VRSERIES

INTERCHANGE > **Similar Couplings (type “Rohrleitung”)**



TECHNICAL FEATURES AND OPTIONS

Interchange
Similar Couplings (type “Rohrleitung”)

Sealing description
Nitrile NBR

Connection system
Screw

Available sizes
From 3/8” to 1-1/4”

Material /treatment
Carbon steel / ZnNi

Available threads
METRIC

Operating pressure
Up to 420 bar

Locking mechanism
Screw to connect

Flow rate
Up to 576 l/min

Temperature (°C)
-20°C / +100°C

Valving style
Flat face Non spill

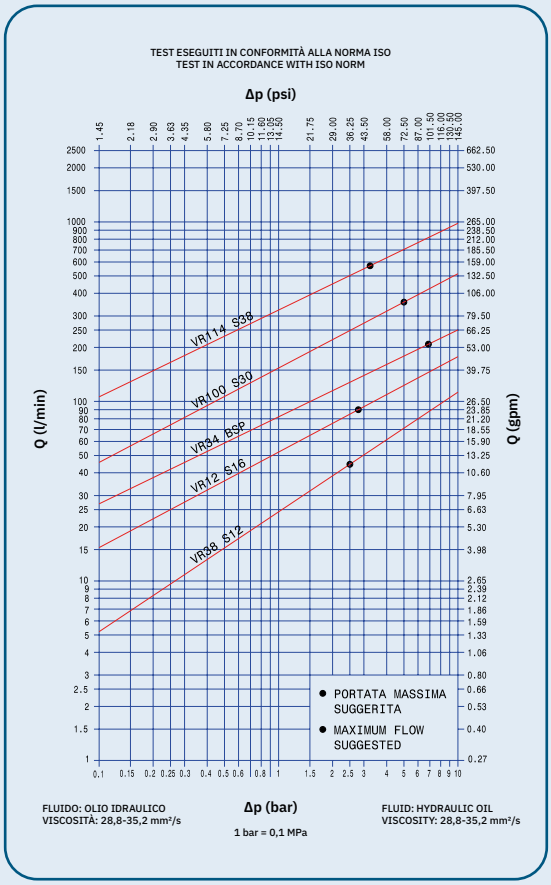
Connection under pressure
Connection: one side Disconnection: not allowed

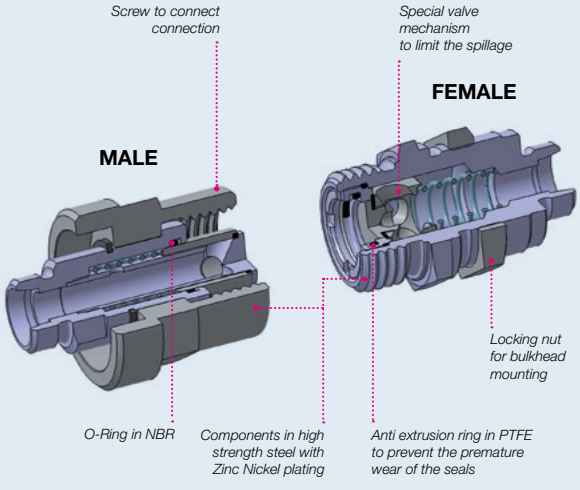
BENEFITS

- Connection is allowed with residual pressure in one side of the coupling (max 10 MPa in one side, 4 MPa for size 1-1/4).
- Robustness and ease of construction.
- Special valves ensure a good seal of the coupling disconnected and minimize spillage of fluid.
- Shape of internal parts is designed to reduce turbulence and pressure drop.
- External sleeve protects the sealing surface of the male body
- Good resistance to pressure impulses.
- Compact design.
- Simple to use.

HOW TO USE

- Before to connect, clean the mating surface of the couplings to avoid dirt inclusion in the circuit.
- To connect insert the male coupling in the female coupling, screw the sleeve till the stop, do not push together the couplings, screw only.
- The use of tools for the second part of the connection can be necessary if there is high residual pressure in the circuit.
- To disconnect unscrew totally the sleeve from the female coupling.





