

Series RH • Carbon Steel
Product Description

Flat Face screw-to-connect couplings of the RH Series from STAUFF consist of a female body with external thread and a male tip with a screw sleeve. The Series is developed for extra heavy-duty applications for connecting of large diameter hydraulic lines up to DN 25 (1").

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 duty construction and transportation modules, drilling rigs and trailer equipment. Other applications may, depending on the pressure and flow characteristics, include oil equipment steel mill machinery, and other demanding hydraulic applications.

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

Features

- Flat Face
- Coupling made from carbon steel with Zinc/Nickel surface coating
- Sealing's made from FKM (Viton®), HNBR, PTFE
- Heavy duty internal components
- Suitable for panel mounting

Applications


Self-Propelled
Modular Transporters

Top Features


Zinc/Nickel coating



Vibration resistant



Suitable for
panel mounting



Designed for secure
connection

RH


Series RH ▪ Carbon Steel

Material	Carbon Steel
Surface Finishing	Zinc-Nickel
Standard Seal Material(s)	NBR (Buna-N®), PTFE ²
Working Temperature	-30° C ... +100° C / -22° F ... +212° F
Valve Design	Flat Valve
Connection	Screw
Disconnection	Screw
Connect Under Pressure	Max. 20 bar / 290 PSI Residual Pressure with Tools allowed
Application	Construction Machinery
ISO Interchange	-



² Alternative seal materials are available on request.

Technical Data

Series	BG	DN Zoll Inch	DN metric ISO 4397	Q _{max}		Working Pressure*		Bursting Pressure Connected		Female Body		Male Tip		Spillage	
				l/min	US GPM	bar	PSI	bar	PSI	bar	PSI	bar	PSI	ml	fl oz
RH-10	2	3/8"	10	46	21094	420	6092	1300	18855	1350	19580	1450	210301	0,1	.0034
RH-12	3	1/2"	12,5	106	18.49	420	6092	1260	18275	1260	18275	1260	18275	0,16	.0054
RH-16	4	5/8"	16	148	27.77	420	6092	1260	18275	1260	18275	1260	18275	1,02	.0344
RH-19	6	3/4"	19	200	52.83	420	6092	1400	20305	1400	20305	1200	17405	0,86	.0291
RH-25	8	1"	25	500	132.09	420	6092	1150	16679	1100	15954	900	13053	2,84	.0960

Series	Maximum pressure for connecting				Maximum pressure	
	Pressure on Male Tip		Pressure on Female Body for disconnecting		Male Tip pressureless	
	bar	PSI	bar	PSI	bar	PSI
RH-10	100	1450	100	1450	250	3626
RH-12	100	1450	80	1160	250	3626
RH-16	100	1450	80	1160	-	-
RH-19	100	1450	25	362	200	2900
RH-25	100	1450	50	725	80	1160

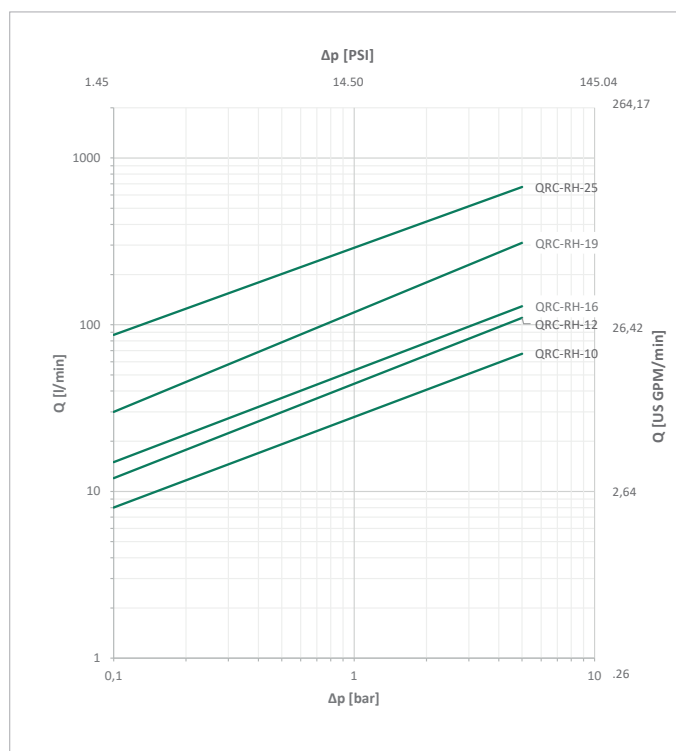
Notes:

1. Connecting the Female Body under residual pressure will result in increased coupling leakage.
2. Connecting under pressure will result in increased coupling torques, which may require the use of tools.
3. When disconnecting under pressure, it must be taken into account that the pressure remains in both halves of the line. The system must ensure that the pressure in both halves of the line is reduced to below the permissible connecting pressures before reconnecting.

