

Series FG • Carbon Steel
Product Description

Flat Face screw-to-connect couplings of the FG Series from STAUFF consist of a female body with a screw sleeve and a male tip with external thread. The Series is developed for particularly heavy-duty applications for connecting hydraulic lines up to DN31,5 (1 1/4").

Coupling (screwing) and uncoupling (unscrewing) of the two halves is safe and very easy. After the connection is complete, all internal components have minimal play or clearance, which significantly reduces the risk of material fatigue.

Another advantage is that the risk of permanent indentation, so-called "brinelling", on the surface of the male tip is eliminated, which can occur with push-to-connect couplings in similar extreme applications.

The proven design is suitable for use in heavy construction and transport equipment, oil and gas platforms, blow out preventer (BOP) systems and gensets. Other applications include heavy lifting equipment, loaders/trailers, Drilling rigs, Piling Rigs and other demanding hydraulic applications.

The FG Series is available in nominal sizes 10, 12, 16, 19, 25, 31,5 (3/8" - 1 1/4").

The nominal sizes 12, 16, 19 and 25 are certified according to API-16D (American Petroleum Institute) and EUB Directive 036 by LRQA (Lloyd's Register): Fire resistance test at 345 bar (5000 PSI) and a flametemperature of 700° C (1300° F).

Features

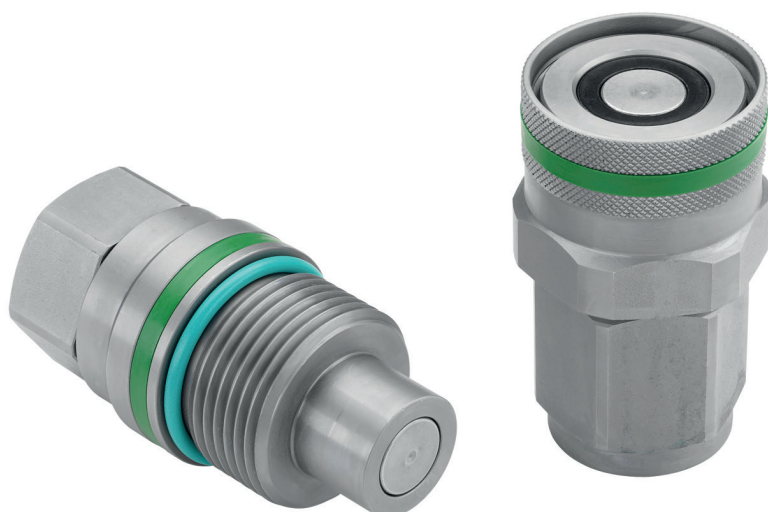
- Flat Face
- Coupling made from carbon steel with Zinc/Nickel surface coating
- Sealing's made from NBR (Buna-N®), PTFE, PU, POM
- Heavy duty internal components
- Male tip or female can be connected up to 250 bar (3626 PSI) by hand or easy with tool
- Tested acc. API-16D and acc. EUB Directive 036 (nominal sizes 12, 16, 19, 25)
- Feature: Green O-Ring
External O-ring as a safety feature to indicate the complete/correct connection of the male tip and female body (the O-ring must be covered by the sleeve of the female body)

Applications

	Construction Machinery		Hydraulic trailers		Lifting Equipment
	Oil and gas industry (onshore)		Hydraulic tippers		

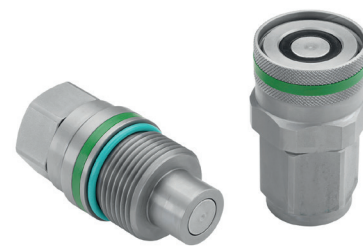
Top Features

	Zinc/Nickel coating		Designed for secure connection		Connect Under pressure
	Vibration resistant				

FG


Series FG • Carbon Steel

Material	Carbon Steel
Surface Finishing	Zink/Nickel
Standard Seal Material(s)	NBR (Buna-N®), PTFE, PU, POM
Working Temperature	-25° C ... +100° C / -13° F ... +212° F
Valve Design	Flat Face
Connection	Screw
Disconnection	Screw
Connect Under Pressure	Male Tip or Female Body up to 250 bar (3626 PSI) allowed
Disconnec Under Pressure	allowed
Application	Construction Machinery, Industrial Hydraulic, Onshore
ISO Interchange	-



