

**UNIFORM STATUTORY DECLARATION FORM FOR THE REGISTRATION OF FITTING DESIGNS**

NEW BRUNSWICK  
NUNAVUT

NOVA SCOTIA  
YUKON

PRINCE EDWARD ISLAND  
NORTHWEST TERRITORIES

NEWFOUNDLAND AND LABRADOR

|  |   |
|--|---|
| MANUFACTURERS NAME: <u>Swagelok Company</u>  |   |
| MANUFACTURERS ADDRESS: <u>29500 Solon Road, Solon, Ohio 44139 USA</u>  |   |
| PLANT LOCATIONS: <u>Headquarters: 29500 Solon Road, Solon, Ohio 44139 USA (See Attachment A)</u>   |   |
| CATEGORY OF FITTINGS TO BE REGISTERED. CIRCLE ONE CATEGORY ONLY<br>A Pipe fittings, including couplings, tees, elbows, Ys, plugs, unions, pipe caps, or reducers<br>B Flanges: all flanges<br>C Valves: all line valves<br>D Expansion joints, flexible connections, and hose assemblies: all types<br>E Strainers, filters, separators, and steam traps<br>F Measuring devices, including pressure gauges, level gauges, sight glasses, levels, or pressure transmitters<br>G Certified capacity-rated pressure relief devices acceptable as primary over pressure protection on boilers, pressure vessels, piping and fusible plugs<br>H Pressure retaining components that do not fall into one of the above categories<br>N Nuclear components: Class 1 <input type="checkbox"/> Class 2 <input type="checkbox"/> Class 3 <input type="checkbox"/> . (Meeting AECB or ASME requirements) | TITLE OF THE STANDARD OF CONSTRUCTION<br><br>ASME B31.1 for<br>unlisted components,<br>ASME B31.3 for<br>unlisted components  |
| SHOW MANUFACTURERS NAME, TRADEMARK, OR LOGO AS IT WILL APPEAR ON THE PRODUCT<br><br><div style="text-align: center; font-size: 2em; font-family: cursive;">Swagelok</div>  | TYPE OF CONSTRUCTION<br>FORGED <input type="checkbox"/> WELDED <input type="checkbox"/> WROUGHT <input type="checkbox"/><br>CAST <input type="checkbox"/> OTHER <input type="checkbox"/><br>DESCRIBE OTHER: |
| LIST OF SUPPORTING DOCUMENTATION AND IDENTIFICATION OF THE ACTUAL ITEMS TO BE REGISTERED:<br><u>ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents</u>   |   |

**DECLARATION:**

I, Joe Feldman (also state if employed by Swagelok Company) and being the person having full authority and responsibility for the quality of the end product do solemnly declare that the information contained in this form is true and to the best of my knowledge represents the product for which registration is sought. The dimensions, materials of construction, pressure temperature ratings, and identification markings are in accordance with the herein named standards. I further declare that the manufacture of these fittings is regulated by a Quality Control Program which extends to each plant where fabrication occurs in whole or in part and has been verified by BSI as being suitable for that purpose and I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

Signature of Declarer: [Signature]  
 Declared before me at Solon, Ohio  
 This 07<sup>th</sup> day of December AD 2018  
 Commissioner of Oaths or Notary Public: (sign) [Signature]  
 (Affix Official seal to the right)

USE THIS SPACE FOR THE  
 Jamie L. Rietau OFFICIAL SEAL  
 Resident Portage County  
 Notary Public, State of Ohio  
 My Commission Expires: 03/08/2019



This space for Regulatory Authority use  
 This registration must be revalidated after ten (10) years from the date of acceptance

CRN: OC21140.5  
 FID#: 1214

Notes:  
 1. All fittings shall be registered in the name of the Manufacturer.  
 2. Each category shall be supported with two Statutory Declaration forms and one copy of supporting documentation.  
 3. The declaration shall be made by the person having full authority and responsibility for the quality of the end product.  
 4. Quality control programs shall be resubmitted for validation at a maximum interval of five (5) years.

