

New

Leakless Coupler

Model JWC/JWD



Pressure Maintaining Coupler
Makes a System More Simple

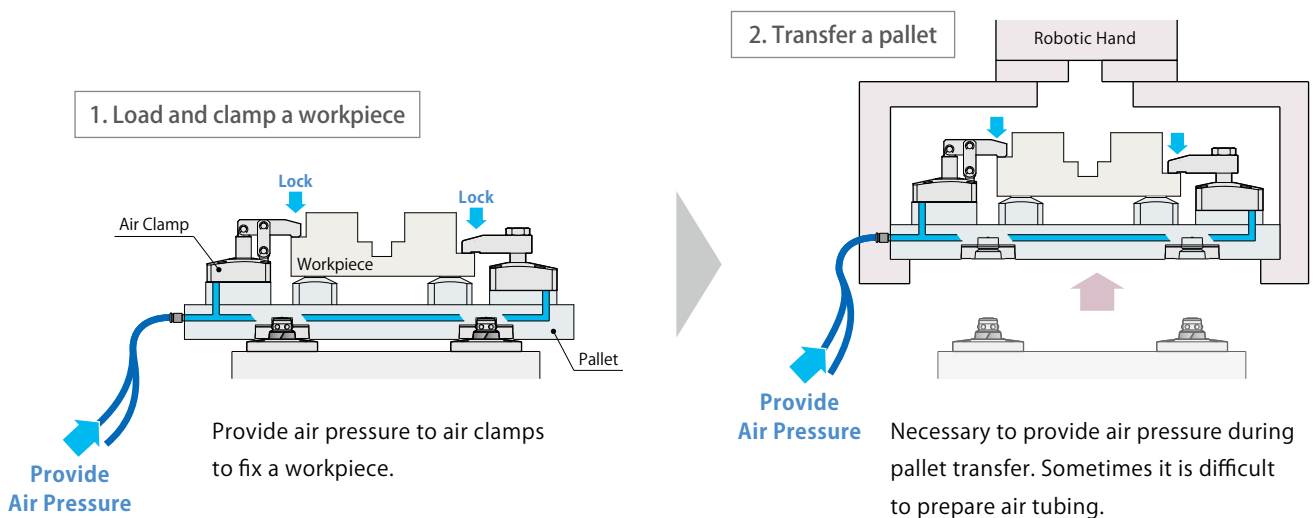
Enables to **maintain clamping force** since it keeps the air pressure **even if a coupler is disconnected**.

※ Usable for negative pressure. Please contact us.

Problems of Pallet Transfer

Air Pressure Needs to be Provided All the Time

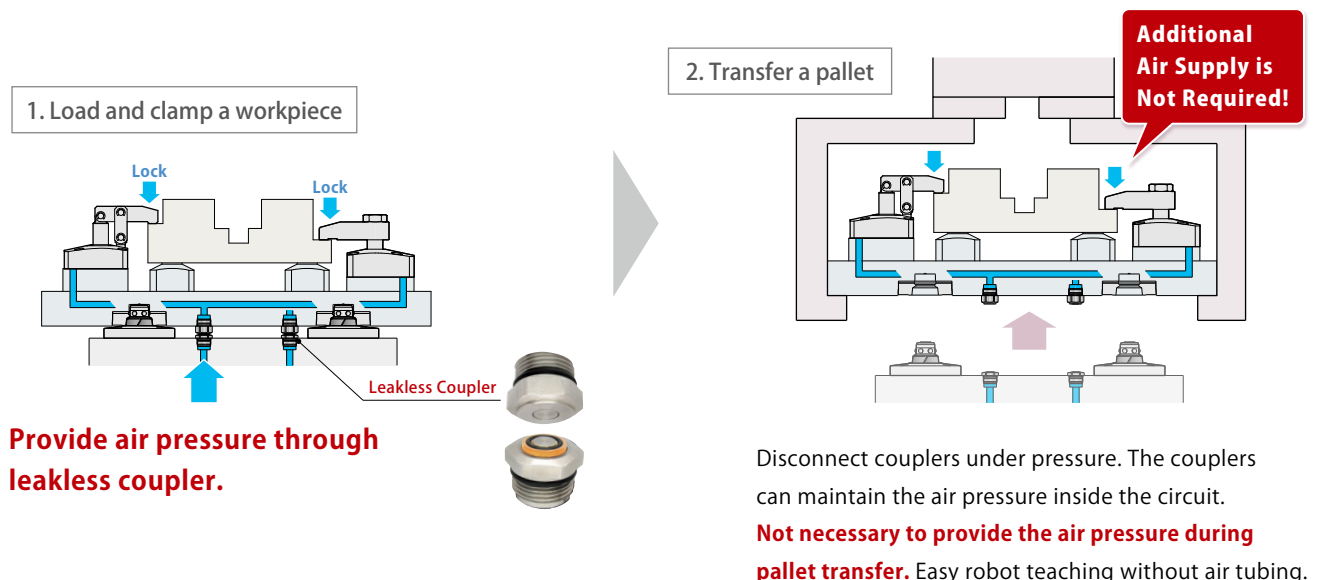
Air pressure needs to be continuously provided in order to transfer a workpiece to the next station with air clamps in a locked state.



