



**EMPLOYEES' STATE INSURANCE CORPORATION  
SUPER SPECIALITY HOSPITAL  
SANATHNAGAR, HYDERABAD-500038**

**TENDER FORM**

**“Tender for Medical Equipments”**

**Not Transferable**

**Tender form Sl.No.\_\_\_\_\_**

**Receipt No.\_\_\_\_\_**

**Date:\_\_\_\_\_**

**Cost of Form : Rs.1000/-**

**EMPLOYEES' STATE INSURANCE CORPORATION**  
**SUPER SPECIALITY HOSPITAL**  
**SANATH NAGAR, HYDERABAD – 500 038**  
**(Ministry of Labour & Employment, Govt. of India)**

Ph. No. 040-23801122, 23702433, Fax: 23801122, E-mail: esih-sanathnagar.ap@esic.in



**TENDER NO: 523-D-12/28/SSH SN/Med. Equipments./2011**      **Date.21-11-2011**

**Tender for Medical Equipments.**

Sealed tenders are invited by the Medical Superintendent, ESIC Super Specialty Hospital Sanathnagar, Hyderabad from the eligible manufactures / authorized distributors/ authorized dealers who has their operational base in Hyderabad, under two bid system for the supply of Medical Equipments as given below. The scheduled dates for the tender are as follows.

**Sale of Tender form      :    21 Nov 2011 Up to one day before tender opening date**

**Tender Opening                :    02 PM on the last day of the tender submission date.**

**A) For Department Of Anaesthesia**

S.No.	Name Of The Equipment	E.M.D	Last Date For Submission Of completed Tender Forms
1	Blood & Fluid Warmer ( 1 )	6000/-	15-12-2011 1.00pm
2	Portable Transport Ventilator(1 )	10000/-	15-12-2011 1.00pm
3	Bipap Machine ( 1 )	2000/-	15-12-2011 1.00pm

**B)For Department Of Biochemistry**

4	Electrophoresis Work Station ( 1 )	16000/-	16-12-2011 1.00pm
5	Blood Gas Analyzer (1)	22000/-	16-12-2011 1.00pm

**C)FOR DEPARTMENT OF MICROBIOLOGY**

6	Elisa Reader & Washer(1)	7000/-	16-12-2011 1.00pm
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**C) For Department Of Pathology**

7	Cytospin[1nos]	10000/-	19-12-2011 1.00pm
8	Automatic Tissue Processor[1nos]	30000/-	19-12-2011 1.00pm
9	Cryostat – 1 Nos	30000/-	19-12-2011 1.00pm

**D) For Department Of Blood Bank**

10	Bag To Bag Connector[1nos]	18000/-	20-12-2011 1.00pm
11	Refregerated Centrifuge [1nos]	16000/-	20-12-2011 1.00pm
12	Elisa reader and washer(1no)	7000/-	20-12-2011 1.00 pm

**E) For Department Of Paediatric Surgery**

13	Transport Incubator (1)	4000/-	21-12-2011 1.00pm
14	Paediatric Bronchoscope (1 )	12000/-	21-12-2011 1.00pm
15	Neonatal Open Air System (1 )	6000/-	21-12-2011 1.00pm
16	Paediatric Cysto-Urethroscope (1 )	5000/-	21-12-2011 1.00pm
17	Neonatal Phototherapy Unit(1)	3000/-	21-12-2011 1.00pm
18	Neonatal Incubator(1)	8000/-	21-12-2011 1.00pm
19	Neonatal Radiant Warmer(1)	4000/-	21-12-2011 1.00pm
20	Paediatric Laproscopic instrument set(1)	16000/-	21-12-2011 1.00pm
21	Paediatric resectoscope(1)	8000/-	21-12-2011 1.00pm

**F) For Department Of Urology**

22	Urodynamic Measuring System(1)	14000/-	22-12-2011 1.00pm
23	Flexible Ureteroscope(1 Nos)	10000/-	22-12-2011 1.00pm
24	Mini Perc (1)	10000/-	22-12-2011 1.00pm

Interested firms are requested to collect the tender form with the specifications of the equipments from the office of the Director Administration, ESIC Super Specialty Hospital Sanathnagar, Hyderabad on any working day from 10a.m. to 3 p.m .and on Saturday from 10 a.m. to 12 p.m at the cost of **Rs 1000/** each in the form of Demand draft (Non-refundable) drawn on any branch of STATE BANK OF INDIA in favour of **ESI Saving Fund Account No.1, payable at S B I BALAKAMPET BRANCH Hyderabad.**

**MEDICAL SUPERINTENDENT**

## **GENERAL INSTRUCTIONS FOR TENDER - MEDICAL EQUIPMENTS.**

Sealed bids are invited from the eligible manufactures / authorized distributors/ authorized dealers under two bid system i.e. Technical bid and Price bid. Technical Bid should consist all the technical details along with commercial Terms & conditions, & Price Bid should indicate the price of the item mentioned in technical bid.

**For each equipment separate application is to be submitted by one bidder with separate EMD draft as each equipment will be evaluated separately. The same format given at the back of the tender form as annexure may be used for separate equipments but tender form S. No. and receipt No. has to be endorsed on each application by the bidder.** The Technical Bid & Price Bid must be sealed by the bidder in separate envelopes duly super scribed “Technical bid for “**Name of the Equipment**”& **Price bid for “Name of the Equipment**”. Both the sealed envelopes are to be put in the bigger envelope which should also be sealed & duly super scribed. “**Tender bid for-----** ”.

Bids may be dropped in the tender box kept at **the Hospital Store** up to **01:00 P.M. on the scheduled date of the tender closing**. If the bid is sent by post, it must reach before 01.00 p.m. on the **same date** and should be addressed to **The Medical Superintendent, ESIC Super speciality Hospital, Sanathnagar, Hyderabad-500038** with the superscription as above. Bids received late will not be considered. All the bids received will be opened on the same date at **2:00 P.M.** Bidders or their authorized representative may be present if they wish to be. In case tender opening date is declared a holiday, bids will be opened on the next working day at the same time & venue. **Bid should be accompanied by Earnest Money as mentioned in front of each equipment in the tender notice**, in the form of D.D./Banker’s cheque, drawn in favour of **E.S.I Saving Fund Account No.1 payable at Hyderabad (only SBI)**. Earnest Money is to be attached with Technical Bid. Bids without Earnest Money deposit will not be accepted.

