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: Swagelok Company

MANUFACTURERS ADDRESS: 29500 Solon Road, Solon, Ohio 44139 USA

PLANT LOCATIONS: Headquarters: 29500 Solon Road, Solon, Ohio 44139 USA (See Attachment A)

CATEGORY OF FITTINGS TO BE REGISTERED. CIRCLE ONE CATEGORY ONLY

A Pipe fittings, including couplings, tees, elbows, Ys, plugs, unions, pipe caps, or reducers
B Flanges all flanges
C Valves: all line valves
D Expansion joints, flexible connections, and hose assemblies: all types
E Strainers, filters, separators, and steam traps
F Measuring devices, including pressure gauges, level gauges, sight glasses, levels, or pressure transmitters
G Certified capacity-rated pressure relief devices acceptable as primary over pressure protection on boilers, pressure vessels, piping and fusible plugs
H Pressure retaining components that do not fall into one of the above categories
N Nuclear components. Class 1 ☐ Class 2 ☐ Class 3 ☐, (Meeting AECB or ASME requirements)

TITLE OF THE STANDARD OF CONSTRUCTION

ASME B31.3 for unlisted components and ISO 10380

SHOW MANUFACTURERS NAME, TRADEMARK, OR LOGO AS IT WILL APPEAR ON THE PRODUCT

Swagelok

TYPE OF CONSTRUCTION

FORGED ☐ WELDED ☐ WROUGHT ☐
CAST ☐ OTHER X
DESCRIBE OTHER

LIST OF SUPPORTING DOCUMENTATION AND IDENTIFICATION OF THE ACTUAL ITEMS TO BE REGISTERED:

ISO 9001:2015 Certificate, Attachment A, Attachment B, Catalog Information and other Support Documents

DECLARATION:

I Joel Feldman, Vice President, Engineering (see note 3) 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, STATE of OHIO

This 31 day of JANUARY AD 2023

Commissioner of Oaths or Notary Public: (sign) [signature]

(Affix Official seal to the right)

USE THIS SPACE FOR THE SEAL

JEFFREY C. TRUMBULL
Notary Public
State of Ohio
Recorded in Lake County
Certificate # 2020-HE-813693
My Commission Expires
April 15, 2025

This space for Regulatory Authority use

This registration must be revalidated after ten (10) years from the date of acceptance.

CRN: 0D20522.5 Add1

FID#: 1214

Scope: This addendum is to fix a typographical error with the hose braid material specification from ASTM A478 grade 321 to A580 grade 321. CRN expires June 11th, 2028 (DGallant)

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.

GOVERNMENT OF YUKON
BY [signature]
CRN 0D20522.5Y ADD1
DATE 31/03/2023
BOILER BRANCH

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Technical Standards and Safety Authority
Boilers and Pressure Vessels Safety Program

Attachment B: Scope of Registration for Swagelok FX Series Hose Assemblies (Category D)

Product Scope

The table below represents the scope of Swagelok FX series hose assemblies covered by this submission for CRN approval. These hose assemblies have been evaluated in accordance with ASME B31.3 and ISO 10380. The referenced product catalogues do not represent the full scope of the submission but rather detail some of the most common options.

Summary Table

Product Series	Pressure Retaining Material	End Connection & Sizes	Nom. Hose Size (in.)	Maximum Working Pressure in (Psig)		Design Code of Construction
				@ Min. Temp.	@ Max. Temp.	
FX Series Metal Hose	**Core:** 316L SS (ASTM A240) **Braid:** 321 SS (ASTM A580) Or 316L SS (ASTM A240) **Weld Collar:** 304 SS (ASTM A269) **End Connections:** Strain-Hardened 316 SS (ASTM A479)	Tube Fitting 1/4” – 1/2”, 4-10 mm [TA, TM, SL, SM]	1/4	6000 @ -325°F	4236 @ 1000°F	ASME B31.3, ISO 10380
		NPT Female 1/8” – 1/4” [PF] NPT Male 1/8” – 1/2” [PM] Female VCO Fitting 1/4” Male ISO/BSP Tapered threads (ISO 7) 1/4” – 1/2” [MT] Female ISO/BSP Tapered Threads (ISO 7) 1/4” [FT]		6000 @ -60°F	5640 @ 400°F	
		Male Swivel Nut VCR ¼” [RM] Female VCR Fitting ¼” [RF]		5500 @ -325°F	3883 @ 1000°F	
		Tube Fitting 12mm [TM]		5365 @ -325°F	3787 @ 1000°F	
		NPT Female 3/8” [PF]		5300 @ -60°F	4982 @ 400°F	
		Tube Butt Weld ¼” [TB]		5100 @ -325°F	3600 @ 1000°F	
		NPT Female ½” [PF]		4900 @ -60°F	4606 @ 400°F	
		Tube Butt Weld ½” [TB]		3700 @ -325°F	2612 @ 1000°F	
		Male Swivel Nut VCR 1/2” [RM] Female VCR Fitting 1/2” [RF]		3000 @ -325°F	2118 @ 1000°F	

