

For High Pressure

# 700R Cupla

For hydraulic pressure up to 68.6 MPa {700 kgf/cm<sup>2</sup>}

Working pressure

**68.6**

68.6 MPa  
(700 kgf/cm<sup>2</sup>)

Valve structure



Two-way shut-off

Applicable fluid



Hydraulic oil

## High pressure Cupla for working pressures up to 68.6 MPa.

- Metal-touch valves use no rubber seal, and thus ensure excellent durability.
- Both socket and plug have metal touch automatic shut-off valves that prevent fluid spill out on disconnection.



### Specifications

Body material	Special steel (Nickel plated)			
Size (Thread)	3/8", 1/2"			
Pressure unit	MPa	kgf/cm <sup>2</sup>	bar	PSI
Working pressure	68.6	700	686	9950
Seal material 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	Made-to-order item
Stand-alone leakage rate on either socket or plug	For 700R-3SP, 0.05 mL/min at 0.2 MPa {2 kgf/cm <sup>2</sup> } For 700R-4SP, 0.05 mL/min at 0.3 MPa {3 kgf/cm <sup>2</sup> }			

• Do not use in an environment where there is impulse pressure.

### Max. Tightening Torque

Nm {kgf·cm}

Size (Thread)	3/8"	1/2"
Torque	40 {408}	85 {867}

### Flow Direction

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



### Interchangeability

Different sizes are not interchangeable.

### Min. Cross-Sectional Area

(mm<sup>2</sup>)

Model	700R-3SP	700R-4SP
Min. cross-sectional area	34	55

### Suitability for Vacuum

1.3 Pa {1 x 10<sup>-2</sup> mmHg}

Socket only	Plug only	When connected
—	—	Operational

### Admixture of Air on Connection

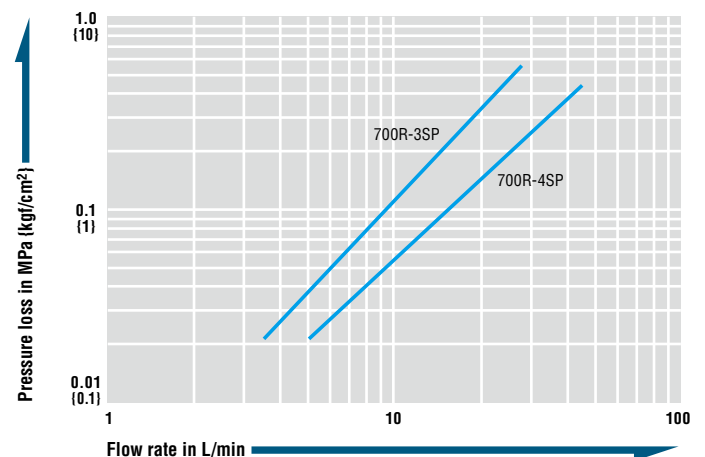
May vary depending upon the usage conditions.

(mL)

Model	700R-3SP	700R-4SP
Volume of air admixture	1.0	2.2

### 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>

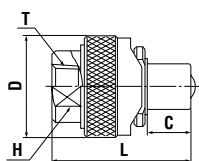


### Models and Dimensions

WAF : WAF stands for width across flats.

#### Plug

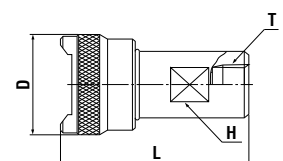
Female thread



Model	Application	Mass (g)	Dimensions (mm)				
			L	C	øD	H(WAF)	T
700R-3P	R 3/8	210	54	18	(39.5)	24	Rc 3/8
700R-4P	R 1/2	418	70	22	(50)	27	Rc 1/2

#### Socket

Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			L	øD	H(WAF)	T
700R-3S	R 3/8	270	(73)	(39.5)	22	Rc 3/8
700R-4S	R 1/2	562	(91)	(50)	27	Rc 1/2

Before use, please be sure to read "Safety Guide" described at the end of this book and "Instruction Sheet" that comes with the products.