

STATUTORY DECLARATION Registration of Fittings

In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting. Swagelok

I, Joel Feldman, Vice President of Engineering of Swagelok Company

located at 29500 Solon Road, Solon, Ohio 44139 USA (see Attachment A)

do solemnly declare that the fittings listed hereunder, which are subject to the Safety Codes Act (check one)

- comply with the requirements of ASME B31.1 and ASME B31.3 which specifies the dimensions, materials of construction, pressure/temperature ratings and identification marking of the fittings, or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with...

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, BSI as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are

Category C Type Fittings

In support of this 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 Solon in the State of Ohio

this 07th day of December, 2018

(print) Jamie L Ristau (a Commissioner of Oaths or Notary Public) My Commission Expires: 03/06/2019

(signature of applicant)

For ABSA Office Use Only:

NOTES: See attachment sheets Attachments A & B for scope of Registration

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category C

Registration Number: 0C21140-52

Date Registered: APR 01 2019 Expiry Date: February 22, 2029

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

This document represents the scope of Swagelok's U Series Bellows-Sealed Valves covered by this submission for CRN approval. These valves were designed and evaluated in accordance with ASME B31.1:2016 for unlisted components and B31.3:2016 for unlisted components.

Table 1 – Summary Table

Product Description or Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections and Sizes	Maximum Rated Pressure			Design Code of Construction
				At 100°F	Maximum Temperature		
				UG & UW	UG ¹	UW ²	
4U	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Fitting 1/4", 6mm Tube Socket Weld 1/4" Butt Weld 3/8"	2500 psig	2500 psig @ 650°F	250 psig @ 1200°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
			Female VCR 1/4"	2500 psig	2500 psig @ 650°F	480 psig @ 1000°F	
6U	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Fitting 3/8", 10mm Tube Socket Weld 3/8" Butt Weld 1/2"	2500 psig	2500 psig @ 650°F	250 psig @ 1200°F	
			Female VCR 1/2"	2500 psig	2500 psig @ 650°F	480 psig @ 1000°F	
8U	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Fitting 1/2", 12mm Tube Socket Weld 1/2" Butt Weld 3/4"	2500 psig	2500 psig @ 650°F	250 psig @ 1200°F	
			Female VCR 1/2"	2500 psig	2500 psig @ 650°F	480 psig @ 1000°F	
12U	Body, Bonnet, Bonnet nut	316 SS (ASTM A479)	Tube Socket Weld 3/4" Pipe Butt Weld 3/4" Tube Butt Weld 1"	2500 psig	2500 psig @ 650°F	250 psig @ 1200°F	

