

# ISO 16028 Interchange Couplings Flat Face



## Flat Face

### Series: FIRG

**Interchange:** ISO 16028

The FIRG quick coupling, head of the family of flat face has been produced since 1983. Interchangeability in accordance with ISO 16028. The interchangeability of size 3/8 is also in accordance with NFPA T3.20.15 (HTMA).

- Nitrile seal with specially shaped anti extrusion rings in Teflon
- FIRG designed integrated sealing mechanism greatly reduces premature wear by movement between coupler and nipple parts caused by impulse pressure and by the weight of the flexible pipes when the coupling is in horizontal position

### Overview

The "Original One", that is the FIRG flat face series from Stucchi. Developed in 1983, Stucchi has supplied the original ISO 16028 interchangeable coupling, and still continues to supply this series due to the good performance, long life and competitive prices on this series.

### Applications

Mobile Construction, Agriculture, General Industrial, Mining or anywhere fluid loss and contamination of a hydraulic circuit needs to be eliminated.

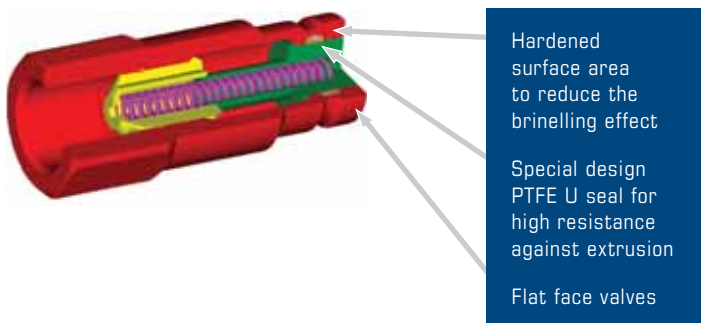
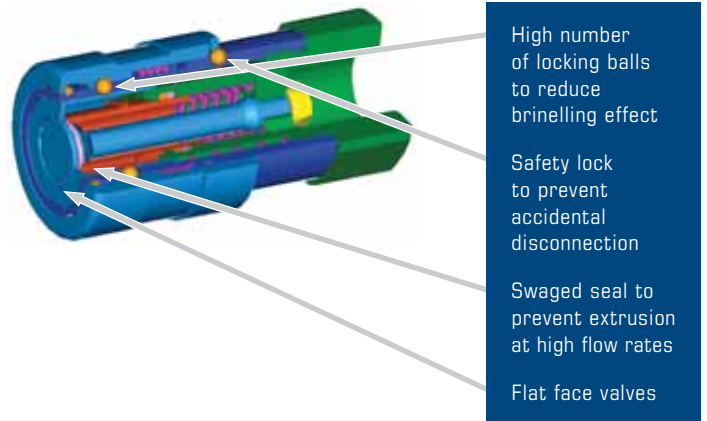
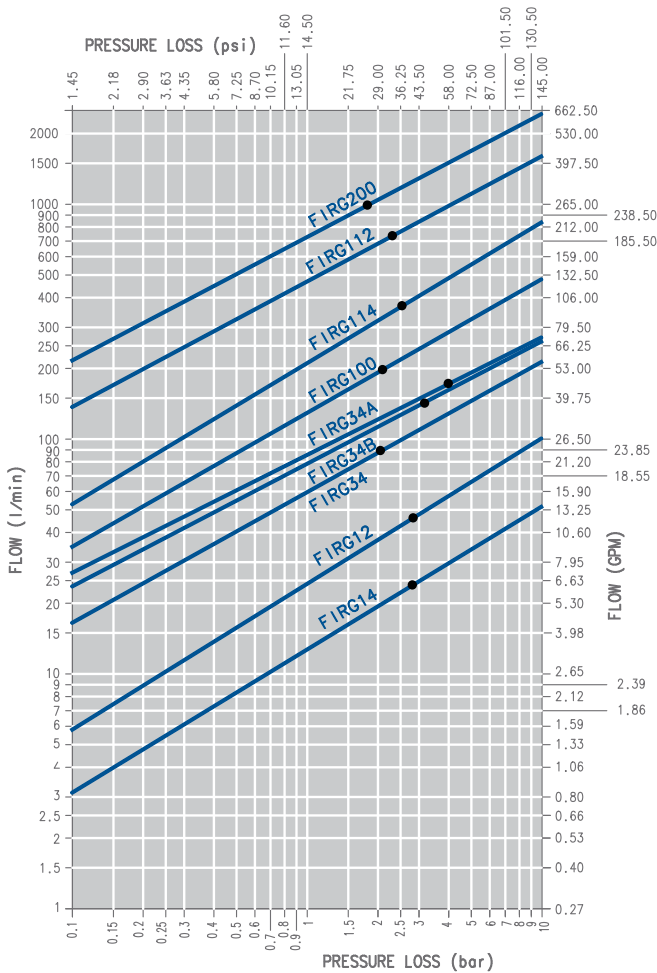
### Options

