UNIFORM STATUTORY DECLARATION FORM FOR THE REGISTRATION OF FITTING DESIGNS

NEW BRUNSWICK NOVA SCOTIA PRINCE EDWARD ISLAND NEWFOUNDLAND AND LABRADOR
NUNAVUT YUKON NORTHWEST TERRITORIES

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 B31.1 for unlisted components, ASME B31.3 for unlisted components

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

Swagelok

TYPE OF CONSTRUCTION
FORGED ☐ WELDED ☐ WROUGHT ☒
CAST ☐ OTHER ☐
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: Joel C. Feldman

Declared before me at Solon, Ohio

This 10th day of June AD 2019

Commissioner of Oaths or Notary Public: (sign) Brenda Hammel

(Affix Official seal to the right)

USE THIS SPACE FOR OFFICIAL SEAL

NOTARIAL SEAL OHIO STATE OF

This space for Regulatory Authority use

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

CRN: 0A21840.5

FID#: 1214

Notes: AUTOMATIC TUBE WELD (ATW), MICRO-FIT (MW) & TUBE BUTTWELD (TB) FITTINGS

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.

CRN EXPIRES OCT. 4, 2029 - D.G.

Newfoundland Labrador Service NL

Registered 0A21840.50

Date 19/11/15

Engineering and Inspection Services

Registered by

UNDER THE AUTHORITY OF THE PUBLIC SAFETY ACT AND THE BOILER, PRESSURE VESSEL AND COMPRESSED GAS REGULATIONS

Attachment B: Scope of CRN Registration for Swagelok ATW, MW, and TB Series Weld Fittings (Category A)

This document represents the scope of Swagelok® Automatic Tube Weld (ATW), Micro-Fit Weld (MW), and Tube Butt Weld (TB) Fittings covered by this submission for CRN registration. These weld fittings were designed and evaluated in accordance with ASME B31.1-2016 for unlisted components and ASME B31.3-2016 for unlisted components.

Table 1 – Summary Table – ATW FITTINGS

Product Series* (Size)	Material (Standard)	End Connections and Sizes	Maximum Allowable Working Pressure (psig)		Design Code of Construction
			Up to 100°F	At Maximum Temperature (850°F)	
-4 ATW (1/4")	316L SS (ASTM A479) for straight fittings, hardware F316L SS (ASTM A182) for shaped fittings	Tube Fitting 1/4", 3/8",1/2" Tube Butt Weld 1/4"	5100	2390	ASME B31.1 (Unlisted Components) ASME B31.3 (Unlisted Components)
-6 ATW (3/8")		Tube Fitting 3/8" Tube Butt Weld 1/4" 3/8"	3300	1550	
-8 ATW (1/2")		Tube Fitting 1/4" 1/2" Tube Butt Weld 1/4",3/8",1/2"	3700	1730	
-12 ATW (3/4")		Tube Fitting 3/4"	2400	1120	
-16 ATW (1")		Tube Fitting 1"	2400	1120	
-6 MATW (6mm)		N/A	6095	2860	
-8 MATW (8mm)			4499	2110	
-10 MATW (10mm)			3483	1630	
-12 MATW (12mm)			2902	1360	
-18 MATW (18mm)			2902	1360	

* "MATW" denotes metric sized Automatic Tube Welds

Table 2 – Summary Table – MW FITTINGS

Product Series* (Size)	Material (Standard)	Maximum Allowable Working Pressure (psig)		Design Code of Construction
		Up to 100°F	At Maximum Temperature (850°F)	
-2MW (1/8")	316L SS (SEMI F20)	8500	3990	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
-4MW (1/4")		5100	2390	
-6MW (3/8")		3300	1550	
-8MW (1/2")		3700	1730	
-12MW (3/4")		2400	1120	
-16MW (1")		2400	1120	
-6MMW (6mm)		6095	2860	
-8MMW (8mm)		4499	2110	
-10MMW (10mm)		3483	1630	
-12MMW (12mm)		2902	1360	

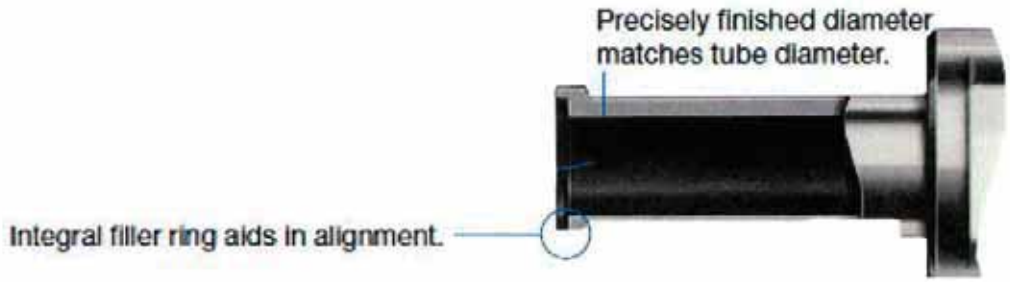
* End connections are all micro-fit weld end connections. "MMW" denotes metric sizes.

Table 3 – Summary Table – TB FITTINGS

Product Series* (Size)	Material (Standard)	Maximum Allowable Working Pressure (psig)		Design Code of Construction
		Up to 100°F	At Maximum Temperature (850°F)	
-2TB (1/8")	316L SS (ASTM A479) for straight fittings F316L SS (ASTM A182) for shaped fittings	8500	3990	ASME B31.1 (Unlisted Components) and ASME B31.3 (Unlisted Components)
-4TB (1/4")		5100	2390	
-6TB (3/8")		3300	1550	
-8TB (1/2")		3700	1730	
-12TB (3/4")		2400	1120	
-16TB (1")		2400	1120	
-6MTB (6mm)		6095	2860	
-8MTB (8mm)		4499	2110	
-10MTB (10mm)		3483	1630	
-12MTB (12mm)		2902	1360	
-18MTB (18mm)		2902	1360	

* End connections are all tube butt weld end connections. "MTB" denotes metric sizes.

Figure 1 – ATW Product Illustration



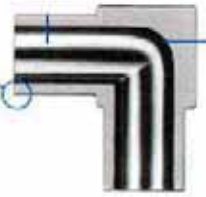
ATW Fitting Configurations

ATW Straights	
ATW Crosses	
ATW Tees	
ATW Elbows	

ATW Body End Connections

Swagelok Tube Fittings	 1/4 in – 1 in
Tube Butt Weld	 1/4 in – 1/2 in

Figure 2 – MW Product Illustration



Square, sharp, burr-free tube weld ends enhance alignment, maintain tube wall uniformity, and promote weld repeatability.

Radius junction allows for a smooth flow transition and eliminates pockets and entrapment zones.

MW Fitting Configurations

MW Straights	
MW Tees	
MW Elbows	
MW Tribows and Quadbows	
MW Crosses	

Figure 3 – TB Product Illustration

Tube ends are machined with a square face and corners to enhance alignment and maintain tube wall uniformity.

Precisely finished diameter matches tube diameter.

TB Fitting Configurations

TB Straights	
TB Tees	
TB Crosses	
TB Elbows	

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.

- Weld Fittings Product Catalog MS-01-149 Rev. M

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