

**Indian Institute of Technology Delhi  
(Nanoscale Research Facility)**

**Notice Inviting Quotation (NIQ) for the purchase of Water Purification System**

**(Last date of submission of Quotation: 05/03/2014)**

**Date – 11/02/2014**

**NIQ Ref. No.: IITD/NRF/2013-14/Water Purification System**

We are in the process of buying “**Water Purification System**” as per the specifications as follows –

To generate ultra pure Deionized water of 18.2 Mega-Ohm from tap water suitable for nanotechnology, semiconductor, Molecular Biology, Chemical Analysis, Chromatographic and General lab applications, following water purification stages are required:

- (i) Should have pre-filter assembly with micron/carbon & anti sequestering hardness Stabilizing filters, Multimedia in vessel etc.
- (ii) The microprocessor controlled water purification system should comprise of 3 stages in general and all units to be installed in aluminum door glass cabinet with locking facility.

**Stage – 1**

The first stage system should combine multiple technologies with quick clip type filters/modules for pretreatment, reverse osmosis, and Deionization to produce Type 2 quality at a rate not less than 20-25 liters/hr from a feed water supply from tap or pre-filter assembly, Hardness Stabilizing Softening Filter. It should have the following features:

Microprocessor – controlled system management with continuous water purity monitoring.

- (i) To have control panels indicating operational mode.
- (ii) Alarm for Cartridge change & service check.
- (iii) Should have Self Test monitoring display, Display of RO percentage rejections,
- (iv) Auto rinsing, Recirculation,
- (v) Online display of feed & product quality
- (vi) 232 port

**Requirements for quality output water - 1No.**

- (vii) Resistivity: 10.0-15.0 Mega Ohm – cm (0.1 – 0.2  $\mu$ s)
- (viii) TOC: LESS THAN 30 ppb
- (ix) Flow rate: not less than 20-25 liters/hr
- (x) Product recovers: 25-40%

**Stage – 2**

- (i) Tank - 200 liters capacity - 1 No.
- (ii) Sensors for Low/High water level control

### **Stage – 3**

- (i) The Ultra Pure unit to produce Type 1 grade as per ASTM/NCCLs with following Features:
- (ii) Not less than 1.5-2.0 l/Minute dispense flow
- (iii) Dual wave length UV (185 & 254 nm) Photo oxidation irradiation lamp
- (iv) Should include Ultra filtration & Organic scavenging.
- (v) System capable of “Complete sanitization’ of all internal tubing, easily performed by the end users

### **Output details of Units- 1No.**

- (i) Resistivity at 25degree C: 18.2 M - cm
- (ii) TOC level: < 1-5 ppb
- (iii) Bacteria levels : < 1cfu/ml
- (iv) Endotoxin levels :< 0.001 EU/ml
- (v) Production flow rate: >1.5 Litres per Minute

### **TERMS and CONDITIONS:**

1. The quotation, in sealed envelope marked as “**Ref: IITD/NRF/2012-13/Water-purification**” should reach the undersigned on or before **5:00 pm on 05<sup>th</sup> March, 2014.**
2. Technical and financial bids should be enclosed in separate sealed envelopes and clearly marked.
3. A technical compliance chart for the item quoted for could be provided in the technical bid.
4. Institute reserves the right to accept/ reject all/ any quotation without assigning any reason thereof.
5. The delivery period should be clearly indicated in the quotation.
6. Warranty: at least 3 years onsite warranty should be provided.
7. Submitted quotations should clearly mention the validity period, preferably for a minimum of 3 months.
8. Incomplete and conditional submitted tenders would be summarily rejected.
9. The mode of payment should be clearly indicated. The preferred mode of payment will be through LC.
10. Please quote prices of imported items at FOB (Freight on Board) basis. The installation and training charges should also be quoted.
11. All installation to be done by the vendor.
12. Necessary certificate should be enclosed by the vendor in case of proprietary nature of the quoted items.
13. In case the quotation is being submitted by authorized agent of the principal manufacturing company, the AUTHORISED SALES AGENCYSHIP certificate from the PRINCIPALS should be furnished along with the quotation. Quotations without this authorization certificate will be rejected.
14. Special discount/rebate wherever admissible keeping in view that items are being procured for educational purpose in respect of Public Institution of national importance may please be indicated.
15. The products will be used for educational purposes. Any applicable academic Institution discounts should be offered and stated clearly.

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