### **TERMS AND CONDITIONS FOR ALL EQUIPMENTS:**

1. **EMD:** should be deposited by the bidder by enclosing Demand Draft or Bankers cheque only in favour of ‘**ESI Saving Fund A/c No.1**’ Payable at **Hyderabad(SBI only)**, along with the Technical bid which shall be refunded to bidders without any interest after the finalization of tender.
2. Literature of the quoted item, with detailed specifications must be enclosed.
3. The quantity shown in the tender can be increased or decreased to any extent depending upon the actual requirement.
4. Price Quoted should be for the supply destination of hospital store, ESIC Super speciality Hospital Sanathnagar, Hyderabad .No transportation charges will be given by the hospital.
5. Validity of bid for acceptance should be for a minimum period of 6 months.
6. The rates quoted should not be higher than that quoted in case of any other organization/ Institution (**under taking by the tenderer** may be enclosed.)

7. Taxes (S.T/ VAT / other Local taxes if any ) should be mentioned separately in the price bid along with the quoted rates of the equipment.
8. **Demonstration of equipment:** Tendered Instrument/ Equipment shall have to be demonstrated before Technical evaluation committee and / or purchase committee on stipulated day and time whenever asked for. Failure to demonstrate the equipment on the stipulated day without any genuine reason (which is to be intimated in advance and should be acceptable to the hospital authorities) will mean that the tenderer is not interested in supplying the equipment & the Bid would be liable for rejection. In case of genuine reason only two chances for demonstration will be given . **Technical evaluation committee is fully empowered to reject any bid if it is felt that the equipment is of inferior quality, even if it is fulfilling the specifications and other commercial terms. Satisfactory performance report if submitted from some Government institution for the equipment under consideration will also be considered a plus point for evaluation.**
9. **AMC and CMC rates for 5 years** after the Guarantee/warranty period have to be quoted separately along with the price of the Equipment. The AMC / CMC rates will also be a factor during evaluation of the price bid. **Guarantee /Warranty period** for Equipment/Instrument must be minimum of 2 years from the date of satisfactory installation..
10. **Manufacturer's Authorization Certificate** The Certificate regarding authorize distributorship/ stockiest from the manufacturer, with period of validity and details of issuing authority must be enclosed **in original or copy attested by Notary Public** or Gazetted officer.
11. Submit all the following details related to the manufacturer:
  - a. Full postal address
  - b. Email ID
  - c. Telephone numbers
  - d. Fax number
  - e. The firm should also provide the complete address along with telephone and fax no. of service station from where after sale service would be provided.
12. The Tenderer must furnish the following details:
  - a. Name and Address, Fax, telephone No., email Id etc for contact.
  - b. PAN / TAN number issued by Income Tax Dept. of India.
  - c. Bank details and Account Nos.(For ECS payment)
  - d. MICR Nos, **IFSC / NEFT**
13. The successful bidder should strictly adhere to the mentioned delivery schedule.
14. Supply, installation and commissioning should be done within the **prescribed period on the supply order (45 days after issue date of Supply order)**. If the Successful Bidder fails to deliver the equipment within this period a **penalty of 0.5% per week** of the cost of the equipment will be imposed for the delayed period. Once the 10% Penalty is reached Purchaser/Consignee may consider termination of the contract. The Medical Superintendent has right to recover the damages for breach of contract/order to forfeit the Earnest Money.
15. **Performance security:** In case of Equipments, on notification of award the successful bidder has to deposit the 10% of total amount of the total cost as **the performance security** with Medical Superintendent in the form of Banker's cheque/demand draft(**SBI only**), **in favour of E.S.I Saving Fund Account No.1 payable at Hyderabad** which will be released

after entering into the AMC/ CMC (Comprehensive Maintenance Contract) and on receiving the satisfactory performance certificate from the user department, 60 days after warranty is over.

16. Cost of the Equipment must be mentioned as a unit, including cost of the accessories as mentioned in our specification, and nothing should be labelled as optional with separately quoted rates.
17. The payment will be released after demonstration of satisfactory performance by the user department for the supplied equipment after its installation.
- 18. Compliance of the specification** of the equipment mentioned & **Compliance of Terms and Conditions** should be given on a separate sheet and all the Documents must be serially numbered, stamped & signed by the Authorized Signatory.
19. Only appropriate model/s as per specification should be quoted.
20. **Penalty clause.** In the event of equipment going out of order the fault shall have to be attended within 24 hours of lodging the complaint. During the warranty / guarantee period in the event of equipment remaining out of order beyond a period of 7days of lodging the complaint a penalty to extent of 0.25% of purchase value of the equipment shall be levied for each day of the equipment remaining non functional.
21. During AMC/CMC period In case the equipment is not restored in functional order within a week, a penalty of 0.5% of total yearly cost of AMC/CMC of the equipment per day for the period of equipment remaining out of order will be levied.
22. If the equipment needs calibration, the firm shall be responsible for calibration as a part of AMC/CMC
23. Medical Superintendent reserves the right to reject/accept any or all tenders/modifications in the terms and conditions without assigning any reason thereof. No Correspondence will be entertained in this regard.

**Name, Signature & Address of the tenderer**

**With Stamp**

Tender form Sl.No. \_\_\_\_\_

Receipt No. \_\_\_\_\_

**Annexure – I**

**TENDER APPLICATION FORM FOR THE SUPPLY OF**

1. Name of the tenderer firm : \_\_\_\_\_
2. Full Postal Address : \_\_\_\_\_
3. Name and address of the tenderer with Pan No: \_\_\_\_\_
4. Cell Phone No : \_\_\_\_\_
5. Telephone No : \_\_\_\_\_
6. Fax No : \_\_\_\_\_
7. Submit all the following details related to the manufacturer firm:
  - a. Name of the firm : \_\_\_\_\_
  - b.. Full postal address : \_\_\_\_\_
  - c. Email ID : \_\_\_\_\_
  - d. Telephone numbers : \_\_\_\_\_
  - e. Fax number : \_\_\_\_\_
  - f. The firm should also provide the complete address along with telephone and fax no. of service station from where after sale service would be provided
8. Name and Address of your Bankers  
stating the name in which theAccount stands: \_\_\_\_\_
9. Any other information which you consider necessary to furnish: \_\_\_\_\_

It is certified that the above mentioned particulars are up to best of my knowledge and no fact has been concealed.

