

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

Date: October 7, 2019
Account #: 35231
Journal #: 74331

Attn: TANYA FRANCIS

Re: Application for Design Registration

The design, as detailed in your, N-HN-6DB-2018, for a Fitting is accepted for registration as follows:

Registered To: SWAGELOK COMPANY **CRN:** 0C20862.51

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 18-Nov-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. Any additional conditions of registration stated in TSSA CRN# 0C20862.5 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:



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, 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 (440) 248-4500 (440) 349-5970
(Plant Address) (Telephone No.) (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 where applicable, and ASME B31.3 for unlisted components where applicable
(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 09th day of August AD 20 18.

Commissioner for Oaths: Jamie L Rista
(Printed name)
Jamie L Rista
(Signature)
 Jamie L Rista
 Resident Portage County
 Notary Public, State of Ohio
 My Commission Expires: 03/06/2019

Technical Standards and Safety Authority
Boilers and Pressure vessels Safety Program
 OFFICE
REGISTERED
 C.R.N.: 0C20862.5
 Signed: [Signature]
 Date: Nov 18, 2018

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: 0C20862.5
 Registered by: [Signature]
 Dated: Nov. 18, 2018

NOTE: This registration expires on: Nov. 18, 2028

Scope of registration: Attachment A and B [Signature]

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 Ballafletcher Road Tromode IM4 4RA Isle of Man	



Attachment B. Scope for Swagelok N, HN and 6DB Series Needle Valves (Category C)

This document represents the scope of the Swagelok N, HN and 6DB Series Needle Valves covered by this submission for CRN approval. The Swagelok N, HN and 6DB Series Needle Valves were designed and evaluated in accordance with ASME B31.1-2016 for unlisted components and ASME B31.3-2016 for unlisted components.

Summary Table

Product Description or Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections, Sizes*	Maximum Rated Pressure (psig)		Design Code of Construction		
				At ambient temperature	At maximum temperature			
3N	Body	Stainless Steel (ASTM A479)	Female NPT 1/8", 1/4" Male NPT 1/4" Tube Socket Weld 1/4"	6000 @ 100°F	1715 @ 1200°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)		
			Tube Fitting 1/4", 8MM Male VCR Fitting 1/4"	6000 @ 100°F	3030 @ 1000°F			
			Male VCO Fitting 1/4"	6000 @ 100°F	3870 @ 550°F			
		Alloy 400 (ASTM B164)	Tube Fitting 1/4" Female NPT 1/8", 1/4" Female NPT 1/8", 1/4" Male NPT 1/4" Tube Socket Weld 1/4" Male NPT 1/4" Tube Socket Weld 1/4" Male VCO Fitting 1/4"	5000 @ 100°F	3960 @ 500°F			
			Alloy 600 (ASTM B564, ASTM B186 or ASTM B188)	Female NPT 1/8", 1/4" Male NPT 1/4" Tube Socket Weld 1/4"	6000 @ 100°F		515 @ 1200°F	
				Tube Fitting 1/4" Male VCR Fitting 1/4" Male VCO Fitting 1/4"	6000 @ 100°F		1800 @ 1000°F 4860 @ 550°F	
		Alloy C-276 (ASTM B574 or ASTM B575)	Female NPT 1/8", 1/4" Male NPT 1/4" Tube Socket Weld 1/4"	6000 @ 100°F	1545 @ 1200°F			
			Tube Fitting 1/4" Male VCR Fitting 1/4"	6000 @ 100°F	3030 @ 1000°F			
			Male VCO Fitting 1/4"	6000 @ 100°F	5290 @ 550°F			
		6N	Body	Stainless Steel (ASTM A479)	Female NPT 1/4", 3/8" Tube Socket Weld 3/8", 1/2" Pipe Socket Weld 1/4"		6000 @ 100°F	1715 @ 1200°F
					Tube Fitting 3/8", 1/2"		6000 @ 100°F	3030 @ 1000°F
					Male VCR Fitting 1/2"		4300 @ 100°F	2430 @ 1000°F
Male VCO Fitting 1/2"	6000 @ 100°F				3870 @ 550°F			
Alloy 400 (ASTM B164)	Tube Fitting 3/8" Female NPT 1/4", 3/8" Tube Socket Weld 3/8", 1/2" Pipe Socket Weld 1/4" Male VCR Fitting 1/2" Male VCO Fitting 1/2"			5000 @ 100°F	3960 @ 500°F			
	Tube Fitting 1/2"			4400 @ 100°F	3476 @ 500°F			

