New

Multi Coupler

Connects and Disconnects Multiple Couplers at Once
Safe, Simple and Quick

Model JMC
(with Check Valve)

Model JMD
(without Check Valve)
For Injection Molding Machines

Multi Coupler

Model JMC with Check Valve
Model JMD without Check Valve

Safe, Simple and Quick.
Connects and Disconnects Multiple Couplers at Once.
Compact, Light, Easy to Operate and Equipped with Misconnection Prevention

What is Multi Coupler?
A Device for Connecting Multiple Couplers in Single Operation
Pilot air can always be connected since the coupler connecting valve is opened/closed as JMC: with check valve is connected/disconnected. Check valve for opening/closing coupler connecting valve is not required.

Insert, and they are all connected!
• Compact, and Light

The compact body can be installed to a narrow space around a mold and application, etc. Also it is light, using aluminum alloy for the plate material.

• Simply Connected

Insert lightly when connecting, and pull out lightly when disconnecting. Coupler connecting valve is opened/closed as the couplers are connected/disconnected. (JMC : with Check Valve) (Refer to Action Description)

• Misconnection Prevention

Misconnection Prevention Pin to prevent connection failure.

• Anti-Corrosion Material

Using stainless steel for the coupler and the gripper, and aluminum for the plate allows for anti-corrosion. Highly durable to air and process water.
Action Description : Connecting

Hold the gripper, check the position of the misconnection prevention pin and insert the operation side Multi Coupler to the mold side.
※ Make sure pressure is at 0MPa.

Connection is completed by inserting it to the end.

Pilot air is always connected since the coupler connecting valve is opened as JMC: with Check Valve is connected. Check valve for coupler connecting valve is not required.
Action Description : Disconnecting

Pull the hook of the gripper to disconnect.
※ Make sure pressure is at 0MPa.

Pilot air is always connected since the coupler connecting valve is closed as JMC: with Check Valve is disconnected. Check valve for coupler connecting valve is not required.

Pull out the operation side Multi Coupler to complete disconnection.
Pulling the trigger of the locking device releases the lock and the couplers can be disconnected.
Model No. Indication

**J M C 2 08 O - M - P**

1 **Check Valve**

- **C**: with Check Valve
- **D**: without Check Valve

2 **Port Size**

- **2**: Rc1/4
- **3**: Rc3/8

Note:

※1. Port Size 3: Rc3/8 can be selected only when selecting 1 Check Valve D: without Check Valve.

3 **Number of Ports**

- **S6**: Single-Row 6 Ports
- **S8**: Single-Row 8 Ports
- **04**: Double-Row 4 Ports
- **06**: Double-Row 6 Ports
- **08**: Double-Row 8 Ports
- **12**: Double-Row 12 Ports

4 **Design No.**

- **0**: Revision Number

5 **Installation Side**

- **H**: Operation Side
- **M**: Mold Side

6 **Operating Temperature**

- **Blank**: 0 ~ 120°C
- **P**: 0 ~ 180°C

Note:

1. Operating Temperature for 1 Check Valve D: without Check Valve is 0 ~ 70°C.
### Selection List

<table>
<thead>
<tr>
<th>Check Valve</th>
<th>Port Size</th>
<th>Number of Ports</th>
<th>Layout</th>
<th>Installation Side</th>
<th>Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>with Check Valve</td>
<td>Rc1/4</td>
<td>4 Ports</td>
<td>Parallel</td>
<td>Operation Side</td>
<td>JMC2040-H</td>
</tr>
<tr>
<td></td>
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<td>Mold Side</td>
<td>JMC2040-M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Ports</td>
<td>Single</td>
<td>Operation Side</td>
<td>JMC2060-H</td>
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<tr>
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<td>Mold Side</td>
<td>JMC2060-M</td>
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<tr>
<td></td>
<td></td>
<td>8 Ports</td>
<td>Parallel</td>
<td>Operation Side</td>
<td>JMC2080-H</td>
</tr>
<tr>
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<td>Mold Side</td>
<td>JMC2080-M</td>
</tr>
<tr>
<td>without Check Valve</td>
<td>Rc1/4</td>
<td>6 Ports</td>
<td>Single</td>
<td>Operation Side</td>
<td>JMD2560-H</td>
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<td>Mold Side</td>
<td>JMD2560-M</td>
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<td>Single</td>
<td>Operation Side</td>
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<td>JMD2580-M</td>
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<td>Parallel</td>
<td>Operation Side</td>
<td>JMD2080-H</td>
</tr>
<tr>
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<td></td>
<td>Mold Side</td>
<td>JMD2080-M</td>
</tr>
<tr>
<td></td>
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<td>12 Ports</td>
<td>Parallel</td>
<td>Operation Side</td>
<td>JMD2120-H</td>
</tr>
<tr>
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<td>Mold Side</td>
<td>JMD2120-M</td>
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<td></td>
<td>Rc3/8</td>
<td>6 Ports</td>
<td>Single</td>
<td>Operation Side</td>
<td>JMD3560-H</td>
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<td>Mold Side</td>
<td>JMD3560-M</td>
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<td>8 Ports</td>
<td>Single</td>
<td>Operation Side</td>
<td>JMD3580-H</td>
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<td>Mold Side</td>
<td>JMD3580-M</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Parallel</td>
<td>Operation Side</td>
<td>JMD3080-H</td>
</tr>
<tr>
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<td></td>
<td>Mold Side</td>
<td>JMD3080-M</td>
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<tr>
<td></td>
<td></td>
<td>12 Ports</td>
<td>Parallel</td>
<td>Operation Side</td>
<td>JMD3120-H</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mold Side</td>
<td>JMD3120-M</td>
</tr>
</tbody>
</table>