MAIN APPLICATIONS



PERFORMANCES

Size		Series/Size	Max. flow suggested		Manual connect torque*		Manual disconnect torque*		Spillage**
in	mm		l/min	gpm	Nm	lbf ft	Nm	lbf ft	ml
3/8	10	VR38	46	12,19	2	1,47	1,8	1,33	0,01
1/2	12,5	VR12	90	23,85	1,3	0,96	0,7	0,52	0,02
3/4	20	VR34	212	56,2	2,2	1,62	1,7	1,25	0,4
1	25	VR100	378	100,21	4,3	3,17	2,5	1,84	1
1-1/4	31,5	VR114	576	152,7	6	4,42	4	2,95	1

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
in		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
3/8	VR38	40	5800	20	2900	40	5800	160	23200	70	10150	100	14500
1/2	VR12	30	4350	17	2465	30	4350	120	17400	70	10150	100	14500
3/4	VR34	35	5075	20	2900	35	5075	140	20300	80	11600	100	14500
1	VR100	30	4350	20	2900	30	4350	100	14500	80	11600	100	14500
1-1/4	VR114	42	6090	42	6090	42	6090	120	17400	90	13050	100	14500

* Connect torque and disconnect torque without residual pressure.
The torque will increase as internal residual pressure increases.
** Spillage is an indicative value of the fluid loss during disconnection (according to ISO norm test method).

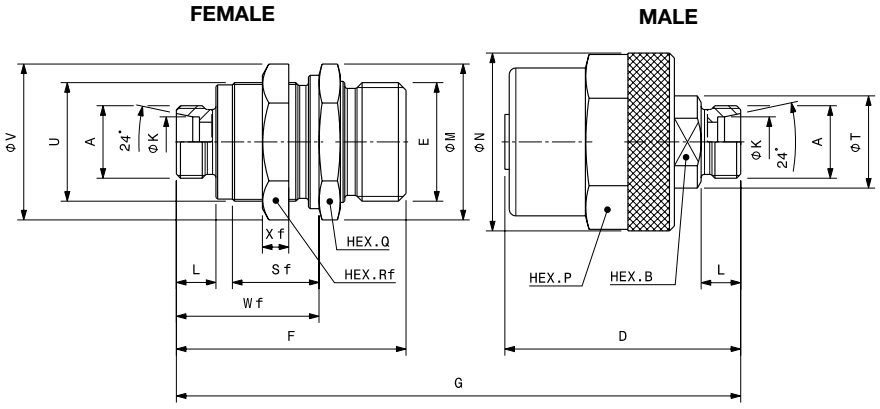
Different possible configurations:
Zn-Ni treatment is avaiable upon request.
Different threads available upon request.

Temperature range:
Standard seals NBR (Nitrile): from -20 °C to +100 °C (from -4 °F to +212 °F).
Please read carefully Instructions and warnings for proper selection of the products.

Tests performed:
Qualification tests have been performed with hydraulic oil using couplings with NBR (Nitrile) seals.
The max. operating pressure have been verified fo 200.000 impulses according to ISO norm test method.

⚠ WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Never connect or disconnect with dynamic pressure (e.g. pump on).
Do not couple-uncouple with flow in the circuit.
Do not couple-uncouple when the temperature inside of the circuit is higher than 80 °C (176 °F).
Do not use the coupling disconnected with high impulse pressure.
Connect under pressure products are suitable to be connected under residual (static) pressure.
Connection with residual pressure (pressure trapped in the circuit) allowed with other side coupling to drain.
Check the maximum allowable working pressure of the port in use.
Make sure that the medium used is compatible with seal and material as indicated for each series.
In case of doubt please contact Stucchi Technical Support.
The interchangeability is mentioned under the assumption that the manufacturer of the considered products has not changed any dimension.
It is mandatory to carefully read and closely follow the instructions before selecting or using any Stucchi products.
Always refer to the version uploaded in the Instructions and warning section of stucchigroup.com website for the latest release.
For specific, product-related, instructions, please contact Stucchi technical service.



