



Address: No.78, XingYe Road, Chaolian Town, Jiangmen City, Guangdong, China. (Jiangmen Office)

Address: RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI, HK (Hongkong Office)

Tel: +86 137 2595 7662 (Whatsapp) +86-750 3094316 Fax: +86 750 3723909

1500L/H R.O. Water Purification System

1、 Design Basis

1.1 Raw water— City tap water.

1.2 Technical index of water production:

- 1) The capacity of produced water: 1500L/H (25°C) .
- 2) Designed recovery: 50-65%.

1.3. Operation Process: PLC Automatic Running, Flow, Automatic water quality display

1.4 System requirements:

- 1) Supply water to water station: water temperature: 5-35°C
- 2) Power to water station: Voltage: 4KW/ 380V/50Hz
- 3) Plant and foundation of water station are built by users
Water station: L×W×H=12M×4M×4M

2、 Process:

Raw water Tank → Raw Water Pump → Sand Filter → Carbon Filter → Security Filter → High Pressure Pump → RO System → Pure water Tank

3、 Process Description:

This system adopts mechanical filtration and activated carbon filtration as the pre-treatment to effectively remove suspended matter in raw water. Sediment particles, organic colloid, organic matter, peculiar smell, residual chlorine and other impurities, using reverse osmosis device as pre-desalting, remove most of the dissolved salts, bacteria, heat sources and so on in the raw water to ensure the quality of water production.

The system is equipped with automatic and manual modes. PLC is used as the central control element in the self-programmed control system. Through multi - point multi - channel water level sensor to realize the automatic operation of the system. Manual mode can be used for installation, debugging and maintenance.

Under normal circumstances, the system under automatic operation mode can



operate continuously. automatically monitor the water quality, operation make simple, stable operation, safe and reliable.

4、Main Components List

| NO. | Item | Material | Specification | Qty. | Remark |
|-----|----------------------------|---------------|------------------|------|---|
| 1 | Raw water Pump | CNP SUS304 | 0.75KW; | 1 | Voltage:380V/50Hz |
| 2 | Sand filter | FRP | Φ500×1500mm | 1 | Quartz sand: 300KG |
| 3 | Active Carbon filter | FRP | Φ500×1500mm | 1 | Activated carbon: 100KG |
| 4 | Security filter | SUS | 20inches×5filter | 1 | 20"PP*5pcs |
| 5 | High pressure pump | SUS304 | 2.2KW | 1 | Voltage:380V/50Hz |
| 6 | RO membrane | PA | 4040 | 6 | VONTRO |
| 7 | Pressure vessel | SUS | 4040*1M | 6 | |
| 8 | Conductivity meter | | | 2 | |
| 9 | Flow meter | | 14GPM | 2 | |
| 10 | Pressure gage | | | 5 | |
| 11 | Pressure controlled meter | | P6E | 1 | |
| 12 | Solenoid valve | SUS | DN25 | 1 | |
| 13 | Main frame | SUS304 | | 1 | |
| 14 | Pipeline | UPVC | | 1 | |
| 15 | Electrical box | SUS304 | | 1 | PLC |
| 16 | Stainless steel seal plate | SUS304 | | 1 | All sides and top of the equipment are sealed with 304 stainless steel plates |



5. Picture for reference:

