



HAFFKINE BIO PHARMACEUTICAL CORPORATION LIMITED
Procurement Cell

(A Government of Maharashtra Undertaking)

Regd. Office : Acharya Donde Marg, Parel, Mumbai 400 012 (INDIA)

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Managing Director :022-24150628

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दि: ०७.१२.२०२२ प्रशासकीय मंजूर निधी १५,०९,६२,५५०/-
(State Plan २०२२- २३) (Qty.- ०१)

No.: 7940 /Haffkine/Procurement Cell/ RT2-2732/ CSSD Equipments with Turn-Key/ 2023-24.
Date: 17/04/23

To,

M/s. Pharm Deal,

1313 Sadashiv Peth,

Opp. Bharat Natya Mandir, Pune-411030.

Contact No. 8329157144.

E-Mail: pharmdealpune@rediffmail.com

Subject : Supply Order for Tender No. RT2-2732/ CSSD Equipments with Turn-Key.

Reference: 1. Tender No. RT2-2732/HBPCL/PC/ CSSD Equipments with Turn-Key/2022-23.

2. शासननिर्णय, क्रमांक- जीएचबी-२०२०/प्र.क्र.१८७/प्रशा-१
दिनांक : ०७ डिसेंबर, २०२२.

3. Sanction of Tender Approval Committee Meeting No. 176
Date : 28.03.2023.

With reference to the tender cited under reference no 1, you are requested to supply the following goods as per details mentioned below to consignee list enclosed with this order.

Sr. No.	Name of the item	Specification of item	Quantity / Unit (DMER)	Unit Rate inclusive of GST(Rs.)	Total Amount Rs.
1	CSSD Equipments with Turn-Key. Make : Tuttnauer Model : Tiva 10 2V, Sonica 45LEP & 60LEP, TMAX 12, ELARA 11 D, Revo Make: HYBEAT Model: HYDC 500, Wash Station, Manual Trolley wash system, Work Table, Soil Instrument trolley, Chemical disinfection Tank, Control and Packing Table, Work Table, Reel Dispenser cabinet, Tape Dispenser, Paper Dispenser, Wire Shelf Storage rack, Instrument Storage Cabinet, Linen Fold Table, Linen Storage Rack, SS Paneling, Free Standing Basket Rack, SPRI Basket, Wire Shelf	As per Annexure X	01	15,01,19,602/-	15,01,19,602/-

Storage Rack, Sterile Transport Trolley, Pass Box, SS Table Trolley, Instrument Storage Cabinet, Instrument Tray Big, Instrument Tray Small, MEYC 6500, HYDEC-12, HYTH 100 Make: Famos Model: Spray Gun Make: ASP Model: STERRAD 100S Make: Hawo Model: HM 850DC Make: VERRE ET QUARTZ Model: LAMPE LOUPE 5D-LED Make: PCI Model: NMP 8Cu. Ft. Make: Workspace Make: Relio				
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Total amount in words: Rupees Fifteen Crore One Lakh Nineteen Thousand Six Hundred Two Only.

Factory Location: 1) Tuttanauer Europe b.v., Hoeksteen 11, 4815 PR, P.O.B. 7191, 4800 GD Breda, The Netherlands.

2) Tuttanauer USA Co., 25 Power Drive, Hauppauge, NY 11788.

3) Hybrid Biomedical Equipments & Allied Technologies, 1/4, Pratham Industrial Estate, Tungar Phata Sativali Vasai (East), Thane – 401208.

4) Workspace Metal Solutions Pvt. Ltd., Plot No. B 437, Road No. 18A, Bhamashah Industrial Area, Kaladwas, Udaipur – 313002.

5) Hawo GmbH, Obere Au 2-4, 74847 Obrigheim/Germany.

6) Advanced Sterilization Products (ASP), 33, Technology Drive, Irvine, CA 92618 USA.

- Forwarding:** Forwarding Free on Road Destination. I.e. door delivery basis.
- Delivery Period:** 24 weeks from the date of receipt of order by the supplier to the consignee attached.
- Pre-Dispatch Inspection:** Supplier shall make necessary arrangement / facilitate to carry out Pre-Dispatch inspection as per Tender Terms & condition and submit the Inspection report to this office. The Pre-Dispatch inspection cost will be borne by supplier. Machine should be dispatched only after Satisfactory Pre-Dispatch Inspection.
- Risk purchase clause:** If the bidder fails to supply the stores within the stipulated delivery period, the order will stand cancelled. Undersigned shall be entitled to purchase such stores from any other source at such price which ordinarily should not be more than 10% of the tender price. The extra expenditure in such cases shall be recovered by Managing Director, Haffkine Bio Pharmaceutical Corporation Ltd. (Procurement Cell), Mumbai from the Supplier.
- Payment Terms:** Payment of 100% of the contract value will be made within 8 weeks on delivery and successful installation and satisfactory commissioning and operation of the machinery.
- Acceptance & Receipt:** It should be submitted in Appropriate Format to the purchasing authority.
- Delivery Challan** - Should be sent in the name of consignee in duplicate. It should specify Name of Equipment / Mfg. by / packing & quantity.

- 8 **Invoice Copy** - Should be sent in triplicate on the Name of Managing Director, Haffkine Bio Pharmaceutical Corporation Ltd. (Procurement Cell), Mumbai. Along with Bill of Entry and Country of Origin Certificate of the consignment.
- 9 **Other Terms :**
- 1) **Warranty:** The warranty period shall be for 2 years from the date of commissioning of all equipment supplied as certified by the consignee. After completion of 2 years warranty period Manufacturer/Supplier should give commitment to ensure services and supply of spare part for further 8 years. The successful tenderer must ensure 95% uptime during warranty period. In case of downtime, warranty period will be extended for period of downtime. If the equipment is not attended within 24 hours for Mumbai and 48 hours for other places the supplier will be liable to pay a penalty of 0.07% of purchase cost for every day of delay. Such penalty will be recovered from the amount of security deposit. Certificate of such uptime / downtime issued by the end user will be binding for the supplier Replacement of spares parts thereof due to manufacturing defects during warranty period will be entirely at the supplier's cost.
- 2) The user institution will enter to the Comprehensive Maintenance Contract with supplier agency @ 5% of the order value (excluding taxes) of the equipment per year for 8 years after completion of warranty period. In case of non-compliance of CMC the supplier will be liable to pay penalty or for appropriate action. Payment of CMC on yearly basis will be made by the user's institution, at the end of the year after satisfactory performance report from the end user.
- 10 **Contract Agreement:** Bidder should submit a tripartite (Importer, Manufacturer and Haffkine Bio Pharmaceutical Corporation Ltd.) Contract Agreement on non-judicial stamp paper of requisite value.

Fall Clause

It is a condition of the contract that all through the currency there of, the price at which you will the supply stores should not exceed the lowest price charged by you to any customer during the currency of the contract and that in the event of the prices going down below the rate contract prices you shall promptly furnish such information to us to enable to amend the contract rates for subsequent supplies.

- 11 The Bidder should submit (within 7 days) amount of 1.5% i.e. **Rs. 22,51,794/-** of order value to meet other incidental expenditure and 3% i.e. **Rs. 45,03,588/-** as Security Deposit in form of Bank Guarantee. The Bank Guarantee valid for 2 months after the expiry of date of warranty issued by any Nationalized / Scheduled Bank.

Amount to be deposited to Following Account:

Name of Account	Haffkine B P C L (Procurement Cell), CESS Account
Name of the Bank & Branch	Bank of Maharashtra, Branch- Mumbai Parel
Account No.	60381379835
IFSC Code	MAHB0000079

Consignee: As per list enclosed

या. व्यवस्थापकीय संचालक यांच्या मान्यतेने व करिता


General Manager

**Haffkine Bio Pharmaceutical Corporation Ltd.
(Procurement Cell), Mumbai.**

Copy to:

- 1) Commissioner Health Services, Mumbai.
- 2) Director, Medical Education & Research, Mumbai-400 001.
- 3) Account Manager, Haffkine Bio Pharmaceutical Corporation Ltd. (Procurement Cell), Mumbai.
- 4) Office File.

Copy to Consignee: Government Medical College & General Hospital, Baramati.: As per Tender Condition No.17 The user Institution should get the Comprehensive Maintenance Contract done with supplier agency @ 5% of the Order value (excluding taxes) of equipment per year for Eight years after Completion of warranty period.

Copy Submitted to: 1) Secretary, Medical Education & Drug Department, Mantralaya, Mumbai.