Port description: MALE THREAD METRIC L – 24° CONE (ISO 8434-1 & DIN 2353)

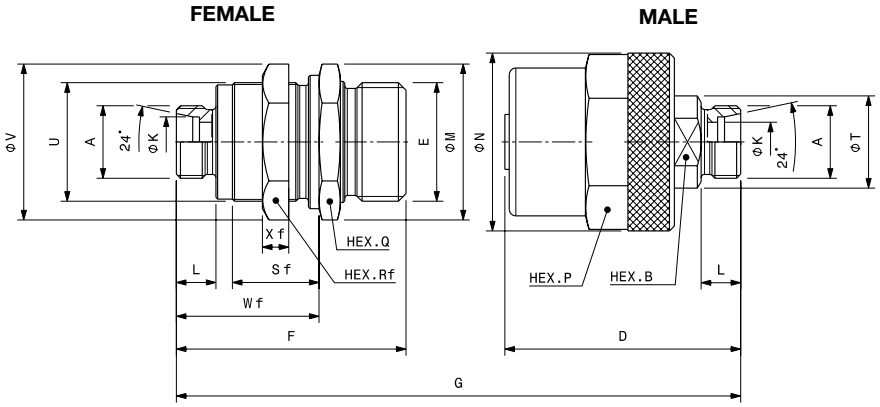
Body Size	Descriptive Code	Zn-Ni Item Code		Cr3 Phase out	BG	PORT (A)	U	E	Overall Length mm	Overall Length in	Length mm	Length in	Hex mm	Hex in	Hex mm	Hex in	Diameter mm	Diameter in
3/8"	F VR38 L10	Female	813408002	809608002	2	M16X1.5	M30X1	32X3 SP*	G	107,5	4,23	F	60,0	2,36	Q	36,0	1,42	Rf	36,0	1,42	M	41,4	1,63
	M VR38 L10	Male	813408003	809608003								D	61,6	2,43	P	32,0	1,26	B	22,0	0,87	N	38,7	1,52
3/8"	F VR38 L12	Female	813408004	809608004	2	M18X1.5	M30X1	32X3 SP*	G	107,5	4,23	F	60,0	2,36	Q	36,0	1,42	Rf	36,0	1,42	M	41,4	1,63
	M VR38 L12	Male	813408005	809608005								D	61,6	2,43	P	32,0	1,26	B	22,0	0,87	N	38,7	1,52
3/8"	F VR38 L15	Female	813408006	809608006	2	M22X1.5	M30X1	32X3 SP*	G	109,5	4,31	F	61,0	2,40	Q	36,0	1,42	Rf	36,0	1,42	M	41,4	1,63
	M VR38 L15	Male	813408007	809608007								D	62,6	2,46	P	32,0	1,26	B	22,0	0,87	N	38,7	1,52
1/2"	F VR12 L15	Female	813408026	809608026	3	M22X1.5	M36X1	36X3 SP*	G	124,6	4,91	F	70,5	2,78	Q	41,0	1,61	Rf	41,0	1,61	M	47,2	1,86
	M VR12 L15	Male	813408001	809608001								D	71,6	2,82	P	46,0	1,81	B	24,0	0,94	N	54,0	2,13
3/4"	F VR34 L15	Female	813408016	809608016	4	M22X1.5	M45x1.5	48x3 SP*	G	150,1	5,91	F	90,1	3,55	Q	55,0	2,17	Rf	50,0	1,97	M	61,0	2,40
	M VR34 L15	Male	813408017	809608017								D	84,1	3,31	P	60,0	2,36	B	32,0	1,26	N	68,0	2,68
3/4"	F VR34 L18	Female	813408018	809608018	4	M26x1.5	M45x1.5	48x3 SP*	G	150,1	5,91	F	90,1	3,55	Q	55,0	2,17	Rf	50,0	1,97	M	61,0	2,40
	M VR34 L18	Male	813408019	809608019								D	84,1	3,31	P	60,0	2,36	B	32,0	1,26	N	68,0	2,68
1"	F VR100 L18	Female	813408008	809608008	6	M26X1.5	M54X1.5	54X4 SP*	G	174,5	6,87	F	96,2	3,79	Q	55,0	2,17	Rf	60,0	2,36	M	62,2	2,45
	M VR100 L18	Male	813408009	809608009								D	107,0	4,21	P	55,0	2,17	B	41,0	1,61	N	64,0	2,52
1"	F VR100 L22	Female	813408010	809608010	6	M30X2	M54X1.5	54X4 SP*	G	178,5	7,03	F	98,2	3,87	Q	55,0	2,17	Rf	60,0	2,36	M	62,2	2,45
	M VR100 L22	Male	813408011	809608011								D	109,0	4,29	P	55,0	2,17	B	41,0	1,61	N	64,0	2,52
1"	F VR100 L28	Female	813408012	809608012	6	M36X2	M54X1.5	54X4 SP*	G	178,5	7,03	F	98,2	3,87	Q	55,0	2,17	Rf	60,0	2,36	M	62,2	2,45
	M VR100 L28	Male	813408013	809608013								D	109,0	4,29	P	55,0	2,17	B	41,0	1,61	N	64,0	2,52
1-1/4"	F VR114 L35	Female	813408014	809608014	8	M45x2	M80x2	79x4 SP*	G	213,5	8,39	F	123,0	4,84	Q	85,0	3,35	Rf	90,5Δ	3,56Δ	M	90,0	3,54
	M VR114 L35	Male	813408015	809608015								D	130,4	5,13	P	Δ	Δ	B	55,0	2,17	N	89,7	3,53

