

Auto Joint

For Oil/Air/Coolant/Hot Water

Model JL□



Compact Air Joint for Mold Temperature Adjustment Allows for Automation of Mold Change System

Specifications

Size	Plug Side	JLP020	JLP030	JLP040	JLP060	JLP080	
	Socket Side	JLS020	JLS030	JLS040	JLS060	JLS080	
Minimum Passage Area	mm ²	29	50	102	183	297	
Offset Tolerance	mm	±0.5	±0.5	±0.8	±1.0	±1.0	
Angle Error Tolerance	DEG.	0.5	0.5	0.5	0.5	0.5	
Maximum Operating Pressure MPa	Material	4 Material W	3.5			3.5	
		4 Material H	3.5			3.5	
		4 Material O	25			14	
Operating Temperature °C		4 Material W/O	0 ~ 70				
		4 Material H	0 ~ 120				
Reaction Force kN	Operating Pressure	At 1.0 MPa	0.25	0.33	0.52	0.88	1.28
		At 3.5 MPa	0.64	0.83	1.47	2.47	3.76
		At 14 MPa	2.26	2.94	5.46	9.17	14.2
		At 25 MPa	3.95	5.16	9.64	-	-
		At P MPa	0.154 x P + 0.10	0.201 x P + 0.13	0.380 x P + 0.14	0.638 x P + 0.24	0.990 x P + 0.29

Notes

- Do not connect or disconnect under pressurization (pressure remained).
- Bleed the air in the circuit before use (when using hydraulic oil).
- Do not connect in the condition that foreign substances such as chips adhere on the connecting surfaces (completely remove the adhering chips or coolant by air blow etc).
- Prevent foreign substances (chips or seal tape) from entering the circuit.
- When using water or air as fluid, consider rust prevention of manifold blocks and pipe fittings.
- When reaching the connection limit, the holding pressure should be higher than reaction force and lower than 4.0kN for JL□020-W/H-□0, higher than reaction force and lower than 6.0kN for JL□020-O-□0, higher than reaction force and lower than 5.0kN for JL□030-W/H-□0, higher than reaction force and lower than 9.0kN for JL□030-O-□0, higher than reaction force and lower than 7.0kN for JL□040-W/H-□0, higher than reaction force and lower than 12.0kN for JL□040-O-□0, higher than reaction force and lower than 10.0kN for JL□060-W/H-□0, higher than reaction force and lower than 17.0kN for JL□060-O-□0, higher than reaction force and lower than 15.0kN for JL□080-W/H-□0, higher than reaction force and lower than 25.0kN for JL□080-O-□0.
- Please contact us for larger passage area.

Model No. Indication

J L P 0 2 0 - W - M 0

1
2
3
4
5

1 Style

- P : Plug Side
- S : Socket Side

2 Body Size ^{※1}

- 2 : Minimum Passage Area 29mm²
- 3 : Minimum Passage Area 50mm²
- 4 : Minimum Passage Area 102mm²
- 6 : Minimum Passage Area 183mm²
- 8 : Minimum Passage Area 297mm²

3 Design No.

- 0 : Revision Number

Notes

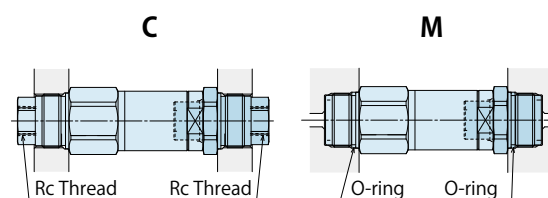
- ※1. Please contact us when using the auto joints with different body sizes in combination. However, it is recommended to use the same body size considering maintenance and stock of spares.
- ※2. Different piping method, C and M can be combined for use.