- Couplings: zinc plated steel
- Nipple: hardened steel for anti-brinelling
- Seals: Nitrile with Teflon anti-extrusion ring
- Viton, Kalrez, EPDM upon request
- Ports: NPT, SAE
- Tight tolerances ensure equal loading of couplers
- Female seal swaged to prevent extrusion
- No air inclusion during connection
- Flat mating surface easily cleaned
- Non-spill design avoids fluid loss during connection/disconnection

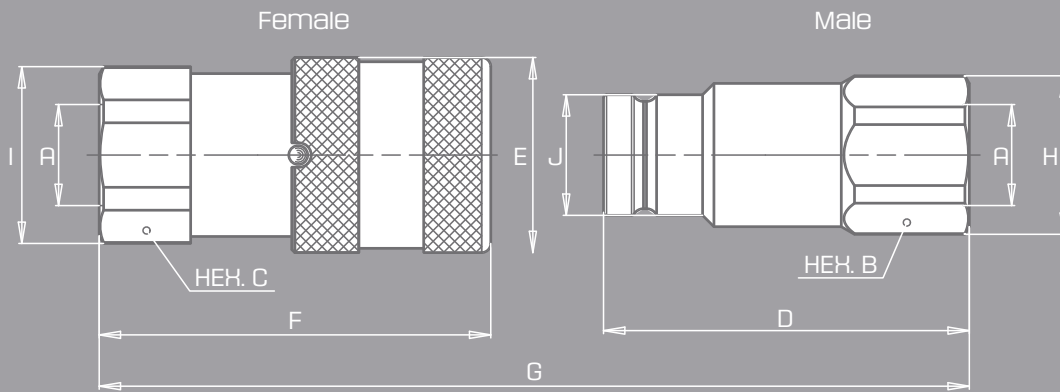


DESCRIPTION	SIZE	ISO SIZE	MAX. OPERATING PRESSURE COUPLED		BURST PRESSURE						SPILLAGE*
					COUPLED		MALE		FEMALE		
			MPa	psi	MPa	psi	MPa	psi	MPa	psi	
FIRG14	1/4	6.3	30	4350	120	17400	126	18270	48	6960	0.006
FIRG38-12	3/8	10.0	30	4350	120	17400	120	17400	48	6960	0.012
FIRG12A-34	1/2	12.5	25	3625	100	14500	100	14500	40	5800	0.020
FIRG34B	5/8	16.0	25	3625	100	14500	88	12760	40	5800	0.026
FIRG34A	3/4	19.0	33	4785	100	14500	100	14500	100	14500	0.032
FIRG100	3/4	19.0	25	3625	100	14500	80	11600	40	5800	0.032
FIRG114	1	25.0	25	3625	100	14500	80	11600	40	5800	0.035
FIRG112	1 1/2	-	20	2900	80	11600	80	11600	32	4640	0.050
FIRG200	2	-	20	2900	80	11600	64	9280	32	4640	0.100

\* SPILLAGE IS AN INDICATIVE VALUE OF THE FLUID LOSS PER COUPLE-UNCUPLE CYCLE.



