


For High Pressure

FLAT FACE CUPLA FF


For hydraulic pressure up to 35.0 MPa {357 kgf/cm²} with flat contact face

Working pressure




35.0 MPa
{357 kgf/cm²}

Valve structure



Two-way shut-off
(Non-Spill)

Applicable fluid



Hydraulic oil

Compared with Nitto Kohki's conventional 35 MPa CUPLA, the flow volume is increased 1.5 to 2 times.

*Increase ratio of each flow volume depends on the CUPLA size.

- "Airless valve shut-off" design minimizes spillage volume on disconnection and admixture volume of air on connection.
 - Best suited for hydraulic lines with drastic high pressure pulsation such as in die-casting machines.
 - Sleeve stopper design preventing accidental disconnection under vibration or impacts enhances workability and safety.
 - Sizes are Rc 3/8, Rc 1/2, Rc 3/4, and Rc 1.
- *Only the same size of socket and plug can be connected.



Offset concave flat face enables quick and smooth connection

Unique flat face design

Concaved offset for the flat face on socket guides plug for quick and smooth centering and connection, but still easy to wipe off dirt and dusts.

Hexagon nut for easy mount

Specifications				
Body material	Special steel (Nickel plated)			
Size (Thread)	3/8", 1/2", 3/4", 1"			
Pressure unit	MPa	kgf/cm ²	bar	PSI
Working pressure	35.0	357	350	5080
Seal material	Nitrile rubber	NBR	-20°C to +80°C	Standard material
Working temperature range				

Maximum Tightening Torque		Nm {kgf·cm}		
Size (Thread)	3/8"	1/2"	3/4"	1"
Torque	40 {408}	80 {816}	150 {1530}	250 {2550}

Flow Direction

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

Interchangeability

Socket and plug of different sizes cannot be connected.

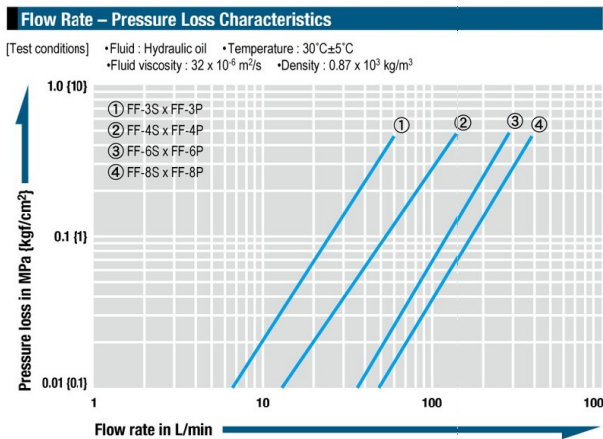
Minimum Cross-Sectional Area		(mm ²)		
Model	FF-3S x FF-3P	FF-4S x FF-4P	FF-6S x FF-6P	FF-8S x FF-8P
Minimum cross-sectional area	51	106	215	332

Suitability for Vacuum

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

Admixture of Air on Connection		May vary depending upon the usage conditions. (mL)		
Model	FF-3S x FF-3P	FF-4S x FF-4P	FF-6S x FF-6P	FF-8S x FF-8P
Volume of air admixture	0.018	0.029	0.033	0.080

Volume of Spillage per Disconnection		May vary depending upon the usage conditions. (mL)		
Model	FF-3S x FF-3P	FF-4S x FF-4P	FF-6S x FF-6P	FF-8S x FF-8P
Volume of spillage	0.009	0.023	0.031	0.110



⚠ Precautions for use

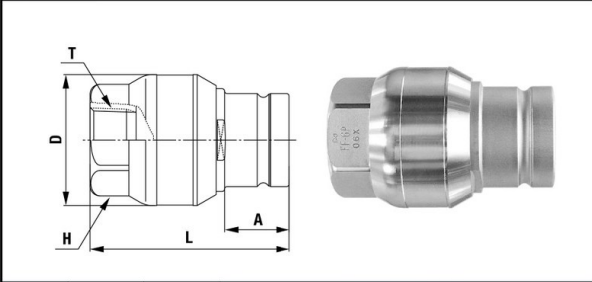
Do not connect / disconnect CUPLA when pressure is applied or remaining.

WAF: WAF stands for width across flats.

Models and Dimensions

Plug

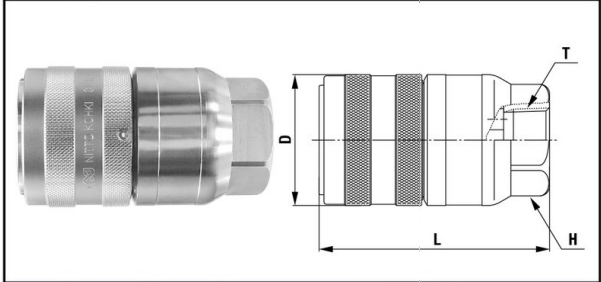
Female thread



Model	Application (Thread)	Mass (g)	Dimensions (mm)				
			L	øD	A	H (WAF)	T
FF-3P	R 3/8	252	(66)	34	20.5	Hex.29	Rc 3/8
FF-4P	R 1/2	409	(74)	42	22.8	Hex.32	Rc 1/2
FF-6P	R 3/4	709	(82.5)	54	27	Hex.41	Rc 3/4
FF-8P	R 1	1314	(96.5)	66	29.5	Hex.54	Rc 1

Socket

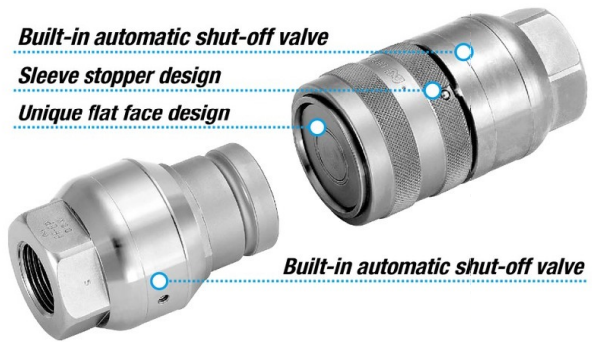
Female thread



Model	Application (Thread)	Mass (g)	Dimensions (mm)			
			L	øD	H (WAF)	T
FF-3S	R 3/8	345	(71)	(35.5)	Hex.29	Rc 3/8
FF-4S	R 1/2	608	(84)	(44)	Hex.32	Rc 1/2
FF-6S	R 3/4	1053	(95)	(54)	Hex.41	Rc 3/4
FF-8S	R 1	1865	(109.5)	(66)	Hex.54	Rc 1

Applications

- Hydraulic piping for die-casting machines
- Casting machines
- Electric furnaces
- Molding presses
- Forging press
- Powdery alloy presses
- Extrusion molding machines
- Machine tools
- Iron manufacturing blast furnaces
- Continuous casting machines
- Rolling mills
- Pipe forging machines
- Furnace opening / closing machines
- Glass molding machines, etc.



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