

Statutory Declaration (Registration of Fittings)

TSK-1008

I. Declaration Information

I, Joel Feldman
Vice President, Engineering
(company title e.g. vice president, plant manager, chief engineer)
(must be in a position of authority in the manufacturing plant where the fitting is produced)
of: Swagelok Company
(name of manufacturer)

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



located at: Headquarters: 29500 Solon Road Solon, Ohio 44139 USA
(Plant Address - Apt/Street) (City, Prov) (Postal Code)

do solemnly declare that the fittings listed hereinunder, which are subject to the **Saskatchewan Boiler and Pressure Vessel Safety Act** (check one)

- Comply with the requirements of ASME B31.1 and ASME B31.3 which specifies the dimensions, (title of recognized North American Standard) 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 _____ as supported by the attached data which identifies the dimensions, materials of construction, pressure / temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

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

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

II. Declaration

DECLARED before me at Solon In the State of Ohio
this 25th day of NOV, 2019
Brenda Hammel (print name) Joel C. Feldman (Signature)
Brenda Hammel (Signature of Commissioner of Oaths)

III. Office Use Only



**Technical
Safety Authority
of Saskatchewan**

Registration No. 0A22161.53

File No. 11403

Registered

Date: March 12, 2020

Expiry Date: February 10, 2030

Codes & Standards Compliance Office

requirements of the **Boiler and Pressure Vessel Safety Act** and
y _____
Registered - MM DD YYYY) (Expiry Date - MM DD YYYY)
the Administrator / Chief Inspector)



**Attachment B: Scope of Registration for VCO
 O-Ring Face Seal Fittings (Category A)**

This document represents the scope of Swagelok’s VCO O-Ring Gasket Face Seal Fittings covered by this submission for CRN approval in compliance with the requirements of ASME B31.1-2018 “Power Piping” as unlisted components per Section 104.7.2 and ASME B31.3-2018 “Process Piping” as unlisted components per Section 304.7.2.

Summary Table

Product Series (Size)	Pressure Retaining Materials	Pressure Retaining Components	End Connections and Sizes	Maximum Rated Pressure (psig)		Design Code of Construction
				At 100°F	At Max Temp*	
-2 VCO (1/8")	316 SS (ASTM A479, ASTM A276) for straight fittings and glands F316 SS (ASTM A182) for shaped fittings	Gland, Body	Tube Socket Weld 1/8"	12,600	8,120 @ 550°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
-4 VCO (1/4")		Gland, Body	Tube Socket Weld 1/4"	6,800	4,380 @ 550°F	
			Reducing Tube Socket Weld 1/8"	12,600	8,120 @ 550°F	
			Male Tube Weld 1/8", 1/4"	11,200	7,220 @ 550°F	
			Automatic Tube Weld 1/4"	5,100	2,700 @ 550°F	
			Swagelok Tube Fitting 1/8", 1/4"	10,900-10,200	8,120 @ 550°F	
			Male SAE/MS 7/16-20, 9/16-18	4,500	4,500 @ 400°F	
			Male NPT 1/8", 1/4"	10,000-8,000	6,900-5,520 @ 450°F with sealant	
		Female NPT 1/8", 1/4"	8,400-6,600	5,790-4,550 @ 450°F with sealant		
-6 VCO (3/8")		Gland, Body	Tube Socket Weld 3/8"	8,100	5,220 @ 550°F	
-8 VCO (1/2")	316 SS (ASTM A479, ASTM A276) for straight fittings and glands	Gland, Body	Tube Socket Weld 1/2"	3,000	1,935 @ 550°F	
			Reducing Tube Socket Weld 1/4"	10,700	6,900 @ 550°F	
			Male Tube Weld 1/4", 3/8", 1/2"	11,100-7,500	7,160-4,830 @ 550°F	
			Automatic Tube Weld 3/8", 1/2"	3,500-3,300	1,850-1,750 @ 550°F	
			Swagelok Tube Fitting 3/8", 1/2"	7,500-6,700	6,600-4,830 @ 550°F	
			Male NPT 3/8", 1/2"	10,000-7,800	6,900-5,310 @ 450°F with sealant	
			Female NPT 3/8", 1/2"	6,600-4,900	4,450-3,380 @ 450°F with sealant	
	F316 SS (ASTM A182) for shaped fittings	Body	Male NPT 3/8", 1/2"	7,800 – 7,700 @ 100°F	5,380 – 5,310 @ 450°F with sealant	
			Swagelok Tube Fitting 3/8", 1/2"	7,500 – 6,700 @ 100°F	6,600 – 4,830 @ 550°F	
			Male SAE/MS 9/16-18, 3/4-16	3,600	3,600 @ 400°F	

