# *Expression of Interest for Manufacturing & Supply of*

1. ***BLOOD BANK & DENTAL EQUIPMENTS***
2. ***NEONATAL EQUIPMENTS***
3. ***HOSPITAL FURNITURE & EQUIPMENTS***

***Under Rate Contract for 24 Months***

**EOI No: HLL/MKTG/SD/2016-17/07 DT. 28-02-2017**


**HLL Lifecare Limited**
*(A Govt. of India Enterprise)*
**HLL Bhavan, Poojappura,**
**Thiruvananthapuram -695012**
**Kerala, India**
**Tel: +0471 2355426, 2354949**
**Website – www.lifecarehll.com**

## Notice Inviting Expression of Interest for Manufacture & Supply of

1. **BLOOD BANK & DENTAL EQUIPMENTS**
2. **NEONATAL EQUIPMENTS**
3. **HOSPITAL FURNITURE & EQUIPMENTS**

## Under Rate Contract for 24 Months

### 1. COMPANY BACKGROUND

**HLL LIFECARE LIMITED** (HLL) is a Mini Ratna (Category-1 PSE) company under the Ministry of Health and Family Welfare. Our Corporate head office is at Thiruvananthapuram, Kerala. We have two production facilities in Thiruvananthapuram and one at Belgaum, Karnataka, Procurement & consultancy office at Noida, manufacturing facility at CSEZ, Manesar, Irapuram, Indore and marketing offices across the country. HLL has developed an impressive production infrastructure for a range of Contraceptives and Health Care Products. We are also planning to venture into new and challenging frontiers in the area of Health Care such as Vaccines, R&D, Hospitals and Pharmaceuticals. The total employees' strength of HLL is around 2000.

### 2. OBJECTIVE

HLL invites expression of Interest from reputed manufacturers for the Manufacture & Supply of Blood Bank & Dental Equipments, Neonatal Equipments and Hospital Furniture & Equipments in HLL's brand name under rate contract for 24 months.

### 3. SCOPE OF WORK

General scope of work is as follows.

A. Manufacture and supply the Equipments in HLL's Brand Name under Rate Contract for 24 months, as per the technical specification developed by HLL (Section – I).
B. Supply the equipments to various HLL Depot/ Carrying & Forwarding Agents across India
C. Ensure strict compliance to all statutory regulations.
D. Required product details and the artwork for packing materials shall be provided by HLL.

### 4. TERMS AND CONDITIONS

a) The manufacturer should have valid manufacturing license
b) Manufacturer should have an in-house Quality Control Section and R&D facility with requisite expertise.
c) The manufacturer should comply with quality standards of raw materials, intermediate and finished products.
d) Manufacturer should also comply with the requirement of packing and labeling specifications provided by HLL.
e) Manufacturer should be able to supply the equipment in a time bound manner within a maximum period as specified in the supply order.
f) Manufacturer should be able to supply the equipments directly to specified destinations through reliable means of transportation.
g) The manufacturer must facilitate the inspection / audit of its production facility by HLL quality team as part of the screening process.
h) The manufacturer should allow HLL team to oversee the manufacturing procedure as and when required.

i) The manufacturer has to provide demo of the finished product of required quantity as and when required by HLL.

**Documents to be submitted along with EOI**

1. DD of Rs.3000 against EOI document cost, if not purchased from our office.
2. Market standing certificate to prove that the bidder manufactures the quoted items for the past three years
3. Duly attested copy of factory license/ Industrial license
4. Duly attested copy of sales tax registration certificate
5. Site master file of factory and onsite quality assurance and lab facilities details with list of equipments available.
6. Duly attested copy of document to prove the legal status, place of registration and principal place of business of the undertaking
7. The technical specifications enclosed along with the bid document shall be confirmed by signature of the bidder/authorized signatory of the bidding firm, in all pages and authorized by official seal.
8. Duly attested copies of quality certificates for the products and quality system certifications
9. Copy of Balance sheet for the past two financial years, duly certified by a chartered accountant
10. Copy of Profit & Loss Account for two years certified by chartered accountant
11. Duly filled proforma showing details of Equipment and Quality Control employed by the manufacturer as per section III
12. Proforma for Performance Statement (for a period of last three years) as per Section IV
13. Self attested statement showing financial capability necessary to perform the Contract
14. Self attested statement showing technical and production capability necessary to perform the Contract as per Section II
15. Client's Certificate as per Section II
16. Product brochure literature, write up etc.
17. Item-by-item commentary (compliance statement) on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications
18. The letter of authorization indicated by written power-of-attorney in Rs 200/- stamp paper.
19. Spare parts and after sales service facilities in India
20. Documentary evidence of constitution of firm such as Memorandum of Articles, Partnership Deed, etc., with details of Name, Address, Tel. No., Fax No., E-mail Address of firm and the Managing Director / Partner / Proprietor
21. Annual turnover statement for last two years certified by the Auditor
22. List of items quoted (without prices)

**5. SELECTION PROCESS**

HLL will screen the expressions of interest received and short list the manufacturers based on the terms and conditions, documents as mentioned above and evaluation of the manufacturer's facility as mentioned in Clause No. 4. Subsequently HLL will issue Request for Proposal with details to the short listed manufacturer for final empanelment.

## 6. MODE OF SUBMISSION OF EXPRESSION OF INTEREST

Documents in electronic form will not be accepted. The documents to prove the eligibility criteria should be submitted in a separate sealed envelope marked 'EOI FOR MANUFACTURE & SUPPLY OF BLOOD BANK & DENTAL EQUIPMENTS, NEONATAL EQUIPMENTS AND HOSPITAL FURNITURE & EQUIPMENTS and should be delivered at the following address before the stipulated closing time.

**ASSOCIATE VICE PRESIDENT (CTD&SD)**
**HLL Lifecare Limited,**
**HLL Bhavan, Poojappura,**
**Thiruvananthapuram - 695012, Kerala, India**
**Tel: +91 471 2355426, 2354949**

## 7. CLOSING TIME FOR RECEIPT OF EOI

| | |
|---|---|
| Last date for Receipt of EOI | 22.03.2017 (14: 30 Hrs.) |
| Opening of EOI | 22.03.2017 (15:00 Hrs.) |

## 8. RIGHTS OF HLL

HLL reserves the right to accept / reject the offers received without assigning any reasons whatsoever, or may call for any additional information / clarification if required.HLL reserves the right to limit or delete any or part of the scope of work and extend the last date for submission of the EOI.

## 9. COURT JURISDICTION

The Courts at Thiruvananthapuram alone shall have jurisdiction in respect of settlement of any matter/dispute arising out or in connection with this.

## 10. COST of EOI

The EOI document can be purchased from our office on any working day between 10:00 AM to 3:30 PM by paying Rs. 3000/- by Cash / DD (inclusive of ST) drawn in favor of HLL Lifecare LTD, payable at Thiruvananthapuram - 695012. Further, EOI document can also be downloaded from our website **www.lifecarehll.com**. However payment of the cost of Tender documents i.e. Rs.3000/- by D.D. shall be made with the submission of Expression of Interest. Central Public Sector Enterprises/SSI Units registered with NSIC (certified copy required) shall be exempted from payment of Tender document cost, Earnest Money Deposit & security Deposits as per rules (upto their monetary limit).

## 11. AMENDMENTS

Any amendment to this Expression of Interest shall be notified in the website www.lifecarehll.com only. Parties are requested to visit the website frequently.

In case you need any further information, please feel free to contact the undersigned on E-mail: vgpillai@lifecarehll.com / hllsd@lifecarehll.com . Tel: +0471 2354949, 2355426.

**Associate Vice President (CTD&SD)**

# SECTION – I

## TECHNICAL SPECIFICATION

### BLOOD BANK & DENTAL EQUIPMENTS

**1- 4. BLOOD BANK REFRIGERATOR (60 Bags /150 Bags /300 Bags /600 Bags)**

| | |
|---|---|
| Temperature Range | 4 °C with +/- 2 °C Adjustment |
| Capacity | 60 Bags /150 Bags /300 Bags /600 Bags |
| Shelves/Trays & Capacity | Removable shelves made of SS 304 to hold required no. of blood bags as per the capacity of the refrigerator |
| Design | Outer Cabinet made of durable pre-coated, galvanized sheets and interior made of non-rusting Stainless steel SS 304 sheets.<br>Fully extendable drawers with dividers made of turret punched and corrosion free stainless steel sheets for convenient storage of blood bags and permitting free turbulence of cold air.<br>No frost, Positive forced air circulation ensures temperature uniformity.<br>Self closings, Double pane glass door, lock as standard.<br>Interior full length cabinet light with an ON/OFF switch.<br>Non-CFC, environment-friendly PUF insulation.<br>Fitted with castors, front two with brakes. |
| Refrigeration | Low noise, Hermetically sealed compressor with CFC-free environment-friendly refrigerant (R-134A).<br>Air cooled condenser aided by continuous rated motor fan.<br>Back to front condenser airflow to keep the glass pane door free from moisture condensation.<br>Auto defrost and condensate removal.<br>Energy saving design. |
| Temperature Recorder | Microprocessor based temperature chart recorder.<br>Built-in, circular, weekly (7-day) recorder.<br>Graphic chart provides permanent record of storage conditions.<br>50Nos of Graphic charts should be supplied with machine. |
| Control System | Microprocessor based digital temperature controller<br>Alarms for temperature deviation (High/Low), power failure and door open condition<br>Auto Rechargeable Battery back-up for temperature display, chart recorder and alarm during power failure.(Even if UPS battery fails Temperature display controller and chart recorder should work on direct supply)<br>Automatic voltage stabilizer with high / low voltage cut-off & time delay restart<br>Input 220/240V, 50 Hz, power cord & plug<br>CE certified by TUV-SUV, ISO 9001:2010 certification |

**5-7. LABORATORY REFRIGERATOR (90 Liters /250 Liters /450 Liters)**

| | |
|---|---|
| Temperature Range | +1 ºC to +8 ºC |
| Capacity | 90 Liters /250Liters /450 Liters |
| Inner Chamber | Made of Stainless Steel (22 G), Non corrosive |
| Outer Chamber | Made of Powder Coated CRCA sheet/SS |
| Insulation | Minimum 70mm Thick CFC free PUF Insulation |
| Control System | Micro Controller based temperature indicator cum controller with digital display and PT 100 sensor. (± 0.5ºC accuracy) |
| Refrigeration System | Hermetically Sealed CFC Free Compressor with (Eco Friendly) refrigerant |
| Doors | Double pane Glass Doors/Metal Doors |
| Air Circulation | Motor and blower arrangement to have uniformity of condition under chamber loaded condition. |
| Display | Digital display of temperature,<br>Auto Rechargeable Battery back-up for temperature display, chart recorder and alarm during power failure.(Even if UPS battery fails Temperature display controller and chart recorder should work on direct supply) |

| | |
|---|---|
| Trays | Stainless steel perforated trays. There should be provision for tray height adjustment |
| Condenser | Air-cooled condensers with continuous rated fan motor. |
| Other | Castor wheels, MCB, Adjustable Tray Height arrangement. Heavy-duty latch with lock & key |
| Quality Accreditations | Preferably FDA/CE/BIS approved. Manufacturer should have ISO certification. |
| Power | 230 V AC single phase 50Hz. |
| Temperature Recorder | Microprocessor based temperature chart recorder.<br>Built-in, circular, weekly (7-day) recorder.<br>Graphic chart provides permanent record of storage conditions.<br>50Nos of Graphic charts should be supplied with machine. |

