New

Multi Coupler

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

Model JMC
(with Check Valve)

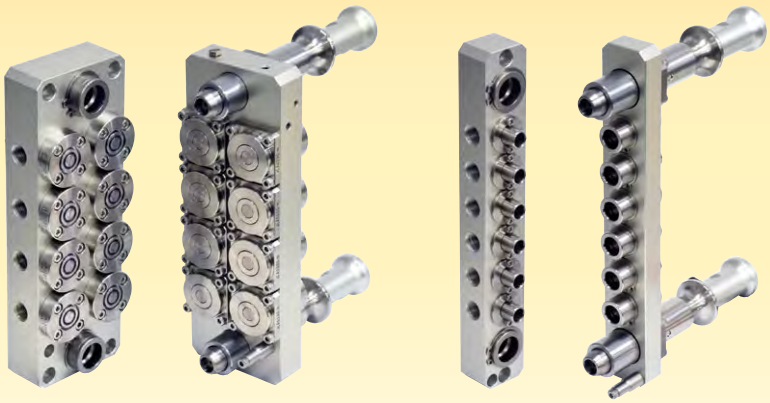
Model JMD
(without Check Valve)

KOSMEK
Harmony in Innovation

For Injection Molding Machines

Multi Coupler

Model JMC with Check Valve
Model JMD without Check Valve



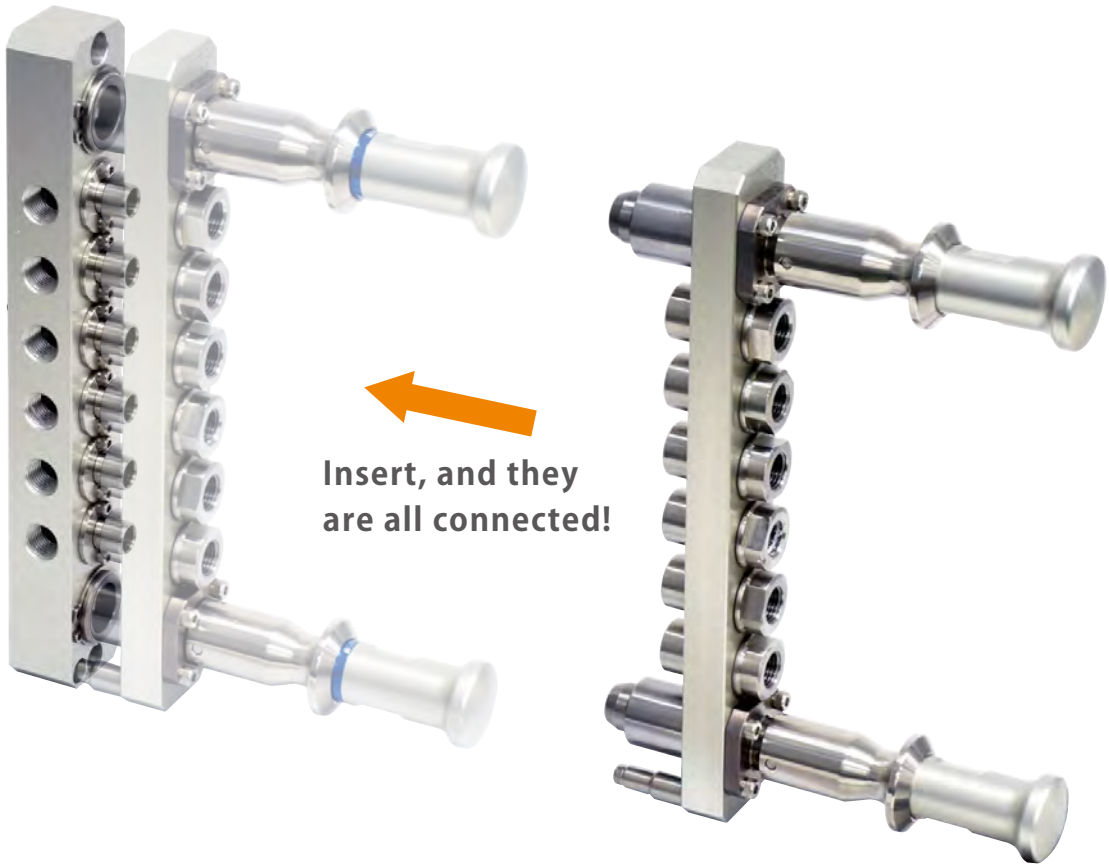
Safe, Simple and Quick.
Connects and Disconnects Multiple Couplers at Once.

Compact, Light, Easy to Operate and Equipped with Misconnection Prevention

What is Multi Coupler ?

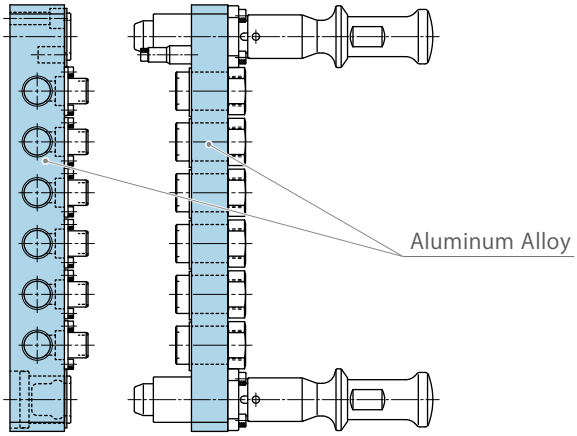
A Device for Connecting Multiple Couplers in Single Operation

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.



• 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.

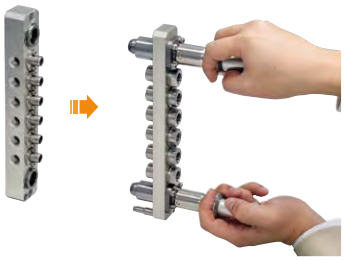


• Simply Connected

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)