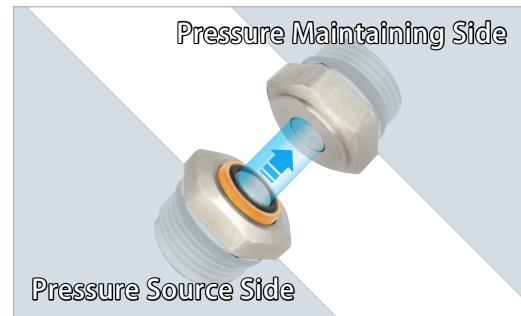
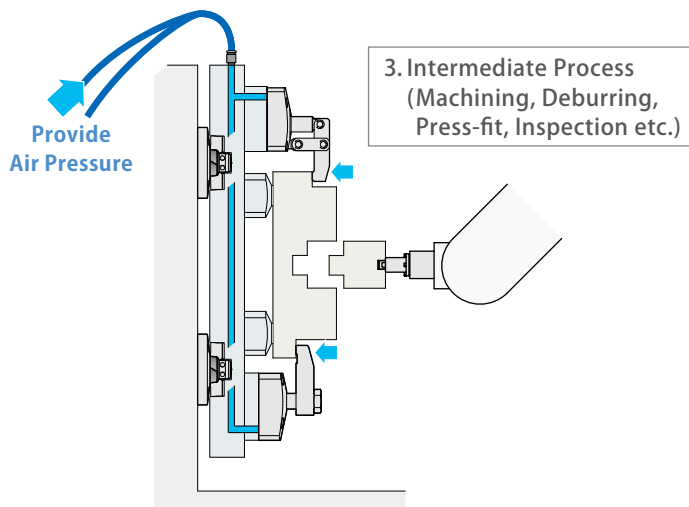
Leakless Coupler May Solve the Problem

No Need to Provide Air Pressure when Disconnected from Air Source

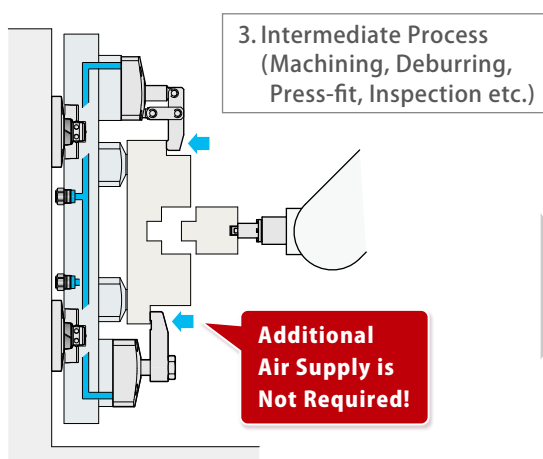
Leakless coupler can be disconnected while pressure is provided. Enables to remain air clamps in a locked state and transfer a workpiece to the next station.



