

**Open Tender Notification for the procurement of "Autocave System" at the Indian Institute of Science, Bangalore (Last date of submission of tenders: 22<sup>nd</sup> March-2021)**

**Date: 12<sup>th</sup> April, 2021**

Dear Madam/ Sir:

Please send your quotation valid for 90 days for the supply of equipment described below. Your quotation should clearly indicate the terms and conditions of the quotations, delivery, delivery schedule, entry tax, payment terms, warranty coverage etc. The quoted products should be Indian OEM or its authorized Indian distributor and the quotations should be for IISc Bangalore and in INR only. The tender should be submitted in two separate sealed envelopes - one containing the "Technical bid" and other containing the "Commercial bid", both of which should be duly signed and must reach the undersigned on or before 17:00 hours 3rd May-2021.



The Chair  
Center for Neuroscience  
Division of Biological Sciences  
Old TIFR Building, Gulmohar Marg  
Indian Institute of Science  
Bangalore-560012  
Karnataka, India

### Technical Specifications for Autoclave System

Sl. No.	Technical Specifications
1	Autoclave should be horizontal, rectangular, high vacuum, single pneumatic hinged door with gasket sealing, fully automatic with pre-selected and variable programs. It should be able to handle liquid loads also (for water bottles) and it also should have manual mode operation in case of emergency with bypass valve. Should have builtin printer for documentation of sterilization cycle. Pre and post vacuum cycle are must for drying the load. The system should be suitable for capable of drawing power from 3 phase LT and quote should include the required power receptacle installation , installation of DB with required circuit breakers and protectors, drawing of cable from nearby electrical panel etc as required.
2	Autoclave inner chamber capacity (W x H x L) should be minimum of 350 litres or higher with inner chamber dimension of 600 X 600 X 1200 mm. Working pressure should be between 2.25 to 2.75 kg and working temperature should be > 120 to 135 °C. Argon welding, SS 316 material, Chamber should have safety valves.
3	Chamber and jacket should be made with high quality stainless steel (SS316), wall thickness not less than 6 mm. Working pressure 2.5 kgs inside jacket. Stand also should be made of SS304. Suitable racks/trolley need to be provided.
4	The entire equipment including doors must be insulated with minimum of 50mm thickness Resin Bonded Glass Wool & cladded with SS304 sheets. Airtight partition is must between loading and unloading side (partition between sterile and non-sterile areas). The skin temperature of the equipment should not be higher than 55° C.
5	Should have high quality appropriate stainless-steel body electric steam generator, with low water protection, automatic pressure controller, high quality pipeline and valves. The system should be supplied with all the accessories required to function. The Autoclave should be supplied with the suitable Air compressor as well.  Note: There is no steam line utility at the installation site.
6	The equipment should have automatic locking hinged double door operated with pneumatic cylinder. The door should be of SS 316 quality material, silicon gasket pressurized by compressed air (pressure gauge must). The autoclave doors must be interlocked so that only one can be opened at any time and be automatically controlled so that the outside door to the autoclave can only be opened after the decontamination cycle has been completed.
7	All valves & pipe lines which are connected to chamber should be of SS 316 quality. All process valves should be piston valves pneumatically actuated. All exhaust, drains should be connected to a common drain.
8	Validation ports should be provided with special leak tight ferrules for temperature sensors validation of the system. Should have microprocessor based PLC system with Touch Screen HMI control system.
9	The system should be Equipped with all the safety features as per the IS norms/International norms for Autoclave Safety's construction. The system should be
	CE/ISO Certified. The supplier should produce a material testing report, Jacket pressure testing report at the time of installation. The system quotation must have all the compliance certificate of autoclave manufacturing and testing. System should be supplied with operation and maintenance manual. The system should have provision to remotely monitor the parameter of autoclave via BMS system

10	(Accessory 1) 25 KVAUPS with 1/2 hour backup suitable for the autoclave. AC input: 3 phase; voltage range -20% +15%, power factor >0.6, true online 3 phase in-3 phase out, frequency 50 Hz, with audio alarm, buzzer for battery low, protections for output over voltage trip, charger overload trip, short circuit trip. 3 years minimum warranty.
11	(Accessory 2) Hydro Pump; With 360° compact gun with multiple nozzle choices including full rotation capable nozzle system, direct jet and pressure control. 1500 W (2 HP) or higher capacity pump. Triggerable handguns with optional foot pedal for pressure regulation. At least 3 meter long pressure hose and at least 400 ml inline detergent mixing tank. Water pressure 120 bar minimum, flow rate 10 LPM minimum. Warranty: 1 year minimum.
12	(Accessory 3) Steam cleaner: Operating pressure 8 bar or more. Temperature at the nozzle at least 120 ° C. Flow rate ~1 LPM. Electric power ~15-20 kW.
13	(Accessory 4) SS(316) racks with lockable casters capable of sustaining 150 bar horizontal pressure for holding at least 50 cages of size 9X8 inches during pressure cleaning and drying. (4 numbers)
14	Comprehensive Maintenance Contract: Minimum 3 years comprehensive maintenance contract. Additional AMC on a prorated basis should also be given.
15	<p>Should provide timely service after sales and should have good supply network for spares. The supplier should produce list of users from reputed Institute, preferably Government institute/ hospital.</p> <p>Provide list of local clients if any, who are using the similar autoclave model in Bengaluru.</p> <p>Latest PO references for similar and/or larger size autoclaves if any, are a must.</p> <p>Installation and training should be a part of the company.</p> <p>Need to perform related civil and electrical work with installation.</p> <p>Minimum 3 years warranty should be provided.</p> <p>The purchaser reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time period to award of construct without thereby incurring any liability of the affected bidder or bidders.</p>

