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Ref: INS/L-5560/2019-2020(Y) **Tender Notice No.016/2019-2020**

2 PART TENDER FOR Horizontal Steam Sterilizer -Qty 03 Nos.

Tender Fee – Rs.700/-, EMD: Rs. 2,10,000/-
Cost of Tender: Approx. Rs. 105 Lakhs
Last date for Sale of Documents: 14-11-2019 till 14.00hrs
Last date for submission: 15-11-2019 till 15.00hrs
Due date for opening bids: 15-11-2019 at 15.30hrs

GENERAL CONDITIONS

(Tender documents consist of 18 pages, Pg. 1 to Pg.17 – Technical Bid, Pg. 18- Price Bid)

Important Instructions: The bids shall be enclosed in an envelope and sealed duly marked "Horizontal Steam Sterilizer -Qty 03 Nos." Ref. No. INS/L-5560/2019-2020 (Y)"; addressed and to be mailed to "The Purchase Officer". The bids are liable to be rejected if the sealed envelope is not addressed to "The Purchase Officer" with Tender Ref. No. and Item Description. Offers delivered in person shall be deposited in the Tender Box Labelled as 'TENDER BOX FOR PURCHASE TENDER" kept in the Ground Floor, Reception at Administration Building. If the bids are sent through courier or mail, it should reach by submission Date and Time and inStem will not responsible for the delay.

Important instruction for the Tenderers: -
All tenders shall be made in ENGLISH only.
The details in regard to technical specification and other terms and conditions should be cogent and clear to the extent possible.

Sealed tenders are invited at Institute for Stem Cell Biology and Regenerative Medicine -inStem, National Centre for Biological Sciences, GKVK Post, Bellary Road, Bangalore – 560 065 under **2 cover system** from reputed **OEM (Original Equipment Manufacturer) or reputed Manufacturers / Authorised Dealers for Supply, Installation, Commissioning and Technical Support for the following: -**

Horizontal Steam Sterilizer -Qty 03 Nos.

The Technical and Financial / Price Bids shall be submitted simultaneously in two (2) cover (sealed) system. The proposals shall be evaluated in two stages: (1) Technical and (2) Price / Financial. Technical evaluation will be carried out and those Vendors who score minimum 75% will qualify for Price Bid opening. Thereafter, Financial Proposal shall be evaluated. The Commercially LOWEST BIDDER shall be the first preferred Vendor for award of Order.

I) The EMD amount should be put in **first sealed cover – Cover I,** and super scribed as **"Techno-commercial Bid"** and should contain -

1. Acceptance of Technical specifications, **Annexure- A (page 9)** and terms and conditions. Tender document to be enclosed with Date, Signature and Seal in every Page.
2. Complete Technical details of the Instrument offered
(Specifications, Technical Parameters, Advantages, etc.,)
3. Supplier profile & Schedule of Experience – **Annexure – B**
4. Supplier must describe in detail the technical support they will be able to provide in Bangalore. Only those companies will be considered who have engineers based in Bangalore who have been trained on the machines being quoted for, prior to the date of installation.
5. Suppliers must provide complete list of publications arising from use of their machines, in which the machines have been used for the applications listed. Enclose Data Sheet and Sample Analysis (if any)
6. Details of Warranty Services.
7. Details of "After Sales Service" and "Factory Trained Engineers" available in Bangalore.
8. Xerox copies of the Purchase Orders for having supplied similar Instruments in India.

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9. Schedule of deviation from specifications / conditions – **Annexure C.**
10. Any other information the bidder like to provide with Date, Signature and Seal
(Annexures should be duly signed and filled with date wherever necessary)
(Please attach additional sheet(s), wherever necessary)

II) The **second sealed cover** – **Cover II** super scribed **'Price Bid' (page 18)** should contain only rates **(please attach additional sheet(s), wherever necessary)** (should be duly signed with seal and filled with date wherever necessary)

THE ABOVE MENTIONED TWO COVERS SHALL BE SEALED ON THE OUTSIDE WITH WAX SEAL BEARING THE LOGO/NAME OF THE COMPANY SUBMITTING THE BID.

THESE TWO COVERS SHALL BE AGAIN PUT INTO A SINGLE WAX SEALED COVER super scribed **"Horizontal Steam Sterilizer -Qty 03 Nos." and should reach INSTEM on or before 15-11-2019 before 15.00 hrs".** This should be addressed to the Purchase Officer, inStem, NCBS, GKVK Post, Bellary Road, Bangalore – 65. The Techno – Commercial Bid will be opened on **15-11-2019 at 15.30 hrs.**
On the date of tender opening (i.e. on **15-11-2019**), only the **Techno-Commercial Bids** shall be opened in the presence of attending tenderers.
The Technical and Financial / Price Bids shall be submitted simultaneously in two (2) cover (sealed) system. The proposals shall be evaluated in two stages: (1) Technical and (2) Price / Financial. The Technical and Financial / Price Bids shall be submitted simultaneously in two (2) cover (sealed) system. The proposals shall be evaluated in two stages: (1) Technical and (2) Price / Financial. Technical evaluation will be carried out and those Vendors who score minimum 75% and above will qualify for Price Bid opening. Thereafter, Financial Proposal shall be evaluated. The Commercially LOWEST BIDDER shall be the first preferred Vendor for award of Order.

