

ACI Central Inc.

20 McAulay Court, Charlottetown, PE C1A 9M7
 P.O. Box 53, Charlottetown, PE C1A 7K1. Phone: 902-566-1975, Fax: 902-566-3133

Recommendation to Register – Pressure Vessel Design

To: Engineering & Inspection Service

Date: 10/12/2022

From: ACI Central Inc.

Manufacturer: API Heat Transfer
 2777 Walden Ave
 Buffalo, NY 14225

Manufacturer #: PV-9378

Subject: ACI Central Design Review

The product described on this form has satisfied the requirements for review of pressure vessel designs established by the Directors of ACI Central at their September 1994 meeting in Moncton, New Brunswick. We recommend this design be registered in your Jurisdiction under:

CRN: R5775.5

Unit Description	Drawing Number	Service	Design Code
Plate Heat Exchanger	4-X18-GXX-303-001 rev 1	Non Lethal	ASME Sect VIII Div. 1

Shell Side

Tube Side

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
150 PSI @ 400 F	-20 F @ 150 PSI		

Test Pressure: Hydro: 195 PSI Pneu:	Test Pressure: Hydro: Pneu:
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Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
F.Head	SA 516 70N	1.375	1.375	-				OD":	
R.Head	SA 516 70N	1.375	1.375					OAL": 67.56"	
R.Head	SA 516 70N	1.000	1.000					W": 14.13"	
								H": 41"	
								HS FT":	

Notes:

- 1- The return of this form, bearing the signature and stamp of the Jurisdiction will legally establish the CRN shown on this form.
- 2- A copy of the Design bearing the CRN will be sent to the Manufacturer.
- 3- Details including service conditions will be posted on the 'Silent Inspector' Bulletin Board.
- 4- Copies of the Design and Specifications are available to ACIC Members on demand.
- 5- The form will be a permanent ACIC record.
- 6- To reduce turnaround times to a minimum fax your response to 902-566-3133.

ACIC Log#: 33246

Description: Plate Heat Exchanger, Model M18 X/S-1500-303
 ASME Stamp, National Board Registered

This space is for Jurisdictional stamp and signature

Newfoundland
 Labrador

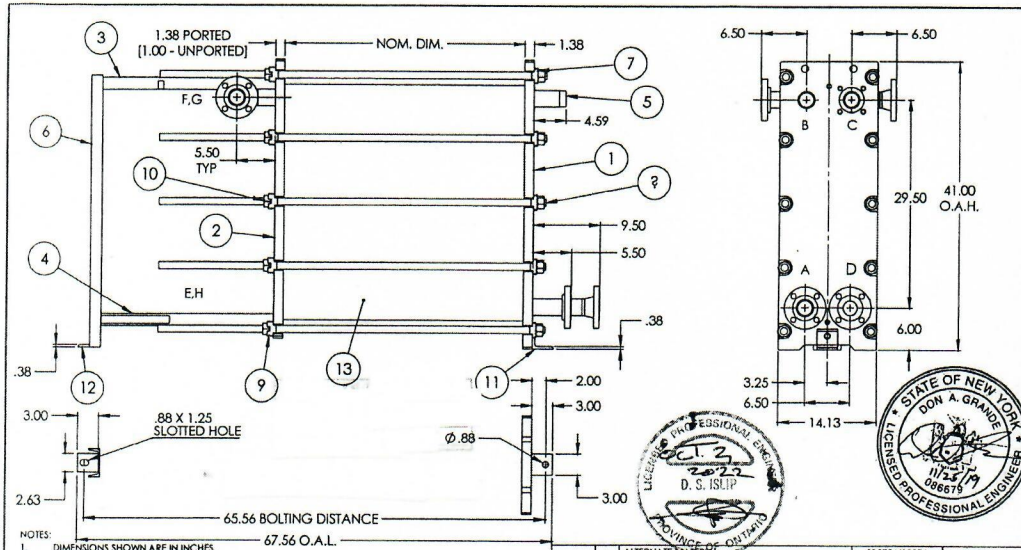
Registered R5775.50

Date October 31 2022

Engineering and Inspection Services

Registered by [Signature]

UNDER THE AUTHORITY OF THE
 PUBLIC SAFETY ACT AND
 THE BOILER, PRESSURE VESSEL AND
 COMPRESSED GAS REGULATIONS



CONNECTIONS				
FLUID	TAG	SIZE	TYPE	MATERIAL
COLD (IN/OUT)	A	2"	SEE NOTE 11	SEE BOM
COLD (IN/OUT)	B	2"	SEE NOTE 11	SEE BOM
HOT (IN/OUT)	C	2"	SEE NOTE 11	SEE BOM
HOT (IN/OUT)	D	2"	SEE NOTE 11	SEE BOM
COLD (IN/OUT)	E	2"	SEE NOTE 11	SEE BOM
COLD (IN/OUT)	F	2"	SEE NOTE 11	SEE BOM
HOT (IN/OUT)	G	2"	SEE NOTE 11	SEE BOM
HOT (IN/OUT)	H	2"	SEE NOTE 11	SEE BOM

CONSTRUCTION	
FRAME SIZE:	1500
NO. OF PLATES:	SEE BOM
MAX. NO. OF PLATES:	5 * 213 / X = 303
GASKET MATERIAL:	SEE BOM
PLATE ARR:	