**Note:**
1. Please check Model No. Indication and Specifications when selecting the product.
### Specifications:  C: with Check Valve

<table>
<thead>
<tr>
<th>Model No.</th>
<th>H : Operation Side</th>
<th>M : Mold Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>JMC2040-H</td>
<td>JMC2040-H-P</td>
<td>JMC2060-H</td>
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<tr>
<td>JMC2060-H-P</td>
<td>JMC2060-M</td>
<td>JMC2080-H</td>
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<tr>
<td>JMC2080-H-P</td>
<td>JMC2080-M-P</td>
<td>JMC2080-M</td>
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<table>
<thead>
<tr>
<th>Number of Ports</th>
<th>4</th>
<th>6</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>Port Size</td>
<td>Rc1/4</td>
<td>Rc1/4</td>
<td>Rc1/4</td>
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<tr>
<td>Max. Operating Pressure MPa</td>
<td>16</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Min. Passage Area (per Circuit) mm²</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temp. Range °C</td>
<td>0 ~ 120</td>
<td>0 ~ 180</td>
<td>0 ~ 120</td>
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<tr>
<td>Usable Fluid</td>
<td>General Hydraulic Oil • Water • Air</td>
<td></td>
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<tr>
<td>Pilot Air Pressure MPa</td>
<td>0.3 ~ 0.8</td>
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</tr>
<tr>
<td>Weight kg</td>
<td>2.3</td>
<td>2.8</td>
<td>3.3</td>
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<tr>
<td>H : Operation Side</td>
<td>1.2</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td>M : Mold Side</td>
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</table>

### Specifications:  D: without Check Valve

<table>
<thead>
<tr>
<th>Model No.</th>
<th>H : Operation Side</th>
<th>M : Mold Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>JMD2560-H</td>
<td>JMD2580-H</td>
<td>JMD2080-H</td>
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<td>JMD2080-H-P</td>
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<td>JMD120-H-P</td>
<td>JMD120-M-P</td>
<td>JMD120-M</td>
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<td>JMD120-M</td>
<td>JMD3580-H</td>
<td>JMD120-H</td>
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<td>JMD3580-H-P</td>
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<td>JMD3580-M</td>
<td>JMD3080-H</td>
<td>JMD3120-H</td>
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<tr>
<td>JMD3120-H-P</td>
<td>JMD3120-M-P</td>
<td>JMD3120-M</td>
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<table>
<thead>
<tr>
<th>Number of Ports</th>
<th>6</th>
<th>8</th>
<th>8</th>
<th>12</th>
<th>6</th>
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<th>12</th>
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<tbody>
<tr>
<td>Port Size</td>
<td>Rc1/4</td>
<td>Rc1/4</td>
<td>Rc3/8</td>
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<tr>
<td>Max. Operating Pressure MPa</td>
<td>0.8</td>
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<td>Min. Passage Area (per Circuit) mm²</td>
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<td>Operating Temp. Range °C</td>
<td>0 ~ 70</td>
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<td>Usable Fluid</td>
<td>Water • Air</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Weight kg</td>
<td>1.6</td>
<td>1.8</td>
<td>2.0</td>
<td>2.2</td>
<td>1.9</td>
<td>2.1</td>
<td>2.1</td>
<td>2.5</td>
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<tr>
<td>H : Operation Side</td>
<td>0.7</td>
<td>0.8</td>
<td>0.8</td>
<td>1.0</td>
<td>0.8</td>
<td>1.0</td>
<td>0.9</td>
<td>1.2</td>
</tr>
<tr>
<td>M : Mold Side</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Circuit Diagram

- The locking device is not shown in the diagram.

