

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

Date: May 31, 2018
Account #: 35231
Journal #: 70873

Attn: TANYA FRANCIS

Re: Application for Design Registration

The design, as detailed in your, TSSA SR# 2313150, for a Fitting is accepted for registration as follows:

Registered To: SWAGELOK COMPANY **CRN:** 0C20294.51

Drawing #: MS-01-176 (Product Cat'g)

Drawing Revision: R11

Conditions Of Registration:

Reg'n of CH Series Check Valves (Category C) per att'd scope of reg'n sheets (2 pgs+ mfg loc sht).

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 April 24, 2028. 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.

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

SHARON PETERS

boiler.designregistration@technicalsaftybc.ca
Design Administration

cc:

Attachment B. Scope of Registration for Swagelok CH Series Check Valves (Category C)


Product Scope

This document represents the scope of Swagelok® CH Series Check Valves covered by this submission for CRN approval. These products were designed and evaluated in accordance with ASME B31.1 for unlisted components and ASME B31.3 for unlisted components.

Summary Table

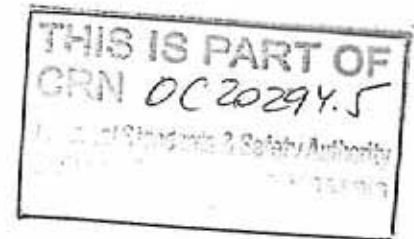
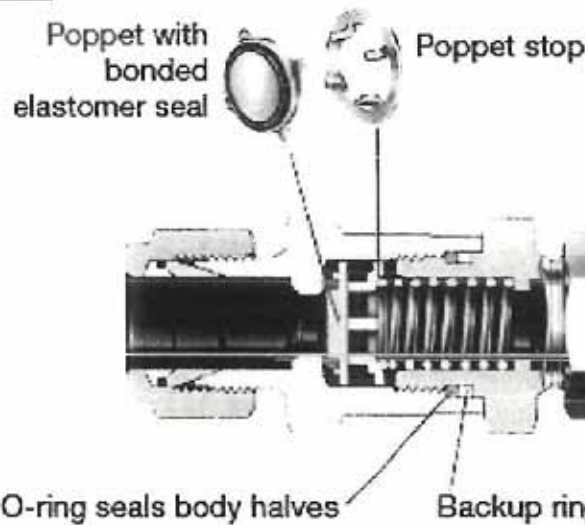
Product Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure (psig)		Design Code of Construction
				@100°F	@Max. Temp	
CH4	Body	316 SS (ASTM A479)	Tube Fitting 1/8", 1/4", 6MM Female NPT 1/4" Male NPT 1/4" Female ISO 1/4" Male ISO 1/4" Male VCO fitting 1/4" Male VCR fitting 1/4"	6000 psig	4280 psig @ 400°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
			AN (Army/Navy) fitting 1/4"	5000 psig	3575 psig @ 400°F	
CH4	Body	Alloy 400/405 (UNS N04400/N04405) (ASTM B164)	Tube Fitting 1/8", 1/4", 6MM	5000 psig	5000 psig @ 300°F	
CH8	Body	316 SS (ASTM A479)	Tube Fitting 3/8", 1/2", 8MM, 10MM, 12MM Male NPT 3/8", 1/2" Male ISO 1/2" Male VCO Fitting 1/2"	6000 psig	4280 psig @ 400°F	
			Female NPT 3/8"	5300 psig	3789 psig @ 400°F	
			Female ISO 1/2" Female NPT 1/2"	4900 psig	3503 psig @ 400°F	
			Female SAE/MS 1/2" Male SAE/MS 1/2"	4568 psig	4280 psig @ 400°F	
			Male VCR fitting 1/2"	4300 psig	3074 psig @ 400°F	
CH8	Body	Alloy 400/405 (UNS N04400/N04405) (ASTM B164)	Tube Fitting 3/8", 8MM	5000 psig	5000 psig @ 300°F	
			Tube Fitting, 10MM	5000 psig	4215 psig @ 300°F	
			Tube Fitting 1/2"	4400 psig	3652 psig @ 300°F	
			Tube Fitting 12MM	4200 psig	3493 psig @ 300°F	
CH16	Body	316 SS (ASTM A479)	Tube Fitting 3/4" Male NPT 3/4", 1" Male ISO 3/4", 1" Male VCO Fitting 3/4",	5000 psig	3560 psig @ 400°F	
			Tube Fitting, 22MM	4900 psig		
			Tube Fitting 1"	4700 psig		
			Tube Fitting 25MM	4640 psig		

THIS IS PART OF
 CRN 0C20294.5
 Technical Standards & Safety Authority
 Pressure Vessels
 Safety Program


TECHNICAL SAFETY BC
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Product Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections and Sizes	Maximum Allowable Working Pressure (psig)		Design Code of Construction
				@100°F	@Max. Temp	
CH16	Body	316 SS (ASTM A479)	Male VCO Fitting, 1"	4700 psig	3120 psig @ 400°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
			Female NPT 3/4" Female ISO 3/4"	4600 psig	3289 psig @ 400°F	
			Female NPT 1" Female ISO 1"	4400 psig	3146 psig @ 400°F	
			Male VCR fitting 3/4"	3700 psig	2645 psig @ 400°F	

Product Illustration



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Typical Product Characteristics:

Additional options that do not affect pressure-temperature ratings may be made available within the scope of this registration. Examples of these would include, but not be limited to, poppet springs, lubricants, and body seal materials.

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.

Special Ordering Instructions

None

References

The following product catalog does not represent the full scope of registration, but rather details some of the most common options.

- Check Valves MS-01-176, R11

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 Company A.G. (European Technology Center) St. GallerstraBe 84 Lachen, Switzerland 8853 Switzerland
Swagelok Limited Tromode IM4 4RA Isle of Man	



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