

7. All Process Parameters as per documented IMS Procedures for Quality Assurance (ISO 9001:2015, ISO 14001:2015, OHSAS 45001:2018& ISO 13485:2003)

VII. EXAMINATION COUCH

1. Fixed 50mm thick upholstered top in two section
2. Body framework made up of 0.9mm thick CRCA sheet and legs covered with PVC stumps/shoes.
3. Smooth Pneumatic mechanism to raise Headrest
4. Provided with three sliding drawers with three separate doors and B.P. apparatus tray at head end.
5. Sliding foot step located at bottom center.
6. Overall size (Approx): 1870L × 560W × 820H mm.
7. CRCA Cabinet Size (Approx): 1200L×450W×630H mm.
8. Finishing & workmanship in the medical furniture is of prime importance and must be of high standard. All corners shall be rounded off so that there shall be no sharp corners and holes should be burr free.
9. M.S tubular parts, linkages, flats are to be In-house, pretreated and Epoxy powder coated with coating thickness 50 to 100 microns.
10. All Process Parameters as per documented IMS Procedures for Quality Assurance (ISO 9001:2015, ISO 14001:2015, OHSAS 45001:2018& ISO 13485:2003).

VIII. DEFIBRILLATOR:

Defibrillator with AED And Recorder Facility:

- The defibrillator should have biphasic technology having energy selection of 2- 300 joule sin AED as well as in manual mode
- Manufacturer should be CDSCO and European CE certified for quality standards.
- Should have facility for Auto test and pre-check
- The machine should have facility for ECG monitoring, defibrillation, external pacing & recorder.
- Machine should have at least 7" Screen or more.
- It should be capable of monitoring ECG through ECG Cables, electrodes & paddles.
- The machine should have defibrillation, AED and Recorder for adult & pediatric patients
- The machine should have ECG waveform display on bright screen along with other vital numeric information.
- The machine should be compact, portable with built in rechargeable battery & light weight (less than 7 kg).
- The machine should have user selectable alarm setting.
- The machine should work on battery at least 100 Charge /Discharge..
- The machine should have AED feature with manual override for manual operations.
- The machine must be supplied with all the essential accessories in &
- The machine must be supplied with moveable trolley.
- Should measure and compensate for chest wall impedance

L. Nat Singh

J. Singh

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- The unit should have facility to upgrade to NIBP, SPO₂.
- Should have charging time of less than 5 sec for maximum energy and there should be indicator to show it
- Power: Should work on 100-240V ac 50Hz power supply
- Warranty for three years from the date of issue of installation certificate
- Spare/ Consumable should be available for a period of at least ten years after expiry of the guarantee/warranty period
- Manufacturer should be ISO certified for quality standards.
- **System should : US FDA / European CE approved**
- **Warranty: 5 years**

XI. PORTABLE SUCTION:

- Plastic Moulded on two wheels with foot switch & change over Lever
- Max Vacuum -700mm Hg , LPM:90L/Min
- Double Piston Pump
- Jars : 2 x 2.5 L PC Jar
- Bacterial Filter Autoclavable/Reusable
- Tubing : 10mm ID X 2 Mtr (PVC)
- Vacuum Gauge : 6.25 cm Dia 0 - 760mmHg
- Power Supply: 220V AC,50/60Hz,580Watt
- Noise Level : 55 Db A +/-3
- Overflow Safety :Mechanical & Electronic Sensor.

XII. Examination Light:

- 60,000 Lux intensity at 1 mtrs
- Colour temperature at 4500K
- Nos. of LED : 07
- Fixed Focus and having Spot Diameter of 100mm
- Lamp head of 225mm made up of ABS with inbuilt handle
- LED bulb are from OSRAM (Germany) & HD Lens.
- Height Adjustable
- Built-in Switch Mode Power Supply (SMPS) systems (Made in Taiwan).
- Mobile MS base covered with ABS Cover having 4 wheels

XIII. Portable OT Light:

Description of Function

Surgical LED Lights are used to visualize the tiniest shade of the tissue, depth of incision & body cavities at the surgical site.

