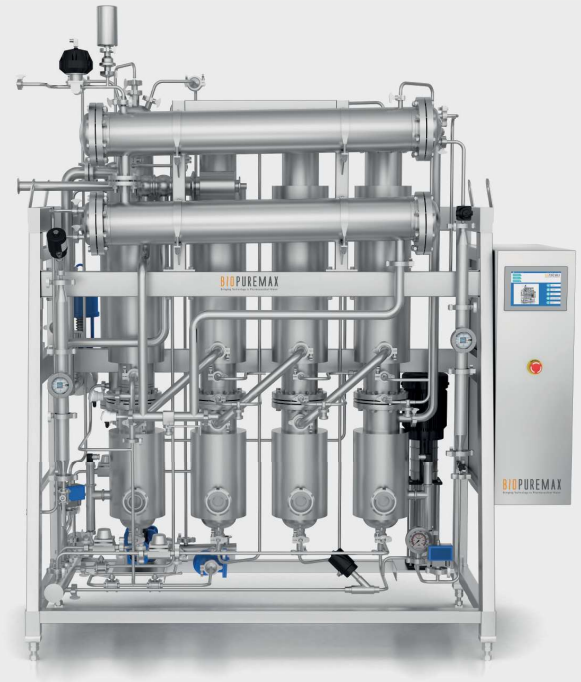
BIOPUREMAX

Bringing Technology to Pharmaceutical Water

Water for Injection Generation Systems for the Pharma and Biotech Industry

> Biopuremax brings over 30 years of expertise in pharmaceutical water systems.
> We specialize in PW/WFI/PS for the pharma and biotech industries.



Multi Effect Distillation

Unique Pyrogen Removal System

Biopuremax's multi-effect distillation, features pyrogen removal processes: advanced centrifugal separation and specialized separators with a unique purging system. This ensures endotoxin reduction of more than 3 Log.

Biopuremax Multi Effect Distillation system advantages

- Effective pyrogen removal
- Compact design
- Integral Non-Condensable Gas Removal
- Low Maintenance
- CFR 21 part 11 and Annex 11 compatibility
- Meets USP, EP, JP and ANVISA standards

State-of-the-Art Pure Steam Generation system

Biopuremax multi-effect distillation system uses tube-and-shell heat exchangers with falling-film evaporation, ensuring every drop of water reaches the needed temperature.
The separation of pyrogenic load is done by centrifugal action generated during upward flow of the steam.

Key Features:

- First Column Double Tube Sheet
- Crevice-free construction to prevent bacterial growth
- Two terminal cGMP coolers
- Siemens/Allen Bradley PLC-based operation with interlocks and validated logic
- Comprehensive documentation package
- Full AISI 316L stainless steel construction
- Orbital-welded piping joints
- Pharma-grade PTFE, silicone gaskets
- Electro-polished piping with orbital welding and sanitary fittings
- Full validation package: DQ-IQ-OQ with computer software validation
- Rockwool insulation, clad in AISI 304 stainless steel

Model	No. of Columns	Plant Steam 3 to 6 barg (143°C to 165°C)					Plant Steam @ 8 barg (175°C)					Dimensions mm			Electrical Load (kW)	Weight-Kg (Dry)	WFI Outlet Height-mm
		WFI-LPH	Steam Kg/Hr	Feed water - LPH	Cooling water - LPH	Weight-Kg (Oper.)	WFI-LPH	Steam Kg/Hr	Feed water - LPH	Cooling water - LPH	Weight-Kg (Oper.)	Height	Length	Width			
80	4	80	37	92	140	900	N.A	N.A	N.A	N.A	N.A	2300	2200	1050	2	600	1300
150	4	150	69	172	225	1290	284	131	326	426	1750	2700	2200	1050	2	775	1900
	7	N.A	N.A	N.A	N.A	N.A	284	115	326	85	1580	2700	3325	1050	2	1000	1900
300	4	300	138	345	420	2045	568	261	653	795	2930	2500	2450	1100	2	1050	1800
	7	N.A	N.A	N.A	N.A	N.A	568	230	653	159	2525	2500	3800	1100	2	1375	1800
500	5	500	135	575	650	3000	918	248	1055	1193	4250	3100	2550	1250	2	1500	2250
	8	N.A	N.A	N.A	N.A	N.A	918	218	1055	239	3790	3100	3900	1250	2	2125	2250
700	5	700	189	805	910	3995	1200	324	1379	1560	5490	2900	3050	1400	2	1900	2400
	8	N.A	N.A	N.A	N.A	N.A	1200	285	1379	312	4900	2900	4550	1400	2	2725	2400
1000	5	1000	270	1149	1300	5545	1918	518	2205	2493	8290	3400	3425	1500	2.5	2550	2700
	8	N.A	N.A	N.A	N.A	N.A	1918	456	2205	499	7180	3400	5075	1500	2.5	3700	2700
1500	5	1500	405	1724	1950	7340	2750	743	3161	3575	11080	3750	3425	1500	2.5	2850	3000
	8	N.A	N.A	N.A	N.A	N.A	2750	654	3161	715	9085	3750	5075	1500	2.5	4100	3000
2000	6	2000	460	2299	1500	8885	3834	882	4407	2876	13185	3700	4300	1500	5	4200	2900
	8	N.A	N.A	N.A	N.A	N.A	3834	794	4407	575	11855	3700	5650	1500	5	5500	2900
3000	6	3000	690	3448	2160	13330	5500	1265	6322	4125	19285	4100	4700	1600	5	6400	3300
	8	N.A	N.A	N.A	N.A	N.A	5500	1139	6322	825	17515	4100	6150	1600	5	8400	3300
5000	6	5000	1150	5747	3000	21590	9584	2204	11016	5900	31735	4500	5650	1850	5	10700	3600
	8	N.A	N.A	N.A	N.A	N.A	9584	1984	11016	1180	29400	4500	7250	1850	5	13800	3600

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