

May 09, 2025

Attention: Cecylia Garbacz
TECHNICAL STANDARDS & SAFETY AUTHORITY
345 CARLINGVIEW DRIVE
TORONTO, ON M9W 6N9

The design submission, Tracking Number 2025-02805, Web Portal Number 2025-S2323, originally received on April 30, 2025 was surveyed and accepted for registration as follows:

CRN : 0D25821.52 **Accepted on:** May 09, 2025
Reg Type: NEW DESIGN **Expiry Date:** April 11, 2035
Drawing No. : Scope of CRN Registration (5 Pages)(March 26,2025)
Fitting type: Flex Hose Assembly
Design registered in the name of : AFLEX HOSE LTD

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

As indicated on AB-41 Statutory Declaration or AB-351 Declaration of Conformity form and submitted documentation, the codes of construction are ASME B31.3, ASME BPE, ARPMP IP-2.

- 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 or AB-351 Declaration of Conformity 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 or AB-351 Declaration of Conformity 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 question don't hesitate to contact me by phone at (587) 686-9349 or fax (780) 437-7787 or e-mail Wangi@absa.ca.

Sincerely,



WANG, IAN, P. Eng.
DOP Cert. No. D00009643

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

I, Dr. Leigh Mulvaney-Johnson, Technical Manager
(name of applicant) (position title) (must be in a position of authority)
of Aflex Hose Ltd.
(name of manufacturer)
located at Bradley Business Park, Dyson Wood Way, Bradley, Huddersfield,
HD2 1GZ, United Kingdom
(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 ASME B31.3, ASME BPE, ARPM
IP-2 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 _____ 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.	Flexible Hose Assemblies	ISO 9001:2015	See Scope of CRN	Various - See Worldwide Locations Appendix	Various - See Worldwide Locations Appendix	Various - See Worldwide Locations Appendix
2.						

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

SCOPE OF CRN, DRAWINGS, CALCULATIONS, REPORTS

L. Mahon
(Signature of the Declarer)

2 Oct 2024
(Date)

DECLARED before me at Hebden Bridge in the County of West Yorkshire
(city) (province, territory, or state)
this 2nd day of October, 2024
(Month) (Year)

(print) MARY MAHON
(a Commissioner of Oaths or Notary Public)

(sign) [Signature]
(a Commissioner of Oaths or Notary Public)

(expiry date (mm/dd/yy))

mary mahon
SOLICITOR

TEL: 01422 844997 FAX: 01422 844797
EMAIL: mary@marymahonsolicitor.co.uk
8 WRAGLEY HOUSE, VALLEY ROAD
HEBDEN BRIDGE, WEST YORKSHIRE HX7 7BN

Commissioner of Oaths / Notary Public in and for: UNITED KINGDOM
(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 _____

CRN: _____

Registered Date: _____

Expiry Date: April 11, 2035

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

2025-02805

ABSA

SAFETY CODES ACT - PROVINCE OF ALBERTA

ACCEPTED: **OD25821. 52**

See acceptance letter for conditions of registration.

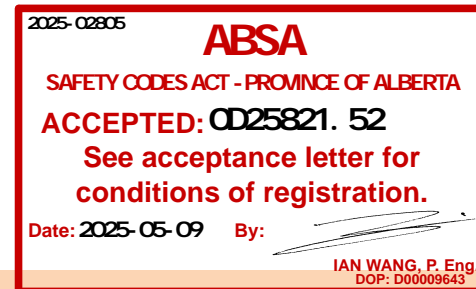
Date: **2025-05-09** By: _____

IAN WANG, P. Eng.
DOP: D00009643

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.

Tracking #: 2025-02805

AFLEX HOSE LTD.
BRADLEY BUSINESS PARK
DYSON WOOD WAY
BRADLEY, HUDDERSFIELD
HD2 1GZ, UNITED KINGDOM



March 26, 2025

SCOPE OF CRN REGISTRATION

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

PAGE 1 OF 5

Hose Type(s)

Bioflex Ultra, stainless steel braid, PTFE lined fittings
Bioflex Ultra, stainless steel braid, EPDM or silicone cover, PTFE lined fittings
Fabline, stainless steel braid, EPDM or silicone cover, PTFE lined fittings
Corroline+, stainless steel braid, EPDM with or without helix, PTFE lined fittings

Important: The CRN Pressure-Temperature Ratings listed in this document are the hose maximum CRN ratings. Consult hose product literature for recommended hose maximum operating conditions.

