For Diecast Systems

**Ejector Coupler**

**Automatic Ejector Rod Coupler**

Simple Setup / Setup Time Reduction / Improve Productivity

Model **PMF**  Pneumatic Auto Coupling

Option: with Action Confirmation

New Model Newly Added

Model **PMG**  Manual Coupling

---

**KOSMEK**

Harmony in Innovation
One Touch to Connect EJ Rods

Ejector Coupler  Model PMF

Index

Features  P.03
Model No. Indication • Specifications  P.09
External Dimensions : Floating on the Mold Side  P.11
External Dimensions : Floating on the Ejector Plate Side  P.13
External Dimensions : with Action Confirmation  P.15
Air Circuit Reference • Other Products for Diecast Systems  P.16
Cautions  P.21
Minimizes Mold Change Time

Manual Ejector Coupler  Model PMG

Index

Features ............................................. P.17
Model No. Indication • Specifications ......... P.19
External Dimensions ............................... P.20
Cautions ............................................. P.21
For Diecast Systems

**Ejector Coupler**

**Model PMF**

Quick Change Automatic Ejector Coupler

Drastically reduce setup time. Ball Lock Joint Provides Powerful Connection

No Connecting Work Required!

One touch to connect ejector rods with button operation from outside the machine.

Installation Example of 125 ton Diecast Machine  
Installation Example of 350 ton Diecast Machine
Mold Change Time Reduction

※ Actual mold change time of a 350 ton diecast machine.

**Unloading a Mold**

- **Machine Side**: Untighten 4 Nuts
- **Mold Side**: Untighten 4 Rods
- **Button Operation**: 1 sec

- **Machine Side**: Tighten 4 Nuts
- **Mold Side**: Tighten 4 Rods
- **Button Operation**: 1 sec

**Loading a Mold**

**Simplified Ejector Rod Connection**

**Manual Operation**

- **MOLD**: Tighten 2 Ejector Rods (Operation Side)
- **Move to Non-Operation Side**
- **MOLD**: Tighten 2 Ejector Rods (Non-Operation Side)
- **Move to Operation Side**
- **Pump Start** → **Mold Close** → **Ejector Plate Move Forward**

**Ejector Coupler**

- **Mold Close** → **Ejector Plate Move Forward**
- **Ejector Coupler LOCK** (Button Operation)
- **Ejector Plate Move Backward** → **Mold Open**

- **No need to move around the machine or operate inside the machine.**
- **No Tools Required**

**PMF Ejector Coupler**

- **Improve Work Efficiency**: The work without tools enhances productivity by saving time for searching tools.
- **Reduce Operation Time**: No need to move to the non-operation side.
- **Secure Operation**: Prevent accidents caused by tightening work inside the machine.
- **Standardize Operation**: It allows everyone to tighten them with the same force.
Powerfully Connected by Air - Mechanical Locking

Pull Side: Withstands load with the steel balls.

Push Side: Withstands load with surface.

PMF-P: Plug (Machine Side)

PMF-H/S: Socket (Mold Side)

**Released State**

By supplying air pressure, steel balls are free to move so the plug can be pulled out.

**Locked State**

By releasing air pressure, steel balls are pushed out with spring force, and the plug/socket is connected.

Using straight surface to fix the steel balls allows for powerful connection.
Action Confirmation Option
Ensures Lock and Release Action Confirmation

The air cylinder with auto switch moves the piston inside the plug directly. Ejector coupler action is confirmed by detecting air cylinder position with auto switch.

**Released State**
By supplying release air pressure, the air cylinder moves forward and the release action signal is ON.

**Locked State**
By supplying lock air pressure, the air cylinder moves backward and the lock action signal is ON.

**Reduce Setup Time Safely**
Setup time can be reduced safely since the connection of ejector rod is completed only by ON/OFF of air pressure.

**Able to Install a Pillar**
Since the rod part is connected, the pillar can be placed on the back side of the cavity which receives casting pressure. This makes product quality stable.
How to Absorb the Center Offset of Ejector Rod

The Ejector Coupler has no floating function, so it is required to provide the floating function in order to absorb the center offset of the ejector rods.

**Floating on the Mold Side**

The method to provide floating margin on the mold side that absorbs the center offset. When installing the Ejector Couplers on existing molds, the molds need to be modified.

