

Quotation no.: 001

ENGINEERING  
TOMORROW

Item no.: 102



V1049AT

Att: Ref: BAH/106/HV/07 5/3/2020

PHE-Type	S55SE-IS16-175-TKTL99-LIQUID	Hot side	Cold side
Flowrate	(g.p.m.)	402.64	402.47
Inlet temperature	(°F)	60.46	42.26
Outlet temperature	(°F)	44.26	58.46
Velocity connection	(Ft/s)	9.81	9.81
Pressure drop	(PSI)	14.56	14.56
Heat exchanged	(Btu/h)		3270872
<b>Thermodynamic properties:</b>		<b>Water</b>	<b>Water</b>
Density	(Lb/Ft³)	62.35	62.36
Specific heat	(Btu/Lb*F)	1.00	1.00
Thermal conductivity	(Btu/h*Ft*F)	0.34	0.34
Mean viscosity	(cP)	1.27	1.31
Wall viscosity	(cP)	1.31	1.27
Fouling factors	(Ft²*h*F/kBtu)		
Dimensioning factor	(%)	0.0	
Inlet branch		F1	F3
Outlet branch		F4	F2
<b>Design of Frame / Plates:</b>			
Plate arrangement (passes*channel)		1 x 87 + 0 x 0	
Plate arrangement (passes*channel)		1 x 87 + 0 x 0	
Number of plates		175	
Effective heat surface	(Ft²)	1,147.09	
Overall K-value Duty/Clean	(Btu/Ft²*h*F)	1426 / 1426	
Plate material		0.0197 inch AISI 316	
Gasket material / Max. temp.	(°F)	NITRIL HT SONDERLOCK (E) / 302	
Max. design temperature	(°F)	150.00	
Max. Working/test pressure	(PSI)	232,00 / 348,00 ASME	
Max. Differential pressure	(PSI)	232.00	
Frame type / Paint Specification		IS No 3 / Category C2L BLUE RAL 5010	
Connections HOT side	(F1->F4)	DN 100 Flange St.37 PN16	
Connections COLD side	(F3->F2)	DN 100 Flange St.37 PN16	
Liquid volume	(Ft³)	6.84	
Frame length	(Ft)	4.54 Max. No. of Plates 216	
Net weight	(Lb)	3022	
<b>PRICE EACH</b>	<b>NNN</b>		
TERMS OF DELIVERY			
TERMS OF PAYMENT			
DELIVERY TIME			
VALIDITY OF QUOTATION			
DESIGNED BY			
Skid Base (2000x800)			
<b>Accesories:</b>	<b>NNN</b>		

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Att: Ref: BAH/106/HV/07 5/3/2020

PHE-Type	S55SE-IS16-152-TKTL99-LIQUID	Hot side	Cold side
Flowrate	(g.p.m.)	350.08	349.93
Inlet temperature	(°F)	60.46	42.26
Outlet temperature	(°F)	44.26	58.46
Velocity connection	(Ft/s)	8.53	8.53
Pressure drop	(PSI)	14.52	14.52
Heat exchanged	(Btu/h)		2843879
<b>Thermodynamic properties:</b>		<b>Water</b>	<b>Water</b>
Density	(Lb/Ft³)	62.35	62.36
Specific heat	(Btu/Lb*F)	1.00	1.00
Thermal conductivity	(Btu/h*Ft*F)	0.34	0.34
Mean viscosity	(cP)	1.27	1.31
Wall viscosity	(cP)	1.31	1.27
Fouling factors	(Ft²*h*F/kBtu)		
Dimensioning factor	(%)	0.0	
Inlet branch		F1	F3
Outlet branch		F4	F2
<b>Design of Frame / Plates:</b>			
Plate arrangement (passes*channel)		1 x 76 + 0 x 0	
Plate arrangement (passes*channel)		1 x 75 + 0 x 0	
Number of plates		152	
Effective heat surface	(Ft²)	994.58	
Overall K-value Duty/Clean	(Btu/Ft²*h*F)	1430 / 1430	
Plate material		0.0197 inch AISI 316	
Gasket material / Max. temp.	(°F)	NITRIL HT SONDERLOCK (E) / 302	
Max. design temperature	(°F)	150.00	
Max. Working/test pressure	(PSI)	232,00 / 348,00 ASME	
Max. Differential pressure	(PSI)	232.00	
Frame type / Paint Specification		IS No 3 / Category C2L BLUE RAL 5010	
Connections HOT side	(F1->F4)	DN 100 Flange St.37 PN16	
Connections COLD side	(F3->F2)	DN 100 Flange St.37 PN16	
Liquid volume	(Ft³)	5.94	
Frame length	(Ft)	4.54 Max. No. of Plates 216	
Net weight	(Lb)	2875	
<b>PRICE EACH</b>	<b>NNN</b>		
TERMS OF DELIVERY			
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DELIVERY TIME			
VALIDITY OF QUOTATION			
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<b>Accesories:</b>	<b>NNN</b>		