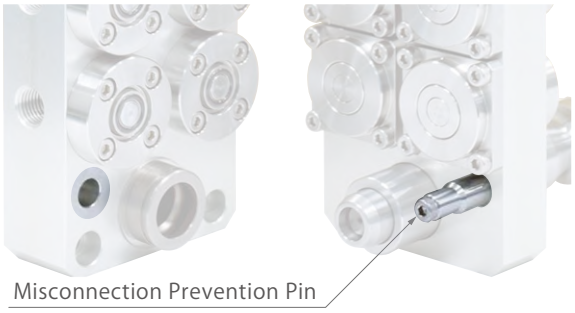
Connecting

Disconnecting



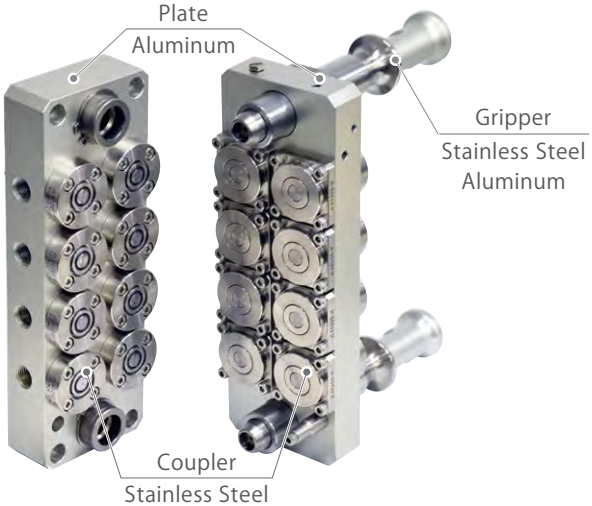
• Misconnection Prevention

Misconnection Prevention Pin to prevent connection failure.



• Anti-Corrosion Material

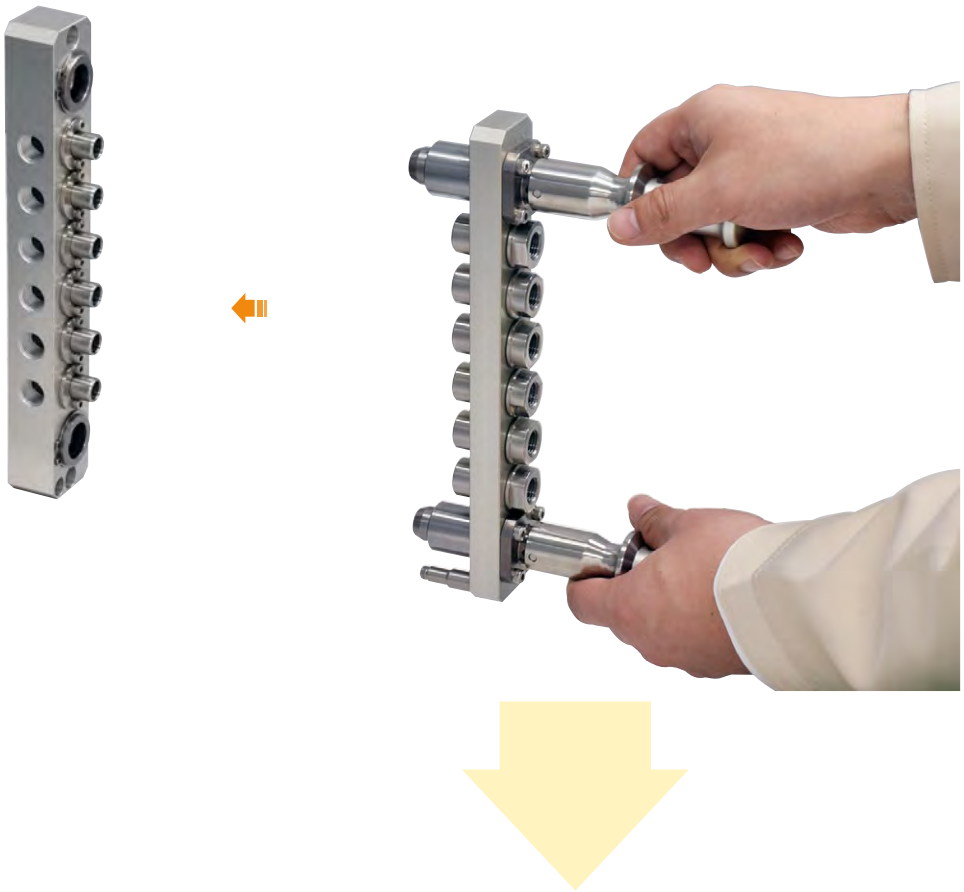
Using stainless steel for the coupler and the gripper, and aluminum for the plate allows for anti-corrosion. Highly durable to air and process water.



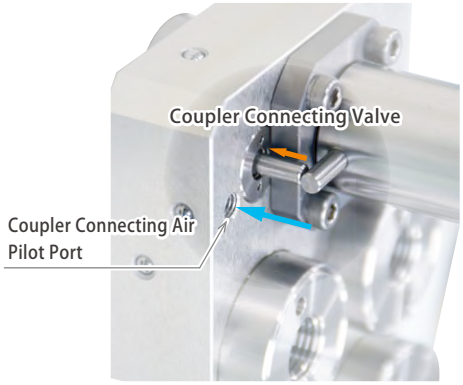
Action Description：Connecting

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.

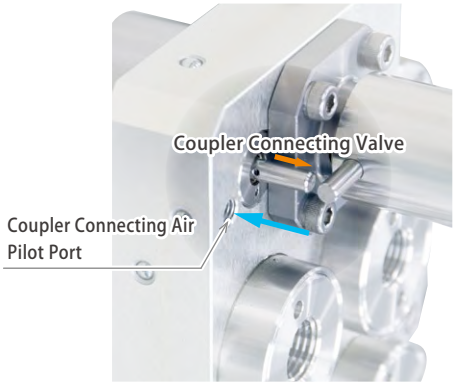


Pilot air is always connected since the coupler connecting valve is opened as JMC: with Check Valve is connected. Check valve for coupler connecting valve is not required.

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

JM C 2 08 0 - M - P
1 2 3 4 5 6

1 Check Valve

C : with Check Valve
D : without Check Valve

2 Port Size

2 : Rc1/4
3 : Rc3/8 ※1

Note :
※1. 2 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 ※3
S8 : Single-Row 8 Ports ※3

04 : Double-Row 4 Ports ※2
06 : Double-Row 6 Ports ※2
08 : Double-Row 8 Ports
12 : Double-Row 12 Ports ※3

Single Row

Double Row

Notes :
※2. 3 Number of Ports '**04**：Double-Row 4 Ports' and '**06**：Double-Row 6 Ports' can be selected only when selecting 1 Check Valve '**C**：with Check Valve.'
※3. 3 Number of Ports '**S6**：Single-Row 6 Ports', '**S8**：Single-Row 8 Ports' and '**12**：Double-Row 12 Ports' can be selected only when selecting 1 Check Valve '**D**：without Check Valve'.

