

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: Eben Creaser

Date: 11/07/2017

From: ACI Central Inc.

Manufacturer: Custom Manufactured Systems Inc
 18 Jarvis St
 Cambridge, ON N1R 1G8

Manufacturer #: PV-9616

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: R3653.5

Unit Description	Drawing Number	Service	Design Code
Shell Heater	R-0755B rev 1	Non Lethal	ASME Sect VIII Div. 1

Shell Side

Tube Side

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
150 PSI @ 375 F	35 F @ 150 PSI		

Test Pressure: Hydro: 211 PSI Pneu:	Test Pressure: Hydro: Pneu:
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Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
Shell	SA 312 TP304/L	0.130	0.148	-	85			OD": 8.625"	T.Sheet and bundle manufactured separately with valid CRN
Head	SA 403 304/L	0.130	0.148	-	85			OAL": 72"	
Flanges	SA 182 F304/L							W":	
								H":	
								HS FT ² :	

Notes:

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

ACIC Log#: 26193

Description: Shell Heater, Model CSS-8
 Made in Canada

This space is for Jurisdictional stamp and signature

New Brunswick
 DEPT OF PUBLIC SAFETY
 BOILER & PRESSURE VESSEL ACT

REGISTRATION ONLY

CRN R3653.57

EXAMINER: Eben Creaser
 for

CHIEF BOILER INSPECTOR

DATE: 11/10/2017

BLRs PVs

FITTINGS COMPONENTS

Bill of Materials

Item	Description	Material	Qty
1	BUNDLE SHELL	TYPE 304 S.STEEL - SEE SHEET 2	1
2	TUBESHEET GASKETS	8" 150 LB. NON-ASBESTOS	2
3	TUBE SHEET & BUNDLE	TYPE 316L - NOTE 10	1
4	STEAM SHELL	TYPE 304 S.STEEL - SEE SHEET 3	1
5	NUTS	3/4" UNC SA194-8 HHX NUT S.STEEL	16
6	STUDS	3/4" UNC SA193-B8-1 STUDS (LENGTH AS REQ'D DUE TO TUBE SHEET)	8
7	WASHERS	TYPE 304 S.STEEL	16
8	NAMEPLATE AND BRACKET (NOT SHOWN)	ASTM A240-304/304L BRACKET C/W NAMEPLATE IN ACCORDANCE WITH UG-116 OF ASME SECTION VIII-1.	1

Notes:

- All dimensions are in inches. SI units if provided are in brackets.
- All nozzle bolt holes straddle the major centerlines unless specifically noted.
- All nozzle gasket surfaces require a serrated finish per ASME B16.5.
- All piping/nipples shall be per ASME B36.10 (latest), all fittings shall be per ASME B16.9 (latest), all flanges shall be per ASME B16.5 (2013), B16.47 (2011) and all couplings shall be per ASME B16.11 (latest).
- All welds to be neat in appearance, free of slag and other debris.
- Item to be cleaned of scale, oil, weld splatter and all foreign matter prior to hydrostatic test.
- Inside nozzle corners to have a minimum 1/8" radius.
- Impact test exempt per UHA-51.
- Fabricator to hold current ASME U/UM-Stamp Certification and/or CSA B51 Certification. Fabricator shall be authorized for shop fabrication of Pressure Vessels per ASME Section VIII Div. 1. Vessel may be built as a miniature pressure vessel and stamped with a UM Stamp.
- Tube sheet and bundle manufactured by S.A. Armstrong Limited. Tube sheet and Bundle to be supplied with ASME Manufacturer's Partial Data Report and valid CRN. See Sheet 5.

ACIC DESIGN REVIEW

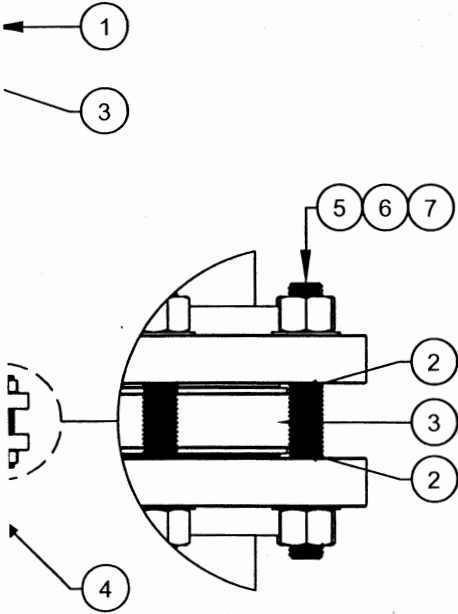
AUTHORISED BY THE DIRECTORS OF ACI CENTRAL

CRN: R 3653.57

DATE: 11/14/2017

FILE: PV-9616

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



UNLESS OTHERWISE NOTED
 1. DIMENSIONS ARE IN INCHES. IF USED SI UNITS ARE IN () BRACKETS.
 2. TOLERANCES
 FRACTIONAL: +/- 1/8"
 DECIMALS: .XX +/- .02
 .XXX +/- .005

THE INFORMATION CONTAINED IN THE DRAWING IS THE SOLE PROPERTY OF CUSTOM MANUFACTURED SYSTEMS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CUSTOM MANUFACTURED SYSTEMS INC. IS PROHIBITED.

REV.	DESCRIPTION	DATE	INITIALS
1	ONTARIO CRN ADDED, NOTE 10 REVISED	28/10/2017	SI

TITLE NPS8 SHELL HEATER	
MODEL CSS-8	
PROJECT NAME N/A	
DRAWN BY SI	DRAWING SIZE B
CHECKED BY MB	SCALE 1:12
DATE 24/06/2017	DRAWING NO. R-0755B



CMS INCORP
 18 JARVIS STREET
 CAMBRIDGE, ON, N1R 1G8

REV.	SHEET
1	1 of 5

ET (N1)	3" 150 Lb. RF	(N8)	3/4" FNPT
LET (N2)	2" 150 Lb. RF	(N9)	1/2" FNPT
INLET (N3)	3" 150 Lb. RF	(N10)	1/2" FNPT
LET (N4)	3" 150 Lb. RF	(N11)	3/4" FNPT
	1" FNPT	(N12)	1/4" FNPT
	1" FNPT	(N13)	1/2" FNPT
	2" FNPT	(N14)	