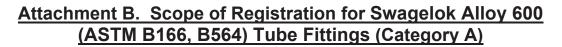
UNIFORM STATUTORY DECLARATION FORM FOR THE REGISTRATION OF FITTING DESIGNS

NEW BRUNSWICK **NOVA SCOTIA** PRINCE EDWARD ISLAND NEWFOUNDLAND AND LABRADOR NUNAVUT YUKON NORTHWEST TERRITORIES MANUFACTURERS NAME: Swagelok Company MANUFACTURERS ADDRESS: 29500 Solon Road, Solon, Ohio 44139 USA PLANT LOCATIONS: Headquarters: 29500 Solon Road, Solon, Ohio 44139 USA (See Attachment A) TITLE OF THE STANDARD OF CONSTRUCTION CATEGORY OF FITTINGS TO BE REGISTERED. CIRCLE ONE CATEGORY ONLY A) Pipe fittings, including couplings, tees, elbows, Ys, plugs, unions, pipe caps, or reducers
 B Flances: all flances. ASME B31.1 for Flanges: all flanges unlisted components, C Valves: all line valves D Expansion joints, flexible connections, and hose assemblies: all types ASME B31.3 for E Strainers, filters, separators, and steam traps unlisted components F Measuring devices, including pressure gauges, level gauges, sight glasses, levels, or pressure transmitters G Certified capacity-rated pressure relief devices acceptable as primary over pressure protection on boilers, pressure vessels, piping and fusible plugs H Pressure retaining components that do not fall into one of the above categories N Nuclear components: Class 1 ☐ Class 2 ☐ Class 3 ☐, (Meeting AECB or ASME requirements) TYPE OF CONSTRUCTION SHOW MANUFACTURERS NAME, TRADEMARK, OR LOGO AS IT WILL APPEAR ON THE PRODUCT FORGED M WELDED I WROUGHT M LIST OF SUPPORTING DOCUMENTATION AND IDENTIFICATION OF THE ACTUAL ITEMS TO BE REGISTERED: ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents DECLARATION: Swagelok Company and being the person having full authority and | Joel Feldman, Vice President, Engineering (see note 3) employed by 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 as being suitable for that purpose and I make this solemn or in part and has been verified by BSI 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: ACE FOR THE USE THIS SA Declared before me at New Nouveau OFFIC SEAL This 3rd day of Commissioner of Oaths or Notary Public: (sign) (Affix Official seal to the right) DEPT OF JUSTICE PUBLIC SAFETY This space for Regulatory Authority BOILER & PRESSURE VESSEL ACT This registration must be revalidated after ten (10) years from the date of acceptance. REGISTRATION ONLY 0A22314.5 CRN: 1214 FID#: Alloy 600 (ASTM B166, B564) Tube Fittings. Note: For B166 N06600 material the annealed bar 1. All fittings shall be registered in the finance of the Manufacturer. Each category shall be supported with two Statutory Declaration forms and one copy of supporting documentation. 3. The declaration shall be made by the person having full authority and responsibility for the quality of the end product. 4. Quality control programs shall be resubmitted for validation at a maximum interval of five (5) years. CRN expires April 3, 2030 - DG BLRs FITTINGS | NUCLEAR COMPONENTS



This document represents the scope of Swagelok Inconel Alloy 600 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

wagelok

0A22314.5

Technical Standards and Safety Authority

Boilers and Pressure Vessels Safety

	Material (Standard)	Port Connections and Sizes	Maximum Allowable Working- Pressure		Program
Product Description					Design Code of
or Series			Up to 100°F	At maximum temperature	Construction
Gaugeable Tube Fittings and Adapter Fittings	Alloy 600 (ASTM B166 / ASTM B564)	Swagelok End Connection 1/4, 3/8, 1/2 inch 6mm, 10mm, 12mm	See Table below	See Table below	ASME B31.1 (Unlisted Components)
					ASME B31.3 (Unlisted Components)
		NPT Male 1/16 - 1 inch	11 000 – 5300 psig	8800 - 4240 psig @ 900°F (482°C)	ASME B31.1 (Unlisted Components)
			11 000 – 5300 psig	3300 - 1590 psig @ 1000°F (537°C)	ASME B31.3 (Unlisted Components)
		NPT Female 1/16 - 1 inch	6700 – 4400 psig	5360 - 3520 psig @ 900°F (482°C)	ASME B31.1 (Unlisted Components)
			6700 – 4400 psig	2010 - 1320 psig @ 1000°F (537°C)	ASME B31.3 (Unlisted Components)

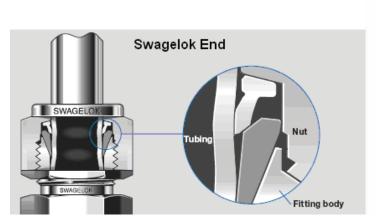
Alloy 600 Swagelok Tube Fitting Pressure Rating Table

	Maximum Allowable Working Pressure				
Swagelok End Connection Size	Up to 100°F	At maximum temperature 900°F (482°C) ASME B31.1	At maximum temperature 1000°F (537°C) ASME B31.3		
1/4	10 200 psig	5814 psig	3570 psig		
3/8	6500 psig	3705 psig	2275 psig		
1/2	5100 psig	2907 psig	1785 psig		
6mm	670 bar	381 bar	234 bar		
10mm	380 bar	216 bar	133 bar		
12mm	310 bar	176 bar	108 bar		



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 table below, as well as the "Configurations" section, covers a variety of other end connections.





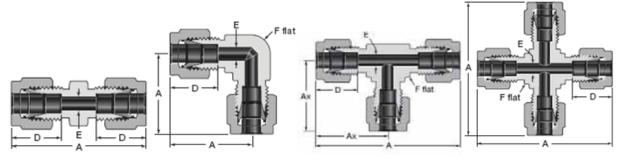
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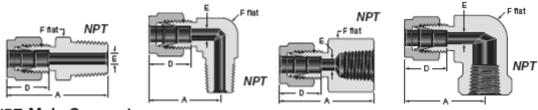
Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety
Program

Configurations

1. Unions.



2. Male and Female connectors / adapters.



NPT Male Connectors

Female Connectors

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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 Summary Table on page 1.

- Tapered pipe thread (NPT) sealant:
 - o Curable resin with PTFE
 - PTFE tape
- Bored through fittings
- 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:

- Special marking
- Special cleaning
- Wire drills
- bulkhead configurations
- 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.

Swagelok Company maintains BSI Certificate of Registration Number FM 01729, which applies to all locations listed on the Certificate.

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Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety

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 N

Attachment A. Swagelok Manufacturing Locations

This document lists the Swagelok locations where end item or component level manufacturing activities take place.

THIS IS PART OF CRN

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Technical Standards and Safety Authority

Boilers and Pressure Vessels Safety

Program

	Program		
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		