

TECHNICAL STANDARDS & SAFETY AUTHORITY
345 CARLINGVIEW DRIVE
TORONTO ON M9W 6N9

Date: September 4, 2019
Account #: 35231
Journal #: 74089

Attn: TANYA FRANCIS

Re: Application for Design Registration

The design, as detailed in your, CRN: 0A21486.5, for a Fitting is accepted for registration as follows:

Registered To: SWAGELOK COMPANY **CRN:** 0A21486.51

Drawing #: Catalog MS-01-174

Drawing Revision: 1

This design was registered based on a technical review performed by the province of initial registration in accordance with the Association of Chief Inspectors policy on reciprocal recognition of design review.

Reviewer's Notes:

As required by CSA B51 4.2.1, this registration expires on 10-Jun-2029. This CRN is valid until the expiry date as long as the Manufacturer maintains a valid quality control program verified by an acceptable third-party agency until that date. Should the certification of the quality control program lapse before the expiry date, this registration shall become void. Any additional conditions of registration stated in TSSA CRN# 0A21486.5 registration shall apply to BC registration.

Contact me if you have any questions. The invoice for registration will be forwarded under separate cover.

Janina Mihailescu

janina.mihailescu@technicalsaftybc.ca
Design Administration

cc:



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



STATUTORY DECLARATION Registration of Fittings

I, Joel Feldman, Vice President of Engineering
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Swagelok Company
(Name of Manufacturer)

Located 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 subject to the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, comply with all of the requirements of ASME B31.1 for unlisted components, and ASME B31.3 for unlisted components
(Title of recognized North American Standard)
 which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001:2015 which has been verified by the following authority, BSI

The items covered by this declaration, for which I seek registration, are category A. Fittings type fittings. In support of this application, the following information and/or test data are attached as follows:
ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents
(drawings, calculations, test reports, etc.)

Declared before me at Solon in the state of Ohio
 the 14th day of March AD 2019.

Commissioner for Oaths:

Brenda Hammel
(Printed name)
Brenda Hammel
(Signature)

Joel C. Feldman
(Signature of Declarer)

FOR OFFICE USE ONLY

To the best of my knowledge and belief, the application meets the requirements of the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category A

REGISTERED

C.R.N.: OA21486.5

Signed: [Signature]

Date: June 10, 2019

CRN: OA21486.5

Registered by: [Signature]

Dated: June 10, 2019

NOTE: This registration expires on: June 10, 2029

For scope of registration see attached stamped documents: Attachment A and B

Attachment B. Scope of Registration for Swagelok 2507 Super Duplex, (ASTM A479), Tube Fittings (Category A)

This document represents the scope of Swagelok 2507 Super Duplex 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 2507 (ASTM A479)	Swagelok End Connection 1/4, 3/8, 1/2, 5/8, 3/4 inches		See Table below	See Table on Page 1	ASME B31.3 (Unlisted Components) ASME B31.1 (Unlisted Components)
		NPT Male 1/16 - 1 inch	ASME B31.3	15,000 - 10,000 psig	12,150 - 8100 psig @ 482°F (250°C)	
			ASME B31.1	15,000 - 8900 psig	12,150 - 7209 psig @ 482°F (250°C)	
		NPT Female 1/16 - 1 inch	ASME B31.3	13,000 - 8600 psig	11,530 - 6966 psig @ 482°F (250°C)	
			ASME B31.1	11,000 - 7300 psig	8910 - 5913 psig @ 482°F (250°C)	
UN / UNF(SAE) Stud (ST) 1/8 - 3/4 inch		4500 - 3600 psig	4500 - 3600 psig @ 400°F (204°C) With FKM O-ring			

2507 Swagelok Tube Fitting Pressure Rating Table

Swagelok End Connection Size	Maximum Allowable Working Pressure (1)			
	B31.3 ratings up to 100°F	B31.1 ratings up to 100°F	B31.3 ratings @ maximum temperature 482°F (250°C)	B31.1 ratings @ maximum temperature 482°F (250°C)
1/4	15,000 psig	12,900 psig	12,150 psig	10,449 psig
3/8	12,700 psig	10,922 psig	10,287 psig	8847 psig
1/2	12,900 psig	11,094 psig	10,449 psig	8986 psig
5/8	10,100 psig	8686 psig	8181 psig	7036 psig
3/4	9380 psig	8067 psig	7598 psig	7023 psig

Note (1): Values based on thickest wall alloy 2507 tubing per Swagelok Tubing Data Sheet MS-01-107. Thinner tubing may be used but in all cases the ratings are less than, or equal to, those shown in the table.