Earnest Money Deposit shall be submitted along with the "Techno-Commercial Bid" in the form of a Demand Draft drawn in favor of "Institute for Stem Cell Biology and Regenerative Medicine, payable at Bangalore" and the DD should be from a Commercial Bank/ Foreign Bank (First class Bank). Alternatively, a Bank Guarantee from a Commercial Bank/ Foreign Bank (First class Bank) may be provided (no other mode of payment will be accepted). The Bank Guarantee should be valid for 6 months from the date of opening. Bids not accompanied with Earnest Money Deposit shall be rejected. The EMD shall be refunded to the unsuccessful bidders once the order is released on the successful bidder. The Techno-Commercial bids shall be evaluated subsequently and only the shortlisted firms Price Bid will be opened.

1.1 Quotations must be submitted giving complete details using enclosed tender papers.
1.2 The rates quoted should remain valid for a period of 180 days from the date of Price Bid opening.
1.3 Each page of the tender except the Price & Delivery part shall be on printed letterheads or forms and bear the signature, date, name and designation of the person signing the offer. If they are not on letterheads, a rubber stamp indicating full name, address and phone No., Telex No., Fax No. etc. of the firm shall be affixed at the end of each page. The price & delivery part shall be as Annexure B attached.
1.4 This tender document is not transferable. Only the party to whom the tender documents have been issued shall be entitled to quote.

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1.5 Bids containing erasures or alterations are liable to be rejected unless countersigned by the Authorised signatory.

1.6 All rates and total amount should be written both in figures and in words and if there is any discrepancy between the two, the lowest amount only will be considered.

1.7 Tenders will be opened in the presence of attending tenderers on **15-11-2019** at **15.30 hours**. In the event the due date is declared as holiday, the tender will be opened on the following working day.

1.8 If the item offered is to be imported, arrangements for import will be made by the Institute. Import duty and customs clearance will be under purchaser's scope.

1.9 We reserve the right to place order for part/reduced quantity than what is specified in the tender and also reserve the right to split the order to more than one supplier.

1.10 Any deviation/substitution in regard to the technical specification must be indicated in Annexure C of this tender document. Otherwise it shall be binding on the bidder to supply the items as specified in this tender specification.

1.11 All bids are to be submitted before the due date and time. **The bids shall be enclosed in an envelope and sealed duly marked " Horizontal Steam Sterilizer -Qty 03 Nos."; Ref. No. INS/L-5560/2019-2020 (Y)"; and mailed to the Purchase Officer.** Offers delivered in person shall be deposited in the Tender Box kept in the office. **Due date for opening the bids: 15-11-2019 (15.00 hours).**

1.12 Please return the tender papers including Conditions of Tender as well as the Annexures with your signature, rubber stamp and date affixed on each page.

1.13 All bids in response to this invitation of tender should be submitted in a manner and method specified above. Tender which do not comply with the above conditions are liable to be rejected.

1.14 Late and delayed tenders will not be considered. Therefore, tenderers shall ensure that the tender reaches the Purchaser on or before the due date and time stipulated for receipt of bids.

TENDERS RECEIVED LATE OR AFTER THE DUE DATE WILL NOT BE CONSIDERED. INSTEM RESERVES THE RIGHT TO ACCEPT, REJECT ANY OR ALL TENDERS WITHOUT ASSIGNING ANY REASONS THERE OF.

1.15 Individuals signing the bid form and other supporting documents must specify the capacity in which they sign, like -

a) Whether signing as a Sole Proprietor of the firm or his attorney.
b) Whether signing as a partner of the firm or his attorney
c) Whether signing for the firm as Agent.
d) Whether signing as Director of a Limited Company.

2. CATALOGUE/TECHNICAL LITERATURE

All necessary catalogue/drawing literature/data and details of item/s as are considered to be essential for full and correct evaluation of the bid shall invariably accompany the bid.

3. BID GUARANTEE / EARNEST MONEY DEPOSIT: -
Bid Guarantee amount details are as below: -

Sl. No.	Item Description	BGA/EMD Amount
1.	**Horizontal Steam Sterilizer -Qty 03 Nos.**	**INR 2,10,000/-**

The EMD/BGA shall be submitted by a DD (for outstation firms) or Banker's cheque (in case of local firm) from a Commercial Bank/ Foreign Bank (First class Bank) along with the bid, drawn in favor of "Institute for Stem Cell Biology and Regenerative Medicine, Bangalore". Alternatively, the EMD amount may be submitted by way of Bank Guarantee from a Commercial Bank/ Foreign Bank (First class Bank) valid for 6 months (no other mode of payment will be accepted). The BGA amount will be forfeited if the successful bidder fails to accept the Letter of Intent/ Purchase order or withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender. The offers are liable to be rejected, at the discretion of the Centre, if they are not accompanied with BGA. No interest shall be payable by INSTEM for BGA amount. The BGA shall be refunded to the unsuccessful bidders once the order is released on the successful bidder.

4. AUTHORITY OF AGENTS
In case where a bid is submitted by an Indian Agent on behalf of his foreign principal, such bid should be supported with a letter of Authority from the principal that the Indian Agent has been authorised to submit the bid on behalf of the principal. The indigenous manufacturers shall submit their bids directly.

