

# 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: Nancy Chiasson

Date: 06/30/2023

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: Z8119.2**

Unit Description	Drawing Number	Service	Design Code
Heat Exchanger	1510-08-060-048 rev 1	Non Lethal	ASME Sect VIII Div. 1
<b>Shell Side</b>		<b>Tube Side</b>	
<b>MAWP @ TEMP</b>	<b>MDMT @ MAWP</b>	<b>MAWP @ TEMP</b>	<b>MDMT @ MAWP</b>
300 PSI @ 300 F	20 F to 300 PSI	235 PSI @ 300 F	20 F @ 235 PSI

Test Pressure: Hydro: 390 PSI Pneu:	Test Pressure: Hydro: 306 PSI Pneu:
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Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
Shell	SA 53 B	0.2424	0.277	0.0625	85			OD": 8.625"	
T.Sheet	SA 516 70	0.7511	1.250	0.125				OAL": 75"	
Tubes	SB 75 C12200	0.016	0.018	-	100			W":	
Cover	SA 516 70N	0.9822	1.250	0.0625	100			H":	
Flanges	SA 105							HS FT²: 114	

**Notes:**

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- 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#: 34324

Description: Heat Exchanger, 8.625" OD  
 ASME Stamp, National Board Registered

This space is for Jurisdictional stamp and signature

**ACCEPTED**  
 PROVINCE OF PRINCE EDWARD ISLAND  
 COMMUNITIES, LAND & ENVIRONMENT

C.R.N. Z8119.29

DATE: June 30 2023

*[Signature]*  
 INSPECTION SERVICES SECTION  
 BOILER/PRESSURE VESSEL BRANCH

# ACI Central Inc.

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P.O. Box 53, Charlottetown, PE C1A 7K1. Phone: 902-566-1975, Fax: 902-566-3133

## Recommendation to Register – Pressure Vessel Design

To: Donnie Ehler

Date: 06/30/2023

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;

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**Tube Side**

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300 PSI @ 300 F	20 F to 300 PSI	235 PSI @ 300 F	20 F @ 235 PSI

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Flanges	SA 105							HS FT": 114	

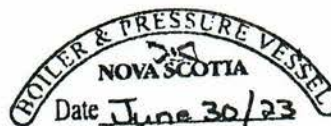
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ACIC Log#: 34324

Description: Heat Exchanger, 8.625" OD  
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C.R.N. Z8119.28

Dwg. 1510-08-060-048 rev. 1

Signed [Signature]



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## Recommendation to Register – Pressure Vessel Design

**To:** Eben Creaser

**Date:** 06/30/2023

**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: Z8119.2**

Unit Description	Drawing Number	Service	Design Code
Heat Exchanger	1510-08-060-048 rev 1	Non Lethal	ASME Sect VIII Div. 1

#### Shell Side

#### Tube Side

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
300 PSI @ 300 F	20 F to 300 PSI	235 PSI @ 300 F	20 F @ 235 PSI

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ACIC Log#: 34324

Description: Heat Exchanger, 8.625" OD  
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New Brunswick  
**Brunswick**

DEPT OF JUSTICE PUBLIC SAFETY  
 BOILER & PRESSURE VESSEL ACT

REGISTRATION ONLY

CRN Z8119.27

Eben Creaser  
 CHIEF BOILER INSPECTOR

DATE 6/30/23

BLRs  PVs

FITTINGS  NUCLEAR COMPONENTS  COMPONENTS Rev. 1 06/2003

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## Recommendation to Register – Pressure Vessel Design

To: Engineering & Inspection Service

Date: 06/30/2023

From: ACI Central Inc.

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

Manufacturer #: PV-9378

**Subject: ACI Central Design Review**

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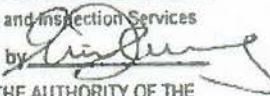
**Shell Side**

**Tube Side**

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
300 PSI @ 300 F	20 F to 300 PSI	235 PSI @ 300 F	20 F @ 235 PSI