Annexure-X

Technical Specification of CSSD Equipments with Turn-Key

- 1) The work being tendered is on turnkey basis wherein design, supply, installation, testing & commissioning including training user agency staff shall be the scope of services of Central Sterile Supply Department contractor.
- 2) It is responsibility of a bidder to verify all site conditions before quoting for the work. It is strongly recommended for bidder to take actual site measurements prior to bidding.
- 3) It is responsibility of successful bidder to submit detailed design drawings / floors plans as per NABH/NABL guidelines within 15 days from Letter of Acceptance for said works, for client's approval.
- 4) Successful bidder has to design entire CSSD flow management as per NABH, NABL guidelines and get it approved from end user prior to procurement.
- 5) All utility connections (for eg. but not limited to power, water, drainage and so on) will be supplied at the external face of any wall of CSSD and it will be CSSD contractor's scope to carry out work thereafter inside CSSD. Any core cutting required for utilities shall be entirely in CSSD contractor's scope. Prior approval from user is a must before proceeding with any core cutting activity.
- 6) All internal doors, windows, walls, basic flooring, dado shall be in client's scope. Also, civil work-related CSSD shall be in client's scope. However, execution will be carried out as per CSSD floor plan as submitted and approved by end user agency.
- 7) Supply & installation of all requisite stands/supports in mild steel or stainless steel for all equipment to ensure smooth and unobstructed flow management of CSSD shall be responsibility of successful bidder.
- 8) The drawings attached in tender document are completely conceptual in nature and attached herewith merely as a guidance for designing and shall not be basis for quantity take off. No claims shall be entertained for any discrepancy between drawings and any other tender document such as specifications and bill of quantities.
- 9) It is mandatory for contractor to prepare and submit all good for construction / execution drawings in latest version of Autodesk's REVIT platform. All deliverables shall be submitted in soft as well as requisite number of hard copies for approval.
- 10) Training for operation and preventive & breakdown maintenance of the equipment is to be arranged by the supplier / manufacturer immediately after installation to end user's designated staff members for entire system.
- 11) A site visit to previously installed system at hospital of equivalent specifications shall be arranged by bidder at his own cost, during course of evaluation of the technical bid or prior to finalization of system during execution.
- 12) One Point Water supply & Electricity shall be provided by respective Institute. Rest of the works to be executed by the bidder.
- 13) All Consumables including detergent powder, neutralizing agent etc required for Initial start-up (for 200 cycles) with 50 nos. of biological indicators and 100 nos. of chemical indicators should be provided for Sterilizers, Washers and Ultrasonic Cleaner.
- 14) Bidders are requested to make sure that they should attach the list of equipment's for carrying out routine and preventive maintenance wherever asked for and should make sure that Electrical Safety Analyzer / Tester for Medical equipment's to periodically check the electrical safety aspects as per BIS Safety Standards IS-13540 which is also equivalent to IEC electrical safety standard IEC-60601 is a part of the equipment's. If the Electrical Safety Analyzer/Tester is not available they should provide a commitment to get the equipment's checked for electrical safety compliance with Electronic Regional Test Labs / Electronics Test and Development Centres across the country on every preventive maintenance call.
- 15) Original equipment manufacturer shall have supplied following CSSD equipment's to All India Institute of Medical Science (AIIMS) in last 10 years. Equipment from countries sharing borders with India not allowed.
 1. Washer disinfectant
 2. Ultrasonic Cleaner
 3. High steam sterilizer
 4. Table top steam sterilizer

A. Wash area

A1. Washer Disinfectors – Double Door with Drying

1. The Washer Disinfectors should be a fully automatic frontal loading motorized sliding door washer disinfectors which offer complete washing and thermal disinfection treatment and should be equipped with a forced hot air drying system.

2. Chamber Capacity:

The Washer Disinfectors should have Chamber Capacity of 225 litres or more and should be able to reprocess 12 DIN trays per cycle.

Equipment Construction: Frame & panels must be constructed from stainless steel AISI 304.

3. Washing Chamber Construction:

a. Washing chamber, washing arms, pre-heating tanks and water filters must be constructed in high quality stainless steel AISI 316L.

b. The washing chamber must be constructed without angles to prevent breeding of germs.

c. High quality thermal insulation to be provided to minimize energy consumption.

d. Equipment must be provided with a light inside the chamber for better visibility.

4. The complete pre-washing, washing and drying cycle time of the equipment should be less than 45 minutes.

5. Door Construction & Operation:

a. Doors must be made of high visibility double HST (High Shock Tested) tempered glass with inside frame made of stainless steel AISI 316L.

b. Should be fully insulated to reduce heat loss and noise.

6. Washing System:

a. Washing & hot air drying injection systems should be integrated in the same circuit.

b. Should provide 2 washing spray arms in the washing chamber, one on the bottom & one on the top, to grant efficient water and air distribution inside the chamber.

c. The available washing carts must incorporate up to 3 more washing arms.

d. The equipment must permit automatic and direct connection to the washing car hydraulic circuit.

7. Washer Disinfectors must be quoted along with imported 5 level wash cart, Anaesthesia instruments wash cart, MIS instruments wash cart and loading & unloading trolley manufactured by the equipment manufacturer.

8. Thermal Disinfection:

Thermal-disinfection should be carried out by raising the DI water temperature up to 93°C and holding it for a selected time which can be set in accordance with end user specific requirement giving A0 value A0=3000.

9. Water consumption: The water consumption per cycle must not be more than 100 litres.

10. Original Equipment manufacturer authorization for bidder Mandatory.

11. Circulation Pump:

The equipment should be provided with a 0.75 kW high performance water recirculation pump with a maximum flow rate of 600 lt/min.

12. Water Filtering System:

a. A three stage filtration system must be provided to help protect the recirculation & drain pumps from debris.

b. Filters must be easily removable for cleaning.

13. Chemical Dosing:

a. Should incorporate Two (2) peristaltic pumps to provide precise addition of liquid chemical agents.

b. Should provide large storage on the basement to allocate up to four 5 litres chemical containers.

14. Electric Heater:

a. Should incorporate min. 6kW sump heating element. Two independent PT1000 temperature probes must be provided; one dedicated to the machine cycle temperature control & the additional one dedicated for the disinfection phase control & documentation.

15. Forced Hot Air Drying System:

a. Should ensure air circulation in the chamber, through the chamber washing arms and through the wash carts injection system and washing arms.

b. pre-filter to be provided.

- c. Dryer blower flow rate must be atleast 250 m³/h.
- d. HEPA H14 Air filter should be provided.
- 16. Steam Condenser:
Should incorporate a steam condenser to prevent vapors from entering into the washing area at a set temperature programmable from: 0°C - 93°C.
- 17. Microprocessor Control System:
 - a. Should be provided with a microprocessor based control system for total checking & displaying of single cycle phase with process residual time highlight.
 - b. Should incorporate 40 storable programs;
 - c. Should be provided with 3 level password protected programming.
 - d. Soft touch control panel with a TFT - QVGA graphic colour display on both sides (loading & Unloading).
- 18. System Monitoring:
 - a. Must have Audible and visual alarms to provide quality control for each washcycle.
 - b. Water level sensors must be provided to control chamber water level to prevent overflow.
 - c. RS 232 Port for printer connection must be provided to monitor and validate washing cycle.
 - d. USB port must be provided on the front panel to download historical cycle data and for software upgrades.
- 19. Safety Features:
 - a. Locking Door must prevent interference with wash cycle once the machine is in operation.
- 20. Reprocessing of Robotic Instruments:
 - a. The equipment should be capable to reprocess minimum 4 single instruments of maximum length in a single wash cycle.
 - c. The equipment should be able to wash dedicated robotic instruments.
- 21. Should be compliant with: Equipment should be compliant with European EN ISO 15883-1/2, CEN ISO/TS 15883-5 requirements. Classified CE Medical Device (Community rule 93/42/CEE) code nr. 0051.
European notified body CE Certified or US-FDA certified.

A2. Ultrasonic Cleaner 45L & 60L

Ultrasonic Cleaner 45LTR

The unit should be a compact free-standing bench model, with a built-in tank manufactured from high-quality (316) stainless steel and a solid-state generator that sends ultrasonic (approx 40+3 KHz) impulses through wash water containing detergent and electrical heating; It should be equipped with microprocessor controlled display of memory time and temperature functions with variable frequency transducer.

1. Capacity - 45L (±5L) Tank Dim:- 500x300x300 mm (WDH)
2. The tank should be made of solid stainless steel (SS 316).
3. Should work on 230V, 50 Hz AC Supply.
4. The electrical energy should be transformed into sound waves by transducers, fixed to the bottom of the tank.
5. The ultrasonic cleaner should have a display and control which can be easily seen and placed above any liquid for safety and reliability.
6. It should have digital read out timer and temperature setting (temperature adjustable from 40 to 60 °C) monitor.
7. Wire mesh basket of suitable size & stainless steel lid should be supplied with the Ultrasonic cleaner.
8. Ultrasonic cleaner should be European notified body CE certified or US-FDA certified.

Ultrasonic Cleaner 60LTR

The unit should be a compact free-standing bench model, with a built-in tank manufactured from high-quality (316) stainless steel and a solid-state generator that sends ultrasonic (approx 40+3 KHz) impulses through wash water containing detergent and electrical heating; It should be equipped with microprocessor controlled display of memory time and temperature functions with variable frequency transducer.

1. Capacity - 60L (±5L) Tank Dim:- 1100x300x300 mm (WDH) for long instruments and trays

2. The tank should be made of solid stainless steel (SS 316).
3. Should work on 230V, 50 Hz AC Supply.
4. Original Equipment manufacturer authorization for bidder Mandatory.
5. The electrical energy should be transformed into sound waves by transducers, fixed to the bottom of the tank.
6. The ultrasonic cleaner should have a display and control which can be easily seen and placed above any liquid for safety and reliability.
7. It should have digital read out timer and temperature setting (temperature adjustable from 40 to 60 °C) monitor.
8. Original Equipment manufacturer authorization for bidder Mandatory.
9. Wire mesh basket of suitable size & stainless steel lid should be supplied with the Ultrasonic cleaner.
10. Ultrasonic cleaner should be European notified body CE certified or US-FDA certified.

