



**CSSD**

**WHITEWATER**



Caring about water since 1932

# About Whitewater



Fully compliant with HTM01-01 and ISO EN 15883.

Comprising Duplex RO units with a recirculation skid for 300/600/900 litres per hour @ 15°C, specially designed to meet the requirements of centralised sterile services departments CSSD/SSD/HSDU. These systems provide full redundancy in a 100% duty/standby arrangement.

Maintaining the optimum performance of the RO membranes is paramount and the selection of the correct pre-treatment is a critical factor when designing a system, dictated by the local feed water supply. RO systems normally require media filtration for suspended solids removal, a water softener for scale prevention and carbon filtration for chlorine removal. All ThermoSAN C Duplex systems are supplied with the appropriate pre-treatment for a particular site.

## Design

- 900 litre break tank with Type AB air break.
- Duty/standby fixed speed booster pumps
- UF Module - Endotoxin/Final bacteria filter.
- Duplex Pre-treatment 100% redundancy.
- Duplex RO units with 100% redundancy.
- 300/600/900 litres 316L SS RO water tank.
- Duplex distribution pumps - fixed speed
- Steam or electrically heated.
- Softened water system
- Storage and distribution at 60/65°C

## Features

- Programmable 85°C hot water disinfection.
- Touch Screen HMI PLC
- Remote alarm diagnostic and rectification
- Data Logging for:
  - Loop Temperature
  - Loop Conductivity
  - Alarm Malfunctions
  - Higher flow rate versions



# System Philosophy

## Purified Water Specification

Model	300/300L	600/600L	900/900L
Pure Water Production	300 l/hr @ 15°C	600 l/hr @ 15°C	900 l/hr @ 15°C
Loop Flow Rate	30 l/min @ 4.5 bar	60 l/min @ 4.5 bar	120 l/min @ 5.5 bar
Inorganic	<30 µS/cm	<30 µS/cm	<30 µS/cm
Bacteria	<10 cfu/100ml	<10 cfu/100ml	<10 cfu/100ml
Endotoxin	<0.25 Eu/ml	<0.25 Eu/ml	<0.25 Eu/ml
Particles	<0.05 micron	<0.05 micron	<0.05 micron

## Feedwater Requirements

Item	Measure	Range	Range	Range
Hardness	Total hardness mg/l as CaCO <sub>3</sub>	<600	<600	<600
Total Chlorine	Cl mg/l	<0.2	<0.2	<0.2
Fouling Index	SDI	<5	<5	<5
Iron/Manganese	Fe/Mn mg/l	<0.05	<0.05	<0.05
Conductivity	µS/cm	<800	<800	<800
Temperature	°C	Recommended 15 - 35°C	Recommended 15 - 35°C	Recommended 15 - 35°C
R/W Make-up Flowrate		15 l/min	30 l/min	45 l/min
Drain requirements (gravity fall with air gap) Maximum during sanitization		45 l/min	60 l/min	100 l/min
Feedwater Pressure		6 bar maximum 2 bar minimum	6 bar maximum 2 bar minimum	6 bar maximum 2 bar minimum

## Weights, Dimensions and Installation

Item			
Height	1840mm	2000mm	1900mm
Depth	880mm	1000mm	880mm
Width	1850mm	1950mm	2550mm
Supply Weight	280kg	310kg	400kg
Operational Weight	340kg	390kg	580kg
Installation	Floor Mounted*	Floor Mounted*	Floor Mounted*

\*safety wheels fitted as standard

## Electrical Requirements

Mains Input	380 V AC, 50 Hz	380 V AC, 50 Hz	380 V AC, 50 Hz
Systems control voltage (not including pumps & UV)	24 V DC	24 V DC	24 V DC
Power consumption (peak demand)	25kW	39kW	51kW
Electrical Protection rating	50 amps	63 amps	84 amps
Noise level during recirculation	50 dBA	50 dBA	50 dBA



**Contact us for a review of your current system and to find out how we can deliver improved performance, sustainable energy, water and cost savings, and help you reduce your CO2 footprint.**



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Design



Install



Service