


**REGISTERED**   
**CRN: CSA-0A21025.56**  
 Registration Process administered by  
 CSA Group per CSA B51

**Statutory Declaration Registration of Fittings**

**(a) Design Qualification**

I' Joel Feldman  
Vice President, Engineering  
*(Position eg, president, plant manager, chief eng.)*

Of Swagelok Company  
*(name of company)*

Located at Headquarters: 29500 Solon Road, Solon, Ohio 44139 USA (See Attachment A)  
*(plant address)*

do solemnly declare that the fittings listed hereunder, which are subject to the Boilers & Pressure Vessels Act:

- comply with all the requirements of the ANSI/ASME codes as to their dimensions, material, identification & service for which are required.
- Or
- are not covered by the provisions of the ANSI/ASME codes, and are therefore constructed to comply with \_\_\_\_\_ code and standard, and are designed to the best current engineering practice, as shown by the supporting test data.

**(b) Quality control of Manufacture**

I further declare the manufacture of these fittings is controlled by a quality control program which complies with the requirements of ISO 9001:2015, and has been verified by the following authority or authorized agency BSI

The fittings<sup>2</sup> covered by this declaration, for which I seek registration, are Category A. Fitting


In support of the 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, Ohio  
 In the of State of OHIO  
 The 29th Day of November AD 2019  
Jamie L. Ristau A (Commissioner for oaths)  
Jamie L. Ristau Resident Portage County Notary Public, State of Ohio  
 Commission Expires: 02/08/2019  
Joel C. Feldman Signature of Declarer

For Official Use Only

The application is accepted for registration in Category A in accordance with the Boilers and Pressure Vessels Act and CSA Standard B51.

This registration must be revalidated after ten (10) years from the date of acceptance. Jan. 24. 2029

Registered Number CRN CSA-0A21025.56 For the Chief Inspector R.W. Barnes  
 Date  Mar. 25. 2019

- 1 Three completed copies of Statutory Declaration form together with three copies of Catalogs, drawings of Bulletins illustrating above fittings shall be submitted.
- 2 All fittings are required to be registered in the name of the Manufacturer.
- 3 This form shall be completed and signed by the president of highest official in the manufacturing plant where the fitting is produced.



\*Note: See the attachment for the scope of the registration.

## Attachment B. Scope of Registration for Swagelok Stainless Steel Tube Fittings (Category A)

### Product Scope

This document represents the scope of Swagelok Stainless Steel Tube Fittings covered by this submission for CRN approval. These Swagelok Tube Fittings have been evaluated in accordance with ASME B31.3-2016 for unlisted components and ASME B31.1-2016 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	316 SS (ASTM A479) For straight fittings, hardware  F316 SS (ASTM A182) For shaped fittings	Swagelok End Connection 1/16 - 2 inch (Fractional) 3mm - 50 mm (Metric)	See Table on Page 2	See Table on Page 2	ASME B31.3 (Unlisted Components) ASME B31.1 (Unlisted Components)	
		NPT Male 1/16 - 2 inch	11000 - 3900 psig	6160-2184 psig** @1000°F (537°C)	Based on ASME B1.20.1 listed in Table 326.1 of B31.3 and Table 126.1 of B31.1	
		NPT Female 1/16 - 2 inch	6700 - 3900 psig	3752-2184 psig** @1000°F (537°C)		
		ISO/BSP (parallel) - PR Male 1/8 - 1 inch	4568 - 2320 psig* (low limit 15°F)	4568 - 2320 psig @150°F (65°C)	ASME B31.3 (Unlisted Components)	
		ISO/BSP (parallel) - RP Male 1/8 - 1/2 inch	6700-2400 psig with copper gasket*	6700 - 2400 psig @400°F (204°C) with copper gasket*		
		ISO/BSP (parallel) RS Male 1/8-1 inch	6500-2700 psig with FKM bonded gasket* (limit -20°F)	6500-2700 psig @400°F (204°C) with FKM bonded gasket*		
		ISO/BSP (parallel) RG Female 1/4 - 1/2 inch	4036 psig with copper gasket*	4036 psig @400°F (204°C) with copper gasket*		
		ISO-7 (tapered)(RT) Male 1/8 - 2 inch	11000 - 3900 psig	6160-2184 psig** @1000°F (537°C)		ASME B31.1 (Unlisted Components)
		ISO-7 (tapered)(RT) Female 1/8 - 2 inch	6700 - 3900 psig	3752-2184 psig** @1000°F (537°C)		
		UN / UNF(SAE) Stud (ST) Male 1/8 - 2 inch	4568 - 1813 psig*	4568 - 1813 psig @400°F (204°C)		ASME B36.10M
		UN / UNF (SAE) Pos. (ST) Male 1/8 - 2 inch	4568 - 1450 psig*	4568 - 1450 psig @400°F (204°C)		
		Tube Socket Weld 1/8 - 1 inch	12500 - 5600 psig	7000 - 3136 psig @1000°F (537°C)		
		Male Pipe Weld 1/4 - 1 inch	10300 - 6000 psig	5768-3360 psig @1000°F (537°C)		
		Unified (UNJ) (AN) Male Straight 1/8 - 1 inch	10000 - 5000 psig	5650-2825 psig @1000°F (537°C)		
		Unified (UNJ) (AN) Male Shape 1/8 - 1 inch	10000 - 4100 psig	5650-2316 psig @1000°F (537°C)		
Unified (UNJ) (AN) Female w/ Swivel Nut 1/8 - 1 inch	4500 - 2500 psig	2542-1412 psig @1000°F (537°C)				