Product Description

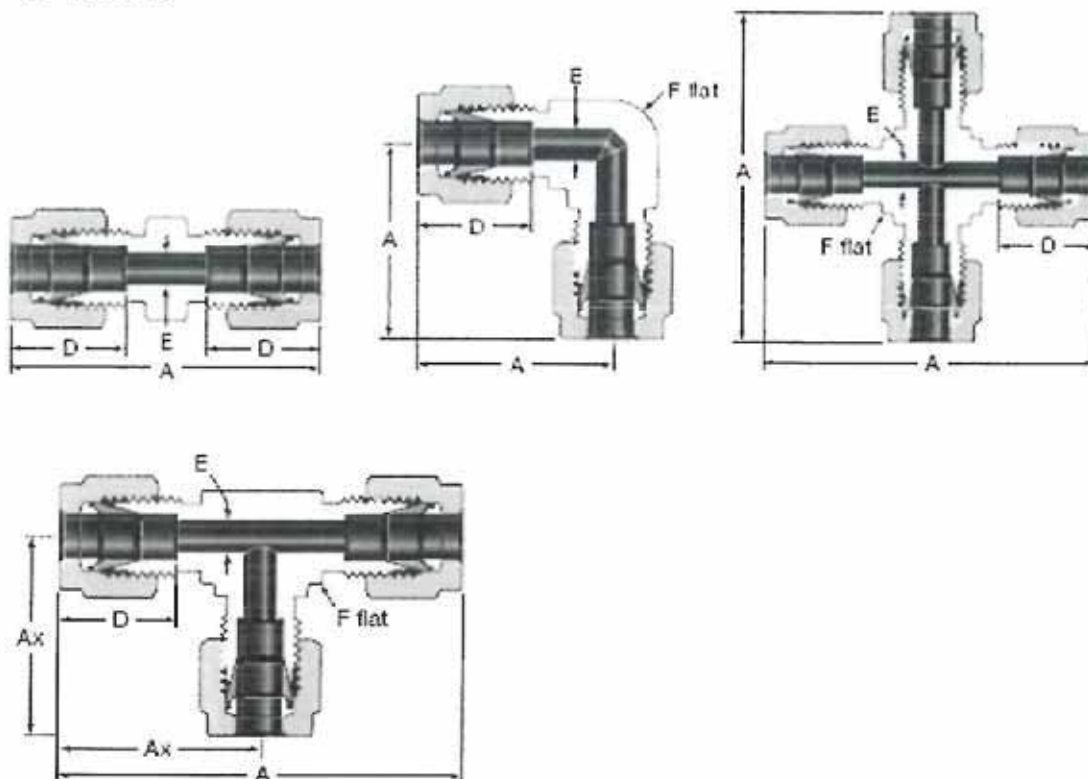
Swagelok Fittings are furnished in a variety of configurations and shapes (straight, elbow, tee or cross). Swagelok Fittings consist of at least one Swagelok End – a proprietary two-ferrule mechanical-grip design. The "Configurations" section covers a variety of other end connections.



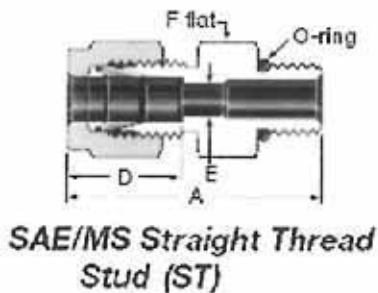
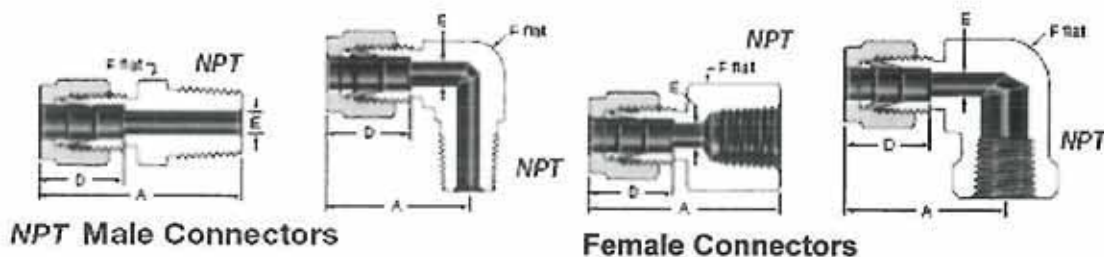
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CRN *DA 21486.5*
Technical Standards & Safety Authority
Control of Pressure Vessels
www.csa.ca

Configurations

1. Unions.



2. Male and Female connectors / adapters.



THIS IS PART OF
 GRN *OA 21486-J*
 Technical Standards & Safety Authority
 Boilers & Pressure Vessels
 Safety Program

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

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

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. 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 SAF 2507 Super Duplex Tube Fittings MS-01-174
- 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	

