

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

**Date:** April 15, 2020  
**Account #:** 35231  
**Journal #:** 75464

**Attn:** CECYLIA GARBACZ

**Re:** Application for Design Registration

The design, as detailed in your, CRN#0C22234.5, for a Fitting is accepted for registration as follows:

**Registered To:** SWAGELOK COMPANY                      **CRN:** 0C22234.51

**Drawing #:** CATALOG MS-01-164

**Drawing Revision:** N/A

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-Mar-2030. 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# 0C22234.5 registration shall apply to BC registration.

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

Emilia Tam

emilia.tam@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

Swagelok

## 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 C. Valves 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 25<sup>th</sup> day of Nov AD 20 19.

Commissioner for Oaths:  
Brenda Hammel  
(Printed name)  
Brenda Hammel  
(Signature)

**Technical Standards and Safety Authority**  
**Boilers and Pressure Vessels Safety Program**

**REGISTERED**

C.R.N.: OC 22234, 5

Signed: [Signature]

Date: March 10, 2020

**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 C

CRN: OC 22234, 5

Registered by: [Signature]

Dated: March 10, 2020

**NOTE: This registration expires on: March 10, 2030**

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

*For scope of registration see attached documents, stamped attachment A and B*



**Attachment B: Scope of Registration for Swagelok O, 1, 18, 20 and 26 Series Integral Bonnet Needle Valves (Category C)**

This document represents the scope of the Swagelok O, 1, 18, 20 and 26 Series Needle Valves covered by this submission for CRN approval. These products were designed and evaluated in accordance with ASME B31.1-2018 for unlisted components and ASME B31.3-2018 for unlisted components.

THIS IS PART OF CRN  
 0C22234.5  
 Technical Standards and Safety Authority  
 Boilers and Pressure Vessels Safety Program

**Summary Table**

Product Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections, Sizes	Maximum Rated Pressure (psig)		Design Code of Construction
				At -65 to 100°F (except Carbon Steel)	@ max. temperature	
O, 1, 18	Body	F316 SS (ASTM A182)	Tube Fitting 1/8", 1/4", 3/8", 1/2", 3/4", 3MM, 6MM, 8MM, 10MM, 12MM, 18MM Female NPT 1/8", 1/4" Male NPT 1/8", 1/4", 3/8" Female ISO 1/4"	5000	3130 @ 600°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
			Female NPT 3/8", 1/2" Female ISO 3/8", 1/2" Male NPT 1/2"	4400	2770 @ 600°F	
20, 26	Body	F316 SS (ASTM A479)	Tube Fitting 1/4", 3/8", 1/2" Female NPT 1/4" Male NPT 1/4", 3/8", 1/2", 3/4" Female ISO 1/4"	6000	3760 @ 600°F	
			Female NPT 3/8"	5300	3330 @ 600°F	
			Female NPT 1/2" Female ISO 1/2"	4900	3080 @ 600°F	
1, 18	Body	Type 1137 Carbon Steel (ASTM 181)	Tube Fitting 1/4", 3/8", 1/2", 3/4", 6MM, 8MM, 10MM, 12MM, 18MM Female NPT 1/4", 3/8", 1/2" Male NPT 1/4", 3/8", 1/2" Female ISO 1/4", 3/8", 1/2"	3000 @ -20°F to 100°F	2615 @ 350°F	
O, 1	Body	Alloy 400 (ASTM B564)	Tube Fitting 1/8", 1/4", 3/8", 1/2", 3/4", 8MM, 10MM Female NPT 1/8", 1/4" Male NPT 1/8", 1/4", Female ISO 1/4"	3000	2375 @ 500°F	



Product Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections and Sizes	Maximum Rated Pressure (psig)		Design Code of Construction
				At -65 to 100°F	@ max. temperature	
O, 1, 18	Body	Brass C37700 (ASTM B283)	Tube Fitting 1/8", 1/4", 6MM Female NPT 1/8", 1/4" Female ISO 1/4" Male NPT 1/8", 1/4", 1/2"	3000	2350 @ 200°F	ASME B31.1 (Unlisted Components)
			Tube Fitting 3/8"	2200	1760 @ 200°F	
			Tube Fitting 1/2"	2100	1680 @ 200°F	
			Tube Fitting 3/4"	1800	1440 @ 200°F	
			Tube Fitting 8MM	2320	1858 @ 200°F	
			Tube Fitting 10MM	1885	1509 @ 200°F	
			Tube Fitting 12MM	2030	1625 @ 200°F	
			Tube Fitting 18MM	1590	1277 @ 200°F	
			Female NPT 3/8" Female ISO 3/8"	2600	2340 @ 200°F	
			Female NPT 1/2" Female ISO 1/2"	2400	2160 @ 200°F	
			Tube Fitting 1/8", 1/4", 6MM Female NPT 1/8", 1/4" Female ISO 1/4" Male NPT 1/8", 1/4", 1/2"	3000	390 @ 400°F	ASME B31.3 (Unlisted Components)
			Tube Fitting 3/8"	2200		
			Tube Fitting 1/2"	2100		
			Tube Fitting 3/4"	1800		
			Tube Fitting 8MM	2300		
			Tube Fitting 10MM	1885		
			Tube Fitting 12MM	2030		
			Tube Fitting 18MM	1590		
Female NPT 3/8", 1/2" Female ISO 3/8", 1/2"	2400					

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## Product Illustrations



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Program

## Configurations

Bodies are available in straight pattern and angle pattern.

## Typical Product Characteristics:

Some of the product options listed below affect the pressure-temperature ratings shown in the Summary Table, but in all cases the ratings are less than those shown in the Summary Table. All of the following options are within the scope of this registration:

### Stem Packing Options

Polytetrafluoroethylene (PFA)  
Ultra High Molecular Weight Polyethylene (UHMWPE)  
Polyetheretherketone (PEEK)

### O-ring Stem Seal Options

Nitrile  
Ethylene Propylene  
Silicone  
Kalrez

### Stem Designs

Regulating  
PCTFE soft-seat regulating  
PTFE soft-seat regulating

Additional options and non-pressure boundary alterations that do not affect pressure-temperature ratings may be made available within the scope of this registration. Examples of these would include handle options, actuator options, etc.

## Quality System

The Swagelok Company quality system complies with the requirements of ISO 9001:2015. The Swagelok Company maintains British Standards Institution 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 registration, but rather details some of the most common options.

- O, 1, 18, 20 and 26 Series Needle Valve Catalog MS-01-164, Rev N



**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

