

For Hydraulics

# Flat Face Cupla F35

For hydraulic pressures up to 35.0MPa (357kgf/cm<sup>2</sup>) with flat contact face

Working pressure



35.0MPa  
(357kgf/cm<sup>2</sup>)

Valve structure

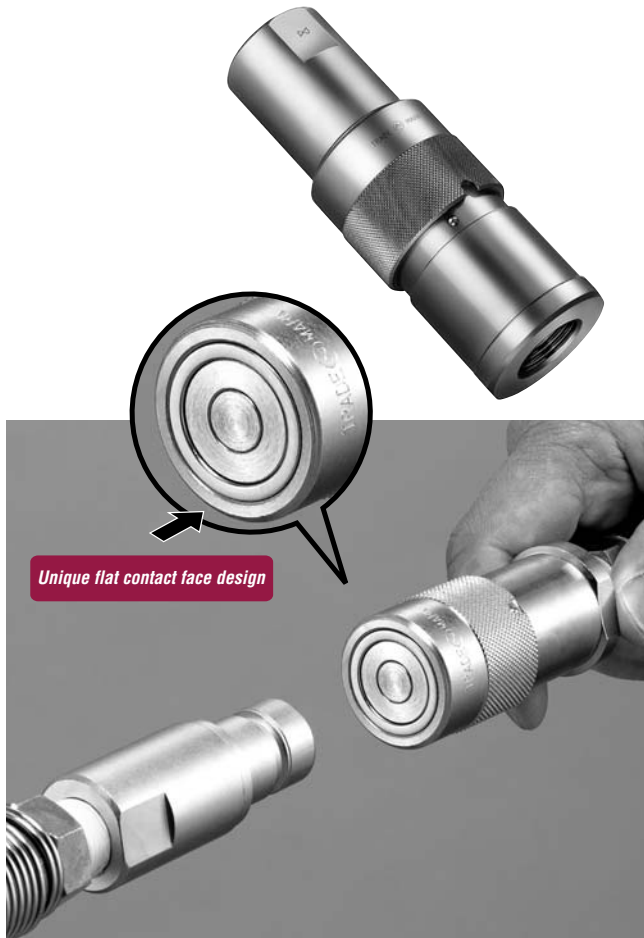


Two-way shut-off  
(Non-Spill)

Applicable fluids



Hydraulic oil



**Flat contact face design reduces spill upon disconnection by less than half compared with that of conventional design.**

- Flat contact face design makes it easy to clean dust and foreign matters adhered on the surface of coupling so as to prevent them from entering inside and thus causing faulty operation of connection or disconnection.
- Flat contact face design minimizes air admixture during connection to keep the possible malfunction of equipment caused by the air bubbles in the hydraulic line on equipment at minimum level.
- Push-to-connect operation.
- Sleeve stopper mechanism is engaged by rotating sleeve after connection. It prevents accidental disconnection even when vibration or impact is applied to the Cupla.
- The special design reduces pressure loss considerably, and especially suited to hydraulic applications in which big flow is needed. Both socket and plug have built-in automatic shut-off valves that prevent fluid spill out on disconnection.

## Specifications

Body material	Special steel (Nickel-plated)			
Size	3/8" • 1/2" • 3/4" • 1"			
Working pressure MPa (kgf/cm <sup>2</sup> )	35.0 (357)			
Pressure resistance MPa (kgf/cm <sup>2</sup> )	52.5 (536)			
Seal material	Seal material	Mark	Working temperature range	Remarks
	Fluoro rubber	FKM (X-100)	-20°C~+180°C	Standard material
Working temperature range	Nitrile rubber	NBR (SG)	-20°C~+80°C	Available on request

## Max. Tightening Torque

N·m (kgf·cm)

Size	3/8"	1/2"	3/4"	1"
Torque	40 (408)	80 (816)	150 (1530)	250 (2550)

## Flow Direction

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



## Interchangeability

Different sizes can not be connected each other.

## Min. Cross-Sectional Area

(mm<sup>2</sup>)

Model	F35-3	F35-4	F35-6	F35-8
Min. Cross-Sectional Area	32.2	78.5	149.6	227.0

## Suitability for Vacuum

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

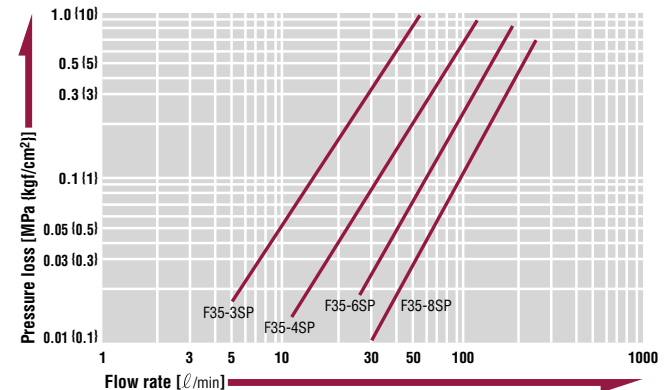
## Admixture of Air on Connection

(mℓ)

Model	F35-3	F35-4	F35-6	F35-8
Volume of air	0.01	0.04	0.08	0.1

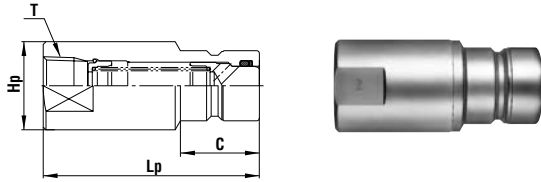
## Flow Rate – Pressure Loss Characteristics

[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>



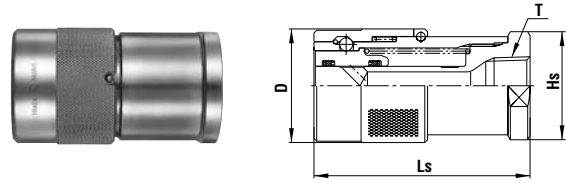
**Models and Dimensions**

**Plug F35-P type (Female thread)**



Model	Application	Mass (g)	Dimensions (mm)			
			Lp	C	Hp(WAF)	T
F35-3P	R 3/8	190	67.5	24	Two flats 24 x ø27	Rc 3/8
F35-4P	R 1/2	290	78	28.5	Two flats 27 x ø31.7	Rc 1/2
F35-6P	R 3/4	460	84.5	31	Two flats 36 x ø40	Rc 3/4
F35-8P	R 1	1000	108	39	Two flats 46 x ø50	Rc 1

**Socket F35-S type (Female thread)**



Model	Application	Mass (g)	Dimensions (mm)			
			Ls	øD	Hs(WAF)	T
F35-3S	R 3/8	320	70	34	Two flats 30 x ø33	Rc 3/8
F35-4S	R 1/2	490	78	41	Two flats 36 x ø39	Rc 1/2
F35-6S	R 3/4	815	85	49	Two flats 46 x ø50	Rc 3/4
F35-8S	R 1	1520	104	63	Two flats 55 x ø62	Rc 1

**Application example**



Snow plow