4 Design No.

0 : Revision Number

5 Installation Side

H : Operation Side
M : Mold Side

6 Operating Temperature

Selectable only for 1 Check Valve '**C**：with Check Valve'.

Blank : 0 ~ 120℃
P : 0 ~ 180℃

Note :
1. Operating Temperature for 1 Check Valve '**D**：without Check Valve' is 0 ~ 70℃.

Selection List

Check Valve	Port Size	Number of Ports	Layout	Installation Side	Model No.
with Check Valve	Rc1/4	4 Ports	Parallel	Operation Side	JMC2040-H
				Mold Side	JMC2040-M
		6 Ports		Operation Side	JMC2060-H
				Mold Side	JMC2060-M
		8 Ports		Operation Side	JMC2080-H
				Mold Side	JMC2080-M
without Check Valve	Rc1/4	6 Ports	Single	Operation Side	JMD2S60-H
				Mold Side	JMD2S60-M
		8 Ports	Single	Operation Side	JMD2S80-H
				Mold Side	JMD2S80-M
			Parallel	Operation Side	JMD2080-H
				Mold Side	JMD2080-M
		12 Ports	Parallel	Operation Side	JMD2120-H
				Mold Side	JMD2120-M
	Rc3/8	6 Ports	Single	Operation Side	JMD3S60-H
				Mold Side	JMD3S60-M
		8 Ports	Single	Operation Side	JMD3S80-H
				Mold Side	JMD3S80-M
			Parallel	Operation Side	JMD3080-H
				Mold Side	JMD3080-M
		12 Ports	Parallel	Operation Side	JMD3120-H
				Mold Side	JMD3120-M

Note :

1. Please check Model No. Indication and Specifications when selecting the product.

Specifications : 1 C : with Check Valve

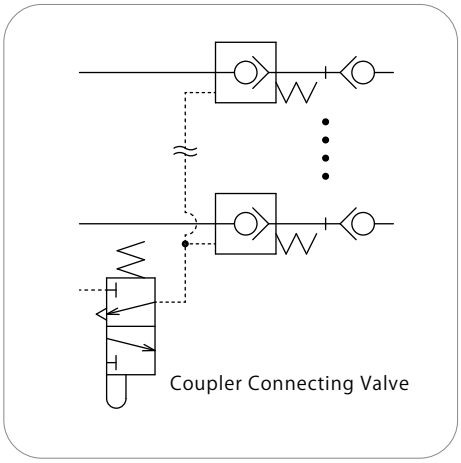
Model No.	5 H : Operation Side	JMC2040-H	JMC2040-H-P	JMC2060-H	JMC2060-H-P	JMC2080-H	JMC2080-H-P
	5 M : Mold Side	JMC2040-M	JMC2040-M-P	JMC2060-M	JMC2060-M-P	JMC2080-M	JMC2080-M-P
Number of Ports		4		6		8	
Port Size		Rc1/4		Rc1/4		Rc1/4	
Max. Operating Pressure MPa		16	5	4		2	
Min. Passage Area (per Circuit) mm^2		30					
Operating Temp. Range ℃		0 ~ 120	0 ~ 180	0 ~ 120	0 ~ 180	0 ~ 120	0 ~ 180
Usable Fluid		General Hydraulic Oil・Water・Air					
Pilot Air Pressure MPa		0.3 ～ 0.8					
Weight kg	5 H : Operation Side	2.3		2.8		3.3	
	5 M : Mold Side	1.2		1.6		1.9	

Specifications : 1 D : without Check Valve

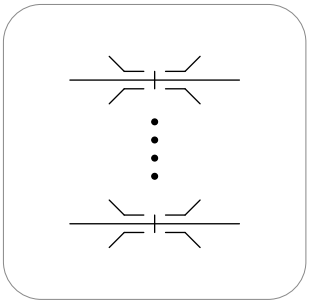
Model No.	5 H : Operation Side	JMD2S60-H	JMD2S80-H	JMD2080-H	JMD2120-H	JMD3S60-H	JMD3S80-H	JMD3080-H	JMD3120-H
	5 M : Mold Side	JMD2S60-M	JMD2S80-M	JMD2080-M	JMD2120-M	JMD3S60-M	JMD3S80-M	JMD3080-M	JMD3120-M
Number of Ports		6	8	8	12	6	8	8	12
Port Size		Rc1/4				Rc3/8			
Max. Operating Pressure MPa		0.8							
Min. Passage Area (per Circuit) mm^2		64				95			
Operating Temp. Range ℃		0 ~ 70							
Usable Fluid		Water・Air							
Weight kg	5 H : Operation Side	1.6	1.8	2.0	2.2	1.9	2.1	2.1	2.5
	5 M : Mold Side	0.7	0.8	0.8	1.0	0.8	1.0	0.9	1.2

Circuit Diagram ※ The locking device is not shown in the diagram.

JMC (with Check Valve)



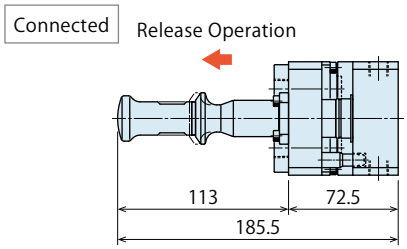
JMD (without Check Valve)

