

For High Pressure

Flat Face Cupla F35

For hydraulic pressures up to 35.0 MPa (357 kgf/cm²) with flat contact face

Working pressure



Valve structure

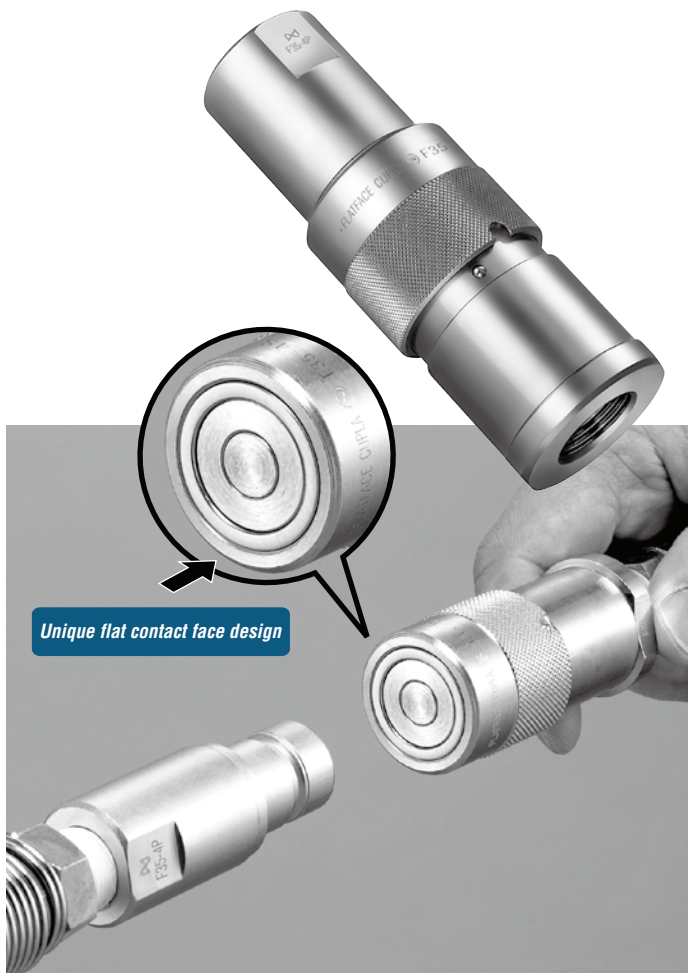


Applicable fluids



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 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 (Thread)	1/4", 3/8", 1/2", 3/4", 1"			
Working pressure	MPa	35.0		
	kgf/cm ²	357		
	bar	350		
	PSI	5080		
Seal material Working temperature range	Seal material	Mark	Working temperature range	Remarks
	Fluoro rubber	FKM (X-100)	-20°C to +180°C	Standard material
	Nitrile rubber	NBR (SG)	-20°C to +80°C	Made-to-order item

Max. Tightening Torque		Nm (kgf·cm)				
Size (Thread)		1/4"	3/8"	1/2"	3/4"	1"
Torque		28 (286)	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 ²)				
Model		F35-2SP	F35-3SP	F35-4SP	F35-6SP	F35-8SP
Min. cross-sectional area		34.2	34.2	73.0	149.6	227.0

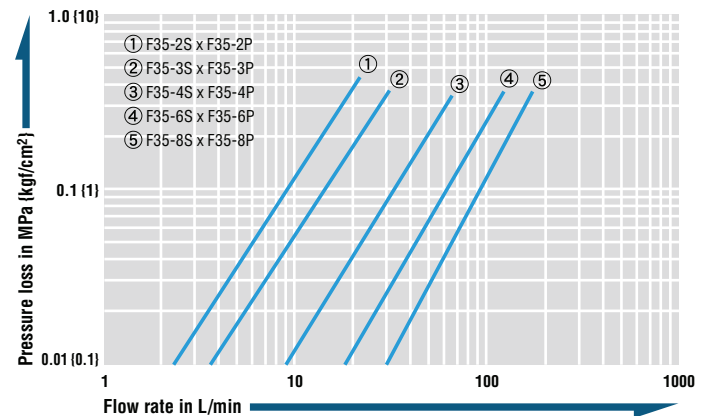
Suitability for Vacuum
Not suitable for vacuum application in either connected or disconnected condition.

Admixture of Air on Connection		(mL)				
Model		F35-2SP	F35-3SP	F35-4SP	F35-6SP	F35-8SP
Volume of air		0.1	0.1	0.2	0.3	0.4

*Spillage volume of liquid on each disconnection depends on usage conditions.

Flow Rate – Pressure Loss Characteristics

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

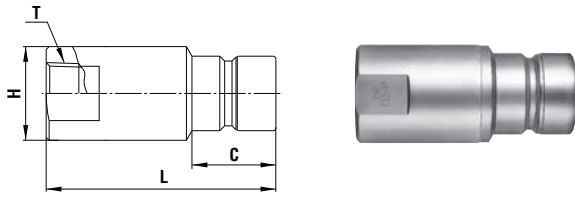


⚠ Precautions for use

Do not connect / disconnect Cuplas when pressure is applied or remaining.

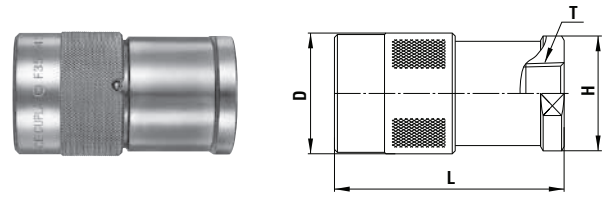
Models and Dimensions

Plug Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			L	C	H(WAF)	T
F35-2P	R 1/4	106	58	18.8	19 x ø21.5	Rc 1/4
F35-3P	R 3/8	190	67.5	24	24 x ø27	Rc 3/8
F35-4P	R 1/2	290	78	28.5	27 x ø31.7	Rc 1/2
F35-6P	R 3/4	460	84.5	31	36 x ø40	Rc 3/4
F35-8P	R 1	1000	108	39	46 x ø50	Rc 1

Socket Female thread



Model	Application	Mass (g)	Dimensions (mm)			
			L	øD	H(WAF)	T
F35-2S	R 1/4	182	(57.5)	(28)	26 x ø28.5	Rc 1/4
F35-3S	R 3/8	320	(70)	(34)	30 x ø33	Rc 3/8
F35-4S	R 1/2	490	(78)	(41)	36 x ø39	Rc 1/2
F35-6S	R 3/4	815	(85)	(49)	46 x ø50	Rc 3/4
F35-8S	R 1	1520	(104)	(63)	55 x ø62	Rc 1

Application Example



Snow plow