

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: 03/19/2019

From: ACI Central Inc.

Manufacturer: MELCO STEEL INC.
 1100 W. Foothill Blvd.
 Azusa, CA 91702

Manufacturer #: PV-649

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: A2375.8

Unit Description	Drawing Number	Service	Design Code
Vertical Autoclave	4390-01-V r1,4390-01-D r0	Non Lethal	ASME Sect VIII Div. 1

Shell Side		Tube Side	
MAWP @ TEMP	MDMT @ MAWP	MAWP @ TEMP	MDMT @ MAWP
100 PSI @ 400 F	-4 F @ 100 PSI		

Test Pressure: Hydro: 130 PSI Pneu:	Test Pressure: Hydro: Pneu:
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Part	Material	Des. t"	Act. t"	CA"	% EF	RT	PWHT	Dimensions	Notes
Shell	SA 516 70	0.215	0.375	-	70			OD": 60" ID	
Heads	SA 516 70	0.253	0.375	-	85			OAL": 132"	
Nozzles	SA 106 B							W":	
Nozzles	SA 105							H":	
								HS FT":	

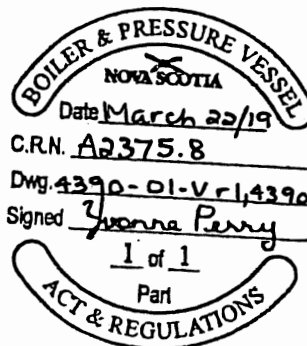
Notes:

- 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#: 28267

Description: Vertical Autoclave, 60" ID
 ASME Stamp, National Board Registered

This space is for Jurisdictional stamp and signature



CRN: A2375-8
 DATE: 3/27/2019
 FILE: Pv-644

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



GENERAL NOTES

SPECIAL →

SPECIAL →

- 1) ASME CODE: 2017 SECTION VIII, DIV. 1
- 2) CRN REQUIRED FOR NOVA SCOTIA
- 3) 2 HYDRAULIC CYLINDERS FOR LOCK/UNLOCK, 3" DIA x 8" STROKE,
1 HYDRAULIC CYLINDER FOR SWING OPEN/CLOSE, 4" DIA x 16" STROKE,
- 4) RIGHT-HAND DOOR FOR VERTICAL MOUNTING
- 5) SAFETY DEVICE PER UG 35.2 OF THE ASME CODE (WITH EXPLOSION PROOF LIMIT SWITCH)
- 6) WELDING PROCEDURE: MSI-1, MSI-7
- 7) RADIOGRAPH: NONE
- 8) HYDROTEST: 130 PSI
- 9) POSTWELD HEAT TREAT: NONE
- 10) MINIMUM DESIGN METAL TEMP: -4° F
- 11) IMPACT TESTING IS EXEMPT PER UCS-66b
- 12) CORROSION ALLOWANCE: 0"
- 13) HYDRAULIC PUMP (575VAC, 60HZ, 3PH) SOLENOID CONTROL VALVES (120VAC) AND TUBING ARE INCLUDED
- 14) HYDRAULIC PUMP AND SOLENOID VALVES ARE TO BE SHIPPED LOOSE
 SOLENOID INSTALLED ON PUMP
 (PUMP AND HYDRAULIC CONTROL VALVES NOT EXPLOSION PROOF)
- 15) BOLT HOLES ARE TO STRADDLE CENTERLINES UNLESS OTHERWISE NOTED
- 16) VESSEL TO BE CLEANED FREE FROM DIRT, RUST, SCALE, SLAG, AND FOREIGN
 MATTER PRIOR TO HYDROTEST AND DRIED INSIDE PRIOR TO SHIPMENT
- 17) BOTTOM OUTLET NOZZLE TO BE CONCENTRIC WITH BOTTOM HEAD AND PARALLEL TO SHELL AXIS
- 18) VESSEL SHALL SUPPORT TANK & CONTENTS @ 10#/GAL PLUS LOAD
- 19) EXTERIOR OF VESSEL SHALL BE PAINTED WITH ONE COAT OF GRAY PRIMER
- 20) ESTIMATED FABRICATED WEIGHT: 6,000 lbs.
- 21) TOTAL CAPACITY: 1,850 GALLONS
- 22) 2" SAFETY RELIEF VALVE PROVIDED BY MELCO STEEL
- 23) ROUTE ALL HYDRAULIC LINES CONNECTIONS TO THIS
 SIDE OF DOME HINGE, 3/8" FEMALE NPT

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CERTIFIED BY
MELCO STEEL, INC.

AZUSA, CALIFORNIA www.melcosteel.com

M.A.W.P. (INTERNAL) 100 PSIG AT 400 °F

M.A.W.P. (EXTERNAL) 14.7 PSIG AT 400 °F

M.D.M.T. -4 °F AT 100 PSIG

C.A. 0 IN.

MFG. SER. NO. 4390

CRN NO. N/A

019 TAG. NO. N/A

0.375 IN. HEAD THICK. 0.33 IN.



MELCO STEEL

1100 W. FOOTHILL BLVD., AZUSA CA., 91702 (626) 334-7875

CLIENT **HEATTEK, INC.**

TITLE **GENERAL ARRANGEMENT**

DRAWING NO **4390-01-V** REVISION **1**



EXTENSION (HUB)

HEAD EXTENSION (HUB)

GENERAL NOTES



ASME CODE 2017 SECTION VIII, DIV. 1

CRN REQUIRED FOR NOVA SCOTIA

2 HYDRAULIC CYLINDERS FOR LOCK/UNLOCK, 3" DIA x 8" STROKE,

1 HYDRAULIC CYLINDER FOR SWING OPEN/CLOSE, 4" DIA x 16" STROKE,

RIGHT-HAND DOOR FOR VERTICAL MOUNTING

SAFETY DEVICE PER UG 35.2 OF THE ASME CODE (WITH EXPLOSION PROOF LIMIT SWITCH)

WELDING PROCEDURE: MSI-1, MSI-7

POST WELD HEAT TREAT: NONE

MELCO TO INSTALL HYDRAULIC PUMP (575 VAC, 3PH), SOLENOID CONTROL VALVES (120 VAC) AND TUBING

HYDROTEST: 130 P.S.I.

RADIOGRAPH: NONE

IMPACT TEST EXEMPT PER UCS-66b

CORROSION ALLOWANCE: 0"

MINIMUM DESIGN METAL TEMP: -4 °F

ACIC DESIGN REVIEW

AUTHORISED BY THE DIRECTORS OF ACI CENTRAL

CRN: A2375.8

DATE: 3/27/2019

FILE: PV-649

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



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MELCO STEEL, INC.

AZUSA, CALIFORNIA www.melcosteel.com

I.A.W.P. (INTERNAL) 100 PSIG AT 400 °F

I.A.W.P. (EXTERNAL) 14.7 PSIG AT 400 °F

M.D.M.T. -4 °F AT 100 PSIG

C.A. 0 IN.

MFG. SER. NO. 4390

CRN NO.

19 TAG. NO.

0.375 IN. HEAD THICK. 0.33 IN.

1100 W. FOOTHILL BLVD., AZUSA CA., 91702 (626) 334-7875

CLIENT	HEATTEK INC.
TITLE	DOOR ASSEMBLY
DRAWING NO	4390-01-D
DRAWING NO	REVISION
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