Body Size	Descriptive Code	Zn-Ni Item Code		Cr3 Phase out	Diameter	mm	in	Diameter	mm	in	Length	mm	in	Length	mm	in	Length	mm	in	Weight	kg	lb
3/8"	F VR38 L10	Female	813408002	809608002	K	10,2	0,40	V	41,4	1,63	Wf	36,0	1,42	Sf	19,0	0,75	Xf	7,0	0,43	0,23	0,51
	M VR38 L10	Male	813408003	809608003				T	25,0	0,98							L	11,0	0,28	0,29	0,63
3/8"	F VR38 L12	Female	813408004	809608004	K	12,2	0,48	V	41,4	1,63	Wf	36,0	1,42	Sf	19,0	0,75	Xf	7,0	0,43	0,24	0,52
	M VR38 L12	Male	813408005	809608005				T	25,0	0,98							L	11,0	0,28	0,28	0,61
3/8"	F VR38 L15	Female	813408006	809608006	K	15,2	0,60	V	41,4	1,63	Wf	37,0	1,46	Sf	19,0	0,75	Xf	7,0	0,47	0,24	0,53
	M VR38 L15	Male	813408007	809608007				T	25,0	0,98							L	12,0	0,28	0,29	0,64
1/2"	F VR12 L15	Female	813408026	809608026	K	15,2	0,60	V	47,2	1,86	Wf	40,1	1,58	Sf	22,4	0,88	Xf	8,0	0,47	0,36	0,80
	M VR12 L15	Male	813408001	809608001				T	28,0	1,10							L	12,0	0,31	0,53	1,16
3/4"	F VR34 L15	Female	813408016	809608016	K	15,2	0,60	V	57,5	2,26	Wf	55,1	2,17	Sf	28,0	1,10	Xf	9,0	0,47	0,36	0,79
	M VR34 L15	Male	813408017	809608017				T	38,0	1,50							L	12,0	0,35	0,53	1,16
3/4"	F VR34 L18	Female	813408018	809608018	K	18,2	0,72	V	57,5	2,26	Wf	55,1	2,17	Sf	28,0	1,10	Xf	9,0	0,47	0,74	1,63
	M VR34 L18	Male	813408019	809608019				T	38,0	1,50							L	12,0	0,35	0,85	1,86
1"	F VR100 L18	Female	813408008	809608008	K	18,2	0,72	V	69,0	2,72	Wf	53,0	2,09	Sf	22,8	0,90	Xf	10,0	0,47	0,98	2,16
	M VR100 L18	Male	813408009	809608009				T	44,9	1,77							L	12,0	0,39	1,32	2,91
1"	F VR100 L22	Female	813408010	809608010	K	22,2	0,87	V	69,0	2,72	Wf	55,0	2,17	Sf	22,8	0,90	Xf	10,0	0,55	0,99	2,18
	M VR100 L22	Male	813408011	809608011				T	44,9	1,77							L	14,0	0,39	1,32	2,91
1"	F VR100 L28	Female	813408012	809608012	K	28,2	1,11	V	69,0	2,72	Wf	55,0	2,17	Sf	22,8	0,90	Xf	10,0	0,55	0,96	2,12
	M VR100 L28	Male	813408013	809608013				T	44,9	1,77							L	14,0	0,39	1,33	2,93
1-1/4"	F VR114 L35	Female	813408014	809608014	K	35,3	1,39	V	100,0	3,94	Wf	65,0	2,56	Sf	35,0	1,38	Xf	14,0	0,63	2,83	6,24
	M VR114 L35	Male	813408015	809608015				T	60,8	2,39							L	16,0	0,55	3,27	7,21

*SP = SPECIAL THREAD

Δ to mount with a sickle spanner

Part numbers highlighted in grey are phasing out and will be replaced by VR items in Zinc-Nickel.



