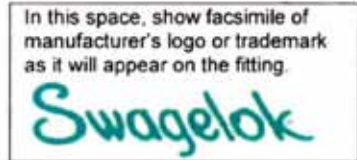


STATUTORY DECLARATION Registration of Fittings

I, Joel Feldman, Vice President, Engineering of Swagelok Company located at 29500 Solon Road, Solon, Ohio 44139 USA



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

- comply with the requirements of ASME B31.1 and ASME B31.3 which specifies the dimensions, 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...

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, BSI as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are Category A Type Fittings

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

ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents

DECLARED before me at Solon in the state of Ohio this 3rd day of October, 2019

(print) Brenda Hammel (a Commissioner of Oaths or Notary Public)

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

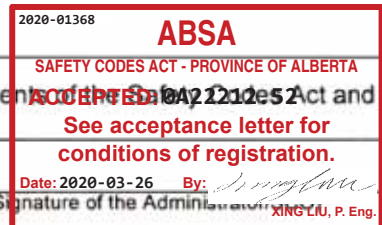
(signature of applicant) Joel C. Feldman

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, Clause 4.2, and is accepted for registration in Category

Registration Number: (Signature of the Administrator) XING LIU, P. Eng.

Date Registered: Expiry Date:



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.

March 26, 2020

**Attention:** Tanya Francis  
TECHNICAL STANDARDS & SAFETY AUTHORITY  
345 CARLINGVIEW DRIVE  
TORONTO, ON M9W 6N9

The design submission, tracking number 2020-01368, originally received on March 09, 2020 was surveyed and accepted for registration as follows:

**CRN :** 0A22212.52 **Accepted on:** March 26, 2020  
**Reg Type:** NEW DESIGN **Expiry Date:** March 01, 2030  
**Drawing No. :** ATTACHMENT A&B TITANIUM TUBE FITTINGS Rev FEB62020  
**Fitting type:** PIPE FITTING  
Design registered in the name of : SWAGELOK COMPANY

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

*As indicated on AB-41 Statutory Declaration form and submitted documentation, the code of construction are ASME B31.1 and ASME B31.3.*

- *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 until that date.*
- *Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.*

- *Please note that this letter issued on April 9, 2020, supersedes the letter issued on March 26, 2020 with the correction of expiry date. Thank you.*

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 3388 or fax (780) 437-7787 or e-mail Liu@absa.ca.

Sincerely,



LIU, XING, P. Eng.  
DOP Cert. No. D00008861

## Attachment A. Swagelok Manufacturing Locations

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

Swagelok Company 29500 Solon Road Solon, Ohio 44139 USA	Swagelok Company (Falon 1) 348 Bishop Road Highland Heights, Ohio 44143 USA
Swagelok Company (Highland) 318 Bishop Road Highland Heights, Ohio 44143 USA	Swagelok Company (Falon 2) 358 Bishop Road Highland Heights, Ohio 44143 USA
Swagelok Company (OFC) 29495 F.A. Lennon Drive Solon, Ohio 44139 USA	Swagelok Company (HPF) 6050 Cochran Road Solon, Ohio 44139 USA
Swagelok Company (Atlantic) 26651 Curtiss Wright Parkway Willoughby Hills, Ohio 44092 USA	Swagelok Company (Snow Metal) 6060 Cochran Road Solon, Ohio 44139 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) 29900 Solon Industrial Parkway Solon, Ohio 44139	Swagelok Company (Strongsville) 15400 Foltz Road Strongsville, Ohio 44119
Swagelok (China) Fluid System Technologies Ltd. Changshu Export Process Zone Changshu Economic Development Zone Changshu, Jiangshu 215513 China	Swagelok Limited Ballafletcher Road Tromode IM4 4RA Isle of Man

## Attachment B. Scope of Registration for Swagelok Titanium, Grade 4 (ASTM B348, B381) Tube Fittings (Category A)

This document represents the scope of Swagelok Titanium 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