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<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1- The return of this form, bearing the signature and stamp of the Jurisdiction will legally establish the CRN shown on this form.</li> <li>2- A copy of the Design bearing the CRN will be sent to the Manufacturer.</li> <li>3- Details including service conditions will be posted on the 'Silent Inspector' Bulletin Board.</li> <li>4- Copies of the Design and Specifications are available to ACIC Members on demand.</li> <li>5- The form will be a permanent ACIC record.</li> <li>6- To reduce turnaround times to a minimum fax your response to 902-566-3133.</li> </ol> <p><b>ACIC Log#:</b> 34324</p> <p><b>Description:</b> Heat Exchanger, 8.625" OD                  ASME Stamp, National Board Registered</p>	<p>This space is for Jurisdictional stamp and signature</p> <div style="text-align: center;">  <p>Newfoundland Labrador</p> </div> <p>Registered <u>Z8119.20</u>                  Date <u>June 30, 2023</u>                  Engineering and Inspection Services                  Registered by </p> <p>UNDER THE AUTHORITY OF THE                  PUBLIC SAFETY ACT AND                  THE BOILER, PRESSURE VESSEL AND                  COMPRESSED GAS REGULATIONS</p>
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 P.O. Box 53, Charlottetown, PE C1A 7K1. Phone: 902-566-1975, Fax: 902-566-3133

## Recommendation to Register – Pressure Vessel Design

**To:** Blair Rawlings

**Date:** 06/30/2023

**From:** ACI Central Inc.

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

**Manufacturer #:** PV-9378

**Subject:** ACI Central Design Review

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## Recommendation to Register – Pressure Vessel Design

To: Matthias Mallman

Date: 06/30/2023

From: ACI Central Inc.

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

Manufacturer #: PV-9378

**Subject: ACI Central Design Review**

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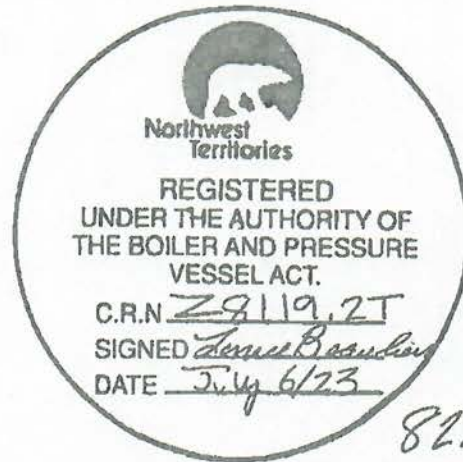
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## Recommendation to Register – Pressure Vessel Design

To: Muhammad Wani

Date: 06/30/2023

From: ACI Central Inc.

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

Manufacturer #: PV-9378

**Subject: ACI Central Design Review**

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**NUNAVUT**

Boilers and Pressure Vessels Act

**REGISTERED**

CRN Z8119-2N

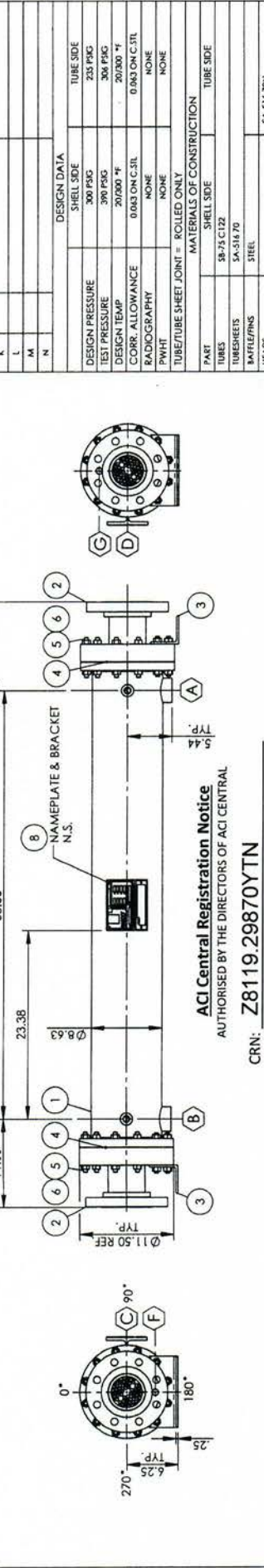
Date 2023-06-30

Signed [Signature]

Chief Inspector

Territorial Registration Fee

NO.	REVISION DESCRIPTION	BY	DATE	CHK	QTY.
1	RELEASED FOR FABRICATION	KC	2/15/2023	BPM	



**ACI Central Registration Notice**  
 AUTHORISED BY THE DIRECTORS OF ACI CENTRAL  
 CRN: Z8119.29870YTN  
 DATE: July 19, 2023  
 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.

