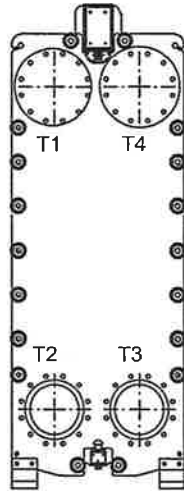


Designed constructed and stamped in accordance with 2004 ASME Code and latest Addendum.

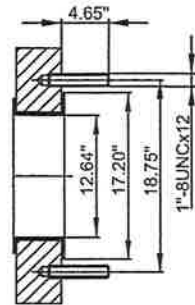
This is a general drawing. Additional parts, if required, like protection sheets, inspection covers, etc. are not displayed.

## PRESSURE PLATE

(MOVABLE)  
SECTION A-A  
PP = 3.15"



ASME 150 14"  
SS  
METAL LINING  
T1,T2,T3,T4



NOTE: (1) STAINLESS STEEL PARTITION PLATE.

REMARKS  
DESIGN PRESSURE  
TEST PRESSURE  
MAX TEMPERATURE  
MIN TEMPERATURE  
MAWP  
MDMT

GASKET  
PLATE MATERIAL  
PLATE THICKNESS  
HEATING SURFACE  
PLATE GROUPING  
OPERATING WEIGHT  
NET WEIGHT

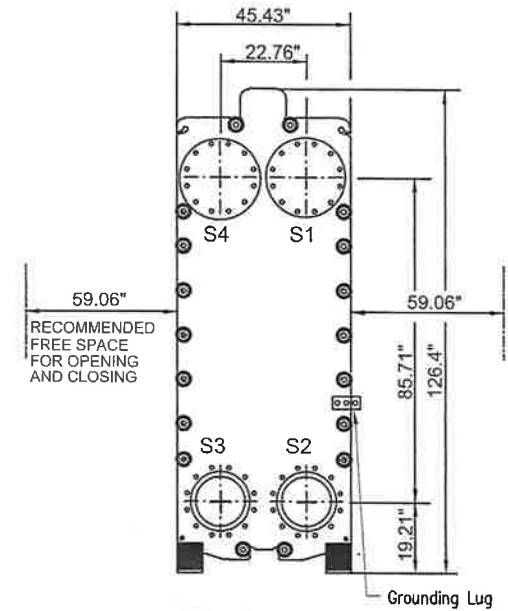
SUPPLIER REF. 6714-60 ITEM NO: E-3104 FERMENTER CLR #1

PLATE HEAT EXCHANGER

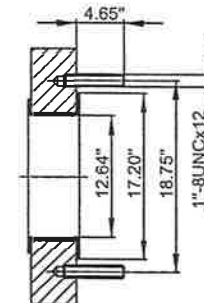
REV 3: ADDED REINFORCED FEET. ALL DIMENSIONS IN INCHES. TOLERANCE: +/- .25 INCH

## FRAME PLATE

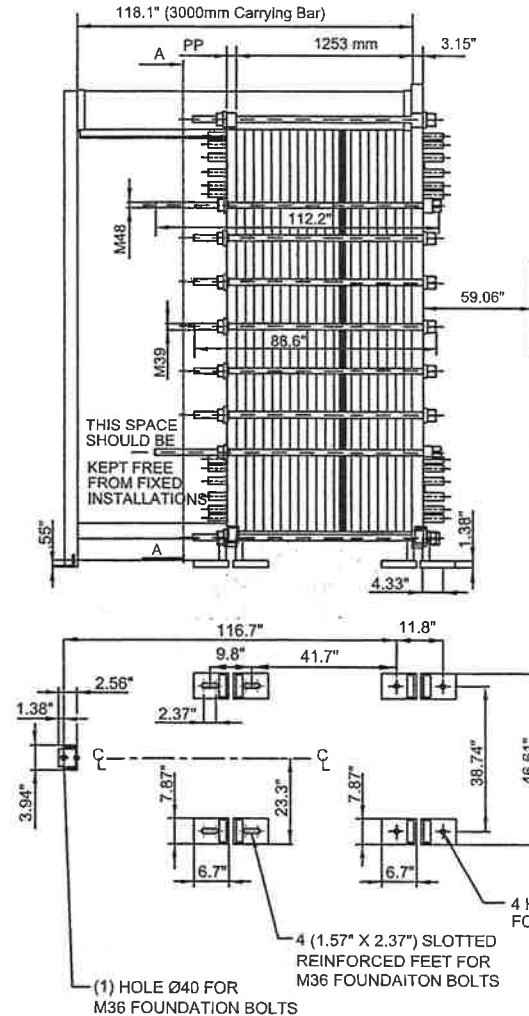
(FIXED)