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Att: Ref: BAH/106/HV/07 5/3/2020

PHE-Type	S55SE-IG16-126-TKTL99-LIQUID	Hot side	Cold side
Flowrate	(g.p.m.)	290.95	290.83
Inlet temperature	(°F)	60.46	42.26
Outlet temperature	(°F)	44.26	58.46
Velocity connection	(Ft/s)	7.09	7.09
Pressure drop	(PSI)	14.57	14.57
Heat exchanged	(Btu/h)		2363574
<b>Thermodynamic properties:</b>		<b>Water</b>	<b>Water</b>
Density	(Lb/Ft³)	62.35	62.36
Specific heat	(Btu/Lb*F)	1.00	1.00
Thermal conductivity	(Btu/h*Ft*F)	0.34	0.34
Mean viscosity	(cP)	1.27	1.31
Wall viscosity	(cP)	1.31	1.27
Fouling factors	(Ft²*h*F/kBtu)		
Dimensioning factor	(%)		-0.0
Inlet branch		F1	F3
Outlet branch		F4	F2
<b>Design of Frame / Plates:</b>			
Plate arrangement (passes*channel)		1 x 63 + 0 x 0	
Plate arrangement (passes*channel)		1 x 62 + 0 x 0	
Number of plates		126	
Effective heat surface	(Ft²)	822.19	
Overall K-value Duty/Clean	(Btu/Ft²*h*F)	1437 / 1437	
Plate material		0.0197 inch AISI 316	
Gasket material / Max. temp.	(°F)	NITRIL HT SONDERLOCK (E)	/ 302
Max. design temperature	(°F)	150.00	
Max. Working/test pressure	(PSI)	232,00 / 348,00	ASME
Max. Differential pressure	(PSI)	232.00	
Frame type / Paint Specification		IG No 4 / Category C2L	BLUE RAL 5010
Connections HOT side	(F1->F4)	DN 100 Flange St.37 PN16	
Connections COLD side	(F3->F2)	DN 100 Flange St.37 PN16	
Liquid volume	(Ft³)	4.92	
Frame length	(Ft)	3.41	Max. No. of Plates 166
Net weight	(Lb)	2004	
<b>PRICE EACH</b>	<b>NNN</b>		
TERMS OF DELIVERY			
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DELIVERY TIME			
VALIDITY OF QUOTATION			
DESIGNED BY			
Skid Base (2000x800)			
<b>Accesories:</b>	<b>NNN</b>		

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Att: Ref: BAH/106/HV/07 5/3/2020

PHE-Type	S55SE-IG16-140-TKTL99-LIQUID	Hot side	Cold side
Flowrate	(g.p.m.)	323.06	322.92
Inlet temperature	(°F)	60.46	42.26
Outlet temperature	(°F)	44.26	58.46
Velocity connection	(Ft/s)	7.87	7.87
Pressure drop	(PSI)	14.56	14.56
Heat exchanged	(Btu/h)		2624369
<b>Thermodynamic properties:</b>		<b>Water</b>	<b>Water</b>
Density	(Lb/Ft³)	62.35	62.36
Specific heat	(Btu/Lb*F)	1.00	1.00
Thermal conductivity	(Btu/h*Ft*F)	0.34	0.34
Mean viscosity	(cP)	1.27	1.31
Wall viscosity	(cP)	1.31	1.27
Fouling factors	(Ft²*h*F/kBtu)		
Dimensioning factor	(%)	0.0	
Inlet branch		F1	F3
Outlet branch		F4	F2
<b>Design of Frame / Plates:</b>			
Plate arrangement (passes*channel)		1 x 70 + 0 x 0	
Plate arrangement (passes*channel)		1 x 69 + 0 x 0	
Number of plates		140	
Effective heat surface	(Ft²)	915.02	
Overall K-value Duty/Clean	(Btu/Ft²*h*F)	1434 / 1434	
Plate material		0.0197 inch AISI 316	
Gasket material / Max. temp.	(°F)	NITRIL HT SONDERLOCK (E) / 302	
Max. design temperature	(°F)	150.00	
Max. Working/test pressure	(PSI)	232,00 / 348,00 ASME	
Max. Differential pressure	(PSI)	232.00	
Frame type / Paint Specification		IG No 4 / Category C2L BLUE RAL 5010	
Connections HOT side	(F1->F4)	DN 100 Flange St.37 PN16	
Connections COLD side	(F3->F2)	DN 100 Flange St.37 PN16	
Liquid volume	(Ft³)	5.47	
Frame length	(Ft)	3.41 Max. No. of Plates 166	
Net weight	(Lb)	2093	
<b>PRICE EACH</b>	<b>NNN</b>		
TERMS OF DELIVERY			
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DELIVERY TIME			
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Skid Base (2000x800)			
<b>Accesories:</b>	<b>NNN</b>		

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