[JMC (with Check Valve)]

[JMD (without Check Valve)]

Coupler Connecting Valve
### External Dimensions

#### JMC2040-H / M (-P)

**Note:**
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.

#### JMC2060-H / M (-P)

**Note:**
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.
JMC2080-H / M (-P)

Note:
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.

Connect
Release Operation

113
185.5
18.5
72.5

JMC2080-H (-P)
Operation Side

Trigger for Releasing
Llocking Device
Misconnection Prevention Pin

Gripper

Coupler Connecting Valve

Coupler Connecting Air Pilot Port
MS × 0.8 Thread Depth 4

JMC2080-M (-P)
Mold Side

Socket

8-Rc1/4

8-6.8

Φ 11 Spot Facing Depth 8

41.3
30
13
30
75
10
8
55
10
8
39
10
5
37
44.5
218
200
External Dimensions

**JMD2S60-H / M**

Note:
※1. Mounting bolts are not provided.
   Please prepare them according to the mounting height.

**JMD2S80-H / M**

Note:
※1. Mounting bolts are not provided.
   Please prepare them according to the mounting height.
**JMD2080-H / M**

Note:
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.

**JMD2120-H / M**

Note:
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.
**External Dimensions**

### JMD3S60-H / M

**Operation Side**
- Trigger for Releasing
- Locking Device
- Gripper
- Misconnection Prevention Pin

**Mold Side**
- Socket
- 6-Rc3/8

**Note:**
1. Mounting bolts are not provided.
   Please prepare them according to the mounting height.

### JMD3S80-H / M

**Operation Side**
- Trigger for Releasing
- Locking Device
- Gripper
- Misconnection Prevention Pin

**Mold Side**
- Socket
- 8-Rc3/8

**Note:**
1. Mounting bolts are not provided.
   Please prepare them according to the mounting height.
**JMD3080-H / M**

**Note:**
1. Mounting bolts are not provided.
   Please prepare them according to the mounting height.

---

**JMD3120-H / M**

**Note:**
1. Mounting bolts are not provided.
   Please prepare them according to the mounting height.

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**JMD3080-H**

**Operation Side**

- Trigger for Releasing
- Locking Device
- Gripper
- Misconnection Prevention Pin
- 8-Rc3/8
- 4-6.6.8

**JMD3080-M**

**Mold Side**

- Socket
- 8-Rc3/8
- 4-6.6.8

**JMD3120-H**

**Operation Side**

- Trigger for Releasing
- Locking Device
- Gripper
- Misconnection Prevention Pin
- 12-Rc3/8
- 4-6.6.8

**JMD3120-M**

**Mold Side**

- Socket
- 12-Rc3/8
- 4-6.6.8

---
Cautions

Notes for Design

1) Check Specifications
   • Please use each product according to the specifications.

2) Installation
   • Install JMC-M / JMD-M to the mold side.
     Use JMC-H / JMD-H for the operation side.

3) Circuit pressure must be at 0MPa when connecting.
   • Stop the pressure before connection. Insert the locking device to the mold side socket with circuit pressure at 0MPa.

4) Connection
   • The trigger of locking device moves forward, and connection is completed. Make sure the locking devices on both sides are securely locked before supplying fluid.

5) Connection (for JMC)
   • Couplers are connected with locking action of the locking device. Always supply air pressure for connecting couplers to the pilot port.

6) Disconnection
   • Stop the pressure before disconnection, and release the locking device on both sides in parallel and simultaneously with circuit pressure at 0MPa.

7) Pressure may be remained in a circuit even after stopping fluid with a mold temperature controller. Please set a drain circuit to release the pressure completely.

8) Stop fluid supply when couplers are not connected.

9) Check Valve (for JMC)
   • There may be fluid leakage if pressure is remained in a circuit.

10) Check Valve (for JMD)
    • The couplers have no check valves. When using water, purge the air in the circuit before disconnection.

11) Pressure Supply (for JMC)
    • When supplying hydraulic pressure, there can be fluid leakage if there is a large pressure gap of couplers aligned to right and left towards the locking device. Supply pressure should be well balanced.