ASME 150 14"  
SS  
METAL LINING  
S1,S2,S3,S4



TOTAL LENGTH 133.4"  
TOTAL WIDTH 46.61"  
TOTAL HEIGHT 126.4"



SIDE	MEDIA	INLET	TEMP.	OUTLET	TEMP.	FLOW RATE	PRESSURE DROP	LIQUID VOL.
1	Beer Mash E-3104	S2	95.0 °F	T2	85.0 °F	1548000 lb/h	7.350 psi	59.9 ft³
2	Water	T3	70.0 °F	S3	85.0 °F	917200 lb/h	6.486 psi	26 ft³

AGENT/REF. Alfa Laval Inc. / 649058  
CUSTOMER NAME / REF. NO. Delta T / 4500129967 / BUNGE ERGON VICKSBURG  
SIGN. PSS RISK CATEGORY N/A

ASME WideGap350S-FG

SERIAL NO. 30110-68348  
DATE 2007-07-11

REV 3

**Alfa Laval, Plate Heat Exchanger  
Channel Plate Installation Description**

2007-02-06

Customer:	Delta T	SU Order No:	6714-60
Model :	WideGap350S-FG	Serial No:	30110-68348
Customer PO:	4500129967	Item No:	E-3104

Plate material and Thickness: ALLOY 316 0.60 mm

A Dimension: 1253 mm

	<b>Hot side</b>	<b>Cold side</b>
Grouping:	2*38A11	2*38B05
Sealing material:	NBRP CLIP-ON	NBRP CLIP-ON
Port Locations:	S2 -> T2	T3 -> S3

Connection material: Stainless steel      Stainless steel

Inspection Cover S1, S4, T1, T4

Port hole with flow on the gasketed side: U

Port hole sealed with O-ring: O

Plates are assembled with the gasket side facing the frame plate.

Plate no.	Plate code no.	Plate Pattern		Punched corner of the plate				Flow direction on the gasket side of the plate
				upper left	lower left	lower right	upper right	
				S1	S2	S3	S4	
				= =	=>=	=>=	= =	
FRAME PLATE								
1	39506006 83	TL35 S1V	A	O	O	O	O	
2	39506005 03	TL35 S1R	B	U --<---	U	O	O	Up
3	39506006 03	TL35 S1V	A	O	O	U --<---	U	Down
4	39506005 03	TL35 S1R	B	U --<---	U	O	O	Up
5	39506006 03	TL35 S1V	A	O	O	U --<---	U	Down
6,	8, ..., 70	39506005 03	TL35 S1R	B				
7,	9, ..., 71	39506006 03	TL35 S1V	A				
72	39506005 03	TL35 S1R	B	U --<---	U	O	O	Up
73	39506006 03	TL35 S1V	A	O	O	U --<---	U	Down
74	39506005 03	TL35 S1R	B	U --<---	U	O	O	Up
75	39506006 03	TL35 S1V	A	O	O	U --<---	U	Down
76	39506005 03	TL35 S1R	B	U --<---	U	O	O	Up
77	39506006 64	TL35 S1V	A	O		--<---	U	Down
PARTITION PLATE								
78	39506006 84	TL35 S1V	A	O			O	
79	39506005 03	TL35 S1R	B	U --->--	U	O	O	Down
80	39506006 03	TL35 S1V	A	O	O	U --->--	U	Up
81	39506005 03	TL35 S1R	B	U --->--	U	O	O	Down
82	39506006 03	TL35 S1V	A	O	O	U --->--	U	Up
83,	85, ..., 147	39506005 03	TL35 S1R	B				
84,	86, ..., 148	39506006 03	TL35 S1V	A				
149	39506005 03	TL35 S1R	B	U --->--	U	O	O	Down
150	39506006 03	TL35 S1V	A	O	O	U --->--	U	Up
151	39506005 03	TL35 S1R	B	U --->--	U	O	O	Down
152	39506006 03	TL35 S1V	A	O	O	U --->--	U	Up

