on drip rate Peristaltic and volumetric pump method with inbuilt drop sensor
2. Should compatible with most of the IV set (macro/micro drip sets). Should be supplied with 100 Nos of compatible IV sets.
3. Should have the following flow rates.
4. IV set ml/hr drops/min 15 drops/ml 3-450 ml/hr 1-100 drops/min 20 drops/ml 3-450 ml/hr 1-100 drops/min 60 drops/ml 1-100 ml/hr 1-100 drops/min
5. Should have a flow rate accuracy of ±10% and drip rate accuracy of ±5%
6. Should have a volume infused display from 0 to 999ml
7. Should have a purge and KVO facility.
8. Should have an audible and visual alarm for occlusion pressure, air alarm, door open, empty, low battery, free flow, and disconnection.
9. Should have a LCD graphical display with backlight and graphical display of infusion. Should have a minimum 4hr battery back up at highest delivery rate.
10. Should work with input 200 to 240ac 50Hz supply.
11. Should have different modes of infusion, time, rate and dose

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- The plat form should be able to accommodate all the up gradations required later (as when required) to add on more and more special features with no additional cost
- Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA (US)/ STQC CB Certificate/ STQC S Certificate

or a valid detailed electrical and functional safety test report from ERTL. Copy of the certificate/ test report shall be produced along with the technical bid

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EMS MEMORIAL CO-OPERATIVE HOSPITAL & RESEARCH CENTRE
PERINTALMANNA

Technical specifications of Medical Equipment

Fully Motorized Automatic Rotary Microtome

Make : pls specify

Model: pls specify

Year of launch : pls specify

Manufacturing Country : pls specify

- Fully Motorized Automatic Rotary microtomewith Stepper Motor driven specimen feed.
- Two Independent hand locking system plus oneelectronic brake to ensure safety.
- Efficient and Rapid Specimen exchange by usinguser programmable Memo Position
- Individually adjustable specimen range on thespecimen size**.**
- **Sectioning speed should be adjusted whilemotorized sectioning is in progress.**
- Emergency Stop button on the Microtome front andEmergency function in Optional footswitch.
- Microtome should be suitable for Motorized andManual Sectioning Application
- Vertical and horizontal Cross Roller Bearings Mechanism to ensure accurate reproducibility of section thickness.
- Section thickness selection from 0.5 to 100 □m
- Trimming step settings from 1-600 □m
- Programmable Specimen retraction from 5-100□m in 5□m increments
- Retraction can be deactivated when not required.
- Vertical specimen stroke 70 mm
- Four modes of sectioning: -
  Rocking Mode: -
  Single Mode: -
  Continuous Mode: -
  Step Mode: -
  Manual Mode: -
- Programmable horizontal stop function to movespecimen to a defined feed position.
- Universal Blade Holder suitable for Both High-Profile and Low-Profile Blade
- Separate control unit with display for section thickness, number of sections, thickness totalisation, section counter and trimming thickness.
- Object feed of 24 mm ±1 mm via step motor

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Technical specifications of Medical Equipment

- Visual and acoustic remaining feed indication
- Specimen orientation of 8□ with anti tilt feature
- Knife holder base with lateral displacement.
- Integrated storage Tray is provided
- Personalized coarse feed wheel : user selectable
- Precision specimen orientation with clear zeroreference point
- Spacious, Magnetized Antistatic section waste tray
- Force Compensation System for extremelysmooth manual hand wheel operation
- Separate and intuitive control panel for instrumentsettings
- Communication display integrated in the instrumenthousing
- Electric coarse feed: 300 µm/s,800 µm/s and 1800µm/s
- Maximum specimen size (H x W x D): 68 x 48 x 15mm
- Specimen orientation: horizontal: 8°, vertical: 8°
- Section thickness totalizer and section counter
- Two motorized forward and backward specimen coarse feed speeds
- Knife holder concept for disposable blades, with finger guard in contrasting color
- The instrument should have the capacity to do TissueCassette/Embedding Ring/Wooden Block/Direct Wax Block
- 100 numbers of suitable blades to be supplied along with the unit