A3. Drying Cabinet (Single Door)

1. Equipment must be a drying cabinet with shelves dedicated to instruments, equipment and general items to mixed solutions for anesthesia items and instruments.
2. Equipment must be a double door model with 8 removable shelves for a capacity of up to 8 DIN 1/1 trays. Must have HEPA filtered electrically heated forced air drying.
3. Must have insulated double walled AISI 304 stainless steel construction that grants the exterior surface temperature does not exceed 49°C (120°F). Temperature of tempered glass door must not exceed 49°C (120°F).
4. Must have a Visual "open door" indicator.
5. Equipment must have a Color-Touch screen display, must provide control and heater on information for easy serviceability, temperature and time settings must be control password protected to prevent unauthorized changes.
6. Drying temperature must be settable from ambient to 90°C (176°F).
7. Temperature setting from 1 up to 999min or continuous must be possible. Once the selected temperature is attained, it must be controlled throughout within 5.5 °C of the selected temperature.
8. Overheat protection must be provided to shut the heater off with audible alarm for operator.
9. Chamber thermal insulation by a mineral wool panels coating 50mm thick must be provided.
10. The noise level must be less than 40dB.
11. Original Equipment manufacturer authorization for bidder Mandatory.
12. External Frame, panels, shelves and shelves must be made of stainless steel AISI 304.
13. Flashing air flow visual alarm indicators must be displayed if either drying circuit fails.
14. The filtration system must be composed by F5 class pre-filter and HEPA H14 filter.
15. The equipment must have air drying heating elements of power 2000 W.
16. Must have a PLC control system panel with Color Touch Screen display.
17. Audible and visual alarms must be present in the equipment.
18. Equipment must be compliant with:
 - Classified on I class, according to the annex VI 93/42 CEE Medical Device.
 - Designed and manufactured in conformity with the annex I of 93/42/CE Medical Device.
 - EN ISO 14971:2009.
 - European notified body CE Certified or US-FDA certified

A4. Wash Stations with 2 sinks Size (L x W x H): 2400x750x850 mm

1. The worktop should be made of solid, bright-polished minimum sheet thickness of 1.5 mm stainless steel (304) to withstand heavy-duty work with wet instrument.
2. Designed with an integrated 15 mm high edge at the front and sides, and a 150mm high edge (splash back) at the rear.
3. The front and side edges are reinforced and widened to 40 mm. Edges are welded together and polished at the corners.
4. The worktop should slope to the sink, and reinforced by a full-length support frame.
5. The support frame should be a complete assembly with the front, back and ends welded together at the corners.
6. The worktop and support frame should be bonded together with double-adhesive tape of a special, age-

resistant quality to give rigidity and noise abatement.

7. The floor stand should be made of polished stainless steel.
8. The table should be available with double sink units preferably at one side or at both ends of the table, all with a smooth, polished inside finish made of stainless steel (304) top & should have dimensions (size) of (L x W x H), 2400 x 750 x 850 mm.
9. The bottom should slope to the drain.
10. All standard sink units are of sizes that also allow processing of the large modular instrument trays (L450 x W340 x H70 mm) or (L550 x W350 x H200 mm)
11. Sink units are 650 mm wide and 900 mm high (adjustable ± 25 mm).
12. The legs should be able to provide strong support and hold to the entire unit securely.
13. The sink should include an overflow drain pipe and water trap. The table also includes a mixing faucet with swivel spout, for cold and hot water connection.
14. Delivered ready for assembly.

A5. Manual Trolley Wash Unit

1. Stationary cleaning unit for manual wash of trolleys or other moveable equipment. The unit should include a transparent container for chemical disinfectant to be injected into the water and which must function with normal water pressure.
2. The operator should conveniently be able to wash the equipment with a mix of disinfectant and water.
3. Regardless of the water pressure right amount of disinfectant must be automatically injected into the water. The spray should have adjustable nozzle tip from full flow, to micro-spray and a shut-off position. Whenever preferred, the operator should easily switch to rinse with pure water.
4. The 10- to 15-meter-long hose pipe should be the part of the supply unit for effortless operation.

A6. Work Table for receiving table for soil instrument Size (LxWxH) : 1800x600x900mm

1. Stainless steel tables specially designed for work with dry and wet goods (heavy-duty sorting of wire baskets and containers and work with dry/wet goods, inspection, and packing various sets of surgical instruments in trays) and for general purpose pre-storage.
2. The work tables should have a rigid stainless-steel construction which is easy to clean and without sharp edges or corners. The table should be ergonomically worked up, should have easy to clean robust matt-finished (to reduce reflection of light from the surface) with minimum sheet thickness of 1.5 mm stainless steel (304) worktop/surface to withstand and carry out heavy work comfortably, either sitting or standing.
3. The edges along the front, back and sides should be reinforced and widened to 40mm, giving a rigid construction.
4. They are welded together and polished at all corners for good hygiene, as well as for the comfort and safety of the staff.
5. The worktop should be supported by a complete assembly with full-length reinforcements along the front, back and ends, welded together at the corners.
6. The worktop and support frame are bonded together with double-adhesive tape of special, age-resistant quality to give rigidity and noise abatement.
7. The support frame has to be mounted on a solid, stable floor stand, made of polished stainless steel square tubing, with horizontal braces 300 mm above floor level. An adjustable (± 25 mm) plastic foot, easy to clean, is mounted on each leg.
8. Delivered ready for assembly.
9. All edges should be smooth and the rigid frame should be made up of minimum 1.5 mm sheet thickness stainless steel (304).
10. There should be unobstructed access to the working space, since the only supports needed along the front of the table are the corner legs. This also facilitates cleaning of floors.

A7. Soil instrument Trolley

1. Size : 900x600x900
2. Close cabinet trolley for collection soil instrument from OT and wards

A8. Chemical disinfection tank

1. Tank Size : 900x300x200
2. With table Size : 1000x450x900
3. Fitted with drain wall and water inlet tap
4. Should have see through acrylic lid

A9. Spray Gun Rinser

1. Spray gun rinse unit should be designed for connection to water or compressed air, to use for assisted cleaning of pipettes, catheters, cannulas, syringes etc.
 - a) The spray-gun should include tubing and different tips and nozzles for the various cleaning purposes, e.g.:
 - a. Syringes and cannulas with Record cone
 - b. Measuring and blood pipettes
 - c. Catheters and small pipes
 - d. Drainage tubing
 - e. Syringes and cannulas with Lure cone
 - f. Spray jet for rapid instrument cleaning
 - g. Bottles and Erlenmeyer flasks
 - h. Water jet pumps for suction cleaning
2. The gun grip is heat-insulated. The water/air pressure is released, regulated and fully controlled by the spray-gun trigger.
3. Original Equipment manufacturer authorization for bidder Mandatory.
4. European notified body CE Certified or US-FDA certified.

B. Processing area

B1. Horizontal Double Door Steam Sterilizer , Capacity 800 Liters or more (12STU)

22. Should be fully automatic, double door high pressure steam sterilizer with Chamber capacity of 800 litres or more and can accommodate 12 STU baskets load in one cycle.
23. Control System:
 - a. Should be a Microprocessor based Control System with an independent recording system equipped with a coloured touch-screen HMI on the loading side of the sterilizer with an additional HMI on the unloading side for the operator to see the status of the sterilizer.
 - b. Thermal printer/ Dot matrix printer should be provided on loading side.
24. Equipment Construction:
 - a. Frame and External panels of the steam sterilizer must be made of AISI304 stainless steel.
25. Chamber Construction:
 - a. Chamber should be made up of SS 316L made of single mould, not even a single joint. No corners must be present in the chamber.
 - b. Chamber insulation should 50mm thick chloride free glass wool incorporated in SS304 Sheet to provide complete Heat insulation.
26. Sterilizer must be quoted along with imported loading rack, loading and unloading trolley manufactured by the equipment manufacturer.
27. Steam Generator:
 - a. Sterilizer should have an integrated Steam Generator inbuilt made of AISI 316L quality.
 - b. Steam Generator should insulation in 50mm thick chloride free glass wool incorporated in SS304 Sheet to provide complete Heat insulation.
28. Piping System: The primary & secondary piping system should be made up of SS316L to facilitate better protection against corrosion ensuring long life & low maintenance costs.
29. Valves: Must have Pneumatic valves piston type installed with mechanical seal fittings. Pressure vessels & Pressure relief valves should be PED marked.
30. Door Operation: Should have Automatic Pneumatically operated Horizontal Sliding Doors made of AISI 316L Gasket: Should have Steam inflated high quality perimetral silicone seal gasket.
31. Inbuilt Water Saving System: Water saving should be a standard feature, and reducing water consumption.

32. Water consumption: Total water consumption should be less than 260 litres per cycle with water saving Feature inbuilt provided in the system.(Standard configuration).
33. Electricity consumption: Electricity consumption per cycle should be less than 9.5 kW.
34. Water supply feeding lines: Sterilizer must have application of separated water supply feeding lines for steam generator & vacuum pump.
35. Vacuum Pump: Dry Pump, The unit should have latest Dry vacuum pump that will not require water. Vacuum should pump use water saving technology.
36. Sterilizer should have auto-drain facility for steam generator inbuilt in the standard configuration.
37. Original Equipment manufacturer authorization for bidder Mandatory.
38. Number of Cycles:
 - a. Should incorporate 20 programs, Process cycles according to EN285 must be factory programmed & available for the operator.
 - b. The control system must include
39. Heat Exchanger: Heat exchanger must be provided for lowering temperature of steam condensate from chamber to enhance the life of the vacuum pump & provide cool water to the drain.
40. Heat Loss: Frontal Heat Loss should be less than 1200W.
Total Heat loss should be less than 5500 W.

41. Certifications:

Should be compliant with: European Directive for Medical Devices: 93/42/EEC and its revised versions
Pressure Equipment Directive: 97/23/EC

Technical norms and standards:

- EN 285
 - EN ISO 14971
 - EN ISO 17665-1
 - IEC EN 61010-1
 - IEC EN 61010-2-040
 - IEC EN 60601-1-6
 - IEC EN 61326-1
 - Execution of machine in compliance to EN 285
42. European notified body CE Certified or US-FDA certified.
 43. Main Control System Should a microprocessor-based programmable logic controller (PLC), The PLC is of industrial type (not custom-made) from an eminent multinational company with large availability on markets, high reliability.
 44. Independent Monitoring System (IMS) .The equipment is equipped with an independent monitoring system which consists of a secondary microprocessor-based programmable logic controller (PLC) of the same brand of the main control system. This device determines in real time if the appropriate sterilization parameters (temperature/time/pressure) have been met throughout the sterilization process.

