Flange Adapters

- Threadless, weldless transition from flanged piping systems to tubing systems
- Flange types meet ASME, DIN EN, and JIS standards
- One-piece integrally machined forged body
- Available with Swagelok® tube fitting end connections up to 50 mm and 2 in.
Features
- Flange types meet ASME, DIN EN, and JIS standards
- Range of flange sizes and pressure classes
- Full range of sealing faces including flat face, raised face, RTJ, and tongue-and-groove
- 316/316L dual-certified stainless steel material standard
- Wrench flats for ease of tube fitting assembly
- Gaugeability on initial installation using Swagelok gap inspection gauges

End Connections
- Metric and fractional Swagelok tube fittings from 3 to 50 mm and 1/16 to 2 in.
- Metric and fractional Swagelok tube adapter fittings from 6 to 50 mm and 1/4 to 2 in.
- Male pipe weld end connections from 1/16 to 2 in.
- Socket weld end connections from 1/16 to 2 in.
- Other end connections are available upon request

Flange Connections
- ASME B16.5
  - Nominal flange sizes from NPS 1/2 to 2 in.
  - Pressure class ratings from 150 to 2500
- DIN EN 1092-1
  - Nominal flange sizes from DN 15 to 50
  - Pressure class ratings from PN 40 to 320
- JIS B2220
  - Nominal flange sizes from DN 15 to 50
  - Pressure class ratings from 10 to 63K
- Flange adapters to meet additional standards, such as API and ISO, are available upon request.

Regulatory Compliance
Stainless steel flange adapters with DIN EN (up to PN 160), and ANSI flanges are TÜV type approved.
According to the PED, flange adapters are classified as piping components and may not bear the CE-marking.

Cleaning and Packaging
All Swagelok flange adapters are cleaned in accordance with Swagelok Standard Cleaning and Packaging (SC-10) catalog, MS-06-62.

Special Cleaning and Packaging
To order flange adapters processed in accordance with ASTM G93 Level E, add GQ to the flange adapter ordering number.
Example: SS-810-F12-300GQ

Flange Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>ASTM / EN Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>316/316L stainless steel</td>
<td>A182/1.4401</td>
</tr>
<tr>
<td>Alloy 2507</td>
<td>A182 F53</td>
</tr>
<tr>
<td>6-moly</td>
<td>A182 F44</td>
</tr>
<tr>
<td>316L</td>
<td>A182 316F</td>
</tr>
<tr>
<td>Alloy 400</td>
<td></td>
</tr>
<tr>
<td>Alloy 600</td>
<td></td>
</tr>
<tr>
<td>Alloy C-276</td>
<td></td>
</tr>
<tr>
<td>Alloy 625</td>
<td></td>
</tr>
<tr>
<td>Alloy 825</td>
<td>B564</td>
</tr>
</tbody>
</table>

1 Over 1 in. and over 25 mm stainless steel fittings use stainless steel ferrules with PFA coating. Applications above 450°F (232°C) require silver-plated front ferrules and uncoated back ferrules. To order fittings with silver-plated ferrules and uncoated back ferrules, add BM to the ordering number.
Example: SS-25M0-F25E-40-B1BM

Note: Swagelok does not offer gaskets for use with flange adapters due to variety of system media that could be used. Choosing a compatible gasket material is the responsibility of the system designer.
Ordering Information and Dimensions
Dimensions are for reference only and are subject to change.