**Name and signature of authorized signatory with seal**

**Annexure II****Undertaking**

**(To be submitted on Rs. 100/ non judicial stamp paper)**

1. I the undersigned certify that I have gone through the Terms & conditions mentioned in the tender document and undertake to comply with them. The rates quoted by me/us are valid and binding on me/us for acceptance for the period of 6 months from date of opening of tender.
2. It is certified that rate quoted by me are the **lowest quoted** for any institution/Hospital in India.
3. Earnest money deposited by me/us viz Rs. \_\_\_\_\_ in the form of Demand Draft/Banker's Cheque in favour of ESIC Saving Fund Account No.1 payable at Hyderabad is attached herewith and shall remain in custody of the Medical Superintendent, ESIC Super speciality Hospital Sanathnagar, Hyderabad . I/We give the rights to Medical Superintendent, ESIC Super speciality Hospital Sanathnagar, Hyderabad to forfeit the EMD deposited by me/us if any delay occur on my/agent's part or fails to supply the equipment at the appointed place and time and of the desired specifications.
4. I/we undertake that I/we will be in position to provide AMC/CMC, Spare Parts, and consumables for 10 years after completion of guarantee/ warranty period. I/we also undertake to keep the equipment in running order throughout the year under warranty / guarantee/AMC/CMC and in case of equipment going out of order, the fault will be attended within 24 hours of lodging the complaint. The firm shall ensure the machine is set right within 7 days of intimation otherwise the penalty clause mentioned in the terms and condition is acceptable to us. However I /We will arrange similar equipment as a standby at my/our own cost and risk in case of repair of the machine is going to take time beyond one week.
5. There is no vigilance/ CBI case or criminal court case pending against our firm.
6. On Inspection if any article is found not as per supply order and specifications, it shall be replaced by me/us in time as asked for, at my /our own expenses.
7. I/we hereby undertake to supply the items as per specifications and directions given in supply order within the stipulated period.
8. I/we undertake to provide guarantee/warranty as mentioned in specifications from the date of satisfactory installation and inspection. I also undertake that I will maintain the equipment during this period and replace the defected parts free of cost, if necessary.
9. I/we understand that Medical Superintendent, ESIC Super speciality Hospital Sanathnagar, the right to accept or reject any or all the tenders without assigning any reasons (s) thereof.

**Name, Signature & Address  
of the tenderer With Stamp**



CHECK LIST

S. No.	Documents	Yes/No
1	EMD	
2	Price Bid	
3	Five years AMC and CMC charges	
4	Tender Application form with tender form No. and receipt No.	
5	Manufacturer's Authorization Certificate	
6	Satisfactory performance report of the equipment	
7	Specifications of the equipment quoted.	
8	PAN/TAN No.	
9	A list of consumables / accessories if any with cost submitted.	
10	Undertaking as per annexure.	

**Name, Signature & Address of the tenderer**

**With Stamp**

## Specifications :

### SPECIFICATIONS FOR PORTABLE TRANSPORT VENTILATOR

- It should be portable and light weight
- It should be capable of ventilating from pediatric patients to adults
- Modes should include VOLUME ASSIST CONTROL, PRESSURE ASSIST CONTROL, SIMV IN VOLUME CONTROL AND PRESSURE CONTROL MODES
- It should have CPAP/PEEP and PSV available
- Tidal volume should range from 50ml - 2000ml
- Breath rate 0 - 60 breaths per minute
- Inspiration time 0.3 – 5.0 sec
- Trigger sensitivity off, -2 to +20cm of water
- PEEP/CPAP 0 to 20 cm of water
- I:E ratio should be 1:4 to 1:1
- Flow pattern should be square, descending and sinusoidal
- Working pressure should be 5 – 55 cm of water
- Should have patient presets (infant ,pediatric, adult)
- Monitors and indicators – PIP,MAP,BREATH RATE,PEEP,IE RATIO
- Should have 1) variable alarms
  - i) Apnea
  - ii) High peak inspiratory pressure
  - iii) Low peak inspiratory pressure
  - iv) High exhaled tidal volume
  - v) Low exhaled tidal volume
  - vi) High minute volume
  - vii) Low minute volume
- 2) Fixed alarms
  - i) Disconnect
  - ii) Low& lost external power
  - iii) Low& empty internal battery
- The ventilator should have bright display with back light
- It should have both invasive and non invasive ventilation
- Should have apnea backup ventilation 5 – 40 breaths per minute
- Should have internal battery backup for 8 hours minimum
- Should be supplied with accessories – filters, power cables, batteries, adult and pediatric circuits (5 pieces each)
- Ventilator noise level should be less than 30 dBA at 1meter
- Should be CE/ ISO certified with minimum 2 years warranty

### **Specifications for BIPAP MACHINE**

1. Non invasive ventilation / BIPAP.
2. Should have CPAP mode also
3. Should be light weight
4. Operating noise level approx 25 – 30 dB
5. Should have LCD display
6. Should have integrated heated humidifier
7. IPAP range should be 6 - 30. Cm H2O
8. EPAP range 4 - 20 cm H2O
9. Should have auto pressure adjustment feature
10. Should be electrically operated with battery back up
11. Should have provision to administer oxygen
12. The rise time from EPAP to IPAP can be set and varied
13. System should be supplied with nasal CPAP/ BIPAP mask, full size CPAP/ BIPAP face mask, hose pipe , oxygen tubing and power cable
14. Should be CE/ISO/ FDA certified
15. Should have 2 years warranty

### **SPECIFICATIONS FOR FLUID AND BLOOD WARMER**

Should be light weight

Should display set temperature

Should be inserted below the standard IV tubing coming from the bag and before the extension set leading to the infusion site

