Multi-connector is effective in labor savings for separate transportation of the panel and the machine. Excellent for exchanging panels when a failure occurs.
Rectangular Multi-Connector
Series KDM

Substantial reduction in mounting area
In comparison with a panel requiring many bulkhead unions, this model needs only a small mounting area.

One-touch connection/disconnection of multi-connector unit.
Multiple tubes can be connected/disconnected in a one-touch operation without error. Man-hours for connection/disconnection is reduced substantially.

One-touch tube connection
One-touch fittings substantially reduces man-hours when inserting tubing. No cumbersome nut and ferrule to contend with.

Series KDM
Plug connector

Can be used for a vacuum of 0.39 in Hg (10 torr) to a pressure of 150 psig (9.9 kg/cm²)

Socket connector

With one-touch fittings
Mill size: 6, 4, 6, 8
Inch size: 6, 8, 10, 12
Copper-free applications
Tubes of different sizes can be used simultaneously.
Two types are available, 10 or 20 connectors.
Rectangular Multi-Connector
Series KDM

Model

<table>
<thead>
<tr>
<th>Number of connecting tubes</th>
<th>Tube O. D.</th>
<th>Model</th>
<th>Weight (oz.)</th>
<th>Color of release button</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Mill size</td>
<td>0.32</td>
<td>KDM10-23</td>
<td>Blue 10.6 (300gf)</td>
</tr>
<tr>
<td></td>
<td>Mill size</td>
<td>0.4</td>
<td>KDM10-04</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>Mill size</td>
<td>0.6</td>
<td>KDM10-06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mill size</td>
<td>0.8</td>
<td>KDM10-08</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inch size</td>
<td>0.32</td>
<td>KDM10-03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inch size</td>
<td>0.4</td>
<td>KDM10-07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mill size</td>
<td>0.32</td>
<td>KDM20-23</td>
<td>Blue 18.3 (520gf)</td>
</tr>
<tr>
<td></td>
<td>Mill size</td>
<td>0.4</td>
<td>KDM20-04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mill size</td>
<td>0.6</td>
<td>KDM20-06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mill size</td>
<td>0.8</td>
<td>KDM20-08</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inch size</td>
<td>0.32</td>
<td>KDM20-03</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inch size</td>
<td>0.4</td>
<td>KDM20-07</td>
<td></td>
</tr>
</tbody>
</table>

Applicable Tubing

<table>
<thead>
<tr>
<th>Tube material</th>
<th>Nylon, Soft nylon, Polyurethane, Polyethylene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube O. D.</td>
<td>Mill Size 0.32, 0.4, 0.6, 0.8</td>
</tr>
<tr>
<td></td>
<td>Inch Size 0.4, 0.5, 0.75, 0.4</td>
</tr>
</tbody>
</table>

Specifications

<table>
<thead>
<tr>
<th>Media</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. operating pressure</td>
<td>150psig (9.9kgf/cm²)</td>
</tr>
<tr>
<td>Operating vacuum</td>
<td>0.39in Hg¹ (10torr)</td>
</tr>
<tr>
<td>Proof pressure</td>
<td>215psig (15kgf/cm²)</td>
</tr>
<tr>
<td>Ambient and media temperature</td>
<td>32-140°F (0-60°C)</td>
</tr>
</tbody>
</table>

Principal Element Material

<table>
<thead>
<tr>
<th>Plug case, Socket case</th>
<th>Polyacetal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate, Bracket</td>
<td>SPCC Plating</td>
</tr>
<tr>
<td>Plug connector. Socket connector</td>
<td></td>
</tr>
<tr>
<td>Body</td>
<td>PBT</td>
</tr>
<tr>
<td>Chuck</td>
<td>SUS304</td>
</tr>
<tr>
<td>Guide</td>
<td>C3604BD with Electroless nickel plating</td>
</tr>
<tr>
<td>Collet Release bushing</td>
<td>Polyacetal</td>
</tr>
<tr>
<td>Packing</td>
<td>NBR</td>
</tr>
<tr>
<td>Clamp bolt, Screw for bracket, Phillips head machine screw</td>
<td>SWRM with Nickel Plating</td>
</tr>
<tr>
<td>E-type stop ring</td>
<td>SUS304</td>
</tr>
</tbody>
</table>
### Parts No.