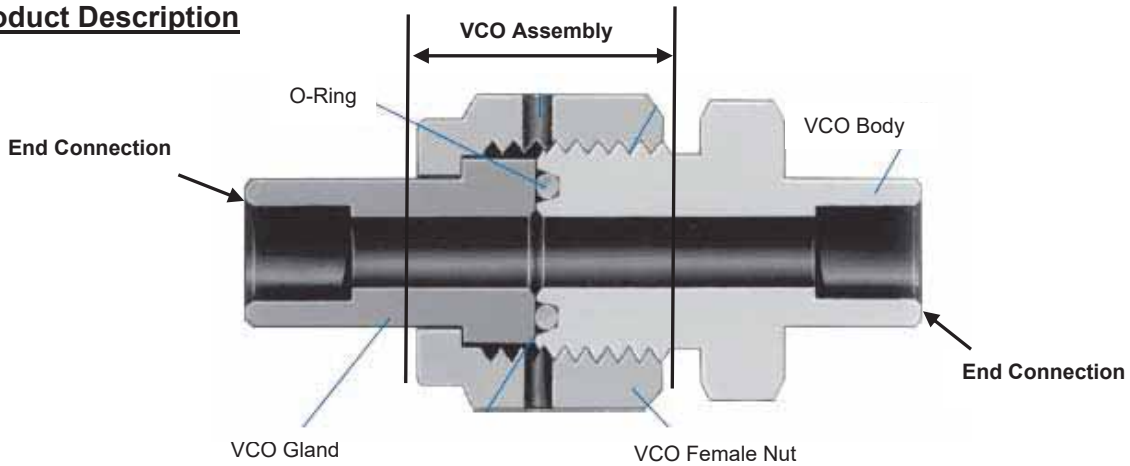


Summary Table (cont'd)




Product Series (Size)	Pressure Retaining Materials	Pressure Retaining Components	End Connections and Sizes	Maximum Rated Pressure (psig)		Design Code of Construction
				At 100°F	At Max Temp*	
-12 VCO (3/4")	316 SS (ASTM A479, ASTM A276) for straight fittings and glands	Gland, Body	Tube Socket Weld 3/4"	3,700	2,385 @ 550°F	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
			Automatic Tube Weld 3/4"	2,200	1,160 @ 550°F	
			Swagelok Tube Fitting 3/4"	5,800	5,100 @ 550°F	
			Male NPT 3/4"	7,300	6,420 @ 450°F with sealant	
			Female NPT 3/4"	4,600	3,170 @ 450°F with sealant	
			Male SAE/MS 1-1/16-12	3,800	3,800 @ 400°F	
	F316 SS (ASTM A182) for shaped fittings	Body	Male NPT 3/4"	5,800	5,030 @ 450°F with sealant	
			Swagelok Tube Fitting 3/4"	5,800	5,100 @ 550°F	
			Male SAE/MS 1-1/16-12	2,900	2,900 @ 400°F	
-16 VCO (1")	316 SS (ASTM A479, ASTM A276) for straight fittings and glands	Gland, Body	Tube Socket Weld 1"	3,000	1,935 @ 550°F	ASME B31.3 (Unlisted Components)
			Automatic Tube Weld 1"	2,200	1,160 @ 550°F	
			Swagelok Tube Fitting 1"	4,700	4,130 @ 550°F	
			Male SAE/MS 1-5/16-12	2,900	2,900 @ 400°F	
			Male NPT 1"	4,700	3,150 @ 450°F with sealant	
			Female NPT 1"	4,400	3,030 @ 450°F with sealant	
	F316 SS (ASTM A182) for shaped fittings	Body	Male NPT 1"	4,700	3,150 @ 450°F with sealant	
			Swagelok Tube Fitting 1"	4,700	4,130 @ 550°F	
			Male SAE/MS 1-5/16-12	2,300	2,300 @ 400°F	

* Maximum temperature of the VCO based on Perfluoroelastomer o-ring material

Product Description



Body Configurations

VCO Straights	
VCO Tees	
VCO Elbows	

Product Options

Some of the product options listed below affect the pressure-temperature ratings shown in the Summary Table above, but in all cases the ratings are less than those shown in the above table.

- O-ring Material Options
 - Fluorocarbon FKM
 - Buna N
 - PTFE
 - Perfluoroelastomer
 - Ethylene propylene
- VCO Blind Nuts
- Pressure Bearing Component Material Options (allowable variations of 316 material) that may affect high temperature rating
 - 316L
 - 316LV (VAR)
 - 316LVV (VIMVAR)

Additional options and non-pressure boundary alterations that do not affect pressure-temperature ratings may be made available within the scope of this approval. Examples of these options are:

- VCO Blind Bodies
- Protective Caps
- Caps and Plugs with Lanyards
- Flow Restrictors
- “Bore-through” fitting through holes

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.

- VCO O-Ring Face Seal Fittings Product Catalog MS-01-28, Rev I

	Technical Safety Authority of Saskatchewan
Registration No.	<u>0A22161.53</u>
File No.	<u>11403</u>
Registered	
Date:	<u>March 12, 2020</u>
Expiry Date:	<u>February 10, 2030</u>
Codes & Standards Compliance Office	

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

