

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



W. CETTOTALING ACTION 1.	nt, Plant Manager, Chief Engineer)	
of Swagelok Company		
	anufacturer)	
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 and Pressure Vessels Regulation, comply with all of the re ASME B31.1 for unlisted components, and ASME B31.3	equirements of	s and Safety Act, Boile
(Title of recognized North	경영 [전쟁 [[전문] 이번] 한 다른데 의명 보기에 되었다.	
which specifies the dimensions, materials of construction, pressu		g the fittings and service;
pressure/temperature ratings and the basis for such ratings,	attached data which identifies the dimensio the marking of the fitting for identification	ns, material of construction and service.
further declare that the manufacture of these fittings is controlled by which has been verified by the following authority,	by a quality system meeting the requirements	ents of ISO 9001:2015
The items covered by this declaration, for which I seek registration, are ca		type fittings. In support of
his application, the following information and/or test data are attached as	(B) (C) (C)	= 0 1 25 1
ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalo	g Information and other Support Docum	nents
(drawings, calculatio	ris, leat reports, etc.)	
Declared before me at	_ in the	of
he day of AD 20_	*	
	—:	
Commissioner for Oaths:	DocuSigned by:	
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Commissioner for Oaths: Unable to get a notary signature of seal due to COVID-19 situation (Signature)	11/2 C87CBBFED3F14B	Declarer)
Commissioner for Oaths: Unable to get a notary signature of seal due to COVID-19 situation (Signature) FOR OFFICE To the best of my knowledge and belief, the application meets the requestrical Standards and Safety Act, Boilers and Pressure Vessels	11/2 C87CBBF D3F 14B (Signature of 1) E USE ONLY suirements of the	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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Commissioner for Oaths: Unable to get a notary signature of seal due to COVID-19 situation (Signature) FOR OFFICE To the best of my knowledge and belief, the application meets the requestion of the best of my knowledge and Safety Act, Boilers and Pressure Vessels CSA Standard B51 and is accepted for registration in CategoryA	11/2 C87CBBFED3F14B (signature of the seegulation, and This Document has been digitally the seed of the seed digitally the seed of the seed digitally the seed digita	Boilers and Pressure Vessels Safety Program
Commissioner for Oaths: Unable to get a notary signature of seal due to COVID-19 situation (Signature) FOR OFFICE To the best of my knowledge and belief, the application meets the requestion and Safety Act, Boilers and Pressure Vessels CSA Standard B51 and is accepted for registration in Category ACRN: OA22932.5	Technical Standards and Safety Authority This Document has been digitally signed The stamp size has been optimized for 11 x	Boilers and Pressure Vessels Safety Program

^{*}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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Program

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

This document represents the scope of Swagelok 316 Stainless Steel Pipe Fittings covered by this submission for CRN approval. These Swagelok 316 Pipe Fittings have been evaluated in accordance with ASME B31.1-2018 for unlisted components and ASME B31.3-2018 for unlisted components.

Summary Table

	Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure			
Product Description or Series			Up to 100°F (psig)	At maximum temperature per ASME B31.3 (psig)	At maximum temperature per ASME B31.1 (psig)	Design Code of Construction
Pipe Fittings (See the Configurations section for size limitations on elbows, tees, crosses, and plugs)	316 SS (ASTM A479) straight fittings	NPT Male standard design 1/16 - 2 inch	11 000 - 3900	8410 - 2980 @1000°F	6210 - 2200 @1000°F	ASME B1.20.1 is listed in both ASME B31.1 and B31.3
		NPT Female, standard design 1/16 - 2 inch	6700 - 3900	5120 - 2980 @1000°F	3780 - 2200 @1000°F	
		NPT Male and Female 10 ksi design 1/4 – 1/2 inch	10 000	7650 @1000°F	5650 @1000°F	
		NPT Male Hollow Hex Plug Design 1/8 – 1/2 inch	6600 - 4900	3720 – 2760 @1000°F	5040 – 3740 @1000°F	
		ISO-7 (tapered) (RT) Male 1/16 – 2 inch	11 000 - 3900	8410- 2980 @1000°F	6210 - 2200 @1000°F	Unlisted Component in both ASME B31.1 and
		ISO-7 (tapered) (RT) Female 1/16 - 2 inch	6700 - 3900	5120 - 2980 @1000°F	3780 - 2200 @1000°F	
		ISO-7 tapered (RT) Male Hollow Hex Plug 1/8-1/2 inch	6600 - 4900	3720 – 2760 @1000°F	5040 – 3740 @1000°F	ASME B31.3
	F316 SS (ASTM A182) shaped fittings	NPT Male and Female standard design 1/8 – 1 inch	5000 - 4000	3820 – 3060 @1000°F	2820 – 2260 @1000°F	ASME B1.20.1 is listed in both ASME B31.1 and B31.3
		ISO-7 (tapered) (RT) Male and Female 1/8 – 1 inch	5000 - 4000	3820 – 3060 @1000°F	2820 – 2260 @1000°F	Unlisted Component in both ASME B31.1 and ASME B31.3
	316 SS (ASTM A479) straight fittings	ISO/BSP (parallel) RS Male 1/8-1 inch	5800 - 3620 with FKM bonded gasket*	5800 - 3620 @400°F with FKM bonded gasket*	5800 - 3620 @400°F with FKM bonded gasket*	- Unlisted
		ISO/BSP (parallel) AG (RG) Female 1/4 – 1/2 inch	4063 with copper gasket*	4063 @400°F with copper gasket*	4063 @400°F with copper gasket*	Component in both ASME B31.1 and ASME B31.3
		UN/UNF(SAE) ST Male Stud & Female 1/8 – 1-1/2 inch	5076 – 2538*	5076 – 2538 @400°F*	5076 – 2538 @400°F*	
		Union Ball Joint (UBJ with Female NPT) 1/8 – 1 inch	8400 - 4600	6426 - 3519 @1000°F	4746 - 2599 @1000°F	
		UNJ (JIC) AN Male & Female 1/4 – 1 inch	10 000 – 5000	7600 - 3800 @1000°F	5600 - 2800 @1000°F	SAE J514 listed in ASME B31.3, unlisted in ASME B31.1



