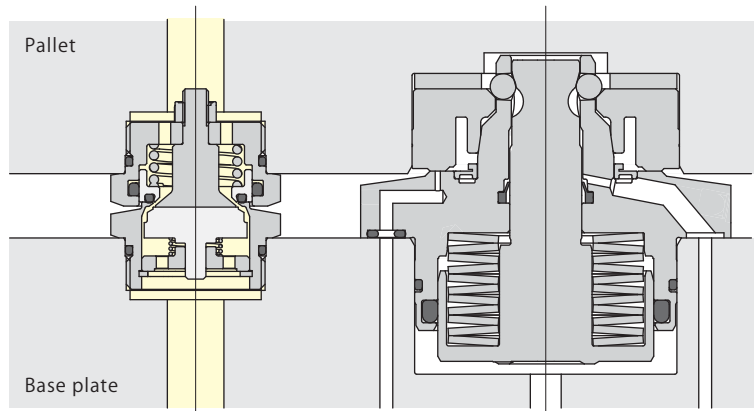


Air & coolant coupler with large orifice area and capability to accommodate large flow rates.

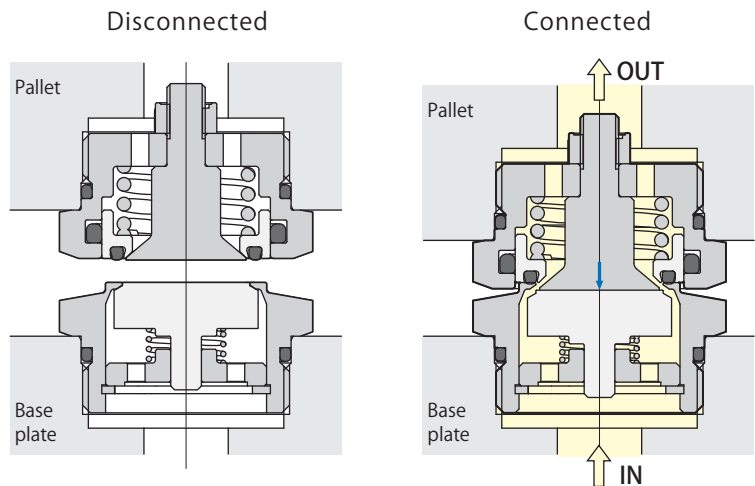
Pal coupler socket
Blow air & coolant
model **WVP-3DSN**



Pal coupler plug
Blow air & coolant
model **WVP-3DPN-□□**



Coupling at same time with pallet clamp



Specifications

- Height of coupler is maintained low in order to reduce thickness of pallet.
- 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 →5**)
- The couplers are selectable according to the size of pallet clamp and no spacer block is required.
- Large orifice area allows to supply large volume of coolant or blow air.

Pressure range	0–1 MPa	Circuit symbol Air & coolant Connect/disconnect under pressure : Incapable
Proof pressure	1.5 MPa	
Orifice area	29.0 mm ²	
Fluid used	Air & coolant	
Allowable eccentricity	±0.5 mm	
Allowable inclination	0.3° or less	
Reactive force*	380 N per 1 MPa fluid pressure	
	Max. spring force for no pressure 60 N	
Operating temperature	0–70 °C	

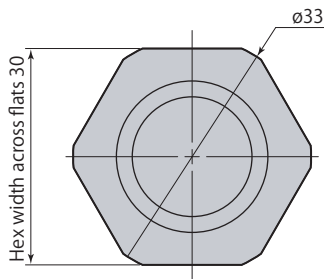
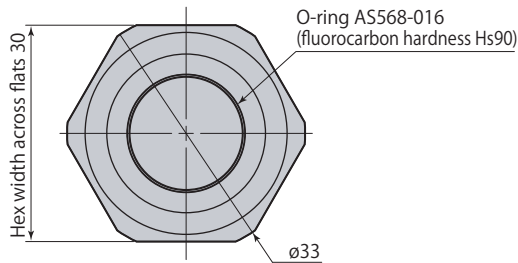
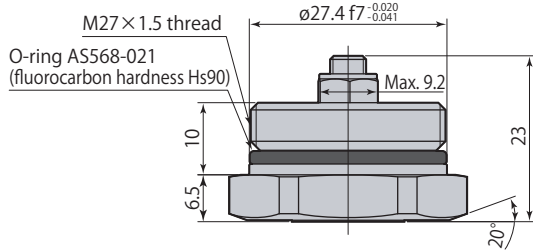
* : Reactive force (N) = Fluid pressure (MPa) × 380 + 60

● Refer to **pages →84, 85** for details.

