

## Biopuremax Added Value

### Electrolytic Scale Reduction (ESR™)

- No waste brine
- No salt and salt handling
- No organic resins
- No backwash or regeneration

### Hydro Optical Dechlorination (HOD™) by UV

- No ACF - no biofilm
- No SBS - no chemical handling
- Environmentally safe

### Complete Hot Water Sanitization for total system

- RO Pretreatment fully fabricated of SS316L
- The most straightforward and effective solution  
for killing bacteria

### CBR™ – Continuous Bioburden Reduction

- CBR- No need for sanitization, operation of  
system reduces bacterial levels

## Biopuremax Pretreatment Technology

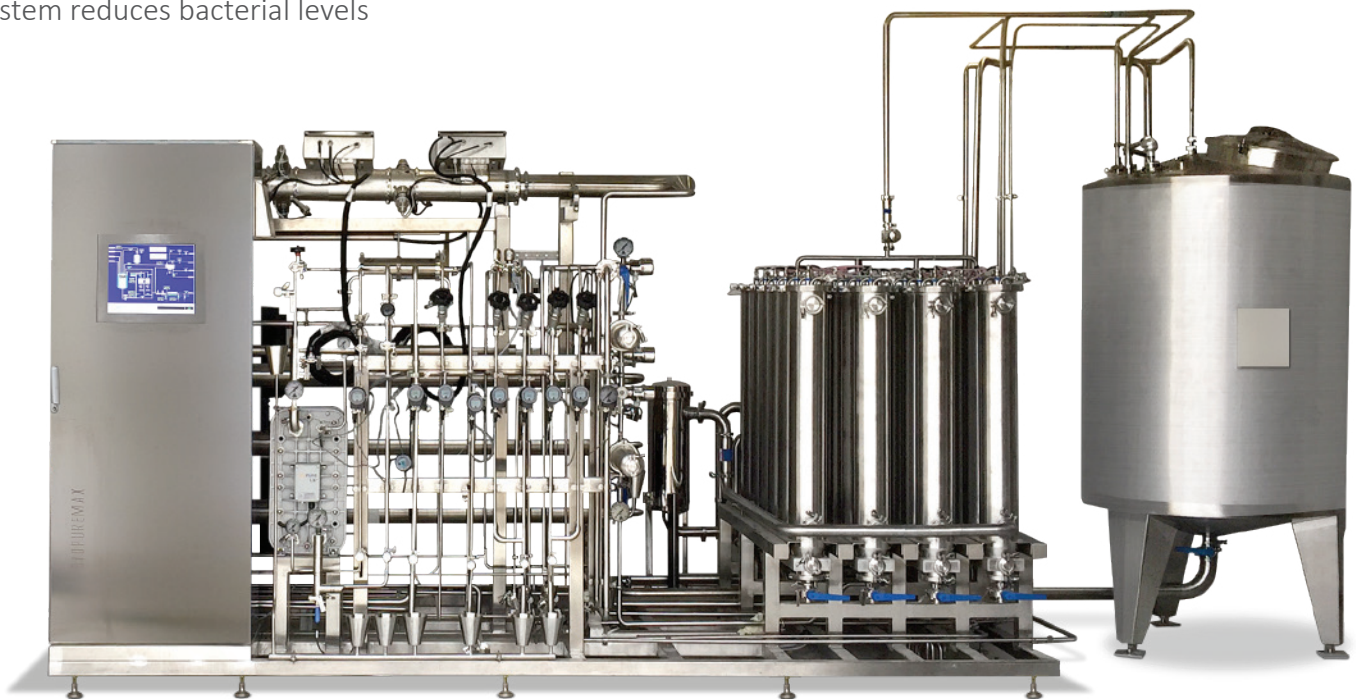
### Electrolytic Scale Reduction (ESR™)

An elegant solution that replaces both ion exchange softeners and antiscalant chemicals.

An electrical current generates a high pH near the cathode which deposits scale in the reaction chamber and releases CO<sub>2</sub>.

### Hydro Optical De-Chlorination (HOD™)

Treats the ESR water, by exposure to ultra violet radiation which decomposes the free chlorine and destruction of micro-organisms.



## Complete System Supply



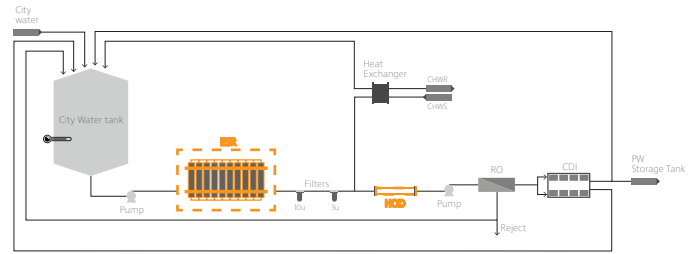
## Standard configuration feed water specifications

Total Hardness (as CaCO<sub>3</sub>): 50-300 ppm  
 Chlorides: 10-100 ppm  
 Iron: <0.2 ppm  
 SDI < 3  
 Chlorine < 1.0 ppm  
 Chloramine < 0.25 ppm  
 Silica: <10 ppm  
 Manganese: <0.02 ppm  
 CO<sub>2</sub>: <20 ppm  
 Conductivity: 50-1000  
 pH: 6.5 - 8.0

### Note

Feed water specifications are for standard systems, the Biopuremax can be configured for nearly any type of feed water including high levels of incoming silica, iron and manganese.

## Chemical and Media Free PW/WFI Production System PFD



### Performance

Parameter	Feed water	After Biopuremax
Total Count (cfu/ml)	< 500	< 10
Pseudomonas (per ml)	0-10	0
E-Coli (per ml)	0-100	0
Coliforms (per ml)	0-100	0

PW capacity	Foot print	Operating weight (not including electrical cabinet)	Electrical	Chilled water (supply at 7°C, 45°F), cool after sanitization 3 Hrs	Steam 7 barg (sanitization heat up 2 Hrs)
L/hr	mm x mm	Kg	kW	1000 Kg/Hr	Kg/Hr
500	3,000x1,400	1,050	7.5	5.7	75
1,000	3,000x1,400	1,300	9.5	6.8	75
2,000	3,200x1,400	1,550	15	9.1	100
3,000	3,200x1,400	1,980	17.5	11.3	100
4,000	3,200x1,600	2,390	22.5	11.3	120
5,000	3,200x1,600	2,480	31.5	11.3	120
6,000	3,500x1,600	2,980	33	11.3	120
7,000	3,500x1,600	3,100	35	11.3	120
8,000	3,800x1,800	3,640	48	12.5	150
9,000	3,800x1,800	3,630	48	12.5	150
10,000	3,800x1,800	3,860	60	12.5	150
15,000	4,200x2,000	5,540	70	14.7	200
20,000	4,600x2,000	6,640	85	14.7	200

### Note

The above data is pretreatment for single pass RO, if double pass RO is needed please state.

