

December 05, 2025

**Attention:** Scott Islip  
ROUND ENGINEERING INC  
10 SEGWUN ROAD  
WATERDOWN, ON L8B 0K6

The design submission, Tracking Number 2025-06796, Web Portal Number 2025-S5479, originally received on October 21, 2025 was surveyed and accepted for registration as follows:

**CRN :** 0H25774.2 **Accepted on:** December 05, 2025

**Reg Type:** NEW DESIGN **Expiry Date:** December 05, 2035

**Document No.** 001-A-08772, 000-A-08772 shts 1-4 Rev C, C

**Fitting type:** Cryogenic Bayonet Fittings

Design registered in the name of : ACME CRYOGENICS INC

Description	MAWP	Design Temperature	MDMT
Internal Pressure	1827kPa	66 °C	-269 °C

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

- As indicated on the AB-41 Statutory Declaration form and submitted documentation, the code of construction is ASME B31.3.
- It is our understanding that the fitting(s), included as the scope of this submission, that is(are) subject to the Safety Codes Act shall comply with the requirements of the indicated Standard or Code of Construction on the AB-41 Statutory Declaration as supported by the attached data which identifies the dimensions, materials of construction, press./temp. ratings and the basis for such ratings, and the identification marking of the fittings.
- This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration form.
- This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency, and maintains a valid Certification of Authorization Permit if required by the jurisdiction where manufacturing takes place, until that date.
- Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

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

If you have any questions don't hesitate to contact me by phone at (587) 943-8741 or fax (403) 291-4545 or e-mail Zhangl@absa.ca.

Sincerely,



ZHANG, LILI, P. Eng.  
DOP Cert. No. D00010626

**STATUTORY DECLARATION  
Registration of Fittings**  
Single or Multiple Fitting Designs within one Fitting Category

I, David M. Rakos, Chief Engineer  
(name of applicant) (position title) (must be in a position of authority)  
of Acme Cryogenics, Inc.  
(name of manufacturer)  
located at 2801 Mitchell Avenue, Allentown, PA, 18103, USA  
(plant address)

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting.



do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (select only one)

- ☐ comply with the requirements of \_\_\_\_\_ which specifies the dimensions,  
(title of recognized North American Standard)  
materials of construction, pressure/temperature ratings and identification marking of the fittings, or
- ☒ are not covered by the provisions of a recognized North American standard and are therefore  
manufactured to comply with ASME B31.3, ASME B31.12 ~~deleted - LZ~~ as supported by the  
(title of code of construction or other applicable document)  
attached data which identifies the dimensions, materials of construction, pressure/temperature ratings and the basis for such ratings, and the identification marking of the fittings.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified as described in the below Table as being suitable for the manufacturing of these fittings to the stated standard, regulation, code, guideline or other applicable document. The fittings covered by the declaration for which I seek registration are as provided in the Supplementary Sheet(s) attached.

**Quality Program Verification and Manufacturing Sites**

A copy of the Quality Certificate from each manufacturing site must be included

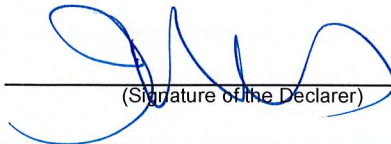
Item #	Product Description, Model or Series	Quality Program	Scope of Certification	Expiry Date	Verifying Organization	Location(s) Plant Name and address
1.	Cryogenic Bayonet Fittings	CSA B51	Category C,D, E,H	2030-05-01	TUV Rheinland	Allentown, PA
2.						

**2025-06796**

Tracking #: \_\_\_\_\_

In support of this application, the following information, calculations and/or test data are attached:

Drawing 001-A-08772, Rev. A, Scope of Registration, Reports

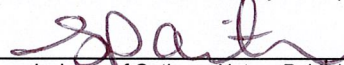
  
(Signature of the Declarer)

5/28/2024  
(Date)

DECLARED before me at Allentown in the state of Pennsylvania  
(city) (province, territory, or state)

this 28 day of May, 2024  
(Month) (Year)

(print) Sarah Painter  
(a Commissioner of Oaths or Notary Public)

(sign)   
(a Commissioner of Oaths or Notary Public)

08/10/2026  
(expiry date (mm/dd/yy))

Commonwealth of Pennsylvania - Notary Seal  
SARAH PAINTER - Notary Public  
Lenigh County  
My Commission Expires August 10, 2026  
Commission Number 1424224

Commissioner of Oaths / Notary Public in and for: Commonwealth of Pennsylvania  
(province, territory, or state)

For ABSA Office Use Only:

NOTES:

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Part 1, Clause 4.2, and is accepted for registration in Category H.

CRN: \_\_\_\_\_

Registered Date: \_\_\_\_\_

Expiry Date: 2035-12-05

Signature: \_\_\_\_\_  
(Signature of the Administrator/SCO)

The information you provide is necessary only for the administration of the programs as required by the Alberta Safety Codes Act and Regulations in the Pressure Equipment Discipline

2025-06796

**ABSA**

**SAFETY CODES ACT - PROVINCE OF ALBERTA**

**ACCEPTED: 0H25774.2**

**See acceptance letter for conditions of registration.**

Date: 2025-12-05

By:

LILI ZHANG, P. Eng.  
DOP: D00010626

This stamp and signature have been affixed electronically to this registered design as required by Section 20(1) of the Pressure Equipment Safety Regulation, in accordance with the Electronic Transactions Act.