B2. Low Temperature H₂O₂ Gas Plasma Sterilizer

1. Should provide simple and fast sterilization of surgical instruments in metals, alloys and non-metals, delicate microsurgical instruments, etc. at low temperature using vaporized Hydrogen Peroxide.
2. Chamber capacity: Equipment should have a chamber volume of 110 litres or more with a usable chamber volume of 90 litres or more.
3. Equipment body construction: Should be of High quality Aluminium/metal/alloy.
4. Chamber construction: Chamber must have rectangular/ Circular section with rounded corners .
5. Door operation: The automatic vertical sliding
6. Door must be equipped with an electrical heating system to prevent potential condensation areas.
7. Sterilant used should be Vaporized Hydrogen Peroxide in an aqueous solution at 50% or more contained in 150ml Bottle/ Cup/ Cassete/ Cartridge Hydrogen peroxide Residues (ppm)
8. No toxic residues must be present at the end of the cycle; H₂O and O₂ safely evaporated in the air
9. Bottle/ Cup/ Cassete/ Cartridge details:
Hydrogen peroxide dosing quantity must be electronically controlled. Bottle/ Cup/ Cassete/ Cartridge should be able to dispose off in normal plastic waste.

10. Cycle times:

Fast cycle - 30 min: Should sterilize generic reusable medical devices, rigid scopes without lumen and micro-surgery kits, with the exclusion of hollow instruments (surface sterilization).

Standard cycle - 45 min

a. Should sterilize single and dual channel flexible lumens. Single Channel Flexible endoscope with diameter from 1mm and length up to 1050 mm.

b. Dual Channel Flexible endoscope with diameter from 1mm but a length up to 1000 mm for one channel and up to 850 mm for the other channel.

Advance Cycle - 50 min

c. Should sterilize hollow rigid, semi-rigid and flexible instruments with diameter from 0.7 mm and length up to 750 mm.

d. Max load: 10 Kg

11. Max load in single cycle: Should be able to reprocess load up to 16 kg in one cycle.

12. Utility connections:

Equipment must be a Plug and play model with only electric supply connection required.

No separate exhaust or ventilation must be required.

13. Position of plasma generator: Plasma generator should be placed outside/inside the chamber giving increased usable volume.

14. Door seals:

The chamber tightness must be ensured by special silicone gasket disposed along the perimeter of the door hatchway.

The seal must be guaranteed by the mechanical pressure of the door mechanism on the gasket.

Pressure must be kept until the end of the sterilization process

15. Thermal Insulation: The insulation must be provided to guarantee a temperature of lower external surfaces to 40°C.

16. Vacuum pump: Should have oil ring vacuum pump. During the cycle the system must reach the vacuum value of 20mTorr.

The vacuum pump must be combined with an oil filtration and oil recovery system that drastically reduces the oil consumption and significantly extends the maintenance intervals.

17. Hydrogen peroxide neutralization system (Triple action for safety of residue emission)

18. Plasma generation system: the transformation of the H₂O₂ gas in the plasma status must take place by means of the generator; a high voltage electric arc in contact with the gas must create the plasma cloud.

19. Catalytic converter and activated carbon filter must be provided in the system.

20. Air filtration: Vacuum breaker with filtration 99.999% test according to DOP must be provided.

21. Control system:

Sterilizer must be equipped with a PLC digital microprocessor with a colour touch screen and an independent recording system.

22. The user interface must be a 7" color touch-screen type control panel and alarms, alerts and status must be clearly displayed color coded.

23. Original Equipment manufacturer authorization for bidder Mandatory.

24. Memory Storage : Should have Memory storage of up to 200 executed cycles data.

25. Certifications :

Should be compliant with:

European Directive for Medical Devices: 93/42/EEC and its revised versions Machinery

Directive: 2006/42/EC and its revised versions

Technical norms and standards:

- ✓ EN ISO 14937 (ANSI/AAMI)
- ✓ EN ISO 14971
- ✓ IEC EN 61010-1
- ✓ IEC EN 61010-2-040
- ✓ IEC EN 60601-1-6
- ✓ IEC EN 61326-1

26. European notified body CE Certified or US-FDA certified.

B3. Table Top Steam Sterilizer

1. Capacity: 20 to 30 ltrs
 2. Chamber Size : The sterilizer should have a rectangular/Cylindrical chamber with maximum processing capacity per cycle at least 4 S.S. trays.
 3. Types of Cycles Process: Table Top Sterilizers should be equipped with B-process as per latest EN 13060 Proof of declaration of conformity.
 4. Chamber: Should be made of S.S.316 & should comply with 97/42/EEC directive.
 5. Door Design: Should have hinged door with locking system.
 6. Cycle programs: Vacuum, Helix, Bowie & Dick & sterilization cycles of 121°C and 134°C.
 7. Steam Generator: Sterilizer should have inbuilt steam generator incorporated in the standard configuration.
 8. Noise Level: Must be less than 50 dB.
 9. Water Consumption : Must not be more than 0.3 litres.
 10. Safety Devices :
 - ✓ Protection against short circuits
 - ✓ Protection from overheating
 - ✓ Overpressure protection
 - ✓ Protection from accidental door opening
 - ✓ Cycle process monitoring and self- diagnostics in real time.
 11. Accessories: The sterilizer unit should include Rack with 4 levels & suitable size instrument trays should be the part of the supply for every sterilizer.
 12. Original Equipment manufacturer authorization for bidder Mandatory.
 13. Electrical Requirement: Voltage: 230V, 50Hz.
 14. Built in Printer must be provided for sterilization cycles data.
 15. Standards & Norms:
 - ✓ Autoclave compliant to 93/42/EEC and amendments
 - ✓ Class II b device
 - ✓ Chamber complies with 97/23/EEC directive
 - ✓ Company quality certification: ISO 9001 and ISO 13485
 - ✓ EN 13060
 - ✓ EN ISO 14971
 - ✓ EN 61010 – 1
 - ✓ EN 61010 – 2 – 040
 - ✓ EN 61326
 - ✓ EN 13445
27. European notified body CE Certified or US-FDA certified.

B4. Heat Sealing Machine

(Automatic Rotary Sealing Machine - printing)

1. Rotary heat sealers should provide validated sealing (as per DIN 58953T7 with manufacturing certificate) of sterilization bags and clear-view pouches(paper/plastic laminate).
2. These through feed-type sealers should be microprocessor-controlled for highest capacity and ease of operation.
3. The rotary heat sealer should give documentation of process parameters via an integrated printer and could be integrated with documentation system. There should be a provision of serial interface for PC (RS 232).
4. The ergonomically design should be tilted forward for increased user convenience and space- saving installation.
5. The sealers should be built and tested in accordance with EU safety norms and German/TÜV norms.
6. The sealer housing should be powder-coated and the control panel is of the flat- membrane type, for easy cleaning.

7. It should be operationally simple. When a bag is fed into one side of the machine, the machine should start automatically or by pushing a button, moving the bag through the machine, and applying pressure and heat to form a perfect seal.
8. The warm-up time should not exceed 30 seconds, and the feed speed should be approx. 10 m/min.
9. The temperature should be adjustable from 80 – 220°C with a tolerance of 1% of the set value.
10. It should be regulated by a heating element that is highly sensitive to temperature fluctuations, assuring even temperature and perfect seals.
11. It should offer a number of additional features, including: automatic start-up reenergy-saving stand-by mode pre-set temperatures re-settable counter function
12. Rotary heat sealers come with a port and cable for connection of the sealer to a PC and printer, enabling monitoring and documentation of the entire process.
13. Should have a protection mechanism against overheating and start prevention at temperature deviations outside $\pm 5^{\circ}\text{C}$ tolerance.
14. Rotary heat sealer should be CE-marked
15. Original Equipment manufacturer authorization for bidder Mandatory.
16. Please provide detailed specifications, features and details of parameters (in technical compliance) like heating time (sec), Width of seal (mm), speed (m/min), Temperature settings ($^{\circ}\text{C}$), seal-edge (mm), automatic start of drive- belt, accessories like external label printer with connection cable and paper guide, choice of English language and pressure control, automatic temperature reduction function and re-settable counter etc. of the model offered in the quotation.
17. The unit should be supplied with support made of S.S. during through-feed in the sealer.
18. European notified body CE Certified or US-FDA certified.

B5. Control & Packing Table with two Shelves, Size (LxWxH) : 2000x1400x900 mm

1. This table should be specially designed for sorting, inspection, functional control and packing of various sets for wards, clinics etc. and for surgical instrument sets in trays.
2. The work could be done comfortably, either sitting or standing.
3. The worktop should be made of S.S 304 grade 1.5mm thick. All edges should be smooth. The extended width of the worktop should be designed to facilitate thorough inspection of instrument trays and allow the use of large wrapping material.
4. The rigid frame is made of stainless steel (304).
5. There should be unobstructed access to the working space, since the only supports needed along the front of the table are the corner legs. This also facilitates cleaning of floors.
6. The single workplace table should have 700 mm wide worktop and a double workplace should have 1400 mm worktop.
7. The table should include a two-shelf console, mounted on the worktop, for storage of packaging materials. The rigid supporting columns of the console include 3 electrical outlets.
8. There should be a free space of 450 mm between the lower shelf and the worktop, and 150 mm between the two shelves.
9. The table should have a drawer unit (both sides as double model) mounted under the worktop.
10. Each drawer unit should be 400 mm wide and includes a drawer and a sliding plate.

B6. Work Table for sealing machine, Size (LxWxH) : 1600x750x900 mm

1. Stainless steel tables specially designed for work with dry and wet goods (heavy-duty sorting of wire baskets and containers and work with dry/wet goods, inspection, and packing various sets of surgical instruments in trays) and for general purpose pre- storage.
2. The work tables should have a rigid stainless steel construction which is easy to clean and without sharp edges or corners.
3. The table should be ergonomically worked up, should have easy to clean robust matt- finished (to reduce reflection of light from the surface) with minimum sheet thickness of 1.5 mm stainless steel (304) worktop/surface to withstand and carryout heavy work comfortably, either sitting or standing.
4. The edges along the front, back and sides should be reinforced and widened to 40 mm, giving a rigid construction. They are welded together and polished at all corners for good hygiene, as well as for the comfort and safety of the staff.
5. The worktop should be supported by a complete assembly with full-length reinforcements along the front, back and ends, welded together at the corners.

