

STATUTORY DECLARATION
Registration of Fittings

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

I, David H. Peace, Vice President of Engineering
(name of applicant) (position title) (must be in a position of authority)
of Swagelok Company
(name of manufacturer)

located at 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 Safety Codes Act (check one)

- comply with the requirements of ASME B31.1 and ASME B31.3 which specifies the dimensions, (title of recognized North American Standard) 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 (title of code of construction or other applicable document) 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 manufacture of these fittings is controlled by a quality control program which has been verified by the following authority, BSI as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are

Category A Type Fittings
(brief description of fittings)

In support of this application, the following information, calculations and/or test data are attached:

ISO 9001:2015 Certificate, Support Documents: Attachment B, Catalog Information, Attachment A

DECLARED before me at Solon in the State of Ohio
(city) (province or state)
this 3rd day of May, 2017
(Month) (Year)

(print) Jamie L Ristau Jamie L Ristau
(a Commissioner of Oaths or Notary Public) Resident Portage County
Notary Public, State of Ohio
My Commission Expires: 03/06/2019

(sign) Jamie L Ristau [Signature]
(a Commissioner of Oaths or Notary Public) (signature of applicant)

For ABSA Office Use Only: *See Acceptance Letter for the comments and/or conditions of registration*

NOTES: _____
To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category A

Registration Number: 0A17712.2 [Signature]
(Signature of the Administrator/SCO)

Date Registered: JUN 09 2017 Expiry Date: Jun 09 2027

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..

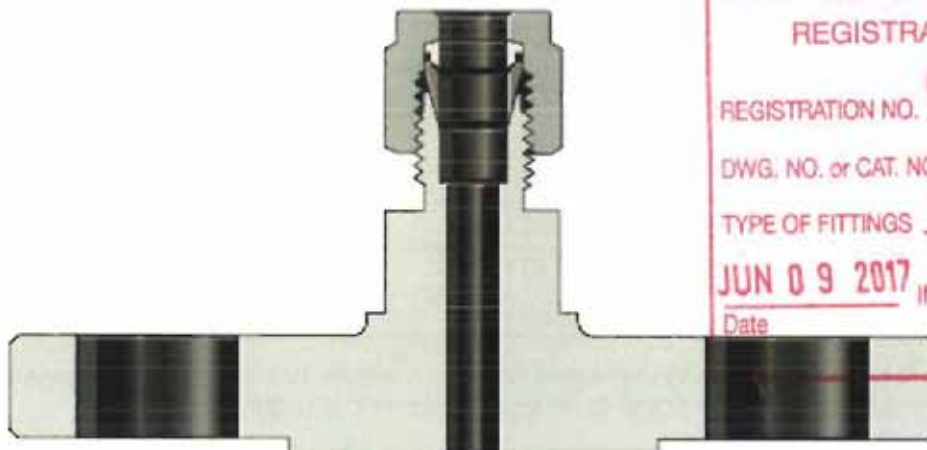
Summary Table

Product Description or Series	Material	Port Connections and Sizes	Maximum Allowable Working Pressure		Design Code of Construction
			Up to 100°F	At maximum temperature	
Swagelok Flange Adapters	F316 SS ASTM A182	Swagelok End Connection 1/16 - 2 inch (Fractional) 3mm - 50 mm (Metric)	As documented in ASME B16.5 Class and pressure ratings. See "Swagelok SS Tube Fitting Pressure Rating Table" on p.2 as the fitting end may be a limiting factor.		<ul style="list-style-type: none"> • ASME B16.5 • ASME B31.1 for unlisted components • ASME B31.3 for unlisted components

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.



0A10

SAFETY CODES ACT - PROVINCE OF ALBERTA

REGISTRATION OF FITTINGS

REGISTRATION NO. 0A17712.2

DWG. NO. or CAT. NO. Attachment B

TYPE OF FITTINGS Flange Adapters

Date JUN 09 2017 INITIALS Keth Rudolf

KETH RUDOLF, P.Eng.
DESIGN SURVEY ENGINEER

"See Acceptance Letter for the comments and/or conditions of registration"

Swagelok SS Tube Fitting Pressure Rating Table

Swagelok End Connection Size	Maximum Allowable Working Pressure (1)	
	-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.

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

0A17712.2

JUN 09 2017

"See Acceptance Letter for the comments
and/or conditions of registration"

June 09, 2017

Attention: Jonathan Seewald
SWAGELOK COMPANY
29500 SOLON ROAD
SOLON, OH 44139

Email: Jonathan.Seewald@swagelok.com

The design submission, tracking number 2017-02751, originally received on May 08, 2017 was surveyed and accepted for registration as follows:

CRN : 0A17712.2

Accepted on: June 09, 2017

Reg Type: New Design

Expiry Date: June 09, 2027

Drawing No. : ATTACHMENT B: SCOPE OF REGISTRATION PAGES 1 TO 3

Fitting type: FLANGE ADAPTERS

Design registered in the name of : SWAGELOK COMPANY

The registration is conditional on your compliance with the following notes:

This registration includes fifteen manufacturing locations as per Attachment A.

The scope of this registration is as per Attachment B and includes the material, sizes, and pressure-temperature ratings. The pressure-temperature ratings are further defined in the Code Comparison Summary document.

As indicated on the AB-41 Statutory Declaration form and submitted documentation the codes of construction are ASME B31.1 and B31.3.

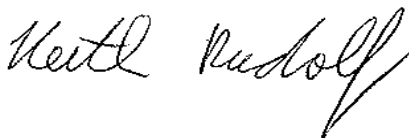
This registration is valid only for fittings fabricated at the location(s) covered by the QC certificate attached to the accepted AB-41 Statutory Declaration form.

This registration is valid only until the indicated expiry date and only if the Manufacturer maintains a valid quality management system approved by an acceptable third-party agency until that date. Should the approval of the quality management system lapse before the expiry date indicated above, this registration shall become void.

An invoice covering survey and registration fees will be forwarded from our Revenue Accounts.

If you have any question don't hesitate to contact me by phone at (780) 433-0281 ext 3344 or fax (780) 437-7787 or e-mail Rudolf@absa.ca.

Sincerely,



RUDOLF, KEITH, P. Eng.
SCO Cert. No. D00008862