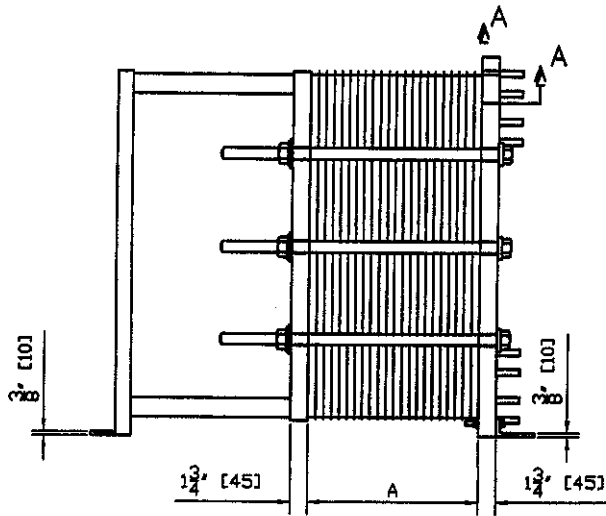
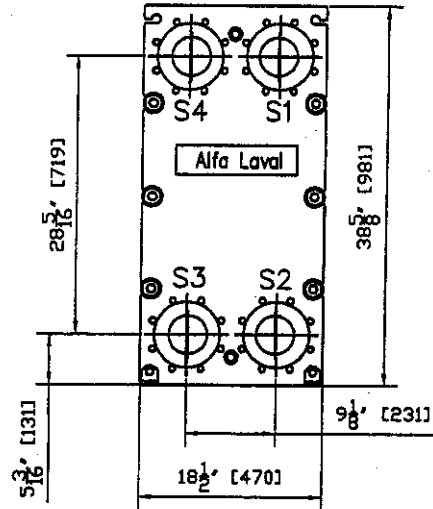


Designed, constructed and stamped in accordance with  
2001 A.S.M.E. code and latest addendum.

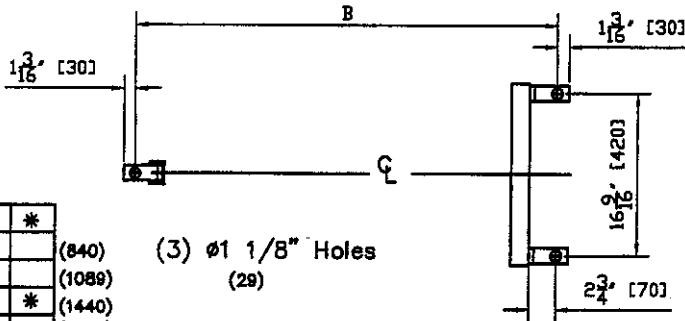
Side



Front

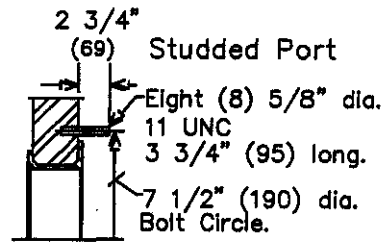


Footing



(3)  $\phi 1\frac{1}{8}"$  Holes  
(29)

Section AA



A = See Plate Computer Printout Dimensions in parenthesis are millimeters (mm).

B	*
33 1/16"	(840)
42 7/8"	(1089)
56 11/16"	(1440)
70 7/16"	(1789)
90 1/8"	(2289)

Connections

Location	Function	Material	Size	Rating
S1	Hotside In	Unlined	4"	150#
S2	Hotside Out	Unlined	4"	150#
S3	Coldside In	Unlined	4"	150#
S4	Coldside Out	Unlined	4"	150#

NOTES: One Coat Black Paint , Young Touchstone code plate

Customer: Young Touchstone  
P.O. No.: 28400  
Item No.: 413072  
A/L Ord. No.: 35079  
A/L Ser. No.: 30108-90498

Design Press./Temp.: 150 PSIG / 221°F  
Mat'l Plates/Gaskets: 304 SS / NBRP  
# Plates Actual/Max.: 128 / 184 (0.4 mm)  
Weight Dry/Flooded: 1183 Lbs / 1360 Lbs  
For Mfg. Only, LC/LT: 1250 mm / 1050 mm

YTP240H-M2  
M10-BFG  
Plate Heat Exchanger

**Alfa Laval**  
Manufactured in Richmond, Virginia

rev.	description	by	ck	date	
0	Cover with to 18 1/2" from 18 1/8"			8/90	
1	18" in Richmond, LC/LT Added			11/90	
2	Stud Bolt Length Increased			11/92	
3	Corrected stud bolt projection dimension			5/04	
4	Studded part shown on certified print.				
by	date	check	date	approval	date
PN	8/91	MG	8/91	TC	8/91

Dwg. No.: 88110-231 Rev.:G.0

Customer:	Young Touchstone	Model:	M10-BFG
Customer PO:	28400	Quantity:	1
Project:	PO 28400	AL Order No:	35079-001
Item:	HX-1	Serial No:	30108-90498
		PV Code:	ASME UM

End Customer PO Number:	
Installation Location:	Unknown
Tag Information:	413072
Agent:	No rep

