

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

Date: March 11, 2019
Account #: 35231
Journal #: 72762

Attn: TANYA FRANCIS

Re: Application for Design Registration

The design, as detailed in your, 2497620, for a Fitting is accepted for registration as follows:

Registered To: SWAGELOK COMPANY **CRN:** 0C21018.51

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-Jan-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# 0C21018.5 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:

Attachment B: Scope of CRN Registration for Swagelok Bellows-Sealed, B Series Valves (Category C)

Product Scope

This document represents the scope of Bellows-Sealed, B Series Valves covered by this submission for CRN approval. These Bellows-Sealed, B Series Valves have been evaluated in accordance with ASME B31.1 and B31.3 for unlisted components.

Table 1 – Summary Table

Product Series	Main Pressure Bearing Component	Main Pressure Bearing Material	Port Connections and Sizes	Maximum Allowable Working Pressure		Design Code of Construction
				@100°F	At Max. Temp.	
4B, 6B, 8B (*see below)	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4" Male VCR 1/4", 1/2"	1000 psig	BG ¹ :400 psig@600°F BW ² :200 psig@900°F BK ³ :830 psig@200°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
		Alloy 400 N04400 (ASTM B164)	Butt Welded Female VCR 1/4", 1/2"	700 psig	BG ¹ :375 psig@500°F BW ² :375 psig@500°F BK ³ :610 psig@200°F	
		Brass C36000 (ASTM B16)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4"	1000 psig	BG ¹ :150 psig@400°F BK ³ :710 psig@200°F	
4BK, 6BK, 8BK (1 Series Air Actuated)	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4" Male VCR 1/4", 1/2" Butt Welded Female VCR 1/4", 1/2"	Normally closed: 125 psig Normally open: 500 psig Double actuating: 700 psig	Max temp = 200°F, WP same as 100°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
		Alloy 400 N04400 (ASTM B164)			Normally closed: 125 psig@200°F Normally open: 500 psig@200°F Double actuating: 610 psig@200°F	
		Brass C36000 (ASTM B16)	Tube Fitting 1/4", 3/8", 1/2", 6mm, 10mm, 12mm Tube Socket & Butt Weld 1/4", 3/8", 1/2", 3/4"		Max temp = 200°F, WP same as 100°F	

* Mode of operation: hand operated and 3 series air actuated (all materials), 5 series air actuated (316 and Alloy 400 only)

¹ BG Series has a gasket body-to-bellows seal

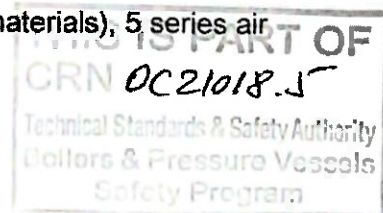
² BW Series has a welded body-to-bellows seal

³ BK Series has a PCTFE (soft) stem tip and a gasket bonnet seal

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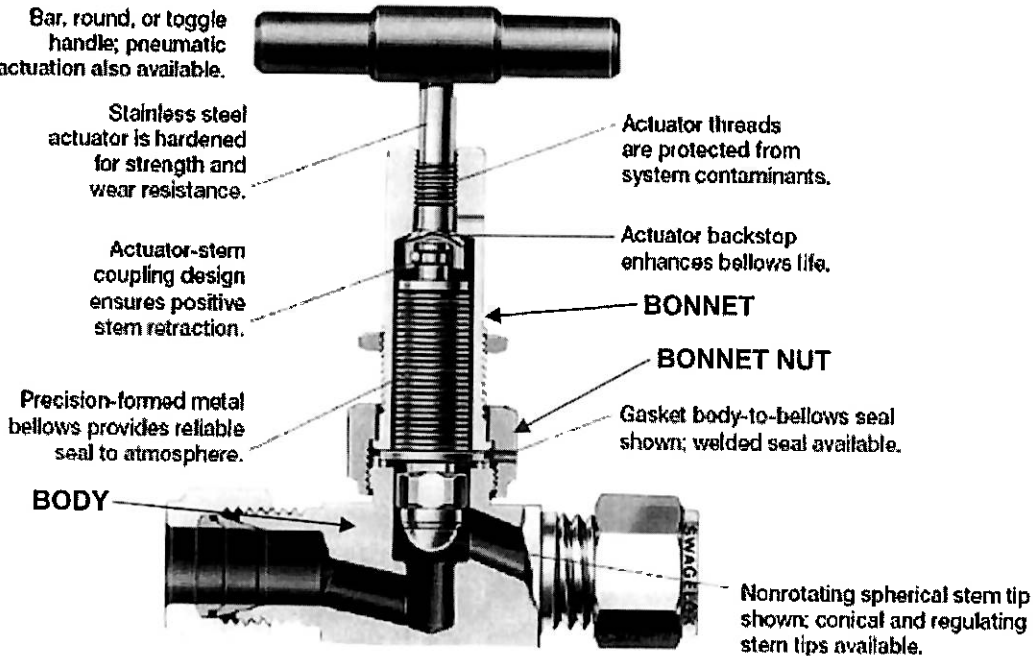
BC J#: 72762



