For Hydraulics

280 Cupla

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

Working pressure
- 31.5 — 31.5MPa {321kgf/cm²}
- 27.5 — 27.5MPa {281kgf/cm²}

Valve structure
- Two-way shut-off

Applicable fluids
- Hydraulic oil

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

- In accordance with international standard ISO 7241-1A.
- General purpose hydraulic Cuplas with the working pressure up to 27.5~31.5MPa {281~321kgf/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. This also makes handling each independent part easier.
- Special steel body material is adopted for its excellent strength and additional quenching treatment is done to withstand hydro pressure impacts.
- Various end configurations.

Specifications

Body material	Special steel (Zinc plating, clear passivate finish: silver)			
Size	1/4" • 3/8"		1/2" • 3/4" • 1"	
Working pressure MPa {kgf/cm²}	31.5 {321}		27.5 {281}	
Pressure resistance MPa {kgf/cm²}	47.3 {482}		41.3 {421}	
Seal material / Working temperature range	Seal material	Mark	Working temperature range	Remarks
	Nitrile rubber	NBR (SG)	−20°C~+80°C	Standard material

Max. Tightening Torque N•m {kgf•cm}

Size	1/4"	3/8"	1/2"	3/4"	1"
Torque	28 {286}	40 {408}	80 {816}	100 {1020}	180 {1836}

Flow Direction

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

Interchangeability

Different sizes cannot be connected.

Min. Cross-Sectional Area (mm²)

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 1.3Pa {1 x 10⁻²mmHg}

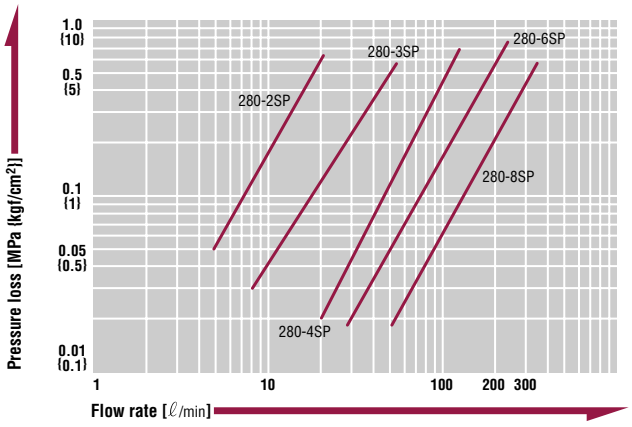
Socket only	Plug only	When connected
—	—	Operational

Admixture of Air on Connection (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

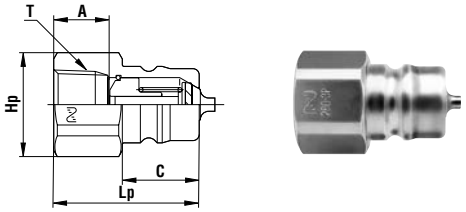
[Test conditions] •Fluid : Hydraulic oil •Temperature : 30°C ± 5°C
•Fluid viscosity : 32 x 10⁻⁶m²/s •Density : 0.87 x 10³kg/m³



Models and Dimensions

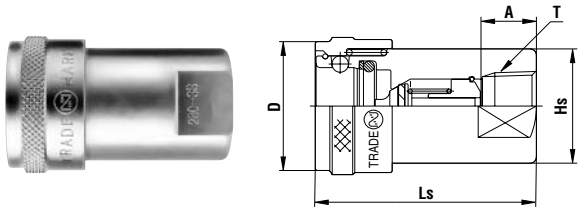
WAF : WAF stands for width across flats.

Plug Female thread



Model	Application	Mass (g)	Dimensions (mm)				
			Lp	C	Hp(WAF)	A	T
280-2P	R 1/4	35	31.5	15	Hex.19	13	Rc 1/4
280-3P	R 3/8	59	35	18.5	Hex.23	13	Rc 3/8
280-4P	R 1/2	115	44	24.5	Hex.29	17	Rc 1/2
280-6P	R 3/4	178	52.5	28	Hex.32	19	Rc 3/4
280-8P	R 1	331	63.5	35	Two flats 41 x ø44	22	Rc 1

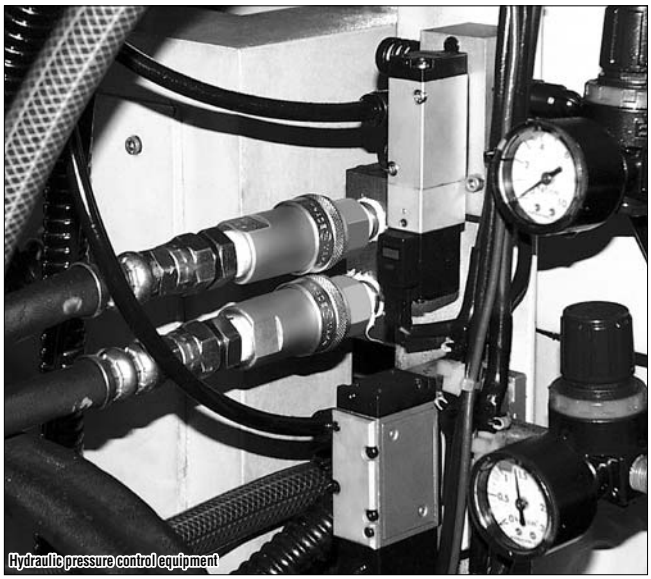
Socket Female thread

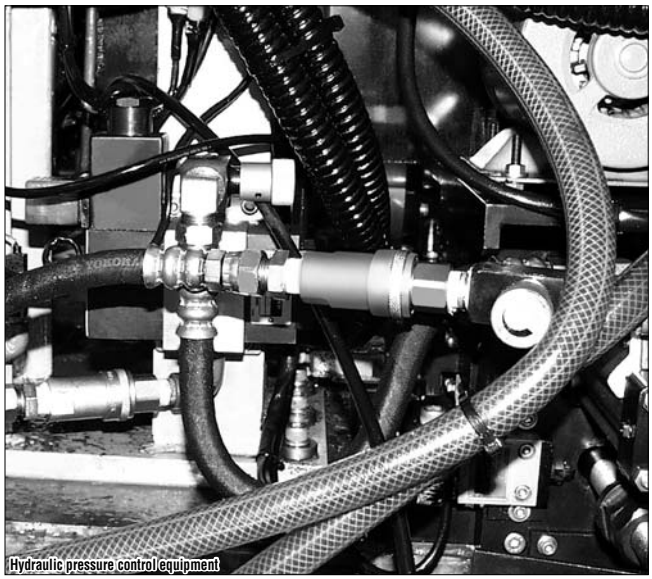


Model	Application	Mass (g)	Dimensions (mm)				
			Ls	øD	Hs(WAF)	A	T
280-2S	R 1/4	110	46	27	Two flats 19 x ø21.7	13	Rc 1/4
280-3S	R 3/8	185	53	33	Two flats 23 x ø27.5	13	Rc 3/8
280-4S	R 1/2	335	66.5	39	Two flats 29 x ø34	17	Rc 1/2
280-6S	R 3/4	571	81	48	Two flats 35 x ø41.3	19	Rc 3/4
280-8S	R 1	871	98	55	Two flats 41 x ø47.8	22	Rc 1

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

Application example


Hydraulic pressure control equipment


Hydraulic pressure control equipment