6. The worktop and support frame are bonded together with double-adhesive tape of a special, age-resistant quality to give rigidity and noise abatement.
7. The support frame has to be mounted on a solid, stable floor stand, made of polished stainless steel square tubing, with horizontal braces 300 mm above floor level.
8. An adjustable (± 25 mm) plastic foot, easy to clean, is mounted on each leg.
9. Delivered ready for assembly.
10. All edges should be smooth and the rigid frame should be made up of minimum 1.5 mm sheet thickness stainless steel (304).
11. There should be unobstructed access to the working space, since the only supports needed along the front of the table are the corner legs. This also facilitates cleaning of floors.

B7. Reel dispenser cabinet

1. Size : 1200x400x550mm
2. Moc SS 304 thickness 1mm top and legs 1.2mm
3. Can hold upto 8 reels of different sizes arranging in two rows.

B8. Sterile Tape Dispenser

1. The dispenser for sterilizer tape should hold two reels of tape.
2. The bottom plate should be heavy duty fitted with anti-slip rubber thereby preventing the dispenser from slipping while the tape is torn.
3. The body should be made up of high quality quoted steel.

B9. SMS/ Paper dispenser

1. Size : 1200x1400x600
2. Should have 4 rods for holding different size
3. Should have 4 castor for easy movement

B10. Wire Shelf Storage Shelf module, Size (LxWxH) : 1525x455x1895 mm

1. Construction should be based on single free-standing shelf modules for storage of clean linen, instruments, and packing material or sterilized goods, including disposables.
2. The compact modules should have shelf lengths of 1000mm or 1525 mm depending on site conditions. and the modules should be extremely space-efficient. Moreover, two single modules can be placed back to back and combined as a double module unit.
3. If two sets of shelves are to be connected, 10 S-hooks should be supplied.
4. The wire construction should allow good air circulation while permitting easy inspection of the goods.
5. The wire shelves should be made of special heavy-duty steel (304), electro-plated and surface treated with clear epoxy varnish to facilitate cleaning.
7. The modules should be easy to assemble on site and all parts fit precisely.
8. Shelves should be mounted by means of plastic clamps onto circular rigid posts, with the adjustable height within a range of about 50 mm. Each post should include a height Adjustable foot.
9. Each module should include 5 shelves, mounted at heights of about 450, 800,
10. 1150, 1500 and 1850 mm above floor level.
11. The shelf unit could also be used as a mobile storage unit by replacing the foot with optional \varnothing 125 mm castors.

B11. Instrument Storage Cabinet

1. MOC:SS304
2. Size : 960x1820x400mm with 5 selves size 885x350
3. with tuffen glass door
4. fitted with handle lock and stopper
5. To keep sterile instrument which are valuable and needs to store under lock and key.

B12. Linen Fold Table, Size (LxWxH) : 2000x1400x900 mm

1. The table should be specially designed for sorting, inspection (each piece of linen can be moved over an illuminated inspection panel) and folding of surgical dressing sets and individually packaged

towels/gowns. The extended width also facilitates work with large dressing sheets. Work can be carried out comfortably, either sitting or standing.

2. The worktop should be made of a SS 304 material that enhances the lighting for inspection of linen.
3. All edges of the worktop are smooth.
4. The top has a built-in opalescent (milky) plastic surface plate, 1000 x 600 mm, illuminated from underneath by two 25 W fluorescent tubes located beneath the top in a laminated recess.
5. The table has two electrical outlets (one on each side).
6. The rigid frame should be made of stainless steel (304).
7. There should be unobstructed access to the working space, since the only supports needed along the front of the table are the corner legs. This also facilitates cleaning of floors.

B13 : Linen storage rack

1. Size : 1500x450x1850
2. MOC: SS 304 (thickness of 1.2mm for shelves & 1.2mm for stand pipes)
3. With 4 shelves, 3 side railings to avoid fall of linen from rack

B14. Magnifying Lamp (+3) diopters magnification

1. The magnifying lamp should be suitable for the professional use, highly suitable for demanding work in CSSD for inspection of delicate instruments used in hospitals (surgical and medical).
2. The lamp should have minimum standard +3-diopter circular glass lens which can provide a viewing field of 127 mm diameter and magnifies 1.75 times.
3. The circular 22W energy-saving white led surrounds the magnifying lens and provides effective lighting without annoying heat.
4. The lamp should be easily available for replacement.
5. Lamp should be provided with a dust cover to be mounted on the magnifying lens to protect it from dust and dirt and to prevent it from inadvertently acting as a burning-glass.
6. The magnifying head should be made of ABS polymer, combining light weight with high impact strength.
7. The lamp could be operable with an electrical connection of 220/240 V.

B15. Stainless Steel Paneling for Sterilizer & Washer Disinfector Size : To be measured at site as per actual conditions

1. All the sterilizers should be recessed between the S.S. 304 quality panels.
2. The S.S. sheets should have 20 gauge thicknesses with superior finish to match it with equipment finish.
3. These Sheets should be mounted on SS 304 frame structure with adequate supports.
4. The panels should have the doors for service access from loading side
5. There should not be any gaps between panel & the equipment. Any small gaps should be sealed to ensure that it restricts the air movement.
6. The same should be followed for washer disinfector paneling.

C. Sterile storage area

C1. Free Standing basket rack (24 Baskets). Size (LxWxH) : 1850x480x2000 mm

45. should be offered for both single and double basket storage racks to store
46. Wire baskets in sterile storage and/or as pre-storage of clean packed goods.
47. The rack should be designed as an open unit to promote aeration of sterilized goods and to make inspection of stored goods as easy as possible.
48. Baskets should be loaded and unloaded by conveniently sliding them on rigid, horizontal guide-rails, consisting of 50 x 25 mm steel profiles.
49. The guide-rails are welded to a robust support column mounted on a rigid floorstand.
50. The columns should be joined by support frames on top and below the base of the rack.
51. To facilitate cleaning of the floor, the base should have a rigid construction that
52. minimizes the number of legs needed for support.
53. Each leg should have an adjustable foot (± 25 mm)

54. The single rack should have a free-standing section that holds 8 baskets in each vertical.

C2. Modular Sterilizing baskets. Size : 585x395x195 mm

1. It should be modular design with standard SPRI sizes and high precision and should be designed for sterilizing / processing as well as easy handling and management of the supply, storage and distribution of re-circulated sterilized goods.
2. It should be self-drying after disinfection in hot water (min. +85°C)
3. Wire Baskets should be sturdy, jig-welded trays maintain their size and shape even if handled carelessly.
4. It should be both nestable and stackable There should be special wire support to help making baskets both stackable (when the supports are folded into the basket) and nestable (when the supports are folded out)
5. The top frame should be designed such that it should serve as a handle grip for easy carrying even when heavily loaded.
6. There should be no sharp edges or wires.
7. The surfaces should be smooth to assure easy cleaning in a washer-disinfector.
8. The baskets should be made of electro-polishes heavy-duty stainless steel (304) and should have a rigid bottom frame that gives space for airing between goods and work surfaces and allow use on roller belt and chain conveyors.
9. It should be designed and manufactured in accordance with high quality specifications to assure long lifetime.

C3. Wire Shelf Storage Shelf module Size (LxWxH): 1000x455x1895mm

1. Construction should be based on single free-standing shelf modules for storage of clean linen, instruments, and packing material or sterilized goods, including disposables.
2. The compact modules should have shelf lengths of 1000mm or 1525 mm
3. depending on site conditions. and the modules should be extremely space-
4. efficient. Moreover, two single modules can be placed back to back and
5. combined as a double module unit.
6. If two sets of shelves are to be connected, 10 S-hooks should be supplied.
7. The wire construction should allow good air circulation while permitting easy inspection of the goods.
8. The wire shelves should be made of special heavy-duty steel (304), chromium-plated and surface treated with clear epoxy varnish to facilitate cleaning.
9. The modules should be easy to assemble on site and all parts fit precisely.
10. Shelves should be mounted by means of plastic clamps onto circular rigid posts, with the adjustable height within a range of about 50 mm. Each post should include a height Adjustable foot.
11. Each module should include 5 shelves, mounted at heights of about 450, 800,
12. 1150, 1500 and 1850 mm above floor level.
13. The shelf unit could also be used as a mobile storage unit by replacing the foot with optional Ø 125 mm castors.

C4. Sterile Transport Trolley (LxWxH) 1400 x 750 x 1050 mm

1. A trolley for sterile goods handling where higher than normal dust protection is required e.g. short transports between hospital buildings. Suitable for handling baskets or containers with a total capacity of 9 STU (1 STU = 600 x 300 x 300mm) on three solid, removable shelves (3 x 3 STU).
2. Trolley should be fitted with large stainless steel wheels (Ø 160 mm) for easier manoeuvrability.
3. Two fixed wheels and two swivel wheels with brakes.
4. The fully welded stainless steel construction (minimum 18 gauges, 304) makes it suitable for cabinet washers. The doors open 270° for easy access and cleaning.
5. Trolley should have lockable doors and should include handlebars.

C5. Pass Box, Size : 600x600x600mm, internal

1. Pass-through chamber should have manually operated doors with mechanical locking system and should fit all types of standard racks.

2. Each door should have its own convenient push-button control to ensure that both doors cannot be opened at the same time.
3. The control should feature two modes of operation to open or close the door with press button mechanism.
4. The door should also have a built-in safety feature.