**8-10. ICE LINED REFRIGERATOR (ILR) (4 °C) – (60 Liter /150 Liter /300 Liter)**

| **S P E C I F I C A T I O N S** | |
|---|---|
| **ICE LINED REFRIGERATOR (4°C) – ILR – CHEST TYPE** | |
| **DESIGN:** | |
| Capacity | 60 Liters **/**150 Liters / 300 Liters |
| Temperature Holding Time | 24 hours from 4 °C to 2 °C (with 15 Kg of Load). |
| Inner Chamber | Made of Stainless steel AISI 304 grade, 18SWG, tig welded to the chamber. |
| Middle Chamber | Made of Galvanized Steel. |
| Outer Chamber | Made of CRCA sheets, 18SWG (1.0mm) finished with attractive two-scheme polyester powder coat. |
| Sub-doors | Made of Polyrexine of 40mm thickness. |
| Insulation | Polyurethane Foam insulation of 75mm thick between the middle and outer chamber. |
| Closure | Durable magnetic rubber gaskets. |
| Main Door | PUF insulated, main door with inner FRP lining and lock. |
| Hot Line | Anti – condensation using hot line at the mouth of the cabinet. |
| Castors | Equipment mounted on Heavy duty swivel castors with brakes. |
| **REFRIGERATON: (Non-CFC, Non-HCFC)** | |
| Compressors | Heavy duty, hermetically sealed compressors from Tecumseh / Emerson or equivalent. |
| Coolant | Ethylene Glycol of high Specific heat capacity. |
| Refrigerant | Non-CFC, Non-HCFC, eco-friendly refrigerant (R-134A). |
| Combi -Condenser | Skin Condenser on inner lining on external body + Air-cooled condenser with grooved aluminum fine for effective heat transfer. |
| Cooling coils | High purity (99.9%) copper cooling coils all around the inner cabinet. |
| **CONTROL SYSTEM: (Microprocessor based)** | |
| Controller | Microprocessor based temperature controller with digital display form DIXELL equivalent. |
| Sensors | Fast response, NTC thermistor sensor. |
| Alarms | Audio-visual alarms for temperature rise, low battery. |
| Safety | Fuses for Compressor and Temperature controller. |
| Stabilizer | Automatic Voltage Stabilizer with High/Low Voltage cut-off and time-delay restart. |
| Calibration | Temperature calibration traceable to National standards. (ETDC) |
| Back-up | Inverter circuit for continuous display and recording of temperature up to 10 - 12 hours with auto recharging, battery indication.<br>Auto Rechargeable Battery back-up for temperature display, chart recorder and alarm during power failure.(Even if UPS battery fails Temperature display controller and chart recorder should work on direct supply) |
| Temperature Recorder | Microprocessor based temperature chart recorder.<br>Built-in, circular, weekly (7-day) recorder.<br>Graphic chart provides permanent record of storage conditions.<br>50Nos of Graphic charts should be supplied with machine. |

**11-13. ICE LINE FREEZERS (Up to -22 $^{o}$C) (60 Liters /150 Liters/300 Liters)**

| S P E C I F I C A T I O N S | |
|---|---|
| **ICE LINED FREEZER (Up to -22°C ) – *(ILF) – CHEST TYPE*** | |
| **DESIGN:** | |
| Capacity | 150 Liters / 300 Liters |
| Temperature Holding Time | 24 hours from -20 °C to -5 °C (with 15 Kg of Load). |
| Inner Chamber | Made of Stainless steel AISI 304 grades, 18SWG, tig welded to the chamber. |
| Middle Chamber | Made of Galvanized Steel. |
| Outer Chamber | Made of CRCA sheets, 18SWG (1.0mm) finished with attractive two-scheme polyester powder coat. |
| Sub-doors | Made of Polyrexine of 40mm thickness. |
| Insulation | Polyurethane Foam insulation of 75mm thick between the middle and outer chamber |
| Closure | Durable magnetic rubber gaskets. |
| Main Door | PUF insulated, main door with inner FRP lining and lock. |
| Hot Line | Anti – condensation using hot line at the mouth of the cabinet. |
| Castors | Equipment mounted on Heavy duty swivel castors with brakes. |
| **REFRIGERATON: (Non-CFC, Non-HCFC)** | |
| Compressors | Heavy duty, hermetically sealed compressors from Tecumseh / Emerson or equivalent. |
| Coolant | Ethylene Glycol of high Specific heat capacity. |
| Refrigerant | Non-CFC, Non-HCFC, eco-friendly refrigerant (R-134a). |
| Combi -Condenser | Skin Condenser on inner lining on external body + Air-cooled condenser with grooved aluminum fins for effective heat transfer. |
| Cooling coils | High purity (99.9%) copper cooling coils all around the inner cabinet. |
| **CONTROL SYSTEM: (Microprocessor based)** | |
| Controller | Microprocessor based temperature controller with digital display form DIXELL equivalent |
| Sensors | Fast response, NTC thermistor sensor. |
| Alarms | Audio-visual alarms for temperature rise, low battery. |
| Safety | Fuses for Compressor and Temperature controller. |
| Stabilizer | Automatic Voltage Stabilizer with High/Low Voltage cut-off and time-delay restart. |
| Calibration | Temperature calibration traceable to National standards. (ETDC) |
| Back-up | Inverter circuit for continuous display and recording of temperature up to 10 - 12 hours with auto recharging, battery indication.<br>Auto Rechargeable Battery back-up for temperature display, chart recorder and alarm during power failure.(Even if UPS battery fails Temperature display controller and chart recorder should work on direct supply) |
| Temperature Recorder | Microprocessor based temperature chart recorder.<br>Built-in, circular, weekly (7-day) recorder.<br>Graphic chart provides permanent record of storage conditions.<br>50Nos of Graphic charts should be supplied with machine. |

**14-16. LOW FREEZERS VERTICAL TYPE (-15 °C to -20 $^{o}$C) (180 Liters, / 325 Liters/ 480 Liters)**

| | |
|---|---|
| Temperature Range | -15° C to –20° C |
| Capacity | 180 Liters / 325 Liters /480 Liters |
| Features | Both inner & outer chambers made of high quality stainless steel SS 304 grade<br>Double external doors for use convenience<br>Aesthetic luxurious finish, durable, rounded interior corners, durable & easy to clean<br>Microcontroller & digital display of temperature.<br>Superior refrigeration design with easy accessibility for service maintenance.<br>Smooth Castor wheels, front two with brakes. |

| | |
|---|---|
| | 3 No's of Thick Epoxy Plastic coated steel shelves, adjustable<br>CFC-free, R-134a refrigerant, environmentally friendly<br>CFC-free, environment friendly Cyclopentene foaming PUF insulation<br>Low noise, comfortable operation.<br>Energy-Saving design, effectively reduces electricity consumption<br>Self-closing door design<br>Door frame cold-bridge cut off design, can effectively prevent the refrigerating loss<br>Input power 220-240 Volts, supplied with power cord & plug.<br>Automatic Voltage Stabilizer with high and low voltage cut off. |
| Back-up | Inverter circuit for continuous display and recording of temperature up to 10 - 12 hours with auto recharging, battery indication.<br>Auto Rechargeable Battery back-up for temperature display, chart recorder and alarm during power failure.(Even if UPS battery fails Temperature display controller and chart recorder should work on direct supply) |
| Temperature Recorder | Microprocessor based temperature chart recorder.<br>Built-in, circular, weekly (7-day) recorder.<br>Graphic chart provides permanent record of storage conditions.<br>50Nos of Graphic charts should be supplied with machine. |

**17-19. DEEP FREEZER VERTICAL TYPE (-35 °C to – 40 °C) (180 Liters / 325 Liters /480 Liters)**

| | |
|---|---|
| Temperature Range | -35° C to – 40° C |
| Capacity | 180 Liters / 325 Liters /480 Liters |
| Features | Single Stage Refrigeration Systems<br>CFC-Free, environment friendly refrigerators R-404A<br>High Density, CFC –free, eco-friendly PUF insulation<br>Air cooled condenser aided by continuous rated motor fan<br>High purity copper coils and shelves made of SS-304 22swg<br>Outer Cabinet CRCA with durable polyester powder coat<br>Sub doors for inner compartment Made of SS304/Poly acrylic Sheet<br>Flat Latch<br>Microprocessor control with digital display of temperature with Password Protection<br>Temperature Sensors NTC<br>Smooth Castor wheels, front two with brakes.<br>Audio Visual Alarm for Temperature Deviation and power failure<br>Low battery and hot condenser lamp indicators<br>Safety interlock control between two stages of refrigerators and also High pressure safety switches<br>Chart recording and alarm during power failure<br>MCBs for Overload protection, Heavy duty castors , Two with brakes<br>Automatic voltage stabilizer with High/Low voltage cut-off& time-delay<br>CE certified by TUV-SUV<br>Battery back-up(Rechargeable )/UPS for temperature display Temperature<br>Auto Rechargeable Battery back-up for temperature display, chart recorder and alarm during power failure.(Even if UPS battery fails Temperature display controller and chart recorder should work on direct supply) |
| Temperature Recorder | Microprocessor based temperature chart recorder.<br>Built-in, circular, weekly (7-day) recorder.<br>Graphic chart provides permanent record of storage conditions.<br>50Nos of Graphic charts should be supplied with machine. |