4 Material

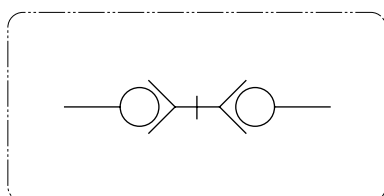
- W : Stainless Steel, Brass, NBR (Recommended Fluid: Air)
- H : Stainless Steel, Brass, Fluor Rubber (Recommended Fluid: Coolant)
- O : Steel, NBR (Recommended Fluid: General Hydraulic Oil)

5 Piping Method ^{※2}

- C : Connector Option
- M : Manifold Option (O-ring Seal)



Circuit Symbol

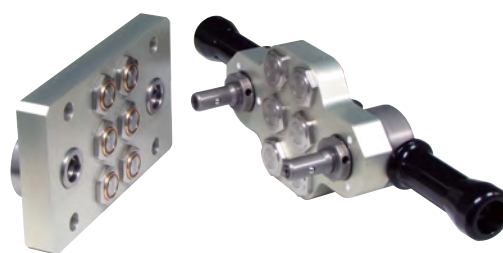


Joint Unit

Kosmek offers Automatic Connection Joint Unit and Manual Connection Joint Unit according to your needs. Please contact us for further information of Joint Unit.

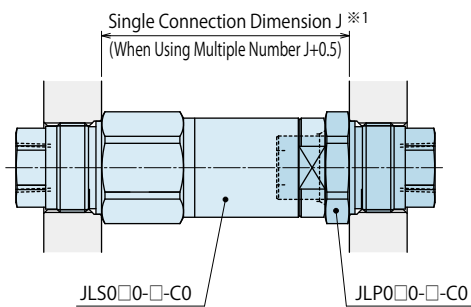
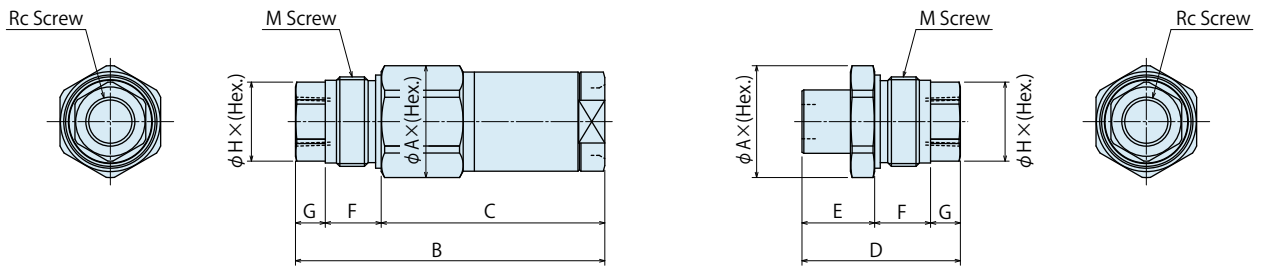


Automatic Connection Model Example

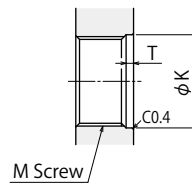


Manual Connection Model Example

External Dimensions: Connector Model



Mounting Hole Machining Dimension
JLS0□0-□-C0 / JLP0□0-□-C0 Common Items

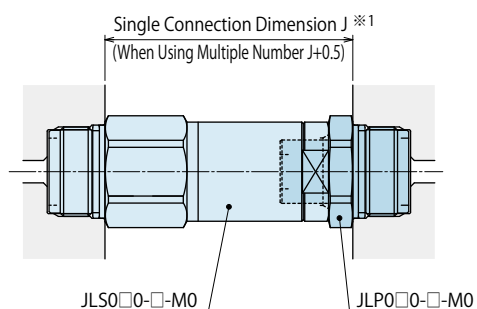
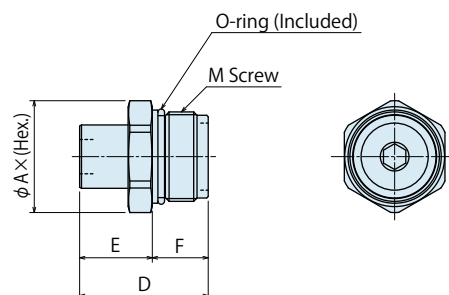
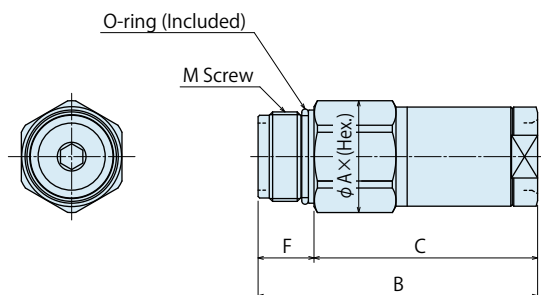