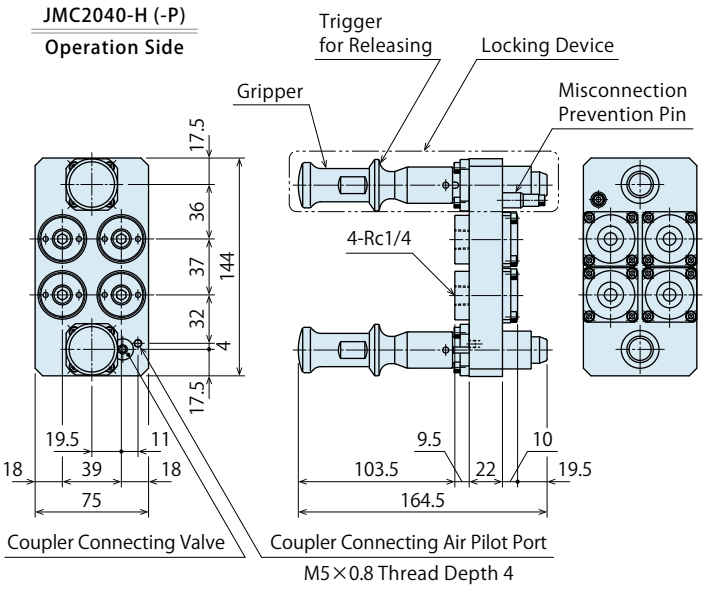


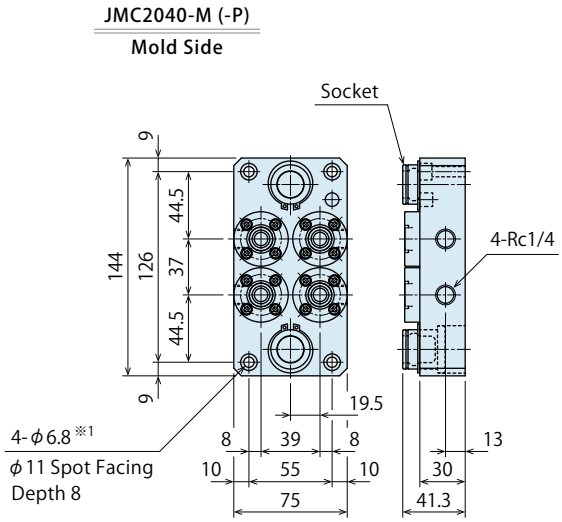
External Dimensions

JMC2040-H / M (-P)

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

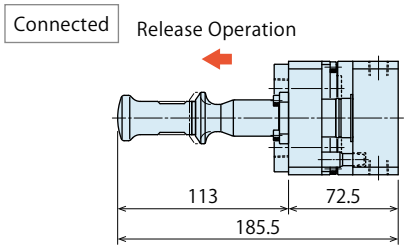


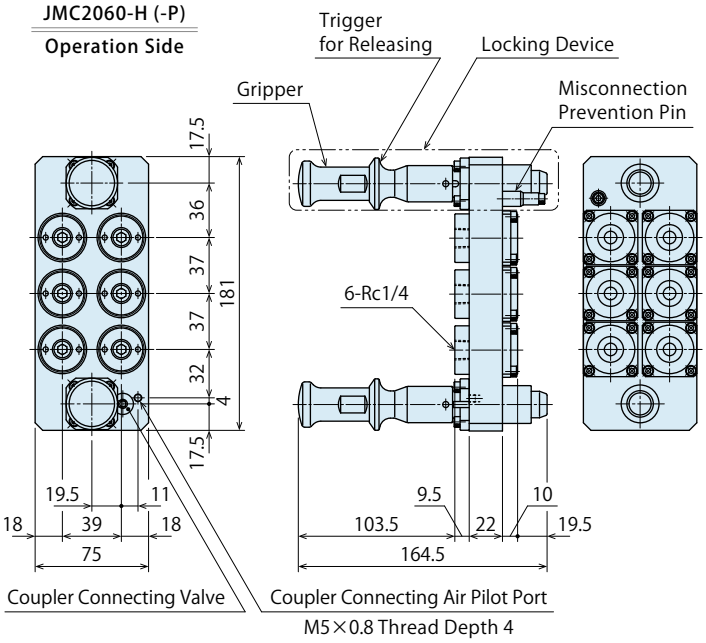


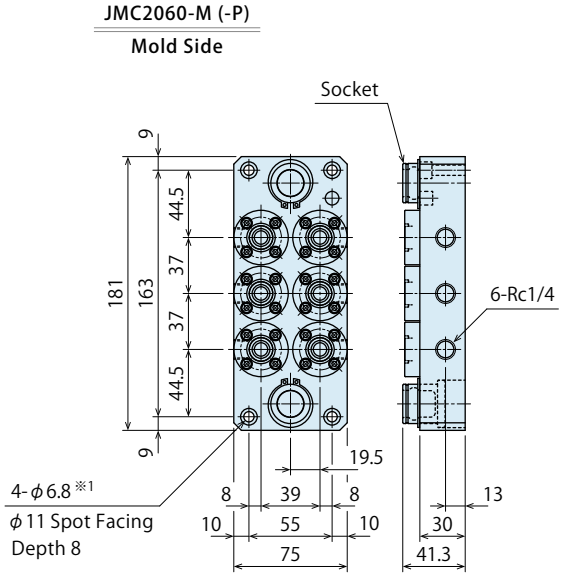


JMC2060-H / M (-P)

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







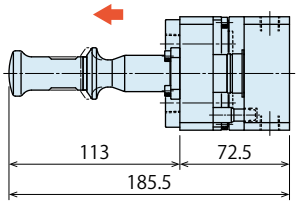
JMC2080-H / M (-P)

Note :

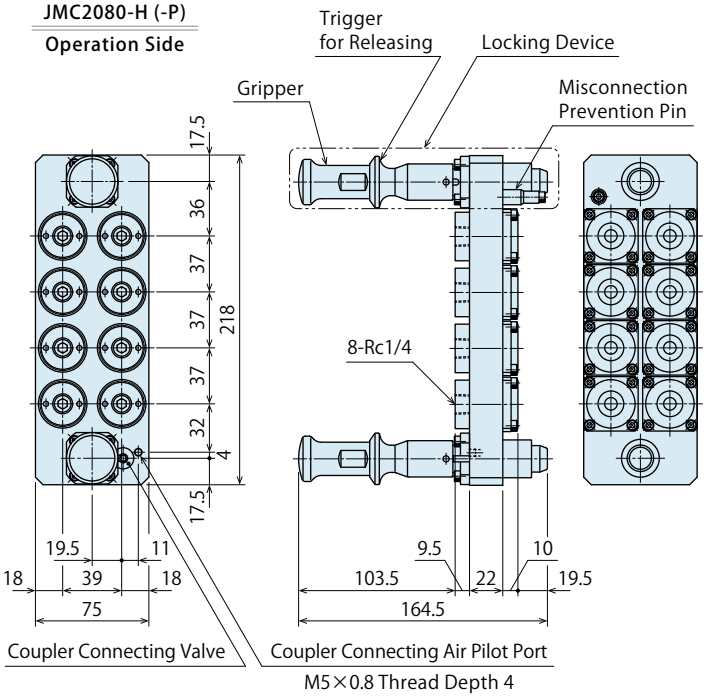
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.