No need to prepare air tubing or pressure source during each process.

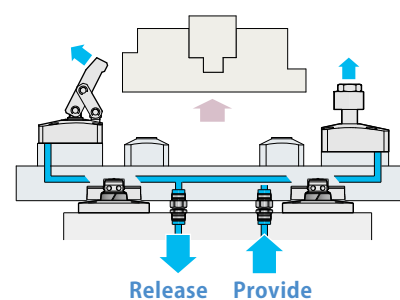


Device engineering is limited and sometimes placing air tubing might be difficult.



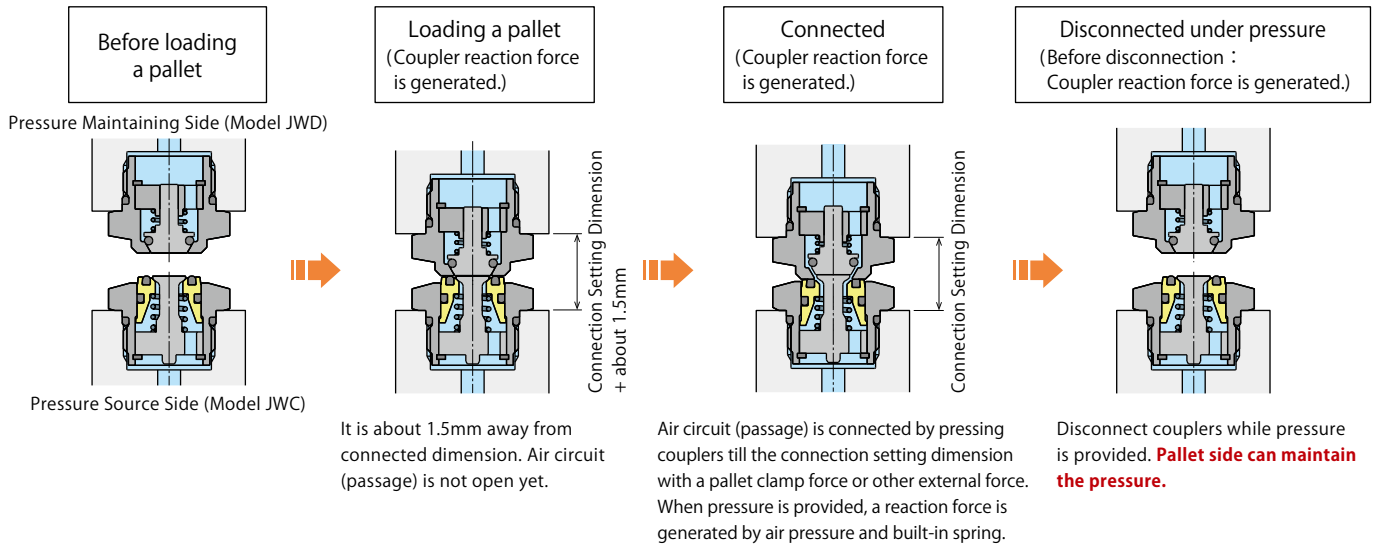
Possible to transfer a pallet to the next station while clamp is in a locked state.

4. Unload a workpiece



After the operation is completed, connect couplers to release air out. (Provide air pressure to unclamp port to unload a workpiece.)

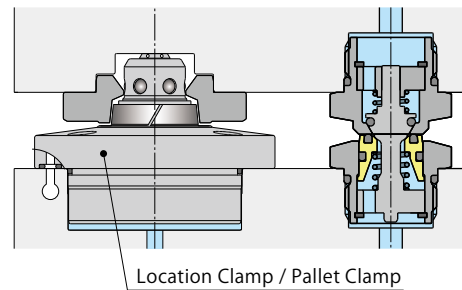
Action Description ※ Action Description when connecting/disconnecting Leakless Coupler under pressure.



Using with Location Clamp / Pallet Clamp

Connect Leakless Coupler with a location clamp or a pallet clamp.