L. Natarajiah

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1. General Requirements

- The light shall adopt LED Technology to create a homogenous light patch without emitting any infrared rays.
- Light should have electronic focusing from control panel without any motorized or mechanical movement of light panels. It should have different LEDs for wider Beam.
- Pulse width modulation control LED driving to ensure less heating of LED which increases Life of LEDs and no change in Light colour Output and light colour temperature throughout life.
- Should have Single or Double colour LED lamps, with high CRI.
- Light intensity shall be adjustable between 25% -100% and should have low intensity light for endoscopy mode at 5% intensity.
- Light Intensity, light field diameter should be controlled from light arm control panel.
- The light head should be laminar flow friendly with Petal Shape design and should have cavity in dome area to allow fresh air at surgical site.
- The maximum movement angle of the spring arm shall be at least up 45° and down 50°.
- The maximum movement angle of the spring arms shall be rotatable at least 30 degrees around its own axis. Dome head should be rotatable with 360 degrees at connecting joint with spring arm.
- The thickness of the light head shall be no more than 70mm.
- Body of light should be of aluminum & all LED's should be directly mounted on aluminum body which is Exposed to room temperature for proper cooling of LED's for prolong working.
- Light should have at list 10 program with surgeon and surgery name for easy setup and recalling.
- Settings of the light can be controlled from any dome through the synchronize function.
- Remote and wall mount control panel should be provide for ease.
- Each LED modules should be easily replaceable by screw connection during on field repair.
- It should detect obstacle path by surgeon head and light should be adjust with other petals.

2. Technical Requirements of the Dome

- Should have 2 color LED lamps, White & Amber.
- Central Illuminance should be 160,000 lux
- Light field Diameter should be adjustable form 150mm to 300mm in 5 Steps.
- D10 : 300mm & D50 : 160mm
- Color temperature (K), 4000K +/- 200k
- Color Rendering Index Ra should be 95 or more and R9 should be 90 or more.

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L. Nat Singh

J. Singh

- Depth of illumination (L1+L2) as per IEC 60601-2-41 (Ver 2003) should be 600mm and as per IEC 60601-2-41 (Ver 2008) should be 1000mm.
- Dimming range should be between 25%-100%
- Endoscopy mode illumination should be less than 5% of 160,000 lux.
- Number of LED modules on the light head should not be less than 48.
- LED Self life should be more than 60,000hrs and total usage Hours should be displayed on screen.
- Light Head Dimension Should be more than 680mm.
- Max. Power consumption of light should be less than 80W at maximum setting.
- Power supply should be 100-240V AC, 50-60Hz

3. Standards

- ISO 9001:2008
- ISO 13485:2016
- CE Certificate
- Should compliance with: IEC 60601-1, IEC 60601-2, IEC 60601-2-41 and verified by Type test Certificate from any NABL-accredited lab, or any international lab from the country of origin.
- USFDA

XIV. OT TABLE:

TECHNICAL SPECIFICATION OF OPERATION THEATRE TABLE OT Table

1. It should be constructed of stainless steel / Nickel Chromium alloys and other high quality materials.
2. Should be capable of most patients positioning for a weight load up to 200 kg.
3. Should have stable Steel base and column with four large swivel antistatic castors
4. Should have four self-compensating (for un-even floors) hydraulic operated floor locking and un-locking facility through hand control
5. The OT table should be equipped with two independent operating drives (A) Manual Hydraulic (B) Electro Hydraulic TABLE TOP
6. Should have fully radiolucent table top with motorized longitudinal sliding
7. Should have side rails on both sides for attaching accessories/clamps
8. Should have mattress pad 2" thick (latex free) for correct and comfortable positioning of patients at the joint areas between different segments, with cut-out on seat position of the tabletop. Mattress to be fully radiolucent, antistatic, detachable, impermeable to fluids, easily cleanable.
9. Should have facility of X-ray cassettes loaded from the head , foot or either side for a full range of exposure

TECHNICAL DATA:

10. Should have motorized longitudinal displacement : Minimum 450 mm

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11. Height adjustment lowest height min. 660mm to 750 mm and upper height min. 1120 mm to 1145 mm.
12. Trendelenburg / Reverse Trendelenburg :30 deg /30 deg
13. Flex/ Reflex: 140 deg/ 100 deg
14. Lateral tilt +/- 20 deg.
15. Back up/down +80 deg/-40 deg.
16. Head section adjustment +90 deg to -90 deg
17. Leg section adjustment 0 to -105 deg.
18. Single button for self-levelling (neutral/zero position at touch of single button).
19. Overall length with head plate 2020 mm or more
20. Width of table 500mm or more

OPERATION SYSTEM :

