Designed constructed and stamped in accordance with 2007 ASME Code and Addendum 2009.

This is a general drawing. Additional parts. if required. like protection sheets. inspection covers. etc. are not displayed.

SUPPLIER
AGENT / REF.

REF.

ITEM NO. 4001-W05 R1 Case 1

PLATE HEAT EXCHANGER

M3-FG

ASME

CUSTOMER NAME / REF. NO.

SIGN.

RISKCATEGORY N/A

QUOTATION DDCE Pt2

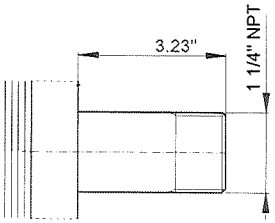
DATE 07/07/2009

REV NO. 0

	SIDE1	SIDE2
REMARKS:		
DESIGN PRESSURE	150 psi	150 psi
TEST PRESSURE	195 psi	195 psi
MAX TEMPERATURE	300 °F	300 °F
MIN TEMPERATURE	32 °F	32 °F
MAWP	150 psi	150 psi
MDMT		

GASKET HNBR CLIP-ON
PLATE MATERIAL ALLOY 316
PLATE THICKNESS 0.60 mm
HEATING SURFACE 1.4 ft²
PLATE GROUPING 1*2H/1*3H
WEIGHT WITH WATER 57 lb
NETWEIGHT 56 lb

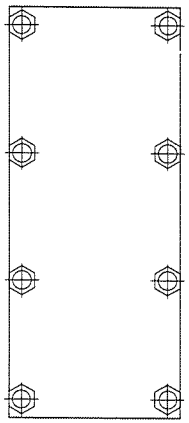
SS
PIPE
S1,S2,S3,S4

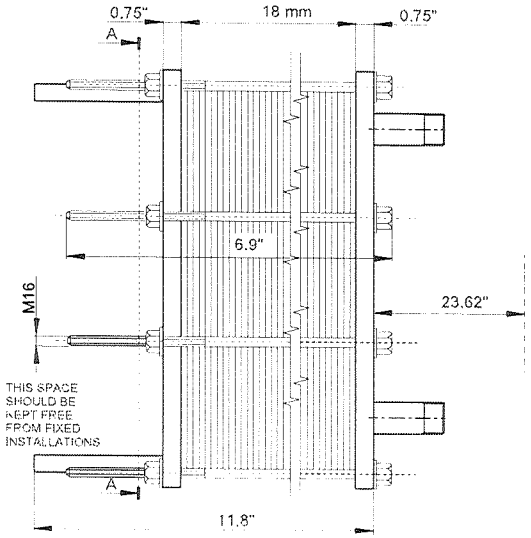


PRESSURE PLATE

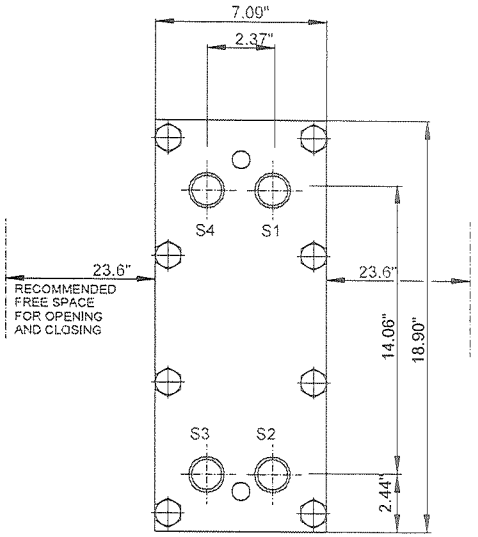
(MOVABLE)

SECTION A-A





FRAME PLATE (FIXED)



ALL DIMENSIONS IN INCHES

TOTAL LENGTH	15"
TOTAL WIDTH	7.1"
TOTAL HEIGHT	18.9"

