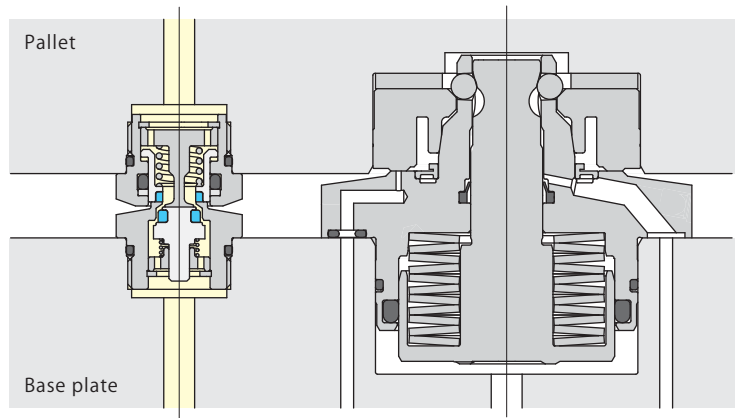


Hydraulic and air coupler with zero hydraulic oil leak with special seal at tip section

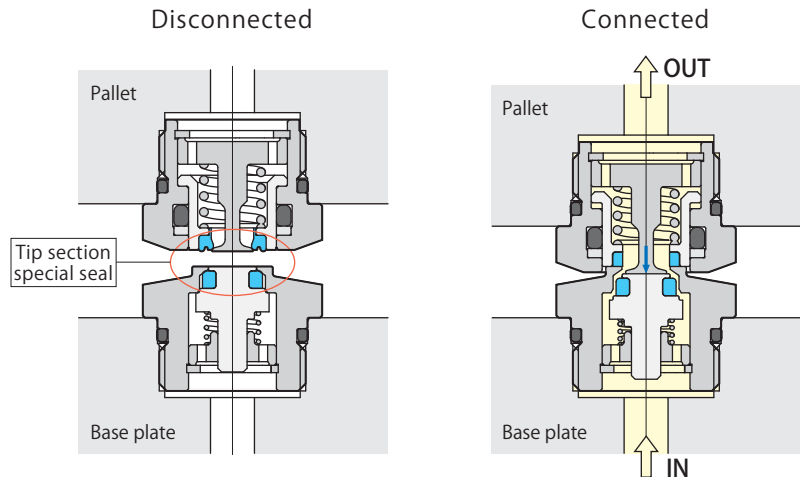
Pal coupler socket  
Hydraulic pressure 25 MPa & air  
model **WVP-2BSH**



Pal coupler plug  
Hydraulic pressure 25 MPa & air  
model **WVP-2BPH-□□**



Coupling at same time with pallet clamp



- Special soft seal at tip section enables plug (WVP-2BPH) to be pressurized under disconnected state. Socket (WVP-2BSH) can retain residual pressure of up to 0.3 MPa.
- Special seal installed on the tip of coupler socket and coupler plug can minimize the intrusion of air and spill of working fluid during connection and disconnection, furthermore, it prevents corruption of coolant by being miscible with spilled working fluid and air contamination of clamp circuit.
- Disconnection and connection of coupler is performed by lift stroke of pallet clamp and there is no need for connecting mechanism or stopper. No reactive force is generated when pallet is set, since coupler is not connected. (Refer to **page →3**)
- The couplers are selectable according to the size of pallet clamp and no spacer block is required.
- Height of coupler is maintained low in order to reduce thickness of pallet.
- The parts in the coupler are corrosion prevented (plating or stainless) and oil and air can be applied as a fluid.

**Specifications**

Max. pressure	25 MPa	Circuit symbol 
Proof pressure	37.5 MPa	
Orifice area	10.2 mm <sup>2</sup>	
Fluid used	General mineral based hydraulic oil (ISO-VG32 equivalent) & air	
Allowable eccentricity	±0.5 mm	
Allowable inclination	0.3° or less	
Reactive force*	113 N per 1 MPa fluid pressure	
	Max. spring force for no pressure 40 N	
Operating temperature	0~70 °C	