ANSI Flanges with Swagelok Tube Fitting or Tube Adapter

<table>
<thead>
<tr>
<th>Tube OD in.</th>
<th>ANSI Flange NPS</th>
<th>Class</th>
<th>Ordering Number</th>
<th>Raised Face Flange</th>
<th>Dimensions, in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>1/2</td>
<td>150</td>
<td>SS-400-F8-150</td>
<td>1.61</td>
<td>A 3.50 D 0.60 E 0.19 F 13/16 H 1.32 J 2.38 K 0.38</td>
</tr>
<tr>
<td>3/8</td>
<td>1/2</td>
<td>300</td>
<td>SS-600-F8-300</td>
<td>1.79</td>
<td>A 3.75 D 0.66 E 0.28 F 13/16 H 1.50 J 2.62 K 0.50</td>
</tr>
<tr>
<td>1/2</td>
<td>1/2</td>
<td></td>
<td>SS-810-F8-150</td>
<td>1.78</td>
<td>A 3.50 D 0.60 E 0.19 F 13/16 H 1.38 J 2.38 K 0.38</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>150</td>
<td>SS-810-F16-150</td>
<td>1.90</td>
<td>A 4.25 D 0.90 E 0.41 F 13/16 H 1.50 J 3.12 K 0.50</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td>SS-810-F32-150</td>
<td>2.09</td>
<td>A 6.00 D 1.69 E 4.75 K 0.69</td>
</tr>
<tr>
<td>3/4</td>
<td>1</td>
<td>150</td>
<td>SS-1210-F16-150</td>
<td>1.98</td>
<td>A 4.25 D 0.96 E 0.62 F 1 1/4 H 1.58 J 3.12 K 0.50</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td></td>
<td>SS-1610-F16-150</td>
<td>2.38</td>
<td>A 4.25 D 1.23 E 0.88 F 1 3/8 H 1.90 J 3.12 K 0.50</td>
</tr>
<tr>
<td>1 1/2</td>
<td>2</td>
<td></td>
<td>SS-2400-F32-150</td>
<td>3.40</td>
<td>A 6.00 D 1.97 E 1.34 F 2 1/8 H 2.33 J 4.75 K 0.69</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td></td>
<td>SS-3200-F32-150</td>
<td>4.11</td>
<td>A 6.00 D 2.66 E 1.81 F 2 3/4 H 2.64 J 4.75 K 0.69</td>
</tr>
</tbody>
</table>

Note: Some flange size and fitting combinations are not available.

Ratings are taken from ASME B16.5, Table 2-2.2 and Table II-2-2.2 (based on A182 316 stainless steel material).
Pressure ratings for fittings with a flange end connection and another end connection are determined by the connection with the lower pressure rating. Refer to Tubing Data catalog, MS-01-107, for additional information on tubing data.

Working Pressures by Classes, psig

<table>
<thead>
<tr>
<th>Temperature °F</th>
<th>150</th>
<th>300</th>
<th>400</th>
<th>600</th>
<th>900</th>
<th>1500</th>
<th>2500</th>
</tr>
</thead>
<tbody>
<tr>
<td>-20 to 100</td>
<td>275</td>
<td>720</td>
<td>960</td>
<td>1440</td>
<td>2160</td>
<td>3600</td>
<td>6000</td>
</tr>
<tr>
<td>200</td>
<td>235</td>
<td>620</td>
<td>825</td>
<td>1240</td>
<td>1860</td>
<td>3095</td>
<td>5160</td>
</tr>
<tr>
<td>300</td>
<td>215</td>
<td>560</td>
<td>745</td>
<td>1120</td>
<td>1680</td>
<td>2795</td>
<td>4660</td>
</tr>
<tr>
<td>400</td>
<td>195</td>
<td>515</td>
<td>685</td>
<td>1025</td>
<td>1540</td>
<td>2570</td>
<td>4280</td>
</tr>
<tr>
<td>500</td>
<td>170</td>
<td>480</td>
<td>635</td>
<td>955</td>
<td>1435</td>
<td>2390</td>
<td>3980</td>
</tr>
<tr>
<td>600</td>
<td>140</td>
<td>450</td>
<td>600</td>
<td>900</td>
<td>1355</td>
<td>2255</td>
<td>3760</td>
</tr>
<tr>
<td>650</td>
<td>125</td>
<td>440</td>
<td>590</td>
<td>885</td>
<td>1325</td>
<td>2210</td>
<td>3680</td>
</tr>
<tr>
<td>700</td>
<td>110</td>
<td>435</td>
<td>580</td>
<td>870</td>
<td>1305</td>
<td>2170</td>
<td>3620</td>
</tr>
<tr>
<td>750</td>
<td>95</td>
<td>425</td>
<td>570</td>
<td>855</td>
<td>1280</td>
<td>2135</td>
<td>3560</td>
</tr>
<tr>
<td>800</td>
<td>80</td>
<td>420</td>
<td>565</td>
<td>845</td>
<td>1265</td>
<td>2110</td>
<td>3520</td>
</tr>
<tr>
<td>850</td>
<td>65</td>
<td>420</td>
<td>555</td>
<td>835</td>
<td>1255</td>
<td>2090</td>
<td>3480</td>
</tr>
<tr>
<td>900</td>
<td>50</td>
<td>415</td>
<td>555</td>
<td>830</td>
<td>1245</td>
<td>2075</td>
<td>3460</td>
</tr>
<tr>
<td>950</td>
<td>35</td>
<td>385</td>
<td>515</td>
<td>775</td>
<td>1160</td>
<td>1930</td>
<td>3220</td>
</tr>
<tr>
<td>1000</td>
<td>20</td>
<td>365</td>
<td>485</td>
<td>725</td>
<td>1090</td>
<td>1820</td>
<td>3030</td>
</tr>
</tbody>
</table>

