Specification Sheet

Project:

Date: 14/10/25

Contact:
Direct Line:

Plate & Frame Heat Exchanger

Version: 4.19.16 (20/1/4)

Item:	**Unit: F 2016-31-1-NH**

Technical data per HX		Hot side			Cold side	
Fluid		**Water**			**Water**	
Mass flow rate		[kg/s]	7.67		[kg/s]	7.67
Volume flow rate		[m³/h]	28.166		[m³/h]	28.097
Inlet temperature		[°C]	65.00		[°C]	55.00
Outlet temperature		[°C]	60.00		[°C]	60.00
Operating pressure		[barg]	2.00		[barg]	2.00
Physical properties			In	Out	In	Out
Dynamic viscosity		[cP]	0.434	0.468	0.506	0.468
Density		[kg/m³]	979.0	981.4	983.8	981.4
Specific heat capacity		[kJ/kgK]	4.173	4.173	4.173	4.173
Thermal conductivity		[W/mK]	0.647	0.645	0.642	0.645

P.H.E characteristic values

Heat duty	[kW]		160.00		
Eff. heat transfer area	[m²]		3.68		
Log./Effective temperature difference	[K]		5.00 / 5.00		
Heat transfer coeff. req./act.	[W/m²K]		8701 / 9177		
Fouling factor total	[m²K/W]		0.0000060		
Overdesign	[%]		5.47		
Pressure loss	[kPa]	33.703		[kPa]	30.730
Channel Velocity	[m/s]	0.79 / 1.44		[m/s]	0.75 / 1.39
Connection Velocity	[m/s]	3.53		[m/s]	3.52
No. of passes in series		1			1
No. of plates total			31		
Mix of Channeltype			7*HL + 8*LL		

Construction

Weight Dry/Wet	[kg]		approx. 147/155	
Volume	[dm³]	4.071		4.071
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: 80, Extensibility 158%
	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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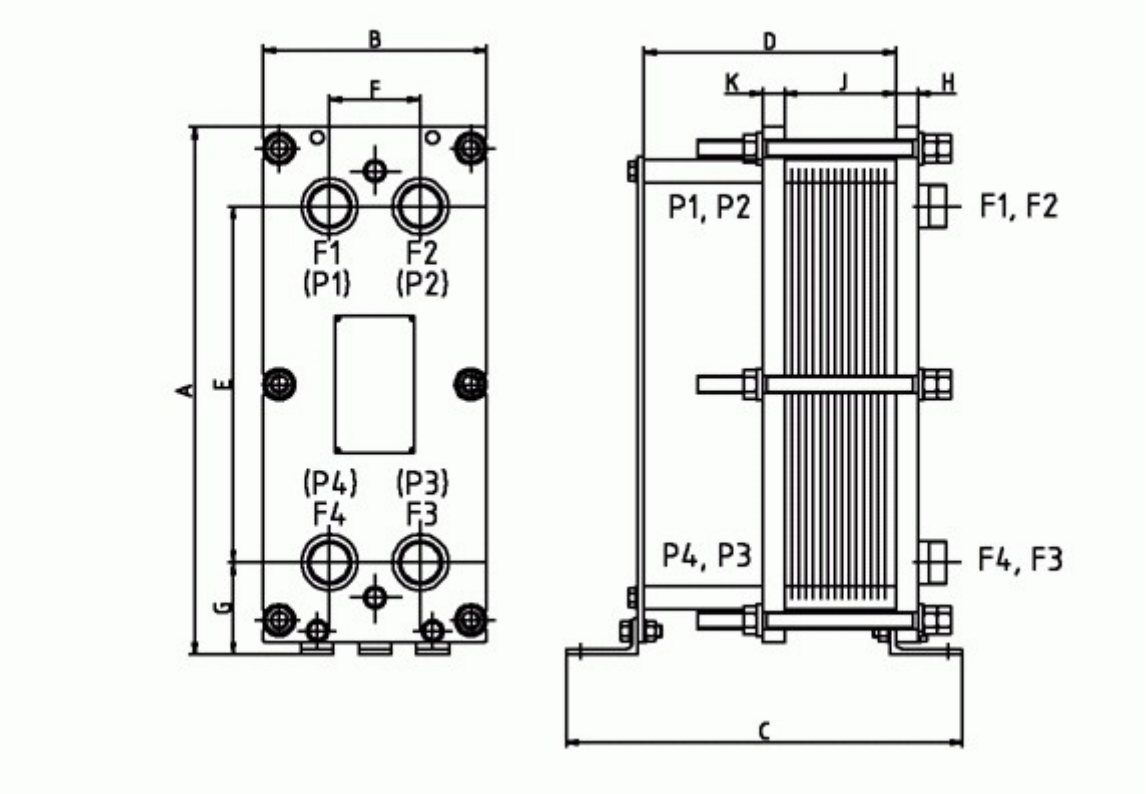
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Item:	**Unit: F 2016-31-1-NH**

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	:588	:23.1
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	:20	:0.8
K:	Thickness of pressure plate	:20	:0.8
J:	Length of the plate-package	:89.9	:3.5

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