THIS DRAWING AND THE INFORMATION OR DATA CONTAINED HEREIN ARE CONSIDERED PROPRIETARY TO ACME CRYOGENICS, INC. AND IS NOT TO BE COPIED, REPRODUCED, DUPLICATED, OR DISCLOSED TO OTHERS IN WHOLE OR PART WITHOUT THE PRIOR WRITTEN CONSENT OF ACME CRYOGENICS, INC. THE DRAWING SHOULD BE RETURNED AS SOON AS IT HAS SERVED THE PURPOSES FOR WHICH IT IS FURNISHED AND WHILE IN THE POSSESSION OF THE RECIPIENT, SHOULD BE PROPERLY SAFEGUARDED AGAINST DISCLOSURE TO ANYONE EXCEPT EMPLOYEES WHO REQUIRE IT FOR WORK OR A JOB. THIS RESTRICTION SHALL NOT APPLY TO INFORMATION OR DATA CONTAINED HEREIN WHICH AS AVAILABLE TO THE PUBLIC GENERALLY.

DWG. NO. 001-A-08772



PRODUCT DESCRIPTION	PART NO. (MALE ASSY)	PART NO. (FEMALE ASSY)	PRIMARY PRESSURE RETAINING COMPONENTS	ASME / ANSI DESIGN STANDARD	SIZE OR SIZE RANGE	DESIGN PRESSURE @ MAX TEMPERATURE	MDMT	ACTUAL WALL THICKNESS VS MIN REQUIRED	END CONNECTION & SIZE RANGE	ASME / ASTM MATERIAL SPECIFICATION	REF CALCULATION	DRAWING NO.
MODEL DS (Acme) BAYONET 250# LH2/LHE LENGTH	C-01870 C-01870-316 C-01870JKTA C-01870JKTA-316	C-01871 C-01871-316 C-01871JKTA C-01871JKTA-316	FLANGE; TUBE; PIPE; NOSE PIECE; GASKET; BOLTS	ASME B31.3	NPS 1½ X 3	265 PSI (250 PSIG+FV) @150 °F	-452 °F	Tube: 0.044 / 0.019 Pipe: 0.109 / 0.015	NPS 1½ BWE	SA-182 F 304/304L (316/316L); SA-213 TP 304/304L (316/316L); SA-312 TP 304/304L (316/316L); SA-479 304/304L (316/316L); FLEX GRAPHITE / 304SS (316SS); SA-320 B8, CL.1	E240027-1.02	000-A-08772
MODEL DS (Acme) BAYONET 250# LH2/LHE LENGTH	C-01817 C-01817-316 C-01817JKTA C-01817JKTA-316	C-01818 C-01818-316 C-01818JKTA C-01818JKTA-316	FLANGE; TUBE; PIPE; GASKET; BOLTS	ASME B31.3	NPS 1 X 2½	265 PSI (250 PSIG+FV) @150 °F	-452 °F	Tube: 0.035 / 0.014 Pipe: 0.109 / 0.010	NPS 1 BWE	SA-182 F 304/304L (316/316L); SA-213 TP 304/304L (316/316L); SA-312 TP 304/304L (316/316L); FLEX GRAPHITE / 304SS (316SS); SA-320 B8, CL.1	E240027-1.02	000-A-08772

NOTES: (UNLESS OTHERWISE SPECIFIED)

1. BASE METAL AND WELD METAL DEPOSITS SHALL BE IMPACT TESTED IN ACCORDANCE WITH ASME B31.3, PARA. 323.2.2

C	SEE ECN 10768	11/12/25	DMR	TJS
B	DESIGN PRESSURE WAS 250 PSIG - ECN 10664	10/14/25	DMR	DMR
A	INITIAL RELEASE - NPI0220	05/02/24	DMR	TJS
REV.	DESCRIPTION	DATE	BY	APP'D.

UNLESS OTHERWISE SPECIFIED 1. THE FOLLOWING TOLERANCES APPLY: .XX: ± .01" .XXX: ± .005" FRACTIONS: ± 1/32" ANGLES: ± 0.5' 2. ALL DIMENSIONS ARE IN INCHES. 3. REMOVE ALL BURRS AND SHARP EDGES TO .015 MAX. 4. MACHINED SURFACES TO BE 125 MICRO-INCHES OR BETTER. 5. DO NOT SCALE DRAWING.				ORIGINAL	
				DESIGN BY DMR	DATE 02/17/2016
				DRWN BY DMR	DATE 05/01/2024
				CHECKED BY BL	DATE 05/01/2024
				APPROVED BY TJS	DATE 05/02/2024
	PRODUCT	NEXT ASS'Y	NO. REQ'D		

TITLE		<div>ACME</div> <div>CRYOGENICS</div> <div>PART OF OPW   a  company</div>		
SCOPE OF REGISTRATION		DWG. NO. 001-A-08772		
CRN				
BAYONET ASSEMBLIES				
ACME DS 250# LH2/LHE				
REF: E240027-1				
SCALE	N/A	WEIGHT	N/A	SHEET 1 OF 1
				REV. C