The maximum CRN ratings are applicable to the following Service Types:

Service Type **Group 1**: Water and all other liquids, solid materials suspended in liquids or air, compressed air and other gases.

Service Type **Group 2**: Liquid media that immediately changes into gas under standard atmospheric conditions.

Service Type **Group 3**: Steam

Product Description	Design Code	Material Specifications	MDMT	Report Number
Flexible Hose Assemblies	ASME B31.3, ASME BPE, ARPM IP-2	ASTM A479-304/304L, ASTM A479-316/316L ASTM A240-304/304L, ASTM A240-316/316L Stainless Steel meeting the requirements of ASTM A478 and ASTM A580, PTFE Hose and lined fittings.	- 73°C / -100°F	R-2121 Rev. 0

PRESSURE - TEMPERATURE RATINGS

Process Connections						
DIN 11851 Female Process Connections						
Service Type	Group 1		Group 2		Group 3 (Note 2 - Important)	
Process Connection Size x Hose Size	MAWP at 300°F (psig)	MAWP at 150°C (barg)	MAWP at 300°F (psig)	MAWP at 150°C (barg)	MAWP at 300°F (psig)	MAWP at 150°C (barg)
1/2" DIN 11851 x 1/2" Hose	580.2	40.0	464.1	32.0	232.1	16.0
3/4" DIN 11851 x 3/4" Hose	580.2	40.0	464.1	32.0	232.1	16.0
1" DIN 11851 x 1" Hose	580.2	40.0	464.1	32.0	232.1	16.0
1-1/4" DIN 11851 x 1-1/4" Hose	580.2	40.0	464.1	32.0	232.1	16.0
1-1/2" DIN 11851 x 1-1/2" Hose	507.6	35.0	406.1	28.0	203.1	14.0
2" DIN 11851 x 2" Hose	362.6	25.0	290.1	20.0	145.0	10.0
2-1/2" DIN 11851 x 2-1/2" Hose	290.1	20.0	232.1	16.0	87.0	6.0
3" DIN 11851 x 3" Hose	217.6	15.0	174.0	12.0	87.0	6.0

SCOPE OF CRN REGISTRATION**PRESSURE - TEMPERATURE RATINGS**

Process Connections						
DIN 11851 Female Process Connections						
Service Type	Group 1		Group 2		Group 3 (Note 2 - Important)	
Process Connection Size x Hose Size	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 400°F (psig)	MAWP at 204°C (barg)
1/2" DIN 11851 x 1/2" Hose	539.5	37.2	431.6	29.8	215.8	14.9
3/4" DIN 11851 x 3/4" Hose	539.5	37.2	431.6	29.8	215.8	14.9
1" DIN 11851 x 1" Hose	539.5	37.2	431.6	29.8	215.8	14.9
1-1/4" DIN 11851 x 1-1/4" Hose	539.5	37.2	431.6	29.8	215.8	14.9
1-1/2" DIN 11851 x 1-1/2" Hose	472.1	32.6	377.7	26.0	188.8	13.0
2" DIN 11851 x 2" Hose	337.2	23.3	269.8	18.6	134.9	9.3
Process Connection Size x Hose Size	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 327°F (psig)	MAWP at 164°C (barg)
2-1/2" DIN 11851 x 2-1/2" Hose	269.8	18.6	215.8	14.9	87.0	6.0
3" DIN 11851 x 3" Hose	202.3	14.0	161.9	11.2	87.0	6.0

Process Connections						
ASME BPE / DIN 32676 Process Connections						
Service Type	Group 1		Group 2		Group 3 (Note 2 - Important)	
Process Connection Size x Hose Size	MAWP at 300°F (psig)	MAWP at 150°C (barg)	MAWP at 300°F (psig)	MAWP at 150°C (barg)	MAWP at 300°F (psig)	MAWP at 150°C (barg)
1/2" Ferrule x 5/8" Hose	580.2	40.0	464.1	32.0	232.1	16.0
1" Ferrule x 7/8" Hose	232.1	16.0	185.7	12.8	92.8	6.4
1" Ferrule x 1" Hose	232.1	16.0	185.7	12.8	92.8	6.4
1-1/2" Ferrule x 1-3/8" Hose	232.1	16.0	185.7	12.8	92.8	6.4
1-1/2" Ferrule x 1-1/2" Hose	232.1	16.0	185.7	12.8	92.8	6.4
2" Ferrule x 1-7/8" Hose	232.1	16.0	185.7	12.8	92.8	6.4
2" Ferrule x 2" Hose	232.1	16.0	185.7	12.8	92.8	6.4
2-1/2" Ferrule x 2-1/2" Hose	232.1	16.0	185.7	12.8	87.0	6.0
3" Ferrule x 3" Hose	217.6	15.0	174.0	12.0	87.0	6.0