When auto couplers get connected/separated using pallet clamps under pressure, please lock the clamps with the reaction force shown in the specification.

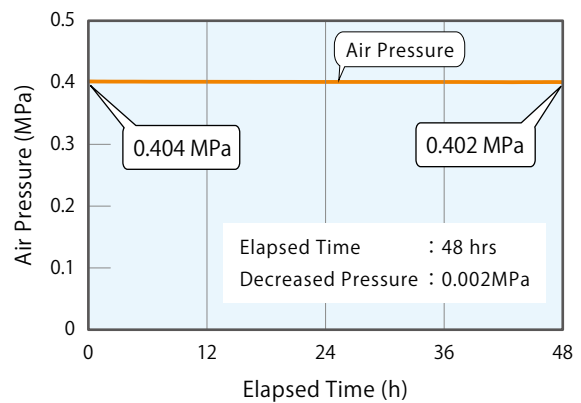


Air Pressure Maintaining Test Data

KOSMEK internal test data to verify pressure maintaining for 48 hours

Testing data of measuring elapsed time and pressure change when Leakless Coupler is disconnected. Sealing part is equipped with Soft Seal. It enables a great pressure maintaining ability.

※ Testing data with stable surrounding temperature.



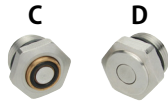
Model No. Indication

JW **D** **020** **0** - **W** - **S** **B10**

1 2 3 4

1 Coupler Side

- C** : Pressure Source Side
D : Pressure Maintaining Side



2 Design No.

- 0** : Revision Number

3 Applicable Location/Pallet Clamp Model

- Blank** : **1** C selected
S : **1** D selected

※ Please contact us when using with Hydraulic Double Acting Pallet Clamp (model VT).

4 Location/Pallet Clamp Block Model

- Blank** : **1** C selected
B02 : SWTB020 / VSB020
B06 : SWTB030 / VSB060
B10 : SWTB050 / VSB100
J01 : SWTJ010
J02 : SWTJ020 / VSJ020
J06 : SWTJ030 / VSJ060
J10 : SWTJ050 / VSJ100

1 D selected

(When not using with a location or pallet clamp, select model no. from Dimension List on P.5.)

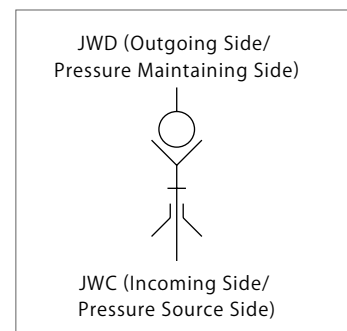
Specifications

Model No.	Pressure Source Side		JWC0200-W					
	Pressure Maintaining Side		JWD0200 -W-SJ01	JWD0200 -W-SB02	JWD0200 -W-SJ02	JWD0200 -W-SB06	JWD0200 -W-SJ06	JWD0200 -W-SB10
Max. Operating Pressure	MPa		0.5 ※1					
Withstanding Pressure	MPa		1.0					
Min. Passage Area	mm ²		12.6					
Offset Tolerance	mm		±0.5					
Angle Error Tolerance	DEG.		0.3					
Operating Temperature	°C		0 ~ 70					
Usable Fluid			Air					
Reaction Force	N	Op. Pressure						
		at 0.5 MPa	125					
		at 0.3 MPa	94					
		at P MPa	154 × P + 48					
Mass	g	JWC	34					
		JWD	50	28	53	33	60	41
Applicable Clamp Model	SWT	SWT0010	SWT0020		SWT0030		SWT0050	
	WVS	-	WVS0040		WVS0060		WVS0100	
	VS	-	VS0020/VS0040		VS0060		VS0100	
Applicable Block Model	Block for SWT	SWTJ010	SWTB020	SWTJ020	SWTB030	SWTJ030	SWTB050	SWTJ050
	Block for WVS/VS	-	VSB020	VSJ020	VSB060	VSJ060	VSB100	VSJ100

Note :

