



## Series: FL - 316 Stainless Steel

### Technical Features and Options

- Interchangeability: ISO 16028 (from size 6.3 to 25) HTMA (size 10)
- Valve system: Flat face
- Mechanical connection: Locking balls
- Connection system: Pushing to connect
- Disconnection system: Pushing back the sleeve of female
- Connection with residual pressure: Not allowed
- Disconnection with residual pressure: Not allowed
- Threads available: BSP, NPT
- Threads on request: SAE (J1926-1)
- Temperature range:  
 Standard seals VITON : from -15°C to +180°C (from +5°F to +356°F).  
 NBR (Nitrile) seals: from -20°C to +100°C (from -4°F to +212°F).  
 EPDM (Ethylene Propylene) seals: from -40°C to +150°C (from -40°F to +302°F).  
 KALREZ seals: from -25°C to +300°C (from -13°F to +572°F).  
 The couplings with Kalrez seals for high temperature use, can be used at max. operating pressure of 5 Mpa (725 psi).

### How To Use

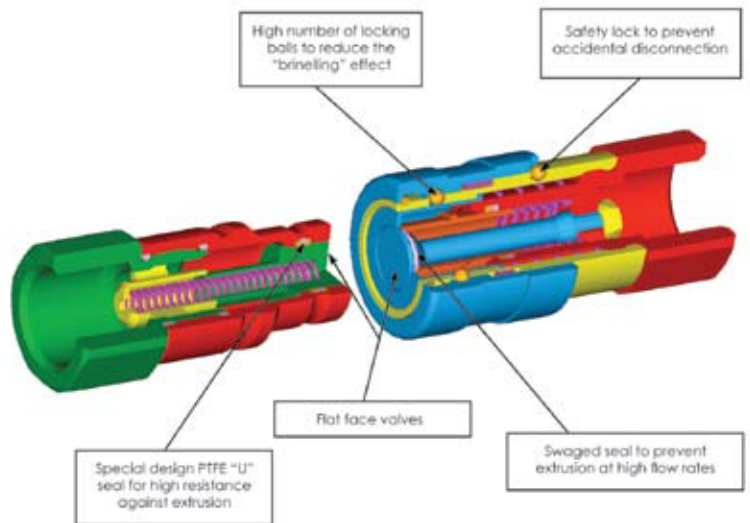
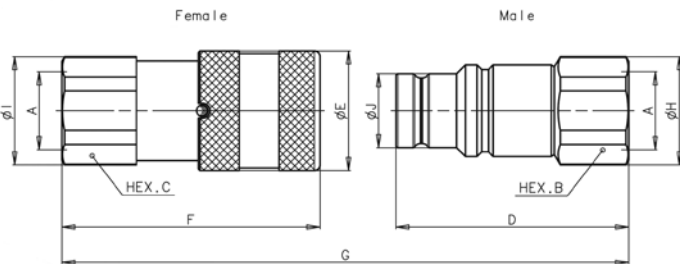
- Before connection clean the flat face surface of quick coupling to avoid inclusion of dirt into the circuit.
- To couple push the male half towards the female half or vice versa.
- Once connected, to prevent accidental disconnection, turn the external sleeve to engage lock function.
- To uncouple turn the external sleeve until the sleeve lock groove corresponds with the safety lock ball and pull back the sleeve.

### Warning!

- Do not use the female coupling disconnected with impulse pressure.
- Do not couple-uncouple with flow and/or pressure in the circuit.
- Do not couple-uncouple when the temperature inside of the circuit is higher than 80°C (176°F).
- When the couplings are disconnected, it is suggested to use protection caps. The plastic caps of "FIRG-A" series are suitable for "FL" couplings. Stainless steel AISI 316 caps are available on request.

### Materials

Construction material: Stainless steel AISI 316  
 Springs: AISI 302  
 Locking ball material: AISI 316  
 Seals: Standard in VITON  
 Seals on request: NBR (Nitrile), EPDM, KALREZ or others  
 Anti-extrusion rings: PTFE  
 Accessories on request: Caps in AISI 316



### Dimensions

Description	A	unit	B	C	D	E	F	G	H	I	J	Weight	Male	Female
FL4 1/8 BSP	1/8	mm	17	19	36.3	20	40	68.4	18.5	20.5	11.6	Kg	0.037	0.074
FL7 1/4 BSP	1/4	mm	22	22	49.4	28	48.3	86.7	23.8	23.8	16.1	Kg	0.098	0.142
FL9 3/8 BSP	3/8	mm	24	27	59.9	32	64.2	108.6	26	29	19.7	Kg	0.124	0.245
FL9 1/2 BSP	1/2	mm	27	27	62.4	32	69.2	116.1	29	29	19.7	Kg	0.120	0.242
FL13 1/2 BSP	1/2	mm	32	32	70.5	38	73.8	127	33.8	33.8	24.5	Kg	0.259	0.378
FL13 3/4 BSP	3/4	mm	36	36	70.5	38	80.8	134	38.5	38.5	24.5	Kg	0.255	0.375
FL15 3/4 BSP	3/4	mm	36	36	70.5	42	80.9	133.8	38.5	38.5	27	Kg	0.282	0.492
FL17 1 BSP	1	mm	46	46	82.2	48	92.9	153.3	49.5	49.5	30	Kg	0.432	0.795
FL21 1-1/4 BSP	1-1/4	mm	55	55	90	55	106.2	173	59.8	59.8	36	Kg	0.672	1.226
FL27 1-1/2 BSP	1-1/2	mm	70	65	111	80	132.4	214.8	76	72	57	Kg	1.890	2.908
FL45 2 BSP	2	mm	75	80	123.8	100	156.6	241.5	83.5	88.5	73	Kg	2.290	5.230

