

5/4/2020

TSSA 345 Carlingview Drive Toronto, ON M9W 6N9

Dear Cecylia Garbacz

Re: Reciprocal CRN Registration in Manitoba

Your application indicates that a CRN has been received in another Canadian Jurisdiction, and therefore your CRN has been registered in Manitoba as follows:

File Number:74-R584CRN:0A22214.54Scope:Attachment A (Manufacturing Locations) & B (SOR Alloy C-276)Manufacturer:SWAGELOKExpiry Date:2/Mar/30

Please find attached invoice for registration.

As indicated by the Regulatory Reconciliation and Cooperation Table and the Reconciliation Agreement for the Canadian Registration Number (CRN) for Pressure Equipment, a CRN issued in any Canadian Jurisdiction will be accepted for use in Manitoba.

In accordance with Steam and Pressure Plants Regulation and CSA B51, it is the manufacturer's responsibility to file a Manufacturers Data Report, including partial data reports, with our office, prior to shipping pressure equipment to Manitoba.

Please contact me directly via email at <u>Cheryl.Lashek@gov.mb.ca</u> for any questions or concerns.

Cheryl Lashek, P.Eng Director, ITSM Inspection and Technical Services Office of the Fire Commissioner 508 - 401 York Avenue, Winnipeg Manitoba R3C 0P8 T (204) 945-3507 | F (204) 948-2309



Technical Standards and Safety Authority 345 Carlingview Drive Toronto, Ontario M9W 6N9 www.tssa.org Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below

Swagelok

	lanager, Chiel Engineer)	
f Swagelok Company		
(Name of Manufacture	н)	
ocated at 29500 Solon Road, Solon, Ohio 44139 USA	(440) 248-4600	(440) 349-5970
(Plant Address)	(Telephone No.)	(Fax No.)
do solemnly declare that the fittings listed hereunder, which are sut and Pressure Vessels Regulation, comply with all of the requirem ASME B31.1 for unlisted components, and ASME B31.3 for unlist	ents of	s and Safety Act. Boilers
(Title of recognized North America)		
which specifies the dimensions, materials of construction, pressure/tempe		g the fittings and service;
or are not covered by the provisions of a recognized North America as supported by the attached pressure/temperature ratings and the basis for such ratings, the mark	data which identifies the dimensio king of the fitting for identification	ns, material of construction and service.
which has been verified by the following authority, BSI	이 한 옷 없	
he items covered by this declaration, for which I seek registration, are category	A. Fitting	type fittings. In support of
is application, the following information and/or test data are attached as follows:		
O 9001:2015 Certificate, Attachment A, Attachment B, Catalog Inform	nation and other Support Docum	nents
(drawings, calculations, test re	iports, etc.)	
a 3rd day of CCIDDE AD 20 19	state	of OhiO
Brenda Hannel (Printed name) Brenda Hannel	fall. El	2
Commissioner for Oaths: Brenda Hannel	Technical Signature of L	Declarer) Boilers and
Commissioner for Oaths: Commissioner for Oaths: Commissioner for Oaths: (Printed name) Commissioner (Printed name) Commissioner (Printed name) Commissioner (Printed name) Commissioner (Printed name) Commissioner (Signature) FOR OFFICE USE to the best of my knowledge and belief, the application meets the requirement rechnical Standards and Safety Act, Boilers and Pressure Vessels Regular	ONLY tion, and Provide the standards Authority REGIST	Pressure Vessels Safety Program
ommissioner for Oaths: Benda Hannel (Printed name) Benda Hannel (Signature) FOR OFFICE USE o the best of my knowledge and belief, the application meets the requirement iechnical Standards and Safety Act, Boilers and Pressure Vessels Regular SA Standard B51 and is accepted for registration in Category	ONLY Authority OFF	Pressure Vessels Safety Program
Commissioner for Oaths: Commissioner for Oath	ONLY Standards and Safety Authority FF REGIST C.R.N.: 0A2 Signed:	Pressure Vessels Safety Program ICE TERED 2214.5
Commissioner for Oaths: Benda Hamal (Printed name) Benda Hamal (Signature) FOR OFFICE USE To the best of my knowledge and belief, the application meets the requirement rechnical Standards and Safety Act, Boilers and Pressure Vessels Regular CRN: OA22214, S CRN:	ONLY Standards and Safety Authority FFF REGIST C.R.N: 0A2 Signed:	Pressure Vessels Safety Program ICE TERED 2214.5

Swaqelok

Canadian Registration Number Submittal #HC-TUBEFIT-2019 Category A: Swagelok Alloy C-276 Tube Fittings

Attachment B. Scope of Registration for Swagelok Alloy C-276 (ASTM B564, B574) Tube Fittings (Category A)

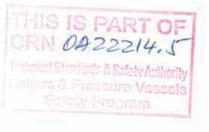
This document represents the scope of Swagelok Alloy C-276 Tube Fittings covered by this submission for CRN approval. These Swagelok Tube Fittings have been evaluated in accordance with ASME B31.3 for unlisted components and ASME B31.1 for unlisted components.

