

New

Air Non-Leak Coupler



Model BWA/BWB



Air Non-Leak Coupler

model **BWA/BWB**

By connecting and disconnecting under pressure, the BWA port (outgoing lock air) maintains air pressure after disconnected (Air Non-Leak* Function).

※ "Air Non-Leak" means that the BWA outgoing side has pressure maintaining ability for more than 24 hours (under constant temperature).

World's First

※According to our research.

Non-leak, which could only be achieved with hydraulics, is now possible with air.

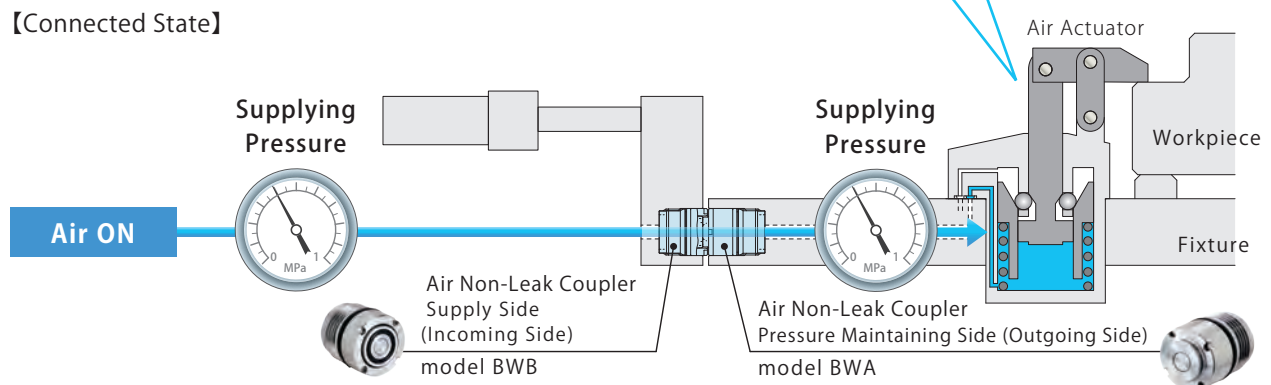
New release of the valve model BWA/BWB
that achieves **Air Non-Leak** ※



**Best for the Use with
High-Power Pneumatic Clamp !**

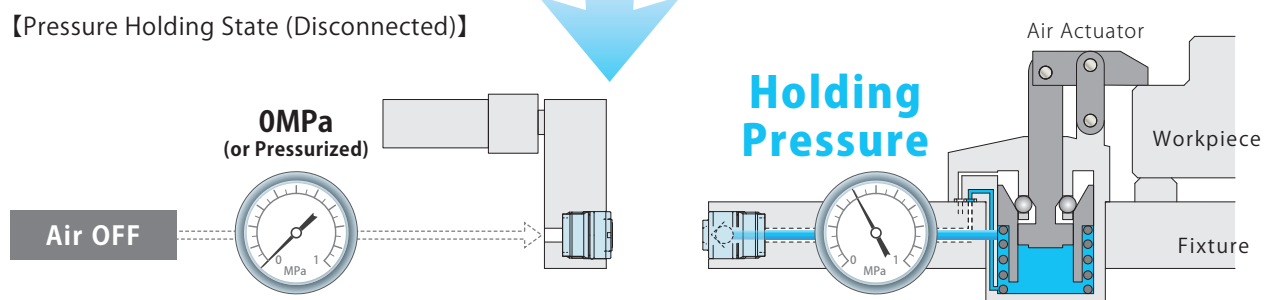
Equal machining force as hydraulic fixture.

