Green Technology - Cost Reductions



Up to 30% savings on feedwater



Effectively reduces bacterial levels to extremely low concentrations



Simple to use / Easy to maintain / Exceptionally reliable



Environmentally friendly



Low operational cost / High efficiency

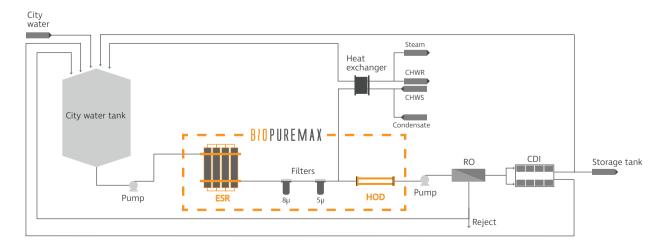


Exceeds USP, EP, and JP standards for PW & WFI

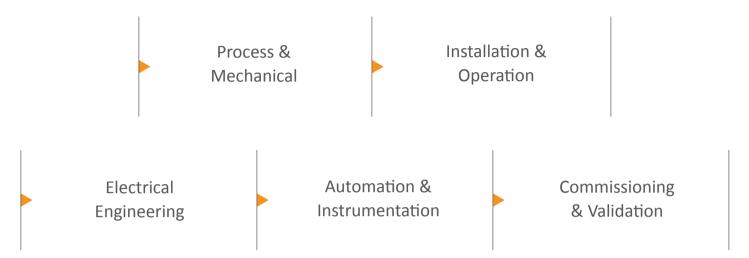


ISO22519, ISO9001, ISO13485, CE Mark

PW/WFI Chemical and Media Free Flow Diagram



All capabilities in house



Biopuremax has over 30 years of experience in the design, installation, validation, and operation of high-quality water systems



biopuremax.com info@biopuremax.com Brazil +55-11-98169-1523 Netherlands +31-6-1833-1470



Insatech.com mail@insatech.com Denmark: +45 5537 2095

BIOPUREMAX

Bringing Technology to Pharmaceutical Water



Biopuremax: The Ultimate Pharmaceutical Water System, Free from Media & Chemicals

Biopuremax Added Values

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 Irraddiation

No ACF - no biofilm

No SBS - no chemical handling and no RO fouling

Environmentally safe

Complete Hot Water Sanitization for total system

RO pretreatment is fully fabricated from SS316L stainless steel
The simplest and most effective solution for eliminating bacteria

CBR™ – Continuous Bioburden Reduction



Very Low Maintenance

ESR™

No maintenance, automatic cleaning

 $\mathsf{HOD}^{\scriptscriptstyle\mathsf{TM}}$

Replace UV lamps and gaskets every six months

RO-CEDI

No additional maintenance needed

Sanitization

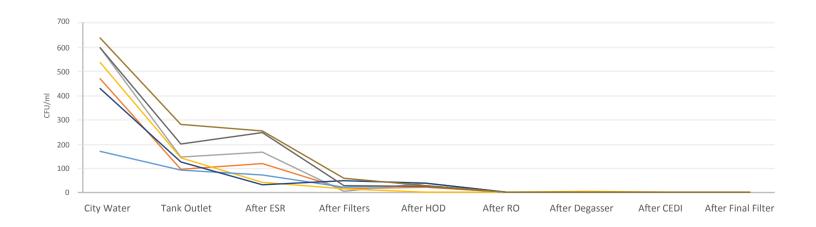
Fully automated hot water sanitization, starting from the raw water inlet

Filters

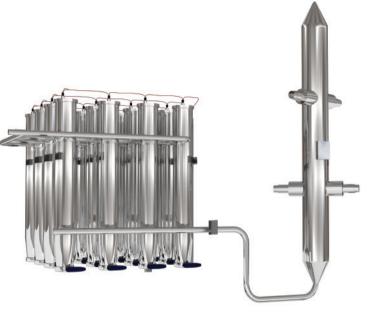
Replace pre RO filters per feed water

CBR™ – Continuous Bioburden Reduction

Biopuremax systems keep the whole system free of microbiological growth and biofilm



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 CO₂.

Hydro-Optical Dechlorination (HOD™)

Treats ESR water through exposure to ultraviolet radiation, decomposing free chlorine and destroying microorganisms.

Biopuremax is a high end system that produces both PW and WFI. Biopuremax is one of the few systems capable of reliably producing WFI without distillation, thanks to its exceptionally low microbiological levels throughout the system.

Biopuremax water systems comply with the strictest requirements and highest standards for pharmaceutical water production.