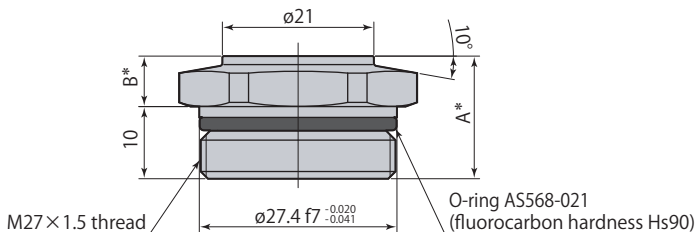
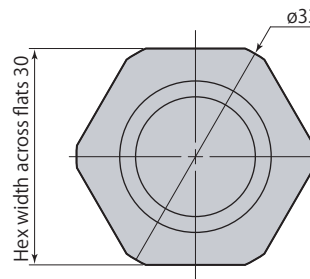
Dimensions

WVP-3DSN

Blow air & coolant socket
Recommended tightening torque : 30 N·m

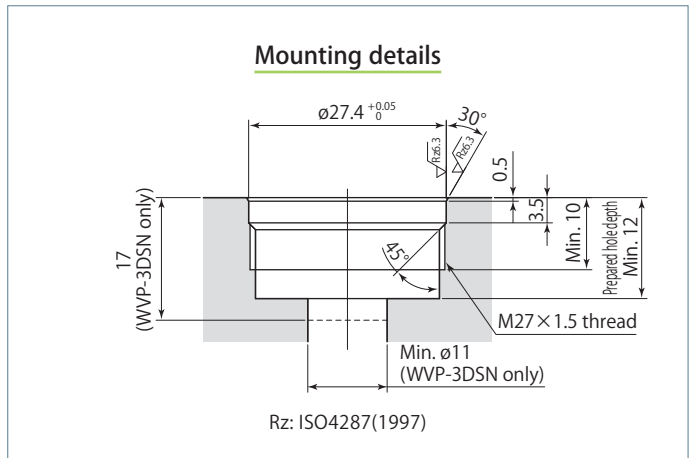
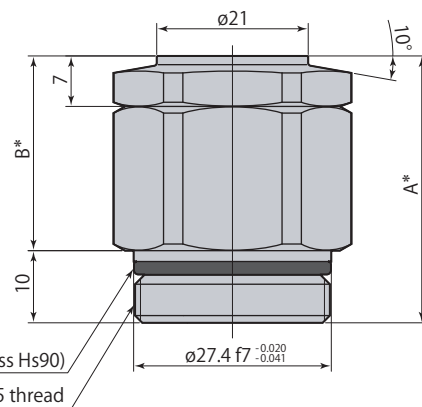


WVP-3DPN-10A, 16F, 25F, 40F
WVP-3DPN-16S, 25S, 40S only



O-ring AS568-021 (fluorocarbon hardness Hs90)

M27 x 1.5 thread



- Fluid leaks from the tip of coupler when supplying it under disconnected state.
- 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.

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

WVP-3DPN-□□ Blow air & coolant plug Recommended tightening torque : 30 N·m

WVP-3D□N	Pal coupler Air & coolant	1MPa
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Coupler	Socket	WVP-3DSN					
	Plug	WVP-3DPN-03T	WVP-3DPN-06T	WVP-3DPN-10T	WVP-3DPN-16T	WVP-3DPN-25T	WVP-3DPN-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	70 g					
	Plug	57 g	60 g	67 g	77 g	90 g	111 g

Applicable pallet clamp / locate ring

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

Coupler	Socket	WVP-3DSN						
	Plug	WVP-3DPN-03F	WVP-3DPN-06F	WVP-3DPN-10F	WVP-3DPN-10A	WVP-3DPN-16F	WVP-3DPN-25F	WVP-3DPN-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	70 g						
	Plug	89 g	94 g	108 g	132 g	128 g	157 g	197 g

Applicable pallet clamp / locate ring

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

Coupler	Socket	WVP-3DSN							
	Plug	WVP-3DPN-03B	WVP-3DPN-06S	WVP-3DPN-06B	WVP-3DPN-10S	WVP-3DPN-16S	WVP-3DPN-25S	WVP-3DPN-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	70 g							
	Plug	104 g	99 g	116 g	114 g	139 g	168 g	208 g	

Applicable pallet clamp / locate ring

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

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 →81** for details on allowable eccentricity and inclination value.)

■ indicates made to order.

Mounting sample without pallet clamp