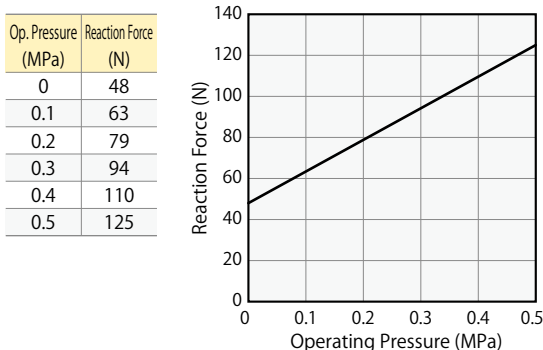
- ※1. Usable for negative pressure. Please contact us.

Circuit Symbol



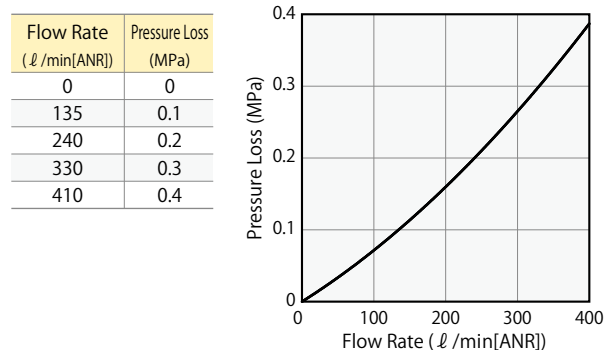
Supply Pressure–Reaction Force Graph

It shows reaction force at pressurized state.

