



Statutory Declaration Registration of Fittings

(a) Design Qualification

I¹ Joel Feldman
Vice President, Engineering
(Position eg, president, plant manager, chief eng.)

Of Swagelok Company
(name of company)

Located at Headquarters: 29500 Solon Road, Solon, Ohio 44139 USA (See Attachment A)
(plant address)

do solemnly declare that the fittings listed hereunder, which are subject to the Boilers & Pressure Vessels Act:

- comply with all the requirements of the ANSI/ASME codes as to their dimensions, material, identification & service for which are required:
- Or
- are not covered by the provisions of the ANSI/ASME codes, and are therefore constructed to comply with ARPM Hose Handbook code and standard, and are designed to the best current engineering practice, as shown by the supporting test data.

(b) Quality control of Manufacture

I further declare the manufacture of these fittings is controlled by a quality control program which complies with the requirements of ISO 9001:2015, and has been verified by the following authority or authorized agency BSI

The fittings² covered by this declaration, for which I seek registration, are Category D. Hose

In support of the 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

Declared before me at _____

In the of _____ of _____

The _____ Day of _____ AD 20____
**Unable to get a notary signature
or seal due to COVID-19 situation
- September 22, 2020**
(commissioner for patents)

DocuSigned by:
[Signature]
C87C8BFFD3F1487... Signature of Declarer²

For Official Use Only

The application is accepted for registration in Category _____ in accordance with the Boilers and Pressure Vessels Act and CSA Standard B51.

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

Registered Number CRN _____ For the Chief Inspector _____
Date _____

Régie du bâtiment Québec

- 1 Three completed copied of Statutory Declaration form together with three copies of Catalogs, drawings of Bulletins illustrating above fittings shall be submitted.
- 2 All fittings are required to be registered in the name of the Manufacturer.
- 3 This form shall be completed and signed by the president of highest official in the manufacturing plan where the fitting is produced.

Attachment B: Scope of Registration for Crimped Swagelok UT series PFA Hose Assemblies (Category D)

This document represents the scope of the Swagelok Coreflex UT series hose and crimped assemblies covered by this submission for CRN approval. These products have been evaluated in accordance with the Association for Rubber Products Manufacturers (ARPM) Hose Handbook. U-Series hose assemblies have 2 possibilities for crimp collars; current standard and “Megafang” designs. Please see tables 1 and 2 below, and the “Configurations” section for description of differences between the two designs.

Summary Table

Table 1 – Current Crimped Design						
UT series Hose Size	Maximum Pressure (psig)			Pressure Retaining Material	End Connections and Sizes	Design Code of Construction
	At Minimum Temp. (-65°F)	Room temperature (0° – 100°F)	At Maximum Temp. (400°F)			
1/2"	200	300	160	Core Smooth bore PFA Braid 302 SS Braid Reinforcement Cover Silicone cover End Connections 316 SS Crimp on Collar 300 series SS	Swagelok Tube Fitting [SL, SM] 1/8" – 2" (3-50mm) Male & Female NPT Tapered Pipe Fitting [PM, PF] 1/8" – 2" Male & Female ISO/BSP Tapered (ISO 7) Pipe Threads [MT, FT] 1/4" – 1" Male 37° JIC & Female 37° JIC with female swivel nut [AN, AS] 1/4" – 2" Tube Butt Welds [TB] 1/2" – 1" Female and Male VCO O-ring Face seal Fitting [VF, VM] 1/8" - 2"	Association for Rubber Products Manufacturers (ARPM) Hose Handbook
3/4"	115	300	180		Female and Male VCR Metal Gasket Face seal Fitting [RF, RM] 1/8" – 2" Female ISO/BSP Parallel Threads (ISO 228) [FS] 1/4" – 1"	
1"	250	250	175			





Table 2 –“Megafang” Design						
UT series Hose Size	Maximum Pressure (psig)			Pressure Retaining Material	End Connections and Sizes	Design Code of Construction
	At Minimum Temp. (-65°F)	Room temperature (0° – 100°F)	At Maximum Temp. (400°F)			
1/2"	200	300	160	Core Smooth bore PFA Braid 302 SS Braid Reinforcement Cover Silicone cover End Connections 316 SS Crimp on Collar 300 series SS	Swagelok Tube Fitting [SL, SM] 1/8" – 2" (3-50mm) Male & Female NPT Tapered Pipe Fitting [PM, PF] 1/8" – 2"	Association for Rubber Products Manufacturers (ARPM) Hose Handbook
3/4"	115	300	195		Male & Female ISO/BSP Tapered (ISO 7) Pipe Threads [MT, FT] 1/4" – 1"	
1"	250	250	175		Male 37° JIC & Female 37° JIC with female swivel nut [AN, AS] 1/4" – 2"	
1 1/2"	200	200	200		Tube Butt Welds [TB] 1/2" – 1" Female and Male VCO O-ring Face seal Fitting [VF, VM] 1/8" - 2"	
2"	150	150	150		Female and Male VCR Metal Gasket Face seal Fitting [RF, RM] 1/8" – 2"	
					Female ISO/BSP Parallel Threads (ISO 228) [FS] 1/4" – 1"	

Product Description

The Swagelok UT series is standard Swagelok virgin PFA-lined hose with a silicone reinforcement layer, 302 Stainless Steel reinforcement, and a silicone cover. All UT series hoses undergo production testing in accordance with ASTM D380 “Test Methods for Rubber Hose” (version current to hose production date).

Configurations

All end connection inserts are crimped onto the hose using crimp collars. The U-Series hose crimp collars have two designs: the standard crimp collar available in 1/2", 3/4" and 1" sizes, and an upgraded design named "Megafang" which has shown more robust performance (1/2", 3/4" and 1" sizes noted in Table 2 to be widely available in 2021). Assemblies for both crimp collar designs noted above follow the same method of assembly and materials of construction. See photos below for visual differences between standard crimp collars and Megafang crimp collars.



Figure 1 - Standard Crimp Collar



Figure 2 - Megafang Crimp Collar



Product Options:

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

Cover Options

- Armor guard - Interlocking, flexible 302 stainless steel.
- Fire jacket - Woven fiberglass coated with specially compounded aerospace-grade silicone rubber
- Spiral guard - Helical HDPE plastic

Tag and Marking Options

- Mat tag - Polyester tag with customer-specified text
- Lanyard tag - Stainless steel tag with customer-specified text

End Connection Seals or Sealants Options

- VCO – O-rings
- 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.

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.

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