5. PRICE
The tender to be quoted in foreign currencies & any other currencies approved/traded by RBI-USD/Euro/JPY/GBP/SGD/CAD/INR. The price/s quoted shall be firm till the complete execution of the order. All details relating to price, price breakup, inland transportation, documentation, taxes and duties, levies, Road/AIR/Marine freight charges, delivery terms (ex-works/F.O.R/F.O.B/CIP) mode of payment, mode of Dispatch, Insurance, Agency Commission, if any, should be clearly stated. For indicating the price, the tenderers may choose any/all of the following:

a) Ex-works (all other charges to be indicated separately).
b) F.O.R. site (i.e. Freight, Packing & Forwarding, loading on to the transport, documentation etc. included.) Internal transportation, Freight, Insurance, etc. to be shown separately.
c) F.O.B (cost of goods, Packing & Forwarding, Inland Transportation, Documentation, etc. till the item is loaded on to the cargo carrier). Freight & Insurance charges to be separately indicated.
d) CIP (cost of goods, packing & forwarding, documentation, freight, insurance, etc. all included). However, freight & insurance charges to be indicated separately.
INSURANCE TO BE COVERED TILL inStem STORES.

6. The taxes (State, Central, Turnover tax, Works Contract Tax, etc.). Please specify which are applicable. The duties and other levies, freight, insurance shall be stated clearly and separately. Also please mention whether the same is included in the price/s quoted.

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7. VALIDITY OF BIDS
The bids should be valid for a period of 180 days from the date of opening of the Price bids. Bids with shorter validity period are liable for rejection.

8. DELIVERY
The tenderer should clearly mention the time required for supplying the item. The period of delivery will be counted (a) from the date of receipt of the order in case of Indian supplier and (b) from the date of opening of letter of credit/receipt of order (in the case of sight draft/advance draft) for foreign suppliers. The delivery date is the date at which the equipment should be delivered at INSTEM.

9. PACKING
The item should be packed appropriately so that it can sustain transit hazards, multiple landing, warehousing, etc. during transit.

10. PLACE OF DELIVERY
In the case of items indigenously manufactured, ALL DELIVERIES shall be effected to the Institute for Stem Cell Biology and Regenerative Medicine, National Centre for Biological Sciences, GKVK, Bellary Road, Bangalore-560065, whereas the foreign suppliers shall effect delivery up to Bangalore Airport, India by AIR only unless otherwise specified.

11. GUARANTEE/WARRANTY
The item/s covered under this tender shall be subject to a guarantee for trouble free performance, workmanship, material etc., fulfilling the specifications mentioned in this tender for min. **36 months** from the date of commissioning. If any defect is found in the material, workmanship or performance during the guarantee period the same may either be repaired/replaced by the supplier as the case may be free of charge. The guarantee period for replacement of parts or repair work shall be same as above. A guarantee certificate to this effect should be forwarded to us with your invoice. For order placed on foreign suppliers, the supplier shall specifically confirm that their Indian representatives, if any, will provide with after sales service and will attend to any repairs or technical problems that may arise.

12. PERFORMANCE B/G
The successful bidder shall have to execute a performance B/G in accordance with the guarantee/warranty for 10% value of the order. This B/G has to be executed on an appropriate value of stamp paper in terms of a bank guarantee drawn on any Nationalized Bank or first class Foreign Bank and shall remain valid till the completion of the Defect Liability period/warranty period, with **6 months** claim period.

13. TAXES AND DUTIES
The Centre shall deduct all taxes and duties, as applicable, from time to time from the bills payable.

14. PAYMENT TERMS
As per our Centre, 90% of the payment shall be made through Sight Draft (documents through bank) and balance 10% payable after installation, trail run and subject to acceptance by the group head through SAI and all other relevant documents, with Performance Bank Guarantee.
All claims shall cease as per the Limitation Act.

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15. CLARIFICATIONS

After opening the bids, if it becomes necessary for the purchaser to seek clarifications from the bidders, the same will be sought from the bidders. In such an event, the bidders will furnish all technical information / clarifications to the purchaser to reach on or before the due date fixed for that purpose, indicating the Purchaser's tender reference. If the technical clarifications sought do not reach on or before the date fixed, the bids shall be summarily rejected without any further notice.

16. RISK CLAUSE

Notwithstanding the other terms therein, the Centre at its option will be entitled to terminate the contract and to avail from elsewhere; at the risk and cost of contractor; either the whole of the contract or any part which the contractor has failed to perform within the time stipulated or if the same performance is not available, the best and the nearest available substitute thereof. The contractor shall be liable for any loss which the Centre may sustain by reason of such risk contract in addition to penalty.

17. DISPUTE AND RESOLUTION

Any dispute or differences between the parties that cannot be settled by mutual discussion at appropriate levels shall be referred to the sole arbitration of the Director, INSTEM or his nominee and his decision in the matter shall be final and binding upon the parties to the dispute. The venue of arbitration proceedings shall be Bangalore. In respect of any matters pertaining to such arbitration, the courts of law in Bangalore will have exclusive jurisdiction.