Connected

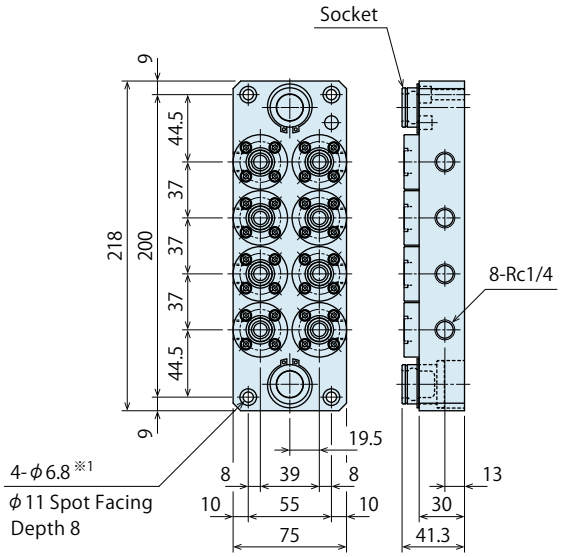
Release Operation



JMC2080-H (-P)
Operation Side



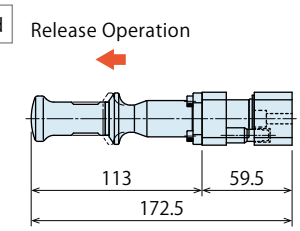
JMC2080-M (-P)
Mold Side



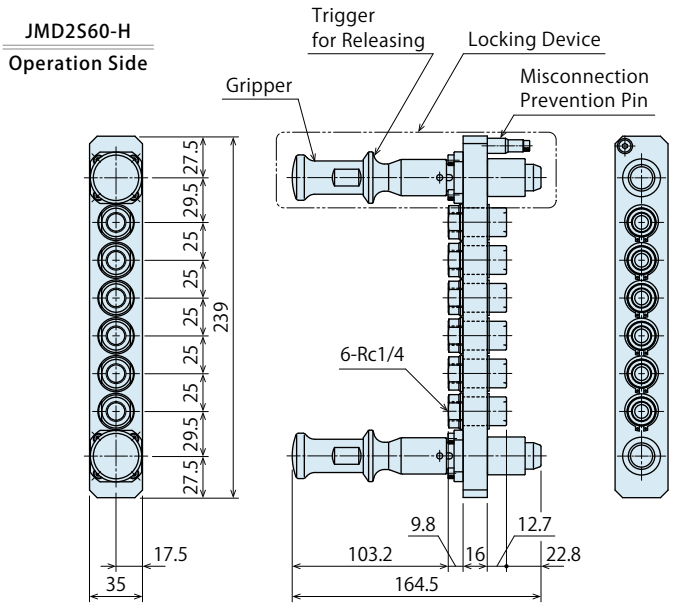
External Dimensions

JMD2S60-H / M

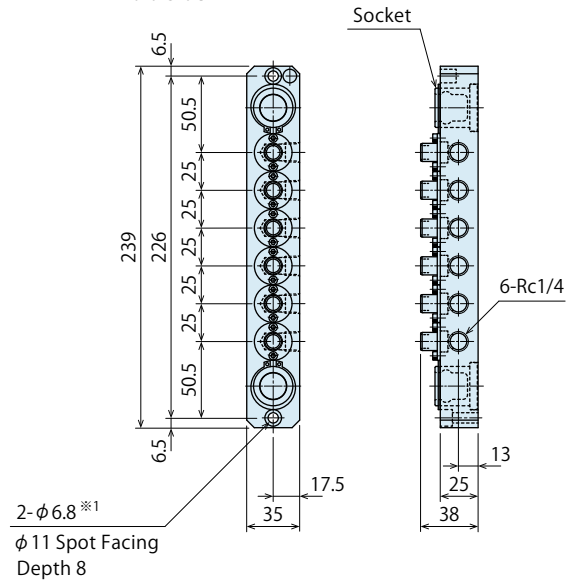
Note :
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.



JMD2S60-H
Operation Side

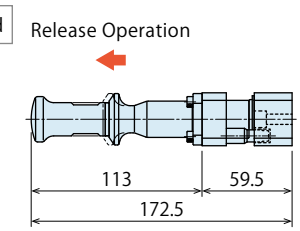


JMD2S60-M
Mold Side

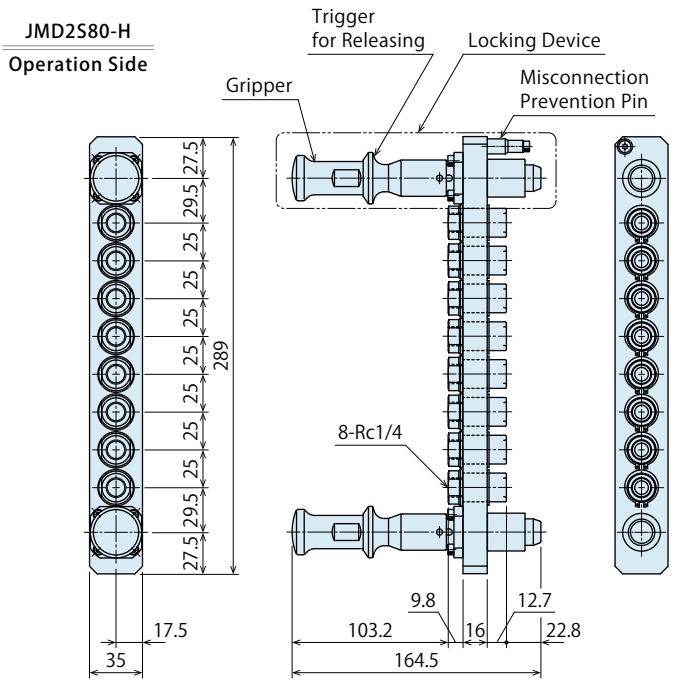


JMD2S80-H / M

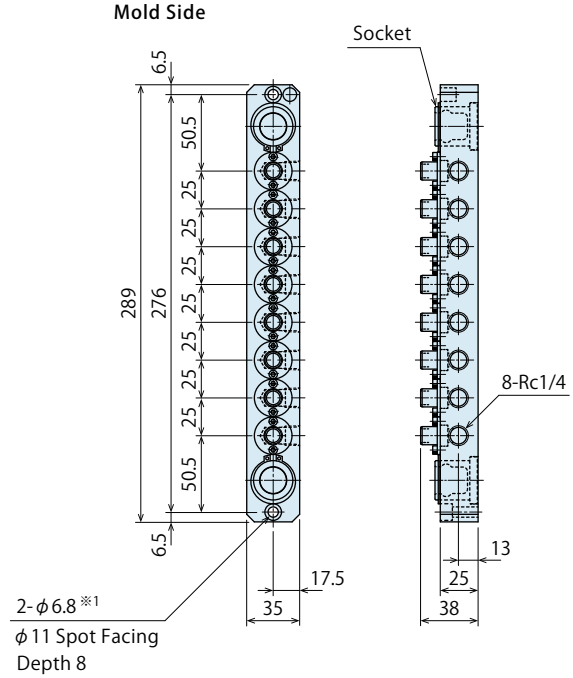
Note :
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.



