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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



		ORY DECLA gistration of Fitting		
Joel Feldman,	, Vice President of Engineering			
9.		President, Plant Manager, Ch	nief Engineer)	
of Swagelok Co	mpany			
··		ame of Manufacturer)		
located at 29	500 Solon Road, Solon, Ohio 44139 USA	Ą	(440) 248-4600	(440) 349-5970
	(Plant Address)		(Telephone No.)	(Fax No.)
and Press	lly declare that the fittings listed hereunder ure Vessels Regulation, comply with all c 31.3 for unlisted components		ne <b>Technical Standard</b>	is and Safety Act, Boilers
		zed North American Standard)		
which spec	ifies the dimensions, materials of construction	, pressure/temperature rat	tings, identification markin	ng the fittings and service;
pressure/te	emperature ratings and the basis for such r	by the attached data which ratings, the marking of the	ch identifies the dimension e fitting for identification	ons, material of construction, and service.
i luriner declare il	hat the manufacture of these fittings is cont which has been verified by the following au		n meeting the requirem	ents of 100 3001.2013
The items covered	by this declaration, for which I seek registration		I	type fittings. In support of
	e following information and/or test data are atta			_ sypo mango. m support of
ISO 9001:2015	Certificate, Attachment A, Attachment B,	Catalog Information an	d other Support Docun	nents
	(drawings, o	calculations, test reports, etc.)		*
Declared before	me at	in the		of
the	day ofAD 20	)		
Commissioner f	for Oaths:		ocuSigned by:	
			111	> 1
	o get a notary signatu		Sal (	11/-
seal due	to COVID-19 situatio	n /	7000	4/26/2021   7:44 AM
	(Signature)	_	87CBBFFD3F14	Peclarer)
	(orginalary)		Standards	Pressure Vessels
Technical Standa	FOR C knowledge and belief, the application meets ards and Safety Act, Boilers and Pressure \ 1 and is accepted for registration in Categor	Vessels Regulation, and	and Safety Authority  REGIS	Safety Program
OSA Stanuaru BS	No. Company of the Co	Y This Docume	ent. C.R.N.: 0A23299	5
CRN:	0A23299.5	has been dig	gitally C.R.N. UA23299	
Registered by:	LILIANA CONSTANTINESO	TSSA The stamp s has been optimized for 17 documen	riix Date: June 7	2021.
Dated:	JUNE 7, 2021	of end connection	ons.	r rating between the type document lists the rating
NOTE: This roa	istration expires on JUNE 7, 203		d type of end connection	

\*Information provided in this application is releasable under the Freedom of Information and Privacy Protection Act and may be disclosed upon request.

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Canadian Registration Number Submittal #SS-MP\_FTNG-2020lers and Pressure Vessels SafeDate: April 21, 2021 Category A: Swagelok SS Medium Pressure Tube Fittings

Page 1 of 4

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

This document represents the scope of Swagelok 316 Stainless Steel Medium Pressure Tube Fittings covered by this submission for CRN approval. These Swagelok Medium Pressure Tube Fittings have been evaluated in accordance with ASME B31.3 for unlisted components.

#### **Summary Table**

Product Description or Series	Material (Standard)		Maximum Allowable Working Pressure		Danisus Code
		Port Connections and Sizes	Up to 100°F (psig)	At maximum temperature per ASME B31.3 (psig)	Design Code of Construction
Medium Pressure Tube Fittings and Adapter Fittings	(ASTM A479)	Medium Pressure Tube Fitting FK 1/4 – 1 inch, 6mm, 10mm, 12mm	15 000 - 6250*	12 540 –4781 @1000°F*	Unlisted Component in ASME B31.3
		Medium Pressure Tube Adapter FK-TA 1/4 – 1 inch 6mm, 10mm, 12mm	15 000 - 6250	12 540 - 5225 @1000°F	
		NPT Male and Female, Medium Pressure Design 1/16 - 1 inch	15 000 - 10 000	12 540 – 8360 @1000°F	
		UN/UNF(SAE) Heavy Duty STH Male Non-Positionable Stud 1/4 inch, 3/8 inch	9137**	9137 @400°F**	
		Cone & Thread MP, Male and Female 1/4 – 1 inch	15 000	12 540 @1000°F	
		Cone & Thread Tube Nipple CW 1/4 – 1 inch	15 000	12 540 @1000°F	