21. Electrically driven on 220 to 240 V, 50 Hz AC mains, In built rechargeable battery back up of upto 3 weeks (100-150 procedures) with a capacity to operate the table in case of mains AC power failure.
22. Manual override operation for critical table movements in case of power/ hand control failure or on hand control loss

STANDARDS

23. The equipments should have US-FDA Certificate/ European CE certificate.
24. The equipment should be designed to comply with existing international standards in Terms of safety and
25. Should be Electromagnetically Compatible
26. Table should be IPX4 Compatible
27. All technical specifications accepted in the compliance statement must be supported by printed literature from the OEM with Highlighting, Numbering & flagging
28. Demonstration at a hospital premises at OEM cost.
29. Installation process should be performed by OEM trained service engineer/ service representative on OEM's letter head/ service report; with a mandatory provision of providing preventive service visits of OEM trained service engineer/ service representative.
30. Equipment should have brand name / model number embossed/ etched on the equipment.
31. The accessories/ consumables utilized during the period of installation process should be taken care FOC by OEM/ Service provider.
32. The equipment should comply with the requirement of the Medical Device Directive of class I equipment and Electromagnetic compatibility; all supporting documents must be provided

STANDARD ACCESSORIES

1. Adjustable side support with padded rounded soft pad- 1 pair with rail clamps
2. Anaesthesia Arm boards (with swivelling action) - 1 pair
3. Anaesthetic screen -square type - 1 with rail clamp
4. Foot control unit for up/down/tilt etc.
5. Body straps- two for adult and two for Child
6. IV Pole with Clamp and bracket
7. X ray Holder foot to Head

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L. Natraj Singh

J. Singh

which an scratch resistant ABS desk let top shall be faxed and covered on bottom side with a bottom cover. The polyurethane foam shall be moulded with density= 70.0+/- 8.0kg/m³ and hardness=20+/-2 for seat and 16+/-2 for back at 25% compression. . The Twin wheel castors shall be injection moulded in black. Chair as approved by engineer in-charge/employer.

XXV. CIDEX CHAMBER:

- sturdy, chemical resistant trays with lids used as soaking containers of cleaning and disinfection solutions, such as CIDEX™ OPA Solution, as well as enzymatic detergents, such as CIDEZYME™ XTRA Multi-Enzymatic Detergent.
- Size: 29" x 8.5" x 5" (14 litres)
- ABS materials

XXVI. FORMALIN CHAMBER:

- is lightweight transparent, corrosion-proof, and made from a special grade of polymer with three sliding trays to ensure 100% sterilization of your surgical instruments.
- Acrylic Material of 5mm thickness
- Size: 23" x 12" x 12"

XXVII. Syringe Destroyer:

- Working Noise: ≤50 decibel
- Superheating Sanitization Temperature: 95 deg C
- Working Time: Can completely melt and destroy needle and neck of syringe in 5 seconds
- Dimensions: Approx. 38cm x 29cm x 28cm Power: AC 110V or 220V
- Shock proof-main circuit breaker is provided.
- Portable, compact, handy
- Provision of on/off switch with pilot lamp

XXVIII. Dust Bin Set with Trolley:

Container capacity	60 Litres
Class confirming to IS:12402 (For Public Dustbins)	Type A (Two fixed wheels, trolley type)
Type as per Cl. 4 of IS:12402: (part 1):1988 latest	Norma Type (N)
Material	HDPE

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Container shall be supply with Lid	Swing type
Locking Device when the Container is Stationary	Yes
Plugged Outlet for Washing and Draining	With Plugged Outlet for Class B Container
Overall dimensions shall be as per Table and Table 2 of IS:12402 (part 1):1988 latest	Yes
Color of the container	Green, Blue Yellow & Red
Gripping provision	Frontal
Dust Bin Stand	Yes

XXIX. Instrument Boiler:

Large Size: 43 X 20 X 20 CM
Electrically operated with immersion heater, Power source 220v/50hz
With Handles for Lid and Base
Construction of Stainless steel
With High quality Stand