Temperature setting 37 – 41 degree Celsius adjustable in steps of 0.5 degree Celsius

Should achieve preset temperature 38 degree centigrade +/- 0.5 degree at flow rate 2-150ml per minute

Be quick setup within 30 sec

Should warm in less than 1 min

Should be fail safe to prevent over heating

Should have audible and visual alarms for low and high temperature

Power supply 220-230V/ 50Hz

Should have a low maintenance

Should be CE/ISO certified

Should have minimum 1 year warranty

### **SPECIFICATIONS: FOR ELISA READER AND WASHER:**

<b>ELISA Reader with Washer</b>
<b>1. Description of Function</b>
<b>1.1</b> ELISA Reader is required to Read the Colour Density known as OD(Optical Density) in ELISA (Enzyme Linked Immuno-Sorbent Assay.)Plates.
<b>2</b> Operational Requirements
<b>3.1 Technical Specifications</b>
Digital light control-precise, accurate, repeatable units to read a 96 well microplate. Should measure end point, curves and kinetic.
Single and dual wavelength measurement with facility for kinetic measurement
8 s maximum measurement time for single and dual wavelength and 5 s(+/_1Sec.) for kinetic
Measurement Range 340 -750nm
Indication Range 0-3 abs
Accuracy:1% Plus/Minus 2% 0.001 or 1% abs
Should have atleast the following filters :- 340, 405, 450, 490(+/_2nm), 630, 690 (+/-10nm)
<b>3.2 SOFTWARE:</b>
Storage of immediately preceding measurement At least 15 user programmable tests permanently stored
Time programmable between each measurement. Agitation programmable before each reading
RS:232:C serial interface ;parallel printer interface
3.2 a : upgradable and compatible Analysis software for faster data collection, calculation, exporting and reporting needs to be quoted seperately
<b>3.3 MEASUREMENT MODES</b>
Plate shaking mode for sample mixing selectable speed and time/If no inbuilt shaker is present separate shaker may be quoted.
Flexible blank mode setting
Curve fit Modes: LIN/LIN.LIN/LOG.LOG/LOG or auto curve transformation
with ability to add the standard curve; 8 to 12 way string orientation or kinetic modes
Table of optical densities, Delta DD, Graphic, Reaction rate/V-Max
<b>3.4</b> Adjustable for different micro plate geometrics
<b>3.5</b> Halogen Lamp 12V/20 W.
<b>3.6</b> 16 digit alphanumeric Membrane keyboard/LCD display
<b>3.7 Technical Specifications for washer</b>
<b>3.7a.</b> Auto strip washer for 96 well plates / strips
<b>3.7b</b> .Dispensable wash volume 50 – 300 µl.
<b>3.7c.</b> Residual wash Volume -<5µl
<b>3.7d.</b> Aerosol Shield for user safety.
<b>3.7e.</b> design should eliminate overfilling and contamination
<b>3.7 f</b> 8 channel washer is required
<b>3.7 g</b> design should facilitate easy cleaning preferably autoclavable at 121°C

<b>4 System Configuration Accessories, spares and consumables</b>
<b>4.1</b> 8-12 channel manifold, all tubing sets, wash, rinse and waste bottles
Maintenance kit to be provided.
<b>4.2</b> Halogen Lamps : 2
<b>4.3</b> Printer external black and white laser printer with speed of atleast 12 ppm to be supplied
<b>4.4</b> Dust cover.
<b>5 Environmental factors</b>
<b>5.1</b> The unit shall be capable of being stored /operating continuously in ambient temperature of 0
-50deg C and relative humidity of 15-90%
<b>6 Power Supply</b>
<b>6.1</b> Power input to be 220-240VAC, 50Hz fitted with Indian plug
<b>6.2</b> Resettable over current breaker shall be fitted for protection
<b>7 Standards and Safety</b>
<b>7.1</b> Comprehensive training for lab staff and support services till familiarity with the system.
<b>7.2</b> Should be FDA or CE or ISI or ISO approved product
<b>8 Documentation</b>
<b>8.1</b> User/Technical/Maintenance manuals to be supplied
<b>8.2</b> Certificate of calibration and inspection from factory.
<b>8.3</b> List of Equipments available for providing calibration and routine maintenance support as per manufacturer documentation in service / technical manual.
<b>8.4.1</b> List of important spare parts and accessories with their part number and costing.
<b>8.4.2.</b> Advance models are preferred for the specifications
<b>8.4.3.</b> All consumables required for installation & standardisation of the equipment should be supplied free of cost.
<b>8.5</b> Log book with instruction for daily, weekly, monthly and quarterly maintenance checklist.
<b>9.</b> AMC to be provided
<b>10.</b> Warranty to be provided

### **SPECIFICATIONS BLOOD GAS ANALYSER**

1. The analyzer should be able to measure blood gas (pH, pO<sub>2</sub>, pCO<sub>2</sub>), electrolytes (Na<sup>+</sup>,K<sup>+</sup>,iCa<sup>++</sup>,Cl<sup>-</sup>),Saturation Oxygen and Hemoglobin, Glucose, LACTATE and oximetry-Complete.-ctHb.
2. The instrument should perform automated quality control.
3. The instrument should provide ACID BASE chart/graph for assisting clinical interpretation
4. Onboard quality control with anytime removal and loading option to be there.
5. The instrument should be operated with conventional individual reagents like Calibration solutions and Rinse / cleaning reagents etc.