ITEM NO.	QTY.	DESCRIPTION	MATERIAL	PART NUMBER
9	1	COATING: CROSSROADS HI-HEAT SILICONE RESIN #1-6-9996 COLOR: BLACK		4051-99-0199-071
8	1	NAMEPLATE [ASME/ADDITIONAL]		4072-01-0106-01
7	4	PLUG PIPE FST 1/2IN NPT SQHD	SA-105	4020-94-0109-00
6	48	HEAVY HEX NUT: 1/2-13 UNC	SA-194 2H	4026-32-0203-00
5	24	STUD: 1/2-13UNC X 5.00" LG	SA-193 B7	4022-32-4002-00
4	2	GASKET, RING: 9.63 OD X 8.88 X 0.06 THK *	TEADIT 1001	4012-00-0101-02-08
3	2	CRADLE STL .8IN DIA 8.75IN WIDE [STOCK]	STEEL	3051-08-319-002
2	2	BONNET ASSEMBLY: 8" IP W/ (1) 4" ANSI RFSSO		2020-08-040-002
1	1	CORE ASSEMBLY: 08060 TYPE 500 [232] - 3/8"		2510-08-060-045

TAG	SIZE	TYPE	SERVICE
A	2"	NPT CPFG	SHELL SIDE INLET
B	2"	NPT CPFG	SHELL SIDE OUTLET
C	4"	300# ANSI RFSSO	TUBE SIDE INLET
D	4"	300# ANSI RFSSO	TUBE SIDE OUTLET
E	1 1/2"	NPT CPFG	SHELL SIDE VENT
F	1 1/2"	NPT	TUBE SIDE DRAIN
G	1 1/2"	NPT	TUBE SIDE VENT
H			
J			
K			
L			
M			
N			

DESIGN DATA	TUBE SIDE
DESIGN PRESSURE	300 PSIG
TEST PRESSURE	300 PSIG
DESIGN TEMP	20/200 °F
CORR. ALLOWANCE	0.063 ON C-SIL
RADIOGRAPHY	NONE
PAINT	NONE
TUBE/TUBE SHEET JOINT =	ROLLED ONLY

MATERIALS OF CONSTRUCTION	SHELL SIDE	TUBE SIDE
TUBES	SA-316 L12	SA-316 70N
TUBESHEETS	SA-316 70	SA-316 70N
WAFLE/PINS	STEEL	SA-316 70N
HEADS	SA-308 ERW	SA-316 70N
SHELL	SA-308 ERW	SA-316 70N
NOZZLE FLGS	SA-105	SA-105
CPFGS	SA-105	SA-105
BOLTS/NUTS	SA-193 B7 / SA-194 2H	SA-193 B7 / SA-194 2H
GASKETS	COMPRESSED FIBER	COMPRESSED FIBER
O-RINGS		
BODY FLGS		

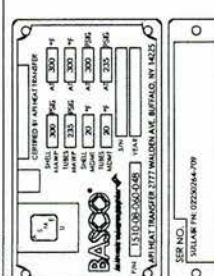
  

CURL ORDER: DIMENSIONS & DATA CERTIFIED FOR  
 BASCO ORDER: DIMENSIONS & DATA CERTIFIED FOR  
 COPIES: ASME VIII DIV. 1 2021

**NOTES:**

- SEE DOC. NO. 1510-08-060-048-CMR FOR CONTRACT NOTES.
- ESTIMATED WEIGHTS:  
EMPTY: 480 LBS  
FLOODED: 600 LBS
- ITEMS MARKED WITH \* ARE RECOMMENDED SPARE PARTS.

API BASCO DEFAULTS (UNLESS OTHERWISE SPECIFIED)  
 ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SPECIFIED  
 TOLERANCES (UNLESS SPECIFIED)  
 FRACTIONS PER ITA STANDARDS  
 DECIMALS PER ITA STANDARDS  
 ALL HOLES DRILLABLE  
 VERTICAL CENTERLINES  
 30° ANGLE  
 UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE TO CENTERLINE UNLESS INDICATED OTHERWISE  
 TO OBTAIN THE PARTS OF THIS MANUFACTURED PRODUCT WITHOUT  
 WRITING PERMISSION FROM THE MANUFACTURER



NO.	DATE	CHK	QTY.
1	2/15/2023	BPM	

NO.	DATE	CHK	QTY.
1	2/15/2023	BPM	

NO.	DATE	CHK	QTY.
1	2/15/2023	BPM	

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