## 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 <sup>1</sup>     | UW <sup>2</sup>   |   |
| 4U                            | Body, Bonnet, Bonnet nut        | 316 SS (ASTM A479)                        | Tube Fitting 1/4", 6mm<br>Tube Socket Weld 1/4"<br>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<br>Tube Socket Weld 3/8"<br>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<br>Tube Socket Weld 1/2"<br>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"<br>Pipe Butt Weld 3/4"<br>Tube Butt Weld 1"  | 2500 psig              | 2500 psig @ 650°F   | 250 psig @ 1200°F |   |

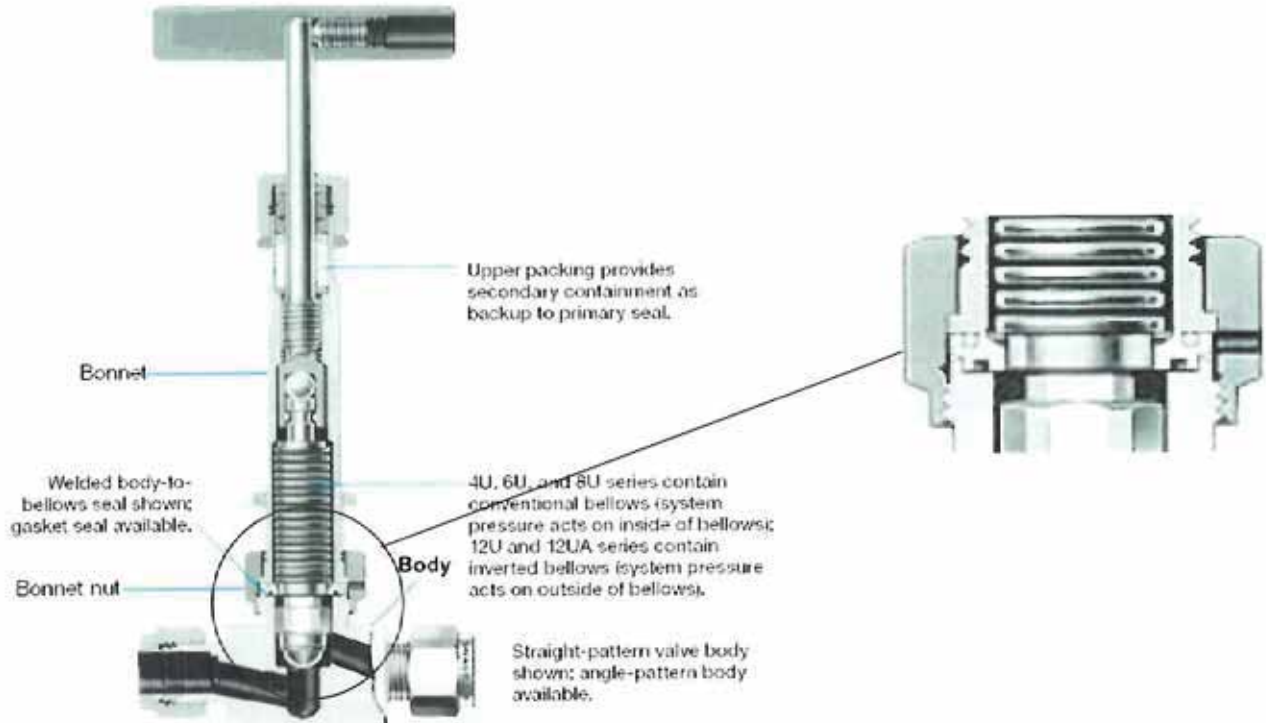
<sup>1</sup> – U-Series with a gasket bonnet seal

