

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

Date: October 7, 2019
Account #: 35231
Journal #: 74332

Attn: TANYA FRANCIS

Re: Application for Design Registration

The design, as detailed in your, SR# 2530238, for a Fitting is accepted for registration as follows:

Registered To: SWAGELOK COMPANY **CRN:** 0C21141.51

Drawing #: Scope of Registration

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 22-Feb-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# 0C21141.5 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

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 07th day of December AD 2018.

Commissioner for Oaths: Jamie L. Ristau
(Printed name) Jamie L. Ristau
Resident Portago County
Notary Public, State of Ohio
My Commission Expires: 03/06/2019

Jamie L. Ristau
(Signature)

Joel 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 C

CRN: OC21141.5

Registered by: [Signature]

Dated: February 22, 2019

NOTE: This registration expires on: February 22, 2029

Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety Program

REGISTERED

C.R.N.: OC21141.5

Signed: [Signature]

Date: February 22, 2019

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

See attached the scope of registration attachment A and B

Attachment B: Scope for Swagelok 40 Series Ball Valves (Category C)

Product Scope

This document represents the scope of the 40 Series Ball Valves covered by this submission for CRN approval. These products were designed and evaluated in accordance with ASME B31.1-2016 for unlisted components and ASME B31.3-2016 for unlisted components.

Summary Table

Product Series and Configurations	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure (psig)		Design Code of Construction
				@100°F	@150°F	
41 series straight, angle, 3-way	Body	Alloy 400 N04400 (ASTM B164 or ASTM B127)	Tube Fitting 1/16", 1/8", 3MM	2500 psig	2500 psig	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
		C36000 Brass (ASTM B16)				
42 series straight, angle, 3-way	Body	Alloy 400 N04400 (ASTM B164 or ASTM B127)	Tube Fitting 1/4", 6MM Female NPT 1/8"	2500 psig	2500 psig	
		C36000 Brass (ASTM B16)				
43 series Straight	Body	Alloy 400 N04400 (ASTM B164 or ASTM B127)	Tube Fitting 1/4", 6MM, 8MM Female NPT 1/4" Female ISO 1/4"	3000 psig	3000 psig	
		C36000 Brass (ASTM B16)	Tube Fitting 1/4", 6MM, 8MM Female NPT 1/4" Female ISO 1/4"	2000 psig	2000 psig	
43 series angle, 3-way, 4-way crossover, 5-way switching	Body	316SS (ASTM A479)	Tube Fitting 1/4", 6MM, 8MM Female NPT 1/4" Female ISO 1/4" Male VCR Fitting 1/4"	2500 psig	2500 psig	
		Alloy 400 N04400 (ASTM B164 or ASTM B127)	Tube Fitting 1/4", 6MM, 8MM Female NPT 1/4" Female ISO 1/4"	2500 psig	2500 psig	
		C36000 Brass (ASTM B16)	Tube Fitting 1/4", 6MM, 8MM Female NPT 1/4" Female ISO 1/4"	2000 psig	2000 psig	
43 series 6-way crossover, 7-way switching	Body	316SS (ASTM A479)	Tube Fitting 1/4", 6MM, 8MM Female NPT 1/4" Female ISO 1/4" Male VCR Fitting 1/4" (316 SS only)	500 psig	500 psig	
		Alloy 400 N04400 (ASTM B164 or ASTM B127)				
		C36000 Brass (ASTM B16)				

THIS IS PART OF
 CRN DC 21141.5
 Technical Standards & Safety Authority
 Approval of Pressure Vessels
 Safety Program

Swagelok

Canadian Registration Number Submittal #40-BALL-2018
 Category C: Swagelok 40 Series Ball Valve

Date: February 19, 2019
 Page 2 of 3

Product Series and Configurations	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure (psig)		Design Code of Construction	
				@100°F	@150°F		
44 series straight	Body	316SS (ASTM A479)	Tube Fitting 3/8", 10MM Female NPT 1/4", 3/8" Female ISO 3/8"	2500 psig	2500 psig	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)	
		Alloy 400 N04400 (ASTM B164 or ASTM B127)					
		C36000 Brass (ASTM B16)		Tube Fitting 3/8"	2200 psig		1980 psig
				Tube Fitting 10MM Female NPT 1/4", 3/8" Female ISO 3/8"	1885 psig		1508 psig
44 series angle, 3-way	Body	316SS (ASTM A479)	Tube Fitting 3/8", 10MM Female NPT 1/4", 3/8" Female ISO 3/8"	1500 psig	1500 psig		
		Alloy 400 N04400 (ASTM B164 or ASTM B127)					
		C36000 Brass (ASTM B16)					
45 series straight	Body	316SS (ASTM A479)	Tube Fitting 1/2", 3/4", 12MM Female NPT 1/2" Female ISO 1/2"	2500 psig	2500 psig		
		Alloy 400 N04400 (ASTM B164 or ASTM B127)					
		C36000 Brass (ASTM B16)	Tube Fitting 1/2"	2100 psig	1890 psig		
			Tube Fitting 3/4"	1800 psig	1620 psig		
			Tube Fitting 12MM Female NPT 1/2" Female ISO 1/2"	2030 psig	1620 psig		
45 series angle, 3-way, 4-way crossover, 5-way switching	Body	316SS (ASTM A479)	Tube Fitting 1/2", 3/4", 12MM Female NPT 1/2" Female ISO 1/2"	1500 psig	1500 psig		
		C36000 Brass (ASTM B16)					
45 series angle, 3-way	Body	Alloy 400 N04400 (ASTM B164 or ASTM B127)	Tube Fitting 1/2", 12MM Female NPT 1/2"	1500 psig	1500 psig		

IS PART OF
 0021141.5
 Standards & Safety Authority
 Pressure Vessels
 1 1/2" 1000

Product Illustration



Configurations

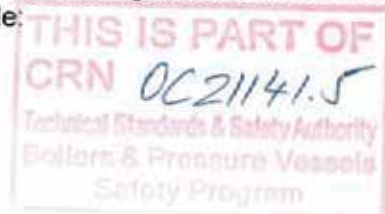
Bodies are available in several port configurations from 2 to 7 ports. Illustrations of the some of these types are shown above in the product illustration.

Product Options:

The above summary table shows the options within scope of this registration. The scope includes live loaded PFA packing 40T series and UHMWPE packing 40E series, as the valve body design remains the same for all options.

Additional options that do not affect pressure and/or temperature ratings are also available within the scope of this approval. Examples of these include:

- Vented bodies
- Handle options
- Pneumatic actuators



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 registration, but rather details some of the most common options.

- 40 Series Ball Valve Catalog MS-02-331, Rev. J

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