Channel Plate Quantity/Material	128	/	AISI 304
Channel Plate Thickness	0.40 mm	/	0.016 in
Plate Pack Tightening A Dimension (See Drawing)	378 mm	/	14.88 in
Weight, Dry	536 kg	/	1183 lbs
Weight, Flooded	617 kg	/	1360 lbs

	Hot side	Cold side
Inlet (See Drawing)	S1	S3
Outlet	S2	S4
Connection Material	Unlined	Unlined
Number of Passes	1	1
Fluid Channels(Grouping)	1*64H	1*63H
Sealing material	NBRP CLIP-ON	NBRP CLIP-ON
Design Temperature	221.0 F	212.0 F
Design Pressure	150.0 psig	150.0 psig
Factory Test Pressure	195.0 psig	195.0 psig

**Channel Plate Installation Description**

Plate no.	Plate part no.	Port Hole Locations				Flow direction on the gasket side of the plate
		upper right	lower right	lower left	upper left	
		S1	S2	S3	S4	
	FRAME PLATE	=>=	=<=	=<=	=>=	
1	367517 0483 A	O	O	O	O	Down
2	367520 2403 B	U --->--	U	O	O	Up
3	367520 2403 A	O	O	U --->--	U	Down
4	367520 2403 B	U --->--	U	O	O	Up
5	367520 2403 A	O	O	U --->--	U	Down
6,	8, ..., 124	367520 2403B				
7,	9, ..., 125	367520 2403A				
126	367520 2403 B	U --->--	U	O	O	Down
127	367520 2403 A	O	O	U --->--	U	Up
128	367517 0476 B		--->--			Down
	PRESSURE PLATE	T1	T2	T3	T4	

**Channel Plate and Gasket Part Number List**

Article No.	Quantity/Unit
367517 0083	1
32330 1654 6	129
367520 2003	126
367517 0076	1

**FORM U-3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE**  
**COVERING PRESSURE VESSELS TO BE STAMPED WITH THE UM SYMBOL, SFF U-1(i)**  
**As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1**

1. Manufactured and certified by Alfa Laval Inc., 5400 International Trade Dr., Richmond VA 23231  
(Name and address of Manufacturer)

2. Manufactured for YOUNG TOUCHSTONE, 200 SMITH LANE, PO BOX 7568, JACKSON, TN, 38302  
(Name and address of Purchaser)

3. Location of Installation Unknown, , , ,  
(Name and address)

4. Type Vertical Plate Heat Exchanger 2.96 Cu. ft 30108-90498  
(Hortz., vert., or sphere) (Tank, separator, etc.) (Capacity, oil chambers) (Mfg's serial No.)

88110-231 G.O 2004  
(CRN) (Drawing No.) (Year Built)

5. ASME Code, Section VIII, Div. 1 2001 A03  
Edition Addenda (date) Code Case No.

6. Shell (a) No. of course(s): \_\_\_\_\_ (b) Overall length (ft + in.): \_\_\_\_\_

Course(s)	Material		Thickness		Long Joint (Cat. A)			Circum. Joint (Cat. A, B + C)			Heat Treatment							
	No.	Diameter, in.	Length, ft.+in.	Spec./Grade or Typ	Nom.	Corr.	Type	Full.	Spot.	None	Eff.	Type	Full.	Spot.	None	Eff.	Temp.	Time

7. Heads: (a) SA-516-70 (b) SA-516-70  
(Mat'l Spec. No. Grade or Type) H.T. - Time + Temp

Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Radius Side to Pressure		Category A						
	Min.	Corr.	Crow	Knuckle					Convex	Concav	Type	Full.	Spot.	None	Eff.		
(a) Fixed	1 3/4"	0"						39 X 19"									
(b) Movable	1 3/4"	0"						35 X 19"									

If removable, bolts used (describe other fastening) SA193-B7 (6) 1" DIA BOLTS  
(Mat'l Spec. No., Grade, Size, No.)

8. Type of Jacket \_\_\_\_\_ Jacket Closure \_\_\_\_\_  
(Describe as open + weld, bar, etc.)

If bar, give dimensions, if bolted describe or sketch \_\_\_\_\_

9. MAWP 150 psi of max. temp. 221 ° F Min. design metal temp. -20 ° F at 150 psi  
(internal) (external) (internal) (external)

10. Impact Test NO (Impact Exemption UCS-66(a), (b), UHA-51, UNF-65, as applicable)  
(Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test press. 195 Hydro Proof test \_\_\_\_\_

12. Nozzles, inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Insp. Open)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Inlet	2	4"	STUDS	SA193-B7		5/8"					
Outlet	2	4"	STUDS	SA193-B7		5/8"					

13. Supports: Skirt \_\_\_\_\_ Lugs \_\_\_\_\_ Legs \_\_\_\_\_ Others FEET Attached BOLTED  
(Yes or no) (No.) (No.) (Describe) (Where and how)

14. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items: (part name, part no., mfg's. name)

15. Remarks (184) SA-240-304 .016 \* Plates Maximum Distance between Heads 14.88 "

Customer PO #: 28400 Tag #: 413072 Owner to supply Safety Valve/Noncorrosive Service Only

**CERTIFICATE OF SHOP COMPLIANCE**

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

UM Certificate of Authorization No. 25,018 Expires July 5, 2005

Date 10/25/04 Name Alfa Laval, Inc. Signed [Signature]  
(Manufacturer) (Representative)

Signed [Signature]  
(Certified Inspector)