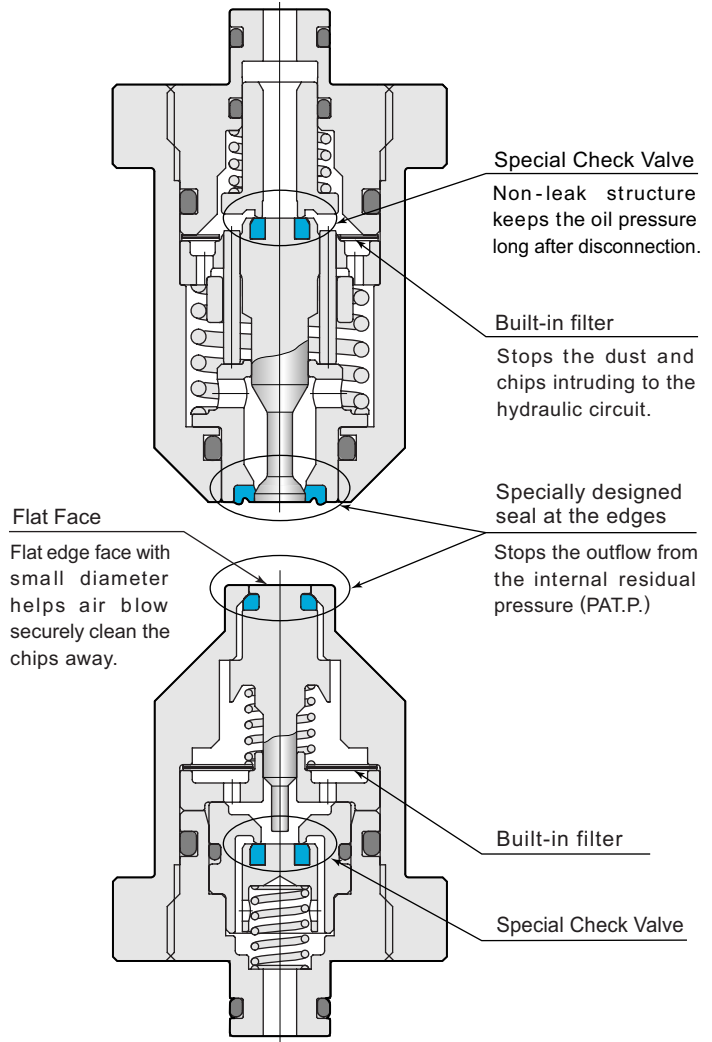


# 7MPa NON-LEAK COUPLER (Plug side supply type)



*Specially designed seal structure (PAT. P.)  
virtually makes the oil flow nil at  
the time of connection / disconnection.*

Spill volume less than 0.01 cc per disconnection

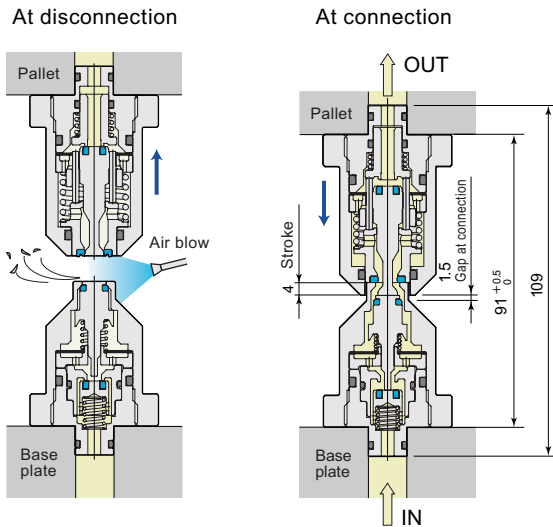


- Specially designed seal at the edges of socket and plug module will minimize the air intrusion and oil outflow at the time of connection / disconnection. Thus effectively prevents the clamp circuit from air trap, and keeps coolant fluid ever clean.
- The Built-in filter protects the inner check valve, clamps, etc. from foreign substances.
- Smooth connection and disconnection even under pressure.
- Keeps internal pressure after disconnection much longer than conventional couplers.

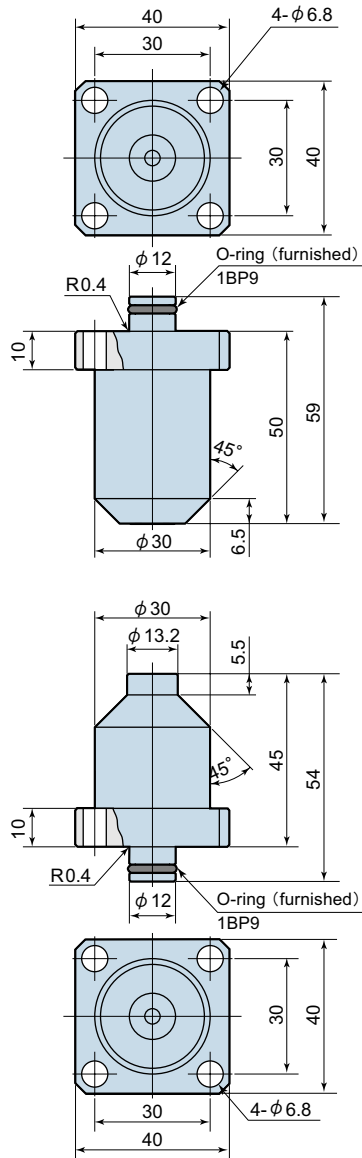
Max. Working Pressure	7.0 MPa
Proof Pressure	10.5 MPa
Orifice area	12.5 mm <sup>2</sup>
Fluid used	Normal Operating oil
Allowable misalignment	± 0.4 mm
Allowable gradient	less than 0.2°
Reaction force	154 N per 1 MPa hydraulic pressure Max. spring force 157 N at 0 MPa hydraulic pressure
Ambient temperature	0 ~ 70°C
Mass	WVP-2HSL : 270g WVP-2HPL/2HDL : 230g

NOTE : Hydraulic supply must be done from the plug (male) side.  
Cannot be used with model WVP-2S□L in the same circuit.