<sup>\*</sup> Medium Pressure Tube Fitting (FK) pressure rating is tubing dependent \*\* SAE Heavy Duty (STH) pressure rating is O-Ring dependent



Canadian Registration Number Submittal #SS-MP\_FTNG-2021 Category A: Swagelok SS Medium Pressure Tube Fittings

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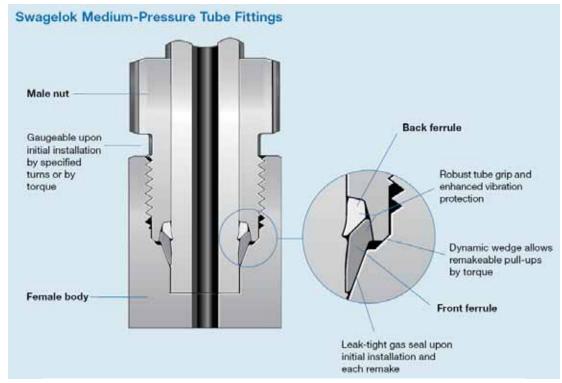
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Boilers and Pressure Vessels Safety Program

Page 2 of 4

#### **Product Description**

Swagelok Medium Pressure Tube Fittings are furnished in a variety of configurations and shapes (straight, elbow, tee or cross). Swagelok Medium Pressure Tube Fittings consist of at least one Swagelok Medium Pressure Tube Fitting or Tube Adapter End, which have two-ferrule mechanical-grip design. The Swagelok medium pressure tube fitting end is a proprietary design, and the assembly consists of a body, nut, front and back ferrule (see detail). The table above, as well as the "Configurations" section, covers a variety of other end connections.







Canadian Registration Number Submittal #SS-MP\_FTNG-2021 Category A: Swagelok SS Medium Pressure Tube Fittings

#### **Configurations**

#### 1. Unions. (Straight, Elbow, Tee, Cross)

Swagelok Medium Pressure Tube Fitting (FK) End Connections









Date: April 21, 2021

Page 3 of 4

#### 2. Tube Adapter

Swagelok Medium Pressure Tube Fitting (FK) with Medium Pressure Tube Adapter (FK-TA) End Connection

Swagelok Medium Pressure Tube Adapter (FK-TA) to an NPT (Male) End Connection





## THIS IS PART OF CRN 0A23299.5

Technical Standards and Safety Authority

Boilers and Pressure Vessels Safety

Program

#### 3. Male and Female Connectors / Adapters

Swagelok Medium Pressure Tube Fitting (FK) End Connection, adapting to an:

- NPT (Male or Female) End Connection
- SAE Heavy Duty (Male), STH End Connection
- Cone & Thread (Male or Female), MP End Connection
- Cone and Thread Tube Nipple (Male), CW End Connection

Straight Fittings: ¼" – 1", 6mm-12mm FK End Connections may adapt to any of the above listed end connections.

Shape Fittings:  $\frac{1}{4}$ " –  $\frac{3}{4}$ ", 6mm-12mm FK End Connections may adapt to NPT, SAE, or Cone & Thread MP end connections.









#### 4. Caps and Plugs

Swagelok Medium Pressure Tube Fitting



(For dimensions see catalog.)



Canadian Registration Number Submittal #SS-MP\_FTNG-2021 Category A: Swagelok SS Medium Pressure Tube Fittings

#### **Product Options**:

The product option 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. Sealant for tapered pipe threads (NPT):
  - 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  $(\frac{1}{4}" \frac{3}{4}", 6mm-12mm sizes only)$
- 5. Equivalent metric or fractional hex sizes

THISTS PART OF CRN

Date: April 21, 2021

Page 4 of 4

0A23299.5

Technical Standards and Safety Authority

Boilers and Pressure Vessels Safety Program

All 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. 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.

Medium- and High-Pressure Fittings, Tubing, Valves, and Accessories MS-02-472, Rev O

#### THIS IS PART OF CRN

0A23299.5

Technical Standards and Safety Authority

### Attachment A. Swagelok Manufacturing Locations and Pressure Vessels Safety Program

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. Changshu Export Process Zone Changshu Economic Development Zone Changshu, Jiangshu 215513 China	Swagelok Limited Ballafletcher Road Tromode IM4 4RA Isle of Man	