# Series: FL - 316 Stainless Steel

## Performance

	Size	ISO Size	Max. flow suggested		Connect force		Disconnect force		Spillage*
	Inch	mm	l/min	GPM	N	lbf	N	lbf	ml
FL4	1/8	-	6	1.59	140	31.50	30	6.75	0.005
FL7	1/4	6.3	24	6.36	160	36.00	45	10.13	0.006
FL9	3/8	10.0	46	12.19	160	36.00	45	10.13	0.012
FL13	1/2	12.5	90	23.85	200	45.00	60	13.50	0.020
FL15	5/8	16.0	148	39.22	200	45.00	60	13.50	0.026
FL17	3/4	19.0	200	53.00	200	45.00	60	13.50	0.032
FL21	1	25.0	378	100.17	280	63.00	90	20.25	0.035
FL27	1-1/2	-	750	198.75	580	130.50	160	36.00	0.050
FL45	2	-	1000	265.00	490	110.25	70	15.75	0.100

\* Spillage is an indicative value of the fluid loss per couple-uncouple cycle.

	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
FL4	35	5075	35	5075	33	4785	140	20300	140	20300	120	17400
FL7	35	5075	35	5075	12	1740	140	20300	120	17400	48	6960
FL9	35	5075	35	5075	15	2175	140	20300	120	17400	60	8700
FL13	35	5075	35	5075	15	2175	120	17400	110	15950	60	8700
FL15	35	5075	30	4350	12	1740	120	17400	100	14500	48	6960
FL17	33	4785	28	4060	12	1740	100	14500	80	11600	48	6960
FL21	28	4060	28	4060	12	1740	90	13050	80	11600	48	6960
FL27	23	3335	23	3335	8	1160	80	11600	70	10150	32	4640
FL45	15	2175	15	2175	7	1015	60	8700	60	8700	28	4060

Article no.	Description	Price £	Price €
<b>BSP THREAD</b>			
802400122	F. FL4 1/8 BSP	£300.70	€310.10
802400123	M. FL4 1/8 BSP	£208.80	€215.40
802400100	F. FL7 1/4 BSP	£173.10	€178.60
802400101	M. FL7 1/4 BSP	£117.60	€121.30
802400102	F. FL9 3/8 BSP	£209.90	€216.50
802400103	M. FL9 3/8 BSP	£132.30	€136.40
802400104	F. FL9 1/2 BSP	£212.10	€218.70
802400105	M. FL9 1/2 BSP	£117.60	€121.30
802400106	F. FL13 1/2 BSP	£211.20	€217.80
802400107	M. FL13 1/2 BSP	£128.60	€132.60
802400108	F. FL13 3/4 BSP	£211.20	€217.80
802400109	M. FL13 3/4 BSP	£128.60	€132.60
802400110	F. FL15 3/4 BSP	£273.60	€282.20
802400111	M. FL15 3/4 BSP	£156.20	€161.00
802400112	F. FL17 1' BSP	£360.00	€371.30
802400113	M. FL17 1' BSP	£160.80	€165.80
802400114	F. FL21 1-1/4 BSP	£571.90	€589.80
802400115	M. FL21 1-1/4 BSP	£276.00	€284.70
802400116	F. FL27 1-1/2 BSP	£1,002.30	€1,033.70
802400117	M. FL27 1-1/2 BSP	£584.70	€603.00
802400118	F. FL45 2' BSP	£3,192.00	€3,291.80
802400119	M. FL45 2' BSP	£2,352.00	€2,425.50

Article no.	Description	Price £	Price €
<b>NPT THREAD</b>			
802401118	F. FL4 1/8 NPT	£309.10	€318.70
802401119	M. FL4 1/8 NPT	£217.20	€224.00
802401100	F. FL7 1/4 NPT	£181.80	€187.50
802401101	M. FL7 1/4 NPT	£123.50	€127.40
802401102	F. FL9 3/8 NPT	£220.50	€227.40
802401103	M. FL9 3/8 NPT	£138.90	€143.30
802401104	F. FL9 1/2 NPT	£222.60	€229.60
802401105	M. FL9 1/2 NPT	£141.20	€145.70
802401106	F. FL13 1/2 NPT	£253.50	€261.40
802401107	M. FL13 1/2 NPT	£154.30	€159.10
802401108	F. FL13 3/4 NPT	£280.90	€289.70
802401109	M. FL13 3/4 NPT	£168.60	€173.90
802401110	F. FL15 3/4 NPT	£328.40	€338.70
802401111	M. FL15 3/4 NPT	£187.40	€193.30
802401112	F. FL17 1' NPT	£432.00	€445.50
802401113	M. FL17 1' NPT	£192.90	€198.90
802401114	F. FL21 1-1/4 NPT	£600.50	€619.30
802401115	M. FL21 1-1/4 NPT	£289.80	€298.90
802401116	F. FL27 1-1/2 NPT	£1,044.10	€1,076.80
802401117	M. FL27 1-1/2 NPT	£710.00	€732.20
802401120	F. FL45 2' NPT	£4,260.00	€4,393.10
802401121	M. FL45 2' NPT	£3,007.00	€3,101.00