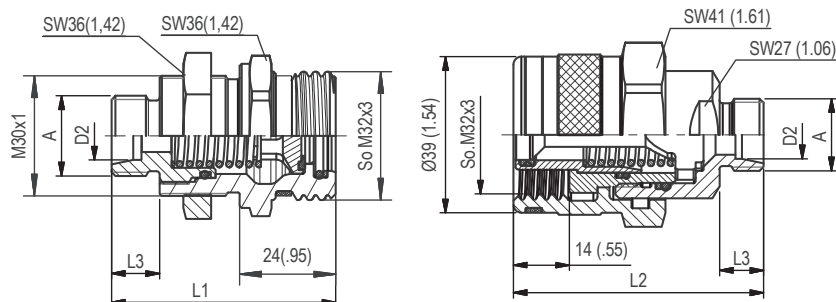
The indicated pressure ratings only apply to the coupling itself and depend on the connection type.

* in connected and disconnected condition.

Flow Characteristics

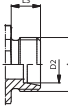


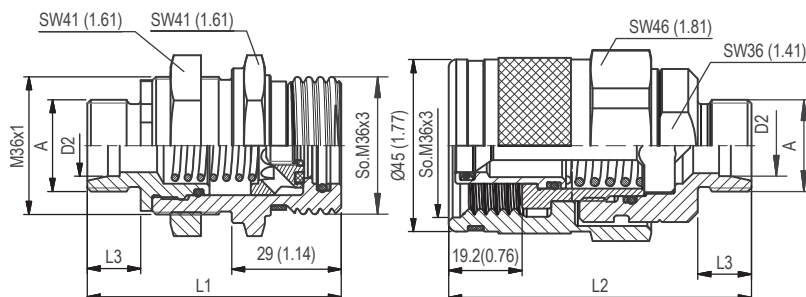
Please note: Unless otherwise stated, all flow characteristics have been determined with hydraulic oil with a kinematic viscosity of 28,8 - 35,2 mm²/s (28,8 - 35,2 cSt) and are only valid for components with non-reducing connections.



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

Series RH-10 ▪ BG 2 ▪ Nominal Size 10

	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
Male Thread with 24° Conical Bore - Shape W according to DIN 3861										
	M14x1.5	8L	54 2.13	61 2.40	10 .39		QRC-RH-10-F-08L-S1-W3	20,80 45.86	QRC-RH-10-M-08L-BT-W3	31,80 70.11
	M16x1.5	10L	55 2.17	61 2.40	11 .43		QRC-RH-10-F-10L-S1-W3	21 46.30	QRC-RH-10-M-10L-BT-W3	32 70.55
	M18x1.5	12L	55 2.17	61 2.40	11 .43		QRC-RH-10-F-12L-S1-W3	21,20 46.74	QRC-RH-10-M-12L-BT-W3	32,20 70.99
	M22x1.5	15L	56 2.20	62 2.44	12 .47		QRC-RH-10-F-15L-S1-W3	22 48.50	QRC-RH-10-M-15L-BT-W3	32,90 72.53
	M18x1.5	10S	56 2.20	62 2.44	12 .47		QRC-RH-10-F-10S-S1-W3	21,50 47.40	QRC-RH-10-M-10S-BT-W3	32,60 71.87
	M20x1.5	12S	56 2.20	62 2.44	12 .47		QRC-RH-10-F-12S-S1-W3	22 48.50	QRC-RH-10-M-12S-BT-W3	33 72.75
	M22x1.5	14S	58 2.28	64 2.52	14 .55		QRC-RH-10-F-14S-S1-W3	22,70 50.04	QRC-RH-10-M-14S-BT-W3	33,80 74.52
	M24x1.5	16S	58 2.28	64 2.52	14 .55		QRC-RH-10-F-16S-S1-W3	23 50.71	QRC-RH-10-M-16S-BT-W3	33,90 74.74

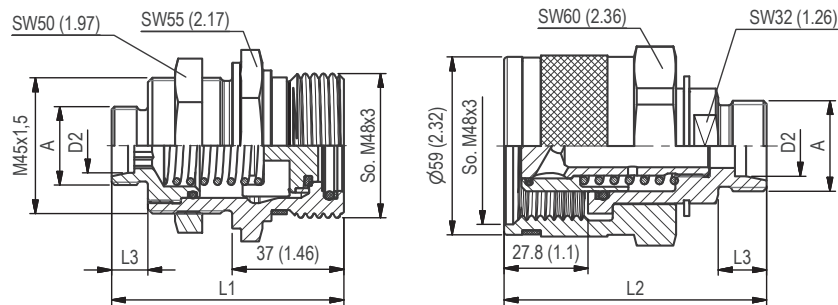


SW: Width across flats. All dimensions in mm (inch).