18. OTHER TERMS

a) If electrical/ AC/ technical works contract, appropriate license defining the required expertise from the approved Licensing authority.

b) The Centre, will at its discretion ask for a solvency certificate from your bankers.

19. DEFINITION AND MEANINGS

In constructing these conditions, specifications, etc. in the tender document or the Annexures/Appendices the following words shall mean herein assigned definitions except where the subject context is otherwise stated.

PURCHASER:	Shall mean the Institute for Stem Cell Biology and Regenerative Medicine
BID/TENDER:	Shall mean the proposal/document that the BIDDER submits in the requested and specified form or otherwise along with Annexures, Appendices, etc.
BIDDER/TENDERER:	Shall mean the firm/party who quotes against an enquiry.
CONTRACTOR/SUPPLIER:	Shall mean the party to whom a Work Order/Purchase Order is awarded to undertake all or a part of the work covered by this tender document as well as an amendment orders relating to this tender issued by the Purchaser and

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shall include his/their legal representative, assignee/s or successor/s.

CONTRACT: Shall mean and include the articles of agreement, Declaration form, the general and special conditions, the Annexures, the Schedule of Quantities & rates and the specifications attached hereto and the drawings, if any.

ORDER VALUE: Shall mean total value of the Purchase Order/Work order issued against this tender item including taxes, levies, etc.

20. TECHNICAL SPECIFICATIONS
See Annexure – 'A'

21. For imported items, final price after totaling the prices of the individual items has to be mentioned with estimated freight, insurance, agency commission charges, etc. The price shall be FOR CIF BANGALORE AIRPORT.

22. INSTEM reserves the right to split the quantities or reject one or more offers in full or part without any reasons. Therefore, INSTEM decision is final and binding.

23. The quantity mentioned in the tender may be decreased/increased while ordering. However, the price quoted should be firm irrespective of change in the quantity.

24. ACCEPTANCE OF TENDERS
INSTEM does not pledge itself to accept the lowest/ any tenders and reserves to itself the right to accept the whole or part of the tenders or a part of the quantity offered.

25. The firm may quote in Foreign Currency for direct import on CIF basis as well as in Rupees on FOR INSTEM basis for local supply. Please indicate insurance, freight and other charges separately for direct import.

26. Your Service Engineer should be fully trained to install the equipment and capable of maintaining the equipment during / after the warranty period.

27. LIQUIDATED DAMAGES:
The successful bidder will have to agree that in case the item is not supplied within the agreed delivery schedule and after a grace period of seven days, then Liquidated Damages (not in terms of penalty) will be imposed automatically and be deducted from their bill at the rate of 0.5% per week subject to a maximum of 10% of the order value.

28. Micro and Small Enterprises (MSEs):
a. Micro and Small Enterprises (MSE) must, along with their offer, provide proof of their being registered as MSE (indicating the terminal validity date of their registration) for the item tendered, with any agency mentioned in the notification of the Ministry of Micro, Small and Medium Enterprises (Ministry of MSME)

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b. The MSEs are exempted from payment of earnest money and tender fees subject to furnishing of relevant valid certificate for claiming exemption as per privilege rules of Government of India.

c. The bidder submits registration of Udyog Adhar Memorandum (UAM) by Ministry of Micro Small and Medium Enterprises (MSME) vendors on Central Public Procurement Portal (CPPP). The bidders who fail to submit UAM number shall not be able to avail the benefits available to MSEs as contained in Public Procurement Policy for MSEs Order 2012 issued by MSME.

Since INSTEM is a Public Funded Research Organisation, registered under Government of India Notification No.51/96 – Customs and 10/97 – for Central Excise is applicable for the items listed in the notification.

For and on behalf of
Institute for Stem Cell Biology and Regenerative Medicine

Purchase Officer

GKVK Post, Bellary Road, Bangalore 560 065. India
Phone +91-80-23666343 /344/345/346 . Telefax +91-80-23636662
purchase@ncbs.res.in . www.ncbs.res.in

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Ref: INS/L-5560/2019-2020(Y) **Tender Notice No.016/2019-2020**

ANNEXURE-A-SPECIFICATIONS

Horizontal Steam Sterilizer -Qty 03 Nos.

TECHNICAL SPECIFICATIONS:

1	The Sterilizer should have the autoclaving chamber capacity of 340 liters.
2	The Sterilizer should have chamber of 610 X 610 X 914 mm
3	The Sterilizer should have double door openable from both sides.
4	It should be fully automatic Microprocessor controlled rectangular Horizontal High pressure Steam Sterilizer having double jacketed 316 L or 316 Ti grade Stainless Steel chamber. Sterilizer vessel assembly should be formed with two S.S. sheets one within another.
5	The Sterilizer should be equipped with 134-degree Celsius pre-vacuum, 121-degree Celsius Liquid cycle, 134-degree Celsius Gravity Cycle and only for 121-degree Celsius regular cycle with 45 minutes' exposure time. All these cycles should be pre feed into the software programmed control system and should be validated as per AAMI ST 8 or EN 285 or US FDA standards.
6	The autoclave should work on pre and post-vacuum treatment technology. There should be provision for Jacket cooling to run Liquid cycles.
7	The Sterilizer should have adjustable cycle time which should be less than 60 minutes.
8	The both door of sterilizer should be pneumatically operated with fully automatic Vertical movement along with international door safety features.
9	The Door Safety Systems should have Pressure sensor system available in the chamber to monitor the chamber pressure.
10	The Chamber should be completely depressurized before the door seal is retracted by vacuum pressure.
11	The Door chamber should not be opened when chamber is pressurized.
12	The required mechanical safety edge should stop the door if it is obstructed while closing for protecting operator & loading equipment.
13	The cycle should not start if the door is open or not properly locked.
14	The front and rear both door seal should be durable, Non-lubricated Steam/Air activated door gasket made of silicon rubber.
15	Double door safety is implemented through interlocks which prevent both doors from being opened simultaneously.
16	The Sterilizer should be supplied with Automatic and Manual opening in case of automatic mechanism failure of vertical sliding door. Also manual operation of autoclave in case of electrical failure to complete the cycle(Air operated manual valve)
17	The chamber and doors should be made of solid and high quality 316 L or 316Ti Stainless steel.
18	The chamber should be jacketed to ensure the temperature uniformity in chamber.
19	The chamber floor should be slightly sloped towards an internal drain to facilitate drainage.
20	A stainless steel mesh strainer should be provided to protect the drain port from blockage by debris.
21	The chamber should be mounted on a stainless steel framework.
22	The internal surface should be electro-chemically treated or sand blasted for high quality smooth finish to facilitate cleaning. The resultant surface should be polished less than 0.8 µm fineness to protect against corrosion. The internal corners should be rounded off to facilitate efficient cleaning.
23	The sterilizer jacket and door should be completely insulated to keep the autoclave cool on the outside. The insulation should be completely encased in rigid or flexible removable sheet housing.
24	The jacket should be made of 304L /316 L quality stainless steel with pressure gauge.
25	The sterilizer should have inbuilt generator having adequate capacity to generate quality 97 % to 100 % clean, saturated, condensate free steam to deliver at 50 psi pressure to 80 psi pressure in the jacket & chamber by independent steam supply lines.
26	Steam generator should be made of 316 grade stainless steel material. The steam generator should have chloride free mineral wool or mineral glass wool thickness of 25 mm to 50 mm insulation sheet.
27	The inbuilt Steam generator should have a built in thermostat, pressure safety valve, water level glass gauge.
28	The heating element should be of sufficient capacity to make the sterilization process faster with maximum cycle time of 45 minutes to 50 minutes in pre vacuum process.
29	The heating system should have the automatic blow down valve & degassing system for feeding water to steam generator.
30	The piping system should be made of stainless steel or brass material.
31	All the process valves should be stainless steel or Gun metal or brass & should be pneumatically or electrically operated valves or solenoid valves for longer trouble free operations.
32	All the hot pipes should be properly insulated wherever required.
33	The safety valves should be made of brass or stainless steel or gun metal.
34	Primary piping & fittings should be stainless steel threaded or stainless steel triclamp fittings.
35	The Primary components triclamps /threaded fitting components like Manual valve, non-return valve, pressure regulator, pneumatic valves, and steam trap etc. should be made by 316 quality stainless steel or brass or Gun metal.
36	The Electrical terminals, Components & contacts should be housed in a water tight cabinet while the other electrical component should be directly mounted on sterilizer.
37	The unit should provide disposable air filter filtering the atmospheric air before entering inside the chamber. The filter separation efficiency should be higher than 99.998 % for particle size less than 0.3 µm.
38	The control system should be microprocessor based PLC system specially designed for sterilization application.