JMD2S80-H
Operation Side



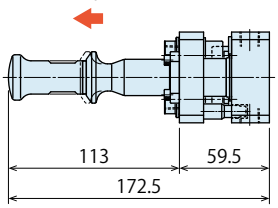
JMD2S80-M
Mold Side



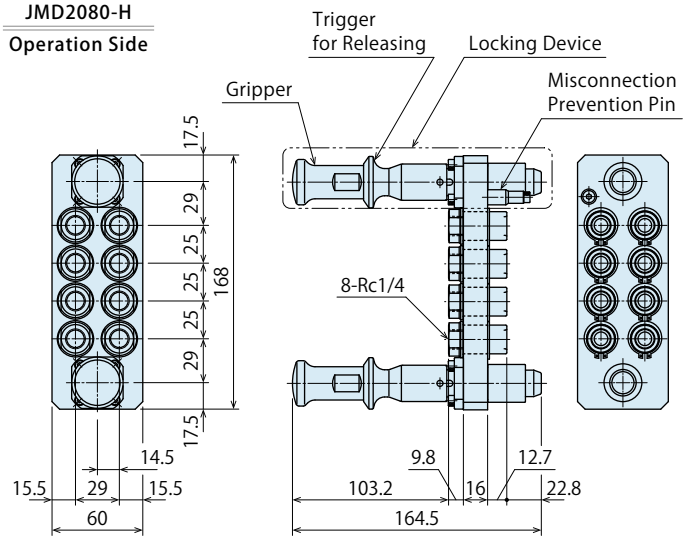
JMD2080-H / M

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

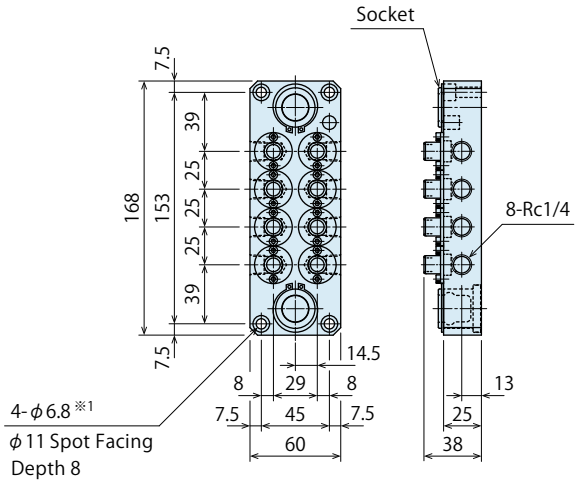
Connected



JMD2080-H
Operation Side



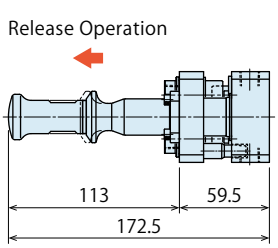
JMD2080-M
Mold Side



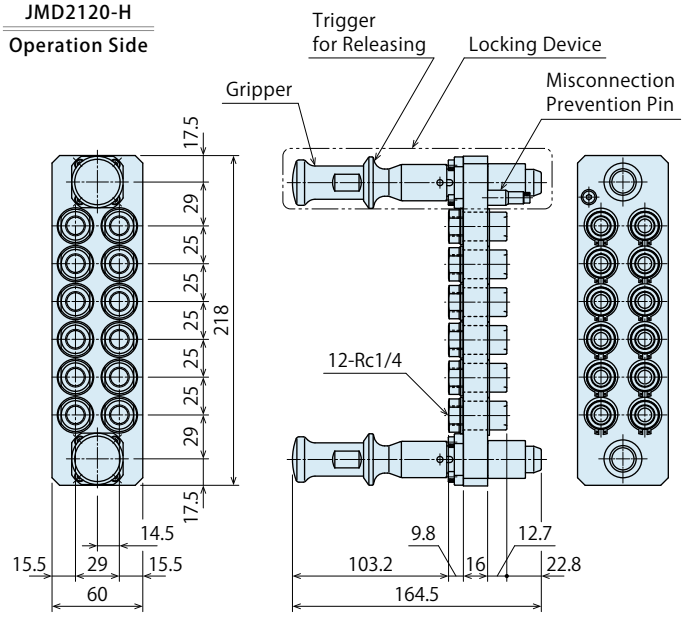
JMD2120-H / M

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

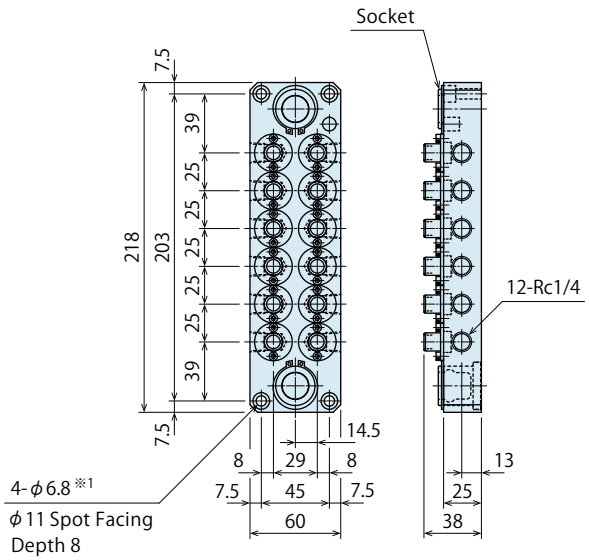
Connected



JMD2120-H
Operation Side



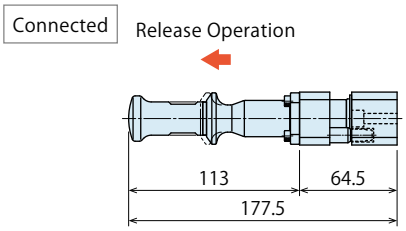
JMD2120-M
Mold Side

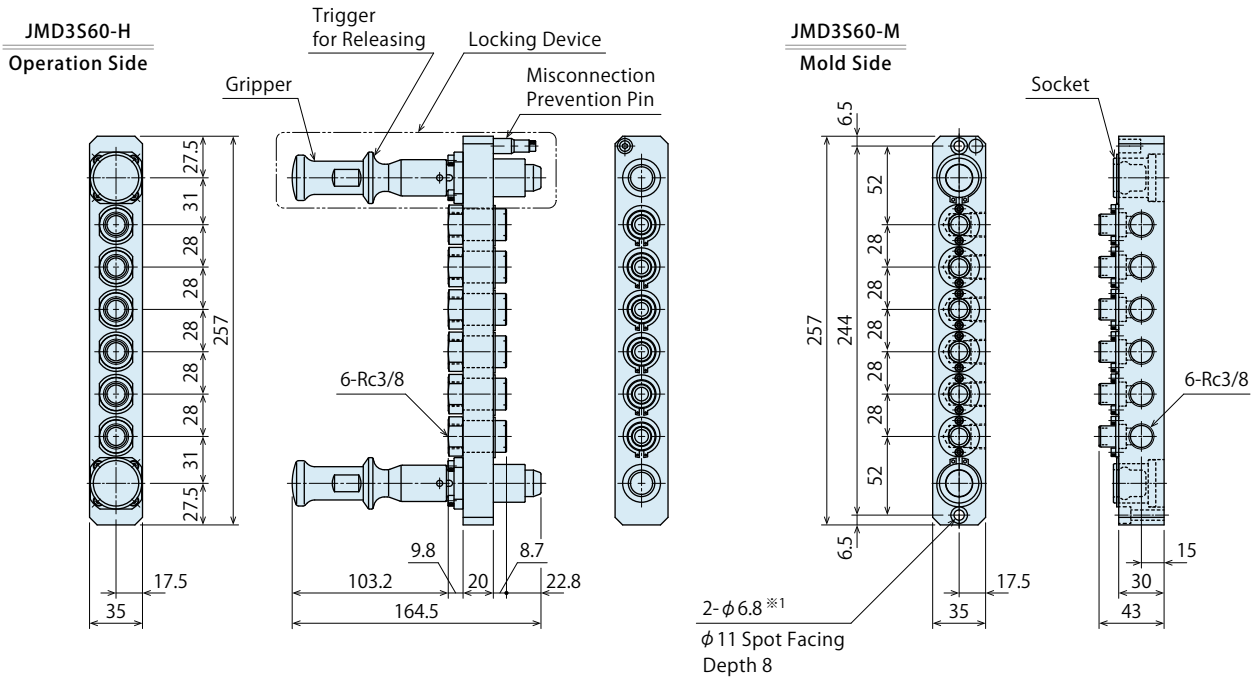


External Dimensions

JMD3S60-H / M

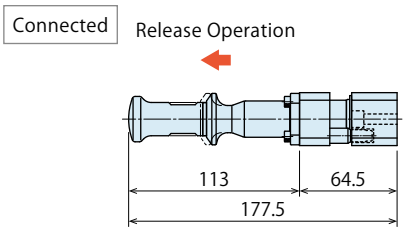
Note :
※1. Mounting bolts are not provided.
Please prepare them according to the mounting height.

