

UNIFORM STATUTORY DECLARATION FORM FOR THE REGISTRATION OF FITTING DESIGNS

NEW BRUNSWICK
NUMAVUT

NOVA SCOTIA
YUKON

PRINCE EDWARD ISLAND
NORTHWEST TERRITORIES

NEWFOUNDLAND AND LABRADOR

MANUFACTURERS NAME: <u>Swagelok Company</u>	
MANUFACTURERS ADDRESS: <u>29500 Solon Road, Solon, Ohio 44139 USA</u>	
PLANT LOCATIONS: <u>Headquarters: 29500 Solon Road, Solon, Ohio 44139 USA (See Attachment A)</u>	
<p align="center">CATEGORY OF FITTINGS TO BE REGISTERED. CIRCLE ONE CATEGORY ONLY</p> <p><input checked="" type="radio"/> A) Pipe fittings, including couplings, tees, elbows, Ys, plugs, unions, pipe caps, or reducers</p> <p><input type="radio"/> B) Flanges: all flanges</p> <p><input type="radio"/> C) Valves: all line valves</p> <p><input type="radio"/> D) Expansion joints, flexible connections, and hose assemblies: all types</p> <p><input type="radio"/> E) Strainers, filters, separators, and steam traps</p> <p><input type="radio"/> F) Measuring devices, including pressure gauges, level gauges, sight glasses, levels, or pressure transmitters</p> <p><input type="radio"/> G) Certified capacity-rated pressure relief devices acceptable as primary over pressure protection on boilers, pressure vessels, piping and fusible plugs</p> <p><input type="radio"/> H) Pressure retaining components that do not fall into one of the above categories</p> <p><input type="radio"/> I) Nuclear components: Class 1 <input type="checkbox"/> Class 2 <input type="checkbox"/> Class 3 <input type="checkbox"/> (Meeting AECB or ASME requirements)</p>	<p align="center">TITLE OF THE STANDARD OF CONSTRUCTION</p> <p>ASME B31.1 for unlisted components, ASME B31.3 for unlisted components</p>
<p align="center">SHOW MANUFACTURERS NAME, TRADEMARK, OR LOGO AS IT WILL APPEAR ON THE PRODUCT</p> <p align="center" style="font-size: 2em;"><u>Swagelok</u></p>	<p align="center">TYPE OF CONSTRUCTION</p> <p>FORGED <input type="checkbox"/> WELDED <input type="checkbox"/> WROUGHT <input checked="" type="checkbox"/></p> <p>CAST <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>DESCRIBE OTHER _____</p>
<p align="center">LIST OF SUPPORTING DOCUMENTATION AND IDENTIFICATION OF THE ACTUAL ITEMS TO BE REGISTERED:</p> <p>ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents</p>	

DECLARATION:

I, Joel Feldman (true name) employed by Swagelok Company and being the person having full authority and responsibility for the quality of the end product do solemnly declare that the information contained in this form is true and to the best of my knowledge represents the product for which registration is sought. The dimensions, materials of construction, pressure temperature ratings, and identification markings are in accordance with the herein named standards. I further declare that the manufacture of these fittings is regulated by a Quality Control Program which extends to each plant where fabrication occurs in whole or in part and has been verified by BSI as being suitable for that purpose and I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

Signature of Declarer: [Signature]
 Declared before me at Solon, Ohio
 This 14th day of March AD 2019
 Commissioner of Oaths
 or Notary Public: (sign) [Signature]
(Affix Official seal to the right)

USE THIS SPACE FOR
OFFICIAL SEAL



<p align="center"><small>This space for Regulatory Authority use</small></p> <p align="center">This registration must be revalidated after ten (10) years from the date of acceptance.</p> <p>CRN: <u>0A21395.5</u></p> <p>FID#: <u>1214</u></p> <p><u>BRASS TUBE FITTINGS D6.</u></p> <p>Notes:</p> <ol style="list-style-type: none"> All fittings shall be registered in the name of the Manufacturer. Each category shall be supported with two Statutory Declaration forms and one copy of supporting documentation. The declaration shall be made by the person having full authority and responsibility for the quality of the end product. Quality control programs shall be resubmitted for validation at a maximum interval of five (5) years. <p><u>CRN EXPIRES 17/13/2029-D6.</u></p>	<p align="center">Newfoundland Labrador Service NL</p> <p>Registered <u>0A21395.50</u> Date <u>19/03/29</u> Engineering and Inspection Services Registered by <u>[Signature]</u></p> <p align="center">UNDER THE AUTHORITY OF THE PUBLIC SAFETY ACT AND THE BOILER, PRESSURE VESSEL AND COMPRESSED GAS REGULATIONS</p>
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Attachment B. Scope of Registration for Swagelok Brass, (ASTM B16 / B283), Tube Fittings (Category A)