39	The Sterilizer should have touch sensitive 7-inch LCD color display control system with battery back-up and digital thermal printer for online record.
40	Sterilizer supplied should have dual sensors for temperature in the Chamber and one sensor for pressure near drain point.
41	The sterilizer should have microprocessor base PLC system for monitoring & documentation which constantly cross checks the safety systems & time.
42	The specified multiple password access levels should be provided to control access / operation of the machine preventing unauthorized access.
43	These access levels should be user selectable.
44	The control system should have CPU processor with battery back-up & nonvolatile memories, Digital input / output controls, analog measuring inputs & COM ports for printer & PC connectivity with the standard factory configuration, calibration of the temperature circuits and calibration of the pressure circuits require a access code.
45	The sterilizer should have minimum two temperature sensors.
46	The chamber drain should have temperature or pressure sensors.
47	The Jacket should have pressure sensor.
48	The sensors should be PT 100 sensors to confirm Class A of the IEC 571 standard, with accuracy of ± 0.1˚C while the pressure sensor should have the accuracy 1% over the range of 0 bars to 5 bars.
49	Each sensor circuit should be calibrated with individual constants to correct the deviation in manufacturing and aging.
50	The automatic process checking & failure correction should be possible by the control system.
51	The range of safety features alarm should be audio and visual include over temperature, pressure sensor failure, phase time-out, pressure relief safety valve, doors not properly closed, power failure if more than 25 seconds, Continuous self-checking of all the safety devices, low water level, water in chamber etc. should be possible after the completion of each cycle.
52	The sterilizer should supply with two rails for easy loading, shelf rack with shelves / carriage with one set of 304 Grade stainless steel loading and unloading trolley.
53	The autoclave should be equipped with an alpha-numeric Laser or thermal or Impact printer which prints each cycle parameter performed by the sterilizer.
55	The Sterilizer should have inbuilt liquid ring type high vacuum compressor pump for recycling facility for removal of air within the chamber and creating pre vacuum before sterilization phase as well as post sterilization drying phase. It should have low water level alarm to protect it from dry run.
56	The sterilizer should be designed to operate by authorized supervisor code programmed software for various programs from standard cycles to special cycle.
57	The sterilizer should have software programmed for various cycles:
	1.Wrapped Instruments, Porous load 134ºC,
	2. Heat Sensitive material, rubber, plastic, porous load 121ºC,
	3. Rapid cycle for single open instrument,
	4. Bowie & Dick test up to 7 Kg.,
	6. Leak test.
58	The sterilizer should pass a hollow load test or bowie dick test or Batch monitoring system.
59	The Steam Sterilizer should have provision to connect to Central plant stem with a connecting a ¾" line terminating in the shutoff valve, non-return valve, pressure relief valve, steam riser, condensate drain and other essential accessories for future steam connection from the central boiler.
60	The sterilizer should be work on 415 Volts, 50 Hz, 3 phase electrical supply.
61	1. The sterilizer should confirm the Europe EN 285:2006 standard or AAME ST 8 standard for Hospital Sterilizers.
	2. The sterilizer should have ASME Pressure Vessel certification. Section VIII DiviMumbai Central 1 of Pressure vessels.
	3. The sterilizer should bear the European CE certification or US FDA approved.
	4. The sterilizer should confirm the Medical Device Directive MDD 93/42/EEC amended by Directive 2007/47/EC.
	5. The sterilizer should confirm the Pressure Equipment Directives 97/23/EEC-Pressure Equipment Directive
	6. The sterilizer should confirm the IEC/UL/EN61010-1:2001, UL 61010-2-040:2005, Safety of Electrical Equipment, General requirement.
	7. The manufacturing company should be bear the ISO 9001:2008.
	8. The manufacturing company should be bear the Quality Management System, ISO13683:2003 or ISO 13485:2003 for Medical Devices
	9. The manufacturing company should be bear the ENISO 14001:2004.
62	The manufacturing firm should have direct operations in India or Authorized Service agent with own trained service set up, engineers to ensure service backup, in time quality services, instant availability of spares or the dealer should have own trained service engineers / technicians to ensure service backup, in time quality services, instant availability of spares.
63	If the quoting Sterilizer don't have inbuilt steam generator, then 36 K watts or suitable capacity as per International Standards standalone clean steam generator should be supplied along with unit for fast cycle.
64	Quality 97 % to 100 % clean, saturated, condensate free steam should be generated and deliver at 50 psi pressure to 80 psi pressure in the jacket & chamber by independent steam supply lines.
65	The Sterilizer should have electronic water saving control or eco water recirculation system for external cooling condenser for condensing the exhaust chamber steam to acceptable temperature to reuse in the internal system.
66	The supplier should complete onsite stainless steel paneling to all the sterilizers at both the sides.

67	The Sterilizer should be supplied with Bowie Dick Test packs for 500 cycles, Batch indicators for 500 cycles, Chemical Indicators for 500 Cycles, Biological indicators for 500 cycles.
68	The supplier should provide suitable local Air Compressor, 250 liters per hour Reverse Osmosis water system, pump 5000 liters, storage tank & piping till the unit with sterilizers as per the site requirement.
69	**Warranty of 3 years** must be provided. Installation should be done by the supplier and an engineer must be available in the Bangalore in case of any emergency repairing is needed. Notified issues should be resolved within 2 working days.

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INFORMATION TO TENDERERS

The Tender shall be evaluated under 2 (Two) Bid System

I Technical Bid

II Financial Bid

TECHNICAL SPECIFICATIONS & EVALUATION CRITERIA WITH MARKS FOR 2 PART TENDER FOR "Horizontal Steam Sterilizer -Qty 03 Nos".