**20 - 22. ULTRA LOW FREEZERS VERTICAL (UPRIGHT) TYPE (-40°C to -80°C) (180 Liters /325 Liters /450 Liters)**

| | |
|---|---|
| Temperature Range | Up to – 80° C |
| Capacity | 180 Liters / 325Liters /450 Liters |
| Features | Cascaded Refrigeration Systems<br>CFC-Free, environment friendly refrigerators R-508B(SUVA-95) and R-404A<br>Brazed Plate Heat Exchanger(BPHE)<br>High Density, CFC –free, eco-friendly PUF insulation<br>Air cooled condenser aided by continuous rated motor fan<br>High purity copper coils and shelves made of SS-304 22swg |

| | |
|---|---|
| | Outer Cabinet CRCA with durable polyester powder coat<br>Sub doors for inner compartment Made of SS304/Poly acrylic Sheet<br>Cam Action Lock<br>Microprocessor control with digital display of temperature with Password Protection<br>Temperature Sensors PT100/NTC<br>Audio Visual Alarm for Temperature Deviation and power failure<br>Low battery and hot condenser lamp indicators<br>Safety interlock control between two stages of refrigerators and also High pressure safety switches<br>MCBs for Overload protection, Heavy duty castors , Two with brakes<br>Automatic voltage stabilizer with High/Low voltage cut-off& time-delay<br>CE certified by TUV-SUV |
| | Circular 7-day Chart Recorder, Microprocessor based<br>Battery back-up(Rechargeable )/UPS for temperature display Temperature<br>Chart recording and alarm during power failure<br>Data logger with USB memory<br>Remote alarm contact<br>Coolant cassettes for temperature back up<br>Auto Rechargeable Battery back-up for temperature display. (Even if UPS battery fails Temperature display controller and chart recorder should work on direct supply) |
| Temperature Recorder | Microprocessor based temperature chart recorder.<br>Built-in, circular, weekly (7-day) recorder.<br>Graphic chart provides permanent record of storage conditions.<br>50Nos of Graphic charts should be supplied with machine. |

**23. PORTABLE REFRIGERATED BLOOD TRANSPORT BOX (NANO COOL, 50 Bags)**

| | |
|---|---|
| Temperature Range | Should be 4 °C with +/- 2 to +/- 8 °C Adjustment Portable Blood bank refrigerator (PBBR) should be suitable for 2 different temperature applications. i.e., as a Refrigerator for maintaining temp. in the range of +2°C to +6°C and also as a Freezer for temp. of -15°C to -18°C |
| Capacity | Should be approx. 80 Liters /(25 to 30 Bags) |
| Trays | The equipment should comes with 2 numbers of durable baskets |
| Design | Outer Cabinet made of durable pre-coated, galvanized sheets and interior made of non-rusting, No frost.<br>Non-CFC, environment-friendly PUF insulation. |
| Refrigeration | Low noise, Hermetically sealed compressor, Eco-friendly.<br>C-pentane, totally CFC free, refrigerant(R-134a)<br>Energy saving design. |
| Control System | Temperature display indicator should be provided.<br>Digital automatic temperature control with LED display.<br>Alternatively, an Inverter or UPS with automatic charging circuit can be used for running refrigerator (Nano cool). It should be useful for transportation of blood bags purposes. The equipment can run on the Battery of vehicles such as vans, buses or even cars while the vehicle is running. |

**24. PORTABLE DEEP FREEZER (ULTRA NANO COOL, (-40 °C, 90 Bags)**

| | |
|---|---|
| Temperature Range | Should be -40 °C Adjustment Portable Deep Freezer should be suitable for different temperature applications and also as a Freezer for temp. of -15°C to -20°C |
| Capacity | Should be approx. 90 Liters /(90 Bags) |
| Trays | The equipment should comes with 2 numbers of durable baskets |
| Design | Outer Cabinet made of durable pre-coated, galvanized sheets and interior made of non-rusting<br>High Density, CFC –free, eco-friendly PUF insulation |
| Refrigeration | Low noise, Hermetically sealed compressor<br>Single Stage Refrigeration Systems<br>CFC-Free, environment friendly refrigerators R-404A |
| Control System | Temperature display indicator should be provided.<br>Digital automatic temperature control with LED display.<br>Alternatively, an Inverter or UPS with automatic charging circuit can be used for |

| | |
|---|---|
| | running refrigerator (Nano cool). It should be useful for transportation of blood bags purposes. The equipment can run on the Battery of vehicles such as vans, buses or even cars while the vehicle is running. |

**25. TABLE TOP CENTRIFUGE WITH DIGITAL DISPLAY**

| **SPECIFICATIONS:** |
|---|
| Table top centrifuge should be useful in Blood Banks /(Laboratory) useful for centrifuge the test tube and to accommodate 15ml test tube |
| Should be table top for quick assessment and capable of holding 8 samples at a time with 15ml test tube |
| Should be supplied with swing out hand and rotation up to 4200 RPM speed approx. |
| It should indicate the digital display of RPM and time |
| Should have step less speed regulator |
| 0-60 minute digital countdown timer |
| Motor over heater protection and imbalance shut-off |
| Safety lid interlock feature to prevent cover opening during the centrifugation and emergency lid release |
| It should work on 200/270 volts 50/60Hz, Single phase |
| Device is produced by ISO Certified manufacturer. |
| Device is safety certified according CE or equivalent |

**26. REFRIGERATED CENTRIFUGE (8 Bags Slots)**

| **SPECIFICATIONS:** |
|---|
| Refrigerated centrifuge should be useful for separation of blood components like packed cells, platelet rich plasma, and platelet concentrate, Cryoprecipitate & Buffy Coat. It should have the provision for accommodate 8 blood bags capacity in one slot at a time for soft spin and hard spin. |
| Refrigerated centrifuge with suitable rotor head & buckets should accommodate/process minimum 8 blood bags of 450 ml capacity simultaneously. |
| It should have programmable memories with tamper proof facility. |
| Microprocessor Controlled rotor speed to within 10 RPM of set value. |
| Rotor head with swing out buckets, wind shielded. |
| Different Acceleration & Deceleration profiles should be available. |
| Should have temperature control system. |
| Temperature range 0 deg C to +40 deg C, Microprocessor controlled rotor temperature within +/- 1degC regardless of centrifuge speed. |
| Alarm audiovisual alarm for temperature deviations & power failure. |
| Manufacturer to indicate volume & capacity of plastic bucket. |
| Programmable time should be from 0-99 minutes with minimum revolution of 1Min. |
| Digital display of temperature, speed & time & other relevant parameters. |
| The Refrigerated centrifuge should have built in memory to store at least 20 data of centrifugation during the processing of Blood Components. The data from the centrifuge can be transferred to a PC computer using RS-232data interface. |
| Power Supply Requirement: - 220 - 240 Volts 50 Hz single phase |
| A line voltage corrector of appropriate rating giving all the specifications should be supplied along with the units. |
| Safety Key lock to prevent unauthorized use. |
| The equipment should have lockable castors. |
| Quality certificate ISO for medical devices. |
| Manufacturer should have a CE marked product. |
| WHO-GMP compliant and it should be supplied with recommended voltage servo stabilizer with machine. |

**27. WATER BATH**

| SPECIFICATIONS |
|---|
| Water bath should be is a table top should have minimum bath capacity of 10 / 15 liters. |
| Exterior Galvanized MS with white powder coated body and Interior cabinet made of AISI stainless steel inner structure SS 316. Supplied without racks, thermometer & lid. |
| There should be temperature control of 5 ºC above ambient to 90 ºC or better, with digital display of temperature, reliably thaw, and with accuracy: ± 0.5°C. |
| Unit must be fitted with microprocessor based digital temperature Indicator cum controller. |
| Circulation of water inside the closed chamber to get the uniform temperature, high quality rust and corrosion resistant stainless steel reservoir. |
| The unit must be provided with the compatible non-corrosive lid for internal chamber and the equipment must be leakage proof. |
| It should work on 115/240 V~ -50/60 Hz, in single phase. |
| Device is produced by ISO certified manufacturer |
| Preferably FDA/CE/BIS approved product. |
| Should have certificate of National Physical Laboratories (NPL). |

**28. PLASMA THAWING BATH**

| SPECIFICATIONS |
|---|
| Plasma thawing bath should be is a table top should have minimum bath capacity of 10/15 liters |
| Exterior Galvanized MS with white powder coated body and Interior cabinet made of AISI stainless steel inner structure SS 316 with 1mm thick. |
| Insulation should be 3” Thick CFC free PUF Insulation. |
| There should be temperature control of 4 ºC to 37ºC or 37 ºC, with digital display of temperature, reliably thaw. |
| Display should be set Value and Process Value. |
| Micro controller based temperature indicator cum controller with digital Display and PT 100 sensor. |
| Audio visual alarm if the temperature deviates from the preset temperature. |
| Refrigeration system should be hermetically sealed CFC free Emerson compressor. |
| Should be circulation Integrated pump for internal circulation. |
| It should be mounted on Castor wheels, MCB. |
| Device is produced by ISO and CE certification. |
| It should work on works on 230 V AC single phase 50Hz. |
| Safety features should 1. 180 Sec. compressor ‘ON’ delay timer to safe guard the compressor. 2. Password protected Keypad lock. |

**29. CRYO BATH**

| SPECIFICATIONS |
|---|
| Cryo bath should be sturdy in quality should have minimum bath capacity of approx. 12 liters |
| Exterior should be double walled galvanized MS powder coated body construction with inner S.S. argon welded one piece pot which avoids leakages, Interior cabinet made of AISI stainless steel inner structure SS 316 with mirror polish. |
| Insulation should be 3” Thick CFC free PUF Insulation |
| There should be temperature control of -35 ºC to 40 ºC or, with digital display of temperature with accuracy should be ± 0.2 ºC. |
| Display should be set Value and Process Value |
| Micro controller based temperature indicator cum controller with digital Display and PT 100 sensor. |
| Audio visual alarm if the temperature deviates from the preset temperature |
| S.S. Tubular heater (water immersion type) is used at bottom for better heat distribution. Compressor ON delay timer (2 min.) to safe guard the compressor. |
| Microprocessor based auto tuned PID controller with *CE* mark & dual display of set value & process value. |
| It should work on works on 230 V AC single phase 50Hz |
| Safety features should 1. 180 Sec. compressor ‘ON’ delay timer to safe guard the compressor. 2. Password |

| |
|---|
| protected Keypad lock. |
| Device is produced by ISO and CE certification. |

**30. INCUBATOR**

| **SPECIFICATIONS** |
|---|
| Incubator should be stainless steel inner structure. |
| Exterior Galvanized MS with white powder coated body and Interior cabinet made of AISI stainless steel inner structure SS 304. |
| There should be temperature control of 5 ºC C to 65ºC or better, with digital display of temperature |
| Unit must be fitted with microprocessor based digital temperature Indicator cum controller. |
| Digital control digital set and readout. |
| Should have forced convection uniform temperature control |
| Should maintain uniforms temperature in the chamber. |
| Inner tempered glass door with silicon packing |
| Should have easy sample view without door opening stainless steel chamber. |
| It should be safety and convenience over temperature and current protection. |
| Should have safety and adjustable sliding rack. |
| It should work on 200/240 V~ -50/60 Hz. |
| Device is produced by ISO Certified manufacturer. |
| Preferably FDA/CE/BIS approved product. |
| Should have certificate of National Physical Laboratories (NPL). |
| Approx. Dimension : 35x35x35 cm. |