Model No.	Thread Size (M Size)	Tightening Torque (N · m)	
		Material W / H	Material O
JL□020-□-C0	M24 x 1.5	25	100
JL□030-□-C0	M27 x 1.5	40	100
JL□040-□-C0	M33 x 1.5	63	180
JL□060-□-C0	M45 x 1.5	100	250
JL□080-□-C0	M50 x 1.5	250	400

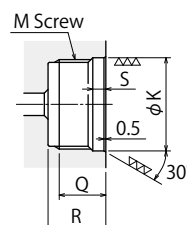
External Dimensions: Connector Model

Model No.	JL□020	JL□030	JL□040	JL□060	JL□080
φ A x (Hex.)	φ 30 x (27)	φ 33 x (30)	φ 40 x (36)	φ 50 x (46)	φ 60 x (55)
B	83	92.5	107	132	151
C	60	65.5	76	95	108
D	42.5	48.5	57.5	70	80
E	19.5	21.5	26.5	33	37
F	15	16	18	22	25
G	8	11	13	15	18
φ H x (Hex.)	φ 21.2 x (19)	φ 24.5 x (22)	φ 30 x (27)	φ 40 x (36)	φ 45 x (41)
J	66.5	72	84.5	105.5	118.5
K	φ 25H8 ^{+0.033} ₀	φ 28H8 ^{+0.033} ₀	φ 34H8 ^{+0.039} ₀	φ 45.5H8 ^{+0.039} ₀	φ 51H8 ^{+0.046} ₀
M	M24 x 1.5	M27 x 1.5	M33 x 1.5	M45 x 1.5	M50 x 1.5
T	2	2	2	2.5	2.5
Rc	Rc1/4	Rc3/8	Rc1/2	Rc3/4	Rc1

● External Dimensions: Manifold Model



Mounting Hole Machining Dimension
JLS0□0-□-M0 / JLPO□0-□-M0 Common Items



Model No.	Thread Size (M Screw)	Tightening Torque (N · m)	
		Material W / H	Material O
JL□020-□-M0	M24 x 1.5	25	100
JL□030-□-M0	M27 x 1.5	40	100
JL□040-□-M0	M33 x 1.5	63	180
JL□060-□-M0	M45 x 1.5	100	250
JL□080-□-M0	M50 x 1.5	250	400

● External Dimensions: Manifold Model

Model No.	JL□020	JL□030	JL□040	JL□060	JL□080
φ A x (Hex.)	φ 30 x (27)	φ 33 x (30)	φ 40 x (36)	φ 50 x (46)	φ 60 x (55)
B	75	81.5	94	117	133
C	60	65.5	76	95	108
D	34.5	37.5	44.5	55	62
E	19.5	21.5	26.5	33	37
F	15	16	18	22	25
J	66.5	72	84.5	105.5	118.5
K	φ 25H8 ^{+0.033} ₀	φ 28H8 ^{+0.033} ₀	φ 34H8 ^{+0.039} ₀	φ 45.5H8 ^{+0.039} ₀	φ 51H8 ^{+0.046} ₀
M	M24 x 1.5	M27 x 1.5	M33 x 1.5	M45 x 1.5	M50 x 1.5
Q	12.5 or more	13.5 or more	15.5 or more	19.5 or more	22.5 or more
R	15.5 or more	16.5 or more	18.5 or more	22.5 or more	25.5 or more
S	3.5	3.5	3.5	4	4
Rc	Rc1/4	Rc3/8	Rc1/2	Rc3/4	Rc1

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