【Connected State】



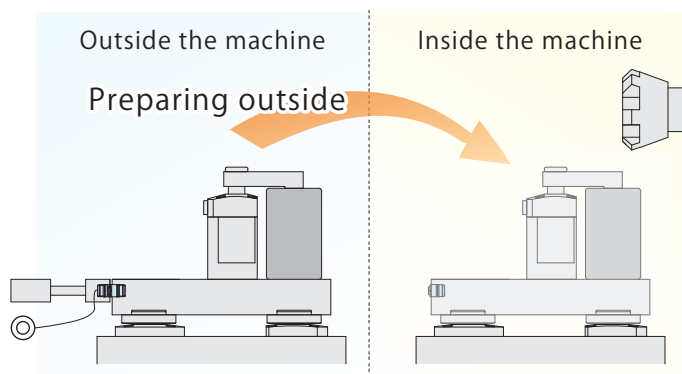
Non-Leak Coupler is disconnected under pressure.

【Pressure Holding State (Disconnected)】



• Setup Outside the Machine Improves Machine Up Time

Air non-leak function allows to disconnect a fixture from an air source and to prepare the fixture outside machine. This reduces machine down time and set up time.

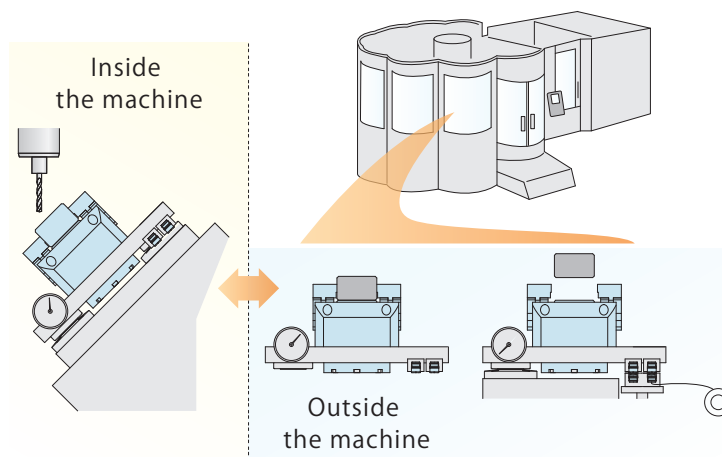


• Reduce the Number of Circuits in the Machine

By holding the air pressure, the number of circuits for fixture inside the machine can be minimized.

• Outside Setup by Disconnecting Air of APC, Pallet Pooling, etc.

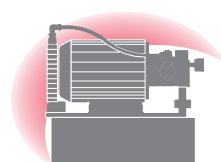
Because it is able to disconnect the fixture from the air source, it is suitable for pallet pooling. It allows to move pallets freely without concerns on handling of hoses, and it is also suitable for transferring with robot.



• Energy-Saving with No Hydraulic Use

The non-leak function which could only be achieved with hydraulics is now possible with air.

Also, the same level of machining as a hydraulic fixture is possible by using with high-power pneumatic clamp.

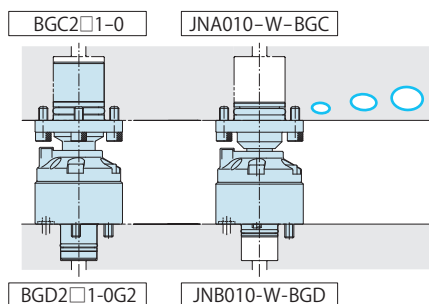


No Hydraulic Use

Please contact us in case :



Conventional Model
BGC/BGD
Non-Leak Coupler
with Pilot Check Valve



want to standardize
machining of
mounting holes

When you want to use BWA/BWB with our conventional model BGC/BGD or JNA-BGC/JNB-BGD, and install to the same mounting hole, please contact us.

Model No. Indication

BW A 010 0

1
2

1 Style

- A** : Pressure Holding Side (Outgoing Side)
B : Supply Side (Incoming Side)

A
Pressure Holding Side
(Outgoing Side)



B
Supply Side
(Incoming Side)



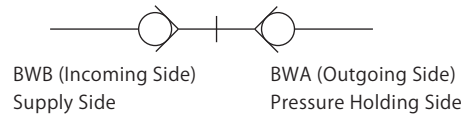
2 Design No.