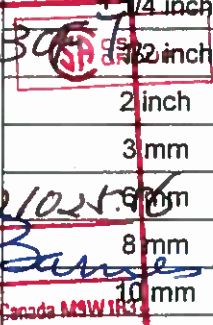
**ATTACHMENT TO**  
**C.R.N. CSA-0A21025.5**  
 Signed: *[Signature]*  
 178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

**THIS IS PART OF**  
**CRN 0A21025.5**  
 Technical Standards & Safety Authority  
 Bolters & Products Division

\* Temperature rating is gasket, or O-ring material dependent      \*\*Rating for fitting material (may be limited by thread sealant)

## Stainless Steel Swagelok Tube Fitting Pressure Rating Table

Swagelok End Connection Size	Maximum Allowable Working Pressure (1)	
	Up to 100°F	At maximum temperature 1000°F (537°C)
1/16 inch	12 000 psig	9 120 psig
1/8 inch	10 900 psig	8 284 psig
3/16 inch	10 200 psig	7 752 psig
1/4 inch	10 200 psig	7 752 psig
5/16 inch	8 000 psig	6 080 psig
3/8 inch	7 500 psig	5 700 psig
1/2 inch	6 700 psig	5 092 psig
5/8 inch	6 000 psig	4 560 psig
3/4 inch	5 800 psig	4 408 psig
7/8 inch	4 800 psig	3 648 psig
1 inch	4 700 psig	3 572 psig
1 1/4 inch	4 800 psig	3 648 psig
1 1/2 inch	4 900 psig	3 724 psig
2 inch	3 600 psig	2 736 psig
3 mm	670 bar	509 bar
4 mm	710 bar	540 bar
6 mm	520 bar	395 bar
8 mm	580 bar	441 bar
10 mm	470 bar	357 bar
12 mm	430 bar	327 bar
14 mm	400 bar	304 bar
15 mm	400 bar	304 bar
16 mm	370 bar	281 bar
18 mm	380 bar	289 bar
20 mm	340 bar	258 bar
22 mm	320 bar	243 bar
25 mm	330 bar	251 bar
28 mm	310 bar	236 bar
30 mm	310 bar	236 bar
32 mm	270 bar	205 bar
38 mm	270 bar	205 bar
50 mm	270 bar	205 bar

**ATTACHMENT TO**  
**C.R.N. CSA-PA-21025-16**  
**Signed: [Signature]**  
**179 Rexdale Boulevard, Toronto, ON Canada M9W 1R3**

Note (1): Values based on thickest wall tubing and stress values per ASME B31.3. Thinner tubing may be used but in all cases the ratings are less than, or equal to, those shown in the table.

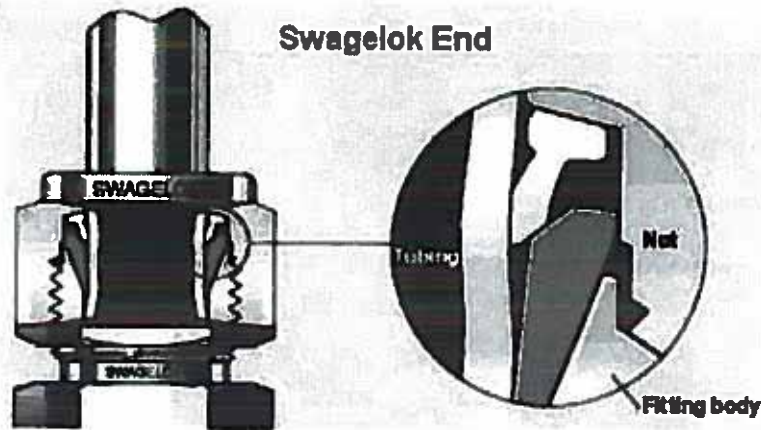
# Swagelok

Canadian Registration Number Submittal #SS-TUBEFIT-2018  
Category A: Swagelok SS Tube Fittings

Date: November 22, 2018  
Page 3 of 6

## 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 two-ferrule mechanical-grip design. The Swagelok end is a proprietary design, and the assembly consists of Swagelok body, nut, front and back ferrule (see detail). The table above, as well as the "Configurations" section, covers a variety of other end connections.



