

Series HR • Carbon Steel
Product Description

Screw-to-connect couplings of the HR Series from STAUFF consist of a female body with external thread and a male tip with a screw sleeve. The Series is developed for particularly heavy-duty, high pressure and high pulsing applications for connecting hydraulic lines up to DN38 (1 1/2").

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 machinery and available in nominal sizes 10, 12,5, 19, 25, 38 (3/8" - 1 1/2").

Features

- Poppet Valve
- Zinc-Plating and Thick-Film-Passivation (Chrome III)
- Can be connect under pressure up to 100 bar (1450 PSI)

Applications


Construction Machinery

Top Features


Vibration resistant



Connect Under pressure



Designed for secure connection



HR



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Material	Carbon Steel
Surface Finishing	Zinc-Plating and Thick-Film-Passivation (Chrome III)
Standard Seal Material(s)	NBR (Buna-N®) ²
Working Temperature	-25° C ... +100° C / -13° F ... +212° F
Valve Design	Poppet Valve
Connection	Screw
Disconnection	Screw
Connect Under Pressure	Male Tip and Female Body up to max. 100 bar / 1450 PSI allowed
Application	Construction Machinery
ISO Interchange	-



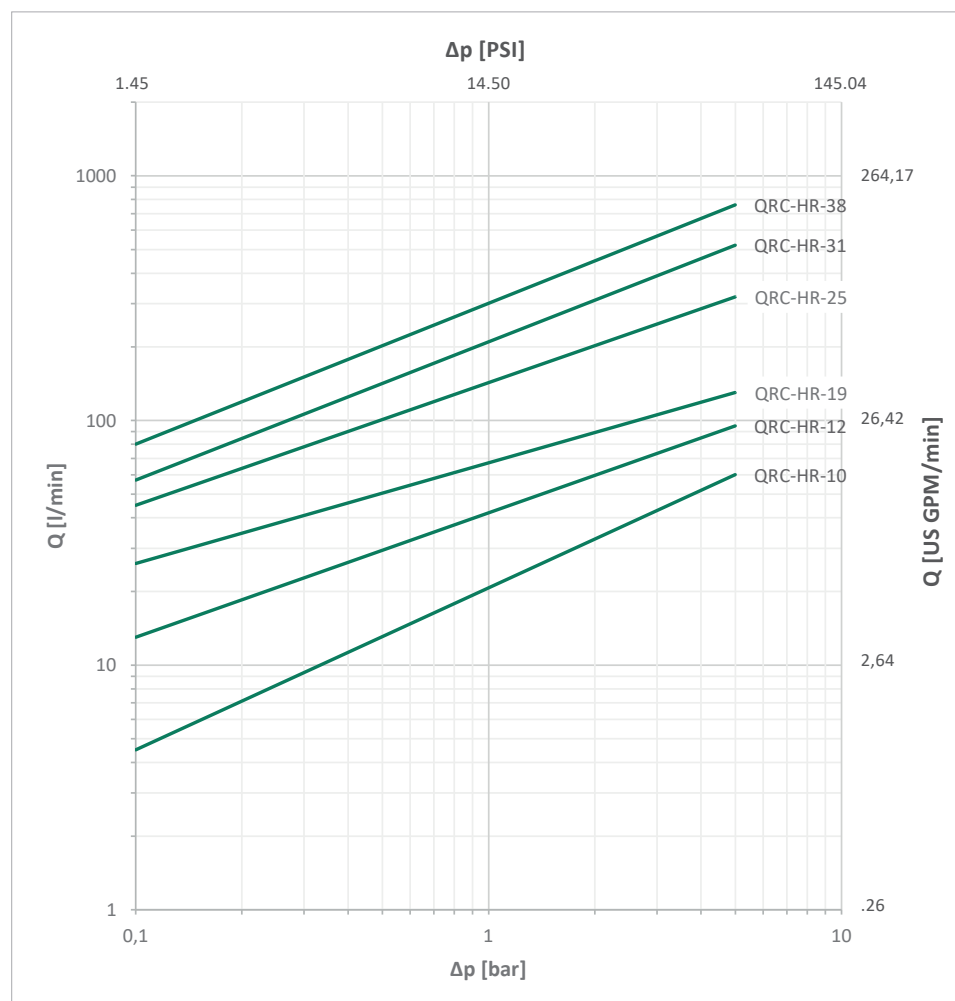
² Alternative seal materials are available on request.