Other terms and Conditions

- The Model quoted must be latest and most advanced and spare and service must be available for at least 10 years which means company will be responsible for maintaining the equipment all 10 years in full working conditions at least 95 % Up time. AMC and CAMC Rate should be quoted in price bid for 8 years
- The plat form should be able to accommodate all the up gradations required later (as when required) to add on more and more special features with no additional cost
- Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA (US)/ STQC CB Certificate/ STQC S Certificate or a valid detailed electrical and functional safety test report from ERTL. Copy of the certificate/ test report shall be produced along with the technical bid
- Standard warranty : 2 years
- In case of failure of Equipment/Accessories/ Instruments, standby arrangements must be provided within 48 Hours.

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Technical specifications of Medical Equipment

- Better preference will be given for user friendliness and better features

Please attach a copy of

- CE & FDA certificate if any
- Compliance statement with technical specification
- Product datasheet
- Details of service division
- Sales authorization letter from Manufacturer.
- Details of installations
- Company representative should counter sign the purchase order confirming the terms and conditions in the purchase order.

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PERINTALMANNA

Technical specifications of Medical Equipment

OPERATION THEATRE TABLE

Make : Pls specify
Model : Pls specify
Year of launch : Pls specify
Manifacturing country : Pls specify

- The table should have a minimum of 4 sections ie. head section, leg section, a seat section, and back plate section with additional accessories which can be used for open Nephrectomy ,PCNL and Lap Chole pieces with spread .
- Table should be sliding type having lithotomy facility with lithotomy pole , Arm boards with additional C Type arm support ,broad arm with stump support
- The table should be electro-hydraulically operated having the following hand switch operated electro-hydraulic functions (all the dimensions will have a permitted deviation of +/- 10 %)
    i. Up / Down 680-1000mm
    ii. Trendelenberg& Reverse 30deg
    iii. Side Tilting (Lateral) 30deg
    iv. Back Plate (Sitting Position) -40 to +80
    v. Top Slide 300mm
    vi. Breaking (by hand switch)
- In addition to the above-hand switch operated functions, the table must have the following manual functions. Description Range i. Head Section Tilting 30deg Up / 90deg Down ii. Split Leg Plate manual movement +10 to -90
- Table should be C Arm compatible and have kidney bridge
- The table should be supplied with the following accessories.
    i. Mattress for the complete tabletop in sections - 1 set
    ii. A pair of arm boards with pad and fixing clamp - 1 set
    iii. A pair of padded shoulder support with clamps (SS grade 304) – 1
    iv. A pair of padded lateral support with clamps (SS grade 304) – 1
    v. Anesthetic screen frame with clamp (SS grade 304) – 1
    vi. Patient restraint strap – 1
    vii. leg crutches with side rail locks – 1 pair .
    x. Back support and chest support

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Technical specifications of Medical Equipment

- The base cover, lifting column cover and side rails should be made of stainless steel grade SS 304 Should have the enhanced weight bearing casters fitted with ball bearing.
- The table should have a heavy and sturdy base and be compact to provide adequate foot room for the operating team.
- The weight-bearing capacity of the table shall be at least 175kg.

Other terms and Conditions

- The Model quoted must be latest and most advanced and spare and service must be available for at least 10 years which means company will be responsible for maintaining the equipment all 10 years in full working conditions at least 95 % Up time. AMC and CAMC Rate should be quoted in price bid for 8 years
- The plat form should be able to accommodate all the up gradations required later (as when required) to add on more and more special features with no additional cost
- Should have safety certificate from a competent authority CE issued by a notified body registered in the European commission / FDA (US)/ STQC CB Certificate/ STQC S Certificate or a valid detailed electrical and functional safety test report from ERTL. Copy of the certificate/ test report shall be produced along with the technical bid
- Standard warranty : 2 years
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