

For High Pressure

HSP Cupla

For hydraulic pressure from 14.0 to 20.6 MPa {142 to 210 kgf/cm²}

Working pressure



Valve structure

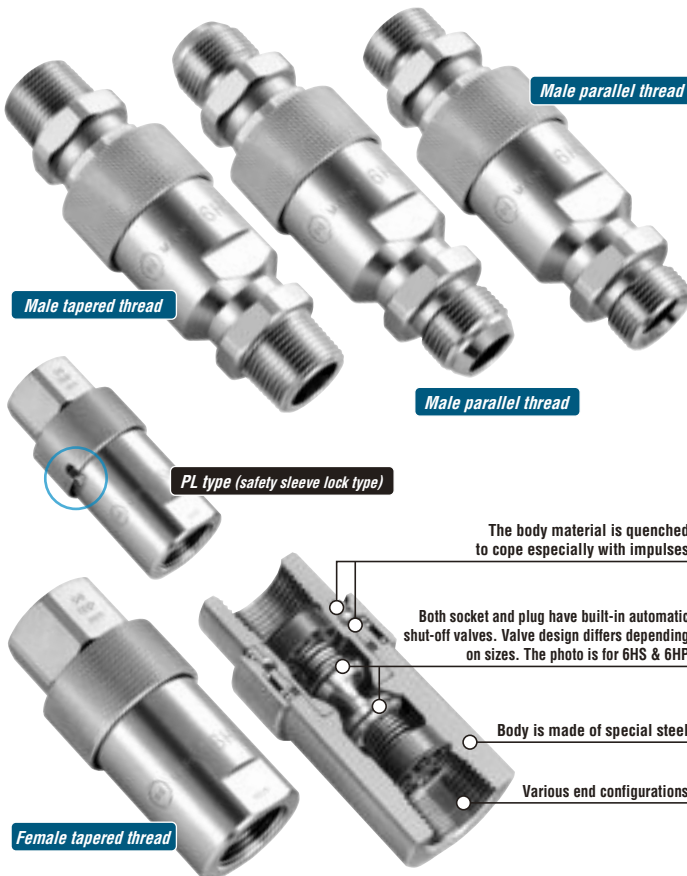


Applicable fluids



Special steel body is tough against vibration and impact! Male and female thread end configurations are available. Low pressure loss characteristic suits hydraulic equipment applications.

- Quenched special steel body!
Powerful impact resistance, especially against impulses.
- Automatic shut-off valves in both socket and plug prevent fluid spill out on disconnection. Easy to handle.
- In addition to conventional female thread type, male thread types (male tapered thread, male parallel thread with 30° flare, and male parallel thread with 30° cone-seat) are newly added. Male thread types are designed especially for direct connection to hydraulic power units effectively.
- Male parallel thread type complies with both metal seal and O-ring seal. (In case of O-ring seal, O-rings available in the market can be used.)
- Optional HSP-DC Cuplas are available for die-casting machine applications with severe pressure variation.
- The overall length of male thread type is shorter than that of female thread type plus conversion nipple available in the market.
- PL type (Safety sleeve lock type) for 2HS to 8HS (except 66HS) with female thread is also available as standard.



Specifications				
Body material	Special steel (Nickel-plated)			
Size (Thread)	1/4", 3/8", 1/2", 3/4", 1"	1 1/4", 1 1/2"	2"	
Working pressure	MPa	20.6	18.0	14.0
	kgf/cm ²	210	183	142
	bar	206	180	140
	PSI	2990	2610	2030
Seal material	Nitrile rubber	Fluoro rubber		
Working temperature range				
	Seal material	Mark	Working temperature range	Remarks
	Nitrile rubber	NBR (SG)	-20°C to +80°C	Standard material
	Fluoro rubber	FKM (X-100)	-20°C to +180°C	Available on request

Max. Tightening Torque		Nm (kgf·cm)							
Size (Thread)		1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Torque	Female thread	28 (286)	45 (459)	90 (918)	100 (1020)	180 (1836)	290 (2958)	350 (3570)	500 (5100)
	Male taper thread	28 (286)	45 (459)	90 (918)	100 (1020)	—	—	—	—
	Parallel male thread	25 (255)	35 (357)	60 (612)	120 (1224)	—	—	—	—



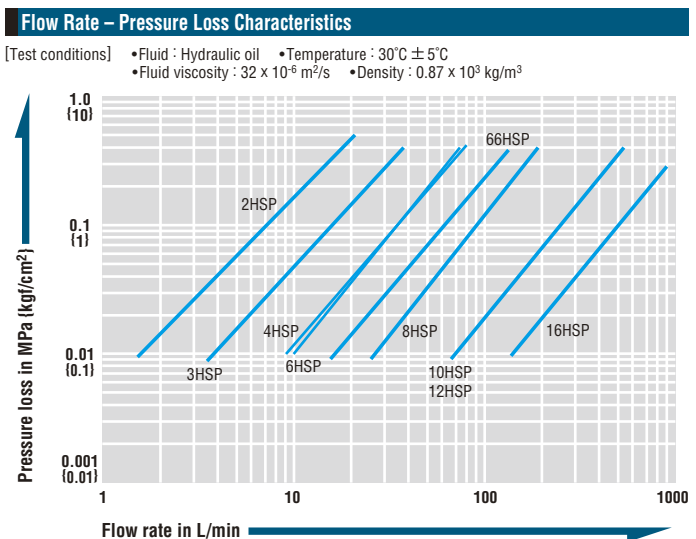
Interchangeability

4HSP with 6HSP or 10HSP with 12HSP can be connected each other. Other combinations of different sizes are not connectable.

Min. Cross-Sectional Area	(mm ²)									
Model	2HSP	3HSP	4HSP	6HSP	66HSP	8HSP	10HSP	12HSP	16HSP	
Min. cross-sectional area	21	37	77	77	145	203	595	595	1084	

Suitability for Vacuum	1.3 x 10 ⁻¹ Pa (1 x 10 ⁻³ mmHg)		
Socket only	—	Plug only	—
			When connected
			Operational

Admixture of Air on Connection	Admixture of air may vary depending upon the usage conditions. (mL)									
Model	2HSP	3HSP	4HSP	6HSP	66HSP	8HSP	10HSP	12HSP	16HSP	
Volume of air	0.7	1.9	3.5	3.5	8.2	12.4	44	44	156	



The flow volume of male thread type is increased by 5 to 10% compared with that of female thread type with conversion nipple.

⚠ Precautions for use

There is no interchangeability between HSP Cupla and 210 Cupla or 280 Cupla. Do not connect to each other even if sizes are similar.