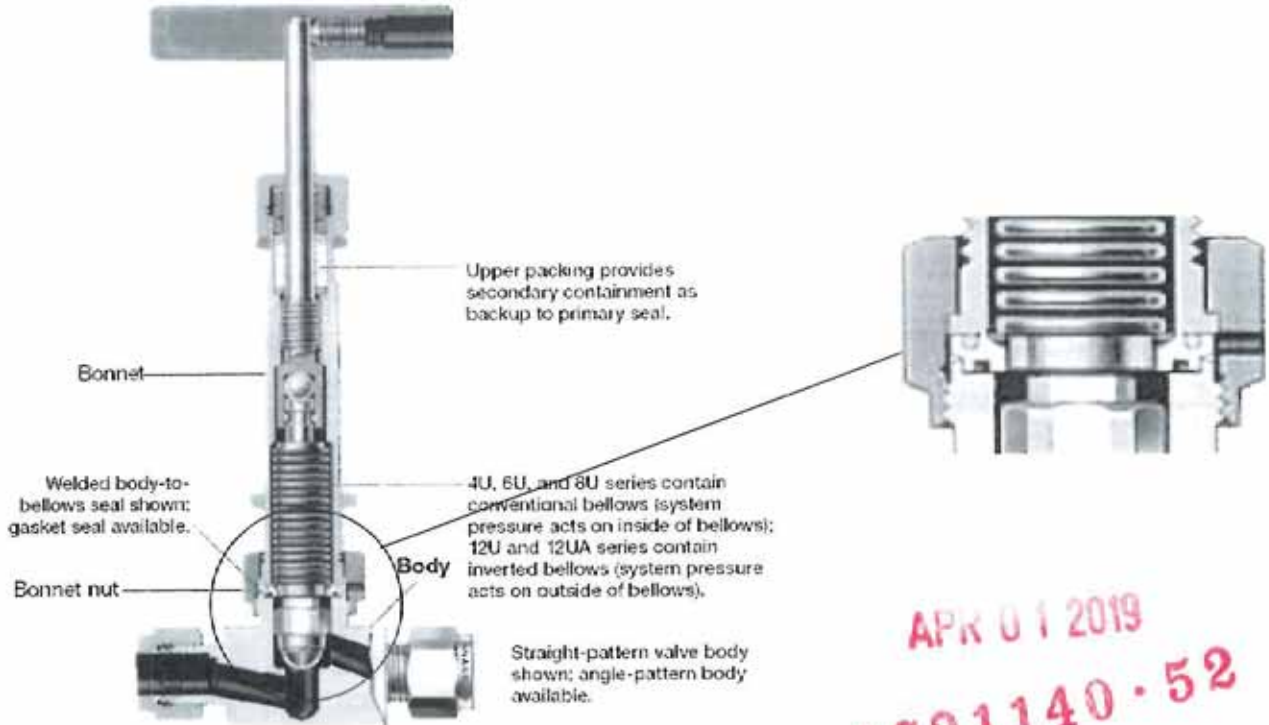
¹ – U-Series with a gasket bonnet seal

² – U-Series with a welded bonnet seal



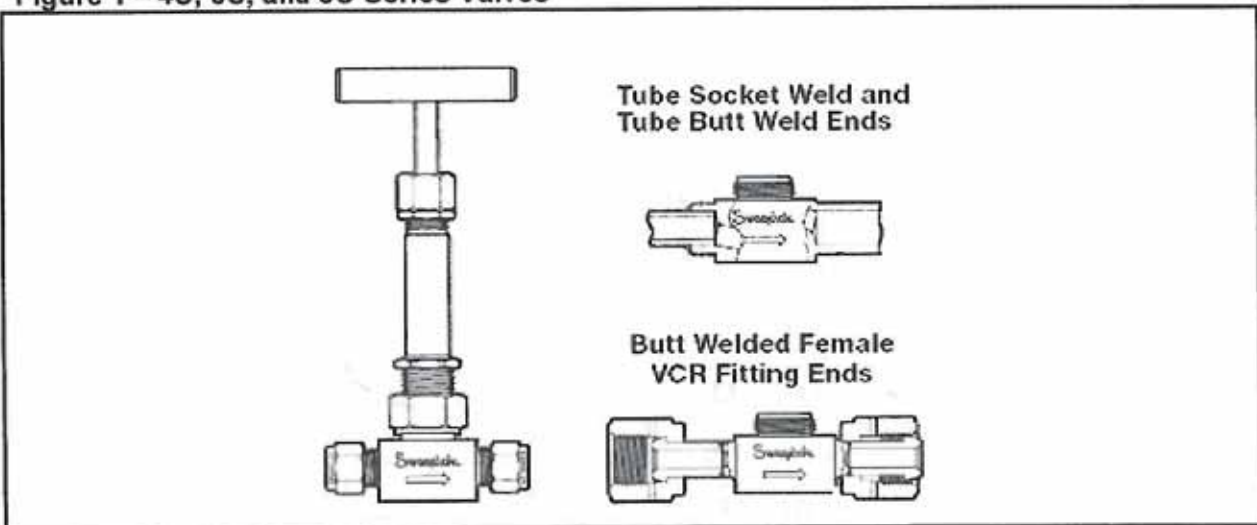
Figure 1 – Pressure Retaining Components (typical 4U, 6U, or 8U hand operated valve)

Although the 12U Series Valve has a different internal design, all U Series Valves have the same configuration for pressure retaining components as shown below. The pressure retaining shell is made up of the body, the bonnet nut, and the bonnet as noted.



