



the pressure equipment safety authority

9410 - 20 Ave N.W.

Edmonton, Alberta, Canada T6N 0A4

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

September 25, 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 2024-04256, Web Portal Number 2024-S3028, originally received on July 17, 2024 was surveyed and accepted for registration as follows:

**CRN :** Z8120.2

**Accepted on:** September 25, 2024

**Reg Type:** REVISION TO ACC. DESIGN

**Drawing No. :** 1510-08-072-037 Rev 3

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 Z8120.2 which was originally accepted under tracking number 2023-01167.*

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

- Drawing 1510-08-072-037: Tube side design pressure increased from 150 psi to 235 psi, tube side test pressure increased from 195 psi to 306 psi, code edition updated from 2021 to 2023, temper H80 added to tube material, SA-106B added to CPLGS material.
- Drawing 2510-08-072-044: Temper H80 added to tube material.
- Drawing 3010-08-201-141: Tubesheet step OD decreased from 8.063" to 8.00", horizontal radius to outmost tube center increased from 3.648" to 3.65", vertical radius to outmost tube center increased from 3.389" to 3.39".

*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 0.86.

*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:*

- 1510-08-072-037 Rev 3.
- 1510-08-072-037-CMR Pages 1 & 2, 2510-08-072-044, 4072-01-0213-05, and 3010-08-201-141 Rev 1.
- 3042-08-201-297, 3042-08-201-298, 4014-08-0101-02, and 3050-30-709-003 Rev 0.
- 3051-08-319-002 Rev 4.
- 4072-01-0106-01 Rev 14.
- 4072-01-0106-36 Rev 20.
- 3015-08-319-008 Rev 6.
- 3054-07-119-000 Rev 9.
- 3052-07-826- Rev 7.
- 3015-08-319-000 Rev 2.

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 (587) 686-9364 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	2024-04256 Certificate.pdf
Drawing	R-2084 1510-08-072-037 Drawing Package August 22, 2024.pdf
Drawing	2510-08-072-044.pdf
Specifications	R-2084 1510-08-072-037-CMR.pdf

**2024-04256** **ABSA**

**SAFETY CODES ACT - PROVINCE OF ALBERTA**

**ACCEPTED: Z8120 2**

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

**Date:** 9/25/2024

**Registered By:** 

**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.