

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 Ghiasson

Date: 12/20/2022

From: ACI Central Inc.

Manufacturer: Watson McDaniel Company
 428 Jones Blvd.
 Pottstown, PA 19464

Manufacturer #: PV-1188

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: R8690.5

Unit Description	Drawing Number	Service	Design Code
Cast Vessel	2189100 rev I (2 sheets)	Non Lethal	ASME Sect VIII Div. 1

Shell Side

Tube Side

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
200 PSI @ 650 F	- 20 F @ 200 PSI		

Test Pressure: Hydro: 400 PSI Pneu:	Test Pressure: Hydro: Pneu:
--	--

Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
Tank	SA 395	0.39min	0.50	0.0625				OD": 16.5"	Drawings 2189100 rev I (2 shts) 0197900 rev E
Cover	SA 395	0.750	0.750	0.0625				OAL": 23"	
								W": 17"	
								H":	
								HS FT ² :	

Notes:

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- 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#: 33388

Description: Cast Vessel, 16.5" 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. R 8690.59

DATE: DECEMBER 22, 2022

N. Ghiasson

**INSPECTION SERVICES SECTION
 BOILER/PRESSURE VESSEL BRANCH**

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: Donnie Ehler

Date: 12/20/2022

From: ACI Central Inc.

Manufacturer: Watson McDaniel Company
428 Jones Blvd.
Pottstown, PA 19464

Manufacturer #: PV-1188

Subject: ACI Central Design Review

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Shell Side		Tube Side	
MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
200 PSI @ 650 F	- 20 F @ 200 PSI		

Test Pressure: Hydro: 400 PSI Pneu:	Test Pressure: Hydro: Pneu:
--	--

Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
Tank	SA 395	0.39min	0.50	0.0625				OD": 16.5"	Drawings 2189100 rev I (2 shts) 0197900 rev E
Cover	SA 395	0.750	0.750	0.0625				OAL": 23"	
								W": 17"	
								H":	
								HS FT²:	

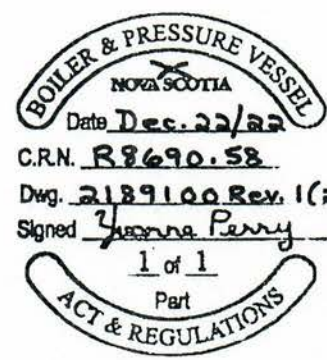
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ACIC Log#: 33388

Description: Cast Vessel, 16.5" OD
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Date Dec. 22/22
C.R.N. R8690.58
Dwg. 2189100 Rev. I (2 sheets)
Signed Yvonne Perry
1 of 1
Part

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: 12/20/2022

From: ACI Central Inc.

Manufacturer: Watson McDaniel Company
 428 Jones Blvd.
 Pottstown, PA 19464

Manufacturer #: PV-1188

Subject: ACI Central Design Review

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Shell Side

Tube Side

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
200 PSI @ 650 F	- 20 F @ 200 PSI		

Test Pressure: Hydro: 400 PSI Pneu:	Test Pressure: Hydro: Pneu:
--	--

Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
Tank	SA 395	0.39min	0.50	0.0625				OD": 16.5"	Drawings 2189100 rev I (2 shts) 0197900 rev E
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ACIC Log#: 33388

Description: Cast Vessel, 16.5" OD
 ASME Stamp, National Board Registered

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DEPT OF JUSTICE PUBLIC SAFETY
 BOILER & PRESSURE VESSEL ACT

REGISTRATION ONLY

CRN R8690.57

Eben Creaser
 CHIEF BOILER INSPECTOR

DATE 12/22/22

BLRs PVs

FITTINGS NUCLEAR COMPONENTS

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: 12/20/2022

From: ACI Central Inc.