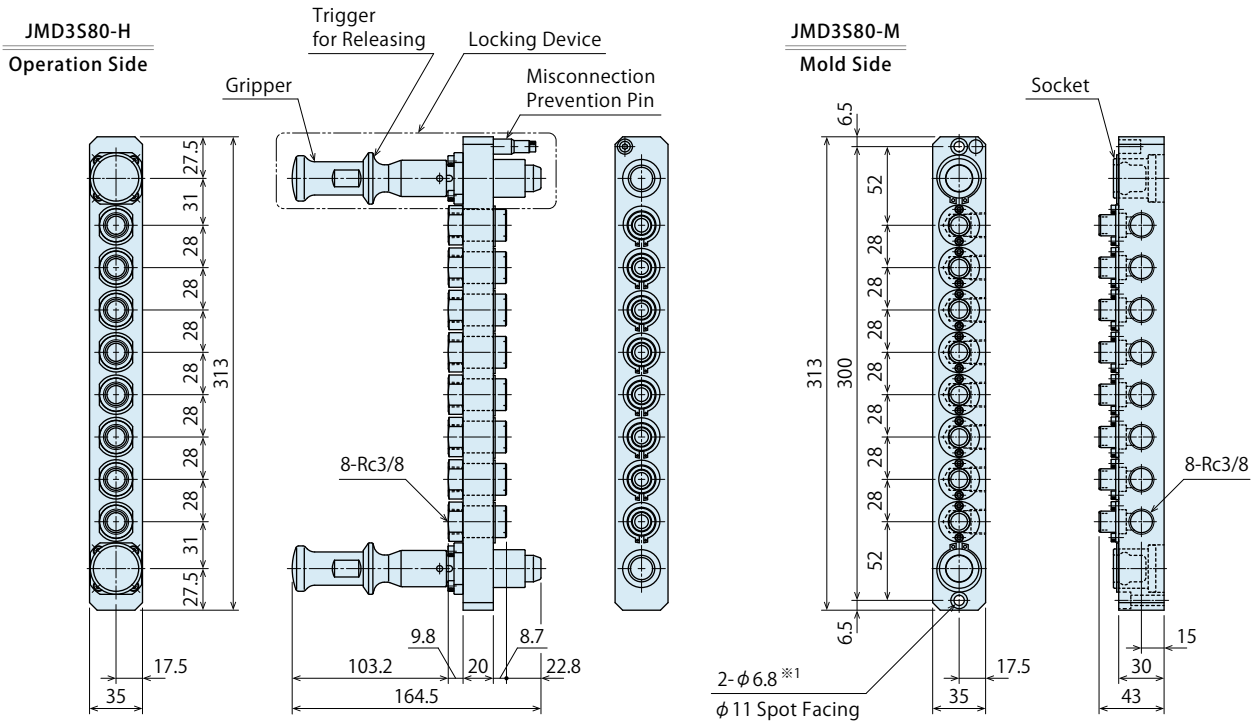




JMD3S80-H / M

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

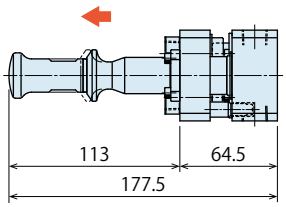




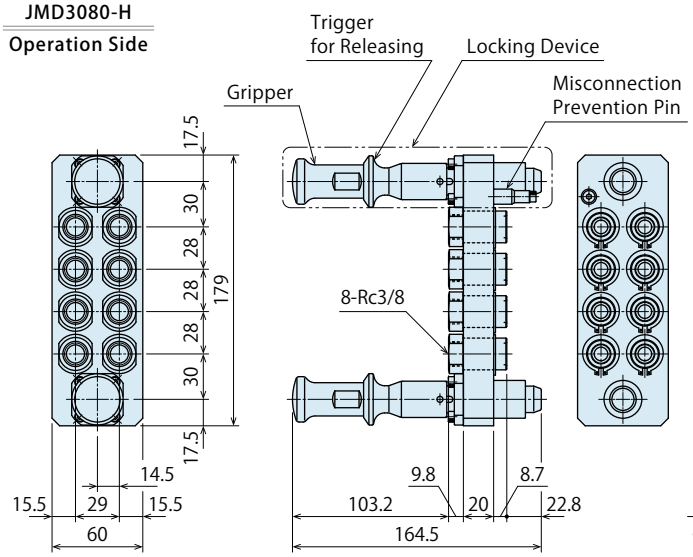
JMD3080-H / M

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

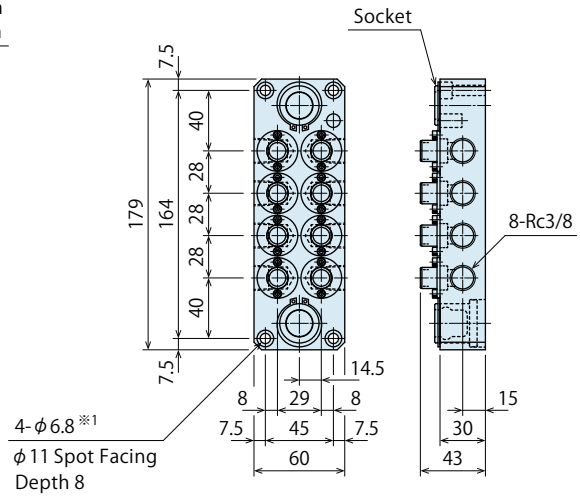
Connected
Release Operation



JMD3080-H
Operation Side



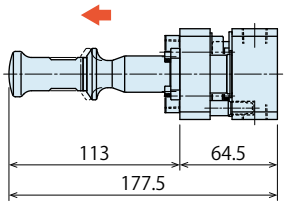
JMD3080-M
Mold Side



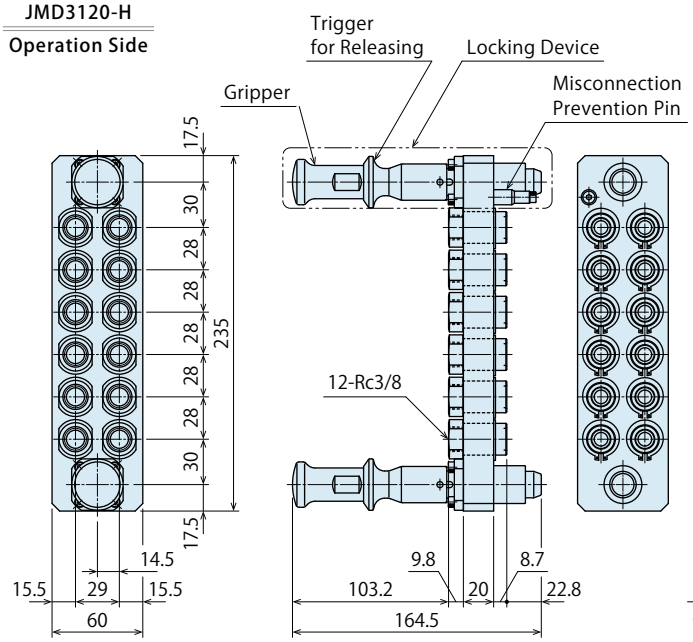
JMD3120-H / M

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

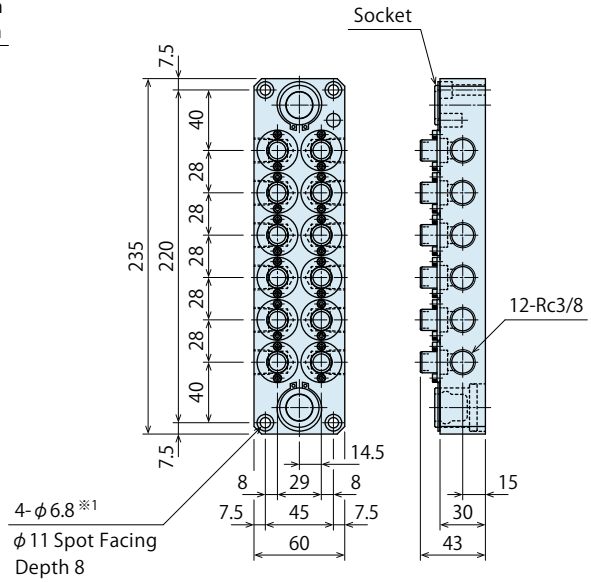
Connected
Release Operation



JMD3120-H
Operation Side



JMD3120-M
Mold Side



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

ISO Viscosity Grade ISO-VG-32

Maker	Anti-Wear Hydraulic Oil	Multi-Purpose Hydraulic Oil
Showa Shell Sekiyu	Tellus S2 M 32	Morlina S2 B 32
Idemitsu Kosan	Daphne Hydraulic Fluid 32	Daphne Super Multi Oil 32
