

**INTER UNIVERSITY CENTRE FOR GENOMICS
AND GENE TECHNOLOGY (IUCGGT)**

**University of Kerala, Kariavattom,
Thiruvananthapuram, Kerala - 695581**

CGGT/KU/185/2022

Date:13.12.2022

Sealed quotations are invited from the reputed firms/ manufactures/distributors for the supply of **WATER PURIFICATION SYSTEM FOR TYPE I & TYPE II WATER** with relevant specifications on or before 23.12.2022. Sealed quotations should be addressed to **The Hon. Director, Inter University Centre for Genomics and Gene Technology (IUCGGT), Department of Biotechnology, University of Kerala, Thiruvananthapuram - 695581** with superscription "**Quotation for the supply of WATER PURIFICATION SYSTEM FOR TYPE I & TYPE II WATER**". The quotation will be opened on 26.12.2022 at 11 AM.

TECHNICAL SPECIFICATIONS FOR WATER PURIFICATION SYSTEMS:

1. System should be quoted along the external Pre-treatment
2. System should be standalone single stage system- produce Endotoxin and bacteria free ultrapure water Type 1 and Type 2 directly from potable water supply.
3. System should be capable of providing ASTM Type I (18.2 Mega ohm resistivity) Water and have the UF cartridge to cater Biological applications
4. System should be capable of providing ASTM Type II (1-10 Mega ohm resistivity) Water from potable tap water
5. System has feed water acceptance level of Conductivity upto 1500 μ S/cm or more, Fouling Index (SDI) > 3 and Total Chlorine less than 0.1 ppm or more
6. System should have a pretreatment kit with 1 μ m filter, Harness Stabilizer and Carbon
7. System should have RO Flow rate 3Ltr/hour or more
8. Type 1 water flow rate should be equal or more than 1Ltr/Minute
9. Reverse Osmosis module is made up of thin film composite polyamide RO membrane with rejection rate of 94 - 99%
10. System has feed water specific Purification pack before UV lamp consisting of mixed bed ion exchange resin/ micro filter / activated carbon to ensure better purification and longer life of the cartridges.
11. UF shall come with the life of 2 years to avoid any recurring cost.
12. System should have dual wavelength 185/254 nm for UV-oxidation for reducing the content of microorganisms and their metabolites to ensure the quality of Type 1 water
13. System should have inbuilt reservoir 3ltr or more in volume. Water is recirculated through High Purity Cartridge to maintain purity of Type 2 water in tank
14. System should have to fed with imported Pre-treatment water as to take the excessive care.
15. System be compatible for onsite IQ/OQ(Onsite Validation)
16. Production rate of Purified Water @ 3ltrs/hr or more
17. System should be quoted with One set of Consumables including RO.

Ultra Pure (Type I) water:

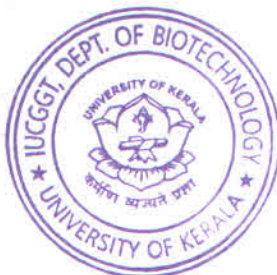
Resistivity.....	18.2 Mega Ohms.cm @ 25 Degree C.
TOC	< 5 ppb
Bacteria	< 0.01 cfu /ml or better
Particulates (.22 micron).....	< 1 /ml
RNase.....	< 0.003 ng/ml or better
DNase.....	<0.4pg/ml or better
Endotoxin.....	0.001 EU/ml or better
Flow rate	≥ 1 Ltr/Minute.

Ultra Pure (Type II) water:

Resistivity.....	>1 Mega Ohms.cm @ 25 Degree C.
TOC	<30 ppb
Flow rate.....	≥3Ltr/hour

Terms and conditions

1. The prices quoted should be that applicable for educational institutions
2. The firm should extend service within 24 hours.
3. Prices are to be quoted FOR DESTINATION (**IUCGGT, Department of Biotechnology, University of Kerala, Kariavattom**). The prices quoted should clearly indicate the 4 following charges: Price of the equipment including taxes; Price of optional accessories if any; Customs duty if any (after submission of custom and excise exemption certificate); Customs Clearance Charges, transportation charges and installation charges etc. If these details are not provided it will be considered that the price quoted is inclusive of all charges.
4. Performance Certificate of the specified model should be attached along with the quotations.
5. The undersigned reserves the right to reject any or all of the tenders received without assigning any reason thereof.
6. If any of the components is found to be defective during the warranty period, the vendor has to replace the defective item immediately at their own cost.
7. Supplier authorization letter and specification compliance sheet to be provided along with the quotation.
8. Quotations should also include all the supportive work for installation, loading and unloading of the equipment.
9. The interested bidders shall submit their best possible offer before last date to the undersigned.
10. Should be a certified company which has provided at least 5 installations of products within or outside India
11. The rate quoted shall be valid for a period of one year.



Hon. Director
IUCGGT

Dr. R. RAJALAKSHMI
Hon. Director
Inter University Centre for Genomics &
Gene Technology, Dept. of Biotechnology
University of Kerala