## Flat Face: FIRG Series Size Diagram



DESCRIPTION	BODY SIZE	A	UNIT	B	C	D	E	F	G	H	I	J	UNIT	WEIGHT	
														MALE	FEMALE
FIRG14	1/4	1/4	mm	22.0	22.0	47.9	28.0	48.1	85.2	23.8	23.8	16.1	Kg	0.086	0.140
			inch	0.87	0.87	1.89	1.10	1.89	3.35	0.94	0.94	0.63	lb	0.19	0.31
FIRG38	3/8	3/8	mm	24.0	27.0	60.0	32.0	64.2	108.7	26.0	29.0	19.7	Kg	0.121	0.235
			inch	0.94	1.06	2.36	1.26	2.53	4.28	1.02	1.14	0.78	lb	0.27	0.52
FIRG12	3/8	1/2	mm	27.0	27.0	62.5	32.0	69.2	116.2	29.0	29.0	19.7	Kg	0.128	0.237
			inch	1.06	1.06	2.46	1.26	2.72	4.57	1.14	1.14	0.78	lb	0.28	0.52
FIRG12A	1/2	1/2	mm	32.0	32.0	68.0	38.0	73.8	124.5	33.8	33.8	24.5	Kg	0.233	0.375
			inch	1.26	1.26	2.68	1.50	2.91	4.90	1.33	1.33	0.96	lb	0.51	0.83
FIRG34	1/2	3/4	mm	36.0	36.0	70.5	38.0	80.8	134.0	38.5	38.5	24.5	Kg	0.227	0.413
			inch	1.42	1.42	2.78	1.50	3.18	5.28	1.52	1.52	0.96	lb	0.50	0.91
FIRG34B	5/8	3/4	mm	36.0	36.0	70.5	42.0	78.5	131.4	38.5	38.5	27.0	Kg	0.268	0.479
			inch	1.42	1.42	2.78	1.65	3.09	5.17	1.52	1.52	1.06	lb	0.59	1.06
FIRG34A	3/4	3/4	mm	41.0	41.0	82.3	48.0	88.7	149.0	44.8	44.8	30.0	Kg	0.445	0.750
			inch	1.61	1.61	3.24	1.89	3.49	5.87	1.76	1.76	1.18	lb	0.98	1.65
FIRG100	3/4	1	mm	45.0	45.0	82.3	48.0	93.2	153.5	47.8	47.8	30.0	Kg	0.394	0.767
			inch	1.77	1.77	3.24	1.89	3.67	6.04	1.88	1.88	1.18	lb	0.87	1.69
FIRG114	1	1 1/4	mm	55.0	55.0	89.8	55.0	106.0	172.8	59.8	59.8	36.0	Kg	0.641	1.215
			inch	2.17	2.17	3.54	2.17	4.17	6.80	2.35	2.35	1.42	lb	1.41	2.68
FIRG112	1 1/2	1 1/2	mm	65.0	65.0	111.1	80.0	132.4	214.9	69.8	72.0	57.0	Kg	1.665	2.820
			inch	2.56	2.56	4.37	3.15	5.21	8.46	2.75	2.83	2.24	lb	3.67	6.22
FIRG200	2	2	mm	75.0	80.0	123.8	100.0	156.6	241.5	83.5	88.5	73.0	Kg	2.259	5.100
			inch	2.95	3.15	4.87	3.94	6.17	9.51	3.29	3.48	2.87	lb	4.98	11.24