6. The instrument should have onboard gas bottles, No external gas cylinders or fluid calibration systems.
7. Analyzer should have integrated barcode reader to support sample and Consumables identification
8. A built in thermal printer should be provided to print out patient results
9. Analyzer should have automated Reagent management software with inventory displayed onscreen.
10. Analyzer should have a start-up time should be < 15minutes
11. Analyzer should have Ethernet or wireless network connections
12. Analyzer should have data back-up with read/write CD drive /USB ports- RS232 for Printers
13. Analyzer should have Colour touch screen with customizable user interface
14. The analyzer should allow hands free sample introduction with aspiration mode and analyse.
15. Results should be provided in less than a 2 minutes
16. Analyzer should have user ID and access level verification
17. The system should have on board data manager to store all patient results, QC data and calibrations
18. The analyzer should have full connectivity with HIS / LIS and also interface via Ethernet
19. The analyzer may preferably have the possibility for optional remote support.
20. Minimum 5 programmable sample measuring modes for different parameters as per user requirement .
21. Calibration certificate should be provided.
22. AMC required

### **SPECIFICATIONS for ELECTROPHORESIS WORK STATION:**

1. Horizontal electrophoresis system suitable for running precasted agarose gel strips or cellulose acetate strip
2. Electrophoresis chamber :
  - a. Should run cellulose acetate, agarose and citrate agar gels
  - b. Should have heat shield to protect gel from heating up
  - c. Gels should come in direct contact with the buffer eliminating the need for paper wick
  - d. Should have unique interlocking system that breaks electrical circuit when the chamber lid is open/ removed.

- e. Should be large enough to run atleast 2 precasted agarose gel strips( 20 samples)
  - f. Should include platinum electrode, bridge and necessary cables.
  - g. Applicator for sample application is preferred
3. Power pack:
    - a. Programmable digital power pack with atleast 5 programme channels
    - b. Should have multiple output jacks
    - c. Migration parameters can be regulated with either constant current, constant voltage, or constant power with preset safety limits
    - d. Automatic power shut off at the end of the run with over voltage protection must be provided
    - e. Should have a built in timer that stops migration and alarm sound when electrophoresis procedure is finished
    - f. Should have autorecovery from power failure
    - g. Soft touch key pad
    - h. Voltage range 5 – 300 V
    - i. Current range 0 – 200 m A
    - j. Power range 0 – 60 VA
    - k. All electrical peripherals required for smooth functioning e.g. voltage stabilizer and UPS should be provided with the equipment.
  4. Drying and staining:
    - a. Separate instrument with heat control for drying gels to be provided
    - b. Temperature range should be between 20 – 80 ° C that ensures faster drying
    - c. Should have tangential airflow for homogenous drying
    - d. Staining racks must be provided for staining, destaining and washing purpose
  5. Densitometer :
    - a. High resolution image capture technology
    - b. Direct visualization with accurate optical density measurement
    - c. Automatic system calibration to ensure light source homogeneity (100 % light transmission) and measure black before scanning gels ( 0 % transmission)
    - d. Precise quantification of all fractions
  6. Software:
    - a. A multifunctional software with user friendly interaction is required with LCD monitor, keyboard, CPU, Mouse, black and white laser printer.
    - b. Should be capable of exporting data to drive for long term storage
    - c. Easy data recall, customized reporting option
    - d. Software should be compatible with densitometer provided
    - e. Should have complete patient demographic profile
    - f. Should have extensivecurve editing option with deletion for minima and fractions
    - g. Should have reference curve overlay options
    - h. Should have color coding for pathological curve
  7. In house training is to be provided to the technicians
  8. All consumables required for installation and standardization of system to be given free of cost
  9. There should be provision for demonstration of equipment before final purchase if required
  10. List of users and Satisfactory report of quoted model from reputed institute preferably Government institute/ hospital
  11. Supplier must ensure local servicing agent and continuous supply of consumables

12. Calibration certificate required
13. AMC required, Atleast 2 years warranty required
14. FDA/CE/ ISI or equivalent certification is mandatory.

### **TECHNICAL SPECIFICATIONS FOR TISSUE PROCESSOR**

1. Microprocessor controlled tissue processor with 9 freely selectable programs.
2. User programmable parameters like infiltration time, delay time, agitation on-off and single or double basket operation.
3. Programmable infiltration time from 5 minutes to 99 hours 59 minutes in 1 minute increments.
4. Delayed start up function to a maximum of 9 days.
5. Drain time of 60 sec in each station to reduce carry over contamination.
6. Reagent containers of 1.8 litre with seals to minimize evaporation and exposure the hazardous fumes.
7. Agitation in 3 sec intervals with on/off function for thorough and even mixing of reagents.
8. Maximum tissue processing capacity of 160 tissue cassettes using with double basket operation.
9. Maximum safety concept with automatic immersion of the tissue basket in to the beaker in case of power failure
10. Audible alarms, error messages and warning codes for maximum safety.
11. Chloroform resistant wax bath with temperature adjustment from 45-70C.
12. Wax bath with over temperature (at 75 C) and under temperature cut-off facility for the safety of tissues.
13. Electronic locking facility to avoid inadvertent operation.
14. Optional fume extraction system with charcoal filter for safe disposal of hazardous fumes.
15. Facility of manually lift the carousal and remove tissues in case of long power failures.
16. ISO/CE certification preferred.
17. Higher version preferred
18. AMC required
19. Calibration certificate given at time of installation.



**TECHNICAL SPECIFICATIONS FOR CYTOSPIN**

1. Table top model.
2. The cells should deposit on a surface with a diameter of 6mm and /or of 22X15mm.
3. Should have standard rotor.
4. Should have Removable rotor with quick change adapter.
5. Should have precentrifugation rotor with quick change adaptor.
6. Should have all accessories parts of cytospin must be autoclavable.
7. Should be quick change adapter is a unique cell spin feature for easy exchange of rotors.
8. Should be metal housing and lid, lid fall arrester, coverlock.
9. Should have emergency unlock system.
10. Should have motor & boiler over heat protection.
11. Should have unbalance cutout device.
12. Should have unbalance alarm.
13. Should be easy rotor replacement, automatic rotor detection.
14. Must have option for storing up to 10 programs and programmable up to 99 mins.
15. Must have facility to select the speed can be selected between the rotational speed RPM or RCF with Cellspin from 500 to 6,000 rpm.
16. Adjustable acceleration to fast, medium or slow. So protect the cells.
17. Adjustable & programmable breaking times for careful cell treatment.
18. Should have digital display, easy touch keypad for programming with adjust the RPM.
19. 100 autoclavable cell funnels should be supplied
20. Should be the latest cytospin preferable.
21. Should have CE/FDA/ISI/or equivalent certificate.
22. Calibration certificate to be given at time of installation.
23. In hence training to be provided.
24. Safety design prevents accidental fluid spillage, from damaging the mechanical/electronic complaints.
25. Must meet IEC61010 standards for centrifuge safety.