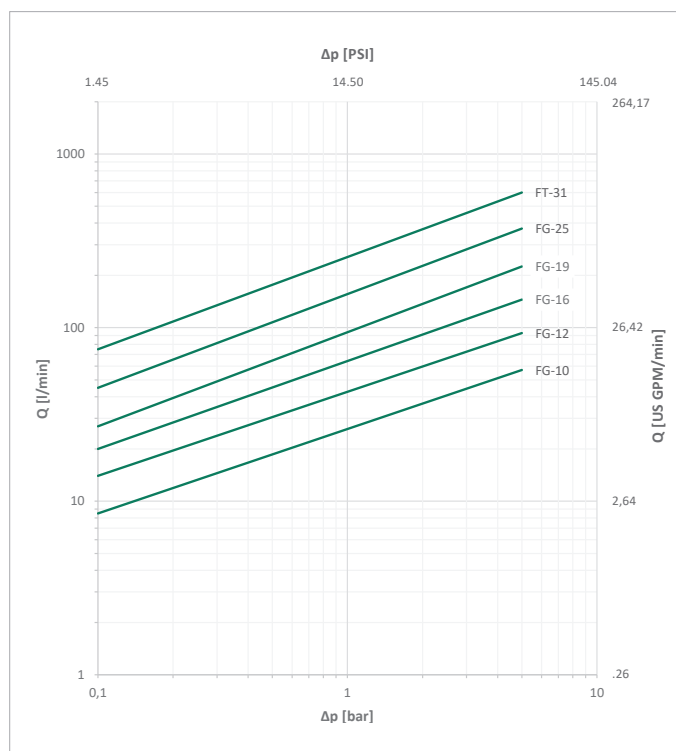
Technical Data

Series	BG	DN Zoll Inch	DN metric ISO 4397	Q _{max}		Working Pressure Connected		Female Body		Male Tip		Spillage	
				l/min	US GPM	bar	PSI	bar	PSI	bar	PSI	ml	fl oz
FG-10	2	3/8"	10	46	12.15	550	7977	330	4786	550	7977	0,01	.0003
FG-12	3	1/2"	12,5	90	23.77	550	7977	330	4786	550	7977	0,01	.0003
FG-16	4A	5/8"	16	148	39.09	550	7977	330	4786	550	7977	0,02	.0007
FG-19	4	3/4"	19	200	52.83	500	7252	330	4786	500	7252	0,01	.0003
FG-25	5	1"	25	378	99.86	470	6817	300	4351	470	6817	0,005	.00017
FT-31	6	1 1/4"	31,5	600	158.50	400	5802	400	5802	400	5802		

Series	Bursting Pressure Connected		Female Body		Male Tip		Maximum pressure for connecting						Maximum pressure for disconnecting	
							Pressure on Male Tip		Pressure on Female Body		Pressure on Female Body			
	bar	PSI	bar	PSI	bar	PSI	Female Body pressureless	PSI	Male Tip pressureless	PSI	Pressure on Male Tip	PSI	bar	PSI
FG-10	1400	20305	1000	14504	1400	20305	250	3626	250	3626	250	3626	250	3626
FG-12	1400	20305	1000	14504	1400	20305	250	3626	250	3626	200	2901	200	2901
FG-16	1400	20305	1000	14504	1400	20305	250	3626	250	3626	200	2901	200	2901
FG-19	1400	20305	1000	14504	1400	20305	250	3626	250	3626	150	2176	150	2176
FG-25	1200	17405	800	11603	1200	17405	250	3626	250	3626	150	2176	150	2176
FT-31	1100	15954	1100	15954	1100	15954	250	3626	150	2176	50	725		

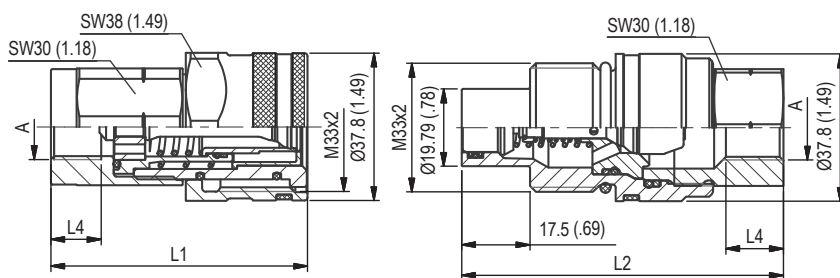
The indicated pressure ratings only apply to the coupling itself and depend on the connection type.