**Floating on the Ejector Plate Side**

The method to provide floating margin on the ejector plate side that absorbs the center offset. When installing the Ejector Couplers on existing molds, the socket will be installed in place of existing rod, so the molds can be used without modification.
Flexible Design of C-Plate

Special Application Example

Required to install a pillar to stabilize accuracy and quality of products, but C-plate occupies space behind the cavity so that a support pillar cannot be installed.

Even in such the case...

With KOSMEK Ejector Coupler, it is able to design a C-plate freely.
Ejector Coupler

**Model No. Indication**

Plug (Machine Side)

**PMF 025 0 - PA - F - S**

1. **Body Size**
   - 025: Outer Diameter φ 25 mm
   - 029: Outer Diameter φ 29 mm
   - 037: Outer Diameter φ 37 mm

   P: Plug

2. **Design No.**
   - 0: Revision Number

3. **Classification**
   - P: Plug

4. **Ejector Coupler Installation Position**
   - A: Position A
   - B: Position B

   A: Ejector device with servo control, etc.
   Able to stop in the neutral position.
   (The plug tip is inside the platen when a mold is loaded.)

   B: Ejector device with hydraulic control.
   Unable to stop in the neutral position.
   (The plug tip is out of the platen when a mold is loaded.)

5. **Floating Method**

   Blank: Floating on the Mold Side (Standard)
   - Floating on the Ejector Plate Side

   Blank: Floating on the Mold Side
   Provides floating margin on the mold side to absorb the center offset.

6. **Action Confirmation Method**

   Blank: None (Standard)
   - M: with Action Confirmation
     (Only when selecting Blank: Floating on the Mold Side)

   Blank: No Action Confirmation
   For confirming the action by checking the status of supply air with a pressure switch.

   M: with Action Confirmation
   For confirming the action with the auto switch of the air cylinder that activates Ejector Coupler.

7. **Production Number**

   This number represents the dimensions of Ejector Rod, such as shape and length. A number will be given after confirming specifications.
Socket (Mold Side)  PMF 025 0 - H - K

1 Body Size
025: Hexagon 27 mm / Outer Diameter φ 25 mm
029: Hexagon 30 mm / Outer Diameter φ 29 mm
037: Hexagon 41 mm / Outer Diameter φ 37 mm

2 Design No.
0: Revision Number

3 Classification
H: Socket (Hex. Model)
S: Socket (Space-Saving Model)

4 Thread Part Shape
Blank: with Fitting
K: without Fitting

Specifications
PMF Ejector Coupler

<table>
<thead>
<tr>
<th>Model No.</th>
<th>PMF0250</th>
<th>PMF0290</th>
<th>PMF0370</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Allowable Pulling Capacity kN</td>
<td>10</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>Max. Allowable Compressive Capacity kN</td>
<td>25</td>
<td>40</td>
<td>63</td>
</tr>
<tr>
<td>Cylinder Capacity cm³</td>
<td>Blank</td>
<td>Release</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>Lock</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Release</td>
<td>0.90</td>
</tr>
<tr>
<td>Air Pressure MPa</td>
<td>Blank</td>
<td></td>
<td>0.3 ~ 1.0</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td></td>
<td>0.3 ~ 0.7</td>
</tr>
<tr>
<td>Withstanding Pressure MPa</td>
<td>Blank</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Operating Temperature °C</td>
<td>Blank</td>
<td></td>
<td>0 ~ 120</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td></td>
<td>Ejector Coupler: 0 ~ 120 • Air Cylinder: 5 ~ 60</td>
</tr>
<tr>
<td>Usable Fluid</td>
<td></td>
<td></td>
<td>Dry Air</td>
</tr>
</tbody>
</table>

Auto Switch (SMC made)