**TECHNICAL SPECIFICATIONS FOR CRYOSTAT**

1. Freely standing cryostat with chamber temperature down to  $-35^{\circ}\text{C}$ .
2. Actively cooled quick freeze shelf with optional peltier unit for freezing down to  $-60^{\circ}\text{C}$ .
3. Specimen storage shelf to store up to 10 chucks
4. Maintenance free microtome with section thickness setting from 1 to 60 microns.
5. Maximum specimen size of 55mm diameter.
6. Vertical stroke length of 59mm and horizontal feed of 25mm.

7. Motorized 2 speed coarse feed of 0.7mm/sec(rapid) and 0.2mm/sec(slow).
8. Disposable blade holder system with lateral displacement and integrated glass anti-roll guide.
9. Glass anti-roll guide with anti static feature to facilitate perfect stretching of sections.
10. Specimen orientation of  $8^0$ . In x,y,z directions.
11. Closed drainage system to allow controlled disposal of fluids.
12. Automatic 24 hours hot gas defrosting maximum 12 minutes duration.
13. Electronic locking key to avoid any inadvertent changes in program setting.
14. External PC link to check and service the instrument.
15. CSA, CE, ISO certified.
16. Advance model preferred.
17. AMC required.

Calibration certificate given at the time of installation

**TECHNICAL SPECIFICATIONS FOR**  
**STERILE BAG TO BAG CONNECTING DEVCE**

1. Sterile Connecting Device should accommodate any type of blood tubing with an external diameter ranging from 3.9mm to 4.5mm and an internal diameter of 2.9mm to 3.1mm
2. No residue or chemical residue should produce after sealing
3. Should have built in temperature sensor
4. Should have backlight LCD panel to display the function's and instructions to the user
5. Should have visual alarm to indicate errors / malfunctions
6. The clamp's should be designed to accommodate wet to wet applications
7. PVC tubing is connected using wafers i.e. heated at a high temperature (300degree Celsius)
8. Automatic replacement of wafers after each use
9. Equipment should be CE marked
10. The equipment manufacturer should be an ISO 9001 certified company
11. It should easy to use and secure in any blood collection environment.
12. Welding of wet-to-dry and dry-to-dry tubing combinations
13. No cell necrosis or loss of blood product.
14. Single wafer loading with one button operation and continuous monitoring display
15. Single wafer loading with one button operation and continuous monitoring display
  - a. ISI/FDA/CE/ISO approved and certification.

- b. Calibration certificate to be given at time of installation SPECIFICATIONS
- c. AMC required.

### **TECHNICAL SPECIFICATIONS FOR REFRIGERATED CENTRIFUGE**

1. Should have Refrigerated Floor Standing Blood Bank Centrifuge
2. Should have Capacity for 4x1000 ml to accommodate 4 quadruple bags (with In-Line-soft Filter-System)
3. Should have Blood bag systems of 350ml and 450ml with SAGM bag and empty satellite bags
4. Should have each 1000 ml in a swinging bucket Rotor.
5. Should have Max. Speed Range: 300-10,000 rpm adjustable in 10 rpm increments
6. Should have Max. RCF: 15,320 x g
7. Should have Drive Brushless induction drive.
8. Should have Accel / decel. Profile 9 / 9
9. Should have Profile memory 9 + 1 pretemp program.
10. Should have Run time 0-99 min. plus hold
11. Should have Temp Range -9 to +40°C, CFC Free refrigerant
12. Should have Temp Accuracy  $\pm 2^{\circ}\text{C}$
13. Voltage 230 V, 50 Hz, Single phase
14. Should have Microprocessor Controlled, Soft-Touch keypad incorporates large LED display panels that can be cleaned easily and read at a distance.
15. The machine requires a minimum of laboratory space, and can be
16. Conveniently stored under the bench when not in use.
17. Ergonomically designed for easy loading / unloading while sitting or standing, The instrument should incorporate recessed hand grips to assist with transportation.
18. Should have Brush less inductive drive
19. Should have Imbalance : electronic, speed and rotor dependent
20. Capable to run as an option 4x8 standard microplates if required as future upgradation
21. Capable to process 160 nos. 5/7ml blood collection tubes at 4600xg
22. Capable to spin as an option blood collection tubes already loaded in analyzer racks if required as future upgradation
23. CE, ISO Certified. Tested in accordance with EN50082-1, EN 50 081-1, EN61010-1, EN 61 010-2-020
24. Should have Functions : RCF – Preselection, Quick run, Automatic rotor recognition,
25. Imbalance detection and Soft-touch lid lock.
26. Should have CE/FDA/ISI/ISO or equivalent certificate.
27. Calibration certificate to be given at time of installation.
28. In hence training to be provided.
29. Must meet IEC61010 standards for centrifuge safety.

## **SPECIFICATIONS FOR PAEDIATRIC BRONCHOSCOPY SET**

- i. DOESEL-HUZLEY BRONCHOSCOPES
  - a. Size 2.5, Length 20 cm
  - b. Size 3.5, Length 26 cm
  - c. Size 4.5, Length 30 cm
  - d. Size 6 , Length 30 cm
- ii. ADAPTOR from bronchoscope to any respiratory equipment
- iii. PLUG
- iv. RUBBER TELESCOPE GUIDE for use with telescopes or optical forceps
- v. GLASS WINDOW PLUG
- vi. GUIDING PIECE for suction catheter
- vii. INJECTION CANNULA
- viii. PRISMATIC LIGHT DEFLECTOR - autoclavable, with connection for fibreoptic cable
- ix. 0° TELESCOPE
  - a. 2.9 mm, working length 36 cm
  - b. Autoclavable
  - c. Fibre optic transmission
- x. OPTICAL COIN FORCEPS
  - a. 2 x 2 teeth
  - b. Forced action handle
- xi. OPTICAL FORCEPS KILLIAN BEAN JAWS
  - a. Forced action handle
- xii. OPTICAL ALLIGATOR FORCEPS
  - a. Forced action handle
- xiii. PEANUT FORCEPS (NON-OPTICAL)
  - a. Double action jaws
  - b. Working length 35 cm
- xiv. HUZLEY IRRIGATOR AND ASPIRATOR

