



# SM Enviro Solutions

## SM-RO-100/250/500

### Ultrapure RO Water Systems

**SM Enviro Solutions is "Preferred Partner for Turnkey Water Treatment Solutions".**

We have experience of over a decade, we have goal of providing high quality service worldwide. We are unique with combination of Knowledge & Experience in Water Treatment. We provide comprehensive spectrum of technologies for producing all grades of Water required in Testing Lab, R&D, Production & Drinking.

### CONCEPT SM-RO-100/250/500

#### Ultrapure water directly from tap water feed

For laboratories, R&D, Production & Drinking that do not have a reliable source of pure water, SM Enviro Solutions offers compact water systems producing pure and ultrapure water directly from tap water

#### This concept offers several benefits:

It allows installation of a complete water system in minimum amount of space with tap water feed & power supply

It eliminates the need for central water purification systems and the associated water delivery loops which may be complex, expensive, difficult to maintain and to extend

It gives the users of the water system complete control over all water purification steps and the final water quality.

### INSIDE SM-RO-100/250/500

#### Pre-Treatment Systems -Three Stages

1<sup>st</sup> Stage: Removes Particles upto 50 microns, avoids clogging of system

2<sup>nd</sup> Stage: Removes free Chlorine & colloids to protect the system

3<sup>rd</sup> Stage: Removes Particles upto 1.0 microns ensures complete safety for system

#### Advance Stage Reverse Osmosis

Reverse Osmosis (RO), the second step removes 90-95% of ions and 99% of all dissolved organic substances (MW>200 Daltons), micro-organisms and particles. Safety features like low pressure switch & auto flushing valve are provided to ensure efficient working & lower maintenance.

#### Post-Treatment System- Ultraviolet System (UV)

Water is Sanitized with a high dose of ultra violet light energy at a wave length of 254 nanometers destroys pathogenic microbes by affecting the DNA in the cell and multiplication of micro-organisms gets stopped with this they can't reproduce. When we use UV with RO Technology, UV Technology provides additional sterilization to the water leaving no scope for bacteria. It is the final stage of purification system.

### SPECIFICATION SM-RO-100/250/500

#### Feed Water Requirements

**Conductivity** : <2000  $\mu$ S/cm (@ 25 °C)

**pH** : 4 - 10

**Maximum LSI** : < 0.3

**Calcium (as CaCO<sub>3</sub>)** : < 300 ppm (when system water recovery > 70-80 %)

**Total Chlorine level** : SM Enviro Solutions Application Specialist will determine pre-treatment required

**Fouling index** : SM Enviro Solutions Application Specialist will determine pre-treatment required

**Feed water Pressure** : 2 bar maximum

**Flow rate** : > 200/500/1000 l/min at 0.2 bar

#### Salient Features:

Flow Indicators with Batchers gives you exact quantity for RO Water Utilised

Auto Operation features enable hassle free operation & regeneration

Hot Water Sanitisation (Pharma Use), Auto Flushing & Recirculation to avoid micro-organisms growth

Additional Features like Storage Tank, Distribution Loop can be attached easily

All Validation documents like DQ, IQ, OQ protocol, test certificates, material certificates, instrument calibration certificates, operating manual etc provided

#### General Specifications

Water connections	Electrical requirements	Approx Dimensions (H x W x D)	System operating weight
System feed: 1"-Angle Valve Product: 3/4 -in BSP RO reject: 3/4"- in BSP	230 V/50 Hz, 5 A, (10 A Slo-Blo fuse)	L1200 mm x B600 mm x H1500 mm (48 x 24 x 59 in) additional 47 mm (1.8 in) required for plumbing Conn	SM-RO-100: 60 kg SM-RO-250: 100 kg SM-RO-500: 120 kg

### SM Enviro Solutions

**Office:** 115, D Wing, Raj Garden, Mahavir Nagar, Kandivali (W), Mumbai-400067.Maharashtra.India.

**Phone:** +91-9323178133. **Email:** mohitk@smenvirosolutions.com/smenvirosolutions@gmail.com