Specification Sheet

Project: 202505-952

Date: 09/05/25

Contact:
Direct Line:

Plate & Frame Heat Exchanger

Version: 4.19.11 (15/2/4)

Item:	**Unit: F 2016-81-1-NH**

Technical data per HX		Hot side			Cold side	
Fluid		**Water**			**Water**	
Mass flow rate	[kg/s]	10.72			[kg/s]	8.57
Volume flow rate	[m³/h]	38.599			[m³/h]	30.838
Inlet temperature	[°C]	14.00			[°C]	7.00
Outlet temperature	[°C]	10.00			[°C]	12.00
Operating pressure	[barg]	2.00			[barg]	2.00
Physical properties		In	Out		In	Out
Dynamic viscosity	[cP]	1.138	1.257		1.358	1.195
Density	[kg/m³]	999.0	1000.		1001	999.6
Specific heat capacity	[kJ/kgK]	4.197	4.201		4.204	4.199
Thermal conductivity	[W/mK]	0.620	0.618		0.616	0.619

P.H.E characteristic values

Heat duty	[kW]		180.00		
Eff. heat transfer area	[m²]		10.02		
Log./Effective temperature difference	[K]		2.47 / 2.47		
Heat transfer coeff. req./act.	[W/m²K]		7285 / 7811		
Fouling factor total	[m²K/W]		0.0000092		
Overdesign	[%]		7.22		
Pressure loss	[kPa]	49.148		[kPa]	28.351
Channel Velocity	[m/s]	0.45 / 0.81		[m/s]	0.36 / 0.65
Connection Velocity	[m/s]	4.84		[m/s]	3.87
No. of passes in series		1			1
No. of plates total			81		
Mix of Channeltype			25*HH + 15*HL		

Construction

Weight Dry/Wet		[kg]		approx. 191/212	
Volume		[dm³]	10.855		10.855
Design pressure		[barg]		10.0	
Max. working temperature		[°C]		110.00	
Material		DIN			
	Plates	AISI 316L / 1.4404 (0.50 mm)			
	Gaskets	NBR HT			
	Frame	S 355 J2+N (Pressure Plates), max. plates: 120, Extensibility 48%			
	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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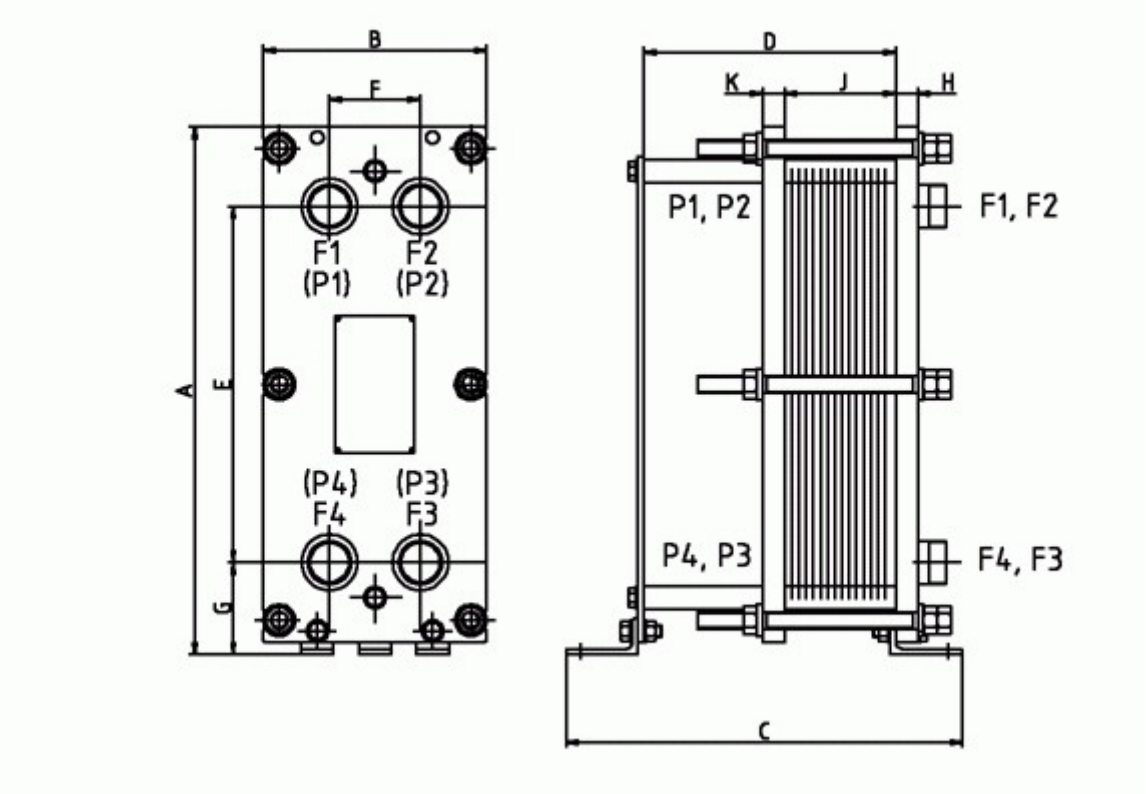
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Item:	**Unit: F 2016-81-1-NH**

Dimensional sketch - not Certified



Dimensions [appr. mm, inch], max. no. of plates 120		**:mm**	**:inch**
A:	Total height	:932.5	:36.7
B:	Total width	:310	:12.2
C:	Total length	:838	:33.0
D:	Length of carrier bar	:745	:29.3
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	:20	:0.8
K:	Thickness of pressure plate	:20	:0.8
J:	Length of the plate-package	:234.9	:9.2

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