## **SPECIFICATIONS FOR PAEDIATRIC RESECTOSCOPE**

- PAEDIATRIC RESECTOSCOPE SHEATH
  - 9 Fr.
  - with LUER-lock stopcock
  - connecting tube for inflow
  - obturator
- 0° TELESCOPE
  - Diameter 1.2 mm
  - Working length 20 mm,
  - Autoclavable
  - Fiber optic light transmission
- CYSTOSCOPE-URETHROSCOPE SHEATH
  - 8 Fr./ 9 Fr.
  - Wide working channel for use of rigid instruments upto 4 fr.
  - Lateral irrigation ports
  - Autoclavable
- WORKING ELEMENT SET including
  - 1 working element
  - 1 coagulating electrode
  - 1 cutting loop
  - High frequency cord 1 or 2
- TELESCOPE BRIDGE with one instrument channel

## **SPECIFICATIONS FOR NEONATAL OPEN CARE SYSTEM**

- Large clear display and control panel
- Easy access to baby
- Side panels
- Highly sensitive thermistor probe with no field calibration required
- Splash-proof heater unit – manual and servo modes
- Provision for X-ray cassette
- Bed tiltable for Fowler positioning
- Warmer unit swivels to accommodate the X-ray units
- Clear visual and acoustic alarms
- Smooth running swivel castors with brakes

- IV Stand
- Examination lamp

### **SPECIFICATION FOR TRANSPORT INCUBATOR**

- Light Weight
  - Smooth running / Easy Mobility with brakes
  - User friendly control panel
  - Restraining straps to hold the infant securely during transport
  - Batter Backup
  - Observation lamp
  - Provision to accept Oxygen Cylinder
  - IV Stand
- **PAEDIATRIC CYSTOSCOPE-URETHROSCOPE SHEATH**
    - 6-7.5 Fr.
    - WIDE WORKING CHANNEL FOR USE OF RIGID INSTRUMENTS UPTO 3 Fr.
    - LATERAL IRRIGATION PORTS
    - AUTOCLAVABLE
  - **0° TELESCOPE**
    - DIAMETER 1.2mm
    - WORKING LENGTH 20mm
    - AUTOCLAVABLE
    - FIBER OPTIC LIGHT TRANSMISSION
  - **COAGULATING ELECTRODE**
    - 3 Fr.
    - LENGTH 30 cm
    - REUSABLE
    - HOOK TIP

### **SPECIFICATIONS FOR PHOTOTHERAPY UNIT**

- LED or CFL Lamps (6-8)
- Dominant wave length range of 450-465mm
- CE certified
- Compact, light weight
- No undue surface heating
- Uniform light distribution
- No glare, no light spill outside baby cot area
- Noiseless operation
- Removable head preferable
- Mobile and easily slides under most bassinets, incubators
- Adjustable height
- Lamp unit tiltable
- Time totaller for lamp usage and therapy time.

### **BOTTOM UNIT**

- Blue CFL Tubes (4-6)
- Dominant wave length range of 450-465mm

Compatible with most top units to provide double surface Phototherapy

<b>PAEDIATRIC LAPAROSCOPY INSTRUMENTS</b>	
<b>DESCRIPTION</b>	<b>QTY</b>
HOPKINS II Straight Forward Telescope 0°, enlarged view, diameter 5 mm, length ~25 cm, autoclavable, fiber optic light transmission incorporated	1
Trocar, size 5.5 to 6 mm (for 5 mm instruments), consisting of Trocar with pyramidal tip, Cannula, length 5 cm, with LUER-Lock connector for insufflation and Leaflet Valve	2
Trocar, size 3.5mm, (for 3 mm instruments),consisting of: Trocar with pyramidal tip, Cannula length 5 cm, with LUER-Lock connector for insufflation & Leaflet Valve	4
Scissors, rotating, dismantling, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, serrated, curved, conical, size 3 mm, length 20 cm consisting of Plastic Handle, without ratchet Outer Sheath, with scissors insert for use with trocars size 3.5 mm	1
Scissors, size 3 mm, length 20 cm DOUBLE action especially long conical pointed jaws (for pyeloplasty), Outer insulated tube with insert, <del>NO handle</del>	1
KELLY Dissecting and Grasping Forceps, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, size 3 mm, length 20 cm consisting of Plastic Handle without ratchet, Outer Sheath, with forceps insert	1

KELLY Dissecting and Grasping Forceps long, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock irrigation connector for cleaning, double action jaws, size 3 mm, length 20 cm consisting of Plastic Handle without ratchet, Outer Sheath, with forceps insert	1
REDDICK-OLSEN Dissecting Grasping Forceps, rotating, size 3 mm, length 20 cm heavy, with connector pin for unipolar coagulation, double action jaws, with LUER lock adaptor for cleaning, consisting of: Plastic Handle, with ratchet, Outer Tube with insert insulated	1
Grasping Forceps, rotating, dismantling, insulated, with connector pin for unipolar coagulation, with LUER-Lock connector for cleaning, single action jaws, with very fine atraumatic serration, fenestrated, size 3 mm, length 20 cm, consisting of: Plastic Handle, with hemostat style ratchet ,Outer Sheath, with forceps insert, insulated	1
Bowel Grasping Forceps, size 3 mm, length 20 cm with consisting of Outer Sheath, with forceps insert, NO handle	1
Dissecting Electrode, L-shaped, size 3 mm, length 20 cm, with connector pin for monopolar coagulation	2
Ultramicro Needle Holder, with tungsten carbide inserts straight handle, with ratchet, size 3 mm, length 20 cm	1
Sawalhe Needle holder, axial ring handle with ratchet, length 30 cm	1
Irrigation and Suction Cannula, for use with two-way stopcock or modular handles for suction and irrigation, size 3 mm, length 20 cm	1
Two-way stopcock for suction and irrigation	1
ALAIN-GROUSSEAU Pylorotome, distendable, size 3 mm, length 20 cm	1
Percutaneous Pyloric Spreader, rotatable, size 3 mm, length 20 cm, consisting of Metal Handle without ratchet Outer sheath, with working element	1
Clip applicator 5mm	1
Reducing sleeve 5mm to 3mm	2
Knot tier for extracorporeal knotting 3mm, 30 cm	1



