

Plate Heat Exchanger

Technical specification

Customer :
Model : HF0133A-PN16
Project: : Lean Brine Preheater
Item : 1 unit
Date : 2024/6/20

Fluid		Hot side	Cold side
		Water Condensate	Lean Brine
Density	kg/m3	963.8	1250
Specific heat capacity	kJ/(kg*K)	4.20	3.40
Thermal conductivity	W/(m*K)	0.677	0.645
Viscosity inlet	cP	0.248	0.907
Viscosity outlet	cP	0.432	0.505
Mass flow rate	kg/h	33180	37800
Inlet temperature	ïC	113.1	56.0
Outlet temperature	ïC	65.0	108.0
Pressure drop	kPa	36.6	44.1
Heat Exchanged	kW	1853	
L.M.T.D.	K	6.9	
O.H.T.C clean conditions	W/(m2*K)	4108	
O.H.T.C service	W/(m2*K)	3136	
Heat transfer area	m2	87.7	
Fouling resistance* 10000	m2*K/W	0.58	
Duty margin	%	31	
Relative directions of fluids		Countercurrent	
Number of plates		120	
Effective plates		111	
Number of passes		8	8
Extension capacity		30	
Plate material / thickness		Ti-Gr.1 / 0.80 mm	
Sealing material		EPDM CLIP	EPDM CLIP
Connection material		Titanium 2mm	Titanium 2mm
Connection diameter		DN200 PN10	DN200 PN10
Nozzle orientation		S2 -> T2	S3 <- T3
Pressure vessel code		PED	
Flange rating		HG/T20592-2009	
Design pressure	bar	5.0	5.0
Test pressure	bar	6.5	6.5
Design temperature	ïC	125.0	125.0
Overall length x width x height	mm	2416 x 780 x 2146	
Liquid volume	dm3	352.8	352.8
Net weight, empty / operating	kg	2770 / 3520	

Performance is conditioned on the accuracy of customers data and customers ability to supply equipment