<table>
<thead>
<tr>
<th>No. of connecting tubes</th>
<th>Tube O.D.</th>
<th>Model</th>
<th>Color of release button</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\phi 3.2$</td>
<td>KDM10P-23</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 4$</td>
<td>KDM10P-04</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 6$</td>
<td>KDM10P-06</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 8$</td>
<td>KDM10P-08</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 10$</td>
<td>KDM10P-10</td>
<td>Red</td>
</tr>
</tbody>
</table>

**Precautions**

1. When using a brand of tube other than SMC, be careful of the tolerance of the tube's O.D.
2. Nylon tube $\ldots \ldots \pm 0.004'' \ (\pm 0.1\,\text{mm})$
3. Soft nylon tube $\ldots \pm 0.004'' \ (\pm 0.1\,\text{mm})$
4. Polyurethane tube $\ldots \pm 0.006'' - 0.008''$ $\ (\pm 0.15 - 0.2\,\text{mm})$
5. Polyethylene tube $\ldots \pm 0.004'' \ (\pm 0.1\,\text{mm})$
   (Some commercially available tubes will not satisfy the above tolerance requirements.)
6. The bending radius of the tube in the vicinity of the fitting should be at least the minimum bending radius of the tube.
   (For details of minimum bending radius, see Air Fittings and Tubing catalog.)
7. For fluids other than air, please contact the SMC representative nearest you.

### Mixing sizes of plug connectors and socket connectors

The rectangular multi-connector permits connector exchange in any desired position. This allows use of different size of tubes in one multi-connector.

### Parts No.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Tube O.D.</th>
<th>Model</th>
<th>Color of release button</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plug connector</td>
<td>$\phi 3.2$</td>
<td>KDM2P-23</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 4$</td>
<td>KDM2P-04</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 6$</td>
<td>KDM2P-06</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 8$</td>
<td>KDM2P-08</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 10$</td>
<td>KDM2P-10</td>
<td>Red</td>
</tr>
</tbody>
</table>

### Mixing sizes of plug connectors and socket connectors

The rectangular multi-connector permits connector exchange in any desired position. This allows use of different size of tubes in one multi-connector.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Tube O.D.</th>
<th>Model</th>
<th>Color of release button</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket connector (With packing)</td>
<td>$\phi 3.2$</td>
<td>KDM5-23</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 4$</td>
<td>KDM5-04</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 6$</td>
<td>KDM5-06</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 8$</td>
<td>KDM5-08</td>
<td>Blue</td>
</tr>
<tr>
<td></td>
<td>$\phi 10$</td>
<td>KDM5-10</td>
<td>Red</td>
</tr>
</tbody>
</table>

1. Loosen the Phillips head machine screw using a Phillips type screwdriver to remove the plate from the case.
2. After exchanging connectors in desired positions, re-affix the plate with a Phillips type screwdriver to the case.
How to Use

**Preparation**
Losen the clamp bolt to separate the plug side from the socket side.

**Connection**
Put together the irregular faces for engagement and connect the plug case to the socket. After tightening the clamp bolt by hand, tighten it further with an Allen type wrench (nominal width across flats: 4).

**Panel mounting**
1. Loosen (4) screws for the panel mounting bracket on the socket side using a Phillips screwdriver (JIS nominal No. 2) until the stop ring touches the bracket.
2. Shift the panel mounting bracket to the inside. (Move the screw for bracket in the longitudinal direction of the slot) and put the connector in the panel until it touches the bracket. (Panel mount cut out, see page 4)
3. Shift the bolt for the bracket toward the outside. Tighten the bolt with a Phillips type screwdriver to attach the socket case to the panel.

**Removal from Panel**
Losen the screw for the bracket until the bracket touches the stop ring. Shift the bracket to the inside to remove the connector from the panel.

Installation and Removal of One-touch Fittings

**Installing Tube**
Cut the tube perpendicularly, being careful not to damage the outside face, use tube cutter TKA-1. (Do not cut the tube with pliers, nippers, scissors, utility knife, etc.)
Grasp the tube, then slowly push it until it comes to a dead-end. Then pull it back gently to make sure that it has a positive seal.

**Removing Tube**
1. Push in evenly on the release button.
2. Pull out the tube while keeping the release button depressed. (If the release button is not held down, the tube cannot be withdrawn.)
3. To reuse the tubing, cut off the previously lodged portion of the tube.
Rectangular Multi-Connector Series KDM

Dimensions

KDM10

4.49" (114)  
2-hexagonal screws  
5/32" (4mm)

Panel mount cutout

KDM20

7.83" (199)  
3-hexagonal screws  
5/32" (4mm)

Panel mount cutout
Made-To-Order Specifications

mixed tube size type

If you want to place a special order for a mixed tube size type, other than standard type, please refer to the specifications.

<table>
<thead>
<tr>
<th>Tube size (O.D.)</th>
<th>Number of connecting</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/10</td>
<td>6</td>
<td>IN-25452</td>
</tr>
<tr>
<td>3/12</td>
<td>6</td>
<td>IN-25453</td>
</tr>
</tbody>
</table>
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Vacuum Ejectors

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