<table>
<thead>
<tr>
<th>Model No.</th>
<th>D-M98VL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiring Type</td>
<td>2-Wire</td>
</tr>
<tr>
<td>Entry Direction</td>
<td>Perpendicular</td>
</tr>
<tr>
<td>Applicable Load</td>
<td>DC24 V Relay • PLC</td>
</tr>
<tr>
<td>Load Voltage</td>
<td>DC24 V (DC10 ~ 28 V)</td>
</tr>
<tr>
<td>Load Current</td>
<td>2.5 ~ 40 mA</td>
</tr>
<tr>
<td>Internal Voltage Drop</td>
<td>4 V or less</td>
</tr>
<tr>
<td>Leakage Current</td>
<td>0.8 mA or less</td>
</tr>
<tr>
<td>Operating Time</td>
<td>1 ms or less</td>
</tr>
<tr>
<td>Indicator Light</td>
<td>Operating Range Red LED Illuminates</td>
</tr>
<tr>
<td>Shock Resistance</td>
<td>1000 m/s²</td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>50 MΩ or more measured by DC100 V Megger (between the Cable and Case)</td>
</tr>
<tr>
<td>Withstand Voltage</td>
<td>AC1000 V for 1 min. (between the Cable and Case)</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>-10 ~ 60 °C</td>
</tr>
<tr>
<td>Enclosure Rating</td>
<td>IEC60529 Standard IP67 • JISCO920 Waterproof</td>
</tr>
<tr>
<td>Cable Length</td>
<td>3000 mm (Half Stripped)</td>
</tr>
</tbody>
</table>

Auto Switch Circuit Diagram

Sink Input Specifications

Source Input Specifications
External Dimensions: Floating on the Mold Side

- **A**: Position A
  - Corresponding Model No.
  - **Plug (Machine Side)**
  - **Disconnected State**
  - **Connected State**

- **B**: Position B
  - Corresponding Model No.
  - **Plug (Machine Side)**
  - **Disconnected State**
  - **Connected State**

**Notes:**
- 1. Secure the floating margin so that the mold side absorbs center offset.
- 2. Mold positioning accuracy must be within the floating margin.
- 3. There is a gap between the plug and the socket.

Make sure to install return pins since the ejector pin cannot be fully moved backward due to the gap.
Machining Dimensions of Socket Mounting Part

Corresponding Model No.

Socket (Mold Side) PMF 0 - H S - with Fitting

External Dimension and Machining Dimension Lists

Plug

<table>
<thead>
<tr>
<th>Model No.</th>
<th>PMF0250-PA</th>
<th>PMF0250-PB</th>
<th>PMF0290-PA</th>
<th>PMF0290-PB</th>
<th>PMF0370-PA</th>
<th>PMF0370-PB</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>25</td>
<td>29</td>
<td></td>
<td></td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>45</td>
<td>44.5</td>
<td>51.5</td>
<td>51</td>
<td>53</td>
<td>52.5</td>
</tr>
<tr>
<td>C</td>
<td>17</td>
<td>17.5</td>
<td>18.5</td>
<td>19</td>
<td>24.5</td>
<td>25</td>
</tr>
<tr>
<td>D</td>
<td>17.5</td>
<td>19.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>22</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Socket

<table>
<thead>
<tr>
<th>Model No.</th>
<th>PMF0250-H</th>
<th>PMF0250-S</th>
<th>PMF0290-H</th>
<th>PMF0290-S</th>
<th>PMF0370-H</th>
<th>PMF0370-S</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>25</td>
<td>30</td>
<td></td>
<td></td>
<td>36.5</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>19</td>
<td>22</td>
<td></td>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>M16 x 2</td>
<td>M18 x 2.5</td>
<td></td>
<td></td>
<td>M24 x 3</td>
<td></td>
</tr>
<tr>
<td>J Fl</td>
<td>16.5 (0.045)</td>
<td>18.5 (0.005)</td>
<td></td>
<td></td>
<td>24.5 (0.005)</td>
<td></td>
</tr>
<tr>
<td>J H B</td>
<td>16.5 (0.045)</td>
<td>18.5 (0.005)</td>
<td></td>
<td></td>
<td>24.5 (0.005)</td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>27 (Outer Diam. 30)</td>
<td>8 (30 (Outer Diam. 33)</td>
<td>10 (30 (Outer Diam. 45)</td>
<td>12 (30 (Outer Diam. 50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>20</td>
<td>23</td>
<td></td>
<td></td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Note:
※4. Insufficient tightening torque causes looseness and breakage.

Specification List

After confirming specifications, we will determine the shape of Ejector Rod and submit the dimensional drawing.

<table>
<thead>
<tr>
<th>Diecast Machine Maker</th>
<th>Diecast Machine Model No.</th>
<th>Extrusion Capability kN</th>
<th>Ejector Stroke mm</th>
<th>Distance from Ejector Plate to Platen ※5 mm</th>
<th>Plate Thickness mm</th>
<th>Platen Hole Diam. ※5 mm</th>
<th>Plate Hole Diam. mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
※5. Specify them precisely including tolerance.
※6. Platen Thickness shall indicate the part where the ejector rod is actually mounted.