This document represents the scope of Swagelok Brass 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 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	
Swagelok Gaugeable Tube Fittings and Adapter Fittings	Brass C36000 (ASTM B16) for straight fittings, hardware	Tube fitting 1/8" to 1-1/8", 6mm – 28 mm	See below Table	See below Table	ASME B31.3 (Unlisted Components)
		NPT Male 1/16" – 2"	5500-1900 psig	1100-380 psig @ 400°F	
		ISO-7 (tapered)(RT) Male 1/16" – 2"			3300-1900 psig
		NPT Female 1/16" - 2"	2284 – 907 psig	297 - 118 psig @ 400°F	
	ISO-7 (tapered)(RT) Female 1/16" – 2"	2500–1500 psig			500 - 300 psig @ 400°F
	UN / UNF(SAE) Stud (ST) 1/8" – 2"		2500–1250 psig	500 - 250 psig @ 400°F	
	Unified (UNJ) (AN) Male 1/8" – 1"				
	Unified (UNJ) (ANF) AN Female 1/8" – 1"				



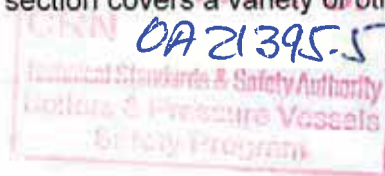
Brass Swagelok Tube Fitting Pressure Rating Table

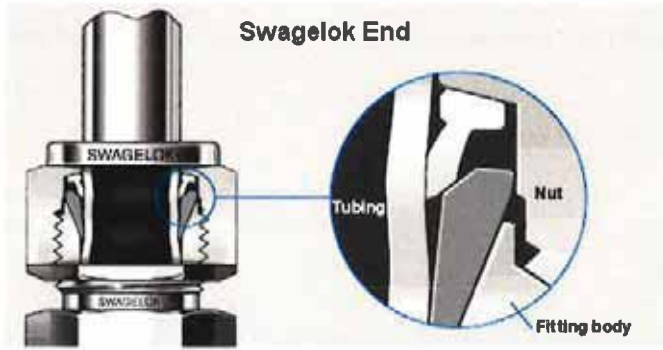
Swagelok End Connection Size	Maximum Allowable Working Pressure (1)		
	Up to 100°F	B31.3 maximum temperature 350°F	B31.1 maximum temperature 200°F
1/8	3600 psig	1800 psig	2916 psig
3/16	3400 psig	1700 psig	2754 psig
1/4	3500 psig	1750 psig	2835 psig
5/16	2700 psig	1350 psig	2187 psig
3/8	2200 psig	1100 psig	1782 psig
1/2	2100 psig	1050 psig	1701 psig
5/8	1900 psig	950 psig	1539 psig
3/4	1800 psig	900 psig	1458 psig
7/8	1500 psig	750 psig	1215 psig
1	1500 psig	750 psig	1215 psig
1 1/8	1200 psig	600 psig	972 psig
6 mm	220 bar	110 bar	178 bar
8 mm	160 bar	80 bar	130 bar
10 mm	130 bar	65 bar	105 bar
12 mm	140 bar	70 bar	113 bar
14 mm	120 bar	60 bar	97 bar
15 mm	120 bar	60 bar	97 bar
16 mm	120 bar	60 bar	97 bar
18 mm	110 bar	55 bar	89 bar
20 mm	110 bar	55 bar	89 bar
22 mm	100 bar	50 bar	81 bar
25 mm	100 bar	50 bar	81 bar
28 mm	90 bar	45 bar	73 bar

Note (1): Values based on C37700 / ASTM B283 forgings and thickest wall copper 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.