TECHNICAL EVALUATION CRITERIA WITH MARKS		
	Technical Requirement	**Marks**
1	The Sterilizer should have the autoclaving chamber capacity of 340 liters.	
2	The Sterilizer should have chamber of 610 X 610 X 914 mm	
3	The Sterilizer should have double door openable from both sides.	
4	It should be fully automatic Microprocessor controlled rectangular Horizontal High pressure Steam Sterilizer having double jacketed 316 L or 316 Ti grade Stainless Steel chamber. Sterilizer vessel assembly should be formed with two S.S. sheets one within another.	
5	The Sterilizer should be equipped with 134-degree Celsius pre-vacuum, 121-degree Celsius Liquid cycle, 134-degree Celsius Gravity Cycle and only for 121-degree Celsius regular cycle with 45 minutes' exposure time. All these cycles should be pre feed into the software programmed control system and should be validated as per AAMI ST 8 or EN 285 or US FDA standards.	
6	The autoclave should work on pre and post-vacuum treatment technology. There should be provision for Jacket cooling to run Liquid cycles.	
7	The Sterilizer should have adjustable cycle time which should be less than 60 minutes.	
8	The both door of sterilizer should be pneumatically operated with fully automatic Vertical movement along with international door safety features.	
9	The Door Safety Systems should have Pressure sensor system available in the chamber to monitor the chamber pressure.	**25**
10	The Chamber should be completely depressurized before the door seal is retracted by vacuum pressure.	
11	The Door chamber should not be opened when chamber is pressurized.	
12	The required mechanical safety edge should stop the door if it is obstructed while closing for protecting operator & loading equipment.	
13	The cycle should not start if the door is open or not properly locked.	
14	The front and rear both door seal should be durable, Non-lubricated Steam/Air activated door gasket made of silicon rubber.	
15	Double door safety is implemented through interlocks which prevent both doors from being opened simultaneously.	
16	The Sterilizer should be supplied with Automatic and Manual opening in case of automatic mechanism failure of vertical sliding door. Also manual operation of autoclave in case of electrical failure to complete the cycle(Air operated manual valve)	
17	The chamber and doors should be made of solid and high quality 316 L or 316Ti Stainless steel.	
18	The chamber should be jacketed to ensure the temperature uniformity in chamber.	
19	The chamber floor should be slightly sloped towards an internal drain to facilitate drainage.	
20	A stainless steel mesh strainer should be provided to protect the drain port from blockage by debris.	
21	The chamber should be mounted on a stainless steel framework.	**25**
22	The internal surface should be electro-chemically treated or sand blasted for high quality smooth finish to facilitate cleaning. The resultant surface should be polished less than 0.8 µm fineness to protect against corrosion. The internal corners should be rounded off to facilitate efficient cleaning.	
23	The sterilizer jacket and door should be completely insulated to keep the autoclave cool on the outside. The insulation should be completely encased in rigid or flexible removable sheet housing.	

24	The jacket should be made of 304L /316 L quality stainless steel with pressure gauge.	
25	The sterilizer should have inbuilt generator having adequate capacity to generate quality 97 % to 100 % clean, saturated, condensate free steam to deliver at 50 psi pressure to 80 psi pressure in the jacket & chamber by independent steam supply lines.	
26	Steam generator should be made of 316 grade stainless steel material. The steam generator should have chloride free mineral wool or mineral glass wool thickness of 25 mm to 50 mm insulation sheet.	
27	The inbuilt Steam generator should have a built in thermostat, pressure safety valve, water level glass gauge.	
28	The heating element should be of sufficient capacity to make the sterilization process faster with maximum cycle time of 45 minutes to 50 minutes in pre vacuum process.	
29	The heating system should have the automatic blow down valve & degassing system for feeding water to steam generator.	
30	The piping system should be made of stainless steel or brass material.	
31	All the process valves should be stainless steel or Gun metal or brass & should be pneumatically or electrically operated valves or solenoid valves for longer trouble free operations.	
32	All the hot pipes should be properly insulated wherever required.	
33	The safety valves should be made of brass or stainless steel or gun metal.	
34	Primary piping & fittings should be stainless steel threaded or stainless steel triclamp fittings.	
35	The Primary components triclamps /threaded fitting components like Manual valve, non-return valve, pressure regulator, pneumatic valves, and steam trap etc. should be made by 316 quality stainless steel or brass or Gun metal.	
36	The Electrical terminals, Components & contacts should be housed in a water tight cabinet while the other electrical component should be directly mounted on sterilizer.	
37	The unit should provide disposable air filter filtering the atmospheric air before entering inside the chamber. The filter separation efficiency should be higher than 99.998 % for particle size less than 0.3 µm.	
38	The control system should be microprocessor based PLC system specially designed for sterilization application.	
39	The Sterilizer should have touch sensitive 7-inch LCD color display control system with battery back-up and digital thermal printer for online record.	
40	Sterilizer supplied should have dual sensors for temperature in the Chamber and one sensor for pressure near drain point.	
41	The sterilizer should have microprocessor base PLC system for monitoring & documentation which constantly cross checks the safety systems & time.	
42	The specified multiple password access levels should be provided to control access / operation of the machine preventing unauthorized access.	**25**
43	These access levels should be user selectable.	
44	The control system should have CPU processor with battery back-up & nonvolatile memories, Digital input / output controls, analog measuring inputs & COM ports for printer & PC connectivity with the standard factory configuration, calibration of the temperature circuits and calibration of the pressure circuits require a access code.	
45	The sterilizer should have minimum two temperature sensors.	
46	The chamber drain should have temperature or pressure sensors.	
47	The Jacket should have pressure sensor.	
48	The sensors should be PT 100 sensors to confirm Class A of the IEC 571 standard, with accuracy of ± 0.1˚C while the pressure sensor should have the accuracy 1% over the range of 0 bars to 5 bars.	
49	Each sensor circuit should be calibrated with individual constants to correct the deviation in manufacturing and aging.	
50	The automatic process checking & failure correction should be possible by the control system.	