**31. HOT AIR OVEN**

| **SPECIFICATIONS** |
|---|
| Temperature range should be 10 $^{o}$C above ambient to 250 $^{o}$C. |
| Exterior should be galvanized MS powder coated body construction with inner S.S. argon welded one piece pot which avoids leakages, Interior cabinet made of AISI stainless steel inner structure SS 304 with mirror polish. |
| Its thermostat sensitivity should be plus minus +/- 2% $^{o}$C. |
| Digital control digital set and readout. |
| Should have 2 removable chamber shelves |
| Its heating elements should be placed like ribs at the bottom and sides. |
| It should have adjustable air ventilator placed on of the side's. |
| Should have built in L shape thermometer. |
| Should have two indicators, thermostat & power supply. |
| It should work 210/270 volts 50/60Hz, Single phase. |
| Device is produced by ISO certified manufacturer. |
| Should have certificate of National Physical Laboratories (NPL). |
| Approx. Dimension : 35x35x35 Cm. |

**32. BLOOD BAG TUBE SEALER WITH BATTERY BACKUP**

| **SPECIFICATIONS** |
|---|
| Blood bag tube sealer with battery backup with dielectric radio frequency sealing system with solid state technology |
| Should be compatible with all type of Blood bag tubing's |
| Should have audio visual alarm for sealing process |
| Oscillation frequency should be 40.68 MHz |
| Maximum sealing time should not be more than 1.3 Secs |
| Power Frequency should be 50 Hz |

| |
|---|
| Power consumption should be 50 VA or less |
| Automatic sealing triggering |
| It should work 210/270 volts 50/60Hz, Single phase |
| Device is produced by ISO and CE certification |
| Should have certificate of National Physical Laboratories (NPL) |

**33. HAND HELD BLOOD BAG TUBE SEALER PORTABLE (WITH BATTERY BACKUP)**

| **SPECIFICATIONS** |
|---|
| Hand Held blood bag tube sealer portable type with battery backup with dielectric radio frequency sealing system with solid state technology |
| Should be compatible with all type of Blood bag tubing's |
| Should have audio visual alarm for sealing process |
| Oscillation frequency should be 40.68 MHz |
| Maximum sealing time should not be more than 1.3 Secs |
| Power Frequency should be 50 Hz |
| Power consumption should be 50 VA or less |
| Automatic sealing triggering |
| It should work 210/270 volts 50/60Hz, Single phase |
| Device is produced by ISO and CE certification |
| Should have certificate of National Physical Laboratories (NPL) |

**34. BLOOD BAG TUBE STRIPPER (MANUAL)**

| **SPECIFICATIONS** |
|---|
| Stripper should be made of Stainless Steel (SS), It should strip the blood accurately from the tube |
| Large rollers with needle bearings inside revolve on robust stainless steel axles. the body is light weight cast aluminum |
| It should be fabricated by diligent workforce with top quality material. |
| Should absorbs the shock of repeated dropping and stands up to rough treatment |
| Device is produced by ISO and CE certification |
| Hand Held blood bag tube sealer portable type with battery backup with dielectric radio frequency sealing system with solid state technology |
| Should be compatible with all type of Blood bag tubing's |

**35. BLOOD BAG WEIGHING SCALE**

| **SPECIFICATIONS** |
|---|
| Product should have ABS molded body, with stainless steel weighing pan. |
| Display parameter should be weight and volume of blood components of Plasma, Platelet and RBC |
| Should have facility for auto calibration. |
| Should have over load indication |
| Should have LED/LCD display of Weight and Volume with accuracy of ± 1 ml/grm. |
| It should work 210/270 volts 50/60Hz, Single phase |
| Device is produced by ISO and CE certification |
| Along with equipments user manual with calibration test report should be supplied |

**36. BLOOD BAG WEIGHING SCALE DOUBLE PAN**

| **SPECIFICATIONS** |
|---|
| Product should have ABS molded body, with stainless steel weighing pan, with micro controller based controller |
| Blood bag weighing scale with double pan should give accurate values every time |
| Accuracy and Readability should be 1ml/1g |
| Display parameter should be weight and volume of blood components of Plasma, Platelet and RBC |

| |
|---|
| Should have facility for auto calibration. |
| Should have over load indication |
| Should have LED/LCD display of Weight and Volume with accuracy of ± 1 ml/grm. |
| It should work 210/270 volts 50/60Hz, Single phase |
| Device is produced by ISO and CE certification |
| Along with equipments user manual with calibration test report should be supplied |

**37. PLASMA EXTRACTOR (MANUAL)**

| **SPECIFICATIONS** |
|---|
| Manual Plasma Expresser should be rust free and robust system. |
| Should have Acrylic compression plate with spring action designed to exert uniform pressure on blood bag. |
| Cabinet should be powder coated with provision for holding the bag in position |
| The unit shall be capable of operating continuously in ambient temperature of 10° - 40° C and relative humidity of 15 - 90% |
| Product should be preferably FDA/CE/BIS approved. |
| Manufacturer should have ISO certification for quality standards. |

**38. PLASMA EXTRACTOR (ELECTRICAL)**

| **SPECIFICATIONS** |
|---|
| Should be compatible with all multiple blood bags |
| Should automatically clamp and seal the blood bag tube |
| Microprocessor controlled through regulator with mechanism to reduce layer disturbance. |
| Alarm on completion of plasma separation. |
| Automatic & manual clamp modes. |
| Electronic sensor to ensure strong & accurate clamping. |
| Leak free clamping to ensure plasma separation without red cell contamination. |
| The unit shall be capable of operating continuously in ambient temperature of 10° - 40° C and relative humidity of 15 - 90 %. |
| Power input should be 220 - 240V / 50 Hz AC Single phase fitted with appropriate Indian plugs. |
| Product should be preferably FDA/CE/BIS approved. |
| Manufacturer should have ISO certification for quality standards. |

**39. LAMINAR AIR FLOW BENCH TYPE FOR BLOOD BANK (SIZE 4FEET x 2 FEET)**

| **SPECIFICATIONS:** |
|---|
| Laminar air flow bench Cabinet is a fully enclosed bench designed.Size should be 3Feet X 2Feet |
| Should made up of mild steel powder coated steel, it will be robust construction |
| Filtration Efficiency: HEPA Filter (99.99% at 0.3µ l) |
| Should have low Cabinet fitted with UV - C germicidal lamp |
| Front Polycarbonate door |
| Should have back light display, air velocity control. |
| Filter replacement warning lamp should be given |
| It should have oil leveling tube. |
| Should work 115/240 V~ -50/60 Hz |
| Device is produced by ISO certified manufacturer. |

**40 - 42. BLOOD DONOR COUCH**

| **SPECIFICATIONS:** | | | |
|---|---|---|---|
| **FEATURES** | **Single Motor** | **Double Motor** | **Triple Motor** |
| Number of Motors | 1 | 2 | 3 |
| Lifting Capacity | NA | 180 kg | 180 kg |
| Full length | 205 cms | 205 cms | 205 cms |
| Seat length | 58 cms | 58 cms | 58 cms |
| Seat width | 65 cms | 65 cms | 65 cms |
| Backrest length | 85 cms | 85 cms | 85 cms |
| Leg rest length | 60 cms | 60 cms | 60 cms |
| Arm rest width | 19 cms | 19 cms | 19 cms |
| Back rest control | Yes | Yes | Yes |
| Leg rest Control | NA | NA | Yes |
| Height Control | NA | Yes | Yes |
| Flat Bed Position | NA | NA | Yes |
| Arm rest height adjustment | Yes | Yes | Yes |
| Trendelenburg position | Yes | Yes | Yes |
| Time to attain Trendelenburg position | 18-20 secs | 18-20 secs | 18-20 secs |
| Power | 220V Single Phase AC | 220V Single Phase AC | 220V Single Phase AC |
| Wheels | Mobile, with 2 lockable frontal castor wheels | Mobile, with 2 lockable frontal castor wheels | Mobile, with 2 lockable frontal castor wheels |
| **Accessories:** | | | |
| Adjustable, Rotatable BCM Holder | | | |
| Two stacked Trays | | | |
| IV Line holder, Rotatable | | | |
| Additional inbuilt power outlets | | | |

**43. PORTABLE DONOR COUCH**

| **SPECIFICATIONS:** |
|---|
| Should be portable and easy to use at outdoor locations |
| Should have a weight bearing capacity of atleast 150 Kgs |
| Should have full length >= 205 cms, seat length >= 58 cms and seat width >= 65 cms |
| Should have back rest length >= 85 cms, leg rest length >= 60 cms and arm rest width >=19 cms |
| Should be adjustable from arm chair position to recliner position for blood donation |
| Should have provision for locking in a particular position |
| Should have atleast 3 trays/drawers for keeping the equipments/consumables etc. |
| Should meet the National/International standards laid down such as ISO Certified manufacturer. |

**44. DENTAL CHAIR**

| **SPECIFICATIONS:** |
|---|
| Pantographic Dental chair with electrically operated seat and backrest using imported linear actuators. |
| Chair up & down movement |
| Backrest up & down movement |
| Automatic chair zero position switches on instrument tray |
| Chair mount unit with instrument tray up & down movement with breaking facility |
| Brake releasing button on the tray handle |
| 3 way syringe using straight tubing |

| | |
|---|---|
| Air motor controls including straight tubing upto coupling | |
| Micro motor speed control circuit only. | |
| Single floor switch with changeover facility for air motor or micro motor. | |
| Large X – ray viewer mounted on instrument tray. | |
| SS tray which can be detached for autoclaving. | |
| Rectangle pressure gauge on the tray. | |
| Dental light with imported reflector using halogen bulb with two intensity | |
| Ceramic/glass Cuspidor and Tumbler Filler with electrical valves | |
| Booster tank for water | |
| Doctor's stool with pneumatic gas spring. | |
| Accessories with the main equipment | Dental Piezo Scaler<br>Dental Micro Motor<br>Dental Micro Motor Straight hand piece<br>Dental Airotor hand piece (standard)<br>Dental Air Compressor (Oil Free)<br>Dental Micro Motor contra hand piece<br>Dental Drain ½ HP Motor<br>Dental Suction ¼ HP Motor |

**45. BLOOD BANK EQUIPMENTS ACCESSORIES**

| | |
|---|---|
| Accessories for Blood bank Equipments | a. Temperature Chart recorder<br>b. Temperature Chart recorder papers<br>c. Temperature Chart Pen<br>d. Blood bank refrigerator battery |

