

For Low Pressure

# TSP Cupla Socket with Ball Valve

For low pressure general applications

Working pressure



Valve structure

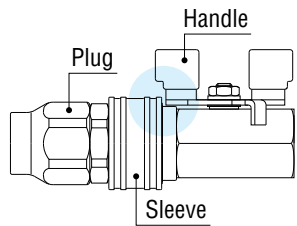


Applicable fluids

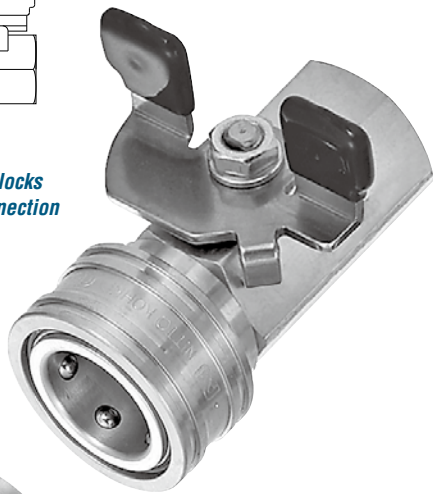


**One-piece design of TSP Cupla socket and ball valve. Sleeve stopper mechanism prevent accidental disconnection during connection. (when the valve is open.)**

- Socket valve can be opened and shut off while socket and plug are connected.
- Ball valve design provides for high flow rate.
- High viscosity fluids such as grease can be applied.



The handle of the ball valve locks the sleeve to prevent disconnection of the plug during use.



Interchangeable with standard TSP Cupla plug in the same size.

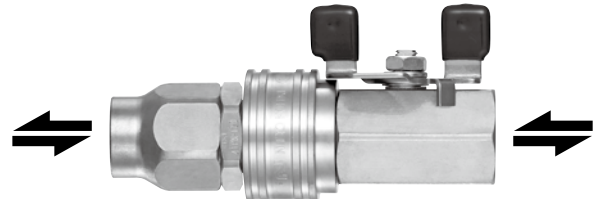


Specifications					
Model	BV-2TSF	BV-3TSF	BV-4TSF	BV-6TSF	BV-8TSF
Size (Thread)	1/4"	3/8"	1/2"	3/4"	1"
Body material	Brass				
Pressure unit	MPa	kgf/cm <sup>2</sup>	bar	PSI	
Working pressure	1.0	10	10	145	
Seal material		Seal material	Mark	Working temperature range	
Working temperature range	Cupla Part	Fluoro rubber	FKM	-5°C to +120°C	
	Ball Valve Part	Fluoropolymer resin	-		

Max. Tightening Torque					Nm (kgf·cm)
Model	BV-2TSF	BV-3TSF	BV-4TSF	BV-6TSF	BV-8TSF
Torque	9 {92}	12 {122}	30 {306}	50 {510}	65 {663}

### Flow Direction

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



### Interchangeability

Can be connected with the plug for TSP Cupla in the same size.

### Min. Cross-Sectional Area (mm<sup>2</sup>)

Model	BV-2TSF	BV-3TSF	BV-4TSF	BV-6TSF	BV-8TSF
Min. cross-sectional area	19.6	44.1	63.6	122	201

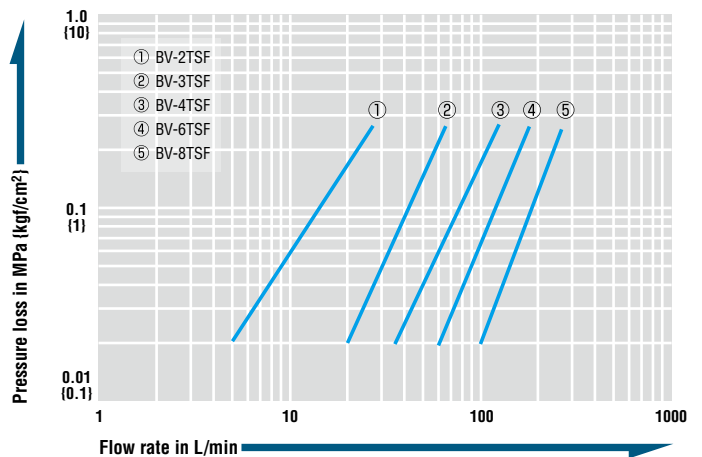
\* Value of BV type only. The minimum cross-sectional area may vary depending upon the end configuration of the plug.

