

Hydraulic Quick Couplings Non-Spill

FEM/FEC Series
ISO 16028
Push to Connect



FEM Series couplings meet or exceed ISO 16028 design and performance requirements. The flush valves eliminate spillage and air inclusion when connecting and disconnecting. Coupler and nipple bodies have a modular design with increased flexibility for end port options. FEC nipples provide a connect-under-pressure option for trapped residual pressure.

Features

- Flush, non-spill valving
- Global interchangeability with other ISO 16028 compliant couplings
- Hardened steel sleeves and nipple bodies
- Optional locking sleeve
- Connect-under-pressure FEC nipple option
- Protective zinc plating with clear trivalent chromate finish

Applications include:

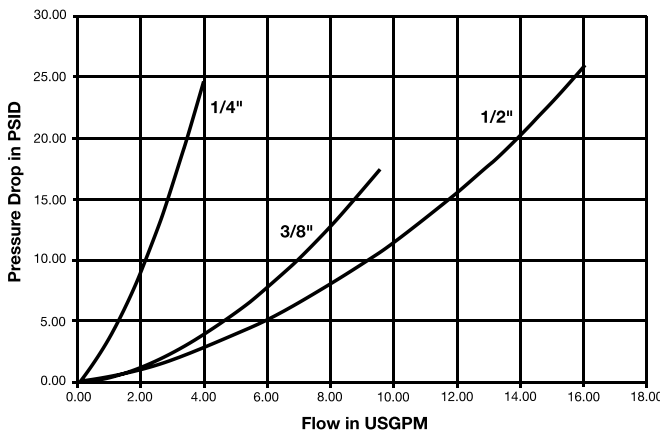
- Skid loader attachments
- Hydraulic tools

Materials of Construction

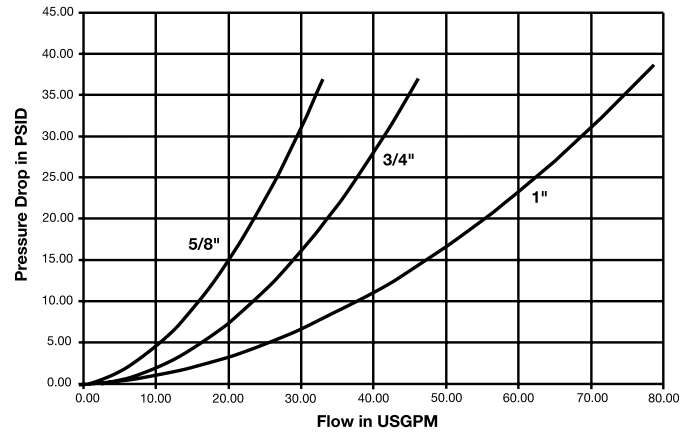
- Body:** Steel
Finish: Zinc with clear trivalent chromate
Valve: Flush face valving
Seal: Polyurethane and Nitrile

Performance

FEM Series (1/4", 3/8" & 1/2")
Test Fluid: Oil - 150 SUS



FEM Series (5/8", 3/4" & 1")
Test Fluid: Oil - 150 SUS



FEM Series Specifications

Body Size	Rated Pressure (psi)	Rated Flow (gpm)	Temperature Range	Spillage (ml) max. per disconnect	Air Inclusion (ml) max. per connect	Body Material	Sleeve Type	Seal Material
1/4	4568	3	-22° to +212°F	.015	.020	Steel	Push to Connect	Polyurethane and Nitrile
3/8	3625	6		.015	.020			
1/2	3625	12		.020	.070			
5/8	3625	20		.030	.070			
3/4	3625	26		.150	.100			
1	2900	50		.200	.150			