C6. SS Table Trolley

1. Size 900x500x850H mm
2. Moc SS 304 thickness 1.2mm top and legs 1.5mm

C7. Instrument Storage Cabinet

1. MOC 304
2. Size: 960x1820x400mm
3. With 5 selves size 885x350
4. With tuffen glass door
5. Fitted with 3 point lock
6. To keep sterile instrument which are valuable and needs to store under lock and key

C8. Instrument Tray, Size : 480x250x60 mm

1. It should be modular design with standard sizes and high precision and should be designed for use with modular wire baskets through all phases of instrument processing: washing and disinfection (both manual and in an automatic washer- disinfecter), ultrasonic cleaning, inspection and packing, sterilization, storage, distribution and usage.
2. It should be self-drying after disinfection in hot water (min.+85°C)
3. Instrument trays should be sturdy, jig-welded trays maintain their size and shape even if handled carelessly.
4. All cross-points in the network and vertical wires to top and bottom frames should be point- welded. All free wire ends should be soft-polished to prevent injury when handled. It should be electro-polished for smooth, clean surfaces and also suitable for IS modular wire baskets.

C9. Instrument Tray, Size : 340x250x60 mm

1. It should be modular design with standard sizes and high precision and should be designed for use with modular wire baskets through all phases of instrument processing: washing and disinfection (both manual and in an automatic washer- disinfecter), ultrasonic cleaning, inspection and packing, sterilization, storage, distribution and usage.
2. It should be self-drying after disinfection in hot water (min.+85°C)
3. Instrument trays should be sturdy, jig-welded trays maintain their size and shape even if handled carelessly.
4. prevents instruments from penetrating the sides of the tray.
5. All cross-points in the network and vertical wires to top and bottom frames should be point- welded. All free wire ends should be soft-polished to prevent injury when handled.
6. It should be electro-polished for smooth, clean surfaces and also suitable for ISO modular wire baskets.

D: Utility

D1: Heating, ventilation, and air conditioning (HVAC)

1. Proper Ventilation system including fans and exhaust fans has to be provided for Cleaning and Disinfection area and linen folding area. Proper degassing and ventilation facilities should be provided for ETO sterilizer room. Proper ventilation has to be provided in the receiver area and entrance foyer.
2. Necessary Ducting of GI sheet with grills at the Wash and Non-sterile area & Corridor area and Aluminium ducting with powder coated diffusers for the Sterile area inside the CSSD up to the nearby AHU for supply of cool air at the working place inside the Sterile, Clean. Fresh air should
3. be supplied to the Wash Area of CSSD. Exhaustion of hot air for creating comfortable working zone

within the CSSD. HEPA filters and laminar airflows, if required shall be supplied for contractor. AHU will be client installed item

D2 : Plumbing

1. Laying of heavy duty GI water pipe line for Plumbing with necessary taps, joints, elbows, Unions, Tees and valves of GI made and IS-1239 standard (Latest version) to various supply points in the CSSD Room from single point provided by the hospital. All plumbing fixtures to be like Jaquar make.
2. Construction/laying of Draining system from all the equipment's/Sinks to the main drain (outside the CSSD) with SS Grating/covered with drain port, proper trap and flow system and tapping. All drain pipe work to be of make and grade as of already installed or being installed at same building.

D3 : Electrical fitting

1. All electrical accessories like cable wire, electrical outlets, switches etc supplied by the contractor should be fire proof of reputed make, certified for electrical safety
2. Providing fixing of Electrical Gadgets like ELCB, MCB, Light Points, Power points, Cool air Fans, Exhaust fan etc in the CSSD room. Installation of MCB, ACB, ELCB & OCB of like Havell /Siemens /L&T /Schneider etc for Control Panel for CSSD Installation of all electrical cabling must be of IS: 1554 (As per latest amendment) standard and wiring as per IS: 732 standard and proper earthing of all CSSD equipment's and other electrical instrument and accessories in the CSSD room as per standard guidelines of BIS /Indian standard.
3. The contractor should provide Final electrical safety test, system test and calibration to be done by authorized person with test instruments.

D4 : Wall partition & paneling

Wall Panel shall be made of 1 mm Stainless Steel 304 Grade

1. The entire paneling system shall be RoHS certified (from UL / Intertek).
2. The paneling tiles shall be ASTM E-84 tested and certified from UL/Intertek. The OEM shall have CE compliance certificate on paneling systems.
3. The paneling system shall have design feature of quick and easy demounting and reinstallation of individual panels without removing the adjacent tiles. The system shall have witness audit certificate from UL for this design feature of changeability to ensure that the tile can be replaced within 10 minutes (using screwdriver).
4. Wall paneling structure shall have load carrying capacity of 250 Kilogram to hold any display unit on clamp. The system shall have witness audit certificate from UL.
5. Wall Paneling / partition System shall have curvilinear shape in between of 18-20mm Radius for integration with flooring. The system shall have witness audit certificate from UL.
6. Modular wall paneling/ partition shall have flush mounted tile with the paneling/partition fascia. The system shall have witness audit certificate from UL.
7. Modular Wall Paneling/ Partition structure shall not be welded either on under- structure or on surface tiles. The system shall have witness audit certificate from UL.
8. The exterior and interior wall tiles shall be designed to achieve Sound transmission class (STC) value of 35 for Wall Paneling & Partition. (According to IS: 9901 (Part III) – 1981, DIN 52210 Part IV- 1984, ISO: 140(Part III) -1995, test report from reputed agency shall be submitted along with the bid.
9. The wall paneling system shall have a design feature of load carrying capacity of 250 kg to hold any display unit on clamps. The OEM shall have witness audit Certificate from UL for this feature.
10. Wall Paneling system shall be tested and qualified for seismic zone 5 earthquake vibrations from approved government agency. Valid test report to be submitted along with the bid.
11. Powder coating with added silver ions shall be tested and certified on following parameters. Certificates shall be issued from NABL Accredited/ Govt. Lab.
12. Bidder has to visit site & inspect site conditions, Preliminary site drawings signed by concerned authority shall be submitted along with technical bid. Wall paneling is mandatory for sterile area only, sterile area shall be highlighted in drawing.

D5 : Lighting

1. Recess/surface mounted mirror optic luminaire with Paralite P5 louvres; 3 x 36 WCFL(TC- L) lamp

2. CRCA powder coated housing fitted with parabolic shape pre-anodized aluminium reflector. Soft, aesthetic CRCA powder coated frame and corners made in engineering plastic
3. Category 2-Paralite P5 louver system
4. Opal diffusing lenses made from virgin non yellowing grade PMMA at corners generating 'crescent' shaped soft glow of light
5. Sleek locks made in engineering plastic, gelling with the form to avoid any light gaps.
6. Complete with slim open type low loss copper ballast and accessories pre-wired upto terminal block in the control gear
7. Designed & manufactured to comply with IS 10322/Part 5/ Sec.1: 1987

D6 : Fire Alarm

Fire alarm and smoke detector should be provided as per hospital safety requirement

D7 : RO water plant

With capacity of 300 ltr per hr peak and 3000 lits per day peak to be installed and maintain for supply of RO water with in department at required points including adequate storage tank to run the CSSD & ensure uninterrupted supply.

D8 : Compressed air line

Copper piping to be done for all air outlets with fittings to interface with machine Standby air compressor to be provided with in department of 5 hp capacity screw type design.

D9 : Signage

Complete design should be properly and decoratively sign indication to be provided. The design & material shall be in tune with building signage theme

D10: Ceiling

1. Snap fit ceiling tiles shall be made up of at least 0.6 mm thick Stainless Steel Sheet.
2. The OEM shall have CE compliance certificate on ceiling systems.
3. The ceiling tiles shall be ASTM E-84 tested and certified from UL/ Intertek.
4. The ceiling system shall be RoHS certified (UL/Intertek).
5. Ceiling system shall be tested and qualified for seismic zone 5 earthquake vibrations from approved government agency.
6. Powder coating with added silver ions shall be tested and certified on following parameters. Certificates shall be issued from NABL Accredited/ Govt. Lab: -
 - ✓ Adhesion test: EN ISO 2409 (2 mm)
 - ✓ Impact resistance test: ASTM D 2794 (5/9' ball) on applying 180 kg of impact load.
 - ✓ 1000 hrs. Humidity test as per ISO 6270.
 - ✓ Salt spray test: 1000 hours as per ASTM B 117.
 - ✓ Cross Hatch Adhesion test as per ASTM: D3359.
 - ✓ Conical Mandrel Test as per ASTM: D522.
 - ✓ Scratch Test as per IS: 101-1964 by applying 2kgs load.

D11: UPS Backup: 10KVA ON LINE 30 Min Back up

1. UPS with Efficiency Control System (ECS), Galvanic isolation, High overload capacity, LCD display, Extensive parallel configurations.
2. When the mains fails, the inverter which is constantly powering the load simply draws power from a battery (internal on some models) to provide complete protection. Protection from extended blackouts can be achieved using battery extension packs or a combination of battery extension packs and a generator
3. The UPS should be an On-line double conversion UPS (VFI SS 111 - IEC EN 62040-3) with a transformer isolated inverter.
4. UPS should be Compatible with Tele Net Guard for remote monitoring. Advanced communication, multiplatform, for all latest operating systems and network environments: Supervision and shutdown PowerShield3 software for latest
5. UPS should be supplied with a cable for direct PC connection (Plug and Play)
6. Should have RS232 double serial port.

7. UPS should have communications slot for network adapter installation; ESD contact (Emergency Switching Device) for switching off the UPS by remote emergency button. UPS should have remote LED mimic panel or graphic display.

8. UPS Should have high reliability i.e. full microprocessor control with no-break static and manual bypass.

9. Should have high level diagnostics: states, measurements and alarms -available from the built-in LCD.

10. UPS Battery Care System should have following features and capabilities to optimize battery management and obtain the best performance and operating life possible.

- ✓ Dual level charging regime to optimize recharge currents and reduce chargetimes.
- ✓ Temperature compensation and deep discharge protection to reduce overallbattery ageing
- ✓ Charge blocking system to reduce electrolyte consumption and lengthen the life ofVRLA batteries
- ✓ Battery tests to diagnose, in advance, any reduction in performance or problemswith the batteries.
- ✓ UPS should have Hot System Expansion (HSE) to allow the addition of a furtherUPS into an existing system, without the need to switch off the UPS or transfer them to bypass mode.

