



National Center for Biological Sciences
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ENQUIRY

Ref: NCB/IC18-69/181624

December 13, 2018

Dear Sirs,

Please let us have your Quotation for the following :

S.No.	Item Code	Item Description	Qty	UOM
1	FCQBE000355	Ultrapure (Type I) Water Purification System (As per the specification attached)	1.00	NO
2	FCQBE000356	Laboratory Water Purification System Type II Grade (As per the specification attached)	1.00	NO

Please also indicate specifically the following:

1. The bids / quotation addressed to "THE HEAD – PURCHASE?" with Tender / Enquiry Ref No. and Item description should reach us before submission date and time. The bids/quotation are liable to be rejected, if not addressed to "THE HEAD – PURCHASE?".
2. **EXIM CODE - 8 digit Customs Tariff Number – HSN (Harmonised System Nomenclature)**
3. Country of origin
4. Place of shipment
5. Name, address, telephone number and fax numbers of your bankers
6. Your account number and swift number with the bank (required for payment purposes if the order materialises on your firm)
7. **Please indicate freight and insurance charges separately.**
8. Please indicate the Warranty Period and Delivery Period
9. Kindly expedite sending your Quote/Proforma Invoice/Invoice by courier so as to reach us latest by 03/01/2019

Important Note:

10. Shipping by AIRFREIGHT ONLY – CARGO MODE
11. Port of Entry for Customs clearance is – BANGALORE
12. Please use International Freights which arrive directly into Bangalore. Ex. Lufthansa Airlines Cargo, Singapore Airlines Cargo
13. NO SHIPMENT SHOULD BE MADE THROUGH COURIER COMPANIES LIKE FEDEX, TNT, UPS, DHL, ETC. SHIPMENTS SENT THROUGH FEDEX, TNT, UPS, DHL, ETC. WILL NOT BE ACCEPTED BY NCBS.
14. NCBS is exempted in paying customs duty (except advalorem duty of 5% + 2% cess and 1% Cus Sec & High Edu.CESS on CIF value)

PLEASE NOTE THAT PAYMENT WILL BE MADE THROUGH SIGHT DRAFT THROUGH BANK (CASH AGAINST DOCUMENTS). DOCUMENTS WILL BE RELEASED FROM THE BANK IMMEDIATELY ON RECEIPT OF THE INTIMATION. BANK CHARGES INSIDE INDIA SHALL BE TO NCBS ACCOUNT AND OUTSIDE INDIA SHALL BE TO YOUR ACCOUNT. ALSO DO NOT INCLUDE CHARGES TOWARDS CUSTOMS DUTY IN YOUR PRICES SINCE NCBS WILL BEAR THIS EXPENDITURE.

Yours faithfully

For and on behalf of
National Centre for Biological Sciences


NIRMALA K.S.

Copy to: Prof. / Dr. / Mr. / Mrs. / Ms. / Shri / Smt. JAYAPRAKASH R. (NCB-12P4510)
Your Indent Req. No.JRA1200181 Dated:07/12/2018 refers.

Specifications for Ultrapure (Type I) Water Purification System

1. The system must accept Type II water as feed.
2. Type I water must be produced from a mixed bed of ion exchange resin & activated carbon cartridge to remove ionic and organic contaminants.
3. Type I water produced from the above step should pass through a safely housed, low-pressure mercury vapor UV lamp made of ultrapure quartz with dual wavelength (185/254nm) to ensure bacterial destruction and organic molecule oxidation.
4. Built-in Total Organic Carbon (TOC) monitor with 0.5mL quartz cell and UV lamp to accurately measure real-time TOC from 1-999ppb.
5. Must prevent deterioration of water quality during non-use. Must be compatible to place the production unit on the bench, under the bench, or mounted on the wall.
6. Point of delivery (POD) unit must be adjustable height and rotating arm-adjustable to any glassware, volumetric dispensing from 250 ml till 10Liter, and with display monitor that shows real-time resistivity, TOC, level of water in reservoir, volume dispensed and other alarms.
7. POD, at the collection end, must have a 0.22 micron filter and options to accommodate UF cartridge with LRV between 5.6 and 7.65 over 220 and 22000 Eu/mL.
8. POD must also be able to accommodate cartridges to remove volatile organics, very specific trace organics, and trace metals.
9. The system should be CE/ISO Certified
10. The system should be supplied with all the accessories required to function
11. The system should have 3 Year Warranty. Compliance to each of the above points should be separately indicated and evidence presence for each of them (Product brochures should be highlighted wherever required).
12. The system should have supplied with spares, cartridges, membranes etc. as an optional item.

Laboratory Water Purification System Type II Grade

- 1) System should be stand-alone Type-II water purification system, suitable for Biological research application.
- 2) System should be suitable to work with the water quality of up to 2000 μ S/cm conductivity, Fouling Index (Silt Density Index) < 7, Total 4-10 Total Chlorine < 3 ppm, PH: 4-10, followed by Type-1 Water Purification System shall produce Ultrapure Water with 18.2 M Ω .cm @25 °C resistivity
- 3) System should have Pre Filtration unit to counter the Iron content in water, particulate load Pre-filtration: 10 Micron filter,5 Micron filter and 1 Micron filter.
- 4) System should have Pretreatment Cartridge with Activated Carbon and 0.5 Micron Filter.
- 5) System should have High Quality Thin film composite membrane RO which should be capable of achieving 99% rejection of Ions and all dissolved organics.
- 6) System should have Cartridges with high recovery loop to reduce the wastage of feed water to drain. Also it should have conductivity cell before and after RO to measure performance of RO membrane. RO waste water recovery should be up to 50%.
- 7) System should have the Electro De-ionization module (EDI Module), with mixed Bed Ion Exchange Resin, so that Regeneration of the Resins happens on application of Electric current. EDI (Electro Deionization) module should not require softening pre-treatment.
- 8) System should have Auto diagnostic facility with Error NO and Alarm Code and real time clock to log reports with date and time to ensure complete traceability.
- 9) System should have Automatic Cleaning, Rising, and Flush mode.
- 10) System should have suitable screen and user friendly GUI to check all parameters related to purification, storage and distribution.
- 11) System should be able to check measuring value before and after each filtration stage in order to measure performance of filtration unit.
- 12) System should give an alert in order to plan inventory.
- 13) System should have storage capacity 100 liter with material of construction suitable to store Type II Water. Storage tank should be controlled by water purification unit. Tank should have valve for drain and dispense.
- 14) Type II water should pass through feed water specific cartridge for removal of trace contaminants.
- 15) System should have UV light treatment with wavelength of 185 and 254nm.
- 16) System should have built in TOC indicator with the ability for self-calibration and check curve display.
- 17) System should have compatibility to place either on the bench, under the bench or on the wall.
- 18) The system should be CE/ISO Certified
- 19) The system should be supplied with all the accessories required to function.
- 20) System should have warranty of 3 years.
- 21) Compliance to each of the above points should be separately indicated and evidence presence for each of them (Product brochures should be highlighted wherever required).
- 22) The system should have supplied with spares like cartridges, membranes etc. as an optional item.