Port description: MALE THREAD METRIC S – 24° CONE (ISO 8434-1 & DIN 2353)

Body Size	Descriptive Code	Zn-Ni Item Code	Cr3 Phase out	BG	PORT (A)	U	E	Overall Length mm	Overall Length in	Length mm	Length in	Hex mm	Hex in	Hex mm	Hex in	Diameter mm	Diameter in
3/8"	F VR38 S10	Female 813409002•	809609002•	2	M18X1.5	M30X1	32X3 SP*	G 109,5	4,65	F 61,0	2,40	Q 36,0	1,42	Rf 36,0	1,42	M 41,4	1,63
	M VR38 S10	Male 813409003•	809609003•							D 62,6	2,46	P 32	1,26	B 22	0,87	N 38,7	1,52
3/8"	F VR38 S12	Female 813409004	809609004	2	M20X1.5	M30X1	32X3 SP*	G 109,5	4,31	F 61,0	2,40	Q 36,0	1,42	Rf 36,0	1,42	M 41,4	1,63
	M VR38 S12	Male 813409005	809609005							D 62,6	2,46	P 32,0	1,26	B 22,0	0,87	N 38,7	1,52
3/8"	F VR38 S14	Female 813409006	809609006	2	M22X1.5	M30X1	32X3 SP*	G 113,5	4,47	F 63,0	2,48	Q 36,0	1,42	Rf 36,0	1,42	M 41,4	1,63
	M VR38 S14	Male 813409007	809609007							D 64,6	2,54	P 32,0	1,26	B 22,0	0,87	N 38,7	1,52
3/8"	F VR38 S16	Female 813409016	809609016	2	M24X1.5	M30X1	32X3 SP*	G 113,5	4,47	F 63,0	2,48	Q 36,0	1,42	Rf 36,0	1,42	M 41,4	1,63
	M VR38 S16	Male 813409017	809609017							D 64,6	2,54	P 32,0	1,26	B 22,0	0,87	N 38,7	1,52
1/2"	F VR12 S16	Female 813409028	809609028	3	M24X1.5	M36X1	36X3 SP*	G 128,6	5,06	F 72,5	2,85	Q 41,0	1,61	Rf 41,0	1,61	M 47,2	1,86
	M VR12 S16	Male 813409001	809609001							D 73,6	2,90	P 46,0	1,81	B 24,0	0,94	N 54,0	2,13
1/2"	F VR12 S20	Female 813409030	809609030	3	M30x2	M36X1	36X3 SP*	G 157,8	6,21	F 74,5	29,33	Q 41,0	1,61	Rf 41,0	1,61	M 47,2	1,86
	M VR12 S20	Male 813409027**	809609027**							D 100,8	3,97	P 46,0	1,81	B 32,0	1,26	N 54,0	2,13
3/4"	F VR34 S16	Female 813409020•	809609020•	4	M24X1.5	M45x1.5	48x3 SP*	G 154,1	6,09	F 92,1	3,64	Q 55	2,17	Rf 50	1,97	M 38,7	1,52
	M VR34 S16	Male 813409021•	809609021•							D 86,1	3,39	P 60,0	2,36	B 32,0	1,26	N 68,0	2,68
3/4"	F VR34 S20	Female 813409018	809609018	4	M30X2	M45x1.5	48x3 SP*	G 158,1	6,22	F 94,1	3,70	Q 55,0	2,17	Rf 50,0	1,97	M 61,0	2,40
	M VR34 S20	Male 813409019	809609019							D 88,1	3,47	P 60,0	2,36	B 32,0	1,26	N 68,0	2,68
1"	F VR100 S20	Female 813409008	809609008	6	M30X2	M54X1.5	54X4 SP*	G 182,5	7,19	F 100,2	3,94	Q 55,0	2,17	Rf 60,0	2,36	M 62,2	2,45
	M VR100 S20	Male 813409009	809609009							D 111,0	4,37	P 55,0	2,17	B 41,0	1,61	N 64,0	2,52
1"	F VR100 S25	Female 813409010	809609010	6	M36X2	M54X1.5	54X4 SP*	G 186,5	7,34	F 102,2	4,02	Q 55,0	2,17	Rf 60,0	2,36	M 62,2	2,45
	M VR100 S25	Male 813409011	809609011							D 113,0	4,45	P 55,0	2,17	B 41,0	1,61	N 64,0	2,52
1"	F VR100 S30	Female 813409012	809609012	6	M42X2	M54X1.5	54X4 SP*	G 190,5	7,50	F 104,2	4,10	Q 55,0	2,17	Rf 60,0	2,36	M 62,2	2,45
	M VR100 S30	Male 813409013	809609013							D 115,0	4,53	P 55,0	2,17	B 41,0	1,61	N 64,0	2,52
1-1/4"	F VR114 S38	Female 813409014	809609014	8	M52X2	M80X2	79X4 SP*	G 225,15	8,86	F 129,0	5,08	Q 85,0	3,35	Rf 90,5Δ	3,56Δ	M 90,0	3,54
	M VR114 S38	Male 813409015	809609015							D 136,4	5,37	P Δ	Δ	B 55,0	2,17	N 89,7	3,53