Process Connections						
ASME BPE / DIN 32676 Process Connections						
Service Type	Group 1		Group 2		Group 3 (Note 2 - Important)	
Process Connection Size x Hose Size	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 400°F (psig)	MAWP at 204°C (barg)
1/2" Ferrule x 5/8" Hose	539.5	37.2	431.6	29.8	215.8	14.9
1" Ferrule x 7/8" Hose	215.8	14.9	172.7	11.9	87.0	6.0
1" Ferrule x 1" Hose	215.8	14.9	172.7	11.9	87.0	6.0
1-1/2" Ferrule x 1-3/8" Hose	215.8	14.9	172.7	11.9	87.0	6.0
1-1/2" Ferrule x 1-1/2" Hose	215.8	14.9	172.7	11.9	87.0	6.0
2" Ferrule x 1-7/8" Hose	215.8	14.9	172.7	11.9	87.0	6.0
2" Ferrule x 2" Hose	215.8	14.9	172.7	11.9	87.0	6.0
Process Connection Size x Hose Size	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 400°F (psig)	MAWP at 204°C (barg)	MAWP at 327°F (psig)	MAWP at 164°C (barg)
2-1/2" Ferrule x 2-1/2" Hose	215.8	14.9	172.7	11.9	87.0	6.0
3" Ferrule x 3" Hose	202.3	14.0	161.9	11.2	87.0	6.0

SCOPE OF CRN REGISTRATION

PRESSURE - TEMPERATURE RATINGS						
Process Connections		CL150 ASME B16.5 Flanged Type 304SS				
Service Type	Group 1		Group 2		Group 3 (Note 2 - Important)	
Process Connection Size x Hose Size	MAWP at 100°F(psig)	MAWP at 38°C(barg)	MAWP at 100°F(psig)	MAWP at 38°C(barg)	MAWP at 100°F(psig)	MAWP at 38°C(barg)
1/2" Flange x 1/2" Hose	275.0	19.0	275.0	19.0	232.0	16.0
3/4" Flange x 3/4" Hose	275.0	19.0	275.0	19.0	232.0	16.0
1" Flange x 1" Hose	275.0	19.0	275.0	19.0	232.0	16.0
1-1/4" Flange x 1-1/4" Hose	275.0	19.0	275.0	19.0	232.0	16.0
1-1/2" Flange x 1-1/2" Hose	275.0	19.0	275.0	19.0	203.0	14.0
2" Flange x 2" Hose	275.0	19.0	275.0	19.0	145.0	10.0
2-1/2" Flange x 2-1/2" Hose	275.0	19.0	232.0	16.0	87.0	6.0
3" Flange x 3" Hose	218.0	15.0	174.0	12.0	87.0	6.0
Process Connection Size x Hose Size	MAWP at 200°F(psig)	MAWP at 93°C(barg)	MAWP at 200°F(psig)	MAWP at 93°C(barg)	MAWP at 200°F(psig)	MAWP at 93°C(barg)
1/2" Flange x 1/2" Hose	230.0	15.9	230.0	15.9	230.0	15.9
3/4" Flange x 3/4" Hose	230.0	15.9	230.0	15.9	230.0	15.9
1" Flange x 1" Hose	230.0	15.9	230.0	15.9	230.0	15.9
1-1/4" Flange x 1-1/4" Hose	230.0	15.9	230.0	15.9	230.0	15.9
1-1/2" Flange x 1-1/2" Hose	230.0	15.9	230.0	15.9	203.0	14.0
2" Flange x 2" Hose	230.0	15.9	230.0	15.9	145.0	10.0
2-1/2" Flange x 2-1/2" Hose	230.0	15.9	230.0	15.9	87.0	6.0
3" Flange x 3" Hose	218.0	15.0	174.0	12.0	87.0	6.0
Process Connection Size x Hose Size	MAWP at 300°F(psig)	MAWP at 149°C(barg)	MAWP at 300°F(psig)	MAWP at 149°C(barg)	MAWP at 300°F(psig)	MAWP at 149°C(barg)
1/2" Flange x 1/2" Hose	205.0	14.1	205.0	14.1	205.0	14.1
3/4" Flange x 3/4" Hose	205.0	14.1	205.0	14.1	205.0	14.1
1" Flange x 1" Hose	205.0	14.1	205.0	14.1	205.0	14.1
1-1/4" Flange x 1-1/4" Hose	205.0	14.1	205.0	14.1	205.0	14.1
1-1/2" Flange x 1-1/2" Hose	205.0	14.1	205.0	14.1	203.0	14.0
2" Flange x 2" Hose	205.0	14.1	205.0	14.1	145.0	10.0
2-1/2" Flange x 2-1/2" Hose	205.0	14.1	205.0	14.1	87.0	6.0
3" Flange x 3" Hose	205.0	14.1	174.0	12.0	87.0	6.0
Process Connection Size x Hose Size	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 400°F(psig)	MAWP at 204°C(barg)
1/2" Flange x 1/2" Hose	190.0	13.1	190.0	13.1	190.0	13.1
3/4" Flange x 3/4" Hose	190.0	13.1	190.0	13.1	190.0	13.1
1" Flange x 1" Hose	190.0	13.1	190.0	13.1	190.0	13.1
1-1/4" Flange x 1-1/4" Hose	190.0	13.1	190.0	13.1	190.0	13.1
1-1/2" Flange x 1-1/2" Hose	190.0	13.1	190.0	13.1	189.0	13.0
2" Flange x 2" Hose	190.0	13.1	190.0	13.1	135.0	9.3
Process Connection Size x Hose Size	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 327°F (psig)	MAWP at 164°C (barg)
2-1/2" Flange x 2-1/2" Hose	190.0	13.1	190.0	13.1	87.0	6.0
3" Flange x 3" Hose	190.0	13.1	162.0	11.2	87.0	6.0