REGISTERED  
CRN: CSA-0A210 25.56  
Registration Process administered by  
CSA Group per CSA B51

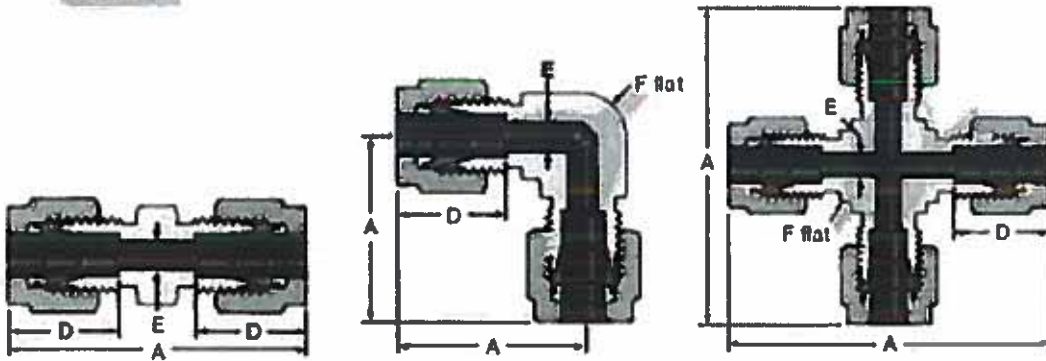


THIS IS PART OF  
0A21025-5

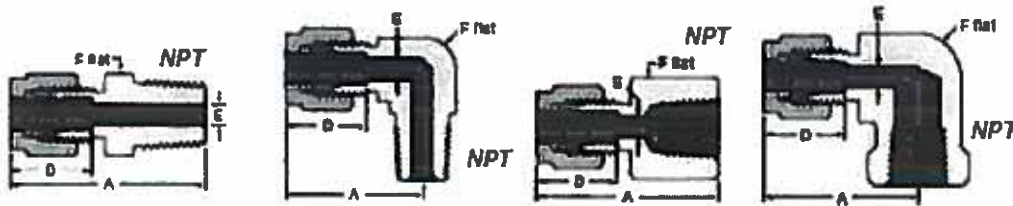
40F7

## Configurations

### 1. Unions.

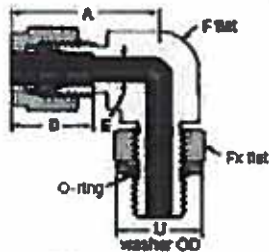


### 2. Male and Female connectors / adapters.

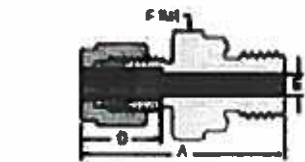


NPT Male Connectors

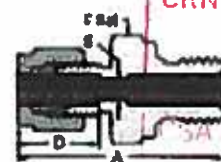
Female Connectors



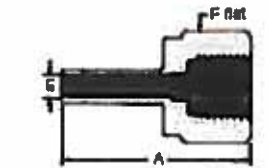
Positionable ISO/BSP Parallel Thread (PR)



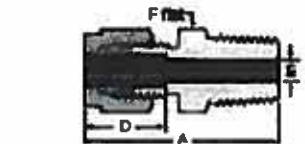
ISO/BSP Parallel Thread (RP)



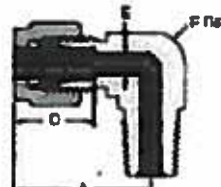
ISO/BSP Parallel Thread (RS)



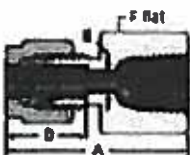
ISO/BSP Parallel Thread (RG, Gauge)



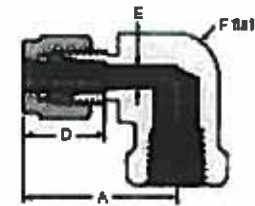
ISO/BSP Tapered Thread (RT)



ISO/BSP Tapered Thread (RT)