Working Pressures by Classes, bar

<table>
<thead>
<tr>
<th>Temperature °C</th>
<th>150</th>
<th>300</th>
<th>400</th>
<th>600</th>
<th>900</th>
<th>1500</th>
<th>2500</th>
</tr>
</thead>
<tbody>
<tr>
<td>-29 to 38</td>
<td>19.0</td>
<td>49.6</td>
<td>66.2</td>
<td>99.3</td>
<td>148.9</td>
<td>248.2</td>
<td>413.7</td>
</tr>
<tr>
<td>50</td>
<td>18.4</td>
<td>48.1</td>
<td>64.2</td>
<td>96.2</td>
<td>144.3</td>
<td>240.6</td>
<td>400.9</td>
</tr>
<tr>
<td>100</td>
<td>16.2</td>
<td>42.2</td>
<td>56.3</td>
<td>84.4</td>
<td>126.6</td>
<td>211.0</td>
<td>351.6</td>
</tr>
<tr>
<td>150</td>
<td>14.8</td>
<td>38.5</td>
<td>51.3</td>
<td>77.0</td>
<td>115.5</td>
<td>192.5</td>
<td>320.8</td>
</tr>
<tr>
<td>200</td>
<td>13.7</td>
<td>35.7</td>
<td>47.6</td>
<td>71.3</td>
<td>107.0</td>
<td>178.3</td>
<td>297.2</td>
</tr>
<tr>
<td>250</td>
<td>12.1</td>
<td>33.4</td>
<td>44.5</td>
<td>66.8</td>
<td>100.1</td>
<td>166.9</td>
<td>278.1</td>
</tr>
<tr>
<td>300</td>
<td>10.2</td>
<td>31.6</td>
<td>42.2</td>
<td>63.2</td>
<td>94.9</td>
<td>158.1</td>
<td>263.5</td>
</tr>
<tr>
<td>325</td>
<td>9.3</td>
<td>30.9</td>
<td>41.2</td>
<td>61.8</td>
<td>92.7</td>
<td>154.4</td>
<td>257.4</td>
</tr>
<tr>
<td>350</td>
<td>8.4</td>
<td>30.3</td>
<td>40.4</td>
<td>60.7</td>
<td>91.0</td>
<td>151.6</td>
<td>252.7</td>
</tr>
<tr>
<td>375</td>
<td>7.4</td>
<td>29.9</td>
<td>39.8</td>
<td>59.8</td>
<td>89.6</td>
<td>149.4</td>
<td>249.0</td>
</tr>
<tr>
<td>400</td>
<td>6.5</td>
<td>29.4</td>
<td>39.3</td>
<td>58.9</td>
<td>88.3</td>
<td>147.2</td>
<td>245.3</td>
</tr>
<tr>
<td>425</td>
<td>5.5</td>
<td>29.1</td>
<td>38.9</td>
<td>58.3</td>
<td>87.4</td>
<td>145.7</td>
<td>242.9</td>
</tr>
<tr>
<td>450</td>
<td>4.6</td>
<td>28.8</td>
<td>38.5</td>
<td>57.7</td>
<td>86.5</td>
<td>144.2</td>
<td>240.4</td>
</tr>
<tr>
<td>475</td>
<td>3.7</td>
<td>28.7</td>
<td>38.2</td>
<td>57.3</td>
<td>86.0</td>
<td>143.4</td>
<td>238.9</td>
</tr>
<tr>
<td>500</td>
<td>2.8</td>
<td>28.2</td>
<td>37.6</td>
<td>56.5</td>
<td>84.7</td>
<td>140.9</td>
<td>235.0</td>
</tr>
<tr>
<td>538</td>
<td>1.4</td>
<td>25.2</td>
<td>33.4</td>
<td>50.0</td>
<td>75.2</td>
<td>125.5</td>
<td>208.9</td>
</tr>
</tbody>
</table>
### Ordering Information, ANSI Flange Adapters with Swagelok Tube Fitting or Tube Adapter

