

To:	TSSA	From:	Janet Townsend
Company:	Swagelok Company	Phone:	416-747-4291
Pages:	12	Location:	Toronto
Our File:	ANR-4545	Date:	July 11, 2017

Your File: 2076500

## Subject: <u>Request for Design Registration</u>

Dear Ms. Francis,

CSA has reviewed the documentation submitted by TSSA on behalf of Swagelok Company. These fittings have been registered by CSA for the Province of Québec. In accordance with an agreement between CSA, the Provinces of Québec and Saskatchewan; this registration is recognized by Québec and Saskatchewan. These fittings are acceptable for use in these Provinces. The letters CSA will be applied as a prefix to the CRN indicate which fittings have been registered in this manner. A copy of the stamped Statutory Declaration is attached.

The CRN is CSA-0A19311.56.

A copy of the Statutory Declaration with an original stamp affixed will be forwarded to you along with our invoice by regular mail.

Yours truly,

Toursel

Janet Townsend Program Manager CSA Group

178 Rexdale Blvd. Toronto, ON, M9W 1R3 Canada <u>www.csagroup.org</u>



Technical Standards and Safety Authority 345 Carlingview Drive Toronto, Ontario M9W 6N9 www.tssa.org

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below

Swagelok

STATUTORY DECLARATION				
Registration of F	<b>`ittings</b>			
I, David H. Peace, Vice President of Engineering				
(Name and Position, e.g. President, Plant Manag	ger, Chief Engineer)			
of Swagelok Company				
(Name of Manufacturer)				
Located at 29500 Solon Road, Solon, Ohio 44139 USA	(440) 248-4600 (440) 349-5970			
(Plant Address)	(Telephone No.) (Fax No.)			
do solemnly declare that the fittings listed hereunder, which are subject and Pressure Vessels Regulation, comply with all of the requirements ASME B31.3 Chapter IX, for unlisted components where applicable				
(Title of recognized North American Sta which specifies the dimensions, materials of construction, pressure/temperatu				
or are not covered by the provisions of a recognized North American st as supported by the attached data	andard and are therefore manufactured to comply with which identifies the dimensions, material of construction,			
pressure/temperature ratings and the basis for such ratings, the marking				
I further declare that the manufacture of these fittings is controlled by a quality s which has been verified by the following authority, BSI	system meeting the requirements of ISO 9001:2015			
The items covered by this declaration, for which I seek registration, are category A. F	ittings type fittings. In support of			
this application, the following information and/or test data are attached as follows: ISO 9001:2015 Certificate, Catalog Information, Support Documents, Attact	hment B. Attachment A			
(drawings, calculations, test reports				
Declared before me at Solon in the	State of Ohio			
the 12th day of January AD 2017.				
Commissioner for Oaths:	States States - C			
Jamie Ristau Jamie L Ristau				
(Printed name) Rotary Public, State of Glaio				
Jamie & Pistan Hy Gunanission Expires: 03/06/2019	Mon			
(Signature)	C (Signature of Declarer)			
FOR OFFICE USE ON	LY			
To the best of my knowledge and belief, the application meets the requirements of	the			
Technical Standards and Safety Act, Boilers and Pressure Vessels Regulation CSA Standard B51 and is accepted for registration in Category				
CRN: <u>CSA-0A19311,56</u>	CRN: CSA-0A19311.56			
Registered by: <u>A.BANWATT</u> R	egistration Process administered by SA Group per CSA B51			
Dated: <u>July 10, 2017</u>				
NOTE: This registration expires on: _APRIL 11, 2027(( (6))	CSA Group			
PV 09553 (06/16)	*Note: See the attachment for the scope of the registration 3 ages			

# <u>Attachment B: Scope of Registration for Alloy 625 Tube Fittings</u> (Category A)

#### Product Scope

The table below presents the scope of alloy 625 Swagelok Tube Fittings covered by this submission for CRN approval, which complies with the requirements of ASME B31.3, Part 304.7.2 as an unlisted component.

#### Summary Tables

Product Description or Series	Material	Port Connections and Sizes	Maximum Allowable Working Pressure		Design Code
			Up to 100°F	At maximum temperature	of Construction
Gaugeable Tube Fittings and Adapter Fittings	Alloy 625 ASTM B446 ASTM B564 (for shaped bodies with 1/2" end connections)	Swagelok End Connections 1/4, 3/8, 1/2 inch	See Table below	See Table below	
		NPT Male 1/4, 3/8, 1/2 inch	Pressure rating limited by tube fitting. See Table below		ASME B31.3 (Unlisted Components)
		NPT Female 1/4, 3/8, 1/2 inch	Pressure rating limited by tube fitting. See Table below		

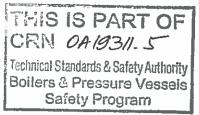
## Alloy 625 Swagelok Tube Fitting Pressure Rating Table

Swagelok End Connection	Maximum Allowable Working Pressure (Note 1)			
Size, inch	Tube Wall Thickness, inch	Up to 100°F	Maximum temperature 1000°F (537°C) (Note 2)	
1/4	0.049 inch	10 700 psig	7 811 psig	
3/8	0.065 inch	9 400 psig	6 862 psig	
1/2	0.065 inch	6 800 psig	4 964 psig	

**Note 1:** Maximum Allowable Working Pressure Values based on noted tube wall thickness. Thinner tubing may be used but in all cases the ratings are less than, or equal to, those shown in the table.

Note 2: Maximum Temperature ratings based on an Elevated Temperature Factor of 0.73, from ASME Code BPV Section II, Part D, Table 1B.

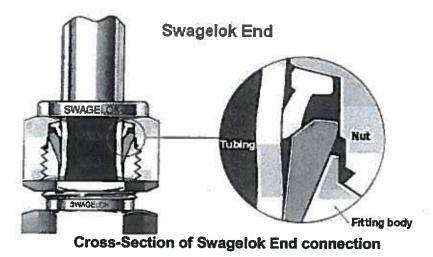
	CSA 2 of 3
ATTACH	MENT TO
C.R.N.:	SA-0A19311-56
Signed:	28/siscel
178 Rexdate E	Boulevard, Terunto, ON Canada M9W1R3



Page 1 of 2

### Product Description And Ratings

Swagelok Tube Fittings are furnished as straight or shaped fittings. Swagelok Tube Fittings consist of at least one Swagelok End – a proprietary two-ferrule mechanical-grip design.



## **Quality System**

The Swagelok Company quality system complies with the requirements of BS EN 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 catalogs do not represent the full scope of registration, but rather details some of the most common options.

- Gaugeable Tube Fittings and Adapter Fittings MS-01-140
- Tubing Data Sheet MS-01-107

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ATTACHM	ENTTO
C.R.N. CS	A-0A19311-56
Signed:	Neveral Foronto, ON Canada M9W 1R3

THIS IS PART OF CRN 0A19311.5 Technical Stordard & S f Juli city Beilers C. Collage Massaig Salour rug an



March 2017

# <u>CRN – Canadian Registration Numbers - Saskatchewan</u>

The Province of Saskatchewan participates with Quebec and the Canadian Standards Association (CSA Group) for the registrations of "Fittings".

Per an agreement with CSA Group in April 1998, Saskatchewan recognizes registrations done by CSA Group and accepts such fittings for use in Saskatchewan.

The letters "CSA" are applied as a prefix to the CRN to indicate which "Fittings" have been registered in this manner. You should inform your clients of this additional marking requirement and that "Fittings" registered by CSA Group are accepted for use in Saskatchewan Canada.