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
HR-10	2	3/8"	10	50	13.21	610	8847	2450	35534	2450	35534	2600	37710	2	.0676
HR-12	3	1/2"	12,5	85	22.45	470	6817	1900	27557	2100	30458	1650	23931	3	.1014
HR-19	4	3/4"	19 (20)	120	31.70	400	5802	1250	18130	1500	21756	1250	18130	10	.3381
HR-25	6	1"	25	280	73.97	400	5802	1300	18855	1600	23206	1100	15954	16	.5410
HR-31	8	1 1/4"	31	460	121.52	320	4641	1300	18855	1300	18855	1200	17405	30	10.144
HR-38	10	1 1/2"	38	700	184.92	300	4351	1100	15954	1500	21756	950	13779	54	18.260

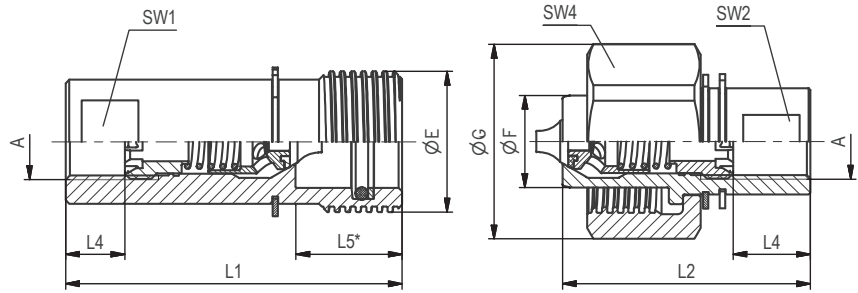
The indicated pressure ratings only apply to the coupling itself and depend on the connection type.

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.





SW: Width across flats. All dimensions in mm (inch). Drawing similar Series HR-12.

* Insertion Female Body.

Series HR-10 • BG 2 • Nominal Size 10

Port A	Dimensions (^{mm} / _{in})										Female Body	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip	Weight (^{kg} / _{lbs}) ca. per 100
	ØE	ØF	ØG	L1	L2	L4 min	L5	SW1	SW2	SW4	Ordering Codes		Ordering Codes	
Female Thread according to DIN 3852 - ISO 1179-1														
	G 3/8"	36	22	49	77	57	12	22	22	45	QRC-HR-10-F-G06-BT-W66	31,80	QRC-HR-10-M-G06-B-W66	35,20
		1.42	.87	1.93	3.03	2.24	.47	.87	.87	1.77		70.11		77.60
		36	22	49	77	57	12	22	22	45	QRC-HR-10-FD-G06-BT-W66-DM	37,10	QRC-HR-10-MD-G06-B-W66-DM	41
		1.42	.87	1.93	3.03	2.24	.47	.87	.87	1.77		81.79		90.39

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

Port A	Dimensions (^{mm} / _{in})										Female Body	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip	Weight (^{kg} / _{lbs}) ca. per 100
	ØE	ØF	ØG	L1	L2	L4 min	L5	SW1	SW2	SW4	Ordering Codes		Ordering Codes	
Female Thread according to DIN 3852 - ISO 1179-1														
	G 1/2"	40	26	55	95	70	14	30	26	50	QRC-HR-12-F-G08-BT-W66	48,40	QRC-HR-12-M-G08-B-W66	48
		1.57	1.02	2.16	3.74	2.76	.55	1.18	1.02	1.97		106.70		105.82
		40	26	55	95	70	14	30	26	50	QRC-HR-12-FD-G08-BT-W66-DM	54	QRC-HR-12-MD-G08-B-W66-DM	56,60
		1.57	1.02	2.16	3.74	2.76	.55	1.18	1.02	1.97		119.05		124.78

