### 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 TITLE OF THE STANDARD OF CONSTRUCTOR A Pipe fittings, including couplings, tees, sibows, Ys, plugs, unions, pipa caps, or reducers ASME B16.5 and ASME B Flanges: all flenges C Valves: all line valves B31.3 Chapter IX, for D Expansion joints, flexible connections, and hase assemblies: all types unlisted components where E Strainers, filters, separators, and steam traps applicable F Measuring devices, including pressure gauges, level gauges, sight glasses, levels, or prossure transmitte G Certified capacity-rated pressure relief devices acceptable as primary over pressure protection on bollors, 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) SHOW MANUFACTURERS NAME: TRADEMARK, OR LOGO AS IT WILL APPEAR ON THE PRODUCT TYPE OF CONSTRUCTION PORGED & WELDED D WROUGHT D LIST OF SUPPORTING DOCUMENTATION AND IDENTIFICATION OF THE ACTUAL ITEMS TO BE REGISTERED: ISO 9001:2015 Quality System Certificate, Support Documents, Attachment B, Catalog Information, Attachment A David H. Peace Swagelok Company (see rote 3) employed by\_ end 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 temporature 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 w as being suitable for that purpose and I me to the or in part and has been verified by BSI doclarsion conscientiously believing incide true, and knowing that it is of the same force and effect as if made in Signature of Declarer: Solor Ohio Declared before me at Jamle L Rictay SETHIS 7 Realdent Portage County This 3ra Hotory Public, State of Oblo My Commission Deplines: 03/08/2019 Commissioner of Oatha mu or Notary Public: (sign) (Affix Official seal to the right) This space for Regulatory Authority uso

This registration must be revalidated after ten (10) years from the

OA17712.2

1214 FID#:

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.

erritories

167.00

REGISTERED

UNDER THE AUTHORITY OF THE BOILER AND PRESSURE VESSEL ACT.

C.R.N. OAI 7717.7

SHONED

DATE.



Canadian Registration Number Submittal Swagelok Submission #SS-FLANGE-2017

# Attachment B: Scope of Registration for 316 SS ASME (ANSI) Flange Adapters (Category A)

#### **Product Scope**

The table below presents the scope of Swagelok ANSI Flange Adapters with tube connections covered by this submission for CRN approval. The referenced product catalogues do not represent the full scope of the submission but rather detail some of the most common options...

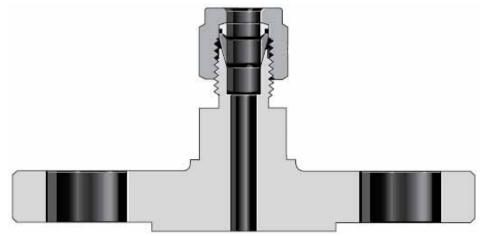
#### **Summary Table**

Product	Material	Port Connections and Sizes	Maximum Allowable Working Pressure		Design Code
Description or Series			Up to 100°F	At maximum temperature	of Construction
Swagelok Flange Adapters	F316 SS ASTM A182	Swagelok End Connection 1/16 - 2 inch (Fractional) 3mm - 50 mm (Metric)			<ul> <li>ASME B16.5</li> <li>ASME B31.1 for unlisted components</li> <li>ASME B31.3 for unlisted components</li> </ul>

#### **Product Description And Ratings**

The Swagelok Flange Fitting body is a combination of a flange end designed and machined to ASME B16.5 dimensions and requirements, and Swagelok's proprietary design tube fitting end which is identical to the design approved in Swagelok SS Tube Fitting CRN 0A12577.5 (0A10622.2 for Alberta). Flange pressure ratings are based on Class and pressure-temperature ratings as documented in ASME B16.5-2013. Actual flange product ratings may be reduced due to the tube fitting end acting as the limiting factor (see table below for Tube fitting pressure ratings)

An example flange adapter section view is shown below. All Swagelok Flange Fitting wall thicknesses are the same or thicker than those noted in the above Swagelok SS Tube Fitting CRNs.





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**Swagelok SS Tube Fitting Pressure Rating Table** 

Swagelok End	SS Tube Fitting Pressure Rating Table  Maximum Allowable Working Pressure (1)			
Connection Size	-60°F to 100°F	At maximum temperature 1000°F (537°C) (2)		
1/16"	12 000 psig	9120 psig		
1/8"	10 900 psig	8284 psig		
3/16"	10 200 psig	7752 psig		
1/4"	10 200 psig	7752 psig		
5/16"	8 000 psig	6080 psig		
3/8"	7500 psig	5700 psig		
1/2"	6700 psig	5092 psig		
5/8"	6000 psig	4560 psig		
3/4"	5800 psig	4408 psig		
7/8"	4800 psig	3648 psig		
1"	4700 psig	3572 psig		
1 1/4"	4900 psig	3724 psig		
1 1/2"	4900 psig	3724 psig		
2"	3600 psig	2736 psig		
3 mm	670 bar	509 bar		
6 mm	710 bar	540 bar		
8 mm	520 bar	395 bar		
10 mm	580 bar	441 bar		
12 mm	470 bar	357 bar		
14 mm	430 bar	327 bar		
15 mm	400 bar	304 bar		
16 mm	400 bar	304 bar		
18 mm	370 bar	281 bar		
20 mm	380 bar	289 bar		
22 mm	340 bar	258 bar		
25 mm	320 bar	243 bar		
28 mm	330 bar	251 bar		
30 mm	310 bar	236 bar		
32 mm	330 bar	251 bar		
38 mm	310 bar	236 bar		
50 mm	270 bar	205 bar		

**Note (1):** Values based on thickest wall tubing. Thinner tubing may be used but in all cases the ratings are less than, or equal to, those shown in the table.

**Note (2):** The working pressure ratings for stainless steel Swagelok end connections are based on the allowable working pressure for stainless steel tubing (TP316 A269 listed in ASME B31.3), and are de-rated for use at 1000°F by a derating factor of 0.76 per the Swagelok Tubing Data publication MS-01-107.





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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 noted below do not represent the full scope of registration, but rather details some of the most common options.

- Flange Adapters MS-02-200
- Tubing Data Sheet MS-01-107