Electro-deionization units: HEDI series

Hot water sanitizable

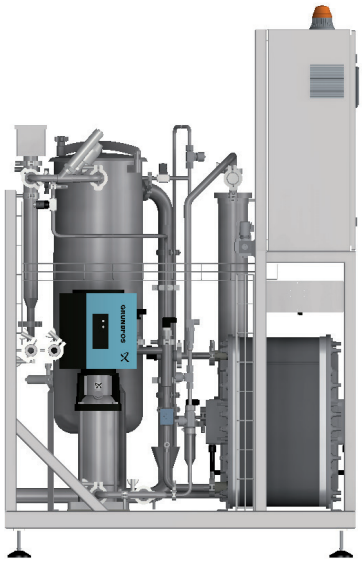
General

To comply to EP and USP regulations for product conductivity typically electro-deionization is required. The electro-deionization process removes ions from reverse osmosis product water using ion exchange resin, ion selective membranes and electricity. HEDI series electro-deionization units offer premium quality, reliability and sustainability in one unit.

For critical applications like (bio)pharmacy, haemodialysis and generics microbial activity must be avoided. HEDI series electro-deionization units offer fully automated integral hot water sanitization by means of an electrical heater.

The sanitary and ready to run HEDI units are designed in accordance with cGMP, GAMP and ISPE Baseline guides and include a comprehensive Qualification package.

All welding complies to EN 287 (orbital welding with backing gas), all non-welded connections are Tri-Clamp and Tri-Clover® compliant (3A Sanitary standards).



Engineering purity

PURE WATER GROUP

INTERNATIONAL IONPURE MASTER SERVICE PROVIDER

Electro-deionization units: HEDI series

Features:

- Proven performance after +150 sanitizations
- Low costs of ownership due to high quality components
- Microbial control with (automatic) hot water sanitization
- Ionpure LX-HI module(s)
- Control panel including PLC with graphic Touch Panel
- User friendly and intuitive control with total overview of all (normalized) process parameters
- Control complies with GAMP5
- Manufactured according the guidelines of ISPE Baseline Pharmaceutical Engineering Guide for Water and Steam Systems and in accordance with the USP and EP requirements
- The frequency controlled pump already complies with the EuP guideline of 2017 (EEI - Energy Efficiency Index)
- Cabinet and skid are mechanically polished

HEDI series for (Highly) Purified Water applications in:

- Haemodialysis
- (Bio)pharmacy
- Generics

Capacity, maximum	7.500 l/h @ 3 bar
Recovery	90 - 95%
EDI module	Ionpure LX-HI
PLC / HMI	Siemens
Pump (frequency controlled)	Grundfos CRNE

MATERIALS	
Frame + control panel	SST304L
Tubing (ASME BPE)	SST316L
Break tank	SST316L
Pump	SST316L
All wetted parts	SST316L

DIMENSIONS*	
Length x Width x Height	1.600 x 875 x 1.850 mm
Weight*	285 kg

CONNECTIONS	
Feed	1,5" Tri Clamp
Product	1,5" Tri Clamp
Return	1,5" Tri Clamp
Drain	Ø 50,5 mm

MAXIMUM FEED WATER SPECIFICATIONS & UTILITIES	
Feed water conductivity equivalent, including CO_2 and Silica	< 40 µS/cm
Feed water source	RO permeate
Temperature	5 - 60 °C
Inlet pressure	1.4 - 7 bar
Maximum total chlorine (as Cl_2)	< 0.02 ppm
Iron (Fe)	< 0.01 ppm
Manganese (Mn)	< 0.01 ppm
Sulphide (S-)	< 0.01 ppm
pH	4 - 11
Total hardness (as $CaCO_3$)	< 1.0 ppm
Dissolved organics (TOC as C)	< 0.5 ppm
Silica (SiO_2)	< 1.0 ppm
Electrical Requirement**	3 x 400V + N/ 50 Hz/ 9 kW
Pneumatic air requirement, filtered and oil free	10 l/min intermittent @ 6 bar

HEDI series comply with:
EP (European Pharmacopoeia): Monograph 2008:0008 Aqua Purificata. ISO 11663, 13959, 23500, 26722 Kwaliteitsrichtlijn Nederlandse Federatie voor Nefrologie (NFN): 2013. EDTNA/ERCA (European Dialysis & Transplant Nurses Association / European Renal Care Association). ERA-EDTA (European Renal Association-European Dialysis and Transplant Association): European Best Practice Guidelines for Haemodialysis: IV Dialysis fluid purity. AAMI (Association for the Advancement of Medical Instrumentation): Haemodialysis Systems Standard. DGS/DH/AFSSAPS Circulaire No 311: relative aux spécifications techniques et à la sécurité sanitaire de la pratique de l'hémofiltration et de l'hémodiafiltration en ligne dans les établissements de santé. SLS (Svensk läkemedelsstandard): Tillverkning och hantering av hemodialysvätskor och hemofiltrationsvätskor inon sjukvården.

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(*) *Dimensions and weight are approximate and vary with capacity selected*
(**) *Peak consumption when heating element (6 kW) is active*