153	39506005 03	TL35 S1R	B	U	---	--	U	O		O	Down
154	39506006 63	TL35 S1V	A	O			O	U	---	--	U
	PRESSURE PLATE			= =			=<=	=<=			= =
				T1			T2	T3			T4

---

Article No:	Quantity:
39506006 83	1
39506005 03	76
39506006 03	74
39506006 64	1
39506006 84	1
39506006 63	1

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## Alfa Laval Plate Heat Exchanger Specification

**Customer** : Delta-T Corp.  
**Project** : Bunge Ergon Vicksburg, LLC - Vicksburg, MS  
**Model** : Widegap350S-FG  
**PO.** : 4500129967  
**Serial No.** : 30110-68348  
**Item** : E-3104 Fermenter Cooler #1 **Date:** 9/10/2007

		<u>Hot side</u>	<u>Cold side</u>
Fluid		Beer Mash	Water
Mass flow rate	lb/h	1548000	917200
Inlet temperature	°F	95.0	70.0
Outlet temperature	°F	85.0	85.0
Pressure drop	psi	7.35	6.49
Density	lb/ft <sup>3</sup>	60.69	62.16
Specific heat capacity	Btu/lb, °F	0.89	1.00
Thermal conductivity	Btu/ft, h, °F	0.330	0.353
Viscosity inlet	cP	25.0	0.981
Viscosity outlet	cP	25.0	0.810
Heat exchanged	kBtu/h	13780	
L.M.T.D.	°F	12.3	
Heat transfer area	ft <sup>2</sup>	3116	
Rel. directions of fluids		Countercurrent	
Number of plates		153	
Number of passes		2	2
Plate material		ALLOY 316	
Sealing material		NBRP	NBRP
Connection material		Stainless steel	Stainless steel
Connection standard		14"	14"
Pressure vessel code		ASME Sect VIII latest Addendum	
Design pressure	psig	100.0	100.0
Test pressure	psig	130.0	130.0
Design temperature	°F	200.0	
Overall length x width x height	in	134 x 45 x 126	
Liquid volume	ft <sup>3</sup>	59.9	26.0
Net weight, empty / operating	lb	13775 / 19184	

*Performance is conditioned on the accuracy of customer's data and customer's ability to supply equipment and products in conformity therewith.*



26374

Certified by

Alfa Laval - Richmond, VA

Alfa ratings apply to all chambers  
unless ratings are listed as follows

MAW	100 PSI AT 200 F
MDM	-20 F AT 100 PSI
SN	30110-68348   Year   2007
Model	WIDEGAP350S-FG
Area	3116.00 SQ.FT.
A.Dm	1253MM W/154 0.60 MM PLTS
Q.I.E	649058

P.O. 4500129967  
TAG FERMENTER COOLER 1  
TAG E-3104

Customer Service

866-ALFALAVAL WWW.ALFALAVAL.COM



WARNING

READ INSTRUCTION MANUAL  
BEFORE INSTALLATION,  
OPERATION AND MAINTENANCE  
TO AVOID INJURIES  
OR DAMAGE.

