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			
MANUFACTURERS ADDRE	SS 30500 C-1- 3	Solon, Ohio 44139 USA	
PLANT LOCATIONS. Hoa	douarters: 20500 Salus	Solon, Ohio 44139 USA Road, Solon, Ohio 44139 USA (See	
CATEGORY OF F	ITTINGS TO BE REGISTERED	Road, Solon, Ohio 44139 USA (See D. CIRCLE ONE CATEGORY ONLY	Attachment A)
A Pipe fittings, including cot B Flanges all flanges C Valves: all line valves Expansion joints, flexible E Stramers, filters, separato Measuring devices, includ pressure transmitters C Certified capacity-rated pri boilers, pressure vessels, Pressure relaining compo	connections, and hose assemb rs, and steam traps and steam traps and pressure gauges, level gaugesure rehelf devices acceptable priping and fusible plugs nents that do not fall into one of the control	s. unions, pipe caps, or reducers blies all types ges. sight glasses, levels, or le as primary over pressure protection on	ASME B31.3 for unlisted components and ISO 10380
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SO 9001 2015 Certificate	e, Attachment A. Attachmen	ICATION OF THE ACTUAL ITEMS TO BE IT B. Catalog Information and other Su	REGISTERED:
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pel Feldman, Vice President, Er sponsibility for the quality y knowledge represents the mperature ratings and idea anufacture of these fittings	ne product for which registra entification markings are in a is is regulated by a Quality C	afron is sought. The dimensions, mate accordance with the herein named sta Control Program which extends to each	uned in this form is true and to the best o rials of construction, pressure indards. I further declare that the in plant where fabrication occurs in whole
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Territorial Registration Fee



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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	End Connection & Sizes	Nom. Hose Size	Pres in (F	Norking sure Psig)	Design Code of
	Material		(in.)	@ Min. Temp.	@ Max. Temp.	Construction
	<u>Core:</u>	Tube Fitting 1/4" – 1/2", 4-10 mm [TA, TM, SL, SM] NPT Female 1/8" – 1/4" [PF]		6000 @ -325°F	4236 @ 1000°F	
	316L SS (ASTM A240) <u>Braid:</u> 321 SS (ASTM A580) Or	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	
FX Series	FX 316L SS	Male Swivel Nut VCR ¼" [RM] Female VCR Fitting ¼" [RF]	1/4	5500 @ -325°F	3883 @ 1000°F	ASME
		Tube Fitting 12mm [TM]		5365 @ -325°F	3787 @ 1000°F	B31.3, ISO 10380
	304 SS (ASTM A269)	NPT Female 3/8" [PF]		5300 @ -60°F	4982 @ 400°F	
	End Connections: Strain- Hardened 316 SS	Tube Butt Weld 1/4" [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	
	(ASTM A479)	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.)	Pres in (F @ Min.	working sure Psig) @ Max. Temp.	Design Code of Construction
		Tube Fitting 1/4" – 1/2", 4-12 mm [TA, TM, SL, SM] Female VCO Fitting 1/2" [VF] Male Swivel Nut VCR 1/4" [RM] Female VCR Fitting 1/4" [RF] 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] NPT Female 1/2" [PF] Tube Butt Weld 1/2" [TB] Tube Butt Weld 3/8" [TB] Male Swivel Nut VCR 1/2" [RM] Female VCR Fitting 1/2" [RF] 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] NPT Female 3/8-1/2" [VF] 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]				~ -
		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.)	Pres in (F @ Min.	Working sure Psig) @ Max.	Design Code of Construction
		T. I. 5''' 4 /0" 4" 40 00	()	Temp.	Temp.	
		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]		3600 @ -60°F	3384 @ 400°F	
		Male Swivel Nut VCR 1/2" [RM] Female VCR Fitting 1/2"-1" [RF]		3000 @ -325°F	2118 @ 1000°F	
		Male Swivel Nut VCR 5/8"-3/4" [RM] Female VCR Fitting 3/4" [RF]		2800 @ -325°F	1976 @ 1000°F	
Series		Tube Butt Weld 3/4"-1" [TB]		2400 @ -325°F	1694 @ 1000°F	
Metal Hose	Weld Collar: 304 SS (ASTM A269) End Connections: Strain-	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]		3000 @ -325°F	2118 @ 1000°F	
	Hardened 316 SS (ASTM A479)	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]		3000 @ -60°F	2820 @ 400°F	
		Male Swivel Nut VCR 3/4" [RM] Female VCR Fitting 3/4" [RF]		2800 @ -325°F	1976 @ 1000°F	
		Tube Butt Weld 3/4"-1" [TB]		2400 @ -325°F	1694 @ 1000°F	

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

Product Illustration

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

Boilers and Pressure Vessels Safety Program 321 SS Weld double-braid layers 316L SS core 316 SS end connections 304 SS weld collar



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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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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 USA Technical Standards and Safety Authority Policy Standards and Safety Authority Policy Standards and Safety Authority Program Ohio 44143 Program
Swagelok Company (Highland)	Swagelok Company (Falon 2)
318 Bishop Road	358 Bishop Road
Highland Heights, Ohio 44143	Highland Heights, Ohio 44143
USA	USA
Swagelok Company (OFC)	Swagelok Company (HPF)
29495 F.A. Lennon Drive	6050 Cochran Road
Solon, Ohio 44139	Solon, Ohio 44139
USA	USA
Swagelok Company (Atlantic)	Swagelok Company (Snow Metal)
26651 Curtiss Wright Parkway	6060 Cochran Road
Willoughby Hills, Ohio 44092	Solon, Ohio 44139
USA	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)	Swagelok Company (Strongsville)
29900 Solon Industrial Parkway	15400 Foltz Road
Solon, Ohio 44139	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