



the pressure equipment safety authority

9410 - 20 Ave N.W.

Edmonton, Alberta, Canada T6N 0A4

Tel: (780) 437-9100 / Fax: (780) 437-7787

September 09, 2024

Certificate of Design Registration

To attest that subject design is registered in accordance with section 40 of the Safety Codes Act and recorded in the information system maintained pursuant to section 58 of the Safety Codes Act.

See Appendix A to this Certificate

ROUND ENGINEERING INC
10 SEGWUN ROAD
WATERDOWN, ON L8B 0K6

Attention: Scott Islip

The design submission, Tracking Number 2024-04255, Web Portal Number 2024-S3027, originally received on July 17, 2024 was surveyed and accepted for registration as follows:

CRN : Z8119.2

Accepted on: September 09, 2024

Reg Type: REVISION TO ACC. DESIGN

Drawing No. : 1510-08-060-048 Rev 2

Design registered in the name of : API HEAT TRANSFER

Description	MAWP	Design Temperature	MDMT
TS Internal Pressure	1620kPa	149 °C	-7 °C
SS Internal Pressure	2068kPa	149 °C	-7 °C

The registration is conditional on your compliance with the following notes:

The scope of this registration is the revision to CRN Z8119.2 which was originally accepted under tracking number 2023-01166.

This submission has been reviewed and accepted based on the understanding that the following design changes have been made:

- Drawing 1510-08-060-048: Code edition updated from 2021 to 2023, temper H80 added to tube material, SA-106B nozzle material added to heads.
- Drawing 2510-08-060-045: Temper H80 added to item #5 tube material.
- Drawing 2020-08-040-002: Item #2 pipe length, material, and part number changed.

This design has been reviewed and accepted based on the following understandings as per your email on August 22:

- Radius to outer most tube center is 3.7076".
- Tube expansion depth ratio is 0.9.

This heat exchanger shall not be pressurized when its temperature is colder than -7 °C (+20 °F). This note shall appear on the Manufacturer's Data Report under Remarks.

This heat exchanger design has been accepted for registration based on the specific operating conditions which include the shell and tube mean metal temperatures as identified on the drawing. These conditions must be listed on Form U-5 of the Manufacturer's Data Report.

The registration is conditional on your compliance with the following notes:

This heat exchanger design must be re-evaluated before it is operated at any different operating conditions. Such evaluation records must be permanently kept on file with the owner/user of this heat exchanger and be readily available upon request by an A.I.. This note must appear on the Manufacturer's Data Report.

This heat exchanger shall be supplementary marked as per UHX-19.2.2.

This registration includes the following documents:

- 1510-08-060-048, 2510-08-060-045, 2020-08-040-002, and 3015-08-319-000 Rev 2.
- 1510-08-060-048-CMR Pages 1 & 2, 4072-01-0213-05, and 3042-08-201-296 Rev 1.
- 4012-00-0101-02 Rev 3.
- 3050-09-101-049 Rev 0.
- 3051-08-319-002 Rev 4.
- 4072-01-0106-01 Rev 14.
- 4072-01-0106-36 Rev 20.
- 3010-08-201-029 Rev 5.
- 3015-08-319-008 Rev 6.
- 3054-07-119-000 Rev 9.

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

If you have any question don't hesitate to contact me by phone at (780) 433-0281 ext 3303 or fax (780) 437-7787 or e-mail Rudolf@absa.ca.



KEITH RUDOLF, P. Eng.
DOP Cert. No. D00008862

Appendix A: List Of Files And Documents

The design registered under this Certificate of Design Registration and CRN is described in the electronic files listed below. These files include plans, diagrams, drawings, specifications, and other pertinent documents related to the pressure equipment or procedure subject to this registration.

Document Description	File name
Certificate of Design Registration	2024-04255 Certificate.pdf
Drawing	R-2083 Main Drawing Stamped August 22, 2024.pdf
Drawing	R-2083 1510-08-060-048 Drawing Package August 22, 2024.pdf
Specifications	R-2083 1510-08-060-048-CMR.pdf

2024-04255 **ABSA**

SAFETY CODES ACT - PROVINCE OF ALBERTA

ACCEPTED: Z8119.2

**See This Certificate of Design Registration
for Conditions and remarks**

Date: 9/9/2024

Registered By: *Keith Rudolf*

KEITH RUDOLF P. Eng. DCP: D00008862

This stamp and signature have been affixed electronically to this registered design as required by Section 19(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act.