<sup>2</sup> – U-Series with a welded bonnet seal



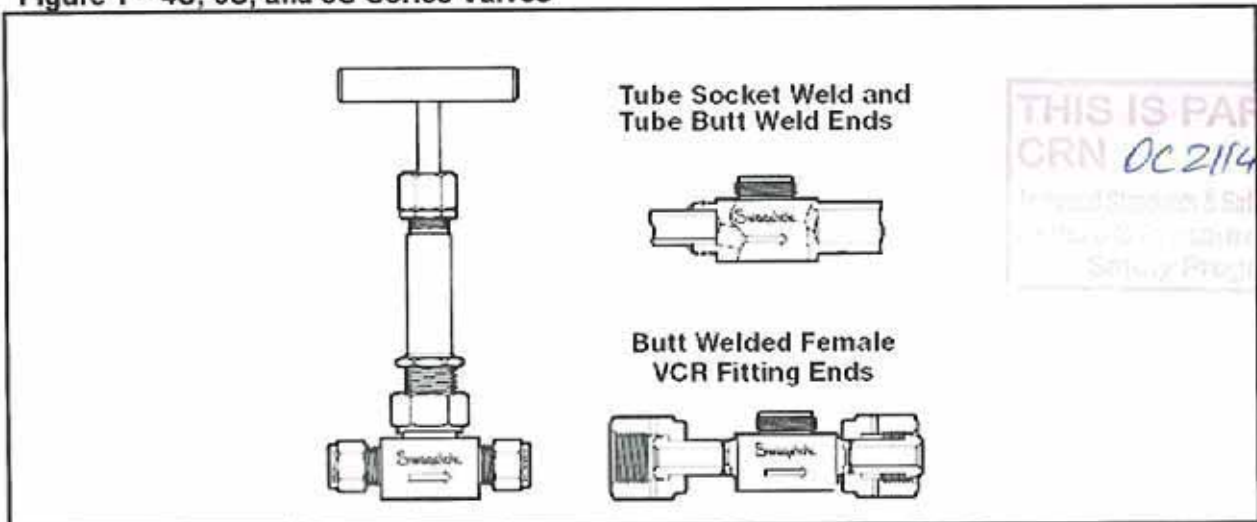
**Figure 1 – Pressure Retaining Components (typical 4U, 6U, or 8U hand operated valve)**

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.

