

Edl, Michele

From: Lori White [lori@mhboise.net]
Sent: Wednesday, July 25, 2012 12:20 PM
To: Edl, Michele
Subject: Mission Aviation
Attachments: SCX-6545_20120725_12151201.pdf

Hi Michele

I attached what I could find on the heat exchanger. Let me know if you need more information.

Thank you.

Lori White



Midgley-Huber, Inc.

5766 W. Albatros Street

Boise, ID 83705

Phone (208) 362-1670

Fax (208) 362-1573

ITT Heat Transfer Plate & Frame Specification

V0392A

Att:

Item:

Ref:

Monday, March 20, 2006

PHE-Type	P14-102-TKTL-82	Hot side	Cold side
Flowrate	(g.p.m.)	196.00	196.00
Inlet temperature	(°F)	50.00	38.00
Outlet temperature	(°F)	42.99	45.00
Pressure drop	(PSI)	4.96	4.97
Heat exchanged	(Btu/h)	689577	
Thermodynamic properties:		Water	Water
Density	(Lb/Ft³)	62.38	62.40
Specific heat	(Btu/Lb*F)	1.00	1.00
Thermal conductivity	(Btu/h*Ft*F)	0.33	0.33
Mean viscosity	(cP)	1.40	1.52
Wall viscosity	(cP)	1.52	1.40
LMTD	(°F)		5.0
Excess Surface	(%)		0.0
Inlet branch		F1	F3
Outlet branch		F4	F2
Design of Frame / Plates:			
Plate arrangement (passes*channel)		1 × 50 + 0 × 0	
Plate arrangement (passes*channel)		1 × 51 + 0 × 0	
Number of plates		102	
Effective heat surface	(Ft²)	161.46	
Overall K-value Duty/Clean	(Btu/Ft²*h*F)	854 / 854	
Plate material		0.0157 inch AISI 316	
Gasket material		NITRIL LOCK	
Max. working temperature	(°F)	257	
Working/test pressure	(PSI)	150.0 / 195.0	
Frame type		IS	
Connections HOT side		2.00 " Steel Female NPT	
Connections COLD side		2.00 " Steel Female NPT	
Liquid volume	(Ft³)	1.23	
Carry Bar Length	(Ft)	3.28	
Net weight	(Lb)		Max. No. of Plates 150
		Approval	

ITT Heat Transfer

175 Standard Parkway

Cheektowaga, NY 14227

Tlf : 800-447-7700

Fax : 716-897-1777

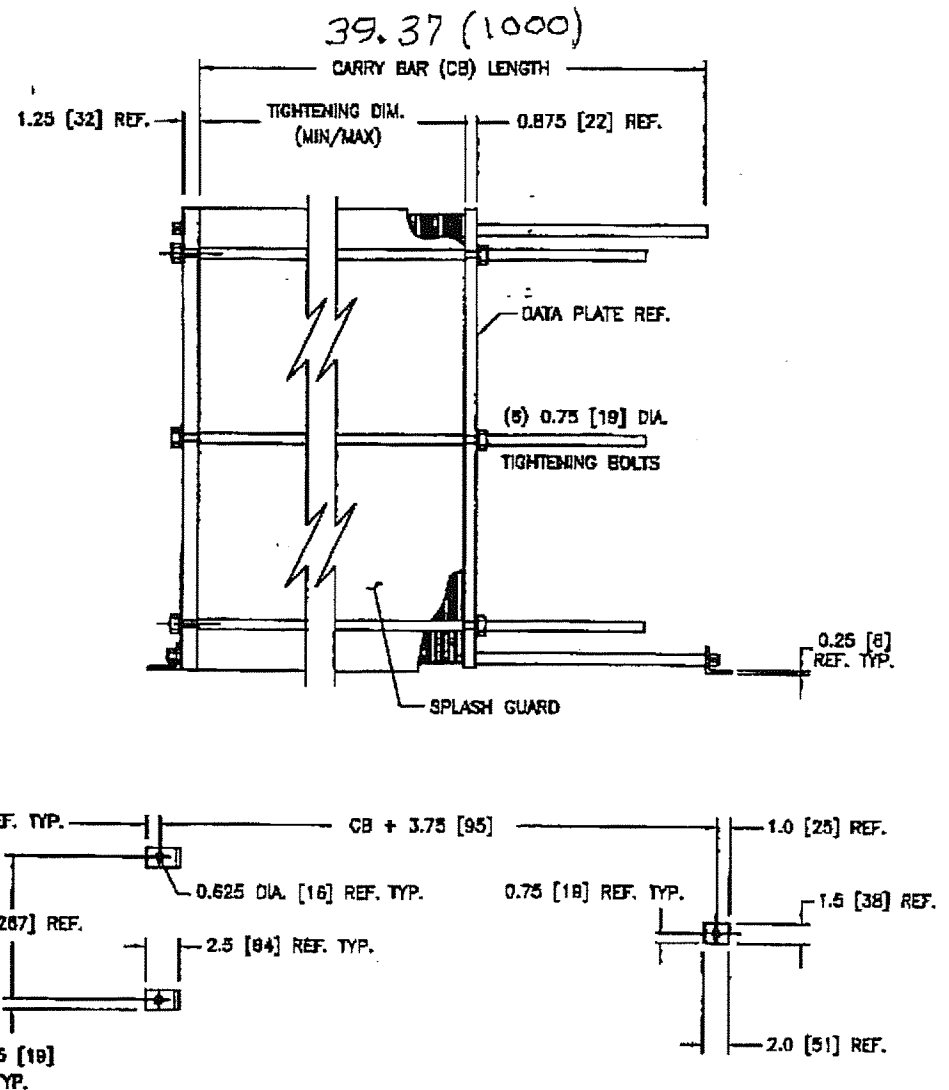
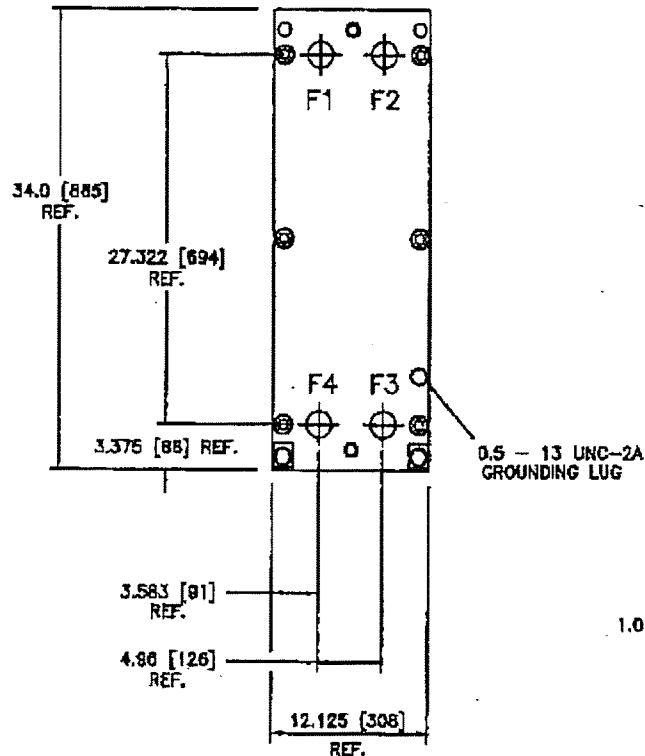
FACTORY ORDER NO.

