

Technical Safety Authority of Saskatchewan

REGISTERED



CRN: CSA-0A21840.56

Registration Process administered by CSA Group per CSA B51

2202 2nd Ave.
Regina, SK S4R 1K3
PH: (306)798-7112 Toll Free: (866)530-8599
FAX: (306)787-9273 Toll Free: (866)760-9255
Email: boilerpermits@tsask.ca
Website: www.tsask.ca

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)

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



of: Swagelok Company
(name of manufacturer)

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, 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 10th day of June, 2019

Brenda Kammerl
(Print name)

Joel C. Feldman
(Signature)

Brenda Kammerl
(Signature of Commissioner of Oaths)

III. Office Use Only

To the best of my knowledge and belief, the application meets the requirements of the *Boiler and Pressure Vessel Safety Act* and CSA B51, Clause 4.2, and is accepted for registration in Category A

CSA - 0A21840.56
(Registration Number)

DEC. 02 2019
(Date Registered - MM DD YYYY)
(For the Administrator or Chief Inspector)

10-04-2029
(Expiry Date - MM DD YYYY)
A. BANWATT

*Note: See the attachment for the scope of the registration.



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	Tube Fitting 1/4", 3/8", 1/2" Tube Butt Weld 1/4"	5100	2390	ASME B31.1 (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)	F316L SS (ASTM A182) for shaped fittings	N/A	6095	2860	ASME B31.3 (Unlisted Components)
-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.

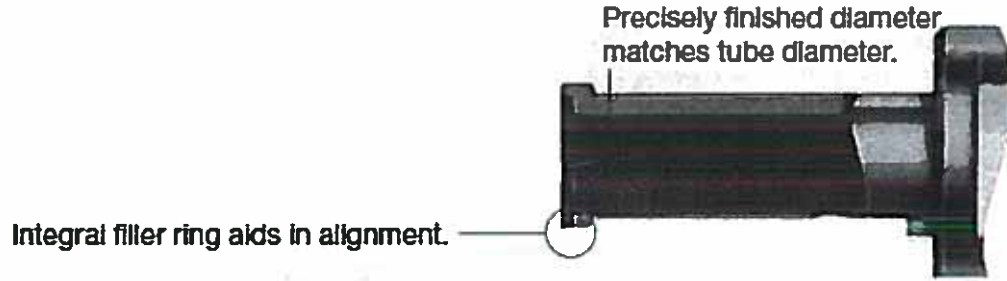
Table 3 – Summary Table – TB FITTINGS

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.

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Figure 1 – ATW Product Illustration




ATW Fitting Configurations

ATW Straights	
ATW Crosses	
ATW Tees	
ATW Elbows	

DA 21840.5

ATW Body End Connections

Swagelok Tube Fittings	
Tube Butt Weld	



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Figure 2 – MW Product Illustration

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



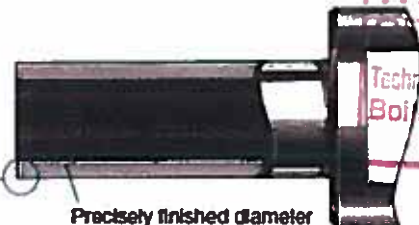
Radius junction allows for a smooth flow transition and eliminates pockets and entrapment zones.

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.

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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

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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.

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 Company A.G. (European Technology Center) St. GallerstraBe 84 Lachen, Switzerland 8853 Switzerland
Swagelok Limited Ballafletcher Road Tromode IM4 4RA Isle of Man	



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Signed: [Signature]

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