**ANCHOR type : Pallet bottom oil supply**

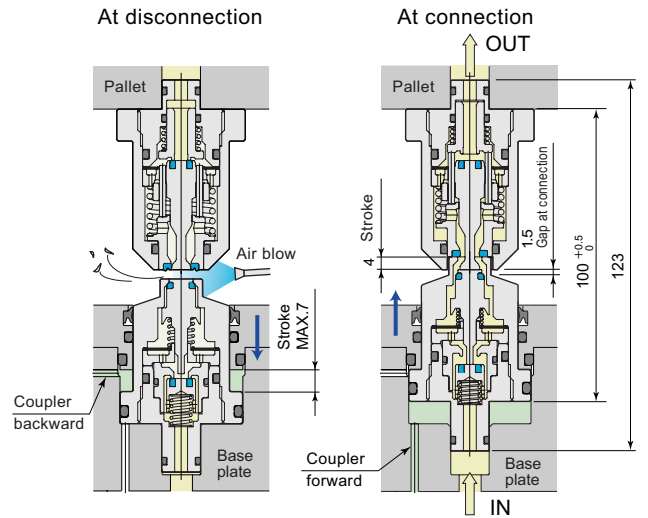


**WVP-2HSL SOCKET MODEL (ANCHOR)**

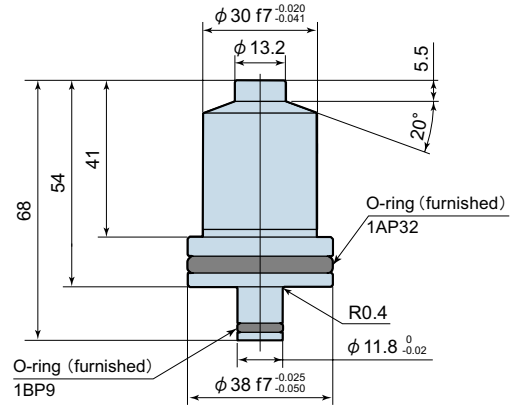


**WVP-2HPL PLUG MODEL (ANCHOR)**

**FLOAT type**

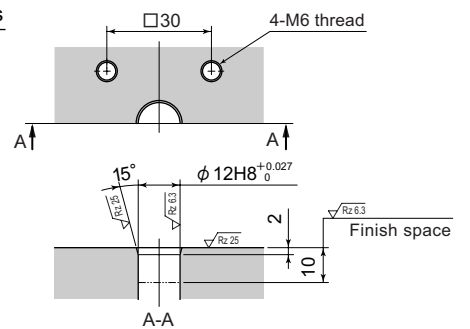


**WVP-2HDL PLUG MODEL (FLOAT)**



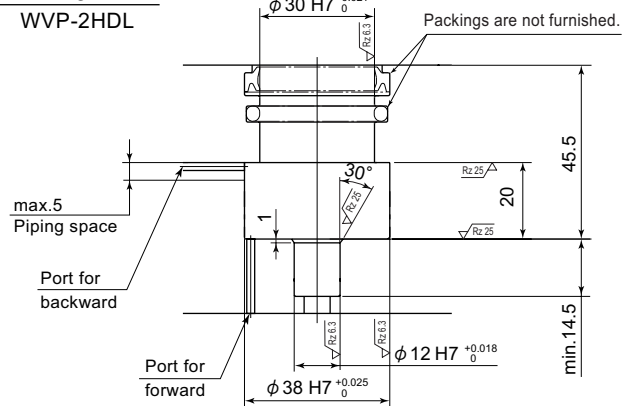
**Mounting details**

WVP-2HSL  
WVP-2HPL



**Mounting details □**

WVP-2HDL



Mounting bolts are not furnished.

## Caution In Use

1. When using a model that can connect/disconnect under pressure, be sure to carry out a sufficient air bleeding out of the circuit at the time of installation. If insufficient, the spill amount at disconnection may become larger.
2. Avoid connecting when the cutting chips or coolant liquid are attached at the tip of coupler. In such cases, be sure to carry out an air-blow before connection.
3. Before connecting the couplers, be sure to remove the burrs from the threaded portions of manifold or piping holes and clean inside the piping by flushing to completely put the chips away. As the filter is not built-in at the piping port side of each coupler, the intruded chips may scratch the seal portion to cause a possible oil leakage.
4. Forwarding force of coupler should be larger than the reaction force. The reaction force remains while coupled.
5. Guide or stopper are not prepared at the coupler body. They need to be provided at your end.

### Reaction force calculation example

#### ● Conditions

Hydraulic	2 circuits with double acting clamp (both 5 MPa) Coupler model : WVP-2HPL × 2, WVP-2HSL × 2
Air	1 circuit for landing detection (0.3 MPa) Coupler model : WVP-2WPN, WVP-2WSN

#### ● Reaction force at clamping

Clamp circuit

$$\text{Spring force } 157(\text{N}) + \text{Hydraulic pressure } 5(\text{MPa}) \times 154 = 927(\text{N})$$

Unclamp circuit

$$\text{Spring force} = 157(\text{N})$$

Air circuit

$$\text{Spring force } 86(\text{N}) + \text{Air pressure } 0.3(\text{MPa}) \times 201 = 146(\text{N})$$

#### ● Total reaction force

$$\text{Hydraulic coupler } 927(\text{N}) + 157(\text{N}) + \text{Air coupler } 146(\text{N}) = 1230(\text{N})$$