Series RH-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				
Male Thread with 24° Conical Bore - Shape W according to DIN 3861										
	M22x1.5	15L	65	78	12		QRC-RH-12-F-15L-S1-W3	31,20	QRC-RH-12-M-15L-BT-W3	56,40
			2.56	3.07	.47			68.78		124.34
	M24x1.5	16S	67	80	14		QRC-RH-12-F-16S-S1-W3	32	QRC-RH-12-M-16S-BT-W3	57,30
			2.64	3.15	.55			70.55		126.32
	M30x2	20S	69,5	81,2	16		QRC-RH-12-F-20S-S1-W3	34,80	QRC-RH-12-M-20S-BT-W3	59,50
			2.74	3.20	.63			76.72		131.18

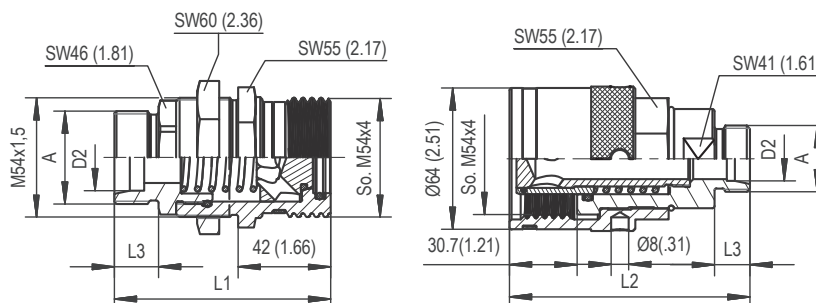
Note: The connection of the two halves of a coupling is achieved depending on the type. It is important to observe the positive engagement of plug-type couplings and the secure tightening of screw-type couplings to the limit stop of the thread. Forced or improper separation will result in malfunction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



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

Series RH-16 ▪ BG 4 ▪ 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				
Male Thread with 24° Conical Bore - Shape W according to DIN 3861										
	M22x1,5	15L	77 3.03	77 3.03	12 .47		QRC-RH-16-F-15L-S1-W3	61,40 135.36	QRC-RH-16-M-15L-BT-W3	94 207.23
	M26x1,5	18L	77 3.03	77 3.03	12 .47		QRC-RH-16-F-18L-S1-W3	61,60 135.80	QRC-RH-16-M-18L-BT-W3	94,30 207.90
	M24x1,5	16S	79 3.11	79 3.11	14 .55		QRC-RH-16-F-16S-S1-W3	61,70 136.03	QRC-RH-16-M-16S-BT-W3	94,50 208.34
	M30x2	20S	81 3.19	81 3.19	16 .63		QRC-RH-16-F-20S-S1-W3	62 136.69	QRC-RH-16-M-20S-BT-W3	94,90 209.22

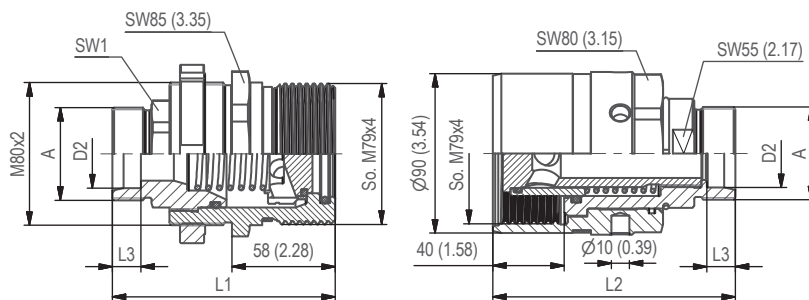


SW: Width across flats. All dimensions in mm (inch).

Series RH-19 ▪ BG 6 ▪ 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				
		Male Thread with 24° Conical Bore - Shape W according to DIN 3861								
	M26x1,5	18L	90 3.54	103 4.06	12 .47		QRC-RH-19-F-18L-S1-W3	88 194.01	QRC-RH-19-M-18L-BT-W3	128,80 283.96
	M30x2	22L	92 3.62	105 4.13	14 .55		QRC-RH-19-F-22L-S1-W3	88,80 195.77	QRC-RH-19-M-22L-BT-W3	129,60 285.72
	M36x2	28L	92 3.62	107 4.21	14 .55		QRC-RH-19-F-28L-S1-W3	90 198.42	QRC-RH-19-M-28L-BT-W3	130,60 287.92
	M30x2	20S	95 3.74	109 4.29	16 .63		QRC-RH-19-F-20S-S1-W3	92,20 203.27	QRC-RH-19-M-20S-BT-W3	131,60 290.13
	M36x2	25S	97 3.82	111 4.37	18 .71		QRC-RH-19-F-25S-S1-W3	93 205.03	QRC-RH-19-M-25S-BT-W3	132,30 291.67
	M42x2	30S	99 3.90	113 4.45	20 .79		QRC-RH-19-F-30S-S1-W3	95,80 211.20	QRC-RH-19-M-30S-BT-W3	134,30 296.08

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.