Manufacturer: Watson McDaniel Company
 428 Jones Blvd.
 Pottstown, PA 19464

Manufacturer #: PV-1188

Subject: ACI Central Design Review

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Shell Side		Tube Side	
MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
200 PSI @ 650 F	- 20 F @ 200 PSI		

Test Pressure: Hydro: 400 PSI Pneu:	Test Pressure: Hydro: Pneu:
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Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
Tank	SA 395	0.39min	0.50	0.0625				OD": 16.5"	Drawings 2189100 rev I (2 shts) 0197900 rev E
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ACIC Log#: 33388

Description: Cast Vessel, 16.5" OD
 ASME Stamp, National Board Registered

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Registered R8690.50
 Date Jan 18 2023
 Engineering and Inspection Services
 Registered by [Signature]

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

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: Blair Rawlings

Date: 12/20/2022

From: ACI Central Inc.

Manufacturer: Watson McDaniel Company
 428 Jones Blvd.
 Pottstown, PA 19464

Manufacturer #: PV-1188

Subject: ACI Central Design Review

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Shell Side

Tube Side

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
200 PSI @ 650 F	- 20 F @ 200 PSI		

Test Pressure: Hydro: 400 PSI Pneu:	Test Pressure: Hydro: Pneu:
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Recommendation to Register – Pressure Vessel Design

To: Matthias Mailman

Date: 12/20/2022

From: ACI Central Inc.

Manufacturer: Watson McDaniel Company
 428 Jones Blvd.
 Pottstown, PA 19464

Manufacturer #: PV-1188

Subject: ACI Central Design Review

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Shell Side		Tube Side	
MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
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Test Pressure: Hydro: 400 PSI Pneu:	Test Pressure: Hydro: Pneu:
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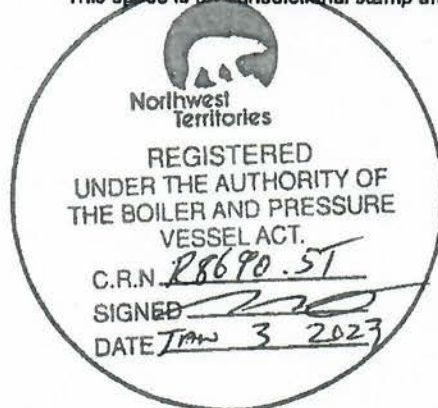
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Recommendation to Register – Pressure Vessel Design

To: Muhammad Wani

Date: 12/20/2022

From: ACI Central Inc.

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 428 Jones Blvd.
 Pottstown, PA 19464

Manufacturer #: PV-1188

Subject: ACI Central Design Review

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Tube Side

MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
200 PSI @ 650 F	- 20 F @ 200 PSI		

Test Pressure: Hydro: 400 PSI Pneu:	Test Pressure: Hydro: Pneu:
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NUNAVUT