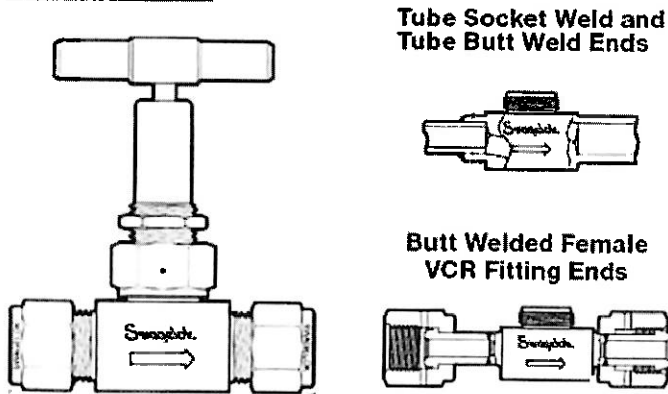
Product Description

All B Series Valves have the same features as shown below.

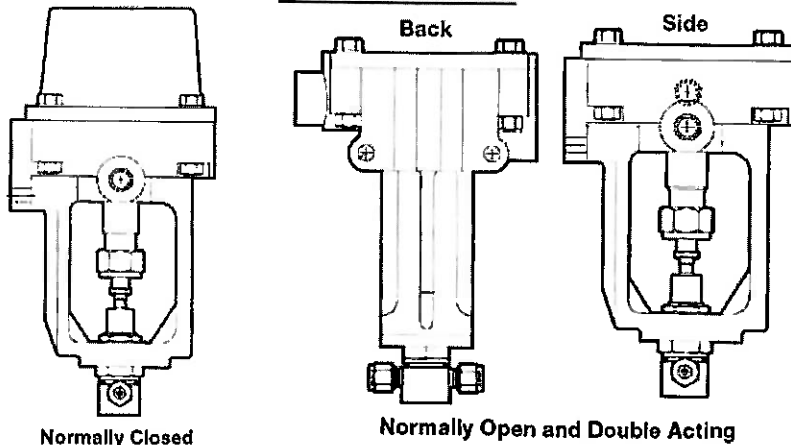
Bar, round, or toggle handle; pneumatic actuation also available.



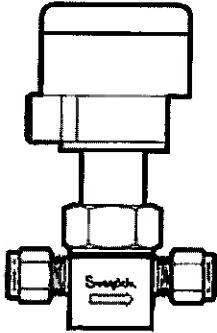
Configurations



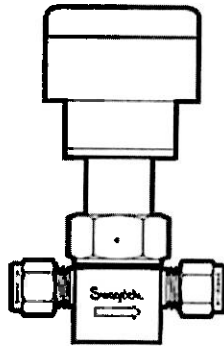
5 Series Actuator



1 Series Actuator



**Normally Closed
and Double Acting**



Normally Open

Product Options:

The B Series valve stem tips and gaskets listed below affect pressure and/or temperature ratings shown in the above Summary Table, but in all cases the ratings are less than those shown below:

Stem Tips

- Alloy K-500 (regulating)
- Alloy K-500 (conical)
- Chrome-plated 316 SS (regulating)
- Cobalt-based alloy (spherical)
- PCTFE (conical)

Gaskets

- PTFE-coated 316 SS
- Silver-plated 316 SS
- PTFE-coated alloy 400
- Silver-plated alloy 400

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, but not be limited to, handle options, indicator switches, actuators, 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 the registration but rather details some of the most common options.

- Bellows-Sealed Valves, B Series Catalog – MS-01-22, R13

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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THIS IS PART OF
 CRN OC21018.5
 Technical Standards & Safety Authority
 Boilers & Pressure Vessels
 Safety Program