

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

**Date:** May 26, 2020  
**Account #:** 35231  
**Journal #:** 75839

**Attn:** CECYLIA GARBACZ

**Re:** Application for Design Registration

The design, as detailed in your, 0C22395.5, for a Fitting is accepted for registration as follows:

**Registered To:** SWAGELOK COMPANY                      **CRN:** 0C22395.51

**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:**

Registration includes: "BELLOWS-SEALED VALVES -H AND HK SERIES". See attachment A and B.

As required by CSA B51 4.2.1, this registration expires on 06-May-2030. 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# 0C22395.5 registration shall apply to BC registration.

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

Emilia Tam

emilia.tam@technicalsaftybc.ca  
Design Administration

**cc:**



Technical Standards and Safety Authority  
 345 Carlingview Drive  
 Toronto, Ontario M9W 6N9  
 www.tssa.org

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below

Swagelok

## STATUTORY DECLARATION Registration of Fittings

I, Joel Feldman, Vice President of Engineering  
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Swagelok Company  
(Name of Manufacturer)

Located at 29500 Solon Road, Solon, Ohio 44139 USA (Plant Address) (440) 248-4600 (Telephone No.) (440) 349-5970 (Fax No.)

do solemnly declare that the fittings listed hereunder, which are subject to the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, comply with all of the requirements of ASME B31.1 for unlisted components, and ASME B31.3 for unlisted components  
(Title of recognized North American Standard)  
 which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with \_\_\_\_\_ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001:2015 which has been verified by the following authority, BSI

The items covered by this declaration, for which I seek registration, are category C. Valves type fittings. In support of this application, the following information and/or test data are attached as follows:  
ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents  
(drawings, calculations, test reports, etc.)

Declared before me at Solon in the State of Ohio  
 the 18th day of march AD 2020.

Commissioner for Oaths:

Brenda Hammel  
(Printed name)

Brenda Hammel  
(Signature)

Joel C. Feldman  
(Signature of Declarer)

### FOR OFFICE USE ONLY

To the best of my knowledge and belief, the application meets the requirements of the **Technical Standards and Safety Act**, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category C.

CRN: OC22395.5

Registered by: [Signature]

Dated: MAY 6, 2020

NOTE: This registration expires on: MAY 6, 2030

See stamped attachment A and B for scope of registration

Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety Program

REGISTERED

C.R.N.: OC22395.5  
 Signed: [Signature]  
 Date: May 6, 2020.



This Document has been digitally signed. The stamp size has been optimized for 11 documents.

*\*Information provided in this application is releasable under the Freedom of Information and Privacy Protection Act and may be disclosed upon request.*

Original signed and notarized Statutory Declaration has been verified.  
 May 6, 2020. TSSA



**Attachment B: Scope of Registration for Swagelok H and HK Series Bellows Valves (Category C)**

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

THIS IS PART OF CRN  
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 Program