FEM Series Couplers



Body Size	Coupler Part Number	Port End	Length	Coupled Length (when connected to corresponding nipple)	Largest Diameter	Wrench Flats	Weight (lbs.)
1/4	FEM-251-4FP-NL	1/4-18 NPSF	1.96	3.98	1.16	27mm	0.52
1/4	FEM-251-6FO-NL	9/16-18 UNF	2.08	4.06	1.16	27mm	0.51
3/8	FEM-371-6FP-NL	3/8-18 NPSF	2.89	4.43	1.26	30mm	0.68
3/8	FEM-371-8FO-NL	3/4-16 UNF	2.89	4.67	1.26	30mm	0.68
1/2	FEM-501-8FP-NL	1/2-14 NPSF	2.96	5.09	1.54	1.25	0.93
1/2	FEM-501-8FO-NL	3/4-16 UNF	2.96	5.09	1.54	1.25	0.93
1/2	FEM-501-10FO-NL	7/8-14 UNF	2.96	5.09	1.54	1.25	0.93
1/2	FEM-501-12FO-NL	1 1/16-12 UNF	3.21	5.59	1.54	1.25	0.93
5/8	FEM-621-12FO-NL	1 1/16-12 UNF	3.70	5.64	1.69	40mm	1.34
3/4	FEM-751-12FP-NL	3/4-14 NPSF	3.95	6.00	1.97	46mm	1.98
3/4	FEM-751-12FO-NL	1 1/16-12 UNF	3.95	6.20	1.97	46mm	2.00
1	FEM-1001-16FP-NL	1-11 1/2-NPSF	4.21	6.79	2.36	55mm	3.08
1	FEM-1001-16FO-NL	1 5/16-12 UNF	4.21	6.79	2.36	55mm	3.03

FEM Series Couplers (Bulkhead)



Body Size	Coupler Part Number	Port End	Length	Coupled Length (when connected to corresponding nipple)	Largest Diameter	Wrench Flats	Weight (lbs.)
1/2	FEM-501-10BMF-NL	7/8-14 UNF	4.04	7.24	1.54	1.25	1.13
1/2	FEM-501-10BMS-NL	1-14 UNS	4.04	7.24	1.54	1.25	1.13

Code	Description	Part Number Example
suffix -E5	Ethylene Propylene seal material (EPR)	FEM-501-8FP-NL-E5
suffix -E4	Fluorocarbon seal material	FEM-501-8FP-NL-E4

Contact QCD for availability and additional options.
To select proper seal materials, see Fluid Compatibility Chart or contact QCD.



FEM Series Nipples



Body Size	Nipple Part Number	Port End	Length	Coupled Length (when connected to corresponding coupler)	Largest Diameter	Wrench Flats	Weight (lbs.)
1/4	FEM-252-4FP	1/4-18 NPSF	1.71	3.98	0.96	22mm	0.20
1/4	FEM-252-6FO	9/16-18 NPSF	1.95	4.06	0.96	22mm	0.19
3/8	FEM-372-6FP	3/8-18 NPSF	2.48	4.43	1.26	30mm	0.40
3/8	FEM-372-8FO	3/4-16 UNF	2.48	4.67	1.26	30mm	0.41
1/2	FEM-502-8FP	1/2-14 NPSF	2.77	5.09	1.38	1.25	0.54
1/2	FEM-502-8FO	3/4-16 UNF	2.77	5.09	1.38	1.25	0.54
1/2	FEM-502-10FO	7/8-14 UNF	2.77	5.09	1.38	1.25	0.54
1/2	FEM-502-12FO	1 1/16-12 UN	3.02	5.59	1.38	1.25	0.54
5/8	FEM-622-12FO	1 1/16-12 UN	3.09	5.64	1.57	36mm	0.72
3/4	FEM-752-12FP	3/4-14 NPSF	3.38	6.00	1.97	46mm	1.17
3/4	FEM-752-12FO	1-1/16 12 UN	3.38	6.20	1.974	46mm	1.20
1	FEM-1002-16FP	1-11 1/2 NPSF	3.85	6.79	2.36	55mm	1.94
1	FEM-1002-16FO	1-5/16 12 UN	3.85	6.79	2.36	55mm	1.90

FEM Series Nipples (Bulkhead)



Body Size	Nipple Part Number	Port End	Length	Coupled Length (when connected to corresponding nipple)	Largest Diameter	Wrench Flats	Weight (lbs.)
1/2	FEM-502-10BMF	7/8-14 UNF	3.85	7.24	1.38	1.25	.84
1/2	FEM-502-10BMS	1-14 UNS	3.85	7.24	1.38	1.25	.84

Standard Port Configurations: FP - Female Pipe Thread FO - Female Straight Thread BMF - Bulkhead Flare BMS - Bulkhead Face Seal

Other Fitting Port Configurations available upon request.