THIS IS PART OF
 CRN 20862.5

* Fractional port connection sizes shown. Equivalent metric size ranges are also in scope, and have the same pressure/temperature ratings

Product Description or Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections, Sizes*	Maximum Rated Pressure (psig)		Design Code of Construction		
				At ambient temperature	At maximum temperature			
6N	Body	Alloy 600 (ASTM B564, ASTM B166 or ASTM B168)	Female NPT 1/4", 3/8"	6000 @ 100°F	515 @ 1200°F			
			Tube Socket Weld 3/8", 1/2"					
			Pipe Socket Weld 1/4"					
			Tube Fitting 3/8"					
			Male VCR Fitting 1/2"					
		Alloy C-276 (ASTM B574 or ASTM B575)	Tube Fitting 1/2"	5100 @ 100°F	1785 @ 1000°F			
			Male VCO Fitting 1/2"	6000 @ 100°F	4860 @ 550°F			
			Female NPT 1/4", 3/8"	6000 @ 100°F	1545 @ 1200°F			
			Tube Socket Weld 3/8", 1/2"					
			Pipe Socket Weld 1/4"					
Tube Fitting 3/8", 1/2"								
Male VCR Fitting 1/2"								
12N	Body	Stainless Steel (ASTM A479)	Female NPT 1/2", 3/4", 1"	6000 @ 100°F	1715 @ 1200°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)		
			Male NPT 1/2", 3/4", 1"					
			Tube Socket Weld 1/2"					
			Pipe Socket Weld 1/2"					
			Tube Socket weld 3/4"					
			Tube Fitting 1/2"					
			Tube Fitting 3/4"					
		Alloy 400 (ASTM B164)	Tube Fitting 1"	4700 @ 100°F	3030 @ 1000°F			
			Male VCR Fitting 1/2"	4300 @ 100°F	2430 @ 1000°F			
			Male VCO Fitting 3/4"	6000 @ 100°F	3870 @ 550°F			
		Alloy 600 (ASTM B564, ASTM B166 or ASTM B168)	Body	Alloy 600 (ASTM B564, ASTM B166 or ASTM B168)	Female NPT 1/2", 3/4", 1"		5000 @ 100°F	3960 @ 500°F
					Male NPT 1/2", 3/4", 1"			
					Tube Socket Weld 1/2", 3/4"			
					Pipe Socket Weld 1/2"			
Tube Fitting 3/4"								
Alloy C-276 (ASTM B574 or ASTM B575)	Body	Alloy C-276 (ASTM B574 or ASTM B575)	Tube Fitting 1"	4300 @ 100°F	3397 @ 500°F			
			Tube Fitting 1/2"	4400 @ 100°F	3476 @ 500°F			
			Female NPT 1/2", 3/4", 1"	6000 @ 100°F	515 @ 1200°F			
Male NPT 1/2", 3/4", 1"								
Tube Socket Weld 1/2", 3/4"								
3HN	Body	Stainless Steel (ASTM A479)	Pipe Socket Weld 1/2"	Not rated	Not rated			
			Tube Fitting 3/4", 1"					
			Tube Fitting 1/2"			5100 @ 100°F	1785 @ 1000°F	
6HN	Body	Stainless Steel (ASTM A479)	Female NPT 1/2", 3/4", 1"	6000 @ 100°F	1545 @ 1200°F			
			Male NPT 1/2", 3/4", 1"					
			Pipe Socket Weld 1/2"					
3HN	Body	Stainless Steel (ASTM A479)	Tube Fitting 3/4", 1"	10000 @ 100°F	3085 @ 1200°F			
			Tube Fitting 1/2"			5100 @ 100°F	3030 @ 1000°F	
6HN	Body	Stainless Steel (ASTM A479)	Female NPT 1/8", 1/4"	10000 @ 100°F	3085 @ 1200°F			
			Male NPT 1/4"					
6HN	Body	Stainless Steel (ASTM A479)	Tube Socket Weld 1/4"	10000 @ 100°F	5450 @ 1000°F			
			Tube Fitting 1/4"					
6HN	Body	Stainless Steel (ASTM A479)	Female NPT 1/4", 1/2"	10000 @ 100°F	3085 @ 1200°F			
			Male NPT 1/2"					
6HN	Body	Stainless Steel (ASTM A479)	Tube Fitting 1/2"	6700 @ 100°F	5092 @ 1000°F			