For standard stainless steel flange adapters, select an ordering number from the table on page 3.

Build a special-order flange adapter by combining the designators in the sequence shown below.

#### Flange Material
- **SS** = 316/316L stainless steel
- **M** = Alloy 400
- **INC** = Alloy 600
- **HC** = Alloy C-276

(1) Over 1 in. and over 25 mm stainless steel fittings use stainless steel ferrules with PFA coating. Applications above 450°F (232°C) require silver-plated front ferrules and uncoated back ferrules. To order fittings with silver-plated ferrules and uncoated back ferrules, add **BM** to the ordering number.

Example: SS-8M0-F16-150-FFBM

#### End Connection Size

**Swagelok Tube Fitting**

<table>
<thead>
<tr>
<th>Fractional</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 = 1/8 in.</td>
<td>3M0 = 3 mm</td>
</tr>
<tr>
<td>400 = 1/4 in.</td>
<td>6M0 = 6 mm</td>
</tr>
<tr>
<td>600 = 3/8 in.</td>
<td>8M0 = 8 mm</td>
</tr>
<tr>
<td>810 = 1/2 in.</td>
<td>10M0 = 10 mm</td>
</tr>
<tr>
<td>1010 = 5/8 in.</td>
<td>12M0 = 12 mm</td>
</tr>
<tr>
<td>1210 = 3/4 in.</td>
<td>14M0 = 14 mm</td>
</tr>
<tr>
<td>1610 = 1 in.</td>
<td>15M0 = 15 mm</td>
</tr>
<tr>
<td>2000 = 1 1/4 in.</td>
<td>18M0 = 18 mm</td>
</tr>
<tr>
<td>2400 = 1 1/2 in.</td>
<td>20M0 = 20 mm</td>
</tr>
<tr>
<td>3200 = 2 in.</td>
<td>22M0 = 22 mm</td>
</tr>
<tr>
<td>25M0 = 25 mm</td>
<td></td>
</tr>
<tr>
<td>28M0 = 28 mm</td>
<td></td>
</tr>
<tr>
<td>32M0 = 32 mm</td>
<td></td>
</tr>
<tr>
<td>38M0 = 38 mm</td>
<td></td>
</tr>
<tr>
<td>50M0 = 50 mm</td>
<td></td>
</tr>
</tbody>
</table>

**Swagelok Tube Adapter**

<table>
<thead>
<tr>
<th>Fractional</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-TA = 1/4 in.</td>
<td>6-MTA = 6 mm</td>
</tr>
<tr>
<td>6-TA = 3/8 in.</td>
<td>8-MTA = 8 mm</td>
</tr>
<tr>
<td>8-TA = 1/2 in.</td>
<td>10-MTA = 10 mm</td>
</tr>
<tr>
<td>12-TA = 3/4 in.</td>
<td>12-MTA = 12 mm</td>
</tr>
<tr>
<td>16-TA = 1 in.</td>
<td>18-MTA = 18 mm</td>
</tr>
<tr>
<td>20-TA = 1 1/4 in.</td>
<td>20-MTA = 20 mm</td>
</tr>
<tr>
<td>24-TA = 1 1/2 in.</td>
<td>22-MTA = 22 mm</td>
</tr>
<tr>
<td>32-TA = 2 in.</td>
<td>25-MTA = 25 mm</td>
</tr>
<tr>
<td>28-MTA = 28 mm</td>
<td></td>
</tr>
<tr>
<td>32-MTA = 32 mm</td>
<td></td>
</tr>
<tr>
<td>38-MTA = 38 mm</td>
<td></td>
</tr>
<tr>
<td>50-MTA = 50 mm</td>
<td></td>
</tr>
</tbody>
</table>