DESIGN CONDITIONS	
CONDITION:	COLD SIDE HOT SIDE
DESIGN PRES. (PSIG)	150 150
TEST PRES. (PSIG)	195 195
DESIGN TEMP. (°F)	400 400
MIN. TEMP. (°F)	-20 -20
WEIGHT DRY / FILLED:	1440 lbs / 1849 lbs
DIMENSION & DATA CERTIFIED FOR:	
CUST. ORDER:	S&A ORDER:
BY:	DATE:
CODES:	
LINE IS BLT TO ASME VIL DIV. 1 CURRENT EDITION	
This document contains proprietary information and may not be disclosed to others for any purpose or used for manufacturing purposes without written permission from API Schmidt-Bretten.	
DRAWN DATE:	10/9/2018
DRAWN BY:	CJM
CHECKED:	DZW
SCALE:	1:12
MODEL NO.:	M18 X/S-1500-303

- NOTES:
- DIMENSIONS SHOWN ARE IN INCHES.
 - NOZZLE CENTERLINE & FACE: ±.125"
 - FRAME FOUNDATION & BOLT HOLE LOCATIONS: ±0.25"
 - SAFETY SHIELD SUPPLIED BUT NOT SHOWN.
 - UNIT PAINTED PER API STANDARD PAINT SPEC.
 - CUSTOMER IS RESPONSIBLE FOR PROVIDING SUITABLE ANCHOR BOLTS FOR MOUNTING HOLES SHOWN.
 - REFER TO SCHMIDT PLATE HEAT EXCHANGER INSTRUCTION MANUAL FOR OPERATION & MAINTENANCE.
 - CONNECTIONS ARE ASME/ANSI RATED PER THE RATING OF THE PRESSURE VESSEL.
 - CORROSION ALLOWANCE: 0.00"
 - ALL ASME CODE UNITS ARE REGISTERED WITH THE NATIONAL BOARD.
 - IMPACT TESTING IS EXEMPT PER UCS-66(g) AND UHA-S1.
 - ALL CONNECTIONS SHOWN CAN BE UTILIZED AND ANY CONFIGURATION ON EACH PORT PER HEAD.
 - CONNECTIONS AVAILABLE: 150# ASME RF50, RFWN, STUDDED, STUDDED LINED, FNPT, MNPT.
 - MATERIALS ON ASME FLANGES: SA-105, SA-182 304/L, SA182 316/L.
 - REFER TO SUBSEQUENT 77- DRAWINGS FOR CONNECTION DETAILS.

13	1	PLATE PACK	SA240 304/L	-	-
12	1	REAR SUPPORT FOOT	A36 - ZINC	3-15-200-1-01	-
11	1	FRONT SUPPORT FOOT	A36 - ZINC	3-15-100-1-03	-
10	10	1" HEX NUT, ZINC PLATED	SA-194 2H ZINC PL	3-07-100-3-01	-
9	10	1" LOCKING BUSHING	SA351 CF8	3-04-100-1-01	-
8	10	1" TIE ROD ZINC PLATED	SA193 G87 ZINC PL	3-22-100-3-07	-
7	10	1" THRUST BUSHING	SA351 CF8	3-04-100-1-02	-
6	1	SIGMA M18-300# REAR END SUPPORT	A-36	3-16-X29-1-04*	-
-	-	ALTERNATE MATERIAL	SA-312 S31254	-	-
-	-	ALTERNATE MATERIAL	S8-366 C276	-	-
-	-	ALTERNATE MATERIAL	SA-403 316	-	-
-	-	ALTERNATE MATERIAL	SA-403 304	-	-
5	1	MALE NPT	S8-363 WP11	3-17-200-X-01	-
4	1	GUIDE BAR MACHINE DETAIL MODEL: M18 S/X	1.4006	3-13-M45-2-02-07	-
3	1	CARRY BAR MACHINE DETAIL MODEL: M18 S/X	1.4006	3-14-M45-2-01-07	-
-	-	ALTERNATE MATERIAL	SA-312 S31254	-	-
-	-	ALTERNATE MATERIAL	S8-366 C276	-	-
2	1	SK18-150# REAR HEAD ASSEMBLY, MIX CONNS	SA-516 Gr.70	7-88018-00-XXXX-0	-
-	-	ALTERNATE MATERIAL	SA-516 Gr.70	7-88018-02-XXXX-0	-
1	1	SK18-150# FRONT HEAD ASSEMBLY, STD CONNS	SA-516 Gr.70	7-F8018-02-XXXX-0	-
-	-	ALTERNATE MATERIAL	SA-516 Gr.70	7-F8018-02-XXXX-0	-

REV.	DESCRIPTION	DATE	BY	CJM	BNB	CHECKED
1	UPDATED ALTERNATE MATL ON # 2	5/14/2019	CJM	BNB		
REVISIONS						
18	10	1" SAE WASHER, 316 SS.		316 SS		3-18-16F-2-02
-	-	ALTERNATE MATERIAL		VITON		
-	-	ALTERNATE MATERIAL		EPDM		
-	-	PLATE PACK GASKETS		NITRILE		

Schmidt® R API Schmidt-Bretten
 PERFORMANCE EXCELLENCE
 12770 Highway 90
 APRIL, MO, MISS
 716-88-8700

REV 1

DWG NO. 4-X18-GXX-303-001

ACIC DESIGN REVIEW
 AUTHORISED BY THE DIRECTORS OF ACI CENTRAL

CRN: R5775.50
 DATE: Nov. 3, 2022
 FILE: PV-9378

REGISTRATION IS A LEGAL REQUIREMENT UNDER THE ACT.
 IT DOES NOT RELIEVE THE MANUFACTURER OF ANY
 RESPONSIBILITY FOR THE PRODUCT DETAILED HEREIN.