Platen Thickness ※6 mm
Retraction (Only when selecting A : Position A) mm
Mounting Block Thickness ※5 mm
Distance from Platen to B-Plate ※5 mm
B-Plate Thickness ※5 mm
Ejector Coupler Body Size
Ejector Coupler Qty.
Ejector Coupler

**External Dimensions : Floating on the Ejector Plate Side**

**A : Position A**

**Corresponding Model No.**

<table>
<thead>
<tr>
<th>Plug (Machine Side)</th>
<th>PMF</th>
<th>0 - P A - F - S</th>
</tr>
</thead>
</table>

Disconnected State

![Disconnected State Diagram](image)

Connected State

![Connected State Diagram](image)

**B : Position B**

**Corresponding Model No.**

<table>
<thead>
<tr>
<th>Plug (Machine Side)</th>
<th>PMF</th>
<th>0 - P B - F - S</th>
</tr>
</thead>
</table>

Disconnected State

![Disconnected State Diagram](image)

Connected State

![Connected State Diagram](image)

**Notes:**

1. There should be a moderate gap that the plug can be inserted into the socket within the allowable center offset.
2. The gap should be adjusted so that all the ejector couplers in use receive the load equally.
3. There is a gap between the plug and the socket.

Make sure to install return pins since the ejector pin cannot be fully moved backward due to the gap.
Machining Dimensions of Socket Mounting Part

Corresponding Model No.

- PMF 0 - H - K: Without Fitting

External Dimension and Machining Dimension Lists

Plug (mm)

<table>
<thead>
<tr>
<th>Model No.</th>
<th>PMF0250-PA-F</th>
<th>PMF0250-PB-F</th>
<th>PMF0290-PA-F</th>
<th>PMF0290-PB-F</th>
<th>PMF0370-PA-F</th>
<th>PMF0370-PB-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>25</td>
<td>29</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>45</td>
<td>44.5</td>
<td>51.5</td>
<td>51</td>
<td>53</td>
<td>52.5</td>
</tr>
<tr>
<td>C</td>
<td>17</td>
<td>17.5</td>
<td>18.5</td>
<td>19</td>
<td>24.5</td>
<td>25</td>
</tr>
<tr>
<td>D</td>
<td>17.5</td>
<td>19.5</td>
<td></td>
<td>25.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>22</td>
<td>26</td>
<td></td>
<td>33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Socket (mm)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>25</td>
<td>30</td>
<td>36.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>19</td>
<td>22</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>M16 x 2</td>
<td>M18 x 2.5</td>
<td>M24 x 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>27 (Outer Diam. 30)</td>
<td>30 (Outer Diam. 33)</td>
<td>41 (Outer Diam. 45)</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>20</td>
<td>23</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
- 4. Insufficient tightening torque causes looseness and breakage.

Specification List

After confirming specifications, we will determine the shape of Ejector Rod and submit the dimensional drawing.

- Diecast Machine Maker
- Diecast Machine Model No.
- Extrusion Capability  kN
- Ejector Stroke  mm
- Distance from Ejector Plate to Platen  mm
- Plate Thickness  mm
- Platen Hole Thickness  mm
- Platen Hole Diam.  mm

Notes:
- *4. Specify them precisely including tolerance.
- *6. Platen Thickness shall indicate the part where the ejector rod is actually mounted.
**External Dimensions**