SCOPE OF CRN REGISTRATION

PRESSURE - TEMPERATURE RATINGS						
Process Connections		CL150 ASME B16.5 Flanged Type 316SS				
Service Type	Group 1		Group 2		Group 3 (Note 2 - Important)	
Process Connection Size x Hose Size	MAWP at 100°F(psig)	MAWP at 38°C(barg)	MAWP at 100°F(psig)	MAWP at 38°C(barg)	MAWP at 100°F(psig)	MAWP at 38°C(barg)
1/2" Flange x 1/2" Hose	275.0	19.0	275.0	19.0	232.0	16.0
3/4" Flange x 3/4" Hose	275.0	19.0	275.0	19.0	232.0	16.0
1" Flange x 1" Hose	275.0	19.0	275.0	19.0	232.0	16.0
1-1/4" Flange x 1-1/4" Hose	275.0	19.0	275.0	19.0	232.0	16.0
1-1/2" Flange x 1-1/2" Hose	275.0	19.0	275.0	19.0	203.0	14.0
2" Flange x 2" Hose	275.0	19.0	275.0	19.0	145.0	10.0
2-1/2" Flange x 2-1/2" Hose	275.0	19.0	232.0	16.0	87.0	6.0
3" Flange x 3" Hose	218.0	15.0	174.0	12.0	87.0	6.0
Process Connection Size x Hose Size	MAWP at 200°F(psig)	MAWP at 93°C(barg)	MAWP at 200°F(psig)	MAWP at 93°C(barg)	MAWP at 200°F(psig)	MAWP at 93°C(barg)
1/2" Flange x 1/2" Hose	235.0	16.2	235.0	16.2	232.0	16.0
3/4" Flange x 3/4" Hose	235.0	16.2	235.0	16.2	232.0	16.0
1" Flange x 1" Hose	235.0	16.2	235.0	16.2	232.0	16.0
1-1/4" Flange x 1-1/4" Hose	235.0	16.2	235.0	16.2	232.0	16.0
1-1/2" Flange x 1-1/2" Hose	235.0	16.2	235.0	16.2	203.0	14.0
2" Flange x 2" Hose	235.0	16.2	235.0	16.2	145.0	10.0
2-1/2" Flange x 2-1/2" Hose	235.0	16.2	232.0	16.0	87.0	6.0
3" Flange x 3" Hose	218.0	15.0	174.0	12.0	87.0	6.0
Process Connection Size x Hose Size	MAWP at 300°F(psig)	MAWP at 149°C(barg)	MAWP at 300°F(psig)	MAWP at 149°C(barg)	MAWP at 300°F(psig)	MAWP at 149°C(barg)
1/2" Flange x 1/2" Hose	215.0	14.8	215.0	14.8	215.0	14.8
3/4" Flange x 3/4" Hose	215.0	14.8	215.0	14.8	215.0	14.8
1" Flange x 1" Hose	215.0	14.8	215.0	14.8	215.0	14.8
1-1/4" Flange x 1-1/4" Hose	215.0	14.8	215.0	14.8	215.0	14.8
1-1/2" Flange x 1-1/2" Hose	215.0	14.8	215.0	14.8	203.0	14.0
2" Flange x 2" Hose	215.0	14.8	215.0	14.8	145.0	10.0
2-1/2" Flange x 2-1/2" Hose	215.0	14.8	215.0	14.8	87.0	6.0
3" Flange x 3" Hose	215.0	14.8	174.0	12.0	87.0	6.0
Process Connection Size x Hose Size	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 400°F(psig)	MAWP at 204°C(barg)
1/2" Flange x 1/2" Hose	195.0	13.4	195.0	13.4	195.0	13.4
3/4" Flange x 3/4" Hose	195.0	13.4	195.0	13.4	195.0	13.4
1" Flange x 1" Hose	195.0	13.4	195.0	13.4	195.0	13.4