NOTE 1. DIMENSIONS IN INCHES AND [mm].

2. DIMENSIONS ARE SUBJECT TO CHANGE. REQUEST
CERTIFIED PRINTS TO CONFIRM DIMENSIONS.

REV	REVISION NOTE	MISC	DATE

NOT VALID FOR FRAME SIZES LARGER THAN 1000mm.



UNIT CONSTRUCTION		DESIGN CONDITIONS		SIDE 1	SIDE 2
THERMAL PLATES	-	DESIGN PRESS. (PSI)		150	150
GASKET TYPE	- NITRILE	TEST PRESS. (PSI)		195	195
PLATE MIXTURE	-	DESIGN TEMP. (°F)		-	-
MIX (SIDE 1)	-	MIN. TEMP. (°F)		32	32
MIX (SIDE 2)	-				
PLATE QTY.	- 102	CONNECTIONS			
CARRY BAR	-	PORT	LOCATION	TYPE AND DESCRIPTION	
TIGHTENING BOLTS	STEEL (ZINC PLATED)	SIDE 1 (IN)	F1	STEEL, 2" NPT (INTERNAL)	
SPLASH GUARD	ALUMINUM	SIDE 1 (OUT)	F4	STEEL, 2" NPT (INTERNAL)	
WEIGHT DRY/FULL	--- / --- (LBS)	SIDE 2 (IN)	F3	STEEL, 2" NPT (INTERNAL)	
		SIDE 2 (OUT)	F2	STEEL, 2" NPT (INTERNAL)	

The design is for a unit with a maximum pressure of 195 PSI and a maximum temperature of 195 °F. The unit is designed for a service life of 10 years. The unit is designed for a service life of 10 years.

For any further information, please contact the manufacturer. The manufacturer is located at 1000 Main Street, Buffalo, NY 14203. The manufacturer's phone number is 716-835-1234. The manufacturer's fax number is 716-835-1235. The manufacturer's email address is info@tpt.com.

TPT Ball & Consett
Buffalo, NY U.S.A.
MODEL P14A
PART NUMBER
REV

Schedule on original plans...

FLAT PLATE HEAT EXCHANGER SCHEDULE

NO.	TYPE	SYSTEM	MBH	LOAD SIDE					SOURCE SIDE					WEIGHT	MANUFACTURER
				GPM	EWT	LWT	PD (PSI)	FLUID	GPM	EWT	LWT	PD (PSI)	FLUID		
1	FLAT PLATE	HYDRONIC	690	196	38'	45'	4.9	WATER	196	50'	43'	4.9	WATER	500	'B&G' P14-102-TK

PUMP SCHEDULE

NO.	TYPE	GPM	HEAD	HP	CHAR	RPM	SYSTEM	SIZE	WEIGHT	MANUFACTURER
1	CLOSE COUPLED	196	57	5	208/3ø	1750	HYDRONIC	2BC	170#	'B&G' MODEL 1531
2	CLOSE COUPLED	196	57	5	208/3ø	1750	HYDRONIC	2BC	170#	'B&G' MODEL 1531

1 PUMP CONTROLLED BY VFD. MINIMUM MOTOR SPEED TO BE 30% RATED FULL LOAD SPEED.

VFD (VARIABLE FREQUENCY DRIVE) SCHEDULE

NO.	EQUIPMENT CONTROLLED	HP	BYPASS	CHAR	MANUFACTURER
1	PUMP - 1	5	NO	208/3ø	'ABB'-ACH-550
2	PUMP - 2	5	NO	208/3ø	'ABB'-ACH-550

NOTE: PROVIDE 5% LINE IMPEDENCE.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
— CW —	COLD WATER
— HS —	HYDRONIC WATER SUPPLY PIPING
— HR —	HYDRONIC WATER RETURN PIPING
— HW —	HOT WATER PIPING
— FW —	INJECTION WELL WATER