# 2. NEONATAL EQUIPMENTS

**1. OPEN CARE WARMER SYSTEM BASIC**

| **SPECIFICATIONS:** | |
|---|---|
| Heater Element | Quartz Encapsulated 600 watts heater with parabolic Reflector. |
| Heater Output | 0 to 100%. 20% increment. |
| Probe | Thermistor based interchangeable probe. |
| Range | 25º C to 40º C |
| Accuracy | + 0.2º C |
| Resolution | 0.1º C |
| Power | 180V to 250V at 50Hz 700W |
| Temperature Display | Bright 1" numerical LED display for Infant Temperature. |
| | Bright 0.5" numerical LED display for Set Temperature. |
| Safety | Automatic cutoff of heater at 40º C Key Lock facility. |
| Heater Module Swivel | + 90º |
| Mattress Size | 800 X 500mm (2" THICK). |
| Alarms | High Temperature, Low Temperature, Temperature probe failure, System failure, Heater failure |
| Coating | Epoxy/Powder coated body for scratch and rust Prevention. |
| Should be provided with an instrument tray | |
| Should have a provision for X-Ray cartridge placement below the mattress of the infant to take X-Ray without disturbing the infant | |
| The heater unit should swivel away to accommodate the X ray unit above the bed of the infant. | |
| Should be provided with an IV pole and should have sufficient strength and diameter to carry 2 infusion pumps. | |
| Should have one tray and a utility drawer. | |

| |
|---|
| Should have halogen based examination lamp and should have a provision on either side as an accessory. |
| Device is produced by ISO certified manufacturer. |
| Device is safety certified according CE certified or equivalent. |

**2. OPEN CARE WARMERSYSTEM REGULAR**

| **SPECIFICATIONS:** |
|---|
| Open care warmer system: warmer, with fixed height, trolley, drawers, 2 No's side tray for mounting accessories, 2 IV pole stand with 4 hooks attached. |
| Mobile newborn resuscitation table with fixed-height radiant warmer |
| Antistatic castors, 2 with breaks |
| Table surface with mattress with infant head/shoulder support |
| Mattress-padding: foam density approx. 21 - 25 kg/m3 |
| Mattress cover: removable with zipper, waterproof, washable, resistant to cleaning with chlorine based solution and flame retardant |
| Side boards transparent acryl, drop down and lockable |
| Under table 2 storage drawers |
| 2 side trays for mounting of accessories like pulse oxymeter etc. |
| Hood suspended above the table integrates heating element and overhead light |
| Overhead light: 2 x 50W halogen spot, with dimming function |
| Heating element: emitter with parabolic reflector and protected |
| Control unit allows air and skin temperature preset (LED indicator) and drives radiant heater output (servo and manual) |
| Integrated timer: 1 to 59 min, with count-up and count-down feature. |
| Temperature range, skin: 34°C to 38°C (user pre-settable) |
| Monitoring of skin temperature by means of sensor, range: 30°C to 42°C |
| Accuracy: + 0.2º C |
| Resolution: 0.1º C |
| Heater output: 0 to 100% in increments of 5% |
| Control unit: audiovisual alarms according to timer and temperature presets avoiding overheating |
| Display reports systems errors, temperature sensor failure. |
| Power requirement: 220 V/50 Hz |
| Power consumption: 800 W |
| Device is produced by ISO certified manufacturer |
| Device is safety certified according CE certified or equivalent. |

**3. OPEN CARE WARMER SYSTEM SPECIAL TYPE WITH EXTRA FITTING**

| **SPECIFICATIONS:** |
|---|
| Open care system: Radiant warmer, fixed height, with trolley, drawers, O2-provision and 2 Nos of filled O2-Cylinders B-type, IV stand infusion double hook two poles attached. |
| Mobile newborn resuscitation table with fixed-height radiant warmer |
| Antistatic castors, 2 with breaks |
| Table surface with mattress with infant head/shoulder support |
| Mattress-padding: foam density approx. 21 - 25 kg/m3 |
| Mattress cover: removable with zipper, waterproof, washable, resistant to cleaning with chlorine based solution and flame retardant |
| Side boards transparent acryl, drop down and lockable |
| Under table 2 storage drawers minimum |
| Side rails allow for mounting of accessories |
| Hood suspended above the table integrates heating element and overhead light |
| Overhead light: 2 x 50W halogen spot, with dimming function |

| |
|---|
| Integrated support for 2 B - Type oxygen cylinders |
| Control unit has flow meter and displays pressure |
| Heating element: emitter with parabolic reflector and protected |
| Control unit allows air and skin temperature preset (LED indicator) and drives radiant heater output (servo and manual) |
| Integrated timer: 1 to 59 min, with count-up and count-down feature |
| Temperature range, skin: 34 to 38°C (user pre-settable) |
| Monitoring of skin temperature by means of sensor, range: 30 to 42 ºC |
| Accuracy: + 0.2º C |
| Resolution: 0.1º C |
| Heater output: 0 to 100% in increments of 5% |
| Control unit: audiovisual alarms according to timer and temperature presets avoiding overheating |
| Display reports systems errors, sensor failure. |
| Power requirement: 220 V/50 Hz |
| Power consumption: 800 W. |
| Device is produced by ISO certified manufacturer. |
| Device is safety certified according CE certified or equivalent. |

**4. SINGLE SURFACE LED PHOTOTHERAPY UNIT**

| **SPECIFICATIONS:** |
|---|
| The specification for top unit should confirm to the following |
| Heavy sturdy mobile stand phototherapy unit. |
| Antistatic castors, with breaks. |
| Light unit should be made of easily cleanable plastic material. |
| Lifetime of LED's should be minimum 50,000 hours. |
| Spectral Irradiance of minimum 35 – 40μW·cm$^{-2}$·nm$^{-1}$ at 35 cm distance between bed and light unit. |
| Wavelength: 430 – 490 nm, and should be free from UV and IR radiation. |
| Effective surface area should be at least 250 *500 mm within a irradiance ratio of 0.4 ( min/max irradiance). |
| Digital Timer for monitoring therapy hours (resettable) & lamp usage hours (non resettable). |
| Smooth Height adjustment mechanism with adjustable height |
| Smooth light unit tilting mechanism. |
| Minimum height should be at least 1100 ± 20 mm from the floor to use near the mother bed. |
| Maximum height should be at least 1600 ± 20 mm from the floor to use with the incubator. |
| Electric supply: Universal Power supply 100V – 240V AC, 50Hz to 60Hz with a power rating of 21W (Max). |
| Coating: Epoxy/powder coated body for scratch and rust prevention and PU (Poly Urethane) coating for plastic. |
| Mobility: Three castors; two rear castors provided with brakes. |
| The base of the unit should be such that it will go beneath any Incubator/bed/trolley, with minimum of 100 mm floor clearance. |
| The unit should have an international CE approval. |
| The manufacturer should be ISO 9001:2008 and ISO 13485:2003 certified. |

**5. LED PHOTOTHERAPY UNIT DOUBLE SURFACE DETACHABLE TYPE**

| **SPECIFICATIONS:** |
|---|
| Heavy sturdy mobile stand phototherapy unit |
| Antistatic castors, with breaks |
| Single surface / Double surface, detachable LED (Light Emitting Diode), surface size, approx: 0.50 x 0.25 m |
| Head height adjustable, approx: 1.10 to 1.60 m |
| Single head, surface size, approx: 36x 58 cm |

| |
|---|
| Irradiance at skin level > 40uW/cm2/nm at 30 cm from light unit. |
| Wavelength: 400 to 500 nm, with highest intensity between 450 to 465 mm. |
| Integrated cumulative hour timer for unit usages & resettable therapy time. |
| Power requirement: 230 V/50 Hz |
| Power consumption: <60 W |
| LED's should fully protected. |
| Effective Light Foot Print of 500 x 250 mm to 35 mm from the light unit |
| Time display should be bright clear visible |
| Irradiance ratio ≥ 0.4 within the effective foot print |
| LED Guarantee should be for 30000 Hours. |
| Device is produced by ISO certified manufacturer. |
| Device is safety certified according CE certified or equivalent. |

**6. PHOTOTHERAPY UNIT (CFL)**

| **SPECIFICATIONS:** | |
|---|---|
| Irradiance | Atleast 20 µW/cm2 /nm at 45cm from the lamp at 230V (430 – 480 nm-new lamps). |
| Lamp Type | Energy saving CFL Lamp (Blue) – 6 Numbers |
| Height adjustable | A range of 1100 +/- 20 mm to 1560+/- 20 mm |
| Tilt Adjustment | maximum of 90 degree on either side |
| Time totaliser | Mechanical (compact). |
| Electric supply | 190 – 240V, 50Hz, 5A |
| Power rating | Maximum – 120 W |
| Weight | Maximum – 18 Kg |
| Coating | Epoxi / powder coated body for scratch and rust prevention and PU (Poly Uratane) coating for plastic |
| Should conform to IEC-60601-1 electrical safety standards. | |
| Should have the lamp unit made with light weight plastic with metallic ventilation cover for efficient heat dissipation. | |
| Should be supplied with eye mask – 6 Nos with each unit. | |
| Should have louver under the Lamp unit to prevent stray radiation in caregiver space | |
| The unit should be mobile with 3 swivel castors. The base of the unit should be T-Shaped and should go beneath an Incubator/bed/trolley with minimum of 8-cm floor clearance. | |
| Should have the ballasts (chokes) located at the base, to decrease the heat generated at the lamp unit and to increase stability. | |
| Preferably the system should have international (FDA/CE/IEC) approval. | |

**7. RADIANT WARMER**

| **SPECIFICATIONS:** | |
|---|---|
| Quartz based infrared radiant warmer used for clinical management of neonatal hypothermia. The equipment should be operated in servo or manual modes. | |
| Working temperature range | 25.4 to 39º C |
| Accuracy | +/- 0.2º C |
| Resolution | 0.1º C |
| Accuracy of probe interchangeability | +/- 0.2º C |
| Voltage | 180 to 250 V at 50 Hz |
| Power | 700 Watts |
| Heating element | Quartz encapsulated heater with parabolic reflector |
| Temperature display | Bright numerical LED display 1 inch |
| Alarms | High temperature, Low Temperature, Temperature probe failure, System Failure, Heater failure, Time out alarm (Manual mode). |

| | |
|---|---|
| Coating | Epoxy/Powder coated body for scratch and rust prevention |
| Should confirm to IEC-601 safety standard for medical equipment | |
| Should have microprocessor based electronic system that performs periodical self-diagnosis. | |
| Should have built in automatic diagnostics software to check the internal working of the equipment periodically | |
| Halogen based observation light should be provided for observing the baby. | |
| Should be height adjustable for different types of bed by the technician. | |
| The unit should be mobile with 3 swivel castors fixed to a sturdy Y - shaped based to be easily fit to any type of bed available. | |
| Should have an Integral IV pole | |
| Should have a battery back-up to show baby temperature during power failure. | |
| Device is produced by ISO certified manufacturer | |
| Device is safety certified according CE certified or equivalent. | |
| Optional Accessories | **Bassinet**<br>Height – 100cm<br>Length – 75 cm<br>Width – 51 cm<br>**Mattress**<br>Width – 51 cm<br>Length – 75 cm<br>Heigth – 4 cm<br>Removable and washable form bed<br>Bed tilting facility (-/+ 8 deg)<br>4 Swivel castors (2 with brake and 2 without brakes)<br>Utility shelf attached. |