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Product Series	Pressure Retaining Material	End Connection & Sizes	Nom. Hose Size (in.)	Maximum Working Pressure in (Psig) @ Min. Temp.	Maximum Working Pressure in (Psig) @ Max. Temp.	Design Code of Construction
FX Series Metal Hose	**Core:** 316L SS (ASTM A240) **Braid:** 321 SS (ASTM A580) or 316L SS (ASTM A240) **Weld Collar:** 304 SS (ASTM A269) **End Connections:** Strain-Hardened 316 SS (ASTM A479)	Tube Fitting 1/4" – 1/2", 4-12 mm [TA, TM, SL, SM] Female VCO Fitting 1/2" [VF] Male Swivel Nut VCR ¼" [RM] Female VCR Fitting ¼" [RF]	3/8	5000 @ -325°F	3530 @ 1000°F	ASME B31.3, ISO 10380
		NPT Female 1/4" – 1/4" [PF] NPT Male 1/4" – 1/2" [PM] Male ISO/BSP Tapered threads (ISO 7) 1/4" – 3/8" [MT]		5000 @ -60°F	4700 @ 400°F	
		NPT Female ½" [PF]		4900 @ -60°F	4606 @ 400°F	
		Tube Butt Weld 1/2" [TB]		3700 @ -325°F	2612 @ 1000°F	
		Tube Butt Weld 3/8" [TB]		3300 @ -325°F	2329 @ 1000°F	
		Male Swivel Nut VCR 1/2" [RM] Female VCR Fitting 1/2" [RF]		3000 @ -325°F	2118 @ 1000°F	
		Tube Fitting 1/4" – 3/4", 6-18 mm [TA, TM, SL, SM] Male Swivel Nut VCR 1/4" [RM] Female VCR Fitting 1/4" [RF] Female VCO Fitting 1/2" [VF]	1/2	4500 @ -325°F	3177 @ 1000°F	
		NPT Female 3/8-1/2" [PF] NPT Male 1/4" – 3/4" [PM] Female VCO Fitting 1/4" Male ISO/BSP Tapered threads (ISO 7) 3/8" – 1/2" [MT] Female ISO/BSP Tapered Threads (ISO 7) 1/2" [FT]		4500 @ -60°F	4230 @ 400°F	
		NPT Female 1" [PF]		4400 @ -60°F	4092 @ 400°F	
		Tube Butt Weld ½" [TB]		3700 @ -325°F	2612 @ 1000°F	
		Male Swivel Nut VCR 1/2" [RM] Female VCR Fitting 1/2" [RF]		3000 @ -325°F	2118 @ 1000°F	
		Male Swivel Nut VCR 3/4" [RM] Female VCR Fitting 3/4" [RF]		2800 @ -325°F	1976 @ 1000°F	

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Product Series	Pressure Retaining Material	End Connection & Sizes	Nom. Hose Size (in.)	Maximum Working Pressure in (Psig)		Design Code of Construction
				@ Min. Temp.	@ Max. Temp.	
FX Series Metal Hose	**Core:** 316L SS (ASTM A240) **Braid:** 321 SS (ASTM A580) Or 316L SS (ASTM A240) **Weld Collar:** 304 SS (ASTM A269) **End Connections:** Strain-Hardened 316 SS (ASTM A479)	Tube Fitting 1/2" – 1", 12-20 mm [TA, TM, SL, SM] Female VCO Fitting 1/2" – 3/4" [VF]	3/4	3600 @ -325°F	2541 @ 1000°F	
		NPT Female 1/2"-3/4" [PF] NPT Male 1/2" – 1" [PM] Female VCO Fitting 1/4" Male ISO/BSP Tapered threads (ISO 7) 1/2"-1" [MT] Female ISO/BSP Tapered Threads (ISO 7) 3/4"-1" [FT]	3/4	3600 @ -60°F	3384 @ 400°F	
		Male Swivel Nut VCR 1/2" [RM] Female VCR Fitting 1/2"-1" [RF]	3/4	3000 @ -325°F	2118 @ 1000°F	
		Male Swivel Nut VCR 5/8"-3/4" [RM] Female VCR Fitting 3/4" [RF]	3/4	2800 @ -325°F	1976 @ 1000°F	
		Tube Butt Weld 3/4"-1" [TB]	3/4	2400 @ -325°F	1694 @ 1000°F	
		Tube Fitting 1/2" – 1-1/4", 16-28 mm [TA, TM, SL, SM] Male Swivel Nut VCR 1" [RM] Female VCR Fitting 1" [RF] Female VCO Fitting 1" [VF]	1	3000 @ -325°F	2118 @ 1000°F	
		NPT Female 1" [PF] NPT Male 1/2" – 1" [PM] Female VCO Fitting 1/4" Male ISO/BSP Tapered threads (ISO 7) 1" [MT] Female ISO/BSP Tapered Threads (ISO 7) 1" [FT]	1	3000 @ -60°F	2820 @ 400°F	
		Male Swivel Nut VCR 3/4" [RM] Female VCR Fitting 3/4" [RF]	1	2800 @ -325°F	1976 @ 1000°F	
		Tube Butt Weld 3/4"-1" [TB]	1	2400 @ -325°F	1694 @ 1000°F	