* Fractional port connection sizes shown. Equivalent metric size ranges are also in scope, and have the same pressure/temperature ratings

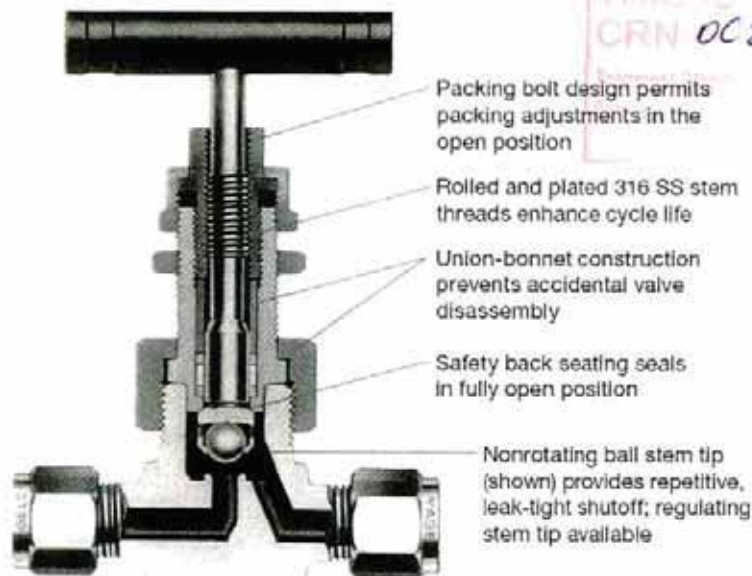
THIS IS PART OF
CRN 0020862-5
 Technical Standards & Safety Authority
 Butlers & Pascoe Model
 Safety Program

Product Description or Series	Main Pressure Bearing Component	Main Pressure Bearing Material (Standard)	Port Connections, Sizes*	Maximum Rated Pressure (psig)		Design Code of Construction
				At ambient temperature	At maximum temperature	
6DB	Body	Stainless Steel (ASTM A479)	Female NPT 1/4", 3/8" Tube Socket Weld 3/8", 1/2" Pipe Socket Weld 1/4"	6000 @ 100°F	1715 @ 1200°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
			Tube Fitting 3/8", 1/2"	6000 @ 100°F	3030 @ 1000°F	

* Fractional port connection sizes shown. Equivalent metric size ranges are also in scope, and have the same pressure/temperature ratings.

Product Illustrations

N Series and HN Series Needle Valves



6DB Series Needle Valve



Configurations

Bodies are available in straight pattern and angle.

Product Options:

Some of the product options listed below affect the pressure-temperature ratings shown in the Summary Table, but in all cases the ratings are less than those shown in the Summary Table. All of the following options are within the scope of this registration:

Stem Packing Options

Ultra High Molecular Weight Polyethylene (UHMWPE)
Polyetheretherketone (PEEK)
Graphoil

Stem Designs

Regulating
PCTFE soft-seat regulating
PTFE soft-seat regulating

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 handle options, actuator options, etc.

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. The N, HN and 6DB needle valve products are made at a Swagelok Company location in Solon, Ohio.

References

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

- N Series and HN Series Needle Valve Catalog MS-01-168, Rev L
- 6DB Series Needle Valve Catalog MS-02-118, R4