**8. NEONATAL INTENSIVE CARE INCUBATORS**

| **SPECIFICATIONS:** |
|---|
| Should confirm to IEC –60601-1 electrical safety standard for Medical equipment |
| Should be a Servo Controlled Incubator with a rise time of not more than 45 minutes and a temperature stability of +/- 0.2 deg C at steady state. |
| Should have the large baby access doors at both sides. |
| The double wall incubator canopy should be largest at least Length 80 cms, Width 50 cms, and Height 45 cms to accommodate tubing and oxygen hood. |
| Should have 4 elbow operated access ports. Should also have one iris port for ventilator tubing and easy head access. |
| Working temperature range : 30 to 37 $^{o}$C (Patient display mode)<br>: 30 to 37 $^{o}$ C (Air set mode) |
| Accuracy : +/- 0.2 $^{o}$ C |
| Resolution : 0.1$^{o}$.C |
| Accuracy of probe Interchangeability : +/- 0.2 $^{o}$C |
| Should have at least 4 small ports for IV tube and one big iris port hole for other probe sensor cables. |
| Should be able to tilt the baby bed to 10 deg on either side without opening the canopy/doors of the incubator. |
| The mattress and its internal airflow path should be easily disassembled for cleaning. |
| The internal of the incubator should be moulded, rounded without any crevices for easy cleaning and inhibiting bacterial growth. |
| Should have Audio & Visual display of alarm conditions. |
| The water level should be visible from side of the incubator and should be able to refill water without opening the incubator. |
| Should have two temperature probes for patient skin temperature and auxillary temperature measurement. |
| Baby bed should be with drawable and rotatable from both the sides. |
| Unit should be height adjustable. |
| Should have humidity set range from 40 to 90% |
| Should have trend display facility for temperature, humidity and oxygen. |

| |
|---|
| Should have provided with x-ray tray holder |
| Should have optional in-built baby weighing scale to measure the baby weight without disturbing baby. |
| Should have optional oxygen saturation set range from 21 to 60% |
| **Controller Specification:**<br>***Modes of Operation***: Air Mode<br>Baby Mode (Servo Mode) |
| ***Temperature Measurement***:<br>Range<br>• Air Temperature : 10 to 40 degrees Celsius<br>• Skin Temperature : 20 to 42 degrees Celsius<br>• Accuracy : +/- 0.2 degrees Celsius<br>• Resolution : 0.1 degrees Celsius<br>• Interchangeability : +/- 0.1 degrees Celsius |
| **Display:**<br>Should have colour display with touch control for Air temperature, patient temperature and Set temperature<br>Should display heater power in digital forms<br>Should have alarm mute facility and alarm tone differentiation for different parameters. |
| **Temperature Control Range** :<br>Air Mode : 30 to 39 deg Cel with a provision to override above 37 deg Cel<br>Servo Mode : 35 to 38 deg Cel. |
| **Humidity :** Setting range 40 - 90%<br>Display range 0 - 100% |
| **Oxygen control** Setting range 21 - 65% |
| Display range 21 - 100% |
| **Temperature Alarms:**<br>Baby Set Temperature:+/-0.5 deg. Cel<br>Air Set Temperature :+/-0.5 deg. Cel<br>• High/Low Air Temperature<br>• Air Probe Failure<br>• Skin Probe Failure/Disconnect<br>• Air Flow Failure/ Disconnect<br>• Oxygen low / high<br>• Humidity low / high |
| **Systems Failure Alarms:**<br>• Fan failure<br>• Power Failure<br>• Air Heater Failure<br>• Door opening<br>• Water reservoir empty<br>• Water heater failure |
| (Automatic heater should be cutoff if the temperature inside the incubator exceeds 39.3 deg C) |
| Should have an override facility to increase the temperature more than 37 deg Cel in the Incubator. |
| Should use low noise blower for circulation of air inside the incubator less than 60 dB |
| Should be provided with a big drawer for keeping essentials for the baby and 3 small trays |
| Should be provided with height adjustable IV stand |
| Should have goose neck examination lamp for flexible examination. |
| **Coating**: Epoxy/Powder coated body for scratch and rust prevention. |
| Should be supplied by an ISO 9001: 2008 & ISO 13485 certified manufacturer<br>Should be CE Certified. |

**9. TRANSPORT INCUBATOR**

| **SPECIFICATIONS** | |
|---|---|
| Working temperature range | : 30 to 37 $^{o}$ C (Patient display mode)<br>: 30 to 37 $^{o}$ C (Air set mode) |
| Accuracy | : +/- 0.2 $^{o}$ C |
| Resolution | : 0.1$^{o}$.C |
| Accuracy of probe Interchangeability | : +/- 0.2 $^{o}$C |
| Need for probe calibration | : Not required |
| Temperature Probe | : Thermistor based interchangeable probe |
| Alarms | : High & Low temperature, System Failure, Heater Failure, Power failure, Battery low, Probe failure. Fan failure. |
| Voltage | : 90 to 240 V at 50/60 Hz |
| Power | : 500 Watts maximum |
| Heating element | : Flat heaters |
| Temperature display | : Bright numerical LED display |
| Messages and alarms | : LCD display |
| Battery backup time | : 2 hours |
| Should have Temperature rise time | : 45 mins per 10 $^{o}$ C |
| Should come with collapsible trolley for easy movement of equipment into the ambulance | |
| Should have inbuilt battery charger and battery should be part of equipment. | |
| Should have provision to attach 2 light weight oxygen cylinder ( 5 litre Aluminum cylinders) with pin index mechanism | |
| Should have two Elbow operateable ports. | |
| Should have front access door | |
| Should have head access door to pullout the bed to access the head of the baby during transportation. | |
| Should have one iris port and 4 tubing ports | |
| 3 disposable infant restraint straps | |
| Should have an Indicator for power ON. | |
| Should have an Indicator for heater ON. | |
| Equipment weight should be 30kg (without cylinders) | |
| Maximum Size (L x W x H) cm should be with pole of 87 x 56 x 76 cm & without pole - 87 x 56 x 50 cm | |
| Should have four wheels, at least 2 with brakes. | |
| Should have IV stand | |
| Should have goose neck examination lamp for flexible examination. | |
| **Coating** : Epoxy/Powder coated body for scratch and rust prevention<br>Should be supplied from a manufacturing company having ISO 9001:2008 and ISO 13485.<br>Should have optional Electrical suction. | |

**10. INFANT BASSINET - HNB**

| **SPECIFICATIONS:** |
|---|
| Should have removable baby bed. |
| The infant cot should be made of single mould unbreakable polycarbonate material. |
| Infant cot should be easily removable for cleaning and should have holes in the bottom for draining of water & fluids. |
| Length of the infant cot should be 765 mm. |
| Width of the infant cot should be 400 mm |
| Depth of the infant cot should be 200 mm |
| Should have washable mattress made of high quality PU Foam. |
| Foam bed density should have minimum 26 Kg/m3 . |
| Baby bed should be put in trendelenburg position. |

| |
|---|
| Utility tray should be easily removable for cleaning and should have swivel facility. |
| Should have baby name plate holder. |
| Should have 4” Swivel castors (minimum 2 with brakes). |
| Coating should be of epoxy/powder for scratch resistance & rust protection. |
| The system should have an international (FDA/CE/IEC) approval. |
| Should be supplied by an ISO 9001:2008 & ISO13485 certified manufacturer. |

**11. CPAP MACHINE**

| |
|---|
| **SPECIFICATIONS:** |
| **CONTINUOUS POSITIVE AIR WAY PRESSURE** |
| Peak end expiratory pressure (peep) should be generated using flow of Gas (flow based CPAP). |
| Should have a LCD based graphic display to show<br>• The measured pressure<br>• High & Low pressure limits.<br>• Oxygen Concentration set value<br>• Oxygen Concentration measured value<br>• Flow rate in LPM<br>• Infant breathing movement indication |
| Accuracy & Resolution of Measured Parameter should be atleast. |
| **For Pressure:**<br>• Should have an Accuracy : ± 1 cm H2O<br>• Should have a Resolution : 1cm H2O<br>• Max Pressure Settable should be : 20 cm H2O<br>• Should be displayed as a Bar graph |
| **For Flow:**<br>• Should have an Accuracy : ± 0.5 LPM<br>• Should have a Resolution : 0.1 LPM<br>• Max Flow Setting should be : 0 to 15 LPM<br>• Should be displayed as a Bar graph |
| **The following Alarm functions should be present:**<br>• Oxygen set value change (Low (or) High)<br>• Low or High Pressure<br>• Apnea alarm for 5 to 25 secs<br>• Air input fail<br>• Oxygen input fail<br>• Mute-alarm indication<br>• Battery low<br>• Power failure |
| Should have electronic blender to mix Air and Oxygen |
| Should be provided with water trap in air inlet connection |
| Should be able to set oxygen concentration using soft touch (digital) key |
| Should be able to set flow rate using soft touch (digital) key |
| Should be able to set Alarm automatically by press of a single key. |
| Should have visual indictor for alarm on the top of the head unit |
| The pressure generator near the baby should be auto clavable. |
| PEEP should be sensed as close to the delivery point as possible. (Eg. at the generator near the nose of the baby) |
| The unit should work on 230V direct supply and on battery for at least 1 hour. |
| Should be mounted on mobile stand for ease of moving. |
| Should have height adjustable IV pole with 2 hooks |
| Should have mounting holder for humidifier |
| Should be provided with heated wire humidifier |
| Should be provided with 3 sets of disposable circuits for flow driven CPAP |

| |
|---|
| Should be provided with 1 no. of resuable pressure generator flow driven CPAP |
| Should be provided with disposable bonnets in sizes of small, medium, large (atleast 3 in each size) for flow driven CPAP |
| Should be provided with disposable nasal prongs in sizes of small, medium and large (at least 3 in each size) for flow driven CPAP |
| Should compatible with Bubble CPAP. |
| Equipment should also work without Oxygen input. |
| Should work on the centralized oxygen and air. |
| The manufacturer should be ISO 9001:2008 and ISO 13485:2003 certified. |
| Should have CE certification. |