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Product Series	Pressure Retaining Material	End Connection & Sizes	Nominal Hose Size (in.)	Maximum Working Pressure in (Psig)		Design Code of Construction
				@ Min. Temp.	@ Max. Temp.	
FX Series Metal Hose	**Core:** 316L SS (ASTM A240) **Braid:** 321 SS (ASTM A580) or 316L SS (ASTM A240) **Weld Collar:** 304 SS (ASTM A269) **End Connections:** Strain-Hardened 316 SS (ASTM A479)	Tube Fitting 1-1/4" – 1-1/2", 28-32 mm [TA, TM, SL, SM]	1-1/4	2600 @ -325°F	1835 @ 1000°F	ASME B31.3, ISO 10380
		NPT Female 1-1/4" [PF] NPT Male 1" – 1-1/4" [PM] Male ISO/BSP Tapered threads (ISO 7) 1-1/4" [MT]		2600 @ -60°F	2444 @ 400°F	
		Tube Butt Weld 1-1/4" [TB]		2400 @ -325°F	1694 @ 1000°F	
		Tube Fitting 1-1/2", 38 mm [TA, TM, SL, SM] Tube Butt Weld 1-1/2" [TB]	1-1/2	2200 @ -325°F	1553 @ 1000°F	
		NPT Female 1-1/2" [PF] NPT Male 1" – 1-1/2" [PM] Male ISO/BSP Tapered threads (ISO 7) 1-1/2" - 2" [MT]		2200 @ -60°F	2068 @ 400°F	
		Tube Fitting 2" [TA, SL] Tube Butt Weld 2" [TB]	2	1675 @ -325°F	1182 @ 1000°F	
		NPT Male 1-1/2" – 2" [PM] Male ISO/BSP Tapered threads (ISO 7) 2" [MT]		1675 @ -60°F	1574 @ 400°F	

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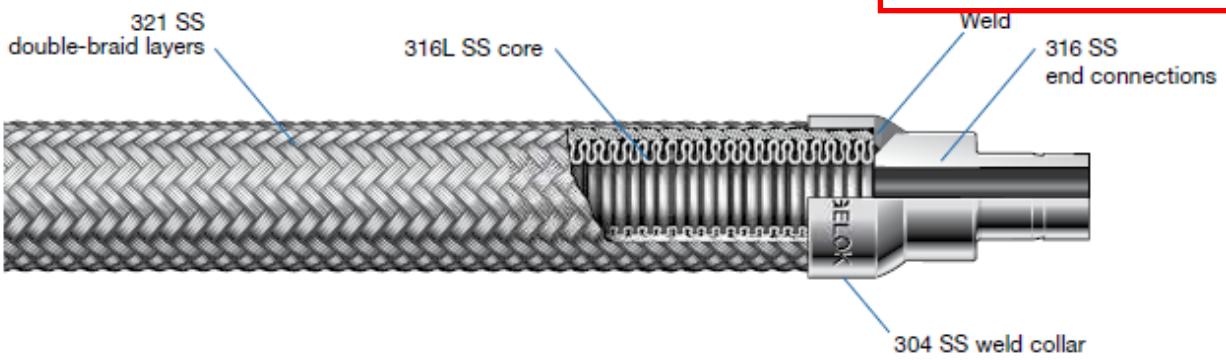
Product Illustration

All end connections are welded onto the hose using weld collars.



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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:

Braid Options
- 316L SS

Cover Options
- Armor guard - Interlocking, flexible 302 stainless steel.
- Fire jacket - Woven fiberglass coated with specially compounded aerospace-grade silicone rubber
- Thermosleeve - Braided fiberglass with saturated synthetic material coating.

Tag and Marking Options
- Mat tag - Polyester tag with customer-specified text
- Lanyard tag - Stainless steel tag with customer-specified text
- Clamp tag - Stainless steel tag with customer-specified text

End Connection Seals or Sealant Options
- VCO - O-rings
- VCR - Gasket
- Pipe Thread ends - thread sealant

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 Swagelok FX series hose assemblies are manufactured at Hose Master and at 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.
- Hose Assemblies, Bulk Hose, and End Connections Product Catalog MS-01-180

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