

For High Pressure

280 Cupla

For hydraulic pressure up to 27.5 to 31.5 MPa {281 to 321 kgf/cm²}

Working pressure



27.5 to 31.5 MPa
(281 to 321 kgf/cm²)

Valve structure



Two-way shut-off

Applicable fluid



Hydraulic oil

Generic Cupla copes with high pressure lines in hydraulic equipment! Low pressure loss is ideal for hydraulic equipment.

- Conforms to international standard ISO 7241-1A.
- General purpose hydraulic Cuplas with the working pressure up to 27.5 to 31.5 MPa {281 to 321 kgf/cm²}.
- Structure keeps pressure loss extremely low, particularly ideal for hydraulic applications requiring high flow rates.
- Both socket and plug have built-in automatic shut-off valves to prevent fluid spill out when disconnected. Easy to handle.
- Special steel body material is adopted for its excellent strength and additional quenching treatment is done to withstand hydro pressure impacts.



Specifications				
Body material	Special steel (Bright chromate conversion coating : silver)			
Size (Thread)	1/4", 3/8"	1/2", 3/4", 1"		
Working pressure	MPa	31.5	27.5	
	kgf/cm ²	321	281	
	bar	315	275	
	PSI	4570	3990	
Seal material	Nitrile rubber	Mark	NBR (SG)	Working temperature range
Working temperature range	-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}	40 {408}	80 {816}	100 {1020}	180 {1836}

Flow Direction

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

Interchangeability
Different sizes cannot be connected.

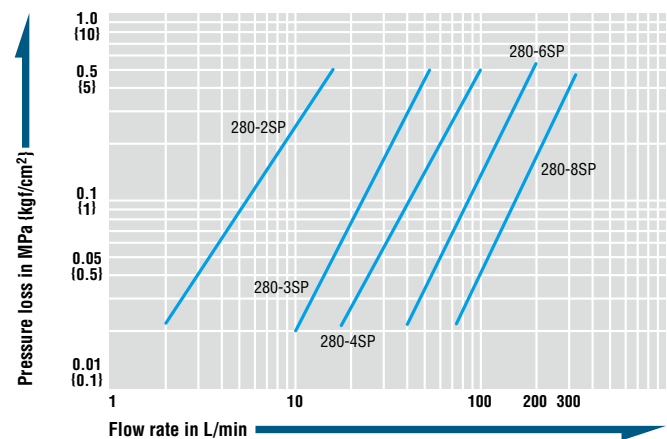
Min. Cross-Sectional Area	(mm ²)				
Model	280-2SP	280-3SP	280-4SP	280-6SP	280-8SP
Min. cross-sectional area	11.4	42.8	79.1	146.5	235.6

Suitability for Vacuum		1.3 Pa {1 x 10 ⁻² mmHg}
Socket only	Plug only	When connected
—	—	Operational

Admixture of Air on Connection	May vary depending upon the usage conditions. (mL)				
Model	280-2SP	280-3SP	280-4SP	280-6SP	280-8SP
Volume of air	0.37	1.02	2.63	8.83	16.04

Flow Rate – Pressure Loss Characteristics

[Test conditions] • Fluid : Hydraulic oil • Temperature : 30°C ± 5°C
• Fluid viscosity : 32 x 10⁻⁶ m²/s • Density : 0.87 x 10³ kg/m³

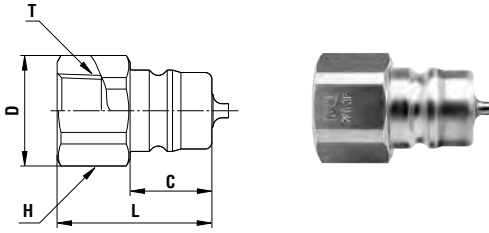


⚠ Precautions for use

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

Models and Dimensions

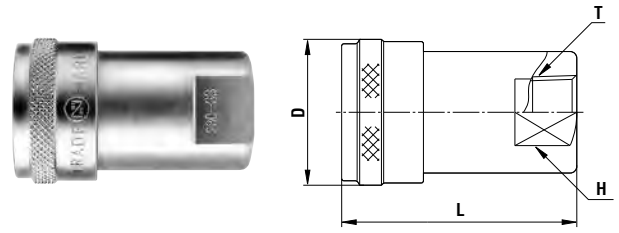
Plug Female thread



Model	Application	Mass (g)	Dimensions (mm)				
			L	øD	C	H(WAF)	T
280-2P	R 1/4	35	31.5	20.5	15	Hex.19	Rc 1/4
280-3P	R 3/8	59	35	25	18.5	Hex.23	Rc 3/8
280-4P	R 1/2	115	44	32	24.5	Hex.29	Rc 1/2
280-6P	R 3/4	178	52.5	35	28	Hex.32	Rc 3/4
280-8P	R 1	331	63.5	44	35	41	Rc 1

* Internal structural design of 280-6S and 280-8S is partly different from the above drawing.

Socket Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			L	øD	H(WAF)	T
280-2S	R 1/4	110	46	(27)	19	Rc 1/4
280-3S	R 3/8	185	53	(33)	23	Rc 3/8
280-4S	R 1/2	335	66.5	(39)	29	Rc 1/2
280-6S	R 3/4	571	81	(48)	35	Rc 3/4
280-8S	R 1	871	98	(55)	41	Rc 1

Application Example