## **SPECIFICATIONS FOR NEONATAL INCUBATOR**

- EASY TO USE CONTROL PANEL WITH GRAPHIC DISPLAY
- LIGHT WEIGHT
- EASE OF ACCESS TO INFANT
- HEATER MODULE WITH SAFETY DEVICE
- TEMPERATURE CONTROL-MANUAL AND SERVO MODES
- HUMIDITY CONTROL
  
- LIGHT WEIGHT
- EXAMINATION LAMP
- BATTERY BACKUP (atleast 4 hours)
- EASY CLEANING AND DISINFECTION
- ELBOW OPERATED PORTS TO ALLOW EASY ACCESS AND ELIMINATE CROSS-INFECTION
- EXTERNALLY OPERATED TRENDELENBURG AND FOWLER POSITIONING
- EASY-TO-PULL-OUT BABY TRAY PROVIDED WITH X-RAY CASSETTE COMPARTMENT
- REUSABLE SKIN TEMPERATURE PROBE
- 

## **SPECIFICATIONS FOR NEONATAL RADIANT WARMER**

- UNIFORM HEATING OF INFANT BED
- MANUAL AND SERVO MODES
- HIGHLY SENSITIVE THERMISTOR PROBE
- OBSERVATION LIGHT
- LARGE EASY-TO-READ LED DISPLAY
- BATTERY BACKUP INDICATING TEMPERATURE DURING POWER FAILURE
- LOW T-SHAPED BASE SLIDES CONVENIENTLY UNDER OTHER EQUIPMENT
- HEATER UNIT MOVABLE TO ACCOMMODATE X-RAY EQUIPMENT

## **URODYNAMICS**

- Should measure UROFLOWMETRY, CYSTOMETRY, EMG PRESSURE FLOW STUDIES, UPP, VIDEO URODYNAMICS.
- User Friendly, Portable, Economical, reliable PC Based Urodynamics System.
- Compact Design for maximum space saving and minimum handling.
- High precision Temperature compensate sensors for maximum accurate results and stability.
- Real time scrolling on the screen
- Event Markers – All ICS Recommended every markers.
- Markers can be deleted if requires
- Multiple Graphs portions can be marked for removing it for Calculation / Report of generation.
- Pretest and Post Test Residual Urine Measurements.
- Auto and Manual Zero of pressure channels.
- Patient Data Base.
- Pretest And Standby mode.
- Moving Cursor.
- Color Printout with test graphs details.
- Computer parameters.
- Standard Nomograms provided in report.
- Should measure – various pressures (PVES, PAHD, PURA, PCLO etc.) : Infused Volume, Uroflow, EMG, UPP, Video Urodynamics.
- Computer Software with Patient database.
- Computer Hardware – Computer P4 with Color Inkjet printer CD-Rom and Windows.
- Interfere to PC through USB / Parallel port
- Output Report should contain Uroflow Results, Pressure Flow Study with Hospital, Doctor, Patient details.
- Various markers like Bladder sensation, leak point, cough, etc.,

- Motorized control chair for height, back and Trendelenberg adjustment fitted with pressure sensor bracket, Flow-meter and UPP puller stand.

**URETERO - FIBERSCOPE FOR ACCESS TO ENTIRE INTRARENAL COLLECTING SYSTEM**

- 1) Working length of [50-70] cm
- 2) Outer diameter of the shaft should be between 7fr & 7.5fr
- 3) It should have an instrument channel between 3fr to 4fr
- 4) Direction of view should be 0 degree
- 5) Angle of view should be between 80 to 90 degree
- 6) Maximum angle of deflection up to 270 degree downward and 270 degree upward is needed.
- 7) It should have a ceramic liner in the distal end of the working channel to protect it from thermal or electrocautery damage
- 8) Should be waterproof and fully immersible in solution
- 9) It should adhere to sterilization method with ETO, FO gas, Steris & Sterrad
- 10) Following compatible accessories should be supplied with this instrument – Grasping forceps, Biopsy forcep, and case for the instrument, Pressure compensation cap, and leakage tester and cleaning brush.
- 11) Nitinol Core wire guide with hydrophilic coating and should have the ability of being straight at one end and angled at other end, length 150 cm
- 12) Ureteral Access sheath with inner diameter 9.5 fr and length of 35 cm and 45 cm, 13 cm
- 13) Ureteral access sheath with inner diameter fo 12.0 fr and length of 35 cm, 45 cm and 28 cm
- 14) Tipless stone extractor with length of 115 cm and size of 2.2 fr and 1.5 fr
- 15) Nitinol stone extractor with partially closer redesign the basket to provide the tight weave of a 12 or 16 wire basket
- 16) Ballon ureteral dilator of 7 fr & 5 fr with catheter length 65 cm, inflated ballon diameter 6 mm & 5 mm, ballon length of 4 cm & 10 cm with
- 17) Should have ergonomic laser dial with integrated locking mechanism to advance the laser fibre and minimize laser damage

**MINI PERC SPECIFICATIONS**

- 1) Nephroscope should have a size of not more than 12f
- 2) Nephroscope should have an automatic pressure control system so that stones once broken upto size of 4mm should come out automatically when used with pressure irrigation
- 3) Working channel should accommodate instruments upto 5f
- 4) The degree of view should not be less than 12 degree
- 5) It should have an angled eye piece
- 6) Scope should be supplied with non fitting sheaths which should work as amplatz sheath as well
- 7) Each sheath should have a one step dilator
- 8) 3 sheaths along with one step dilators should be supplied of the following specifications 15/18f,16.5/19.5,21/24f
- 9) 16.5/19.5 and 21/24 french sheath, dilators should have a central channel for guide wire and a distal curved channel for placing a safety guide wire along with a central main guide wire
- 10) 5f grasping forcep double action jaws should be supplied
- 11) 5f biopsy forcep double action jaws should be supplied
- 12) 5f scissor single action jaws should be supplied
- 13) An applicator consisting of sheath and rod should be supplied so as to use with haemostatic agents like floseal and surgiflow