

For High Pressure

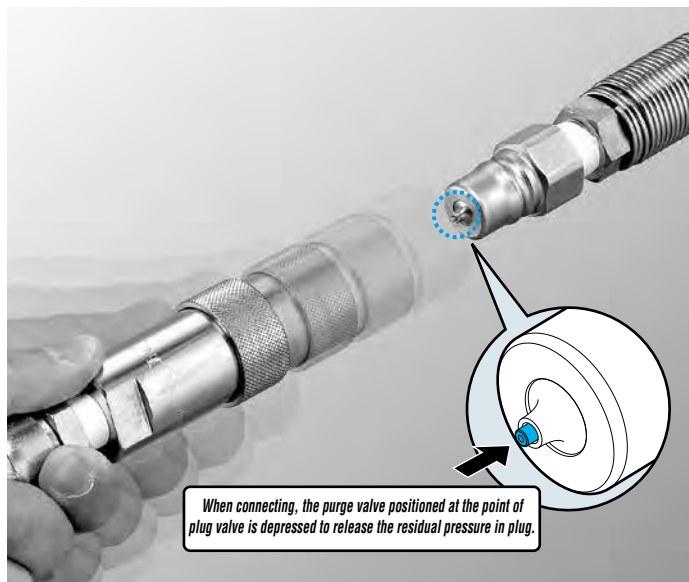
# Hyper HSP Cupla

Connects hydraulic piping even with residual pressure up to 20.6 MPa (210 kgf/cm<sup>2</sup>)

Working pressure <b>20.6</b> 20.6 MPa (210 kgf/cm <sup>2</sup> )	Valve structure  Two-way shut-off	Applicable fluid  Hydraulic oil
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**Purge function will set you free from the troublesome residual pressure elimination before connection and let you achieve efficient and frequent hydraulic pipe line coupling.**

- Both socket and plug have built-in automatic shut-off valves to prevent fluid spill out when disconnected.
- Interchangeable with standard HSP Cupla plug or socket in the same size.



Specifications				
Body material	Special steel (Nickel plated)			
Size (Thread)	1/4", 3/8", 1/2", 3/4", 1"			
Pressure unit	MPa	kgf/cm <sup>2</sup>	bar	PSI
Working pressure	20.6	210	206	2990
Seal material	Seal material	Mark	Working temperature range	Remarks
Working temperature range	Nitrile rubber	NBR (SG)	-20°C to +80°C	Standard material

Max. Tightening Torque		Nm {kgf·cm}				
Size (Thread)		1/4"	3/8"	1/2"	3/4"	1"
Torque		28 {286}	45 {459}	90 {918}	100 {1020}	180 {1836}

**Flow Direction**

Fluid flow can be bi-directional when socket and plug are connected.

**Interchangeability**  
Interchangeable with standard HSP Cupla plug or socket in the same size.

Min. Cross-Sectional Area		(mm <sup>2</sup> )				
Model		2HP-PV/2HS-PV	3HP-PV/3HS-PV	4HP-PV/4HS-PV	6HP-PV/6HS-PV	8HP-PV/8HS-PV
Min. cross-sectional area		21	37	77	77	203

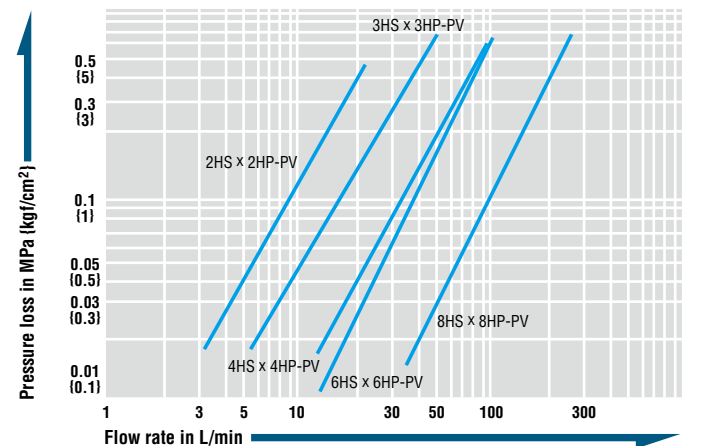
Suitability for Vacuum		1.3 x 10 <sup>-1</sup> Pa {1 x 10 <sup>-3</sup> mmHg}		
Socket only		Plug only	When connected	
—		—	Operational	