11. Regulations:

- ✓ Regulatory Directives LV 2006/95/EC - 2004/108/EC;
- ✓ IEC Safety EN 62040-1;
- ✓ EMC IEC EN 62040-2;
- ✓ IEC Performance EN 62040-3
- ✓ Classification according to IEC 62040-3 (Voltage Frequency Independent)VFI-SS -111

D.12 Doors

Single Leaf Door(1000mm × 2100mm) / (950mm × 2100mm) / (900mm × 2100mm) / (800mm × 2100mm) / (600mm × 2100mm)

1. The door shall be 60mm thick complete flush. Consist of 52mm Honeycomb / CFCfree Polystyrene and 2 laminates Stainless steel AISI 304 thickness 1.00mm.
2. The above panel shall be framed in 1.2mm Thick stainless steel profiles.
3. Doors construction shall properly fit with wall panels and shall create a uniform
4. system of the operating theatre. Finished floor on either side of the door shall be
5. perfectly levelled (maximum permissible difference +1mm).
6. The inner part of the door shall be filled with honeycomb / CFC free Polystyrene of thickness of 52mm or nearby (shield airtight to prevent further ingress of any microbial organism).
7. Door opening handle shall be strong and sturdy. Material shall be of Stainless Steel (gloss finish). Door shall be provided with high quality cylindrical lock.
8. Door Frame shall be made up of AISI 304 Steel Grade.

E. Dirty Utility area

E1. Bedpan Washer:

1. Bedpan Washers should be classified as CE Medical Device (Community rule93/42/EEC)
2. Cycle time must be 6 - 8 minutes per cycle.
3. Water consumption per cycle must be less than 17 - 19 litres
4. Simultaneous treatment of 1 bedpan and 1 urine bottle or up to 3 urine bottles mustbe done.
5. Optimal washing capacity should be achieved with rotating nozzles, fix, centralrotating dedicated to washing.
6. Facility to store Chemical tanks inside the lockable cabinet
7. Cold and warm water connections must be available to be able to perform the first washing with cold water, then using warm water to preheat the chamber for thermaldisinfection.
8. Max. Flow rate should be 12 lt/min for cold & Warm water
9. Main Drain Peak flow rate should be 100lt/min
10. 3 pre setted programs:
 - short
 - standard

- intensive

All programs should perform several washing, rinsing and thermodisinfection phases and differ for the number and time length of the phases.

11. Frame and external panels must be made in AISI 304 stainless steel Scotch Brite finish. Easy access to all inner components for easy maintenance should be possible.
12. Manual door opening and closing must be provided. The door must be made of AISI 304 stainless steel mirror polished on the internal side.
13. Door closing should be waterproof.
14. The machine door must be safely locked when the machine is in operation. Door opening should be possible only when the cycle has been positively completed after the completion of whole process.
15. Wash chamber must be press-forged in a single piece, with rounded edges to guarantee the perfect flow of the liquids. The construction with smooth edges and corners should remove areas where dirt can accumulate allowing bacterial growth.
16. Washing chamber, washing circuits, tank and spraying nozzles should be made of high quality AISI 304 stainless steel.
17. The double wall construction should isolate the washing chamber to reduce heat loss and noise.
18. Sound level must not be more than 51.0 dB.
19. Heat Loss must not be more than 570 kcal/h.
20. Water accumulator tank should be provided with level controls.
21. Should be equipped with High efficacy centrifugal washing pump 250 l/min flow feeding washing circuit.
22. Automatic system should be there for injecting limescale remover into the generator in the case of long stoppages.
23. Soiled goods, without any previous emptying, should be able to be loaded at an ergonomic working height. The door to act as a loading platform and support the bedpan/urine bottles holder. The closing of the door should automatically tilt and empty pans and bottles.
24. Must have incorporated steam generator 3.2 kW electric heating elements steam generator allowing to quickly reach the thermodisinfection temperature inside the chamber.
25. Steam must be distributed inside the chamber through the washing circuits and nozzles to assure at every cycle a perfect disinfection of the treated items, of the chamber and of the hydraulic circuits.
26. Thermo disinfection phase should be carried out set at 91°C wash chamber temperature for 60 seconds.
27. A0 value must be set at 600 as factory standard, and facility to custom set at 60 value.
28. LED display to be provided to show at every moment of the ongoing treatment the indication of the treatment program, the working phase, the chamber temperature, A0 value during disinfection phase until the reach of the cycle completion. Indications to be displayed by abbreviations.
29. The flusher must be equipped with a universal holder. Different racks and holders to be optionally available for special needs.
30. System Monitoring: RS 232 Port for printer connection to monitor and validate washing cycles to be provided.
31. Audible and visual alarms to be provided for quality control for each wash cycle. Every alarm status to be indicated by a numeric code.
32. Must have Up to 4000 events memorization capability of the system for a standalone machine.
33. PT1000 temperature probe with boiler safety over-temperature cut-out must be provided.
34. Water inlet system: Filters must be installed on all incoming water lines. Filters must be easily removable for cleaning.
35. Max drain water temperature must be at 60°C/140°F
36. The machine drain must be monitored by a dedicated sensor to stop cycle execution in case of clogged drain.
37. Should be compliant with:
 - EN ISO 15883-1/3
 - KIWA,
 - CSA-US,
 - EMC &

- SPRI
- CE Certified or US-FDA certified.

F. Endoscopy Reprocessing Department

F1. Fully Automatic Endoscope Washer Disinfector Technical Specifications:

1. Should be an automatic endoscope reprocessor capable to reprocess 1 flexible endoscope.
2. Main frame should be made of stainless steel AISI 304. The washing chamber must be constructed from AISI 316L, designed and constructed with smooth edges and corners to avoid areas where dirt can accumulate and allow bacterial growth.
3. The endoscope washer disinfector must be quoted along with imported wash cart and connectors manufactured by the equipment manufacturer.
4. The drain system must guarantee complete emptying of the hydraulic circuit and the washing chamber.
5. Built-in sterile air system made up of 0.2µm filter for the production of sterile air must be provided to ensure complete purging of the instrument channels.
6. Leak Test must be executed during the whole wash/disinfection cycle with automatic cycle stop in case of anomalies.
7. Three membrane pumps must be provided for precise addition of liquid chemical agents.
8. Storage space of up to 1 chemical tanks of 5lt capacity each must be provided.
9. Two independent PT 1000 temperature and one additional PT 1000 temperature probe for checking the inlet water temperature.
10. Equipped with a microprocessor based control system where all the different programs can be selected from the control panel.
11. Must be provided with a color touch screen of 8" to inform the operator regarding machine status, cycle phase, remaining cycle time and the chamber temperature.
12. Audible and visual alarms must be provided for quality control of each cycle.
13. Integrated printer must be provided to monitor and validate all washing cycle phases.
14. Original Equipment manufacturer authorization for bidder Mandatory.
15. USB port must be provided on the frontal panel for historical cycle data, machine parameters and washing programs download. It must also facilitate easy firmware update.
16. Equipment must incorporate thermal and chemical self-disinfection cycles.
17. Should be provided with high performance melamine insulation guards against heat loss and to reduce noise reduction.
18. The sound level must be less than 40dB.
19. Equipment should be compliant with:
 - EN ISO 15883:4
 - European notified body CE

F2. Endoscope Drying & Storage Cabinet Technical Specifications:

1. The equipment must be able to dry and store 12 flexible endoscopes keeping them in aseptic conditions.
2. Aseptic time must be up to 720 hours.
3. The endoscopes must be hung vertically with the connection end and the distal part lying on a shelf in a stainless steel mesh.
4. The equipment must have vertical sliding drawers that allow almost total extraction of the drawer and the convenient access to the instruments for the positioning and withdrawal of the scopes.
5. Instrument channel purging with high pressure sterile HEPA H14 filtered air must be done.
6. The device must also be equipped with an efficient warm air flow that dries both the chamber and the endoscopes exterior.
7. External frame and panels must be made in AISI 304.
8. Chamber thermal isolation by mineral wool panels coating 50mm thick must be provided.
9. The noise level must be less than 56.2dB.
10. Drying chamber coating must be in polish stainless steel AISI 304.
11. The equipment must have a HST temperate double glass hinged door.

12. The vertical drawer upper guides must be made of AISI 304 stainless steel and equipped with plastic wheels on bearings. Lower guides must be made of AISI 304 with Teflon.
13. Safety lock must be provided for the end position of the drawers.
14. Drawers and Instrument hanging system must be made of AISI 304 stainless steel with dedicated instrument protection.
15. Should have a drying circuit dedicated to a homogenous heat distribution inside the storage chamber served by a blower. The circuit must be monitored by a pressure switch.
16. The filtration system must be composed of F5 class pre-filter and HEPA H14.
17. Must have a control panel with graphic color display.
18. Drying temperature must be able to set from room temperature up to 40°C.
19. Audible and visual alarms must be present in the equipment.
20. Connection sets for different endoscopes brands and models must be provided optionally.
21. Equipment must be compliant with:
 - Classified on I class, according to the annex VI 93/42 CEE Medical Device.
 - Designed and manufactured in conformity with the annex I of 93/42/CE Medical Device.
 - Under the harmonized rules here below described: 1993/42/EEC Medical Devices Directive, norms: EN 60204-1:2010, EN ISO 14971:2009.

Additional Points

1) ETO Sterilizer

Approx- Chamber 24''x24''x24'' > 225 ltrs Single use disposable EO cartridges.

Operations- PLC semi automatic/ Automatic SS304 Door with lock

Touch screen, Silicon gasket.

Automatic cut off device for over temp.

Alarm indication in case of cycle failure.

