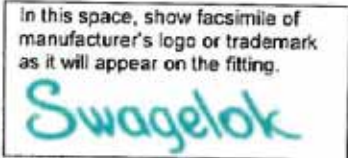


STATUTORY DECLARATION Registration of Fittings

I, Joel Feldman, Vice President of Engineering of Swagelok Company



located at 29500 Solon Road, Solon, Ohio 44139 USA (see Attachment A)

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 and are therefore manufactured to comply with...

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.

Category A Type Fittings (brief description of 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 14th day of March, 2019

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

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

Joel C. Feldman (signature of applicant)

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 A

Registration Number: 0A21487.52

(Signature of the Administrator/SCO)

Date Registered: 2019-08-01

Expiry Date: 2029-06-10

## Attachment B. Scope of Registration for Swagelok Alloy 400, (ASTM B164 / B564), Tube Fittings (Category A)

This document represents the scope of Swagelok Alloy 400 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	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	Alloy 400 (ASTM B164 / B564)	Swagelok tube fitting 1/8 – 1 inch 6mm - 25mm	See Table on Page 2	See Table on Page 2	ASME B31.3 (Unlisted Components)  ASME B31.1 (Unlisted Components)
		NPT Male 1/16 - 1 inch	9200-4400 psig	6900 – 3300 psig @ 800°F (426°C)	
		NPT Female 1/16 - 1 inch	5600-3700 psig	4200 – 2775 psig @ 800°F (426°C)	

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**ABSA**

SAFETY CODES ACT - PROVINCE OF ALBERTA  
 REGISTRATION OF FITTINGS

REGISTRATION NO. 0A21487.52

DWG. NO. or CAT. NO. Attachment B

TYPE OF FITTINGS Pipe Fitting

2019-04 Date INITIALS XL

XING LIU, P.Eng.  
 DESIGN SURVEY ENGINEER



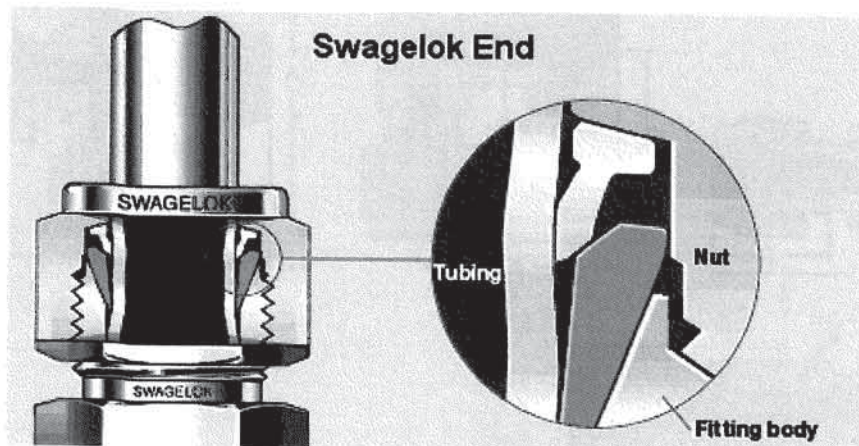
**Alloy 400 Swagelok Tube Fitting Pressure Rating Table**

Swagelok End Connection Size	Maximum Allowable Working Pressure (1)	
	Up to 100°F	At maximum temperature 800°F (426°C)
1/8	10,100 psig	7575 psig
3/16	9500 psig	7125 psig
1/4	9500 psig	7125 psig
5/16	7300 psig	5475 psig
3/8	6100 psig	4575 psig
1/2	4400 psig	3300 psig
5/8	5600 psig	4200 psig
3/4	4600 psig	3450 psig
7/8	4500 psig	3375 psig
1"	4300 psig	3225 psig
6 mm	620 bar	465 bar
8 mm	450 bar	337.5 bar
10 mm	350 bar	262.5 bar
12 mm	290 bar	217.5 bar
14 mm	270 bar	202.5 bar
15 mm	330 bar	247.5 bar
16 mm	320 bar	240 bar
18 mm	300 bar	225 bar
20 mm	290 bar	217.5 bar
22 mm	310 bar	232.5 bar
25 mm	290 bar	217.5 bar

Note (1): Values based on thickest wall alloy 400 tubing per Swagelok Tubing Data Sheet MS-01-107.