(1) Over 1 in. and over 25 mm tube adapter fittings are furnished with nuts and preswaged ferrules.

#### Options
- **BLIND** = Blind through hole
- **BT** = Bored-through
- **PMI** = 100% positive material identification, no report
- **PM2** = 100% positive material identification, with report
- **PM3** = specified % positive material identification, with report

#### Sealing Face (Raised Face Standard)

- **no designator** = Raised face
- **FF** = Flat face
- **RTJ** = Ring joint face
- **MFL** = Male face, large
- **MFS** = Male face, small
- **FFL** = Female face, large
- **FFS** = Female face, small
- **TFL** = Tongue face, large
- **TFS** = Tongue face, small
- **GFL** = Groove face, large
- **GFS** = Groove face, small

ASME B16.5 should be reviewed for specific dimensions related to sealing faces.

(1) May come with full face or contoured face.

#### Pressure Class

| 150 = 150 | 900 = 900 |
| 300 = 300 | 1500 = 1500 |
| 600 = 400/600 | 2500 = 2500 |

#### Nominal Flange Size

- **F8** = NPS 1/2 in.
- **F12** = NPS 3/4 in.
- **F16** = NPS 1 in.
- **F24** = NPS 1 1/2 in.
- **F32** = NPS 2 in.
Ordering Information, ANSI Flange Adapters with NPT or Weld End Connections

For standard stainless steel flange adapters, select an ordering number from the table on page 3. Build a special-order flange adapter by combining the designators in the sequence shown below.

Flange Material
- **SS** = 316/316L stainless steel
- **M** = Alloy 400
- **INC** = Alloy 600
- **HC** = Alloy C-276

Nominal Flange Size
- **F8** = NPS 1/2 in.
- **F12** = NPS 3/4 in.
- **F16** = NPS 1 in.
- **F24** = NPS 1 1/2 in.
- **F32** = NPS 2 in.

Pressure Class
- 150 = 150
- 300 = 300
- 600 = 400/600

End Connection Size
- **NPT**
  - 1 = 1/16 in.
  - 2 = 1/8 in.
  - 4 = 1/4 in.
  - 6 = 3/8 in.
  - 8 = 1/2 in.
  - 12 = 3/4 in.
  - 16 = 1 in.
  - 20 = 1 1/4 in.
  - 24 = 1 1/2 in.
  - 32 = 2 in.

- **Weld**
  - 1W = 1/16 in.
  - 2W = 1/8 in.
  - 4W = 1/4 in.
  - 6W = 3/8 in.
  - 8W = 1/2 in.
  - 12W = 3/4 in.
  - 16W = 1 in.
  - 20W = 1 1/4 in.
  - 24W = 1 1/2 in.
  - 32W = 2 in.

End Connection Type
- 1 = Male
- 7 = Female

Sealing Face (Raised Face Standard)
- no designator = Raised face
- **FF** = Flat face
- **RTJ** = Ring joint face
- **MFL** = Male face, large
- **MFS** = Male face, small
- **FFL** = Female face, large
- **FFS** = Female face, small
- **TFL** = Tongue face, large
- **TFS** = Tongue face, small
- **GFL** = Groove face, large
- **GFS** = Groove face, small

ASME B16.5 should be reviewed for specific dimensions related to sealing faces.

May come with full face or contoured face.
Ordering Information, DIN EN Flange Adapters

For standard stainless steel flange adapters, select an ordering number from the table on page 3. Build a special-order flange adapter by combining the designators in the sequence shown below.

