

## MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY BATHINDA-151001, PUNJAB (INDIA)

(Established by Punjab Govt. vide Punjab Act No. 5 of 2015 & Under Section 2(f) of the UGC Act at 5. No. 428)

Ref. No. MRSPTU/Purchase/16-17/....

Dated .....

## SPECIFICATION FOR ULTRAPURE WATER PURIFICATION SYSTEM

- Ultrapure WaterPurification system with Potable tap water feed.
- Pre-treatment cartridge withanti-scaling compound and silver impregnated carbon to avoid the need for extra softener.
- Pre-treatment cartridge PP depth filter to ensure longer RO membrane life.
- High flux thin film composite polyamide RO membrane with 94-99% rejection.
- Conductivity meter before and after RO to measure the performance of the system.
- Recirculation loop with capillary tube and diaphragm valve to reduce wastage of water.
- Permeate divert valve Preventing premature exhaustion of downstream purification system.
- Built in minimum 6 litre tank to store purified water to avoid extra cost of accecerioes.
- Recirculation Pump with unique temperature feedback mechanism to maintain constant flow rate both at high and low temperature conditions.
- Coaxial resistivitycell witha flowthrough deign and a cell constant of 0.01cm-1 for accurate measurement of product water resistivity.
- System should display both compensated and non-compensated temperature accurate within ±0.1°C (GLP compliant).
- Final filter with 0.22micron membrane filter in stack disc configuration for removal of bacteria and particulates
- Optional point of use UF cartridge with LRV is between 5.6 and 7.65 over challenge range of 220 and 22000 Eu / mL.
- System operation display depicts water quality / temperature compensation / product unit / pressure units / pack lifetime.

- Should be propriety product of the firm.
- Feed Water Specifications : Water Quality : Potable tap water; Fouling Index (SDI) : 12; Free Chlorine : <3ppm; Conductivity : <2000uS/cm.
- Product Water Specifications: Resistivity : 18.2 Meg Ohm.cm (@ 25 degree C);
- TOC:<10 ppb; Bacteria , Flow Rate: 3L/Hour @25 degree
- Warranty and AMC for 3 year