JX Nippon Oil & Energy	Super Hyrando 32	Super Mulpus DX 32
Cosmo Oil	Cosmo Hydro AW32	Cosmo New Mighty Super 32
ExxonMobil	Mobil DTE 24	Mobil DTE 24 Light
Matsumura Oil	Hydol AW-32	
Castrol	Hyspin AWS 32	

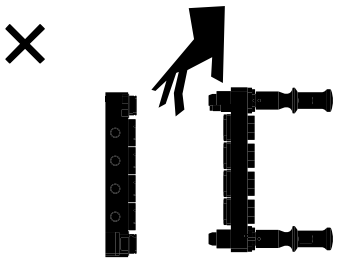
Note : Please contact manufacturers when customers require products in the list above.

Notes on Handling

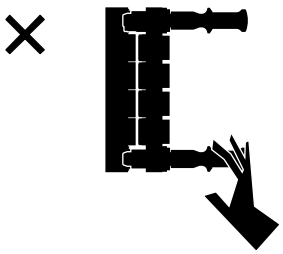
1) It should be operated by qualified personnel.
- Hydraulic/pneumatic products, machines and devices should be operated and maintained by qualified personnel.

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.

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- For Further Information on Unlisted Specifications and Sizes, Please call us.
- Specifications in this Leaflet are Subject to Change without Notice.

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