### Flange Material

- **SS**: 316/316L stainless steel
- **M**: Alloy 400
- **INC**: Alloy 600
- **HC**: Alloy C-276

① Over 1 in. and over 25 mm stainless steel fittings use stainless steel ferrules with PFA coating. Applications above 450°F (232°C) require silver-plated front ferrules and uncoated back ferrules. To order fittings with silver-plated ferrules and uncoated back ferrules, add **BM** to the ordering number.

Example: SS-25M0-F25E-40-B1BM

### End Connection Size

#### Swagelok Tube Fitting

**Fractional**

- 200 = 1/8 in.
- 400 = 1/4 in.
- 600 = 3/8 in.
- 810 = 1/2 in.
- 1010 = 5/8 in.
- 1210 = 3/4 in.
- 1610 = 1 in.
- 2000 = 1 1/4 in.
- 2400 = 1 1/2 in.
- 3200 = 2 in.

**Metric**

- 3M0 = 3 mm
- 6M0 = 6 mm
- 8M0 = 8 mm
- 10M0 = 10 mm
- 12M0 = 12 mm
- 14M0 = 14 mm
- 15M0 = 15 mm
- 18M0 = 18 mm
- 20M0 = 20 mm
- 22M0 = 22 mm
- 25M0 = 25 mm
- 28M0 = 28 mm
- 32M0 = 32 mm
- 38M0 = 38 mm
- 50M0 = 50 mm

#### Swagelok Tube Adapter

**Fractional**

- 4-TA = 1/4 in.
- 6-TA = 3/8 in.
- 8-TA = 1/2 in.
- 12-TA = 3/4 in.
- 16-TA = 1 in.
- 20-TA = 1 1/4 in.
- 24-TA = 1 1/2 in.
- 32-TA = 2 in.

**Metric**

- 6-MTA = 6 mm
- 8-MTA = 8 mm
- 10-MTA = 10 mm
- 12-MTA = 12 mm
- 18-MTA = 18 mm
- 20-MTA = 20 mm
- 22-MTA = 22 mm
- 25-MTA = 25 mm
- 28-MTA = 28 mm
- 32-MTA = 32 mm
- 38-MTA = 38 mm
- 50-MTA = 50 mm

① Over 1 in. and over 25 mm tube adapter fittings are furnished with nuts and preswaged ferrules.

### Options

- **BLIND** = Blind through hole
- **BT** = Bored-through
- **PMI** = 100% positive material identification, no report
- **PM2** = 100% positive material identification, with report
- **PM3** = Specified % positive material identification, with report

### Sealing Face

- **B1** = Raised face, serrated
- **B2** = Raised face, smooth
- **A** = Flat face
- **C** = Tongue face
- **D** = Groove face
- **E** = Spigot
- **F** = Recess
- **G** = O-Ring Spigot
- **H** = O-Ring Groove

### Pressure Class

- 10 = PN 10
- 16 = PN 16
- 25 = PN 25
- 40 = PN 40
- 63 = PN 63
- 100 = DN 100
- 160 = PN 160
- 250 = PN 250
- 320 = PN 320

### Nominal Flange Size

- F10E = DN10
- F15E = DN15
- F20E = DN20
- F25E = DN25
- F32E = DN32
- F40E = DN40
- F50E = DN50
Ordering Information, JIS Flange Adapters

For standard stainless steel flange adapters, select an ordering number from the table on page 3. Build a special-order flange adapter by combining the designators in the sequence shown below.

Flange Material
SS = 316/316L stainless steel

➊ Over 1 in. and over 25 mm stainless steel fittings use stainless steel ferrules with PFA coating. Applications above 450°F (232°C) require silver-plated front ferrules and uncoated back ferrules. To order fittings with silver-plated ferrules and uncoated back ferrules, add BM to the ordering number.

