

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)				

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 178 Roxdale Boulevard, Toronto, ON Canada M9W 1R3

Swagelok

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

Date: February 19, 2019
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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 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	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 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	

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Product Illustration



Configurations

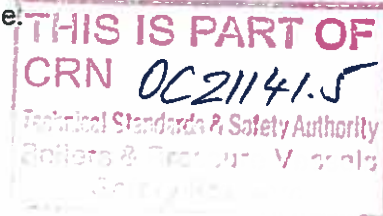
Bodies are available in several port configurations from 2 to 7 ports. Illustrations of the some of these types are shown above in the product illustration.

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:

- Vented bodies
- Handle options
- Pneumatic actuators



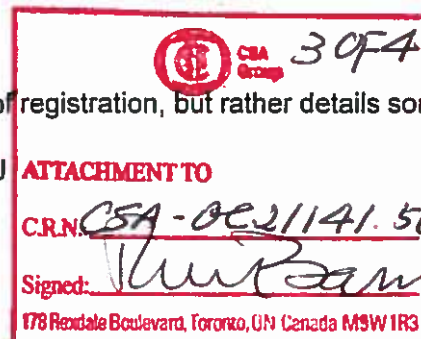
Quality System

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

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