Body Size	Descriptive Code	Zn-Ni Item Code	Cr3 Phase out	Diameter mm	Diameter in	Diameter mm	Diameter in	Length mm	Length in	Length mm	Length in	Length mm	Length in	Weight kg	Weight lb
3/8"	F VR38 S10	Female 813409002•	809609002•	K 10,2	0,40	V 41,4	1,63	Wf 37,0	1,46	Sf 19,0	0,75	Xf 7,0	0,28	0,24	0,11
	M VR38 S10	Male 813409003•	809609003•			T -	-					L 12,0	0,47	-	-
3/8"	F VR38 S12	Female 813409004	809609004	K 12,2	0,48	V 41,4	1,63	Wf 37,0	1,46	Sf 19,0	0,75	Xf 7,0	0,28	0,25	0,54
	M VR38 S12	Male 813409005	809609005			T 25,0	0,98					L 12,0	0,47	0,29	0,64
3/8"	F VR38 S14	Female 813409006	809609006	K 14,2	0,56	V 41,4	1,63	Wf 39,0	1,54	Sf 19,0	0,75	Xf 7,0	0,28	0,25	0,54
	M VR38 S14	Male 813409007	809609007			T 25,0	0,98					L 14,0	0,55	0,29	0,64
3/8"	F VR38 S16	Female 813409016	809609016	K 16,2	0,64	V 41,4	1,63	Wf 39,0	1,54	Sf 19,0	0,75	Xf 7,0	0,28	0,25	0,55
	M VR38 S16	Male 813409017	809609017			T 25,0	0,98					L 14,0	0,55	0,30	0,66
1/2"	F VR12 S16	Female 813409001	809609028	K 16,2	0,64	V 47,2	1,86	Wf 42,1	1,66	Sf 22,4	0,88	Xf 8,0	0,31	0,37	0,82
	M VR12 S16	Male 813409028	809609001			T 28,0	1,10					L 14,0	0,55	0,54	1,18
1/2"	F VR12 S20	Female 813409030	809609030	K 20,2	0,80	V 47,1	1,86	Wf 44,1	1,74	Sf 22,5	0,89	Xf 8,0	0,31	0,38	0,84
	M VR12 S20	Male 813409027**	809609027**			T 35,0	1,38					L 16,0	0,63	0,67	1,48
3/4"	F VR34 S16	Female 813409020•	809609020•	K 16,2	0,64	V -	-	Wf -	-	Sf -	-	Xf -	-	-	-
	M VR34 S16	Male 813409021•	809609021•			T 38,0	1,50					L 14,0	0,55	0,85	1,87
3/4"	F VR34 S20	Female 813409018	809609018	K 20,2	0,80	V 57,5	2,26	Wf 59,1	2,33	Sf 28,0	1,10	Xf 9,0	0,35	0,37	0,82
	M VR34 S20	Male 813409019	809609019			T 38,0	1,50					L 16,0	0,63	0,87	1,91
1"	F VR100 S20	Female 813409008	809609008	K 20,2	0,80	V 69,0	2,72	Wf 57,0	2,24	Sf 22,8	0,90	Xf 10,0	0,39	1,01	2,23
	M VR100 S20	Male 813409009	809609009			T 44,9	1,77					L 16,0	0,63	1,34	2,95
1"	F VR100 S25	Female 813409010	809609010	K 25,2	0,99	V 69,0	2,72	Wf 59,0	2,32	Sf 22,8	0,90	Xf 10,0	0,39	1,01	2,23
	M VR100 S25	Male 813409011	809609011			T 44,9	1,77	-				L 18,0	0,71	1,36	3,00
1"	F VR100 S30	Female 813409012	809609012	K 30,2	1,19	V 69,0	2,72	Wf 61,0	2,40	Sf 22,8	0,90	Xf 10,0	0,39	1,02	2,24
	M VR100 S30	Male 813409013	809609013			T 44,9	1,77					L 20,0	0,79	1,38	3,03
1-1/4"	F VR114 S38	Female 813409014	809609014	K 38,3	1,51	V 100,0	3,94	Wf 71,0	2,80	Sf 35,0	1,38	Xf 14,0	0,55	2,89	6,37
	M VR114 S38	Male 813409015	809609015			T 60,8	2,39					L 22,0	0,87	3,31	7,30