Boilers and
Pressure Vessels Act

REGISTERED

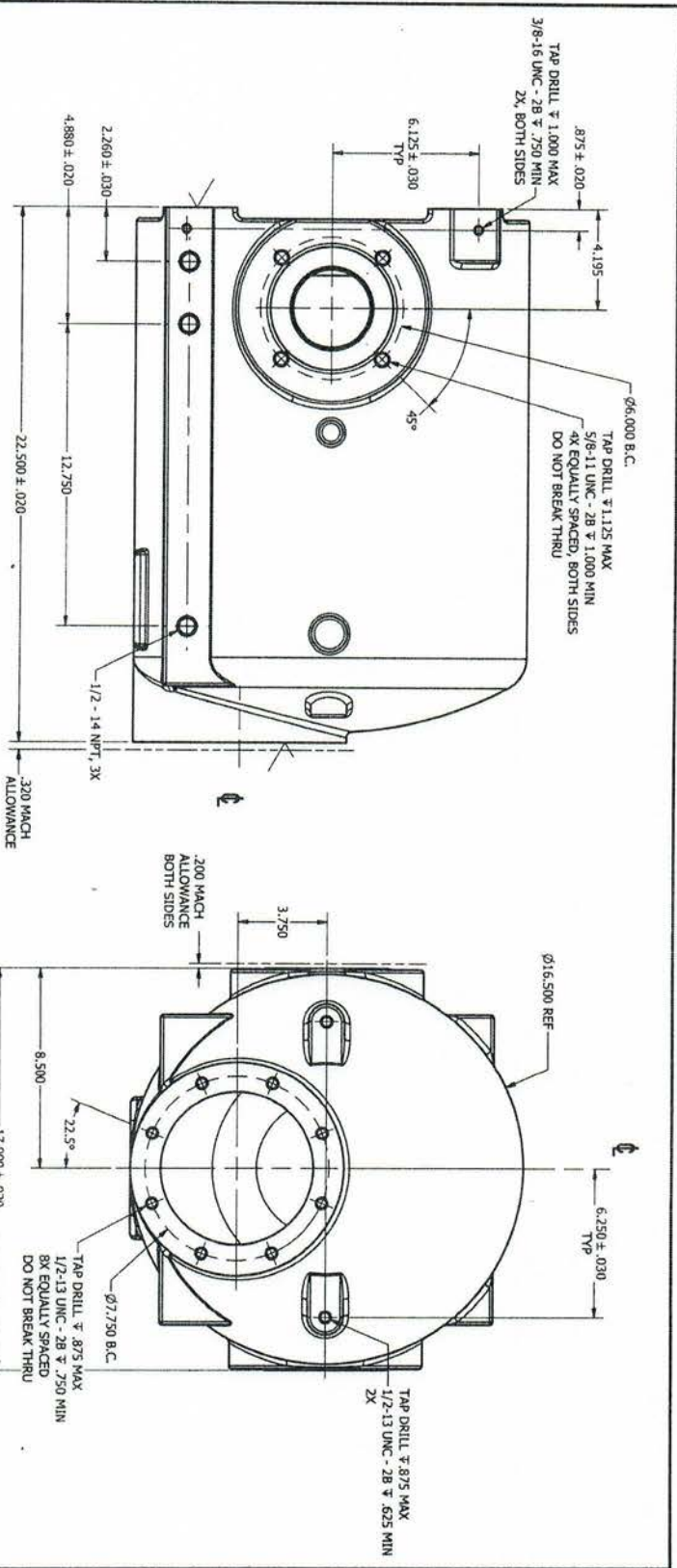
CRN R8690.5N

Date 2023-01-05

Signed _____

Chief Inspector

Territorial Registration Fee



ACIC DESIGN REVIEW

AUTHORISED BY THE DIRECTORS OF ACI CENTRAL

CRN: **R8690.59870YTN**

DATE: **Jan 23, 2023**

FILE: **PV-1188**

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



REV	DESCRIPTION	DATE	APP	APPROVAL
I	SEE C.R. 4188	6/17/22	TR	
H	SEE C.R. 4160	6/16/22	NO	
G	SEE C.R. 4160	2/15/22	NO	
F	SEE C.R. 3828	19MAG16	REC	
E	SEE C.R. 3817	28JUN16	REC	
D	SEE C.R. 2514	30JUN01	LGH	
C	SEE C.R. 2506	26JUN01	LGH	
B	SEE C.R. 2394	12MAY00	REC	
A	RELEASED	05OCT98	REC	

MACH PART	MAKE FROM	NOTE
2189100	0197900	ORIGINAL TOOLING
2189109	0197909	2022 TOOLING
2189103	2189100 OR 2189109	ASME CODE STAMP

Watson McDaniel
 428 Jones Boulevard
 Hickory, NC 28604
 Phone: 815-285-1111
 Fax: 815-285-1114
 www.watsonmcdaniel.com

PMPC TANK MACH, 3" NPT & 150# FIG

Scale: 1:4
 Checked: 4/20/1998
 Date: 2189100
 Size: B
 Drawing No: 2189100
 Rev: I