ISO/BSP Tapered Female Thread (RT)



ISO/BSP Tapered Female Thread (RT)

REGISTERED



CRN: CSA-0A21025.56

Registration Process administered by  
 CSA Group per CSA B51

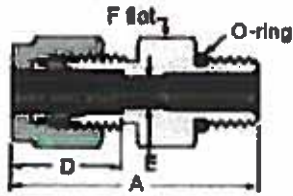
5 of 7

THIS IS PART OF  
 0A21025.5

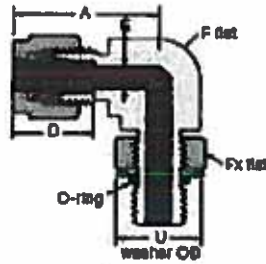
# Swagelok

Canadian Registration Number Submittal #SS-TUBEFIT-2018  
 Category A: Swagelok SS Tube Fittings

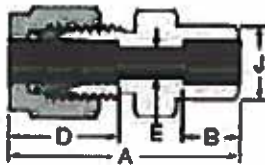
Date: November 22, 2018  
 Page 5 of 6



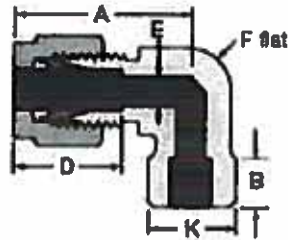
**SAE/MS Straight Thread Stud (ST)**



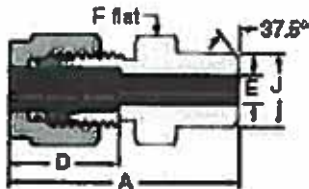
**Positionable SAE/MS Straight Thread (ST)**



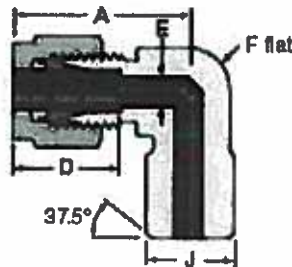
**Tube Socket Weld**



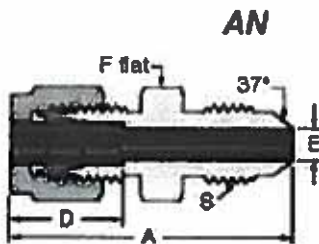
**Tube Socket Weld**



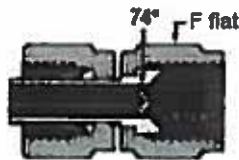
**Male Pipe Weld**



**Male Pipe Weld**



**AN**



**AN Female**

(For dimensions see catalog.)

REGISTERED



CRN: CSA-0A21025.56

Registration Process administered by  
 CSA Group per CSA B51

6 of 7

THIS IS PART OF  
 CRM 0A21025-5

## Product Options:

The product options listed below affect pressure and/or temperature ratings shown in the above Summary Table, but in all cases the ratings are less than, or equal to, those shown in the table.

1. Bored-Through Fittings.
2. RP gaskets:
  - a. Copper
  - b. Nickel
  - c. PTFE
3. RS gaskets:
  - a. Metal-and-elastomer bonded
  - b. Non-bonded stainless steel
  - c. Copper
4. RG gaskets:
  - a. Copper
  - b. Nickel
  - c. PTFE
5. Sealant for tapered pipe threads (NPT and ISO-7):
  - a. Curable resin with PTFE
  - b. PTFE tape

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

All of the above options are within the scope of this approval.

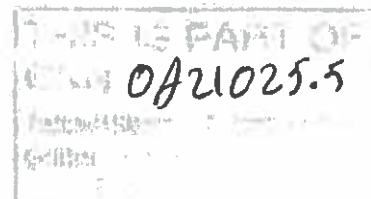
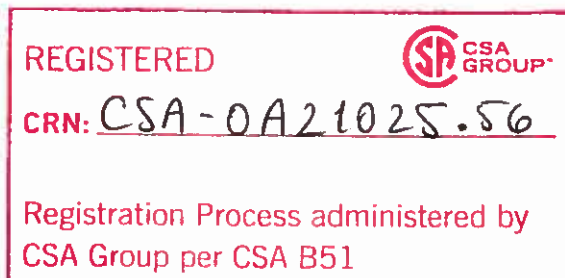
## Quality System

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

THIS IS PART OF  
CRN **OA21025.5**  
Technical Standards & Safety Authority  
Bonneville, Utah

**ATTACHMENT TO**

**C.R.N.** CSA-OA-21025.5

**Signed:** *[Signature]*

179 Rexdale Boulevard, Toronto, ON Canada M9W 1R3