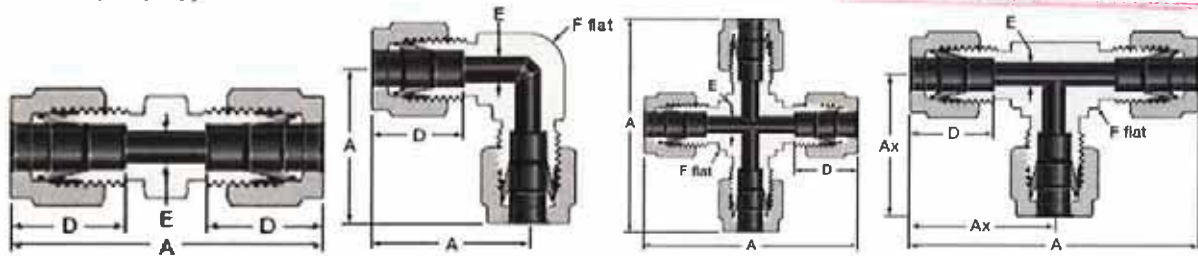




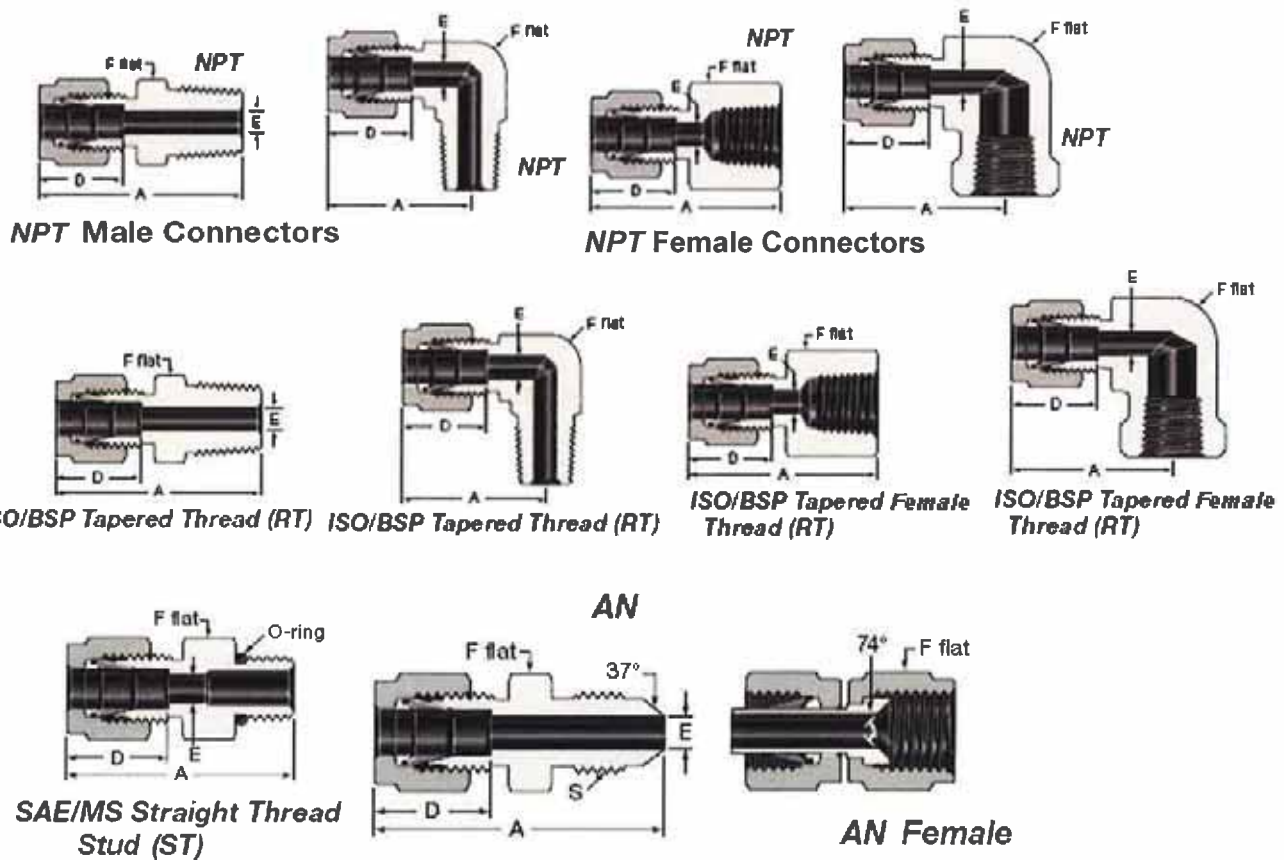
THIS IS PART OF
 GRN 0A 21395.5
 Related Standards & Safety Authority
 Industrial & Pressure Vessels
 Safety Program

Configurations (For dimensions see catalog.)

1. Unions.



2. Male and Female connectors / adapters.



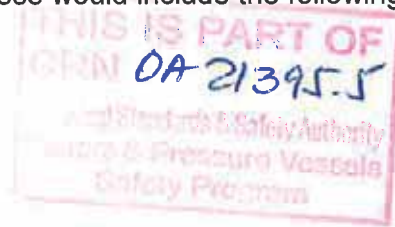
Product Options:

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 and ISO-7) 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 Limited Ballafletcher Road Tromode IM4 4RA Isle of Man