Flow Characteristics



Please note: Unless otherwise stated, all flow characteristics have been determined with hydraulic oil with a kinematic viscosity of 28,8 - 35,2 mm²/s (28,8 - 35,2 cSt) and are only valid for components with non-reducing connections.

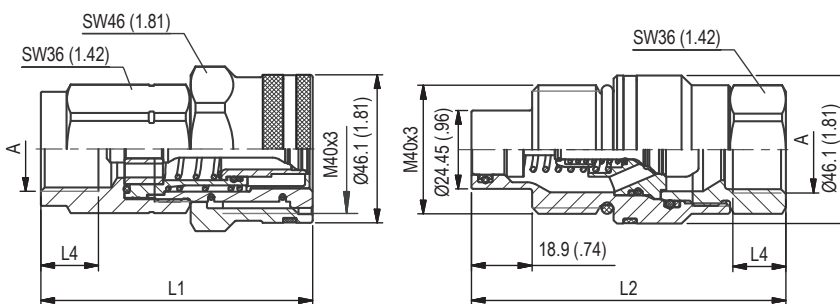




Insertion Male Tip = 16,9 (.67)
All dimensions in mm (inch).

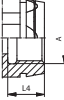
Series FG-10 • BG 2 • Nominal Size 10

	Port A	Dimensions (mm/in)					Female Body Ordering Codes	Weight (^{kg} /lbs) ca. per 100	Male Tip Ordering Codes	Weight (^{kg} /lbs) ca. per 100
		ØD2	L1	L2	L3	L4				
Female Thread according to DIN 3852-2 - ANSI B 1.20.3 - SAE J1926-1 - ISO 11926-1										
	G 3/8"		65,8	82,3		12,9	QRC-FG-10-F-G06-S1-W3	34,70	QRC-FG-10-M-G06-S5-W3	38,40
			2.59	3.25		.51		76.50		84.66
	G 1/2"		70.4	82,3		14	QRC-FG-10-F-G08-S1-W3	35,20	QRC-FG-10-M-G08-S5-W3	36,80
			2.77	3.25		.55		77.60		81.13
	NPTF 3/8" -18		65,8	82,3			QRC-FG-10-F-NF06-S1-W3	34,50	QRC-FG-10-M-NF06-S5-W3	38,20
			2.59	3.25				76.06		84.22
	NPTF 1/2" -14		71,4	82,3			QRC-FG-10-F-NF08-S1-W3	36,00	QRC-FG-10-M-NF08-S5-W3	36,90
			2.81	3.25				79.37		81.35
	UNF 3/4" -16		70,4	82,3		16	QRC-FG-10-F-U08-S1-W3	35,60	QRC-FG-10-M-U08-S5-W3	37,20
			2.77	3.25		.63		78.48		82.01



Insertion Male Tip = 18,4 (.72)
All dimensions in mm (inch).