2) Thermal disinfectors

Overall Dimension: 2000 x 700 x 900 (L x D x H mm)

Capacity: 80 Liters

3 DIN I/1 Tray can be disinfected in one cycle

Fully automatic Thermal Disinfectors

Automatic Door opening & Closing

Auto water inlet

Auto Drain

Process cycle fully automatic control through advance PLC

HMI- 7-inch Display

Integrated Thermal Printer for Cycle Documentation

Simple & easy to operate: Manufacturer Authorization Mandatory along with brochure.

Accessories

- ✓ Loading Carriage
 - ✓ I/1 DIN Tray Size: 480x250x50mm
- 3) Training & Supervision during warranty period of equipment

Successful bidder shall appoint qualified engineer to train & supervise operations during warranty period (2yr) on site

4) Finalization of Drawings- within 2 weeks from date of handover of site.

S/n	Description	Qty.	Unit
A	Wash area		
A1	Supplying, fixing, testing and commissioning Washer Disinfector (Double Door). capacity 225 Ltr or more 12 DIN - complete as per enclosed technical specifications and BOQ.	3	No
A2	Supplying, fixing, testing and commissioning Ultrasonic Cleaner 45L & 60L - complete as per enclosed technical specifications and BOQ. (Each 1)	2	No
A3	Supplying, fixing, testing and commissioning Medical Graded Double Door Drying Cabinet. Capacity 500 litres - complete as per enclosed	2	No
A4	Supplying and placing in position of Wash Station with 2 Sink 2400x750x850 mm. - complete as per enclosed technical specifications and BOQ.	2	No
A5	Supplying, fixing, testing and commissioning Manual Trolley Wash Unit. - complete as per enclosed technical specifications and BOQ.	2	No
A6	Supplying, fixing, testing and commissioning of Indian Soil instrument receiving table. size 1800x 600x 900 mm - complete as per enclosed technical specifications and BOQ.	1	No
A7	Supplying, fixing, testing and commissioning Soil instrument trolley. - complete as per enclosed technical specifications and BOQ.	1	No
A8	Supplying, fixing, testing and commissioning Chemical disinfection tank. - complete as per enclosed technical specifications and BOQ.	2	No
A9	Supplying, fixing, testing and commissioning Spray Gun Rinse. - complete as per enclosed technical specifications and BOQ.	1	No
B	Processing area		
B1	Supplying, fixing, testing and commissioning High Steam Sterilizers (Double Door). Capacity 800 Liters or more - complete as per enclosed technical specifications and BOQ.	3	No
B2	Supplying, fixing, testing and commissioning Plasma Sterilizer chamber volume of 110 litres or more with a usable chamber volume of 90 litres or more. - complete as per enclosed technical specifications and BOQ.	1	No
B3	Supplying, fixing, testing and commissioning Table Top Steam Sterilizer. Capacity 20-30L. - complete as per enclosed technical specifications and BOQ.	2	No
B4	Supplying, fixing, testing and commissioning Sealer - complete as per enclosed technical specifications and BOQ.	2	No
B5	Supplying and placing in position of Stainless Steel Control and packing Table - Two way working - 2 shelves 2000x1400x900 mm. - complete as per enclosed technical specifications and BOQ	4	No
B6	Supplying and placing in position of Stainless Steel Work Table for sealing machine 1600 x 750 x 900 mm. - complete as per enclosed technical specifications and BOQ.	4	No
B7	Supplying, fixing, testing and commissioning Reel Dispenser cabinet. - complete as per enclosed technical specifications and BOQ.	4	No
B8	Supplying, fixing, testing and commissioning Tape Dispenser. - complete as per enclosed technical specifications and BOQ.	4	No
B9	Supplying, fixing, testing and commissioning SMS/Paper dispenser stand. - complete as per enclosed technical specifications and BOQ.	4	No
B10	Supplying and placing in position of Wire Shelf Storage Rack (5 Shelves) 1525x455x1895 mm. - complete as per enclosed technical specifications and BOQ.	2	No
B11	Supplying and placing in position of Instrument storage cabinet. - complete as per enclosed technical specifications and BOQ.	2	No
B12	Supplying and placing in position of Linen Fold Table 2000 x 1400 x 900 mm. - complete as per enclosed technical specifications and BOQ.	2	No
B13	Supplying and placing in position of Linen storage rack. - complete as per enclosed technical specifications and BOQ.	2	No
B14	Supplying, fixing, testing and commissioning Magnifying Lamp. - complete as per enclosed technical specifications and BOQ.	10	No

B15	Supplying, fixing, testing and commissioning Stainless Steel Paneling for Sterilizer and Washer Disinfectant. - complete as per enclosed technical specifications and BOQ.	2	No
C	Sterile storage area		
C1	Supplying and placing in position of Free Standing Basket Rack (24 Baskets) 1850 x 480 x 2000 mm. - complete as per enclosed technical specifications and BOQ.	8	No
C2	Supplying and placing in position of SS Modular Sterilizing Wire Baskets 585x395x195 mm. - complete as per enclosed technical specifications and BOQ.	200	No
C3	Supplying and placing in position of Wire shelf Storage Rack (5 Shelves) 1000x455x1895 mm. - complete as per enclosed technical specifications and BOQ.	15	No
C4	Supplying and placing in position of Sterile Transport Trolley 1400 x 750 x 1000 mm. - complete as per enclosed technical specifications and BOQ.	4	No
C5	Supplying and placing in position of Stainless Steel Pass Box 600x600x600 - complete as per enclosed technical specifications and BOQ.	3	No
C6	Supplying and placing in position of Table trolley. - complete as per enclosed technical specifications and BOQ.	6	No
C7	Supplying and placing in position of Instrument storage cabinet. - complete as per enclosed technical specifications and BOQ.	10	No
C8	Supplying and placing in position of Instrument Tray 480 x 250 x 60 mm - complete as per enclosed technical specifications and BOQ.	50	No
C9	Supplying and placing in position of Instrument Tray 340 x 250 x 60 mm - complete as per enclosed technical specifications and BOQ.	50	No
D	Utility		
D1	Supplying and placing in position of Air Conditioning for sterile storage area and processing area - complete as per enclosed technical specifications and BOQ.	1	Lot
D2	Supplying and placing in position of Plumbing for equipment and wash area.	1	Lot
D3	Supplying and placing in position of Electrical fittings for equipment's and general use in department with independent distribution panel for central sterile services department.	1	Lot
D4	Supplying and placing of Modular Wall partitions and wall paneling.	1	Lot
D5	Supplying and placing in position of Lighting Light Emitting Diode for complete central sterile services department.	1	Lot
D6	Supplying and placing in position of Fire alarm system and smoke detector system for complete central sterile services	1	Lot
D7	Supplying and placing in position of RO Water plant 2000Ltr capacity.	1	Lot
D8	Supplying and placing in position of Compressed air line along with independent compressor within department. For details refer to Specifications.	1	Lot
D9	Supplying and placing in position of Signage for complete department.	1	Lot
D10	Supplying and placing in position of complete Ceiling for central sterile services department.	5592	SqFt
D11	Supplying and placing in position of UPS backup for	1	No
D12	Doors		
	Single Leaf Door (1000mm x 2100mm)	As per requirement	
	Single Leaf Door (950mm x 2100mm)		
	Single Leaf Door (900mm x 2100mm)		
	Single Leaf Door (800mm x 2100mm)		
	Single Leaf Door (600mm x 2100mm)		

D13	Turnkey work		
E	Dirty Utility Area	1	Lot
E1	Supplying, fixing, testing and commissioning Bedpan Washer - complete as per enclosed technical specifications and BOQ.	1	No
F	Endoscopy Reprocessing Department		
F1	Supplying, fixing, testing and commissioning Fully Automatic Endoscope Washer Disinfector - complete as per enclosed technical specifications and BOQ.	1	No
F2	Supplying, fixing, testing and commissioning Endoscope Drying & storage Cabinet - complete as per enclosed technical specifications and BOQ.	1	No
G	All Consumables including detergent powder, neutralizing agent etc required for (for 500 cycles) with 100 nos. of biological indicators and 200 nos. of chemical	1	Lot
H	ETO Sterilizer	1	No
I	Thermal Disinfector	1	No

Consignee Details

M/s. Pharm Deal

CSSD Equipments with Turn-Key.

Make : Tuttnauer & Model : Tiva 10 2V, Sonica 45LEP & 60LEP, TMAX 12, ELARA 11 D, Revo
 Make: HYBEAT & Model: HYDC 500, Wash Station, Manual Trolley wash system, Work Table, Soil Instrument trolley, Chemical disinfection Tank, Control and Packing Table, Work Table, Reel Dispenser cabinet, Tape Dispenser, Paper Dispenser, Wire Shelf Storage rack, Instrument Storage Cabinet, Linen Fold Table, Linen Storage Rack, SS Paneling, Free Standing Basket Rack, SPRI Basket, Wire Shelf Storage Rack, Sterile Transport Trolley, Pass Box, SS Table Trolley, Instrument Storage Cabinet, Instrument Tray Big, Instrument Tray Small, MEYC 6500, HYDEC-12, HYTH 100, Make: Famos & Model: Spray Gun, Make: ASP & Model: STERRAD 100S, Make: Hawo & Model: HM 850DC, Make: VERRE ET QUARTZ & Model: LAMPE LOUPE 5D-LED
 Make: PCI & Model: NMP 8Cu. Ft., Make: Workspace, Make: Relio

Delivery Period	24 weeks	
PO Ref. No.	No.: 7940/Haffkine/Procurement Cell/RT2-2732/ CSSD Equipments with Turn-Key/2023-24. Date: 17/04/2023	
	दि: ०७.१२.२०२२ प्रशासकीय मंजूर निधी १५,०९,६२,५५०/- (State Plan २०२२- २३) (Qty.- ०१)	
Sr. No.	Name & Address of the Consignee	Qty.
1)	Government Medical College & General Hospital, Baramati.	1
	Total	1

या. व्यवस्थापकीय संचालक यांच्या मान्यतेने व करिता

General Manager

Haffkine Bio Pharmaceutical Corporation Ltd.
 (Procurement Cell), Mumbai.