Example: SS-25M0-F25A-40K-RFBM

End Connection Size

Swagelok Tube Fitting

<table>
<thead>
<tr>
<th>Fractional</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 = 1/8 in.</td>
<td>3M0 = 3 mm</td>
</tr>
<tr>
<td>400 = 1/4 in.</td>
<td>6M0 = 6 mm</td>
</tr>
<tr>
<td>600 = 3/8 in.</td>
<td>8M0 = 8 mm</td>
</tr>
<tr>
<td>810 = 1/2 in.</td>
<td>10M0 = 10 mm</td>
</tr>
<tr>
<td>1010 = 5/8 in.</td>
<td>12M0 = 12 mm</td>
</tr>
<tr>
<td>1210 = 3/4 in.</td>
<td>14M0 = 14 mm</td>
</tr>
<tr>
<td>1610 = 1 in.</td>
<td>15M0 = 15 mm</td>
</tr>
<tr>
<td>2000 = 1 1/4 in.</td>
<td>18M0 = 18 mm</td>
</tr>
<tr>
<td>2400 = 1 1/2 in.</td>
<td>20M0 = 20 mm</td>
</tr>
<tr>
<td>3200 = 2 in.</td>
<td>22M0 = 22 mm</td>
</tr>
<tr>
<td>25M0 = 25 mm</td>
<td></td>
</tr>
<tr>
<td>28M0 = 28 mm</td>
<td></td>
</tr>
<tr>
<td>32M0 = 32 mm</td>
<td></td>
</tr>
<tr>
<td>38M0 = 38 mm</td>
<td></td>
</tr>
<tr>
<td>50M0 = 50 mm</td>
<td></td>
</tr>
</tbody>
</table>

Swagelok Tube Adapter

<table>
<thead>
<tr>
<th>Fractional</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-TA = 1/4 in.</td>
<td>6-MTA = 6 mm</td>
</tr>
<tr>
<td>6-TA = 3/8 in.</td>
<td>8-MTA = 8 mm</td>
</tr>
<tr>
<td>8-TA = 1/2 in.</td>
<td>10-MTA = 10 mm</td>
</tr>
<tr>
<td>12-TA = 3/4 in.</td>
<td>12-MTA = 12 mm</td>
</tr>
<tr>
<td>16-TA = 1 in.</td>
<td>18-MTA = 18 mm</td>
</tr>
<tr>
<td>20-TA = 1 1/4 in.</td>
<td>20-MTA = 20 mm</td>
</tr>
<tr>
<td>24-TA = 1 1/2 in.</td>
<td>22-MTA = 22 mm</td>
</tr>
<tr>
<td>32-TA = 2 in.</td>
<td>25-MTA = 25 mm</td>
</tr>
<tr>
<td>28-MTA = 28 mm</td>
<td></td>
</tr>
<tr>
<td>32-MTA = 32 mm</td>
<td></td>
</tr>
<tr>
<td>38-MTA = 38 mm</td>
<td></td>
</tr>
<tr>
<td>50-MTA = 50 mm</td>
<td></td>
</tr>
</tbody>
</table>

Options
BLIND = Blind through hole
BT = Bored-through
PMI = 100% positive material identification, no report
PM2 = 100% positive material identification, with report
PM3 = specified % positive material identification, with report

Sealing Face
RF = Raised face, small
RL = Raised face, large
FF = Flat face
S = Spigot, male
R = Recess, female

Pressure Class
5K = 5K
10K = 10K
16K = 16K
20K = 20K
30K = 30K
40K = 40K
63K = 63K

Nominal Flange Size
F10A = DN10
F15A = DN15
F20A = DN20
F25A = DN25
F32A = DN32
F40A = DN40
F50A = DN50

➊ Over 1 in. and over 25 mm tube adapter fittings are furnished with nuts and preswaged ferrules.
Options

Bored-Through Flange Adapters for Thermocouples and Dip Tubes
Swagelok bored-through flange adapters with Swagelok tube fitting ends accommodate thermocouples or dip tubes. To order, add **BT** to the ordering number.
Example: SS-6M0-F25M-40-CBT

Tube Fitting Lap Joint Stubs

Stainless steel lap joint connectors are available for use with 1/2 in. lap joint pipe flange adapters.
Select an ordering number.