Series HR-19 • BG 4 • Nominal Size 19

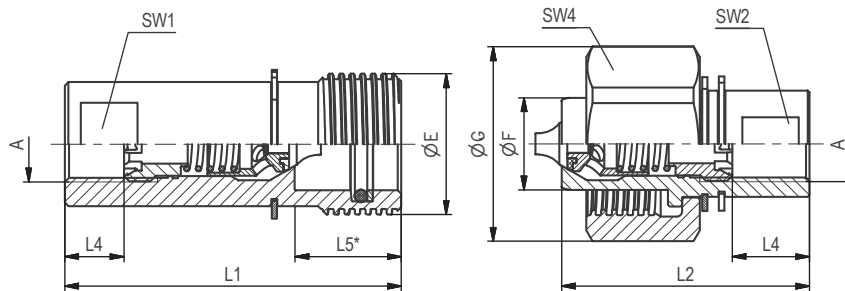
Port A	Dimensions (^{mm} / _{in})										Female Body	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip	Weight (^{kg} / _{lbs}) ca. per 100
	ØE	ØF	ØG	L1	L2	L4 min	L5	SW1	SW2	SW4	Ordering Codes		Ordering Codes	
Female Thread according to DIN 3852 - ISO 1179-1														
	G 3/4"	44,7	26	60	99	73	16	30	30	60	QRC-HR-19-F-G12-BT-W66	66	QRC-HR-19-M-G12-B-W66	59,90
		1.76	1.02	2.36	3.90	2.87	.63	1.18	1.18	2.36		145.51		132.06
		44,7	26	60	99	73	16	30	30	60	QRC-HR-19-FD-G12-BT-W66-DM	72,80	QRC-HR-19-MD-G12-B-W66-DM	68
		1.76	1.02	2.36	3.90	2.87	.63	1.18	1.18	2.36		160.50		149.91

Series HR-25 • BG 6 • Nominal Size 25

Port A	Dimensions (^{mm} / _{in})										Female Body	Weight (^{kg} / _{lbs}) ca. per 100	Male Tip	Weight (^{kg} / _{lbs}) ca. per 100
	ØE	ØF	ØG	L1	L2	L4 min	L5	SW1	SW2	SW4	Ordering Codes		Ordering Codes	
Female Thread according to DIN 3852 - ISO 1179-1														
	G 1"	58	36,8	77	106	81	18	30	40	77	QRC-HR-25-F-G16-BT-W66	117,90	QRC-HR-25-M-G16-B-W66	114,7
		2.28	1.45	3.02	4.17	3.19	.71	1.18	1.57	3.02		259.93		252.87
		58	36,8	77	106	81	18	30	40	77	QRC-HR-25-FD-G16-BT-W66-DM	125,70	QRC-HR-25-MD-G16-B-W66-DM	125,80
		2.28	1.45	3.02	4.17	3.19	.71	1.18	1.57	3.02		277.12		277.34

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.

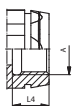




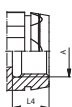
SW: Width across flats. All dimensions in mm (inch). Drawing similar Series HR-12.

* Insertion Female Body.

Series HR-31 ▪ BG 8 ▪ Nominal Size 31,5

	Port A	Dimensions (mm/in)										Female Body	Weight (^{kg/lbs}) ca. per 100	Male Tip	Weight (^{kg/lbs}) ca. per 100
		ØE	ØF	ØG	L1	L2	L4 min	L5	SW1	SW2	SW4	Ordering Codes		Ordering Codes	
Female Thread according to DIN 3852 - ISO 1179-1															
	G 1 1/4"	66	47	88	118	88	20	35	48	48	88	QRC-HR-31-F-G20-BT-W66	160,60	QRC-HR-31-M-G20-B-W66	180,30
		2.60	1.85	3.46	4.65	3.46	.79	1.38	1.89	1.89	3.46		354.06		397.49
		66	47	88	118	88	20	35	48	48	88	QRC-HR-31-FD-G20-BT-W66-DM	171,10	QRC-HR-31-MD-G20-B-W66-DM	192,80
		2.60	1.85	3.46	4.65	3.46	.79	1.38	1.89	1.89	3.46		377.21		425.05

Series HR-38 ▪ BG 10 ▪ Nominal Size 38

	Port A	Dimensions <small>(mm/in)</small>										Female Body	Weight <small>(^{kg/lbs}) ca.</small> per 100	Male Tip	Weight <small>(^{kg/lbs}) ca.</small> per 100
		ØE	ØF	ØG	L1	L2	L4 min	L5	SW1	SW2	SW4	Ordering Codes		Ordering Codes	
		Female Thread according to DIN 3852 - ISO 1179-1													
	G 1 1/2"	75	57	93	121	90	22	35	55	55	93	QRC-HR-38-F-G24-BT-W66	200,60	QRC-HR-38-M-G24-B-W66	218,40
		2.95	2.24	3.66	4.76	3.54	.87	1.38	2.16	2.16	3.66		442.25		481.49
		75	57	93	121	90	22	35	55	55	93	QRC-HR-38-FD-G24-BT-W66-DM	213,90	QRC-HR-38-MD-G24-B-W66-DM	233,10
		2.95	2.24	3.66	4.76	3.54	.87	1.38	2.16	2.16	3.66		471.57		513.90