- **M**: with Action Confirmation

**Corresponding Model No.**

- **Plug (Machine Side)**: PMF 0 - P - A - M - S

  - with Action Confirmation
  - Floating on the Mold Side

### External Dimension List

<table>
<thead>
<tr>
<th>Model No.</th>
<th>PMF0250-P-M</th>
<th>PMF0290-P-M</th>
<th>PMF0370-P-M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available Plate Hole Dia. (mm)</td>
<td>$\phi$ 16.5 ~ 18</td>
<td>$\phi$ 18.5 ~ 24</td>
<td>$\phi$ 24.5 ~ 29</td>
</tr>
<tr>
<td>A</td>
<td>60</td>
<td>72</td>
<td>80</td>
</tr>
<tr>
<td>B</td>
<td>29.5</td>
<td>33</td>
<td>39.5</td>
</tr>
<tr>
<td>C</td>
<td>30.5</td>
<td>39</td>
<td>40.5</td>
</tr>
<tr>
<td>D</td>
<td>27</td>
<td>30</td>
<td>34</td>
</tr>
<tr>
<td>E</td>
<td>17</td>
<td>21</td>
<td>24</td>
</tr>
<tr>
<td>F</td>
<td>31</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>G</td>
<td>8</td>
<td>7.5</td>
<td>8</td>
</tr>
<tr>
<td>H</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>J</td>
<td>M3 × 0.5 Thread</td>
<td>M5 × 0.8 Thread</td>
<td>M5 × 0.8 Thread</td>
</tr>
<tr>
<td>Air Cylinder (SMC)</td>
<td>JCDQ16-10</td>
<td>JCDQ20-15</td>
<td>JCDQ25-15</td>
</tr>
<tr>
<td>Auto Switch (SMC)</td>
<td>D-M9BVL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

- 1. Contact us for plate hole diameter not listed above.
Air Circuit Reference

**Ejector Coupler : without Action Confirmation**

![Diagram of Ejector Coupler without Action Confirmation]

- Pressure Switch
- Air Valve
- Air Pressure Gauge
- Air Regulator
- Air Filter with Auto Drain
- P Port

**Ejector Coupler : with Action Confirmation**

![Diagram of Ejector Coupler with Action Confirmation]

- Air Valve
- Air Pressure Gauge
- Air Regulator
- P Port

※ Air valve should be selected according to usage.

Related Products

**System Structure Example (Ejector Coupler : with Action Confirmation)**

![Diagram of System Structure Example]

- Air Valve Unit
- Lock
- Release
- A/B Port
- P Port
- Air

- Control Unit
- Operation Panel

**Air Valve Unit**

Air directional control valve, which is actuated by electrical signal, controls air supplied to the ejector coupler.

**Operation Panel / Control Unit**

One control unit is able to control both ejector rod and hydraulic auto clamp. Allows for much safer mold change with interlock which is available for a diecast machine, ejector couplers and hydraulic auto clamps.

Please contact us for further information.
For Diecast Systems

Manual Ejector Coupler

Model PMG

Quick Change Manual Ejector Coupler
One-Touch Ball Lock Joint Reduces Setup Time in Half

One Touch to Connect
Ejector Rod and Ejector Plate!

Reduces Setup Time in Half!
In general, an ejector rod and an ejector plate are connected by double nut, but this takes a lot of time to tighten and untighten.

**Current Method**

**Manual Ejector Coupler**

Manual Ejector Coupler enables one-touch connection of the ejector rod and ejector plate.

Locked State: Mechanical Lock

By releasing the manual switch, the steel balls come out with internal spring and lock the plug and socket.

Released State: Manual Switch

By pushing the manual switch, the steel balls become free to move so it is able to pull out the plug.

It is connected to the mold side via the ejector rod, so the mold side needs no modification.
Model No. Indication

1 Ejector Plate Hole Diameter

018 : Ejector Plate Hole Diameter φ18 ~ 19 mm
020 : Ejector Plate Hole Diameter φ20 ~ 21 mm

2 Design No.

0 : Revision Number

3 Ejector Plate Thickness

250 : Ejector Plate Thickness 25 mm
700 : Ejector Plate Thickness 70 mm

※ Specify 3 Ejector Plate Thickness in 1mm increments with the first decimal place rounded up.
(Ex.) When the actual thickness is 50.3mm, select ‘510’ : 51mm.
※ The maximum ejector plate thickness is 700 : 70mm.

Specifications

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Plug</th>
<th>PMG 018 0 - 500</th>
<th>PMF 025 0 - S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socket</td>
<td></td>
<td>PMG0180 PMF0250-S</td>
<td>PMG0200 PMF0290-S</td>
</tr>
<tr>
<td>Max. Allowable Pulling Capacity</td>
<td>kN</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Max. Allowable Compressive Capacity</td>
<td>kN</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>Spring Force</td>
<td>N</td>
<td>11 ~ 16</td>
<td>11 ~ 19</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>°C</td>
<td>0 ~ 120</td>
<td></td>
</tr>
<tr>
<td>Ejector Plate Hole Diameter</td>
<td>mm</td>
<td>φ18 ~ 19</td>
<td>φ20 ~ 21</td>
</tr>
<tr>
<td>Max. Ejector Plate Thickness</td>
<td>mm</td>
<td>70</td>
<td></td>
</tr>
</tbody>
</table>