NOTES:
 1. UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE ± .010

DESIGN DATA				CONNECTION DATA			
VESSEL CODE	ASME SECTION VIII-1, 2021	INTERNAL DESIGN	200 PSIG @ 650 F	WPS	TBA	INLET (N1)	3" NPT
PIPE CODE	N/A	EXTERNAL DESIGN	0 PSIG AT 650 F	PMHT	NONE	OUTLET (N2)	3" NPT
CODE STAMP	ASME U, CRN VESSEL	MDMT	-20 F	WEIGHT DRY	350 LBS. EST	INLET (N1) OPTIONAL	3" CL150 FLANGED
CRN NUMBER	TBA	HYDROTEST PRESS.	400 PSIG FOR 10 MIN.	WEIGHT FULL	500 LBS. EST	OUTLET (N2) OPTIONAL	3" CL150 FLANGED
WIND CODE	N/A	CORROSION ALLOW.	0.0625	VOLUME	15.19 USGAL (2.03 FT ³)	N3	N/A
SEISMIC CODE	N/A	RADIOGRAPHY	NONE	INTERNAL FINISH	CLEAN & DEGREASE	N4	N/A
IMPACT TEST	NONE	MT / PT	NONE	EXTERNAL FINISH	CLEAN & DEGREASE	N5	N/A

DESIGN NOTES:

1. ALL NOZZLE BOLT HOLES STRADDLE THE MAJOR CENTER LINES UNLESS SPECIFICALLY NOTED.
2. THE INLET/OUTLET NPS 3" FLANGES PROCESS CONNECTIONS ARE DESIGNED TO ACCEPT FLANGES IN ACCORDANCE WITH ASME B16.42 AND ASME B16.5
3. ITEM TO BE CLEANED OF SCALE, OIL, WELD SPLATTER AND ALL FOREIGN MATTER PRIOR TO HYDROSTATIC TEST.
4. INSIDE NOZZLE CORNERS TO HAVE A MINIMUM 1/8" RADIUS.
5. IMPACT TEST EXEMPT IN ACCORDANCE WITH ASME SECTION VIII-1 UCD-3(a).
6. FABRICATOR SHALL BE AUTHORIZED FOR SHOP FABRICATION OF PRESSURE VESSELS PER ASME SECTION VIII, DIV. 1 AND POSSESS ASME U-STAMP AND UM-STAMP CERTIFICATION.
7. THE USER IS CAUTIONED THAT WHEN USING THE INLET/OUTLET NPS 3" FLANGED PROCESS CONNECTIONS LOCATED ON THE VESSEL, THE PRESSURE-TEMPERATURE RATINGS OF THE USER SUPPLIED FLANGE TO MAKE THIS PROCESS CONNECTION (i.e. ASME B16.42 OR ASME B16.5 FLANGES) MAY LIMIT THE MAXIMUM ALLOWABLE WORKING PRESSURE OF THE VESSEL DEPENDING ON THE VESSEL OPERATING TEMPERATURE. PLEASE CONSULT ASME B16.42 AND ASME B16.5 FLANGE PRESSURE-TEMPERATURE RATINGS.
8. SEE DRAWING 2251100 AND 1562401 FOR COVER ASSEMBLY.

ACIC DESIGN REVIEW
 AUTHORIZED BY THE DIRECTORS OF ACI CENTRAL
 CRN: **R8690.59870YTN**

DATE: **Jan. 23, 2023**
 FILE: **PV-1188**

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 RESPONSIBILITY FOR THE PRODUCT DETAILED HEREIN.



Watson McDaniel
 428 Jones Boulevard
 Norfolk, VA 23504
 Phone: 804.745.1100
 Fax: 804.745.5134
 www.watsonmcdaniel.com

PMPC TANK MACH, 3" NPT & 150# FIG

Drawn: **LGH** Checked: **REC** Date: **4/28/1998** Size: **8** Drawing No.: **2189100** Rev: **I**

Scale: **1:4**

This drawing is the property of Watson McDaniel Co. and cannot be used for any other project without the express written permission of the company.

Dimensional Tolerances Unless Otherwise Specified:
 Holes: ±.010" Angles: ±1°
 Flatness: ±.005" unless otherwise specified.
 Chamfers: 1:4 unless otherwise specified.
 Unthreaded surface finishes: 125 Ra unless otherwise specified.
 Coatings: A116, 1" - 4" - 17" - A1173, 4" - 12" - A1116
 Angles: ±1° Concentricity: 0.01 T14
 Fabricate piping per ASME B31.9 unless otherwise specified.