12) Do not connect in the condition that chips or contaminants are left on the end surface.
    • If there are contaminants adhered on the end of the connecting surface of each coupler, make sure to remove them with air blow. Otherwise it cannot be sealed properly.

Installation Notes

1) Check the Usable Fluid
   • Please use the appropriate fluid by referring to the Hydraulic Fluid List.

2) Procedure before Piping
   • Molds and piping circuits should be cleaned by thorough flushing so that no contaminants enter inside.

3) Applying Sealing Tape
   • Wrap with tape 1 to 2 times following the screwing direction. In order to prevent contaminants from entering into the product during piping, it should be carefully cleaned. Pieces of the sealing tape can lead to oil leakage and malfunction.

4) Piping
   • Piping should be provided without excessive bending or stretching load applying to the operation side Multi Coupler.

Hydraulic Fluid List

<table>
<thead>
<tr>
<th>ISO Viscosity Grade ISO VG 32</th>
<th>Maker</th>
<th>Anti-Wear Hydraulic Oil</th>
<th>Multi-Purpose Hydraulic Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Showa Shell Sekiyu</td>
<td>Tellus S 2 M 32</td>
<td>Morlina S 2 B 32</td>
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<tr>
<td>Idemitsu Kosan</td>
<td>Daphne Hydraulic Fluid 32</td>
<td>Daphne Super Multi Oil 32</td>
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</tr>
<tr>
<td>JS Nippon Oil &amp; Energy</td>
<td>Super Hyrando 32</td>
<td>Super Mulpus E 32</td>
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<td>Cosmo Oil</td>
<td>Cosmo Hydro AW32</td>
<td>Cosmo New Mighty Super 32</td>
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<tr>
<td>ExxonMobil</td>
<td>Mobil DTE 24</td>
<td>Mobil DTE 24 Light</td>
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<tr>
<td>Matsumura Oil</td>
<td>Hydol AW-32</td>
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<td></td>
</tr>
<tr>
<td>Castrol</td>
<td>Hyspin AWS 32</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Please contact manufacturers when customers require products in the list above.
● Notes on Handling

1) It should be operated by qualified personnel.

2) Do not operate or remove the product unless the safety protocols are ensured.

   ① The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.

   ② Before the product is removed, make sure that the above-mentioned safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the hydraulic and air circuits.

   ③ After stopping the product, do not remove until the temperature drops.

   ④ Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.

3) Do not touch the couplers when connecting/disconnecting.

   ● Otherwise, your hands may be injured.

4) Do not touch the couplers under pressure.

   ● Otherwise, the locking device may be come off and fluid may be spouted.

5) Put on a Protector

   ● When fluid temperature is high, the temperature of the locking device might be increased. Be careful of burning when operating, and put on a protector if necessary.

6) Do not disassemble or modify.

   ● If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.
Cautions

- **Maintenance and Inspection**
  1. Removal of the Product and Shut-off of Pressure Source
  - Before removing the product, make sure that safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
  - Make sure there is no abnormality in the bolts and respective parts before restarting.
  2. Regularly tighten pipe line, mounting bolt, nut, snap ring, cylinder and others to ensure proper use.
  3. Make sure the hydraulic fluid has not deteriorated.
  4. Make sure there is a smooth action without an irregular noise.
  - Especially when it is restarted after left unused for a long period, make sure it can be operated correctly.
  5. The products should be stored in the cool and dark place without direct sunshine or moisture.
  6. Please contact us for overhaul and repair.

- **Warranty**
  1. Warranty Period
  - The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.
  2. Warranty Scope
  - If the product is damaged or malfunctions during the warranty period due to faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
  - Defects or failures caused by the following are not covered:
    1. If the stipulated maintenance and inspection are not carried out.
    2. If the product is used while it is not suitable for use based on the operator’s judgment, resulting in defect.
    3. If it is used or operated in an inappropriate way by the operator.
       (Including damage caused by the misconduct of the third party.)
    4. If the defect is caused by reasons other than our responsibility.
    5. If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
    6. Other caused by natural disasters or calamities not attributable to our company.
    7. Parts or replacement expenses due to parts consumption and deterioration. (Such as rubber, plastic, seal material and some electric components.)

   Damages excluding from direct result of a product defect shall be excluded from the warranty.
<table>
<thead>
<tr>
<th>Multi Coupler Features</th>
<th>Action Description</th>
<th>Model No. Indication Specifications</th>
<th>External Dimensions JMC</th>
<th>JMD</th>
<th>Cautions</th>
</tr>
</thead>
</table>

MEMO