Bellows-Sealed, U Series Valve Configurations

Figure 1 – 4U, 6U, and 8U Series Valves



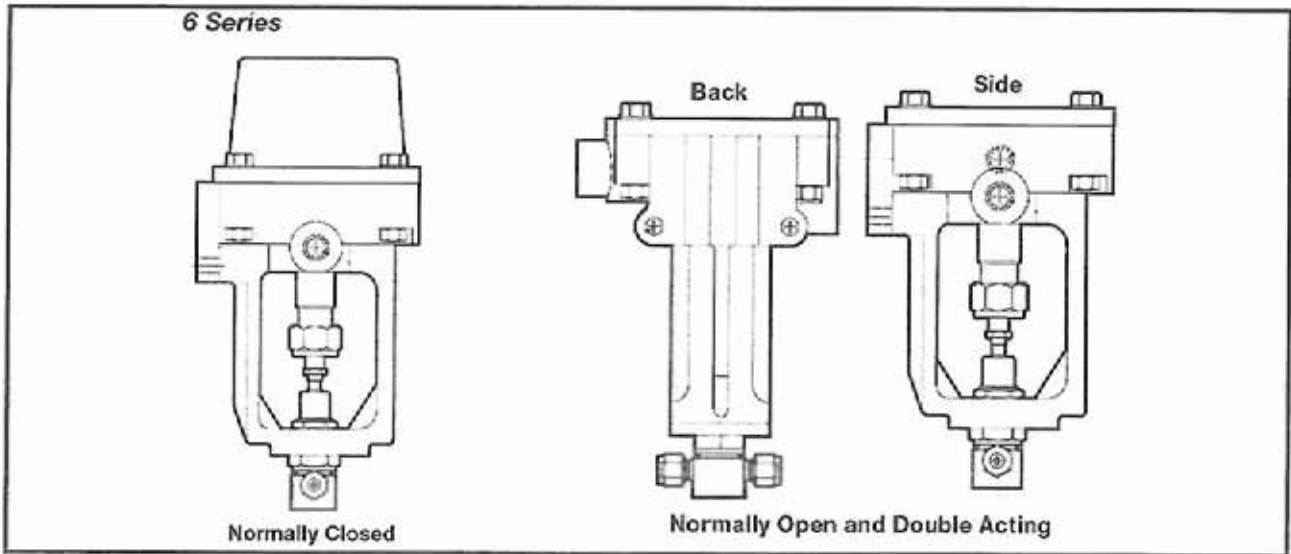
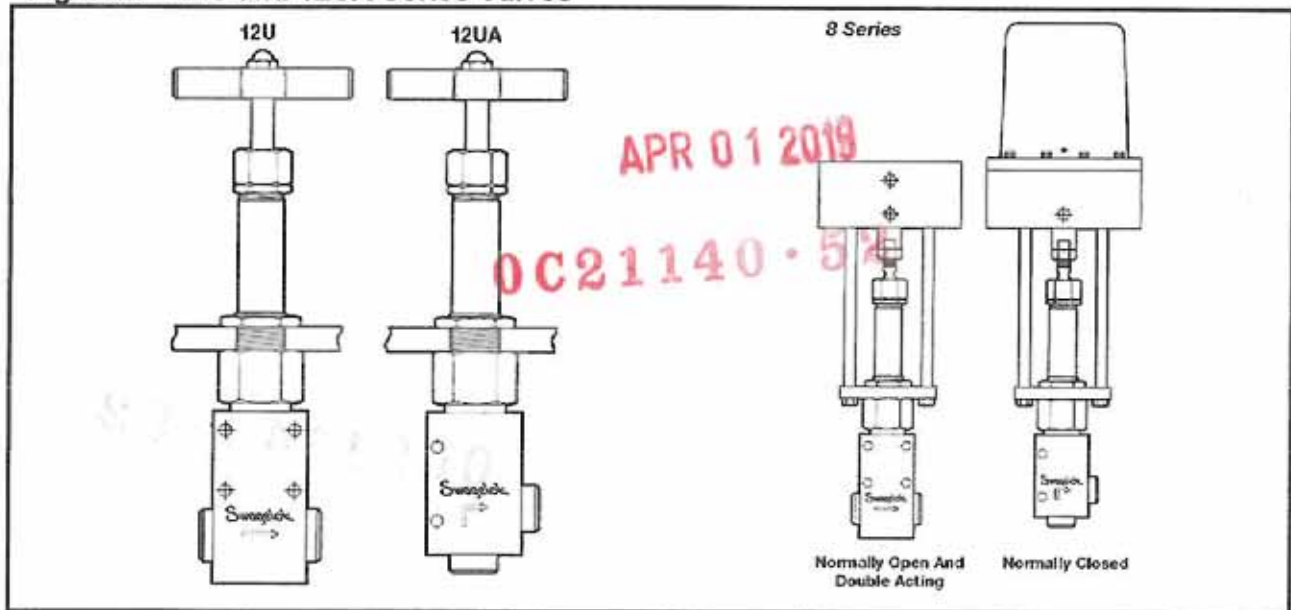


Figure 2 – 12U and 12UA Series Valves



Product Options:

The U 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:

- | <u>Stem Tips</u> | <u>Gaskets</u> |
|--|---|
| <ul style="list-style-type: none">• 316 SS (regulating)• Cobalt-based alloy (spherical)• PCTFE/D1430 (cylindrical)• Polyimide (conical) | <ul style="list-style-type: none">• PTFE-coated 316 SS• Silver-plated 316 SS |

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. The Sealed-Bellows, U Series Valves are made at a Swagelok Company location in Solon, Ohio.

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, U Series Catalog – MS-01-38 Rev J

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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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