**12. ELECTRONIC BABY WEIGHING SCALE (DIGITAL) 10 kg <10g>**

| **SPECIFICATIONS:** |
|---|
| Electronic scale for weighing new born babies. |
| Measuring range 0 to approx 10 kg |
| Minimum graduation: 10gram |
| With tare function. |
| On switch and auto-off. |
| Auto-calibration with each switch-on. |
| Large LED display readable in low light working situations, display cover durable plastic. |
| Display in kg and lbs, easy switch between kg and lbs. |
| Reading time max 5 seconds. |
| Zero weighing adjustment. |
| Freeze reading feature. |
| Smooth surface/finishing allows for easy cleaning/disinfection. |
| All vital parts made of rust proof materials. |
| Horizontal leveling with height adjustable feet. |
| Splash proof and shock resistant light-weight body. |
| Power requirements: 115-240 V/50 Hz. |
| Device is produced by ISO 9001 certified manufacturer. |
| Device is safety certified according CE or equivalent. |

**13. BABY WARMER DURING TRANSPORTATION (EMBRACE WARMER).**

| **SPECIFICATIONS:** |
|---|
| An easy to use precession heating system preferably electronically controlled with indicators of overheating / under heating. |
| Specially designed to support/reinforce the new-born during transport, which is bacteria resistant, skin safe, and easy to clean. (Preferably size should be between 520mm x 250mm to 600mm x 300mm). |
| Baby should be comfortable and safe away from electricity, hard surfaces or projections. |
| A pouch of phase change Material (PCM) which maintains a temperature of ~37 degree Celsius for at least 4 hours. Size should be between 380mm x 220mm to 400mm x 250mm. (PCM should be certified nontoxic and nonhazardous. Also should ensure safety even in case of accidental damage to product). |
| Weight of all components should be less than 5kg. Weight of baby-carrying and warming components should be less than 2 kg to allow transport and usage. |
| Operating Conditions: Temperature: 10 – 34deg C &<br>Humidity: 30 – 75% RH. |
| Operating Voltage: 230V/50Hz. |
| It should be either US FDA approved or CE certified from notified body. |

# 3. HOSPITAL FURNITURE & EQUIPMENTS

### 1. HOSPITAL BED / FOWLER BED PLAIN

| SPECIFICATIONS: |
|---|
| NET Fowler beds are ergonomically designed / unequal height with vertical tube support |
| Uniformly Perforated CRCA Sheet Top made up of Oval perforated CRCA MS Sheet 18G |
| Frame made of Strong Rectangular CRCA pipe 18G |
| Tubular head & foot bows made of 18G |
| Steel Tube thickness - 2 mm |
| Bed Mounted on 4" Dia Castor. 2 with brakes. |
| Holder for Urine bag. |
| Four Locations for IV Rod. |
| Overall Approx Size: 2090L x 910W x 600H MM. |
| Finish: Pretreated & Epoxy Powder Coated |
| S.S. Telescopic I.V. Rod |
| S.S. Collapsible Railing |
| Mattress: Foam Mattress Plain, thickness 4" (10cm) |
| Anti Bedsore Mattress |
| It is covered with rexine closed with zip at one end |
| Replaces the foul air & reduce growth of microbes. |
| It is used on Plain Hospital Bed |

### 2. HOSPITAL FOWLER BED TWO FOLD / TWO FUNCTION MANUAL

| SPECIFICATIONS: |
|---|
| Fowler Bed with mechanically operated back rest and knee rest by super-smooth crank mechanism. |
| Stainless Steel Head and Foot Panel with laminated board. |
| Uniformly Perforated CRCA Sheet Top made up of Oval perforated CRCA MS Sheet 18G |
| Frame made of Strong Rectangular CRCA pipe 18G |
| Height, Back – Rest, Knee rest, Trendelenburg/Reverse Trendelenburg positions by Screw System. |
| S.S. Bows with Laminated Panels at Head and Foot End |
| Four Revolving corner buffers |
| S.S. Swing Away Type Side Railing, One S.S. I.V. Rod Height Adjustable, Optional Collapsible Railing |
| Collapsible side railings. (Top bar Aluminium, Vertical bars SS, Bottom pipe epoxy) |
| Back rest and knee rest are maneuvered smoothly by separate screw mechanism (hand crank) from the foot end. |
| Epoxy coated mild steel frame work and 2 section perforated top. |
| Provision for I.V. Rod on both sides of the bed. |
| 125mm dia noiseless castors (all with individual brakes) |
| Size: L 2190mm × W 980mm × H 500mm. |
| Freight saving knock-down construction. |
| Mattress: Foam Mattress Plain, thickness 4" (10cm) |
| Foam mattress comes in 4 sections |
| Anti Bedsore Mattress |
| It is covered with rexine closed with zip at one end |
| Replaces the foul air & reduce growth of microbes. |
| It is used on Plain Hospital Bed |

### 3. HOSPITAL BED THREE, FOUR FOLD / THREE, FOUR FUNCTION MANUAL

| |
|---|
| Fowler Bed with mechanically operated back rest and knee rest by super-smooth crank mechanism. |
| Stainless Steel Head and Foot Panel with laminated board. |
| Uniformly Perforated CRCA Sheet Top made up of Oval perforated CRCA MS Sheet 18G |
| Frame made of Strong Rectangular CRCA pipe 18G |
| Height, Back – Rest, Knee rest, Trendelenburg/Reverse Trendelenburg positions by Screw System. |
| S.S. Bows with Laminated Panels at Head and Foot End |
| Four Revolving corner buffers |
| S.S. Swing Away Type Side Railing, One S.S. I.V. Rod Height Adjustable, Optional Collapsible Railing |
| Collapsible side railings. (Top bar Aluminium / SS, Vertical bars SS, Bottom pipe epoxy) |
| Back rest and knee rest are maneuvered smoothly by separate screw mechanism (hand crank) from the foot end. |
| Epoxy coated mild steel frame work 3 and 4 section perforated top. |
| 125mm dia noiseless castors (all with individual brakes) |
| Provision for I.V. Rod on both sides of the bed. |
| Size: L 2190mm × W 980mm × H 500mm. |
| Freight saving knock-down construction. |
| Mattress: Foam Mattress Plain, thickness 4" (10cm) |
| Foam mattress comes in 4 sections |
| Anti Bedsore Mattress |
| It is covered with rexine closed with zip at one end |
| Replaces the foul air & reduce growth of microbes. |
| It is used on Plain Hospital Bed |

### 4. ICU BED (FULLY AUTOMATIC)

| **SPECIFICATIONS:** |
|---|
| Fowler Bed with mechanically operated back rest and knee rest by super-smooth crank mechanism |
| Four Pieces individual side rails, ABS Moulded. |
| ABS Moulded Head and Foot panel with locking and corner buffer. |
| Advance Linear Actuator system 04 Pcs Motor, 01 Pc Control Box, 01 Pc Handset. |
| Electrically operated intensive care bed using oil free electrical drives |
| Body made of mild steel tubes (2mm) and CRCA sheet (18G) |
| Dimension of the bed - 2075 mm X 910 mm |
| Control circuit for bed movement along with master controls. |
| Movements: Bed up / down movement, trendelenburg and reverse trendelenburg positions, backrest up/down and leg fowler movement. |
| Movement operation by easily maneuverable hand held remote controller. |
| Head & leg section tilting angle - upto 75 degrees. |
| Trendelenburg & Reverse trendelenburg movement angle - upto 20 degree |
| Lower limit of bed while downward movement - 410 mm |
| Upper limit of bed while upward movement - 740 mm |
| Removable head and leg rail boards |
| Option for folding side rails |
| Mobility of bed by four castor wheels (125 mm) with brakes. |
| Should meet the National/International standards laid down such as ISO Certified manufacturer |
| Freight saving knock-down construction. |
| Mattress: Foam Mattress Plain, thickness 4" (10cm) |
| Foam mattress comes in 4 sections |

| |
|---|
| Anti Bedsore Mattress |
| It is covered with rexine closed with zip at one end |
| Replaces the foul air & reduce growth of microbes. |
| It is used on Plain Hospital Bed |

**5 - 7. SCAN TABLE**

| **SPECIFICATIONS** | |
|---|---|
| Length of the Table | 1990 mm (78.5 inches) |
| Width of the Table | 610 mm (24 inches) |
| Minimum Height of the Table | 650 mm (25.5 inches) |
| Maximum Height of the Table | 875 mm (34.5 inches) |
| Table Top Sliding Length | 500 mm (19.7 inches) |
| Backrest Tilt angle | 45º |
| Vaginal Tilt angle | 45º |
| **Abdominal scan Table Function:** | |
| Up and down movement of the table | |
| **Abdominal and Thoracic Scan Table Functions:** | |
| Up and Down movement of the table | |
| Table top sliding movement | |
| **Abdominal, Thoracic and Vaginal Scan Table Functions:** | |
| Up and down movement of the table | |
| Table top sliding movement | |
| Back rest up and down movement | |
| Vaginal lift up and down movement | |
| Should meet the National/International standards laid down such as ISO Certified manufacturer. | |

**8. DELIVERY (LABOUR) TABLE FULL STAINLESS STEEL (FIXED TYPE)**

| **SPECIFICATIONS:** |
|---|
| Should be full Stainless steel (SS) fixed type. |
| Strong tabular squire/round frame mounted on PVC stumps |
| Stainless steel top in three section |
| Trendelenburg position adjustable by pneumatic gas spring system |
| Back rest section adjustable on ratchet |
| Leg end section can slide under the main section |
| A pair of knee crutches with height adjustable |
| SS, IV stand socket |
| SS basin and basin holder and Supplied with waste collecting Stainless Steel Bowl on S.S. Bracket |
| Supplied with suitable cushion top |
| Table legs with rubber padding |
| Leg end section can slide under the main section |
| Removable Safety Side railing provided on 3 side of Table. |
| Approx. Dimension: 72''L x 27''W x 30''H |
| Should meet the National standards laid down such as ISO Certified manufacturer. |
| Loading bearing 250kgs with adjustable Leg end section can slide under the main section. |
| It should be robustness in quality. |

**9. DELIVERY (LABOUR) TABLE HYDRAULIC**

| **SPECIFICATIONS:** |
|---|
| Frame work made of MS Tube. Pretreated & Epoxy powder coated finish, with SS top |
| Strong tabular squire/round frame mounted on PVC stumps |
| 3 Section Stainless steel top made of Stainless Steel Sheet. |
| Trendelenburg position adjustable by pneumatic gas spring system |
| Hydraulically Height adjustable by foot paddle from side. |
| Back rest section adjustable on ratchet |
| Leg end section can slide under the main section |
| A pair of knee crutches with height adjustable |
| SS, IV stand socket |
| SS basin and basin holder and Supplied with waste collecting Stainless Steel Bowl on S.S. Bracket |
| Supplied with suitable cushion top. |
| Table legs with rubber padding |
| Leg end section can slide under the main section |
| Removable Safety Side railing provided on 3 side of Table. |
| Approx. Dimension. Size: 182L x 68W x 60-80H cms. |
| Should meet the National standards laid down such as ISO Certified manufacturer. |
| Loading bearing 250kgs with adjustable Leg end section can slide under the main section. |
| It should be robustness in quality. |

