

For Gases and Liquids

SP Cupla Type A

For medium pressure
general applications

Working pressure



1.5~7.5MPa
(15~76kgf/cm²)

Valve structure



Two-way shut-off

Applicable fluids



Water Hydraulic oil Steam chemicals Air Gas

Flow is
increased up
to **60%**
for Model 6SP-A



Large flow type SP Cupla is
now released!



Specifications

Body material	Brass				Stainless steel • Steel (Nickel-plated)			
Size	1/8" • 1/4" 3/8"	1/2" • 3/4" 1"	1 1/4" 1 1/2"	2"	1/8" • 1/4" 3/8"	1/2" • 3/4" 1"	1 1/4" 1 1/2"	2"
Working pressure MPa (kgf/cm ²)	5.0 (51)	3.0 (31)	2.0 (20)	1.5 (15)	7.5 (76)	4.5 (46)	3.0 (31)	2.0 (20)
Pressure resistance MPa (kgf/cm ²)	7.5 (76)	4.5 (46)	3.0 (31)	2.3 (24)	10.0 (102)	6.5 (66)	4.5 (46)	3.0 (31)
Seal material Working temperature range	Seal material	Mark	Working temperature range	Remarks				
	Nitrile rubber	NBR (SG)	-20°C~+80°C	Standard material				
	Fluoro rubber	FKM (X-100)	-20°C~+180°C					
	Perfluoroelastomer	P	0°C~+50°C	Available on request				
	Ethylene-propylene rubber	EPDM (EPT)	-40°C~+150°C					

Max. Tightening Torque

N•m {kgf•cm}

Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Torque	Steel	9 {92}	14 {143}	22 {224}	60 {612}	90 {918}	120 {1224}	260 {2652}	500 {5100}
	Brass	5 {51}	9 {92}	12 {122}	30 {306}	50 {510}	65 {663}	150 {1530}	260 {2652}
	Stainless steel	9 {92}	14 {143}	22 {224}	60 {612}	90 {918}	120 {1224}	260 {2652}	500 {5100}

Flow Direction

Fluid may flow in either direction from plug or from socket side when coupled.



Interchangeability

Different sizes are not interchangeable each other.
Interchangeable with conventional SP Cupla in the same size.
* Interchangeable with SP-V Cuplas but take heed of flow rate.

Min. Cross-Sectional Area

(mm²)

Model	1SP-A	2SP-A	3SP-A	4SP-A	6SP-A	8SP-A	10SP-A	12SP-A	16SP-A
Min. Cross-Sectional Area	14	26	51	73	178	229	395	553	803

Suitability for Vacuum

1.3 x 10⁻¹Pa {1 x 10⁻³mmHg}

Socket only	Plug only	When connected
—	—	Operational

Admixture of air on connection

(ml)

Model	1SP-A	2SP-A	3SP-A	4SP-A	6SP-A	8SP-A	10SP-A	12SP-A	16SP-A
Volume of air admixture	0.6	1.1	2.7	3.9	11	25	29	45	84

Volume of spillage per disconnection

(ml)

Model	1SP-A	2SP-A	3SP-A	4SP-A	6SP-A	8SP-A	10SP-A	12SP-A	16SP-A
Volume of spillage	0.4	0.8	2.1	3.4	9.5	15	29	45	84

Flow Rate – Pressure Loss Characteristics

[Test conditions] • Fluid : water • Temperature: 25°C ± 5°C
Note that the flow rate-pressure loss characteristics are slightly different when the packing material Perfluoroelastmer is used.

