

Quotation no.: 001

Item no.: 102

ENGINEERING
TOMORROW

V1049AT

5/3/2020

Att:

Ref: BAH/106/HV/07

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			
Thermodynamic properties:		Water				Water			
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			
Design of Frame / Plates:									
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							
PRICE EACH		NNN							
TERMS OF DELIVERY									
TERMS OF PAYMENT									
DELIVERY TIME									
VALIDITY OF QUOTATION									
DESIGNED BY									
Skid Base (2000x800)									
Accesories:		NNN							

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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					
Thermodynamic properties:		Water				Water					
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					
Design of Frame / Plates:											
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									
PRICE EACH		NNN									
TERMS OF DELIVERY											
TERMS OF PAYMENT											
DELIVERY TIME											
VALIDITY OF QUOTATION											
DESIGNED BY											
Skid Base (2000x800)											
Accesories:		NNN									

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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			
Thermodynamic properties:		Water			Water			
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			
Design of Frame / Plates:								
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						
PRICE EACH		NNN						
TERMS OF DELIVERY								
TERMS OF PAYMENT								
DELIVERY TIME								
VALIDITY OF QUOTATION								
DESIGNED BY								
Skid Base (2000x800)								
Accesories:		NNN						

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Ref: BAH/106/HV/07

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			
Thermodynamic properties:		Water			Water			
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			
Design of Frame / Plates:								
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						
PRICE EACH		NNN						
TERMS OF DELIVERY								
TERMS OF PAYMENT								
DELIVERY TIME								
VALIDITY OF QUOTATION								
DESIGNED BY								
Skid Base (2000x800)								
Accesories:		NNN						

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