## FIRG-NPT and SAE Thread\_ISO 16028

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	PART DESCRIPTION
<b>FIRG NPT THREAD</b>					
COUPLER	1/4	1/4	NPT	800801000	F. FIRG 14 NPT
NIPPLE	1/4	1/4	NPT	800801001	M. FIRG 14 NPT
COUPLER	3/8	1/2	NPT	800801002	F. FIRG 12 NPT
NIPPLE	3/8	1/2	NPT	800801003	M. FIRG 12 NPT
COUPLER	3/8	3/8	NPT	800801004	F. FIRG 38 NPT
NIPPLE	3/8	3/8	NPT	800801005	M. FIRG 38 NPT
COUPLER	1/2	1/2	NPT	800801006	F. FIRG 12A NPT
NIPPLE	1/2	1/2	NPT	800801007	M. FIRG 12A NPT
COUPLER	1/2	3/4	NPT	800801008	F. FIRG 34 NPT
NIPPLE	1/2	3/4	NPT	800801009	M. FIRG 34 NPT
COUPLER	5/8	3/4	NPT	800801010	F. FIRG 34B NPT
NIPPLE	5/8	3/4	NPT	800801011	M. FIRG 34B NPT
COUPLER	3/4	3/4	NPT	800801020	F. FIRG 34A NPT
NIPPLE	3/4	3/4	NPT	800801021	M. FIRG 34A NPT
COUPLER	3/4	1	NPT	800801012	F. FIRG 100 NPT
NIPPLE	3/4	1	NPT	800801013	M. FIRG 100 NPT
COUPLER	1	1 1/4	NPT	800801014	F. FIRG 114 NPT
NIPPLE	1	1 1/4	NPT	800801015	M. FIRG 114 NPT
COUPLER	1 1/2	1 1/2	NPT	800801016	F. FIRG 112 NPT
NIPPLE	1 1/2	1 1/2	NPT	800801017	M. FIRG 112 NPT
COUPLER	2	2	NPT	800801018	F. FIRG 200 NPT
NIPPLE	2	2	NPT	800801019	M. FIRG 200 NPT
<b>FIRG SAE THREAD</b>					
COUPLER	1/4	3/8	SAE	800804000	F. FIRG 14 3/8 SAE
NIPPLE	1/4	3/8	SAE	800804001	M. FIRG 14 3/8 SAE
COUPLER	3/8	1/2	SAE	800804002	F. FIRG 38 1/2 SAE
NIPPLE	3/8	1/2	SAE	800804003	M. FIRG 38 1/2 SAE
COUPLER	3/8	5/8	SAE	800804004	F. FIRG 12 5/8 SAE
NIPPLE	3/8	5/8	SAE	800804005	M. FIRG 12 5/8 SAE
COUPLER	1/2	5/8	SAE	800804006	F. FIRG 12A 5/8 SAE
NIPPLE	1/2	5/8	SAE	800804007	M. FIRG 12A 5/8 SAE
COUPLER	1/2	3/4	SAE	800804008	F. FIRG 34 SAE
NIPPLE	1/2	3/4	SAE	800804009	M. FIRG 34 SAE
COUPLER	5/8	3/4	SAE	800804010	F. FIRG 34B SAE
NIPPLE	5/8	3/4	SAE	800804011	M. FIRG 34B SAE
COUPLER	3/4	3/4	SAE	800804020	F. FIRG 34A SAE
NIPPLE	3/4	3/4	SAE	800804021	M. FIRG 34A SAE
COUPLER	3/4	1	SAE	800804012	F. FIRG 100 SAE
NIPPLE	3/4	1	SAE	800804013	M. FIRG 100 SAE
COUPLER	1	1 1/4	SAE	800804014	F. FIRG 114 SAE
NIPPLE	1	1 1/4	SAE	800804015	M. FIRG 114 SAE
COUPLER	1 1/2	1 1/2	SAE	800804016	F. FIRG 112 SAE
NIPPLE	1 1/2	1 1/2	SAE	800804017	M. FIRG 112 SAE
COUPLER	2	2	SAE	800804018	F. FIRG 200 SAE
NIPPLE	2	2	SAE	800804019	M. FIRG 200 SAE



COUPLER



NIPPLE