- 0** : Revision Number

Specifications

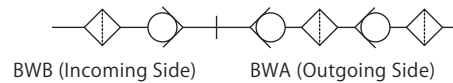
Model No.	Pressure Holding Side		BWA0100
	Supply Side		BWB0100
Max. Operating Pressure	MPa		1.0
Withstanding Pressure	MPa		1.5
Min. Passage Area	mm ²		9.6
Offset Distance (Tolerance)	mm		±0.5
Angular Deviation (Tolerance)	DEG.		0.3
Operating Temperature	°C		0 ~ 70
Usable Fluid			Air
Reaction Force	kN	at 1 MPa	0.23
		at 0.5 MPa	0.15
		at P MPa	$0.154 \times P + 0.07$
Weight	g	BWA	42
		BWB	35

Circuit Symbol



※ Filter is built inside.

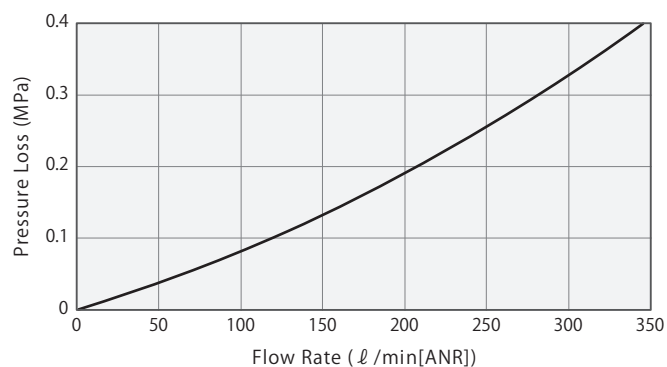
Detailed Symbol (All check valves and filters are written.)



Flow Rate—Pressure Loss Characteristic Graph

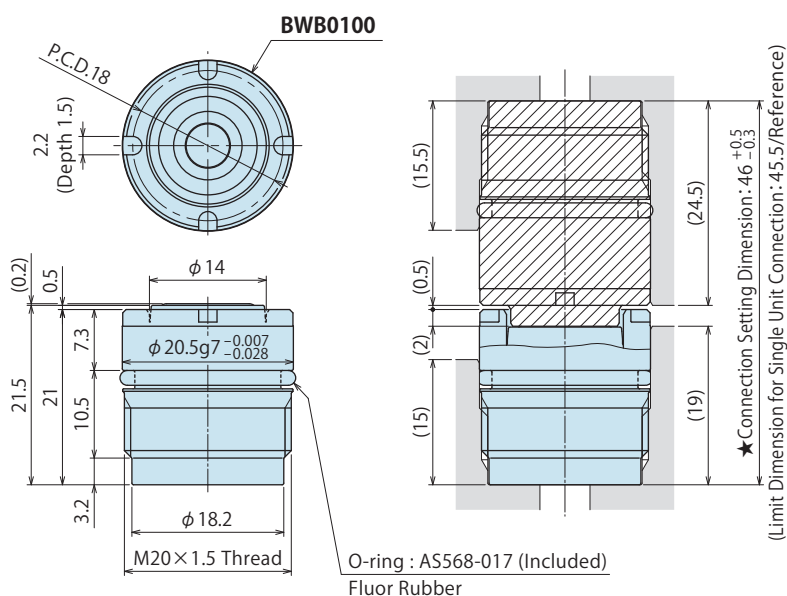
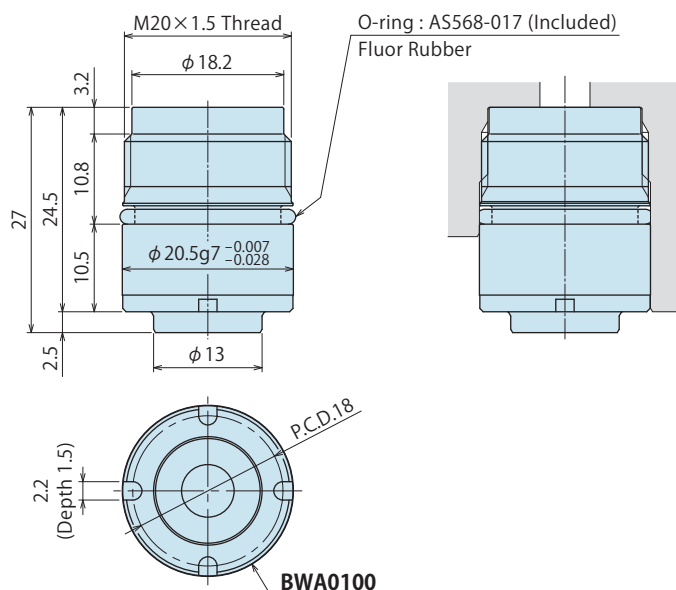
The fluid used on this data is air (25°C).