XXX. Wheel Chair:

Supply Installation of wheel chair Over all dimension is (L) 790mm x (W) 600mm x (H) 870mm foldable frame structure is made of section 22x1.2mm A3 carbon steel with chrome finish. Cross bar made of A3 carbon steel with section 25.4 x 1.2mm. The Rear wheel is made of 24 inch Solid mag wheels with alloy in the rim . Integrated hand rim is Provisionided to drive the wheel chair of section 16x1.2mm A3 carbon steel with chrome finish the front wheel is of 8 inch HUB made of PA polymer and outer with solid rubber PU molded arm rest & base made of ABS for better arm support there is Leatherite strap for calf rest & Leatherite cushion for seat the foot rest is Adjustable aluminum die cast foot rest with up down & swivel type mechanism Push Handles is made of molded rubber grip to push the wheelchair Hand brakes is Provisionided to lock the wheelchair at desired location. Extended base with molded plastic for better grip it is Anti rust chrome finish safe working load is 200kg Wheel chair As approved by engineer in-charge/employer

XXXI. Curtain Track with Curtain:

Providing and fixing/Installation of hospital cubicle track system with following specification: Track material shall in general be aluminum alloy 6063-T-6 having tensile strength 195 Mpa, shear tensile Strength 195 MPa, Shear Strength 150 Mpa. All materials shall be Corrosion resistance and shall have minimum 50 micron polyester powder coating of approved shade. The curtain track system shall have following components. Support units consisting of ceiling suspender system

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Durable:

- Orientation of numerals on the measurement scale: parallel to the board.
- Unit of measure: centimeters.
- Smallest graduation: 0.1 cm.
- Measurement range: Should be able to measure upto 200cm at least;
- Accuracy (+) or (-) 0.1 cm.
- Width/depth of the board: approx. 5.5 cm.
- Large footplate, providing extra stable base and smoothly gliding measuringslide/wedge.
- Adjustable feet for stability on uneven or soft ground.

Heavy Duty Body-

- Orientation of numerals on the measurement scale: parallel to the board.
- Unit of measure: centimeters.
- Smallest graduation: 0.1 cm.
- Measurement range: Should be able to measure upto 200cm at least;
- Accuracy (+) or (-) 0.1 cm.
- Width/depth of the board: approx. 5.5 cm.
- Large footplate, providing extra stable base and smoothly gliding measuringslide/wedge.
- Adjustable feet for stability on uneven or soft ground.

Non Toxic- 100% Recyclable Plastic

XLIII. Three Seater Chair:

Model Name	3-Seater Waiting Area Bench Reception Chair Metal Chair with PU Cushion
Style	Contemporary & Modern
Suitable For	Study & Home Office
Frame Material Subtype	Cast Iron
Upholstery Material	Leatherette
Upholstery Included	No
Chair Features	Armrest
Finish Type	Chrome
Care Instructions	Don't put hot objects or cold drinks directly on top of your furniture., Don't scrap the products with any sharp edge objects, Use microfiber cloth for cleaning and regularly wipe down furniture to avoid clumping of dust and debris, Don't keep your furniture in direct sunlight, excessive moisture or extreme temperatures
Bush Included	Yes
Ergonomic	Yes
Other Features	Material- Upholstery: Leatherette, Base Material- (Metal with Chrome Finish), Polish (Chrome Polished), Colour: Silver & Black, Style: Contemporary, Brand Promise - BIFMA Certified, 5 year Warranty, 3 Stage QC Check.
Key Features	Perfect For Indoor And Semi-Outdoor Use Like:- Hospitals, Airport Area, Weighting Hall

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XLIII. Autoclave:**Key Features and Specifications****Triple Wall, Double Chamber Design**

The lid, ring, inner chamber, and middle chamber are meticulously crafted from top-grade Stainless Steel 304 material, ensuring superior strength, corrosion resistance, and longevity

Comprehensive Safety Features

Equipped with essential components such as a pressure gauge for accurate monitoring, a safety valve, a **double safety valve** for enhanced protection, a steam release valve, a water inlet, a water outlet, a water level indicator, a rubber gasket for a secure seal, and stainless steel legs for stability, our autoclave guarantees safe and reliable operation throughout the sterilization process.

Low Water Cut-Off Device and Digital Temperature Controller

An alarm at the end of the cycle alerts users when the sterilization process is complete.

Pressure Control Switch and Vacuum Drying Option

To provide versatile sterilization capabilities, our autoclave is equipped with a pressure control switch, allowing users to adjust and maintain the desired pressure range. Additionally, the vacuum drying option ensures efficient drying of sterilized instruments, eliminating moisture and enhancing overall sterilization effectiveness.

