

(a) Design Qualification

# **REGISTERED**



CRN: CSA-0C21141.56

Statutory Declaration Registration of Fittings
Registration Process administered by CSA Group per CSA B51

1 <sup>1</sup> Joel Feldman							
Vice President, Engineering							
(Position eg, president, plant manager, chief eng.)							
Of Swagelok Company							
(name of company)							
Located at Headquarters: 29500 Solon Road, Solon, Ohio 44139 USA (See Attachment A) (plant address)							
do solemnly declare that the fittings listed hereunder, which are subject to the Boilers & Pressure Vessels Act:							
comply with all the requirements of the ANSI/ASME codes as to their dimensions, material, identification & service for which are required:  Or							
are not covered by the provisions of the ANSI/ASME codes, and are therefore constructed to comply with code and standard, and are designed to the best current engineering practice, as shown by the supporting test data.							
(b) Quality control of Manufacture  I further declare the manufacture of these fittings is controlled by a quality control program which complies with the requirements of ISO 9001:2015 , and has been verified by the following authority or authorized agency BSI							
The fittings <sup>2</sup> covered by this declaration, for which I seek registration, are Category C. Valves							
In support of the application, the following information, calculations and/or test data are attached:  ISO 9001:2015 Certificate, Attachment A. Attachment B. Catalog Information and other Support Documents							
Declared before me at							
The Day of December AD 19 2018  Motary Public, State of Ohio My Commission Expires: 03/06/2019							
In mis of December ADJA acts							
A (commissioner for oaths)  Signature of Declarer <sup>3</sup>							
For Official Use Only							
The application is accepted for registration in Category in accordance with the Boilers and Pressure Vessels Act and CSA Standard B51.							
This registration must be revalidated after ten (10) years from the date of acceptance. Feb - 22 - 202 9							
Registered Number CRN CSA - OC 2 11 4 1 . 56 For the Carin Date P.W. Barnes Date Group May . 29 . 2019							

Three completed copied of Statutory Declaration form together with three copies of Catalogs, drawings of Bulletins illustrating above fittings shall be submitted.

All fittings are required to be registered in the name of the Manufacturer.

This form shall be completed and signed by the president of highest official in the manufacturing plan where the fitting is produced.

Swagelok

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# 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 Gode of Construction
				@100'E	@150'F	
41 series straight, angle, 3-way	Body	Alloy 400 N04400 (ASTM B164 or ASTM B127)	Tube Fitting 1/15", 1/8", 3MM	2500 psig   2	2500 psig	
		C36000 Brass (ASTM B16)	· .		His	SPART
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	Praicel Star 2500 psig	UC 21141. Vocation Vocation Vocation
		C36000 Brass (ASTM B16)				Pri Program
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	ASME B31.1 (Unlisted Components) and
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	ASME B31.3 (Unlisted Components)
		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		10	F4
		Alloy 400 N04400 (ASTM B164 or ASTM B127)	Female NPT 1/4" Female ISO 1/4" Male VCR Fitting	500 psig	500 psig	<i>y</i>
		C36000 Brass (ASTM B16)	C.R.N.:	SA-0	2/14	41.16

178 Residate Boulevard, Toronto, ON Canada M9W 1R3

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Product Series and Configurations	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure (psig)		Design Gode of Construction
				@100°F	@150°F	
44 series straight	Body	316SS (ASTM A479)	Tube Fitting 3/8", 10MM	2500 psig	2500 psig	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)  IS PART OC 2/14/.
		Alloy 400 N04400 (ASTM B164 or ASTM B127)	Female NPT 1/4", 3/8" Female ISO 3/8"			
			Tube Fitting 3/8"	2200 psig	1980 psig	
		C36000 Brass (ASTM B16)	Tube Fitting 10MM	1885 psig	1508 psig	
			Female NPT 1/4", 3/8" Female ISO 3/8"	2500 psig	2500 psig	
44 series angle, 3-way	Body	316SS (ASTM A479)	Tube Fitting 3/8", 10MM Fernale NPT 1/4", 3/8" Fernale 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	620 psig	
			Tube Fitting 12MM	2030 psig	1620 psig	
			Female NPT 1/2" Female ISO 1/2"	2400 psig	2307 psig	
45 series angle, 3-way, 4-way crossover, 5-way switching	Body	316SS (ASTM A479)	Tube Fitting 1/2", 3/4", 12MM	1500 psig	1500 psig	
		C36000 Brass (ASTM B16)	Female NPT 1/2" Female ISO 1/2"			
45 series angle, 3-way	Body	Alloy 400 N04400 (ASTM B164 or ASTM B127)	Tube Fitting 1/2", 12MM Fernale NPT 1/2"	1500 psig	1500 psig	



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#### **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 THIS IS PART OF

- 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.

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 TO

tical Standarda & Safety Authority iciieto & Piccourt V ecale

178 Revidale Boulevard, Toronto, UN Canada MSW 1R3

# 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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Swagelok Company 29500 Solon Road	Swagelok Company (Falon 1) 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
Swagelok Company (OFC)	Swagelok Company (HPF)
29495 F.A. Lennon Drive Solon, Ohio 44139	6050 Cochran Road Solon, Ohio 44139
USA	USA
Swagelok Company (Atlantic)	Swagelok Company (Snow Metal)
26651 Curtiss Wright Parkway	6060 Cochran Road
Willoughby Hills, Ohio 44092   USA	Solon, Ohio 44139 USA
USA	USA
Swagelok Company (Micro)	Swagelok Company (Alfred)
26653 Curtiss Wright Parkway Willoughby Hills, Ohio 44092	29500 Ambina Drive
USA	Solon, Ohio 44139
Swagelok Hose Services Company (SHSC) 29900 Solon Industrial Parkway	Swagelok Company (Strongsville) 15400 Foltz Road
Solon, Ohio 44139	Strongsville, Ohio 44119
Swagelok (China) Fluid System Technologies Ltd. Changshu Export Process Zone	Swagelok Limited Ballafletcher Road
Changshu Economic Development Zone	Tromode
Changshu, Jiangshu	IM4 4RA
215513 China	Isle of Man