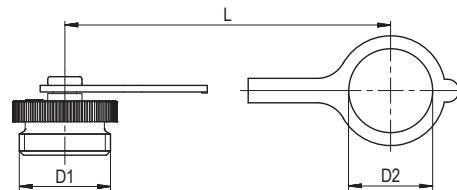
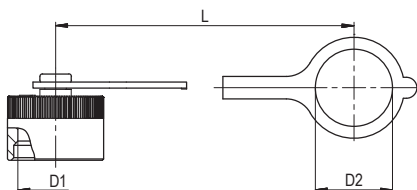


SW: Width across flats. All dimensions in mm (inch).

Series RH-25 ▪ BG 8 ▪ Nominal Size 25

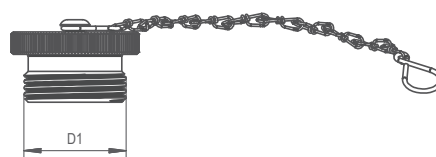
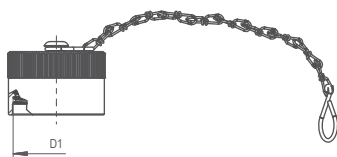
	Port A	Dimensions (^{mm} / _{in})						Female Body Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip Ordering Codes	Weight (^{kg} / _{lbs}) ca. per 100
		ØD2	L1	L2	L3	L4	SW1				
		Male Thread with 24° Conical Bore - Shape W according to DIN 3861									
	M45x2	35L	122	136	16		46	QRC-RH-25-F-35L-S1-W3	273	QRC-RH-25-M-35L-BT-W3	335
			4.80	5.35	.63		1.81		601.86		738.55
	M52x2	42L	122	136	16		55	QRC-RH-25-F-42L-S1-W3	283	QRC-RH-25-M-42L-BT-W3	335
			4.80	5.35	.63		2.17		623.91		738.55
	M52x2	38S	125	136	22		55	QRC-RH-25-F-38S-S1-W3	285,50	QRC-RH-25-M-38S-BT-W3	334,50
			4.92	5.35	.87		2.17		629.42		737.45

Series RH ▪ Dust Protection



Dimensions (mm/in)			Material	Dust Cap for Female Body Ordering Codes
D1	D2	L		
M32x3	36,5 1.44	190 7.48	Plastic (Colour: Red)	QRC-RH-10-DF-37-K-RD
M32x3	29,5 1.16	185 7.28	Plastic (Colour: Red)	QRC-RH-10-DF-30-K-RD
M36x3	41 1.61	190 7.48	Plastic (Colour: Red)	QRC-RH-12-DF-41-K-RD
M48x3	55 2.17	210 8.27	Plastic (Colour: Red)	QRC-RH-16-DF-55-K-RD

Dimensions (mm/in)			Material	Dust Plug for Male Tip Ordering Codes
D1	D2	L		
M32x3	29,5 1.16	185 7.28	Plastic (Colour: Red)	QRC-RH-10-DM-30-K-RD
M36x3	29,5 1.16	185 7.28	Plastic (Colour: Red)	QRC-RH-12-DM-30-K-RD
M48x3	36,5 1.44	190 7.48	Plastic (Colour: Red)	QRC-RH-16-DM-37-K-RD



Dimensions (mm/in)			Material	Dust Cap for Female Body Ordering Codes
D1	D2	L		
So. M48x3			Aluminium silver with chain	QRC-RH-16-DF-CN-W89-SI
So. M54x4			Aluminium silver with chain	QRC-RH-19-DF-CN-W89-SI
So. M79x4			Aluminium silver with chain	QRC-RH-25-DF-CN-W89-SI

Dimensions (mm/in)			Material	Dust Plug for Male Tip Ordering Codes
D1	D2	L		
So. M48x3			Aluminium silver with chain	QRC-RH-16-DM-CN-W89-SI
So. M54x4			Aluminium silver with chain	QRC-RH-19-DM-CN-W89-SI
So. M79x4			Aluminium silver with chain	QRC-RH-25-DM-CN-W89-SI

In addition to the standard colours as stated above,
plastic dust caps are also available in blue, green, yellow and black.
Please use the color codes BU, GN, YE and BK respectively instead of RD.

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