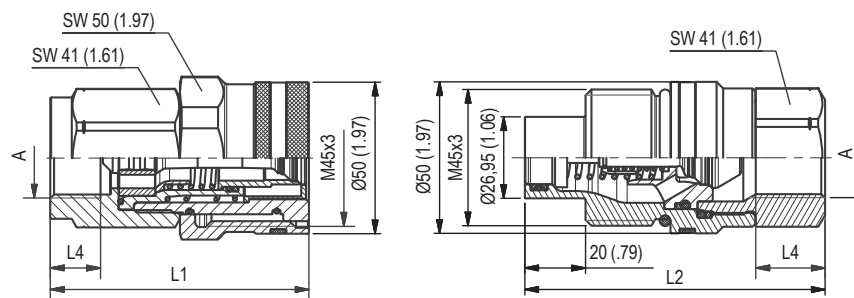
Series FG-12 • BG 3 • Nominal Size 12,5

	Port A	Dimensions (^{mm} / _{in})					Female Body Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100
		ØD2	L1	L2	L3	L4				
Female Thread according to DIN 3852-2 - ANSI B 1.20.3 - SAE J1926-1 - ISO 11926-1										
	G 1/2"	84,7 3.34	96 3.78		14 .55	QRC-FG-12-F-G08-S1-W3	67,10 147.93	QRC-FG-12-M-G08-S5-W3	67,10 147.93	
	G 3/4"	84,7 3.34	97 3.82		18 .71	QRC-FG-12-F-G12-S1-W3	63,70 140.43	QRC-FG-12-M-G12-S5-W3	64,80 142.86	
	NPTF 1/2" -14	83,7 3.30	96 3.78			QRC-FG-12-F-NF08-S1-W3	66,80 147.27	QRC-FG-12-M-NF08-S5-W3	67,60 149.03	
	NPTF 3/4" -14	84,7 3.34	96 3.78			QRC-FG-12-F-NF12-S1-W3	64,90 143.08	QRC-FG-12-M-NF12-S5-W3	65,00 143.30	
	UNF 3/4" -16	84,7 3.35	96 3.78		16 .63	QRC-FG-12-F-U08-S1-W3	67,60 149.03	QRC-FG-12-M-U08-S5-W3	67,70 149.25	
	UN 1" 1/16 -12	84,7 3.35	98 3.86		19 .75	QRC-FG-12-F-U12-S1-W3	63,00 138.89	QRC-FG-12-M-U12-S5-W3	64,60 142.42	

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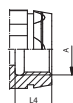
Note: The connection of the two halves of a coupling is achieved depending on the type. It is important to observe the positive engagement of plug-type couplings and the secure tightening of screw-type couplings to the limit stop of the thread. Forced or improper separation will result in malfunction of the coupling.

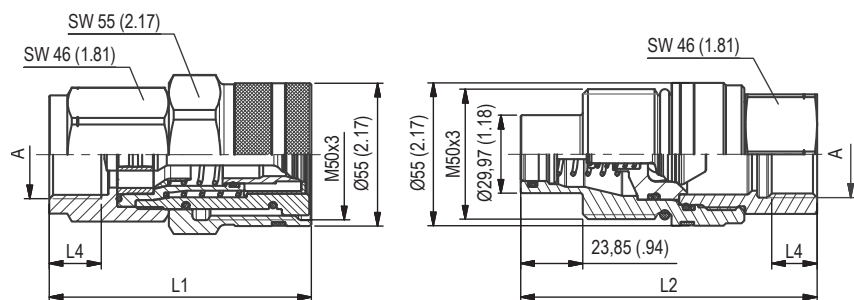




Insertion Male Tip = 19,0 (.75)
All dimensions in mm (inch).

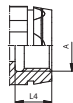
Series FG-16 ▪ BG 4A ▪ Nominal Size 16

	Port A	Dimensions (^{mm} / _{in})					Female Body Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100
		ØD2	L1	L2	L3	L4				
Female Thread according to DIN 3852-2 - ANSI B 1.20.3 - SAE J1926-1 - ISO 11926-1										
	G 3/4"		85 3.35	99 3.90		16,5 .65	QRC-FG-16-F-G12-S1-W3	93 205.05	QRC-FG-16-M-G12-S5-W3	76,9 169.54
	G 1"		89 3.50	105 4.13		19 .75	QRC-FG-16-F-G16-S1-W3	88,5 195.10	QRC-FG-16-M-G16-S5-W3	75,6 166.67
	NPTF 3/4" -14		85 3.35	102 4.02			QRC-FG-16-F-NF12-S1-W3	91,7 202.16	QRC-FG-16-M-NF12-S5-W3	79,2 174.60
	UN 1" 1/16 -12		88 3.46	102 4.02		19 .75	QRC-FG-16-F-U12-S1-W3	93,5 206.13	QRC-FG-16-M-U12-S5-W3	78,5 173.06