51	The range of safety features alarm should be audio and visual include over temperature, pressure sensor failure, phase time-out, pressure relief safety valve, doors not properly closed, power failure if more than 25 seconds, Continuous self-checking of all the safety devices, low water level, water in chamber etc. should be possible after the completion of each cycle.	
52	The sterilizer should supply with two rails for easy loading, shelf rack with shelves / carriage with one set of 304 Grade stainless steel loading and unloading trolley.	25
53	The autoclave should be equipped with an alpha-numeric Laser or thermal or Impact printer which prints each cycle parameter performed by the sterilizer.	
55	The Sterilizer should have inbuilt liquid ring type high vacuum compressor pump for recycling facility for removal of air within the chamber and creating pre vacuum before sterilization phase as well as post sterilization drying phase. It should have low water level alarm to protect it from dry run.	
56	The sterilizer should be designed to operate by authorized supervisor code programmed software for various programs from standard cycles to special cycle.	
57	The sterilizer should have software programmed for various cycles:	
	1.Wrapped Instruments, Porous load 134°C,	
	2. Heat Sensitive material, rubber, plastic, porous load 121°C,	
	3. Rapid cycle for single open instrument,	
	4. Bowie & Dick test up to 7 Kg.,	
	6. Leak test.	
58	The sterilizer should pass a hollow load test or bowie dick test or Batch monitoring system.	
59	The Steam Sterilizer should have provision to connect to Central plant stem with a connecting a ¾" line terminating in the shutoff valve, non-return valve, pressure relief valve, steam riser, condensate drain and other essential accessories for future steam connection from the central boiler.	
60	The sterilizer should be work on 415 Volts, 50 Hz, 3 phase electrical supply.	
61	1. The sterilizer should confirm the Europe EN 285:2006 standard or AAME ST 8 standard for Hospital Sterilizers.	
	2. The sterilizer should have ASME Pressure Vessel certification. Section VIII DiviMumbai Central 1 of Pressure vessels.	
	3. The sterilizer should bear the European CE certification or US FDA approved.	
	4. The sterilizer should confirm the Medical Device Directive MDD 93/42/EEC amended by Directive 2007/47/EC.	
	5. The sterilizer should confirm the Pressure Equipment Directives 97/23/EEC-Pressure Equipment Directive	
	6. The sterilizer should confirm the IEC/UL/EN61010-1:2001, UL 61010-2-040:2005, Safety of Electrical Equipment, General requirement.	
	7. The manufacturing company should be bear the ISO 9001:2008.	
	8. The manufacturing company should be bear the Quality Management System, ISO13683:2003 or ISO 13485:2003 for Medical Devices	
	9. The manufacturing company should be bear the ENISO 14001:2004.	
62	The manufacturing firm should have direct operations in India or Authorized Service agent with own trained service set up, engineers to ensure service backup, in time quality services, instant availability of spares or the dealer should have own trained service engineers / technicians to ensure service backup, in time quality services, instant availability of spares.	
63	If the quoting Sterilizer don't have inbuilt steam generator, then 36 K watts or suitable capacity as per International Standards standalone clean steam generator should be supplied along with unit for fast cycle.	
64	Quality 97 % to 100 % clean, saturated, condensate free steam should be generated and deliver at 50 psi pressure to 80 psi pressure in the jacket & chamber by independent steam supply lines.	
65	The Sterilizer should have electronic water saving control or eco water recirculation system for external cooling condenser for condensing the exhaust chamber steam to acceptable temperature to reuse in the internal system.	
66	The supplier should complete onsite stainless steel paneling to all the sterilizers at both the sides.	
67	The Sterilizer should be supplied with Bowie Dick Test packs for 500 cycles, Batch indicators for 500 cycles, Chemical Indicators for 500 Cycles, Biological indicators for 500 cycles.	

68	The supplier should provide suitable local Air Compressor, 250 liters per hour Reverse Osmosis water system, pump 5000 liters, storage tank & piping till the unit with sterilizers as per the site requirement.	
69	Warranty of 3 years must be provided. Installation should be done by the supplier and an engineer must be available in the Bangalore in case of any emergency repairing is needed. Notified issues should be resolved within 2 working days.	
	Total	**100**

Evaluation will be carried out and those Vendors who score minimum 75% will qualify for Price Bid opening. Thereafter, Financial proposal shall be evaluated. The Commercially LOWEST BIDDER shall be the first preferred Vendor for award of Order

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Ref: INS/L-5560/2019-2020(Y) **Tender Notice No.016/2019-2020**

ANNEXURE – B
SCHEDULE OF EXPERIENCE

Please furnish list of major supplies/works undertaken in relevant to this tender during the past two years.

Sl. No.	Name of the company with full address	Name of project	Purchase Order No. & date	Brief description	Value (Rs.)

Signature	
Name	
Designation	
Name of company	
Date	
Seal of the company	

inStem PURCHASE

ANNEXURE - C

SCHEDULE OF DEVIATION FROM SPECIFICATIONS/CONDITIONS

All deviations from the specifications/conditions shall be filled in by the bidder in this schedule.

The bidder hereby certifies that the above mentioned are the only deviations from Technical Specification of this tender. [State NIL if no deviation is envisaged].

Signature	
Name	
Designation	
Name of the company	
Date	
Seal of the company	

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COVER – II PRICE BID

Horizontal Steam Sterilizer -Qty 03 Nos.

Sl. No.	Item Description	Qty	Unit Price	Total Price

Please enter Unit Price, Total Price and Grand Total in figures as well as words. Unit price and Total Price may be entered below each item.