Admixture of Air on Connection		May vary depending upon the usage conditions. (mL)				
Model		2HP-PV/2HS-PV	3HP-PV/3HS-PV	4HP-PV/4HS-PV	6HP-PV/6HS-PV	8HP-PV/8HS-PV
Volume of air		0.7	1.9	3.5	3.5	12.4

Connection Load under Residual Pressure (For reference)		(N)				
Residual pressure / Model		2HP-PV/2HS-PV	3HP-PV/3HS-PV	4HP-PV/4HS-PV	6HP-PV/6HS-PV	8HP-PV/8HS-PV
at 5.0 MPa		50	85	85	85	100
at 10.0 MPa		70	85	85	85	130
at 15.0 MPa		100	100	100	100	170

**Flow Rate – Pressure Loss Characteristics**

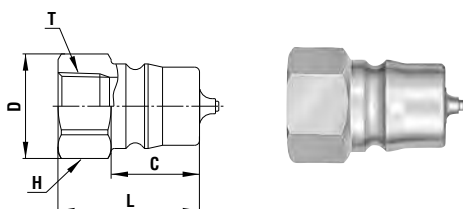
[Test conditions] • Fluid : Hydraulic oil • Temperature : 30°C ± 5°C  
• Fluid viscosity : 32 x 10<sup>-6</sup> m<sup>2</sup>/s • Density : 0.87 x 10<sup>3</sup> kg/m<sup>3</sup>



**Note:** Either socket or plug of Hyper HSP Cupla must be used on the line where the residual pressure remains. The counterpart of Hyper HSP must be either plug or socket of standard HSP Cupla.

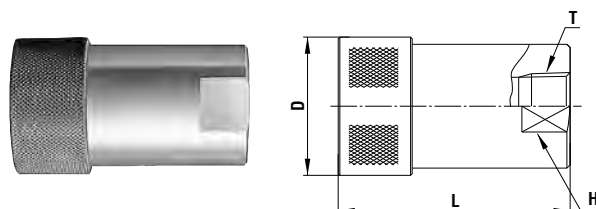
Models and Dimensions

**Plug** HP type (Female thread)



Model	Application	Mass (g)	Dimensions (mm)				
			L	ϕD	C	H(WAF)	T
2HP-PV	R 1/4	44	32	20.5	17.5	Hex.19	Rc 1/4
3HP-PV	R 3/8	72	38	25	22.5	Hex.23	Rc 3/8
4HP-PV	R 1/2	138	44	32	27.5	Hex.29	Rc 1/2
6HP-PV	R 3/4	147	50	35	27.5	Hex.32	Rc 3/4
8HP-PV	R 1	360	61	47	36	41	Rc 1

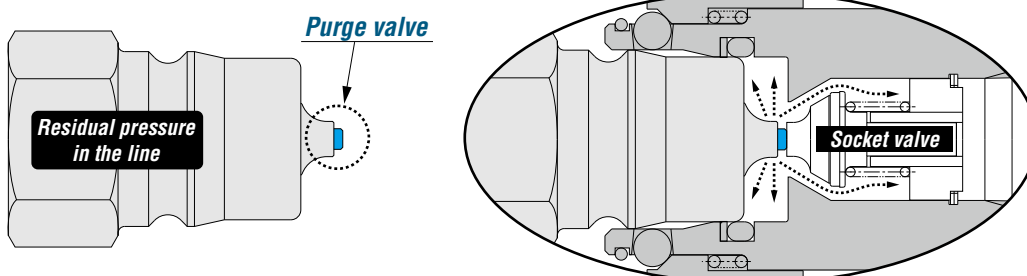
**Socket** HS type (Female thread)



Model	Application	Mass (g)	Dimensions (mm)			
			L	ϕD	H(WAF)	T
2HS-PV	R 1/4	136	49	(27.5)	19	Rc 1/4
3HS-PV	R 3/8	225	60	(33)	23	Rc 3/8
4HS-PV	R 1/2	485	(72)	(43)	35	Rc 1/2
6HS-PV	R 3/4	460	(72)	(43)	35	Rc 3/4
8HS-PV	R 1	1050	93	(58)	46	Rc 1

**Residual Pressure Release (or purge) Mechanism**

While connecting, the purge valve indicated with a circle is being pushed and releasing the residual pressure



**Note:** Either socket or plug of Hyper HSP Cupla must be used on the line where the residual pressure remains. The counterpart of Hyper HSP must be either plug or socket of standard HSP Cupla. Hyper HSP Cupla can be connected under the residual pressure in the line, but cannot during pressurizing. It may lead to incomplete connection, durability deterioration or possible valve fly out.