Summary Table

Product Description or Series	Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure		Design Code
			Up to 100°F	At maximum temperature	of Construction
Gaugeable Tube Fittings and Adapter Fittings	Alloy C276 (ASTM B564 / ASTM B574)	Swagelok End Connection 1/4 inch – 1/2 inch 6mm - 12mm	See Table below	See Table below	ASME B31.1
		NPT Male 1/16 - 1 inch	11 000 – 5300 psig	9020 - 4350 psig @ 1000°F (537°C)	
		NPT Female 1/16 - 1 inch	6700 – 4400 psig	5500 - 3610 psig @ 1000°F (537°C)	(Unlisted Components)

Alloy C-276 Swagelok Tube Fitting Pressure Rating Table

	Maximum Allowable Working Pressure			
Swagelok End Connection Size	Up to 100°F	At maximum temperature 1000°F (537°C)		
1/4 inch	10 200 psig	7752 psig		
3/8 inch	6500 psig	4940 psig		
1/2 inch	5100 psig	3876 psig		
6mm	670 bar	509 bar		
10mm	380 bar	289 bar		
12mm	310 bar	235 bar		

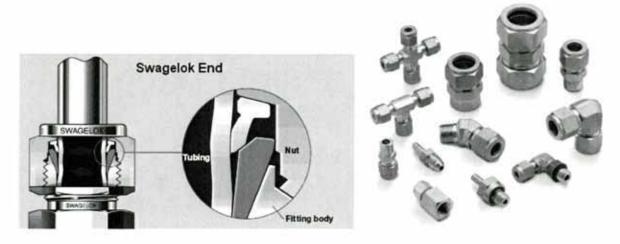


Swagelok

Canadian Registration Number Submittal #HC-TUBEFIT-2019 Category A: Swagelok Alloy C-276 Tube Fittings Revised February 6, 2020 Page 2 of 3

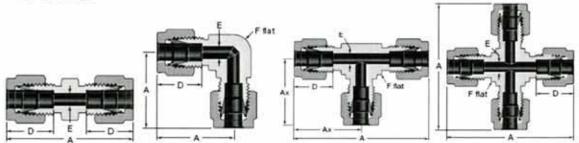
Product Description

Swagelok Fittings are furnished in a variety of configurations and shapes (straight, elbow, tee or cross). Swagelok Fittings consist of at least one Swagelok End – a proprietary two-ferrule mechanical-grip design. The table below, as well as the "Configurations" section, covers a variety of other end connections.

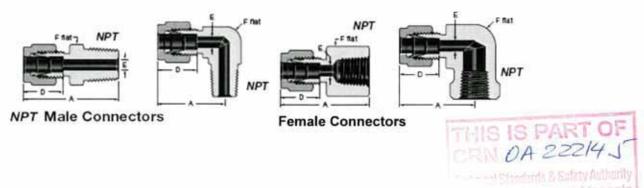


Configurations

1. Unions.



2. Male and Female connectors / adapters.



Swagelok

Canadian Registration Number Submittal #HC-TUBEFIT-2019 Category A: Swagelok Alloy C-276 Tube Fittings

Revised February 6, 2020 Page 3 of 3

Product Options:

Some of the product options listed below affect the pressure-temperature ratings in the "Scope of Registration" section above, but in all cases the pressure ratings are the same or less than those shown in the Summary Table on page 1.

- Sealant for NPT pipe threads -
 - Curable resin with PTFE
 - PTFE tape
- Bored through fittings
- Plastic ferrules, (Nylon, Teflon, PEEK)

Additional options that do not affect pressure and/or temperature ratings may be made available within the scope of this approval. Examples of these would include the following:

- Special marking
- Special cleaning
- Wire drills
- bulkhead configurations
- Snubbers/frits and orifice plates

All of the above options, those that affect pressure and/or temperature ratings and those that do not, are within the scope of this approval.

Quality System

The Swagelok Company quality system complies with the requirements of ISO 9001:2015. Swagelok Company maintains BSI Certificate of Registration Number FM 01729, which applies to all locations listed on the Certificate.

References

The product catalog does not represent the full scope of the registration but rather details some of the most common options.

- Gaugeable Tube Fittings and Adapter Fittings MS-01-140, Rev Y
- Swagelok Tubing Data Sheet MS-01-107, Rev N



Attachment A. Swagelok Manufacturing Locations

This document lists the Swagelok locations where end item or component level manufacturing activities take place.

Swagelok Company	Swagelok Company (Falon 1)
29500 Solon Road	348 Bishop Road
Solon, Ohio 44139	Highland Heights, Ohio 44143
USA	USA
Swagelok Company (Highland)	Swagelok Company (Falon 2)
318 Bishop Road	358 Bishop Road
Highland Heights, Ohio 44143	Highland Heights, Ohio 44143
USA	USA
Swagelok Company (OFC)	Swagelok Company (HPF)
29495 F.A. Lennon Drive	6050 Cochran Road
Solon, Ohio 44139	Solon, Ohio 44139
USA	USA
Swagelok Company (Atlantic)	Swagelok Company (Snow Metal)
26651 Curtiss Wright Parkway	6060 Cochran Road
Willoughby Hills, Ohio 44092	Solon, Ohio 44139
USA	USA
Swagelok Company (Micro) 26653 Curtiss Wright Parkway Willoughby Hills, Ohio 44092 USA	Swagelok Company (Alfred) 29500 Ambina Drive Solon, Ohio 44139
Swagelok Hose Services Company (SHSC)	Swagelok Company (Strongsville)
29900 Solon Industrial Parkway	15400 Foltz Road
Solon, Ohio 44139	Strongsville, Ohio 44119
Swagelok (China) Fluid System Technologies Ltd.	Swagelok Company A.G. (European Technology
Changshu Export Process Zone	Center)
Changshu Economic Development Zone	St. GallerstraBe 84
Changshu, Jiangshu	Lachen, Switzerland 8853
215513 China	Switzerland
Swagelok Limited Tromode M4 4RA sle of Man	