Canadian Registration Number Submittal Category A: Swagelok SS Pipe Fittings

Product Description

Swagelok Pipe Fittings are furnished in a variety of configurations and shapes (straight, elbow, tee or cross). The table above, as well as the "Configurations" section, covers a variety of other end connections.



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Configurations

1. Nipples. (Close, Hex, Adapter, Reducing, Long)
Male NPT, adapting to RT (ISO Taper), RS (ISO/BSP Parallel),
ST (SAE), and reducing to other sizes



2. Male and Female Adapters / Couplings / Reducers

Male and Female NPT, adapting to RT (ISO Taper), AG/RG (ISO/BSP Parallel), RS (ISO/BSP Parallel), ST (SAE), AN (JIC) and reducing to other sizes

Male and Female ST (SAE), adapting to AN (JIC) and reducing to other sizes



3. Elbows / Street Elbows / Tees / Street Tees / Crosses

Male and Female NPT, and reducing to other sizes Elbows, Tees and Crosses are limited to a maximum size of one-inch in stainless steel.





Canadian Registration Number Submittal Category A: Swagelok SS Pipe Fittings

4. Union Ball Joints

With Female NPT connections



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5. Caps and Plugs

Male NPT, RT (ISO Taper), ST (SAE)

Male NPT and RT Hollow Hex Plugs limited to a range of 1/8 inch to 1/2 inch.











(For dimensions see catalog.)

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. RS gaskets:
 - a. Metal-and-elastomer bonded
 - b. Non-bonded stainless steel
 - c. Copper
- 2. RG gaskets:
 - a. Copper
 - b. Nickel
 - c. PTFE
- 3. 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. Special long fitting lengths
- 5. Snubbers/frits and orifice plates
- 6. Equivalent metric or fractional hex sizes

All the above product 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.

Pipe Fittings MS-01-147, Rev Q

Attachment A. Swagelok Manufacturing Locations

This document lists the Swagelok locations where end item or component level manufacturing

activities take place.

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	Boilers and Pressure Vessels Safety		
Swagelok Company 29500 Solon Road Solon, Ohio 44139 USA	Program	Swagelok Company (Falon 1) 348 Bishop Road Highland Heights, Ohio 44143 USA	
Swagelok Company (High 318 Bishop Road Highland Heights, Ohio 44 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 (Atlar 26651 Curtiss Wright Park Willoughby Hills, Ohio 440 USA	way	Swagelok Company (Snow Metal) 6060 Cochran Road Solon, Ohio 44139 USA	
Swagelok Company (Micro 26653 Curtiss Wright Park Willoughby Hills, Ohio 440 USA	way	Swagelok Company (Alfred) 29500 Ambina Drive Solon, Ohio 44139	
Swagelok Hose Services (29900 Solon Industrial Par Solon, Ohio 44139		Swagelok Company (Strongsville) 15400 Foltz Road Strongsville, Ohio 44119	
Swagelok (China) Fluid Sy Changshu Export Process Changshu Economic Deve Changshu, Jiangshu 215513 China	Zone	Swagelok Limited Ballafletcher Road Tromode IM4 4RA Isle of Man	