## I. Declaration Information

| I, Joel Fel |  |  | In this space, show facsimile of manufacturer's logo or trademark as it will appear on the fitting. <br> Swageloke |
| :---: | :---: | :---: | :---: |
| Vice President, Engineering |  |  |  |
| (must | (company totle, e.g. vice president, plant in a position of authorty in the manulactunn | produced) |  |
| of: Swagelok Company |  |  |  |
| (name of manutacturer) |  |  |  |
| located at: | Headquarters: 29500 Solon Road | Solon, Ohio | 44139 USA |
|  | (Plant Address - ApvStreet) | (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
$\frac{\text { ASME B31.1 and ASME B31.3 }}{\text { (tutbe of recognized North American Standard) }}$ 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


Canadian Registration Number Submittal \#HC-TUBEFIT-2019

## Attachment B. Scope of Registration for Swagelok Alloy C-276 (ASTM B564, B574) Tube Fittings (Category A)

This document represents the scope of Swagelok Alloy C-276 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 | Alloy C276 (ASTM B564 / ASTM B574) | Swagelok End Connection 1/4 inch - $1 / 2$ inch $6 \mathrm{~mm}-12 \mathrm{~mm}$ | See Table below | See Table below | ASME B31.3 <br> (Unlisted <br> Components) <br> ASME B31.1 <br> (Unlisted <br> Components) |
|  |  | NPT Male 1/16-1 inch | $\begin{gathered} 11000-5300 \\ \text { psig } \end{gathered}$ | 9020-4350 psig @ $1000^{\circ} \mathrm{F}$ (537 ${ }^{\circ} \mathrm{C}$ ) |  |
|  |  | NPT Female 1/16-1 inch | $\begin{gathered} 6700-4400 \\ \text { psig } \end{gathered}$ | 5500-3610 psig @ $1000^{\circ} \mathrm{F}$ $\left(537^{\circ} \mathrm{C}\right)$ |  |

## Alloy C-276 Swagelok Tube Fitting Pressure Rating Table

| Swagelok End <br> Connection Size | Maximum Allowable Working Pressure |  |
| :---: | :---: | :---: |
|  | Up to $100^{\circ} \mathrm{F}$ | At maximum <br> temperature $\mathbf{1 0 0 0}^{\circ} \mathrm{F}$ <br> $\left(537^{\circ} \mathrm{C}\right)$ |
| $1 / 4$ inch | 10200 psig | 7752 psig |
| $3 / 8$ inch | 6500 psig | 4940 psig |
| $1 / 2$ inch | 5100 psig | 3876 psig |
| 6 mm | 670 bar | 509 bar |
| 10 mm | 380 bar | 289 bar |
| 12 mm | 310 bar | 235 bar |



## 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.


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## 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 Summary 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


## 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 Comp 29900 Solon Industrial Parkway Solon, Ohio 44139 | Swagelok Company (Strongsville) 15400 Foltz Road Strongsville, Ohio 44119 |
| Swagelok (China) Fluid System Changshu Export Process Zon Changshu Economic Developm Changshu, Jiangshu 215513 China | Swagelok Limited Ballafletcher Road Tromode IM4 4RA Isle of Man |
| Technical Safety Authority of Saskatchewan <br> Registration No. OA22214.53 <br> File No. 11445 <br> Date: April 22, 2020 <br> Expiry Date: March 02, 2030 |  |