Note:
1. Make sure that the ejector plate hole is cleaned before use.
2. Contaminants entering from steel ball holes lead to malfunction.
**External Dimensions**

**Plug**

- M: Attaching/ Detaching Stroke
- C: Ejector Plate Backward Position
- Identification Mark (V slot) for Lock Confirmation
- Width H

**Socket**

- Socket
- Machined by Customer
- (Ejector Rod)

**Machining Dimensions of Socket Mounting Part**

![Machining Dimensions of Socket Mounting Part]

**External Dimension and Machining Dimension Lists**

<table>
<thead>
<tr>
<th><strong>Plug</strong></th>
<th><strong>Socket</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Model No.:</td>
<td>Model No.:</td>
</tr>
<tr>
<td>PMG0180</td>
<td>PMF0250-S</td>
</tr>
<tr>
<td>PMG0200</td>
<td>PMF0290-S</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>PMG0180</th>
<th>PMG0200</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>17.5</td>
<td>19.5</td>
</tr>
<tr>
<td>B</td>
<td>17</td>
<td>18.5</td>
</tr>
<tr>
<td>C</td>
<td>45</td>
<td>50.5</td>
</tr>
<tr>
<td>D</td>
<td>14.5</td>
<td>17.5</td>
</tr>
<tr>
<td>E</td>
<td>40</td>
<td>44.5</td>
</tr>
<tr>
<td>F</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>G</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>H</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>J</td>
<td>34</td>
<td>39</td>
</tr>
<tr>
<td>K</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>L</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>M</td>
<td>4.5</td>
<td>5.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>PMF0250-S</th>
<th>PMF0290-S</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>P</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Q</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>R</td>
<td>M16×2</td>
<td>M18×2.5</td>
</tr>
<tr>
<td>S 18</td>
<td>16.5</td>
<td>18.5</td>
</tr>
<tr>
<td>S 18</td>
<td>16.5</td>
<td>18.5</td>
</tr>
<tr>
<td>T</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>U</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>V</td>
<td>20</td>
<td>23</td>
</tr>
</tbody>
</table>

**Notes:**

1. Design the ejector rod with a gap (0.0 – 0.5mm) between the ejector plate and socket at the ejector plate backward position in order to prevent the load applied on the connecting part of the manual ejector coupler. Make sure to install return pins since the ejector pin cannot be fully moved backward due to the gap.

2. Insufficient tightening torque causes looseness and breakage.

3. Contact us for unlisted sizes.

**Specification List**

<table>
<thead>
<tr>
<th></th>
<th><strong>Ejector Plate Thickness</strong>  (^{#3}) mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Ejector Plate Hole Diameter</strong> mm</td>
</tr>
</tbody>
</table>

**Note:**

4. Ejector Plate Thickness shall indicate the part where the ejector rod is actually mounted. (Be careful with the spot facing hole.)
**Cautions**

- **Notes for Design**

  1) Check Specifications
  - The diecast machine/coupler device should be handled and maintained by qualified personnel.

  2) Do not connect couplers when contaminants are adhered.
  - If there are contaminants adhered on edge of each coupler, make sure to remove them with air blow. Otherwise it cannot be connected properly.

  3) Secure the floating margin so that the mold side absorbs center offset.
  - (Applying only to: PMF Coupler with Floating on the Mold Side)
  - Ejector coupler itself has no floating function.
  - Recommended Floating Margin: 0.5~1mm (One Side)

- **Installation Notes**

  1) Please supply clean dry air. (Only for PMF Coupler)
  - Install an air filter/air dryer in order to prevent rust and dirt. Otherwise it may lead to malfunction.

  2) Procedure before Piping (Only for PMF Coupler)
  - The pipeline and piping connector should be cleaned by thorough flushing. The dust and cutting chips in the circuit may lead to air leakage and malfunction.
  - (The filter which removes contaminant in the air circuit is not provided.)

  3) Applying Sealing Tape
  - Wrap with tape 1 to 2 times following the screwing direction.
  - When piping, be careful that contaminants such as sealing tape do not enter in products. Pieces of the sealing tape can lead to air leakage and malfunction.

