

For Gases and Liquids

TSP Cupla

For medium pressure general applications

Working pressure



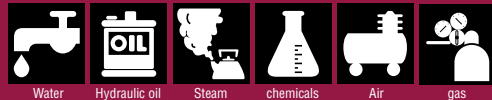
1.5~7.5MPa
(15~76kgf/cm²)

Valve structure



Straight through

Applicable fluids



Wide range of seal materials for diversified applications with fluids

Valveless structure suits high viscosity fluids

Various body materials

Wide variety of end configurations

Specifications

Body material	Brass				Stainless steel•Steel (Nickel-plated)			
Size	1/8" • 1/4" / 3/8"	1/2" • 3/4" / 1"	1 1/4" / 1 1/2"	2"	1/8" • 1/4" / 3/8"	1/2" • 3/4" / 1"	1 1/4" / 1 1/2"	2"
Working pressure MPa (kgf/cm ²)	5.0 (51)	3.0 (31)	2.0 (20)	1.5 (15)	7.5 (76)	4.5 (46)	3.0 (31)	2.0 (20)
Pressure resistance MPa (kgf/cm ²)	7.5 (76)	4.5 (46)	3.0 (31)	2.3 (24)	10.0 (102)	6.5 (66)	4.5 (46)	3.0 (31)
Seal material Working temperature range	Seal material	Mark	Working temperature range		Remarks			
	Nitrile rubber	NBR (SG)	-20°C~+80°C		Standard material			
	Fluoro rubber	FKM (X-100)	-20°C~+180°C					
	Perfluoroelastomer	P	0°C~+50°C		Available on request			
	Ethylene-propylene rubber	EPDM (EPT)	-40°C~+150°C					

* Standard stainless steel SUS304 and SUS316 are available as semi-standard body materials.

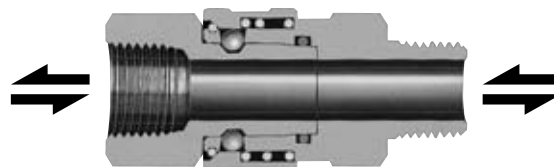
Max. Tightening Torque

N•m (kgf•cm)

Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Torque	Steel	9 (92)	14 (143)	22 (224)	60 (612)	90 (918)	120 (1224)	260 (2652)	500 (5100)
	Brass	5 (51)	9 (92)	12 (122)	30 (306)	50 (510)	65 (663)	150 (1530)	260 (2652)
	Stainless steel	9 (92)	14 (143)	22 (224)	60 (612)	90 (918)	120 (1224)	260 (2652)	500 (5100)

Flow Direction

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



Interchangeability

Same size sockets and plugs are interchangeable regardless of end configurations.

Min. Cross-Sectional Area

(mm²)

Model	1TSP (1/8")	2TSP (1/4")	3TSP (3/8")	4TSP (1/2")	6TSP (3/4")	8TSP (1")	10TSP (1 1/4")	12TSP (1 1/2")	16TSP (2")
End configurations									
H type (Hose barb)	7 (ø 3)	19.6 (ø 5)	38 (ø 7)	78.5 (ø 10)	176 (ø 15)	283 (ø 19)	530 (ø 26)	804 (ø 32)	1256 (ø 40)
M type / F type (Male thread / Female thread)	15.9 (ø 4.5)	33 (ø 6.5)	78.5 (ø 10)	132 (ø 13)	226 (ø 17)	452 (ø 24)	804 (ø 32)	1134 (ø 38)	1885 (ø 49)

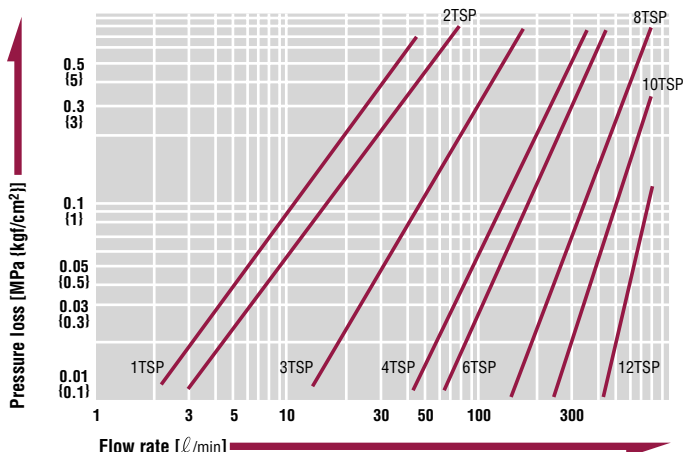
Suitability for Vacuum

1.3 x 10⁻¹Pa (1 x 10⁻³mmHg)

Socket only	Plug only	When connected
—	—	Operational

Flow Rate – Pressure Loss Characteristics

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



Valveless structure suits high viscosity fluids! Various body materials, sizes and end configurations.

- Valveless construction drastically saves pressure loss and achieves high flow rate.
- Suitable for high viscosity fluids (such as grease).
- Available in various standard body materials, sizes and end configurations to cope with diversified applications and operating situations.

Note: see the pages of Seal Material Selection Table at the end of this catalog for the suitability of seal materials to fluids.