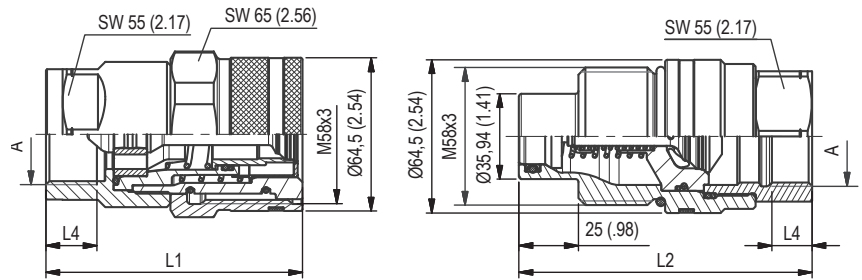
Insertion Male Tip = 22,7 (.89)
All dimensions in mm (inch).

Series FG-19 ▪ BG 4 ▪ Nominal Size 19

	Port A	Dimensions (^{mm} / _{in})					Female Body Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100
		ØD2	L1	L2	L3	L4				
Female Thread according to DIN 3852-2 - ANSI B 1.20.3 - SAE J1926-1 - ISO 11926-1										
	G 3/4"		101 3.98	114 4.49		16 .63	QRC-FG-19-F-G12-S1-W3	120,60 265.88	QRC-FG-19-M-G12-S5-W3	115,90 255.52
	G 1"		101 3.98	114 4.49		20 .79	QRC-FG-19-F-G16-S1-W3	115,20 253.97	QRC-FG-19-M-G16-S5-W3	107,60 237.22
	NPTF 1" -11 1/2		101 3.98	114 4.49			QRC-FG-19-F-NF16-S1-W3	116,60 257.06	QRC-FG-19-M-NF16-S5-W3	109,40 241.16
	UN 1" 5/16 -12		101 3.98	114 4.49		20 .79	QRC-FG-19-F-U16-S1-W3	114,70 252.87	QRC-FG-19-M-U16-S5-W3	109,50 241.40

Note: The connection of the two halves of a coupling is achieved depending on the type. It is important to observe the positive engagement of plug-type couplings and the secure tightening of screw-type couplings to the limit stop of the thread. Forced or improper separation will result in malfunction of the coupling.

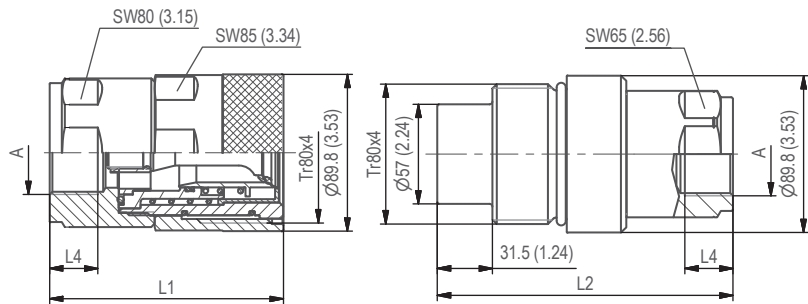




Insertion Male Tip = 24,1 (.95)
All dimensions in mm (inch).

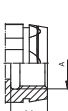
Series FG-25 ▪ BG 5 ▪ Nominal Size 25

	Port A	Dimensions (mm/in)					Female Body	Weight (^{kg} / _{lbs}) ca.	Male Tip	Weight (^{kg} / _{lbs}) ca.
		ØD2	L1	L2	L3	L4	Ordering Codes	per 100	Ordering Codes	per 100
	Female Thread according to DIN 3852-2 - ANSI B 1.20.3 - SAE J1926-1 - ISO 11926-1									
	G 1" 1/4		108	123,5		21,5	QRC-FG-25-F-G20-S1-W3	155,00	QRC-FG-25-M-G20-S5-W3	151,00
		4.25	4.86		.85	341.71		332.90		
	NPTF 1"¼ -11½		108	126,4			QRC-FG-25-F-NF20-S1-W3	155,00	QRC-FG-25-M-NF20-S5-W3	154,00
		4.25	4.98			341.71		339.51		
	UN 1" 5/8 - 12		108	126,4		20	QRC-FG-25-F-U20-S1-W3	155,00	QRC-FG-25-M-U20-S5-W3	154,00
		4.25	4.98		.79	341.71		339.51		



SW: Width across flats. All dimensions in mm (inch).