**Summary Table**

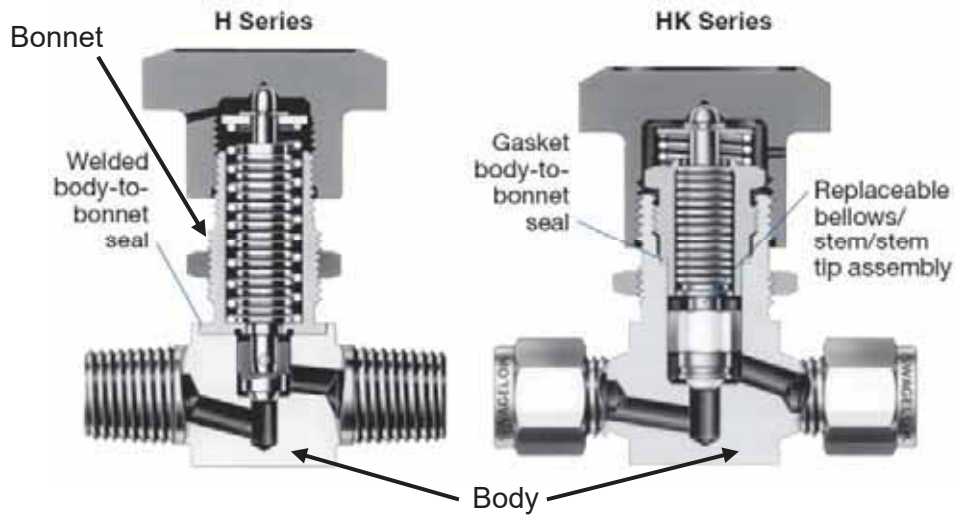
Product Series	Main Pressure Bearing Component	Main Pressure Bearing Material	Port Connections and Sizes	Maximum Rated Pressure		Design Code of Construction
				At ambient temperature	At maximum temperature	
2H (1/8")	Body, Bonnet	316 SS (ASTM A479)	Swagelok tube fitting 1/8" Female NPT 1/8" Male NPT 1/8" Female VCR fitting 1/8" Tube socket weld 1/8", 1/4" Tube butt weld 1/8", 1/4"	1000 psig @ -80 to 100° F	1000 psig @ 600°F	ASME B31.1 & ASME B31.3 (Unlisted Components)
4H (1/4")	Body, Bonnet		Swagelok tube fitting 1/4" Female NPT 1/4" Male NPT 1/4" Integral male VCR fitting 1/4" Female VCR fitting 1/4" VCO gland 1/4" Tube socket weld 1/4", 3/8" Tube butt weld 1/4", 3/8"			
6H-MM (6mm)	Body, Bonnet		Swagelok tube fitting 6mm			
2HK*, 2HG* (1/8")	Body, Stem Adapter	Body: Brass C36000 (ASTM B16)	Swagelok tube fitting 1/8" Female NPT 1/8" Male NPT 1/8"	1000 psig @ -20 to 100° F	500 psig @ 200°F  150 psi @ 400°F for HG	ASME B31.1 & ASME B31.3 (Unlisted Components)
4HK*, 4HG* (1/4")	Body, Stem Adapter	Stem Adapter: H04 Phosphor	Swagelok tube fitting 1/4" Female NPT 1/4" Male NPT 1/4"			
6HK-MM*, 6HG-MM* (6mm)	Body, Stem Adapter	Bronze C51000 (ASTM B139)	6mm Swagelok tube fitting			

\* Includes Valves with 1 Series Air Actuators

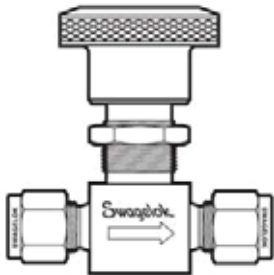
Note: HG series valves are the HK series valve but with a copper stem tip and a copper gasket for body-to-bonnet seal.

## Product Illustration

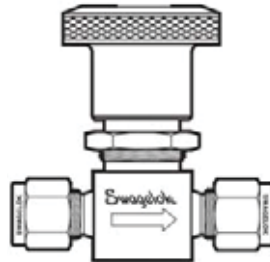
All H and HK Series Bellows Valves have the same features as shown below.



## Configurations



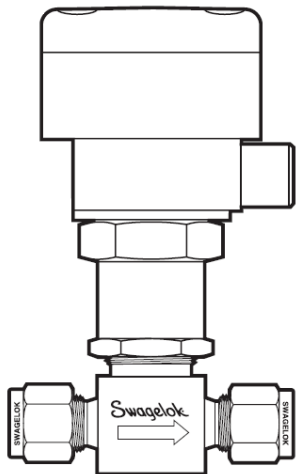
Hand Operated H Series



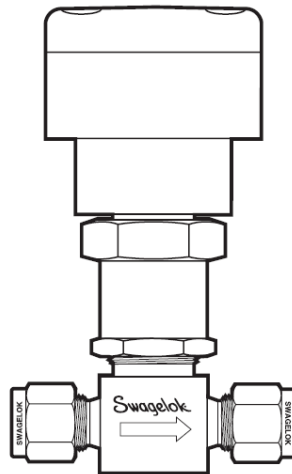
Hand Operated HK, HG Series

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## **1 Series Air Actuator (Offered on HK Series Bellows Valve Only)**



HK with Normally Closed Air Op



HK with Normally Open Air Op



### **Product Options:**

Additional options that do not affect pressure and/or temperature ratings may be made available within the scope of this approval. Examples of these would include the following:

- H Series Cobalt-Based Stem Tip.
- Swagelok Special Cleaning and Packaging (SC-11).
- 1 Series air actuator on HK Series Bellows Valve.

### **Quality System**

The Swagelok Company quality system complies with the requirements of ISO 9001:2015. 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 the registration but rather details some of the most common options.

- H and HK Series Bellows Valve Product Catalog MS-01-36, R13





## Attachment A. Swagelok Manufacturing Locations

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

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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