SP* = SPECIAL THREAD
Δ to mount with a sickle spanner
** = longer design with modular thread
•Available upon request.

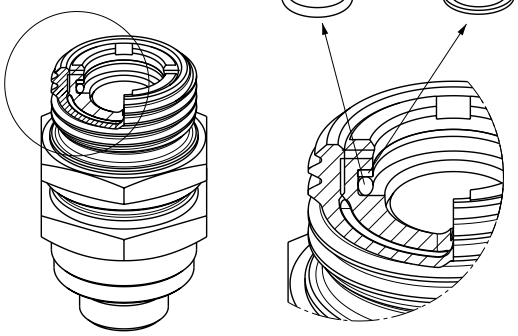
Part numbers highlighted in grey are phasing out and will be replaced by VR items in Zinc-Nickel.



SPARE KIT SEAL FOR FEMALE

Repair kit / OR+BK		
Body Size	Description	Part Number
3/8”	F VR38	815700902
1/2”	F VR12	815700912
3/4”	F VR34	815700914
1”	F VR100	815700916
1-1/4”	F VR114	815700918

O-Ring in NBR
BackUp in Teflon®

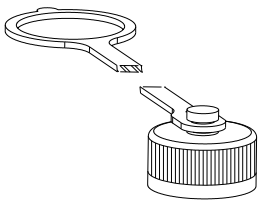


PROTECTIVE CAPS FOR VR SERIES

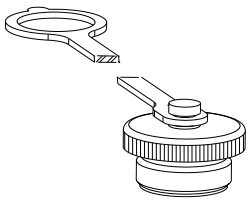
Protective caps are always recommended to protect the couplings from damage, dirt inclusion, and will increase the product life. This is particularly important in mobile applications where exposure to weather and aggregate materials are common.
Are available two models of protection caps for VR couplings:

- manufactured in plastic with connection lanyard (standard color: red, other colors available upon request)
- manufactured in aluminum screw caps with lanyard (standard color aluminum)

Cap for FEMALE coupling
Red Plastic

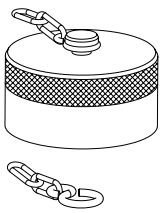


Plug for MALE coupling
Red Plastic

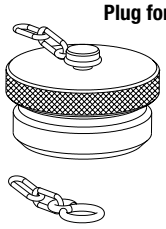


Protective Cap				
Body Size		Part Number		Material/Color
		Cap for Female	Plug for Male	
3/8”	VR38	814900012	814900013	Plastic/Red
1/2”	VR12	814900014	814900015	Plastic/Red

Cap for FEMALE coupling
Aluminum



Plug for MALE coupling
Aluminum



Protective Cap				
Body Size		Part Number		Material/Color
		Cap for Female	Plug for Male	
3/4”	VR34	814906016	814906017	Aluminum/Natural
1”	VR100	814906018	814906019	Aluminum/Natural
1-1/4”	VR114	814906020	814906021	Aluminum/Natural

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