### Suitability for Vacuum

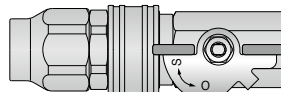
Not suitable for vacuum application in either connected or disconnected condition.

### Flow Rate – Pressure Loss Characteristics

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

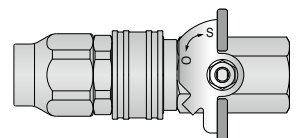


Ball Valve  
Open



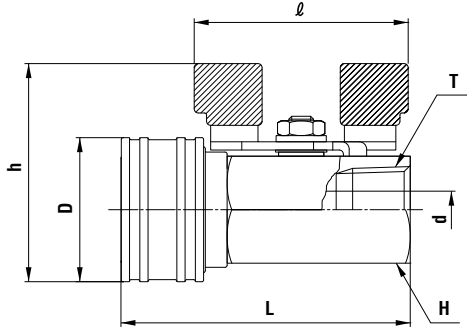
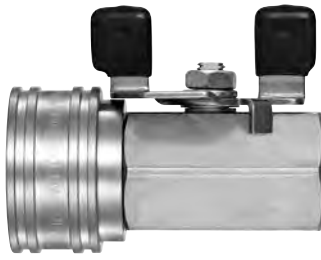
Sleeve is locked.

Ball Valve  
Shut



Sleeve is free.

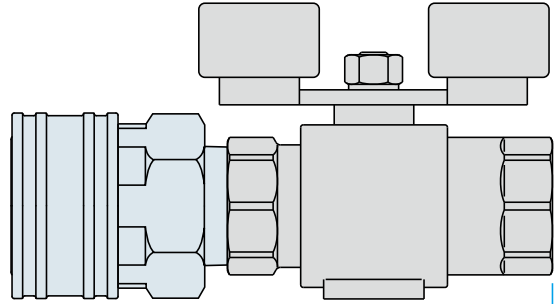
**Socket BV-TSF type (Female thread)**



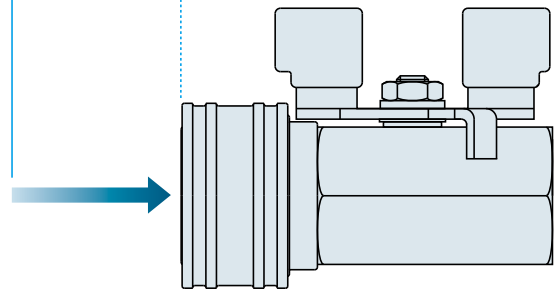
Model	Application	Mass (g)	Dimensions (mm)						
			L	h	∅D	H(WAF)	T	∅d	ℓ
BV-2TSF	R 1/4	104	(52.5)	(43)	24	Hex.17	Rc 1/4	5	(38.5)
BV-3TSF	R 3/8	163	(60.5)	(47.5)	28	Hex.21	Rc 3/8	7.5	(44)
BV-4TSF	R 1/2	270	(70.5)	(53)	35	Hex.26	Rc 1/2	9	(52)
BV-6TSF	R 3/4	491	(83)	(66)	45	Hex.32	Rc 3/4	12.5	(60.5)
BV-8TSF	R 1	904	(102.5)	(77)	58	Hex.41	Rc 1	16	(74.5)

**TSP Cupla Socket with Ball Valve**

**TSP Cupla Socket + Commercially Available Ball Valve**



**Overall length reduced by around 30%**



**Compact and enhanced sealing design**

**Connection part between a Standard TSP Cupla socket and a commercially available ball valve is eliminated for enhanced sealing and the overall length is reduced by around 30%.**