## Product Description

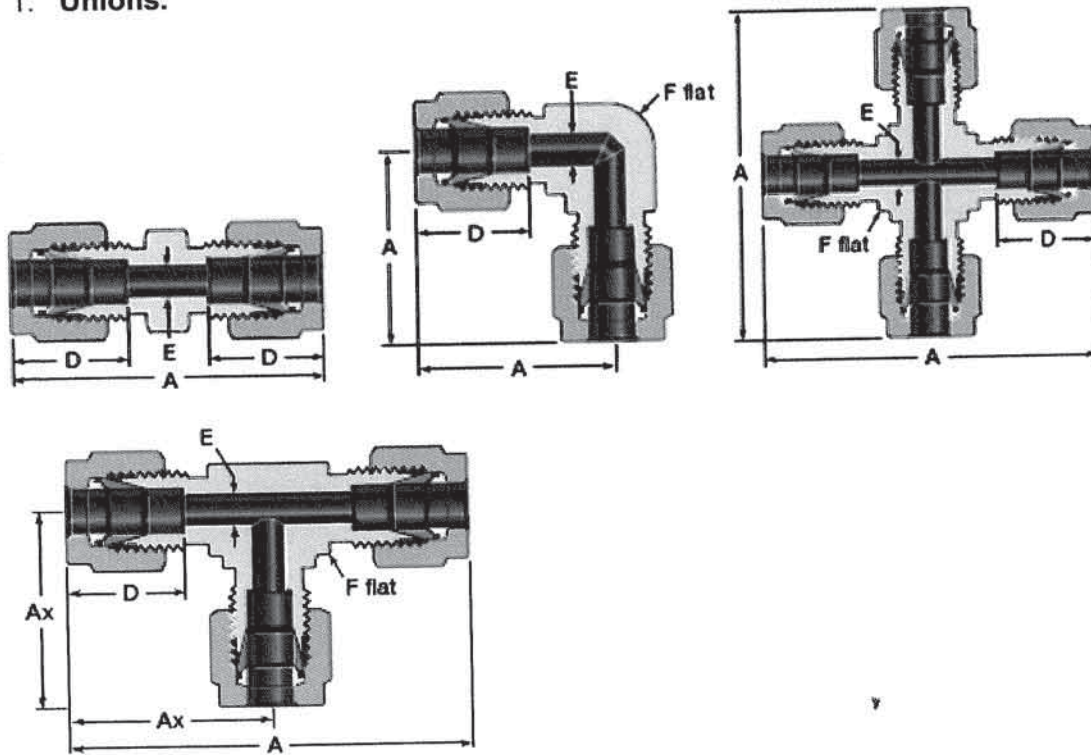
Swagelok Fittings are furnished in a variety of configurations and shapes (straight, elbow, tee or cross). Swagelok Fittings consist of at least one Swagelok End – a proprietary two-ferrule mechanical-grip design. The “Configurations” section covers other available end connections.



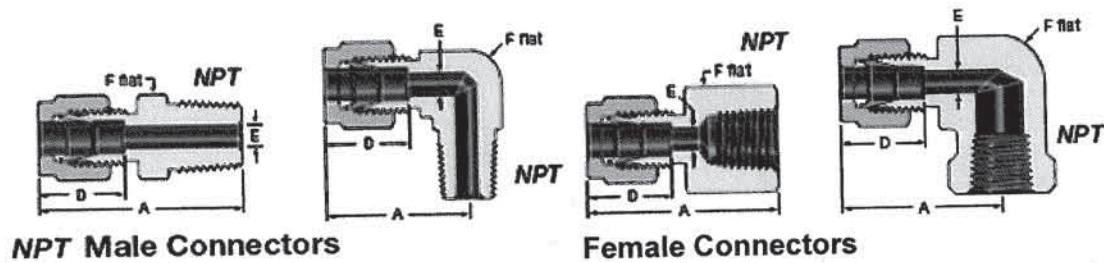
0A21487.52

## Configurations

### 1. Unions.



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





## **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.

1. Tapered pipe threads (NPT) with sealant.
  - a. Curable resin with PTFE
  - b. PTFE tape
2. Bored through fittings
3. 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:

1. Special marking
2. Special cleaning
3. Wire drills
4. bulkhead configurations
5. Snubbers/frits and orifice plates
6. Equivalent metric or fractional hex sizes

Other options, not shown above, with pressure/temperature ratings equal to or less than shown in the Summary Table or do not affect pressure/temperature ratings may be made available under the scope of this approval

## **Quality System**

The Swagelok Company quality system complies with the requirements of ISO 9001:2015. The Swagelok Company maintains BSI 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 Q

**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 Company A.G. (European Technology Center) St. GallerstraBe 84 Lachen, Switzerland 8853 Switzerland
Swagelok Limited Tromode IM4 4RA Isle of Man	

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