Size/Capacity: 16" x 24" – 78 Liters

Note: All items must have 5 yrs of Warranty

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L. Natraj Singh

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Technical Specification of Multi Parameter Monitors

General:

- The equipment should come with all standard accessories required to run all parameters, suitable for all patient categories, ie. Infants, children and adolescents.
- Should be ISO,USFDA/European CE certified.
- Wave form display: atleast 5 channels, user selectable.
- Digital display with parameters monitored: ECG, Heart rate (HR), respiratory rate (RR), Oxygen saturation (SpO_2), Non Invasive Blood Pressure (NIBP).
- Should have wall mountable stand and it should be pivotable.
- Medical grade,TFT Flat screen, slim size, atleast 12.1 inch display.
- Screen resolution atleast 1280x1024pixels
- Clear bright color display with large character size
- Adjustable contrast and brightness
- Ability to zoo many parameters
- Ability to adjust individual alarms
- Ability to change color of the trace by user
- Microprocessor based measurement and calculation of NIBP eliminates most ambient noise and motion artifact with engraved make & model no.
- Inbuilt Cautery and Defibrillator protection
- Interface facility with central monitoring system
- Suitable for Adult, Pediatric and Neonatal

1. Heart rate/ ECG:

- Atleast 5-lead selectable ECG
- Built in arrhythmia monitoring in all leads
- Inbuilt ST segment analysis and arrhythmia detection facility
- Heart rate range 20-250bpm, Accuracy ± 5 BPM with min gradation of 1bpm
- Display sweep speeds 12.5,25mm/sec(user adjustable)
- Averaging time: user selectable upto 8 seconds
- ECG amplitude user adjustable
- Defibrillator protected

2. Respiratory rate

- Measured by transthoracic impedance using the same ECG lead
- Range 6to 150 breaths/min
- Accuracy ± 2 bpm
- Display sweeps peeds 6.25,12.5&25mm/sec(user adjustable)
- Averaging time: user selectable upto 8seconds
- User selectable apnea alarm time

3. Oxygen Saturation(Nellcor)

- Range 1to100%
- SpO_2 accuracy: $\pm 1\%$ (40-100% range)
- Averaging time: user selectable upto 8 seconds
- Plethysmo graphic wave form display
- Audio pitch variations with change in Oxygen Saturation

4. Noninvasive Blood pressure:

- Capable of measuring blood pressure in infants, children and adolescents.
- Microprocessor software with unit in mmHg with Oscillometric technique
- Bp range: 30-300mm/Hg with gradation of 1mm/Hg or better
- Oscillometric technique
- Manual, auto and time limited stat modes
- Users electable automatic time intervals
- Display systolic, diastolic and mean BP
- Cuff: auto deflate with over pressure protection

L. Natig Singh.

- Should automatically establish zero reference after each reading

5. Temperature

- 2-channels •
- Continuous digital display of two site temperatures •
- Range: 25-50 degree Celsius with gradation of 1/10 °C
- Resolution: ± 0.1 degree Celsius Accuracy: ± 0.1 degree Celsius
- Should provide skin temperature probe and rectal temperature probe for every monitor

6. Alarms: Audio & visual alarms with message.

- High and low heart rate
- High and low respiratory rate
- Apnea with adjustable time 5-20 seconds
- High and low saturation
- High and low Systolic, Diastolic & Mean BP.
- Probe failure
- Poor signal
- Power failure

7. Graphical & Trends

- Memory storage: at least 24 hours
- Data display interval: not more than 20sec
- Display range: last ½ hour to 24 hours
- Graphical and tabular format of display of variables.

8 Power: 220/240V; 50/60Hz AC; Rechargeable internal battery with a backup of at least 3 hr.

9. Essential Accessories for each monitor: The following quantities are to be supplied with each monitor:

- Invasive Pressure Transducer Cable-02
- ECG patient cable 5 leads reusable: 2.
- Oxygen saturation probes for infants, pediatric and adult patients reusable: 2 each.
- Reusable NIBP cuffs of infant, pediatric and adult size: 2 each with each monitor.
- Temp Probe reusable: 2

10. Cost of consumables/accessories should be frozen for the period of warranty and CMC.

11. It should have local service facility .The service provider should have the necessary equipment recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual

12. User/Technical/Maintenance manuals to be supplied in English.

13. Certificate of calibration and inspection.

14. List of important spare parts and accessories with their part number and costing.

L. Nataraj Singh

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