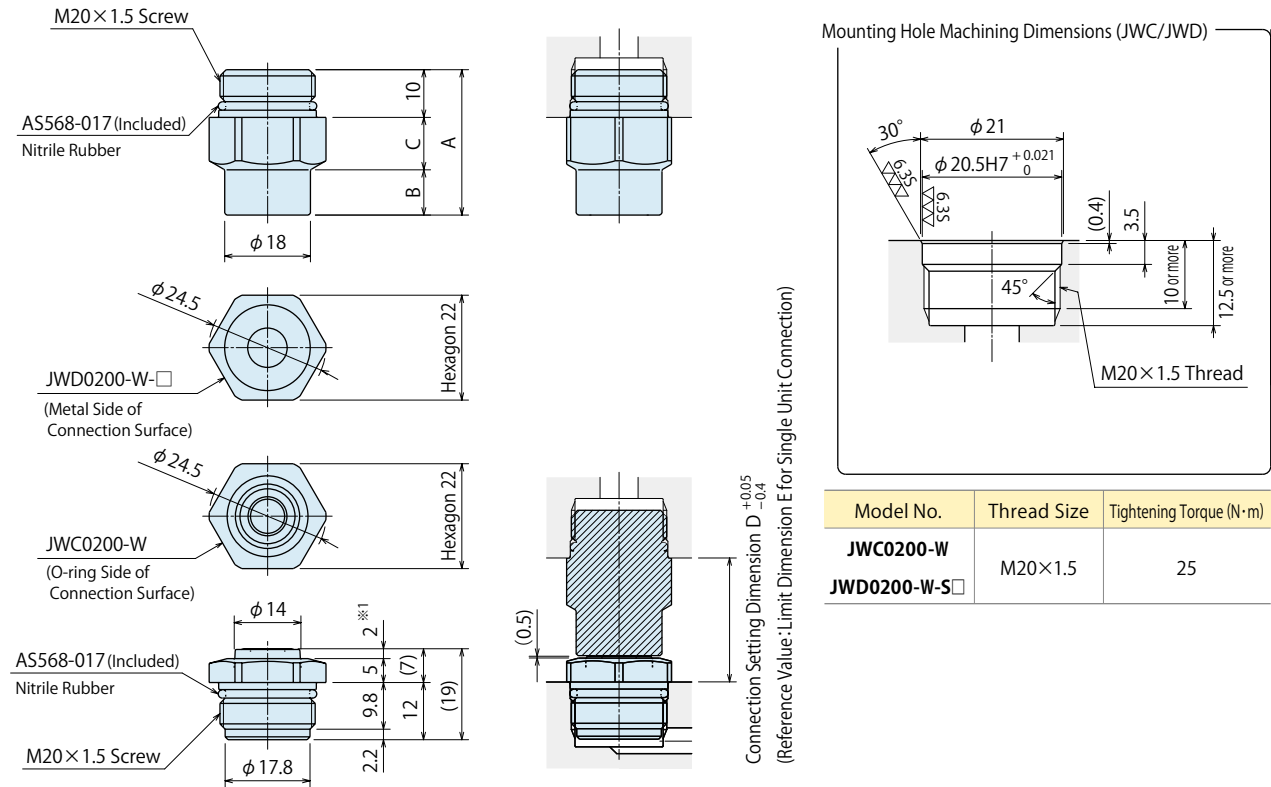


Flow Rate–Pressure Loss Characteristic Graph

The fluid used on this data is air (25°C).



External Dimensions (JWC/JWD)



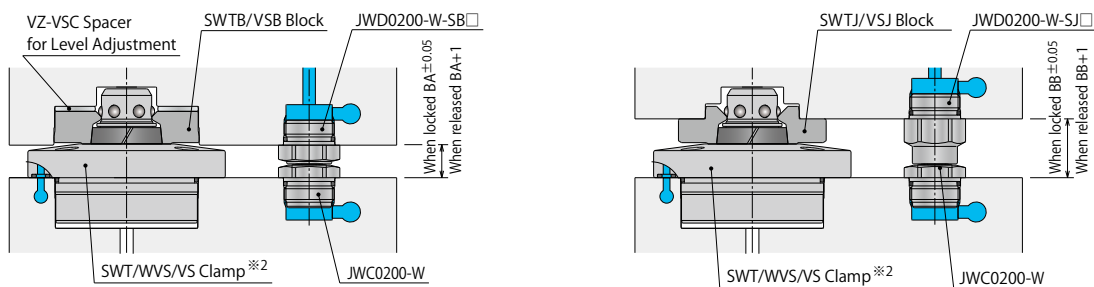
Dimension List (mm)

Model No. C Side	JWC0200-W						
Model No. D Side	JWD0200-W-SJ01	JWD0200-W-SB02	JWD0200-W-SJ02	JWD0200-W-SB06	JWD0200-W-SJ06	JWD0200-W-SB10	JWD0200-W-SJ10
A	21.5	16	24.5	17.5	28	20	30.5
B	1	1	3.5	1	7	1	9.5
C	10.5	5	11	6.5	11	9	11
D	17	11.5	20	13	23.5	15.5	26
E	16.5	11	19.5	12.5	23	15	25.5

Note:

- ※1 in the JWC dimension shows when air pressure is provided at disconnected state. (About 0.5mm retracted when air pressure is not provided.)

Connected State Dimension when Using with Location Clamp/Pallet Clamp



Connected State Dimension List when Using with Location Clamp/Pallet Clamp (mm)

Clamp Model No.	SWT0010	SWT0020 WVS0040 VS0020/VS0040	SWT0030 WVS0060 VS0060	SWT0050 WVS0100 VS0100
When using SWTB / VSB Block BA	-	11.5	13	15.5
When using SWTJ / VSJ Block BB	17	20	23.5	26

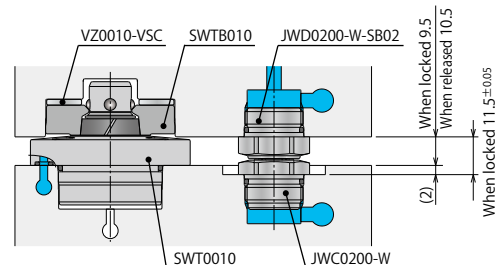
Notes:

- When auto couplers get connected/separated using pallet clamps under pressure, please lock the clamps with the reaction force shown in the specification.

※2. This drawing shows when using SWT.

Reference Connection Drawing when Using SWTB010

Spot facing shown in the below drawing is required only when using JWC/JWD with the combination of SWT0010 and SWTB010.