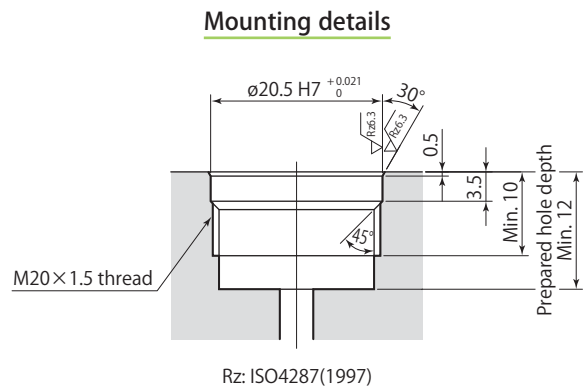
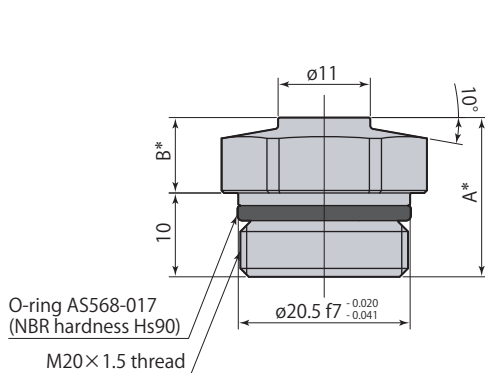
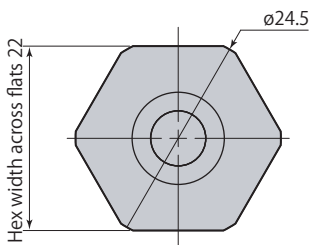
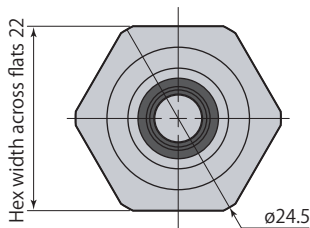
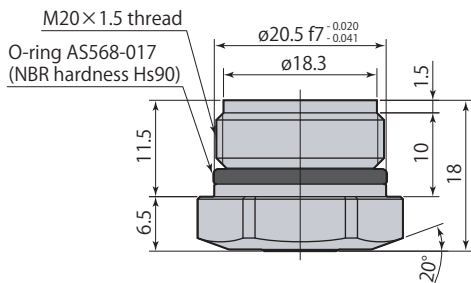
\* : Reactive force (N) = Fluid pressure (MPa) × 113 + 40

● Refer to **pages →80, 81** for details.

Dimensions

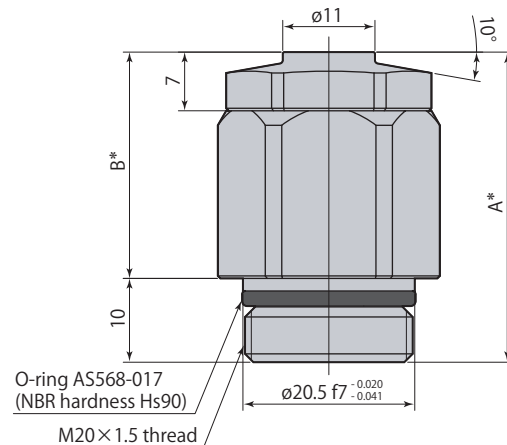
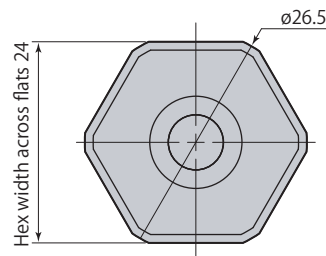
**WVP-2BSH**

Hydraulic pressure 25 MPa & air socket  
Recommended tightening torque: 25 N·m



- Stop supplying fluid during disconnection and connection operations disconnecting or connecting coupler while fluid is flowing results in the leakage.
- Coupler has no built in filter. Ensure that foreign substances on connecting surfaces are removed by blowing air before connecting to prevent intrusion of foreign substances into piping.
- Make sure air bleeding in the hydraulic circuit is perfectly done when installation.

WVP-2BPH-10A, 16F, 25F, 40F  
WVP-2BPH-16S, 25S, 40S only



\* : Dimension varies according to the size and model no of the coupler.

