## 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)
of: Swagelok Company
(name of manufacturer)
located at:


Solon, Ohio
(City, Prov)

$$
44139 \text { USA }
$$

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 (tule of recognized North Amencan Standard) which specifies the dimensions, Materials of construction, pressure / temperature ratings and identification marking of the fittings, or
O Are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with $\qquad$ 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



## 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 (Highland) 318 Bishop Road Highland Heights, Ohio 44143 USA |
| Swagelok Company (OFC) 29495 F.A. Lennon Drive Solon, Ohio 44139 USA |
| Swagelok Company (Atlantic) 26651 Curtiss Wright Parkway Willoughby Hills, Ohio 44092 USA |
| Swagelok Company (Micro) 26653 Curtiss Wright Parkway Willoughby Hills, Ohio 44092 USA |
| Swagelok Hose Services Company (SHSC) 29900 Solon Industrial Parkway <br> Solon, Ohio 44139 |
| Swagelok (China) Fluid System Technologies Ltd. Changshu Export Process Zone Changshu Economic Development Zone Changshu, Jiangshu 215513 China |
|  |

## Attachment B. Scope of Registration for Swagelok Titanium, Grade 4 (ASTM B348, B381) Tube Fittings (Category A)

This document represents the scope of Swagelok Titanium Tube Fittings covered by this submission for CRN approval. These Swagelok Tube Fittings have been evaluated in accordance with ASME B31.3 for unlisted components and ASME B31.1 for unlisted components.

Summary Table

| Product Description or Series | Material (Standard) | Port Connections and Sizes | Maximum Allowable Working Pressure |  | Design Code of Construction |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Up to $100^{\circ} \mathrm{F}$ | At maximum temperature |  |
| Gaugeable Tube Fittings and Adapter Fittings | Titanium Grade 4 (ASTM B348/ ASTM B381) | Swagelok End Connection <br> $1 / 4$ inch $-1 / 2$ inch <br> $6 \mathrm{~mm}, 10 \mathrm{~mm}, 12 \mathrm{~mm}$ | See Table below | See Table below | ASME B31.3 <br> (Unlisted Components) <br> ASME B31.1 <br> (Unlisted <br> Components) |
|  |  | NPT Male 1/16-1 inch | $\begin{gathered} 8800-4200 \\ \text { psig } \end{gathered}$ | $\begin{gathered} 3520-1680 \\ \text { psig @ } 600^{\circ} \mathrm{F} \\ \left(315^{\circ} \mathrm{C}\right) \end{gathered}$ |  |
|  |  | NPT Female 1/16-1 inch | $\begin{gathered} 5300-3500 \\ \text { psig } \end{gathered}$ | $\begin{gathered} 2120-1400 \\ \text { psig @ } 600^{\circ} \mathrm{F} \\ \left(315^{\circ} \mathrm{C}\right) \end{gathered}$ |  |

## Titanium Swagelok Tube Fitting Pressure Rating Table

| Swagelok End <br> Connection Size | ASME B31.1 Maximum Allowable <br> Working Pressures |  | ASME B31.3 Maximum Allowable <br> Working Pressures |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Up to $100^{\circ} \mathrm{F}$ | At maximum <br> temperature <br> $\mathbf{6 0 0 ^ { \circ }} \mathrm{F}\left(315^{\circ} \mathrm{C}\right)$ | Up to $100^{\circ} \mathrm{F}$ | At maximum <br> temperature <br> $600^{\circ} \mathrm{F}\left(315^{\circ} \mathrm{C}\right)$ |
| $1 / 4$ inch | 7735 psig | 3480 psig | 9100 psig | 4095 psig |
| $3 / 8$ inch | 4930 psig | 2218 psig | 5800 psig | 2610 psig |
| $1 / 2 \mathrm{inch}$ | 3570 psig | 1606 psig | 4200 psig | 1890 psig |
| 6 mm | 510 bar | 229 psig | 600 bar | 270 psig |
| 10 mm | 289 bar | 130 psig | 340 bar | 153 psig |
| 12 mm | 238 bar | 107 psig | 280 bar | 126 psig |


$\quad$| Technical |
| :--- |
| Safety Authority |
| of Saskatchewan |

Registration No. 2 O222212.53

Category A: Swagelok Titanium Tube Fittings

## Product Description

Swagelok Fittings are furnished in a variety of configurations and shapes (straight, elbow, tee or cross). Swagelok Fittings consist of at least one Swagelok End - a proprietary two-ferrule mechanical-grip design. The table below, as well as the "Configurations" section, covers a variety of other end connections.


## Configurations

1. Unions.

2. Male and Female connectors / adapters.


## Product Options:

Some of the product options listed below affect the pressure-temperature ratings in the "Scope of Registration" section above, but in all cases the pressure ratings are the same or less than those shown in the table on page 1.

- Sealant for NPT pipe threads:
o Curable resin with PTFE
o PTFE tape
- Bored through fittings
- Plastic ferrules, (Nylon, Teflon, PEEK)

Additional options that do not affect pressure and/or temperature ratings may be made available within the scope of this approval. Examples of these would include the following:

- Special marking
- Special cleaning
- Wire drills
- bulkhead configurations
- Snubbers/frits and orifice plates

All of the above options, those that affect pressure and/or temperature ratings and those that do not, are within the scope of this approval.

## 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.

- Gaugeable Tube Fittings and Adapter Fittings MS-01-140, Rev Y
- Swagelok Tubing Data Sheet MS-01-107, Rev N