**10. CRASH CART**

| **SPECIFICATIONS:** |
|---|
| Frame work made of SS Tube. Pretreated finish, with SS top |
| The crash cart should be made of 25.4mmx18G Stainless steel tubular frame work. |
| Strong tabular squire frame mounted on 125mm dia noiseless castors with braking system. |
| Shall have Epoxy / Anti-Microbial powder paint inside and out. |
| Should have dual push handles on either side |
| Should have S.S. shelves, six colored removable bins & two polystyrene lockable storage units with three drawers each |
| Facility to carry ECG Monitors, Defibrillators etc on open areas at top centre and bottom shelves. |
| Should have Stainless steel saline rod fixed with. |
| Two accessory mounting brackets to mount accessories anywhere without the need of prethreaded holes. |
| Crash cart should be mounted on 12.5 cms dia non-rusting swiveling castor wheels. Two having locking arrangement |
| Overall size shall be more than 900mm L x 500mm W x 1500mm H. |
| Oxygen cylinder stand epoxy powder coated, on one side. |
| Should meet the National standards laid down such as ISO Certified manufacturer. |
| It should be robustness in quality. |

**11. BED SIDE LOCKER WITH SS TOP**

| **SPECIFICATIONS:** |
|---|
| Frame work made of MS Tube. Pretreated & Epoxy powder coated finish, with SS top. |
| Overall size : 40L x 40W x 82H cms. |
| Complete locker box made of 22G CRC machine pressed sheet closed from three sides and a suitable drawer for extra storage. |
| Stainless steel top of 22G in matt finish. |
| Complete locker mounted on two PVC Stumps in front and two 5 cms. dia castors at the back for easy moving. |

| |
|---|
| Pre-treated and epoxy powder coated finish. |
| Should meet the National standards laid down such as ISO Certified manufacturer. |
| It should be robustness in quality. |

**12. ATTENDANTS BED**

| **SPECIFICATIONS:** |
|---|
| Frame work made of rectangular square MS Tube. Pretreated & Epoxy powder coated finish, with 2'' mattress |
| 5 Cm Foam Padded top covered with Rexene. |
| Legs fitted with PVC stumps |
| Overall Size: 180L x 60W x 46H cms. |
| Finish: Epoxy Powder Coated. |
| Pre-treated and epoxy powder coated finish. |
| Should meet the National standards laid down such as ISO Certified manufacturer. |
| It should be robustness in quality. |

**13. IV STAND**

| **SPECIFICATIONS:** |
|---|
| Saline Stand / IV Stand, Economy, SS tubular pipe. Mounted on 5 wheels base with 5 Cms. dia castors for easy moving. |
| Five legged heavy polypropylene base mounted on 5 cm castors |
| 4 hook adjustable S.S. I.V. Rod with a bakelite knob. |
| Freight saving knock down construction. |
| Should meet the National standards laid down such as ISO Certified manufacturer. |
| Should be robustness in quality. |

**14. OT LIGHT MOBILE**

| **SPECIFICATIONS:** | |
|---|---|
| Mobile OT light cum Examination Light designated with compact design for minor surgeries. Mounted on 5 wheels base with 5 Cms. dia castors for easy moving. | |
| Five legged heavy polypropylene base mounted on 5 cm castors | |
| Good visibility and the homogeneous illumination of 40000 Lux | |
| Control Panel to adjust the lux intensity & on/off the light | |
| Sterilizable handle helps to adjust the focus dia | |
| Cool, energy-efficient LED lights | |
| Light head dia | 20 cm |
| Illumination intensity @1 m | 40,000 Lux |
| Focus dia | 15 cm |
| Color temperature | 4300 K |
| CRI (Color Rendering Index) | 93 |
| Focus adjustable | Yes |
| No. of LEDs | 21 |
| LEDs lifetime | 50,000 hrs |
| Control unit | SMPS |

**15. OT TABLE (HYDRAULIC TYPE)**

| **SPECIFICATIONS:** |
|---|
| OT Table designated with compact design for minor and major surgeries. Mounted on 5 wheels base with 5 Cms. dia castors for easy moving. |
| OT Table is mobile, hydraulic designed to support virtually all general surgical procedures like, gynecology |

| | |
|---|---|
| and urology. | |
| Its mechanism i.e. Lateral tilt, Trendelenburg/ Reverse Trendelenburg, Chair Position and Adjustable height functions | |
| Functions can be opting by its mechanism i.e. lateral tilt, trendelenburg/reverse trendelenburg, flex-reflex & chair position. | |
| Height adjustment by stepping foot pedal downward | |
| Detachable head and leg sections | |
| Furnished with hard, robust stainless steel shell which provides the sense of dirt free & sanitized operations. | |
| Top dimension | L 1830 x W 497 mm |
| Height adjustment | 750 mm – 1000 mm |
| Trendelenburg / Reverse | 30° / 25° |
| Lateral tilt | 20° / 20° |
| Kidney elevator | 150 mm |
| Back Rest (up / down) | 80° / 25° |
| Leg Rest (up / down) | 15° / 90° |
| Head Rest (up / down) | 20° / 60° |
| Patient Weight Capacity | 120 kgs (264 lbs) |

**16. SURGICAL TROLLEY FULL SS / INSTRUMENT TROLLEY**

| **SPECIFICATIONS:** |
|---|
| Surgical trolley / Instruments trolley should be designated with compact design for minor and major surgeries. Mounted on wheels with 3''. dia castors for easy moving. |
| Overall size shall be more than 35cm W x 45cm L x 5cm Depth, Height 750cm. |
| It should be made of best quality SS sheet. |
| Should be light weight |
| It should be robustness in quality |
| It should have the provision for hold on hands. |

**17. MOBILE SUCTION PUMP FOOT SWITCH**

| **SPECIFICATIONS:** |
|---|
| Portable suction pump should be designated with compact design |
| Mounted on wheels with 5 Cms. dia castors for easy moving. |
| Portable suction pump with 1or 2 litre plastic jar |
| Dismantable for easy cleaning, jar autoclavable. |
| Jar with plastic cover, gasket and overflow valve |
| With suction regulator, vacuum gauge |
| Suction power: 15 L/min |
| Vacuum, max: 600 mmHg |
| Power requirement: 220 V/50 Hz |
| Power consumption: 100 W |
| Device is produced by ISO 9001 certified manufacturer<br>Device is safety certified according CE 93/42, FDA 510k or equivalent. |
| 1x set of silicone rubber suction tubing, approx: diam. 10 mm |

**18. FOOT OPERATED SUCTION PUMP**

| **SPECIFICATIONS:** |
|---|
| Foot-operated suction pump |
| High performance suction pump for pharyngeal and tracheal suction |
| Double acting piston pump provides a combination of large airflow and high vacuum |
| See-saw movement of pedal generates suction every time one side of the pedal is depressed |
| Pump chassis complete with valve diaphragms, manifold pipe, bottom cover, cylinder with draw link and valve diaphragm, piston O-ring, pedal with retaining springs, aspirating tube with angle connector and combination suction tip |
| Pump can be totally disassembled, is easy to clean and disinfect |
| All parts can be autoclaved at 121°C |
| Vacuum, max: 400 mmHg |
| Free airflow at two pumping strokes per second, approx: 30 to 40 L/min |
| Transparent polycarbonate collection container capacity, approx: 1 L |
| Bottom cover: thermoplastic rubber |
| Gasket, O-rings and valve diaphragm: silicone rubber |
| Foot pedal: Aluminum |
| Device is produced by ISO 9001 certified manufacturer |
| 1x set of silicone rubber suction tubing, approx: diam. 10 mm, length 1.5 m |

# SECTION – II

# QUALIFICATION CRITERIA

a) The bidder or the manufacturer whose product is offered must have manufactured and supplied similar equipment of the type specified in the Bid Documents at least 75% (rounding off to nearest whole number) of the quantity offered in any one of the last **FIVE** calendar years and should be satisfactorily functioning with no adverse report for at least one year on the date of bid opening.

b) The bidder should furnish the information on past supplies and satisfactory performance in the Proforma given under Section - IV.

c) Bidders shall invariably furnish documentary evidence (Client's Certificate) in support of the satisfactory operation of the equipment as specified in above.

d) The Bidder shall furnish data to support that he has the financial and production capacity to perform the contract and complete the supplies within the stipulated delivery period.

# SECTION III

**PROFORMA FOR EQUIPMENT AND QUALITY CONTROL EMPLOYED BY THE MANUFACTURER**

**(Please attach detailed proforma incorporating the information given below)**

BID NO…….

DATE OF OPENING……..

NAME OF THE BIDDER:……..

(Note: All details should relate to the manufacturer for the items offered for supply).

1. Name & Full address of the Manufacturer

   (a) PAN No (b). ECC Code (c) IEC if applicable

   (d) CST No (e) TIN No (f) Any other details

2. (a) Telephone No. Office/Factory/Works

   (b) Fax No. Office/Factory/Works

   (c) e-mail address

3. Location of the manufacturing factory
4. Details of important Plant & Machinery functioning in each dept.
5. Details of the process of manufacturer in the factory
6. Details & stocks of raw materials held
7. Production capacity of item(s) quoted for, with the existing Plant & Machinery

   7.1 Normal 7.2 Maximum

8. Details of arrangement for quality control of products such as laboratory, testing equipment etc.
9. Details of staff:

   9.1 Details of technical supervisory staff in charge of production & quality control

   9.2 Production: Managers/engineers/ officers/supervisors

   9.3 QA / Q.C :Managers/engineers/ officers/supervisors

   9.4 Skilled labour employed

   9.5 Unskilled labour employed

   9.6 Maximum No. of workers (skilled & unskilled) employed on any day during the 18 months preceding the date of Tender.

10. Whether Goods are tested to any standard specification? If so, copies of specifications & original test certificates should be submitted.
11. Whether bidder is willing to keep minimum stock of the item? If yes, how much can be kept?
12. What is the lead-time for execution of order for mentioned quantity of the item?

# SECTION IV

**PROFORMA FOR PERFORMANCE STATEMENT**

Proforma for Performance Statement (for a period of last 3 years)

Bid No:

Name of the firm:

| Order placed by (Full Address of Purchaser) | Order No. and Date | Description Of ordered item | Quantity of ordered item | Value of order | Date of Completion of delivery | Remarks indicating reasons for late delivery, if any | Has the equipment been satisfactorily functioning? (Attach a certificate from the Purchaser/Consignee) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |

Signature and Seal of the Bidder.....

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