<table>
<thead>
<tr>
<th>Tube OD</th>
<th>Sealing Surface Finish ($R_a$)</th>
<th>Ordering Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8 in.</td>
<td>125 to 250 µin. (3.2 to 6.4 µm)</td>
<td>SS-600-1-0151</td>
</tr>
<tr>
<td>10 mm</td>
<td></td>
<td>SS-10M0-1-0005</td>
</tr>
</tbody>
</table>

Medium- and High-Pressure Fittings, Tubing, Valves, and Accessories
Refer to Medium- and High-Pressure Fittings, Tubing, Valves, and Accessories catalog, MS-02-472, for additional information.

Swagelok Tube Fittings
Refer to Gaugeable Tube Fittings and Adapter Fittings catalog, MS-01-140, for additional information.

Tubing Products
Swagelok offers a wide variety of tubing products.
Contact your authorized Swagelok representative or see these Swagelok catalogs for more information:
- Stainless Steel Seamless Tubing, Fractional, Metric, and Imperial Sizes catalog, MS-01-181
- Ultrahigh-Purity and High-Purity Stainless Steel Tubing, Fractional, Metric, and Imperial Sizes catalog, MS-01-182

Tubing Data
Refer to Tubing Data catalog, MS-01-107, for additional information on tubing data.

Tube Benders
Refer to Tubing Tools and Accessories catalog, MS-01-179, for additional information.

Multihead Hydraulic Swaging Unit
Refer to Gaugeable Tube Fittings and Adapter Fittings catalog, MS-01-140, for additional information.

**Warning:** Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.
Introduction
Since 1947, Swagelok has designed, developed, and manufactured high-quality, general-purpose and specialty fluid system products to meet the evolving needs of global industries. Our focus is on understanding our customers’ needs, finding timely solutions, and adding value with our products and services.

We are pleased to provide this global edition of the book-bound Swagelok Product Catalog, which compiles more than 100 separate product catalogs, technical bulletins, and reference documents into one convenient, easy-to-use volume. Each product catalog is up to date at the time of printing, with its revision number shown on the last page of the individual catalog. Subsequent revisions will supersede the printed version and will be posted on the Swagelok website and in the Swagelok electronic Desktop Technical Reference (eDTR) tool.

For more information, visit your Swagelok website or contact your authorized Swagelok sales and service representative.

Warranty Information
Swagelok products are backed by The Swagelok Limited Life-time Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.

Safe Product Selection
When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

⚠️ WARNING
Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.

Not all trademarks listed below apply to this catalog.
Swagelok, Cajon, Femule-Pak, Goop, Hinging-Collecting, IGC, Kenmac, Micro-Fit, Nupro, Snoop, Sno-Trak, SWAK, VCO, VCR, Ultra-Torr, Whitey—TM Swagelok Company
15-7 PH—TM AK Steel Corp.
AccuTrak, Beacon, Westlock—TM Tyco International Services
Alfas—TM Asahi Glass Co., Ltd.
ASCO, El-O-Matic—TM Emerson
AutoCAD—TM Autodesk, Inc.
CSA—TM Canadian Standards Association
Crestin, DuPont, Kalrez, Krytox, Teflon, Viton—TM E.I. duPont Nemours and Company
DeviceNet—TM ODVA
Dyneon, Elgiloy, TFM—TM Dyneon
Egloy—TM Egloy Specialty Metals
FM—TM FM Global
Grafoil—TM GrafTech International Holdings, Inc.
Honeywell, MICRO SWITCH—TM Honeywell
MAC—TM MAC Valves
Microsoft, Windows—TM Microsoft Corp.
NACE—TM NACE International
PH 15-7 Mo, 17-7 PH—TM AK Steel Corp
picofast—Hans Turck KG
Pillar—TM Nippon Pillar Packing Company, Ltd.
Raychem—TM Tyco Electronics Corp.
Sandvik, SAF 2507—TM Sandvik AB
Simriz—TM Freudenberg-NOK
SolidWorks—TM SolidWorks Corporation
UL—Underwriters Laboratories Inc.
Xylan—TM Whitford Corporation
© 2021 Swagelok Company