Application Example

High-Power Pneumatic Clamp



Model WHE/WCE/SWE

High-Power Pneumatic Pallet Clamp

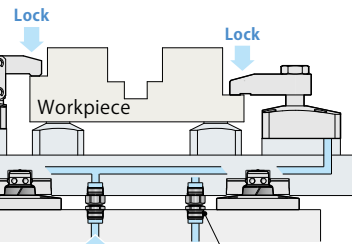
Locating, clamping and

automatic connecting coupler function!

Locating Repeatability 3 μm



Model WVS



Leakless Coupler

Connect/Disconnect air circuit

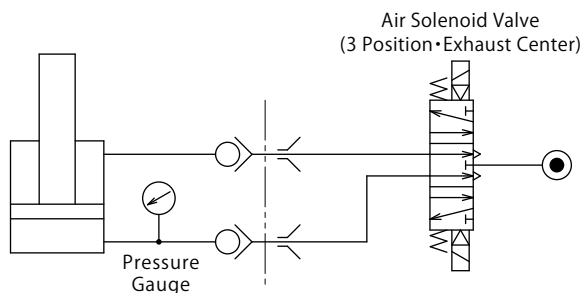


Model JWC/JWD

Notes for Usage (JWC/JWD)

- When maintaining pressure in JWD after disconnecting under pressure, make sure the device has a method and condition that it can connect with a greater force than a reaction force.
Even when using with Pallet Clamps, it is required to press with a greater force than a reaction force before locking action.
- Do not use a device or coupler that might leak in the pressure maintaining circuit.
- JWD cannot maintain pressure when the check valve is contaminated.
- Since JWC is a metal seal, there may be slight air leakage when pressurized under disconnected state.
- Do not connect the coupler when each connecting surface is contaminated.
When there are cutting chips or coolant, install a cover or remove all contaminants with air blow.
- Exceeding allowable offset leads to damage on internal parts. It is recommended to install a guide pin.
(This may also cause air leakage when disconnected under pressure.)
- When pressing to the connection limit, a pressing force should be higher than a reaction force and lower than 4.0kN.
- It is recommended to set a pressure gauge to a pressure maintaining circuit.

Circuit Reference



- It is able to decrease pressure on both circuits to zero for maintenance by using a three-position exhaust center for a circuit control air solenoid valve.
(Please note that the air will be released from the center open when the power stops at the auto coupler connected state.)

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.
 - If the stipulated maintenance and inspection are not carried out.
 - If the product is used while it is not suitable for use based on the operator's judgment, resulting in defect.

- If it is used or handled in inappropriate way by the operator.
(Including damage caused by the misconduct of the third party.)
- If the defect is caused by reasons other than our responsibility.
- If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
- Other caused by natural disasters or calamities not attributable to our company.
- 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.

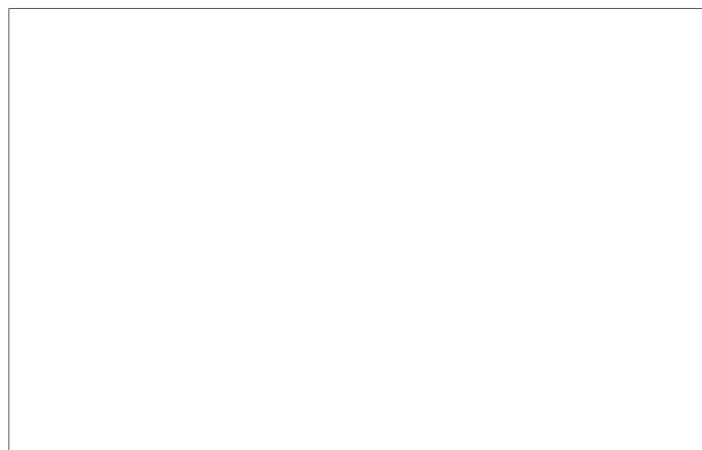


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- For Further Information on Unlisted Specifications and Sizes, Please call us.
- Specifications in this Leaflet are Subject to Change without Notice.