SIDE	MEDIA	INLET	TEMP.	OUTLET	TEMP.	FLOW RATE	PRESSURE DROP	LIQUID VOL.
1	Steam	S4	298.0 °F	S3	298.0 °F	8.3 GPM	0.003064 psi	0.01483 ft³
2	Water	S2	59.0 °F	S1	158.0 °F	0.2 GPM	0.008832 psi	0.01801 ft³

Plate Heat Exchanger

Technical Specification

Customer : DDCE
Model : **M3-FG**
Project: : DDCE Pt2
Item : **4001-W05 R1 Case 1** Date: 7/7/2009

		Hot Side	Cold side
Fluid		Steam	Water
Density	lb/ft³	0.1439	62.35
Specific heat capacity	Btu/lb,°F	0.56	1.00
Thermal conductivity	Btu/ft,h,°F	0.0166	0.344
Viscosity inlet	cP	0.0140	1.14
Viscosity outlet	cP	0.0140	0.403
Volume flow rate	GPM	8.3	0.2
Inlet temperature	°F	298.0	59.0
Outlet temperature	°F	298.0	158.0
Pressure drop	psi	0.00306	0.00883
Heat Exchanged	kBtu/h	8.696	
L.M.T.D.	°F	185.1	
O.H.T.C clean conditions	Btu/ft²,h,°F	403.0	
O.H.T.C service	Btu/ft²,h,°F	33.76	
Heat transfer area	ft²	1.4	
Relative directions of fluids		Countercurrent	
Number of plates		6	
effective plates		4	
Number of passes		1	1
Extension capacity		20	
Plate material / thickness		ALLOY 316 / 0.60 mm	
Sealing material		HNBR CLIP-ON	HNBR CLIP-ON
Connection material		Stainless steel	Stainless steel
Connection diameter		See drawing	See drawing
Nozzle orientation		S4 -> S3	S1 <- S2
Pressure vessel code		ASME	
Flange rating			
Design pressure	psi	150.0	150.0
Test pressure	psi	195.0	195.0
Design temperature	°F	300.0	300.0
Overall length x width x height	in	15 x 7 x 19	
Liquid volume	ft³	0.0	0.0
Net weight, empty / operating	lb	56.4 / 57.0	

Performance is conditioned on the accuracy of customers data and customers ability to supply equipment

Plate Heat Exchanger

Technical Specification

Customer : DDCE
Model : **M3-FG**
Project: : DDCE Pt2
Item : **4001-W05 R1 Case 2** Date: 7/7/2009

		Hot Side	Cold side
Fluid		Steam	Water
Density	lb/ft³	0.1439	62.35
Specific heat capacity	Btu/lb,°F	0.56	1.00
Thermal conductivity	Btu/ft,h,°F	0.0166	0.344
Viscosity inlet	cP	0.0140	1.14
Viscosity outlet	cP	0.0140	0.546
Volume flow rate	GPM	1.2	0.0
Inlet temperature	°F	298.0	59.0
Outlet temperature	°F	298.0	122.0
Pressure drop	psi	0.0000264	0.000825
Heat Exchanged	kBtu/h	1.259	
L.M.T.D.	°F	205.9	
O.H.T.C clean conditions	Btu/ft²,h,°F	160.0	
O.H.T.C service	Btu/ft²,h,°F	4.410	
Heat transfer area	ft²	1.4	
Relative directions of fluids		Countercurrent	
Number of plates		6	
effective plates		4	
Number of passes		1	1
Extension capacity		20	
Plate material / thickness		ALLOY 316 / 0.60 mm	
Sealing material		HNBR CLIP-ON	HNBR CLIP-ON
Connection material		Stainless steel	Stainless steel
Connection diameter		See drawing	See drawing
Nozzle orientation		S4 -> S3	S1 <- S2
Pressure vessel code		ASME	
Flange rating			
Design pressure	psi	150.0	150.0
Test pressure	psi	195.0	195.0
Design temperature	°F	300.0	300.0
Overall length x width x height	in	15 x 7 x 19	
Liquid volume	ft³	0.0	0.0
Net weight, empty / operating	lb	56.4 / 57.0	

Performance is conditioned on the accuracy of customers data and customers ability to supply equipment