Specification Sheet

Project: 202506-1131

Date: 06/06/25

Contact:
Direct Line:

Plate & Frame Heat Exchanger

Version: 4.19.11 (15/2/4)

Item:	**Unit: F 2016-49-1-EH**

Technical data per HX		Hot side			Cold side	
Fluid		**Water**			**Water**	
Mass flow rate	[kg/s]	5.36			[kg/s]	5.36
Volume flow rate	[m³/h]	19.521			[m³/h]	19.501
Inlet temperature	[°C]	45.00			[°C]	38.00
Outlet temperature	[°C]	40.00			[°C]	43.00
Operating pressure	[barg]	2.00			[barg]	2.00
Physical properties		In	Out		In	Out
Dynamic viscosity	[cP]	0.599	0.655		0.680	0.620
Density	[kg/m³]	988.2	990.3		991.0	989.0
Specific heat capacity	[kJ/kgK]	4.175	4.177		4.178	4.176
Thermal conductivity	[W/mK]	0.638	0.635		0.634	0.637

P.H.E characteristic values

Heat duty	[kW]		112.00			
Eff. heat transfer area	[m²]		5.96			
Log./Effective temperature difference	[K]		2.00 / 2.00			
Heat transfer coeff. req./act.	[W/m²K]		9395 / 9868			
Fouling factor total	[m²K/W]		0.0000051			
Overdesign	[%]		5.03			
Pressure loss	[kPa]	30.694			[kPa]	30.526
Channel Velocity	[m/s]	0.41 / 0.74			[m/s]	0.41 / 0.74
Connection Velocity	[m/s]	2.45			[m/s]	2.45
No. of passes in series		1				1
No. of plates total			49			
Mix of Channeltype			18*HH + 6*HL			

Construction

Weight Dry/Wet	[kg]		approx. 162/175		
Volume	[dm³]	6.513			6.513
Design pressure	[barg]		16.0		
Max. working temperature	[°C]		110.00		

Material		DIN
	Plates	AISI 316L / 1.4404 (0.50 mm)
	Gaskets	EPDM HT
	Frame	S 355 J2+N (Pressure Plates), max. plates: 80, Extensibility 63%
	Painting	Standard, RAL 5002, <= 150°C,
Connection	Hot side	F1 => F4 : Threaded pipe, male, DN 50, Stainless steel, G 2"
	Cold side	F3 => F2 : Threaded pipe, male, DN 50, Stainless steel, G 2"
Design Code		AD-2000
Inspection Code		PED 2014/68/EU

Remark

Construction sheet

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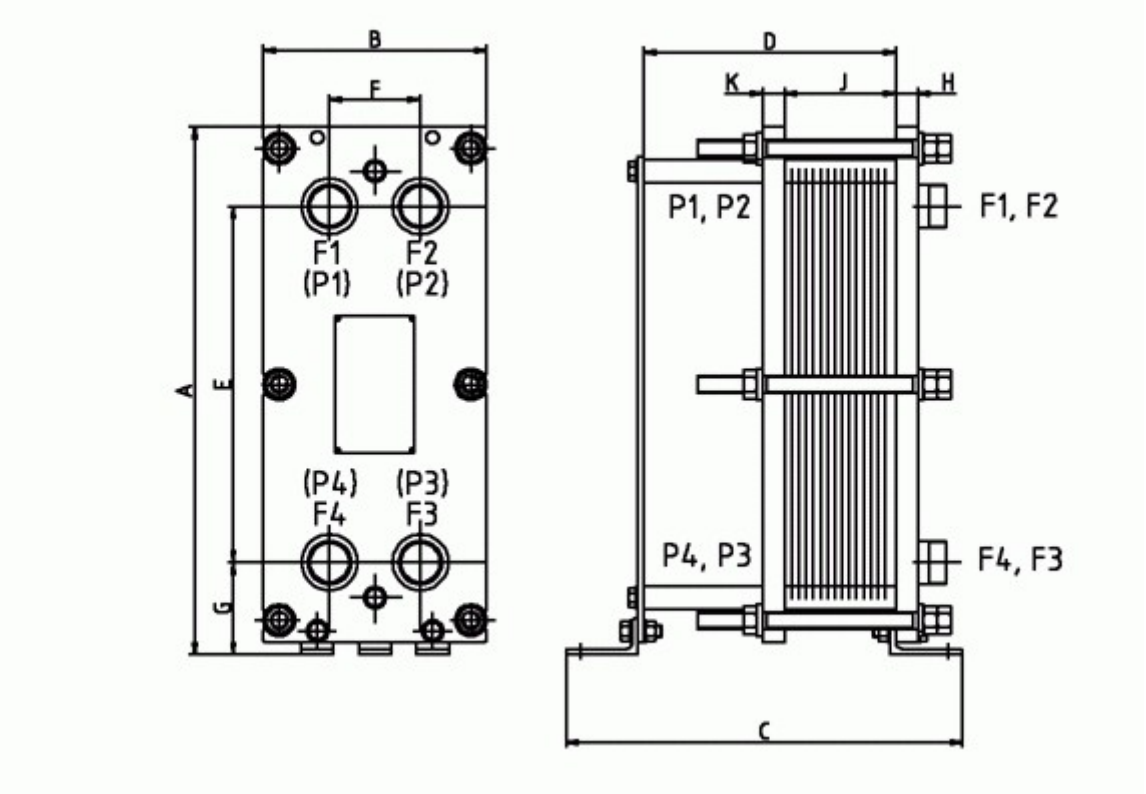
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Item:	**Unit: F 2016-49-1-EH**

Dimensional sketch - not Certified



Dimensions [appr. mm, inch], max. no. of plates 80		**:mm**	**:inch**
A:	Total height	:932.5	:36.7
B:	Total width	:310	:12.2
C:	Total length	:593	:23.3
D:	Length of carrier bar	:495	:19.5
E:	Distance between connections, vertical	:694	:27.3
F:	Distance between connections,horizontal	:126	:5.0
G:	middlepoint of connection from the ground	:128	:5.0
H:	Thickness of frame plate	:25	:1.0
K:	Thickness of pressure plate	:25	:1.0
J:	Length of the plate-package	:142.1	:5.6

Connections

Hot side:	F1 => F4 : Threaded pipe, male, DN 50, Stainless steel, G 2"
Cold side:	F3 => F2 : Threaded pipe, male, DN 50, Stainless steel, G 2"

Preliminary Dimensions