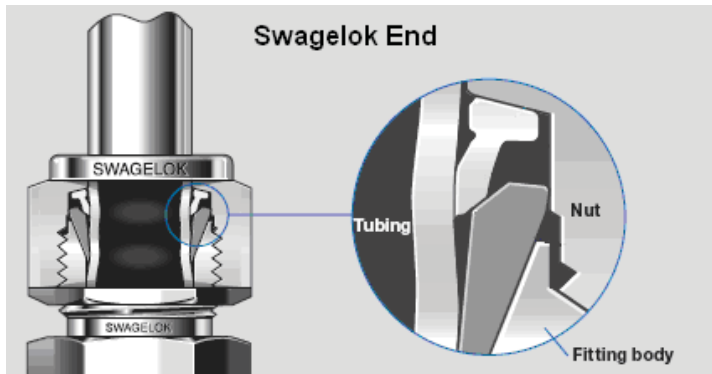
Product Description or Series	Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure		Design Code of Construction
			Up to 100°F	At maximum temperature	
Gaugeable Tube Fittings and Adapter Fittings	Titanium Grade 4 (ASTM B348/ASTM B381)	Swagelok End Connection 1/4 inch - 1/2 inch 6mm, 10mm, 12mm	See Table below	See Table below	ASME B31.3 (Unlisted Components)
		NPT Male 1/16 - 1 inch	8800 - 4200 psig	3520 – 1680 psig @ 600°F (315°C)	ASME B31.1 (Unlisted Components)
		NPT Female 1/16 - 1 inch	5300 - 3500 psig	2120 – 1400 psig @ 600°F (315°C)	

### Titanium Swagelok Tube Fitting Pressure Rating Table

Swagelok End Connection Size	ASME B31.1 Maximum Allowable Working Pressures		ASME B31.3 Maximum Allowable Working Pressures	
	Up to 100°F	At maximum temperature 600°F (315°C)	Up to 100°F	At maximum temperature 600°F (315°C)
1/4 inch	7735 psig	3480 psig	9100 psig	4095 psig
3/8 inch	4930 psig	2218 psig	5800 psig	2610 psig
1/2 inch	3570 psig	1606 psig	4200 psig	1890 psig
6 mm	510 bar	229 psig	600 bar	270 psig
10 mm	289 bar	130 psig	340 bar	153 psig
12 mm	238 bar	107 psig	280 bar	126 psig

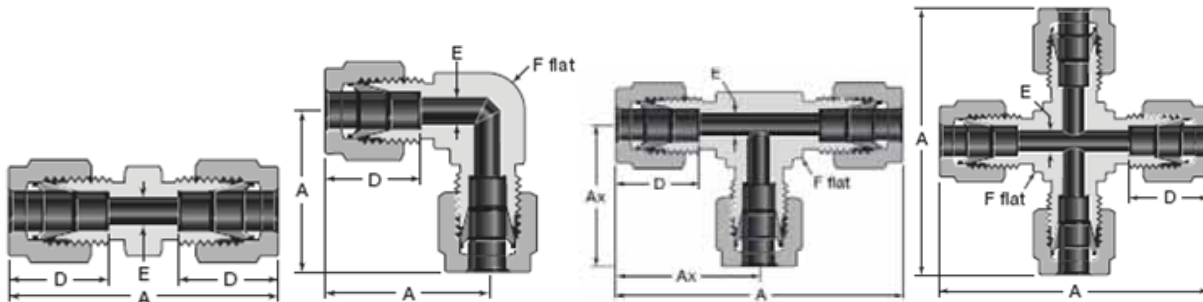
## Product Description

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.

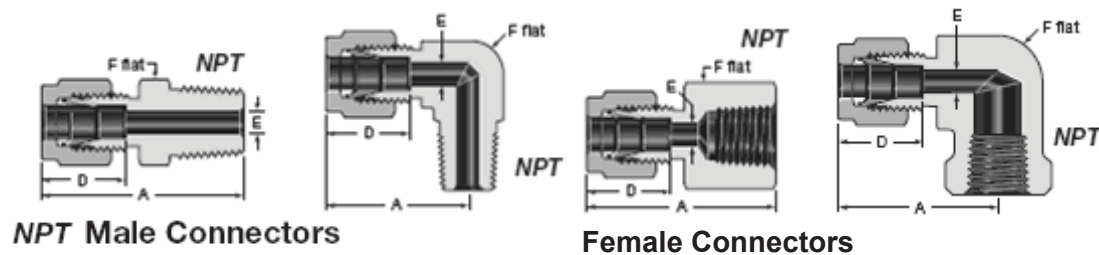


## Configurations

### 1. Unions.



### 2. Male and Female connectors / adapters.



Female Connectors

## 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 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.

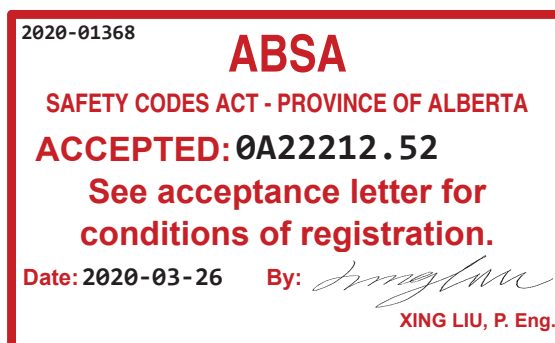
## Quality System

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



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.