Pressure Loss (MPa)	Flow Rate (ℓ / min [ANR])
0	0
0.1	125
0.2	200
0.3	285
0.4	350

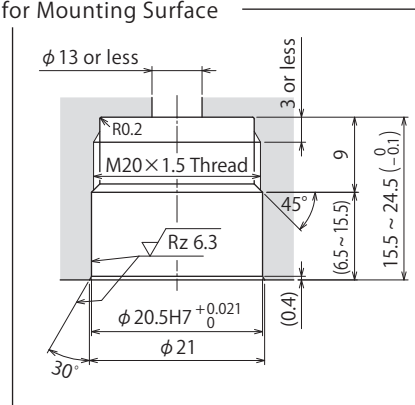


Features	Action Description	Model No. Indication	Specifications	External Dimensions	Cautions
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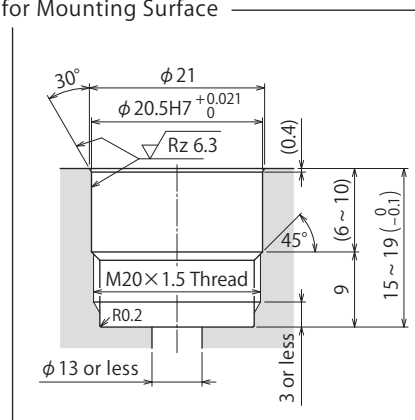
External Dimensions



BWA0100 Machining Dimensions for Mounting Surface



BWB0100 Machining Dimensions for Mounting Surface



Model No.	Thread Size	Tightening Torque (N·m)
BWA0100 BWB0100	M20×1.5	16

Notes :

1. Mounting Jig (Model ZZJ0020) or equivalent is required to install and remove BWA0100/BWB0100.
Mounting Jig (Model ZZJ0020) is not included with BWA0100/BWB0100. Please order separately.

Accessory : Mounting Jig

This jig is used to mount and remove the BWA0100/BWB0100.
Tightening Torque: 16 N·m

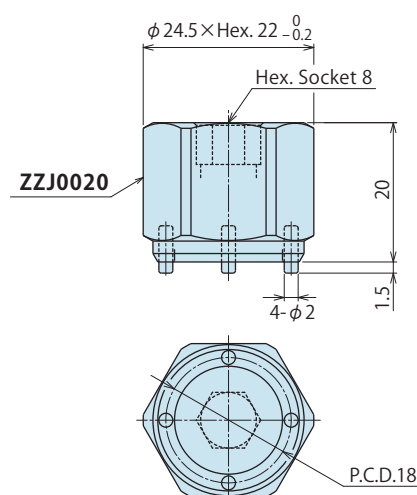
Model No. Indication

ZZJ0020

Design No.
(Revision Number)

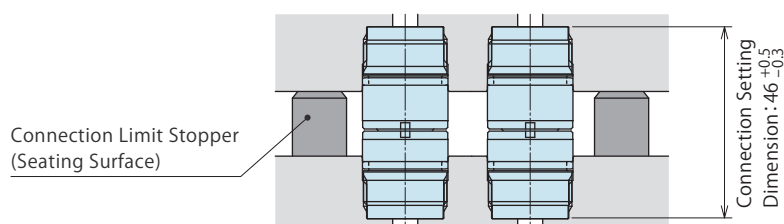
Note :

1. This mounting jig (Model ZZJ0020) or equivalent is required to install and remove BWA0100/BWB0100.
Please determine the required number of jigs when ordering.