  4) Installation of the Product
  - For installation of PMF-H/S: Socket, tighten it with the torque shown in the following list. Insufficient tightening torque causes looseness and breakage. Tightening torque of the ejector rod of PMF Coupler differs depending on the thread size.
  - Contact us for further information.

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Thread Size</th>
<th>Tightening Torque (N·m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMF0250-H/S</td>
<td>M16×2</td>
<td>80</td>
</tr>
<tr>
<td>PMF0290-H/S</td>
<td>M18×2.5</td>
<td>130</td>
</tr>
<tr>
<td>PMF0370-H/S</td>
<td>M24×3</td>
<td>240</td>
</tr>
</tbody>
</table>

- **4) Install mold locating bars.**

- **5) Install return pins.**

- **6) Operation sequence of PMF Ejector Coupler differs depending on the ejector coupler installation position: Position A or B. Please contact us for further information.
**Notes on Handling**

1) It should be handled by qualified personnel.

2) Do not handle or remove the product unless the safety is ensured.
   ① The machine and equipment can only be inspected or prepared when it is confirmed that the preventive devices are in place.
   ② Before the product is removed, make sure that the above-mentioned safety measures are in place.
   ③ After stopping the machine, do not remove the product until the temperature cools down.
   ④ Make sure there is no abnormality in the respective parts before restarting the machine or equipment.

3) Do not disassemble or modify.
   ● If the product is taken apart or modified, the warranty will be voided even within the warranty period.

4) Do not touch the product while it is working.
   ● Otherwise, your hands may be injured due to clamping.

5) After connected, make sure you can see the identification mark for lock confirmation and the coupler cannot be detached.

**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 handled inappropriately 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 damages 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.

**Maintenance/Inspection**

1) Removal of the Product and Shut-off of Air Source
   ● Before the product is removed, make sure that the preventive devices and the safety measures are in place.
   Shut off the pressure source and power source and make sure no pressure exists in the air circuit. Also, make sure there is no abnormality in the bolts and respective parts before restarting.

2) Periodically ensure that piping, plug body and socket are securely tightened.

3) Periodically ensure that supply air pressure is a specified value.

4) Make sure to supply filtered clean dry air.

5) Make sure there is smooth action and no abnormal noise.
   ● Especially when it is restarted after being left unused for a long period, make sure it can be operated properly.

6) The products should be stored in the cool and dark place without direct sunshine or moisture.

7) Please contact us for overhaul and repair.
Kosmek Products for Diecast Systems

KOSMEK Diecast Clamping Systems

For Diecast Systems

Secure and Safe Mold Clamping with Auto Clamps

Allows for secure and safe mold clamping with a button operation outside the machine.

Model GK

High-Power / High-Speed Core Pull Cylinder

For Diecast Systems

Productivity Improvement

Pulls out the core with 1.8 times thrust force in half the time compared to a cylinder with the same size.

Model PC

KOSMEK LTD.

HEAD OFFICE
1-5, 2-chome, Murotani, Nishi-ku, Kobe-city, Hyogo, Japan 651-2241
TEL +81-78-991-5162 FAX +81-78-991-8787

http://www.kosmek.com/

For Further Information on Unlisted Specifications and Sizes, Please call us.
Specifications in this leaflet are subject to change without notice.

For Branch Locations and Contact Information, see below.

CORPORATE HEAD OFFICE

KOSMEK (U.S.A.) LTD.
650 Springer Drive, Lombard, IL 60148 USA
TEL. +1-630-620-7650 FAX. +1-630-620-9015

MEXICO

REPRESENTATIVE OFFICE

KOSMEK USA Mexico Office
Blvd Jurica la Campana 1040, B Colonia Punta Juriquilla Queretaro,
QRO 76230 Mexico
TEL. +52-442-161-2347

EUROPE

KOSMEK EUROPE GmbH
Schleppenplatz 2 9020 Klagenfurt am Wörthersee Austria
TEL. +43-463-287587 FAX. +43-463-287587-20

INDIA

KOSMEK LTD. - INDIA
F 203, Level-2, First Floor, Prestige Center Point, Cunningham Road,
Bangalore -560052 India
TEL. +91-9880561695

THAILAND

KOSMEK Thailand Representation Office
67 Soi 58, RAMA 9 Rd, Suanluang, Suanluang, Bangkok 10250, Thailand
TEL. +66-2-300-5132 FAX. +66-2-300-5133

CAT.NO. PMF001-01-GB
Printed in Japan