* This dimension represents the portion of the nipple that is exposed when the nipple and coupler are connected.

Dust Caps - FEM Series



Body Size	Nipple Dust Cap	Coupler Dust Cap	Material
1/4	CFE-252-PN	PFE-251-PN	PVC
3/8	CFE-372-PN	PFE-371-PN	PVC
1/2	CFE-502-PN	PFE-501-PN	PVC
5/8	CFE-622-PN	PFE-621-PN	PVC
3/4	CFE-752-PN	PFE-751-PN	PVC
1	CFE-1002-PN	PFE-1001-PN	PVC



Applications

Parker FEC Series nipple provide connect-under-pressure capability with up to 3000 PSI of trapped pressure in the nipple and are ideal for applications where residual pressure makes reconnect difficult. Utilized primarily in the construction equipment market, FEC Series products are commonly found on hydraulic attachments used in skid steer applications. The FEC Series mates with the FEM Series interface ISO 16028 couplers.

Features:

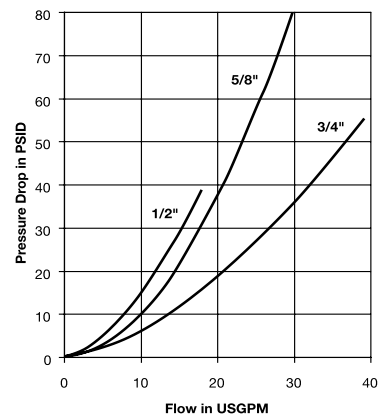
- Connect-Under-Pressure nipple
- Hardened locking surface
- Steel construction, Chromium-6 Free plating for corrosion resistance
- Anti blowout bonded nipple seal
- Flush face valving

Connect Under Pressure Operation

FEC Series products operate slightly different from traditional non-spill couplings. With no pressure in the coupler and up to 3000 PSI of trapped pressure in the nipple, begin to couple the mating halves. Delay momentarily during connection to allow trapped pressure to equalize with the mating half before completing the connection.

Performance

FEC Series (1/2", 5/8", 3/4")
Test Fluid: Oil - 200 SUS



FEC Series Specifications					
Body Size	Rate Pressure (psi)	Rated Connect-Under-Pressure Capability	Rated Flow (gpm)	Spillage (ml) max. per disconnect	Air Inclusion (ml) max. per connect
1/2	3625	3000	12	.020	.070
5/8	3625	1700	20	.003	.070
3/4	3625	1500	26	.150	.100

FEC Series Connect Under Pressure Nipples



Body Size	Part Number	Mating Half	Port End	Length	Coupled Length (when connected to corresponding nipple)	Largest Diameter	Wrench Flats	Weight (lbs.)
1/2	FEC-502-8FP	FEM-501	1/2-14 NPSF	3.50	5.82	1.22	1.125	-
1/2	FEC-502-10FO	FEM-501	7/8-14 UNF	3.50	5.82	1.22	1.125	-
1/2	FEC-502-12FO	FEM-501	1 1/16-12 UNF	3.79	6.36	1.65	1.500	-
5/8	FEC-622-12FO	FEM-621	1 1/16-12 UN	3.39	5.94	1.65	1.500	-
3/4	FEC-752-12FO	FEM-751	1 1/16-12 UN	3.76	6.58	1.65	1.500	-

Standard Port Configurations: FP - Female Pipe Thread FO - Female Straight Thread

* This dimension represents the portion of the nipple that is exposed when the nipple and coupler are connected.