● Notes for Usage (BWA/BWB)

1. "Air Non-Leak" means that a single BWA unit has pressure maintaining ability for more than 24 hours (under constant temperature). This cannot be used in equipment that requires the leakage amount level that is confirmed by tracer gas leak testing using helium and hydrogen.
2. After installing parts of pressure maintaining circuit, confirm pressure maintaining by testing leakage at each connecting part using leak checker, etc. (Please install a pressure gauge in the circuit.)
3. When maintaining pressure with BWA after disconnecting under pressurization, make sure it has a method and condition that it can connect with greater force than reaction force.
(Even when using with Pallet Clamp, it is required to press with greater force than reaction force before locking action.)
4. Since the check valve of the supply side BWB is a metal seal, there may be a slight air leak when pressurized under disconnected state.
5. Do not connect the coupler when contaminants are adhered on each end surface.
(install a cover, or remove all contaminants with air blow before connection.)
6. Exceeding allowable offset leads to damage on internal parts. It is recommended to install a guide pin.
This may also cause an air leak when disconnected under pressurization.
7. Even though this product is equipped with filter, please note that inadequate flushing may result in poor flow performance or malfunction due to clogging of the built-in filter.
8. Set connection limit stoppers and design that it becomes connection setting dimension when connected. (Recommended)



9. When pressing to the connection limit, the force should be higher than reaction force and lower than 2.0kN.

Cautions

● Installation Notes

- 1) Check the Usable Fluid
 - Please supply filtered clean dry air.
 - Oil supply with a lubricator, etc. is unnecessary.
- 2) Preparation before Piping
 - The pipeline, piping connector and fixture fluid passage should be cleaned by thorough flushing.
The dust and cutting chips in the circuit may lead to air leakage and malfunction.
- 3) Applying Sealing Tape
 - Wrap with tape 1 to 2 times following the screw direction.
 - Pieces of sealing tape can lead to air leakage and malfunction.
 - Please implement piping construction in a clear environment to prevent anything getting in products.

● Maintenance and Inspection

- 1) Removal of the Product and Shut-off of Pressure Source
 - Before the product is removed, make sure that safety devices and preventive devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air circuit.
 - Make sure there is no trouble/issue in the bolts and respective parts before restarting.
- 2) Regularly tighten pipe, mounting bolt and others to ensure proper use.
- 3) 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.
- 4) The product should be stored in the cool and dark place without direct sunshine or moisture.
- 5) Please contact us for overhaul and repair.

● Notes on Handling

- 1) It should be operated by qualified personnel.
 - Machines and devices with hydraulic and pneumatic products should be operated and maintained by qualified personnel.
- 2) Do not operate or remove the product unless the safety protocols are ensured.
 - ① Machines and devices 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 air and hydraulic 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 disassemble or modify.
 - If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.

● 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 Others 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.

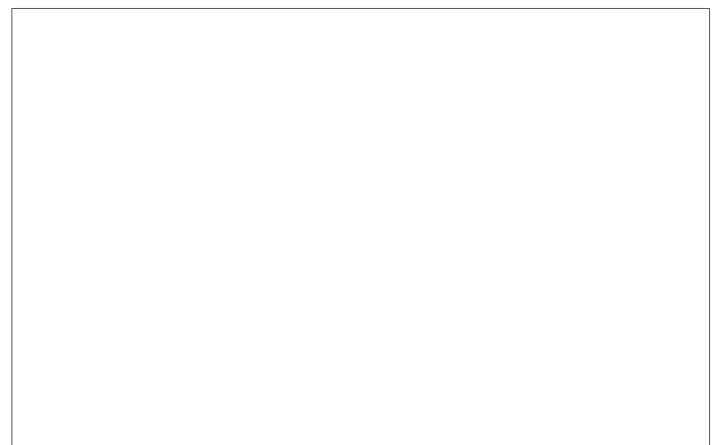


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- For Further Information on Unlisted Specifications and Sizes, Please call us.
- Specifications in this Leaflet are Subject to Change without Notice.



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