1-1/4" Flange x 1-1/4" Hose	195.0	13.4	195.0	13.4	195.0	13.4
1-1/2" Flange x 1-1/2" Hose	195.0	13.4	195.0	13.4	189.0	13.0
2" Flange x 2" Hose	195.0	13.4	195.0	13.4	135.0	9.3
Process Connection Size x Hose Size	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 400°F(psig)	MAWP at 204°C(barg)	MAWP at 327°F (psig)	MAWP at 164°C (barg)
2-1/2" Flange x 2-1/2" Hose	195.0	13.4	195.0	13.4	87.0	6.0
3" Flange x 3" Hose	195.0	13.4	162.0	11.2	87.0	6.0

SCOPE OF CRN REGISTRATION

Note 1: MAWP = Maximum Allowable Working Pressure, MAWT = Maximum Allowable Working Temperature, MDMT = Minimum Design Metal Temperature.

Note 2: In all cases the Group 3 Steam Service MAWP stated shall be further limited, where applicable, to the steam saturation pressure at temperature.

Note 3: Linear interpolation of pressure ratings between temperatures is allowed.

Note 4: The Maximum Allowable Working Pressure (MAWP) is the maximum allowed under this CRN. Aflex may limit certain hose applications to lower pressures than specified above. Please consult Aflex literature.

Note 5: For low temperature operation the products shall conform to the rules of the applicable codes under which they are used.

Note 6: The ASME BPE / DIN 32676 Ferrule connection shall be used with a clamp, however the assembly clamp is not part of this CRN. Pressure-Temperature ratings may be limited by the clamp type used in the joint assembly. The clamp used to complete the joint shall have its own CRN and shall have pressure-temperature ratings the same or higher than the product ratings.

Note 7: See attached Worldwide Locations Appendix for the manufacturing locations applicable to this CRN.



WORLDWIDE LOCATIONS APPENDIX

AFLEX HOSE MANUFACTURING LOCATIONS & CERTIFYING AUTHORITIES

(rev. November 19, 2024)

Aflex Hose Ltd.

Bradley Business Park
Dyson Wood Way
Bradley
Huddersfield
HD2 1GZ
United Kingdom

ISO 9001 Certified by bsi

In addition, in accordance with CSA B51 paragraph 4.2.5 Aflex Hose Ltd. is taking responsibility for the product covered under this CRN that is manufactured at:

Watson-Marlow, Inc.

37 Upton Technology Park
Wilmington, MA, 01887
USA

ISO 9001 Certified by TUV

Watson-Marlow America Manufacturing Inc.

16 Bulge Road
Devens MA 01434
USA

ISO 9001 Certified by TUV