Series FT-31 ▪ BG 6 ▪ Nominal Size 31,5

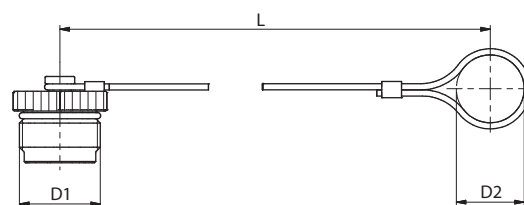
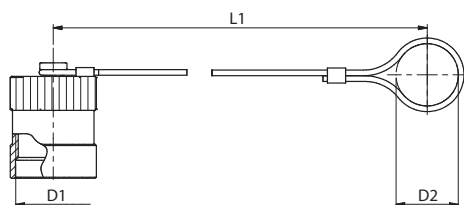
	Port A	Dimensions (mm/in)					Female Body	Weight (^{kg} /lbs) ca.	Male Tip	Weight (^{kg} /lbs) ca.
		ØD2	L1	L2	L3	L4	Ordering Codes	per 100	Ordering Codes	per 100
	Female Thread according to DIN 3852-2 - ANSI B 1.20.3 - SAE J1926-1 - ISO 11926-1									
	G 1" 1/2		134	169		22	QRC-FT-31-F-G24-S1-W3	442,20	QRC-FT-31-M-G24-S2-W3	402
			5.28	6.65		.87		974.88		886.26
	NPTF 1"½ -11		134	169			QRC-FT-31-F-NF24-S1-W3	444,20	QRC-FT-31-M-NF24-S2-W3	404,10
			5.28	6.65				979.29		890.89
	UN 1" 7/8 -12		134	169		19	QRC-FT-31-F-U24-S1-W3	439,20	QRC-FT-31-M-U24-S2-W3	400,50
			5.28	6.65		.75		968.27		882.95

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Note: The connection of the two halves of a coupling is achieved depending on the type. It is important to observe the positive engagement of plug-type couplings and the secure tightening of screw-type couplings to the limit stop of the thread. Forced or improper separation will result in malfunction of the coupling.



Series FG • Dust Protection



Dimensions (^{mm} / _{in})			Material	Dust Plug for Male Tip
D1	D2	L		Ordering Codes
M33x2	30 1.18	175 6.89	Aluminium with chain	QRC-FG-10-DM-30-W89-SI
M40x3	40,5 1.59	215 8.46	Aluminium with chain	QRC-FG-12-DM-41-W89-SI
M45x3	42,5 1.67	230 9.06	Aluminium with chain	QRC-FG-16-DM-43-W89-SI
M50x3	46 1.81	245 9.65	Aluminium with chain	QRC-FG-19-DM-46-W89-SI
M58x3	55 2.17	275 10.83	Aluminium with chain	QRC-FG-25-DM-55-W89-SI
TR80x4	71,5 2.81	350 13.78	Aluminium with chain	QRC-FG-31-DM-72-W89-SI

Dimensions (^{mm} / _{in})			Material	Dust Cap for Female Body
D1	D2	L		Ordering Codes
M33x2	30 1.18	175 6.89	Aluminium with chain	QRC-FG-10-DF-30-W89-SI
M40x3	36 1.42	215 8.46	Aluminium with chain	QRC-FG-12-DF-36-W89-SI
M45x3	42,5 1.67	230 9.06	Aluminium with chain	QRC-FG-16-DF-43-W89-SI
M50x3	46 1.81	245 9.65	Aluminium with chain	QRC-FG-19-DF-46-W89-SI
M58x3	55 2.17	275 10.83	Aluminium with chain	QRC-FG-25-DF-55-W89-SI
TR80x4	71,5 2.81	350 13.78	Aluminium with chain	QRC-FG-31-DF-72-W89-SI