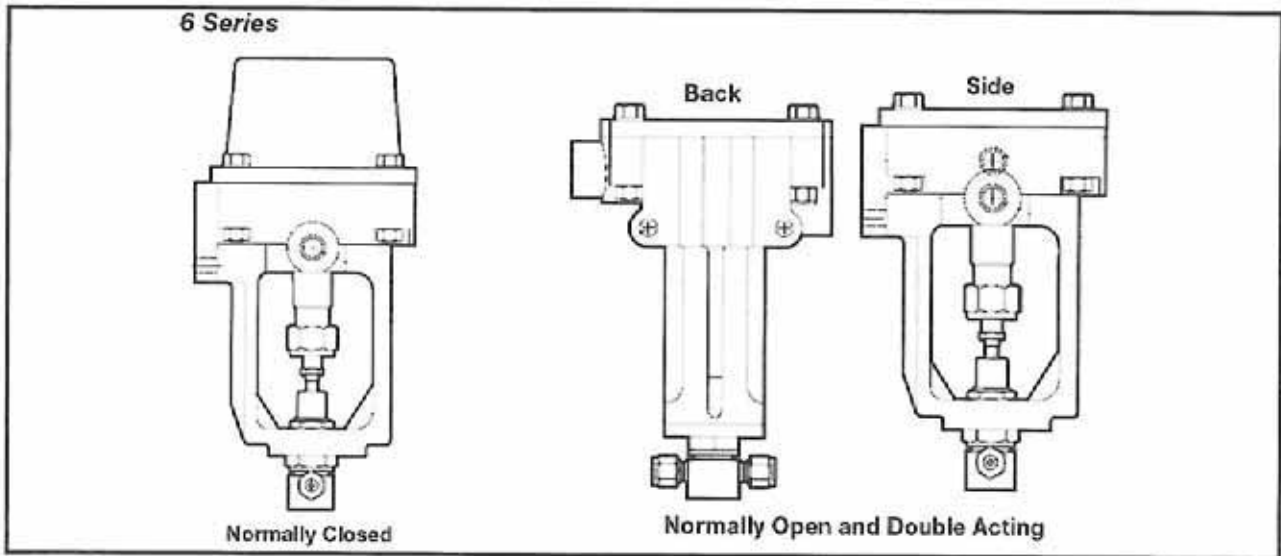


**Bellows-Sealed, U Series Valve Configurations**

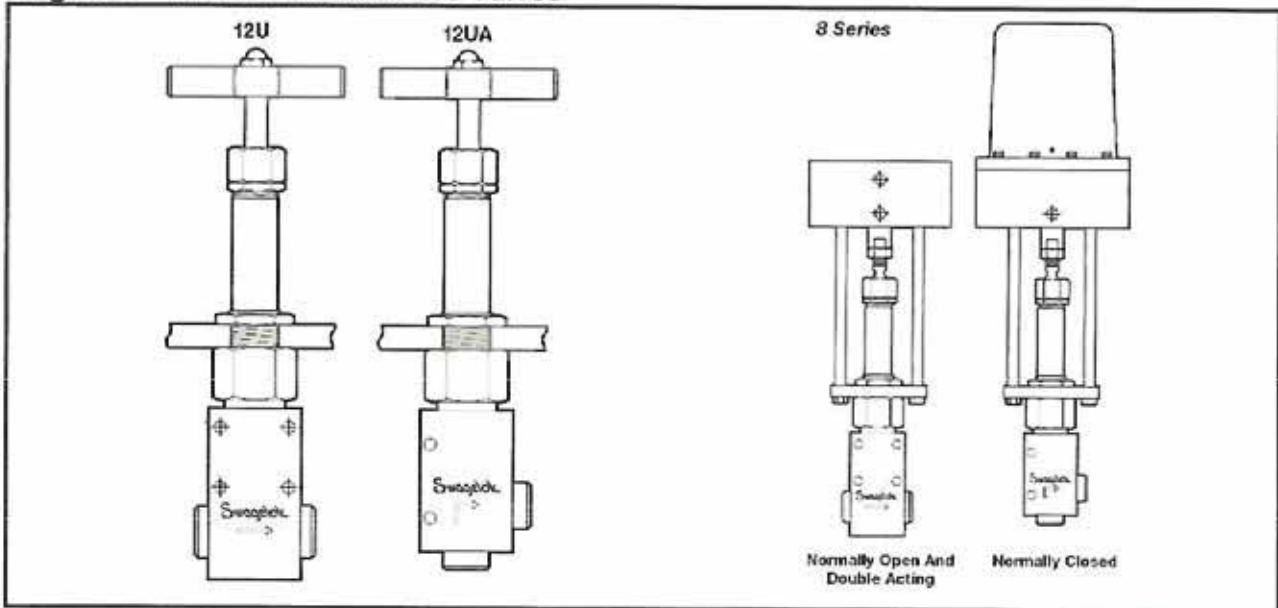
**Figure 1 – 4U, 6U, and 8U Series Valves**







**Figure 2 – 12U and 12UA Series Valves**



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CRN 0C21140.5  
Technical Standards & Safety Authority  
Bellows & Pressure Vessels

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

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.

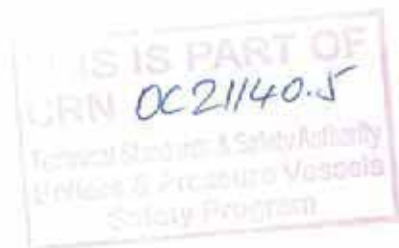
## Quality System

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



## Attachment A. Swagelok Manufacturing Locations

This document lists the Swagelok locations where end item or component level manufacturing activities take place.

|   |  |
|---|--|
| Swagelok Company<br>29500 Solon Road<br>Solon, Ohio 44139<br>USA  | Swagelok Company (Falon 1)<br>348 Bishop Road<br>Highland Heights, Ohio 44143<br>USA |
| Swagelok Company (Highland)<br>318 Bishop Road<br>Highland Heights, Ohio 44143<br>USA   | Swagelok Company (Falon 2)<br>358 Bishop Road<br>Highland Heights, Ohio 44143<br>USA |
| Swagelok Company (OFC)<br>29495 F.A. Lennon Drive<br>Solon, Ohio 44139<br>USA   | Swagelok Company (HPF)<br>6050 Cochran Road<br>Solon, Ohio 44139<br>USA              |
| Swagelok Company (Atlantic)<br>26651 Curtiss Wright Parkway<br>Willoughby Hills, Ohio 44092<br>USA  | Swagelok Company (Snow Metal)<br>6060 Cochran Road<br>Solon, Ohio 44139<br>USA       |
| Swagelok Company (Micro)<br>26653 Curtiss Wright Parkway<br>Willoughby Hills, Ohio 44092<br>USA   | Swagelok Company (Alfred)<br>29500 Ambina Drive<br>Solon, Ohio 44139                 |
| Swagelok Hose Services Company (SHSC)<br>29900 Solon Industrial Parkway<br>Solon, Ohio 44139  | Swagelok Company (Strongsville)<br>15400 Foltz Road<br>Strongsville, Ohio 44119      |
| Swagelok (China) Fluid System Technologies Ltd.<br>Changshu Export Process Zone<br>Changshu Economic Development Zone<br>Changshu, Jiangshu<br>215513 China | Swagelok Limited<br>Ballafletcher Road<br>Tromode<br>IM4 4RA<br>Isle of Man          |

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CRN *OC21140.5*  
Technical Standards & Safety Authority  
Ballast & Pressure Vessels  
Safety Program