**WVP-2BPH-□□** Hydraulic pressure 25 MPa & air plug Recommended tightening torque: 25 N·m

<b>WVP-2B□H</b>	<b>Pal coupler Oil &amp; air</b>	<b>25MPa</b>
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mm

Coupler models	Socket	WVP-2BSH					
	Plug	WVP-2BPH-03T	WVP-2BPH-06T	WVP-2BPH-10T	WVP-2BPH-16T	WVP-2BPH-25T	WVP-2BPH-40T
A		16	17	19	22	26	32
B		6	7	9	12	16	22
H (distance to pallets)		11.5	12.5	14.5	17.5	21.5	27.5
Coupler mass	Socket	38 g					
	Plug	34 g	37 g	42 g	49 g	58 g	73 g

**Applicable pallet clamp / locate ring**

Pallet clamp models	CPC-, CPH-	□03H	□06H	□10H	-	□16H	-	□25H	-	□40H	-
Air pallet clamp models	CPY-	□02H, □03H	-	-	□04H	-	□06H	-	□10H	-	□06H
Locate ring models	CPS-	□03T, D	□06T, D	□10T, D	□03T, D	□16T, D	□06T, D	□25T, D	□10T, D	□40T, D	□06F
Locate ring shim models		S03T, D	S06T, D	S10T, D	S03T, D	S16T, D	S06T, D	S25T, D	S10T, D	S40T, D	-

mm

Coupler models	Socket	WVP-2BSH						
	Plug	WVP-2BPH-03F	WVP-2BPH-06F	WVP-2BPH-10F	WVP-2BPH-10A	WVP-2BPH-16F	WVP-2BPH-25F	WVP-2BPH-40F
A		25.5	27	31	38	37	44.5	55.5
B		15.5	17	21	28	27	34.5	45.5
H (distance to pallets)		21	22.5	26.5	33.5	32.5	40	51
Coupler mass	Socket	38 g						
	Plug	57 g	61 g	71 g	95 g	92 g	114 g	147 g

**Applicable pallet clamp / locate ring**

Pallet clamp models	CPC-, CPH-	□03H	□06H	□03H	□10H	-	□16H	□25H	□40H
Air pallet clamp models	CPY-	□02H, □03H	-	□02H, □03H	-	□10H	-	-	-
Locate ring models	CPS-	□03F	□06F	□03F	□10F	□10F	□16F	□25F	□40F
Locate ring shim models		-	-	S03F	-	-	-	-	-

mm

Coupler models	Socket	WVP-2BSH						
	Plug	WVP-2BPH-03B	WVP-2BPH-06S	WVP-2BPH-06B	WVP-2BPH-10S	WVP-2BPH-16S	WVP-2BPH-25S	WVP-2BPH-40S
A		30	28.5	33.5	33	40	47.5	58.5
B		20	18.5	23.5	23	30	37.5	48.5
H (distance to pallets)		25.5	24	29	28.5	35.5	43	54
Coupler mass	Socket	38 g						
	Plug	68 g	65 g	77 g	75 g	101 g	123 g	156 g

**Applicable pallet clamp / locate ring**

Pallet clamp models	CPC-, CPH-	-	□06H	-	-	□10H	□16H	-	□25H	□40H
Air pallet clamp models	CPY-	□04H	-	□04H	□06H	-	-	□10H	-	-
Locate ring models	CPS-	□03F	□06F	□03F	□06F	□10F	□16F	□10F	□25F	□40F
Locate ring shim models		S03F	S06F	-	S06F	S10F	S16F	S10F	S25F	S40F

■ indicates made to order.

**Caution in use**

- The distance between the base and the pallet varies when the pallet clamp is mounted with the shim (model CPC-S, CPH-S, CPY-S). Install the Pal coupler to have the dimension  $H_{-0.05}^{+0.05}$  set as shown in the above table when it is connected.
- Former pallet clamp (model CPC-□□F, CPH-□□F) cannot be used in combination with the couplers, as lift stroke is different.
- Ask Pascal in case it is used in combination with Pal coupling model CPM.
- Provide the stopper and the guide as shown in the diagram to protect coupler from damage unless it is used in combination with pallet clamp. Do not use a coupler as a guide or stopper when connecting. It may cause the damage. Install the stopper to have the dimension  $H_{-0.05}^{+0.05}$  set as shown in the above table (See diagram on the right). Observe allowable eccentricity and inclination value when installing the guide. (Refer to **page →78** for details on allowable eccentricity and inclination value.)

