

VP-P SERIES

INTERCHANGE > Stucchi profile



TECHNICAL FEATURES AND OPTIONS



Interchange
Stucchi profile



Sealing description
Nitrile NBR



Connection system
Screw



Available sizes
from 1/4" to 1-1/2"



Material/treatment
Carbon steel /Cr3+QPQ



Available threads
BSP - NPT - SAE



Operating pressure
Up to 600 bar



Locking mechanism
Screw to connect + Safety sleeve



Flow rate
Up to 750 L/Min



Temperature (°C)
-20° / +100°



Valving style
Flat face



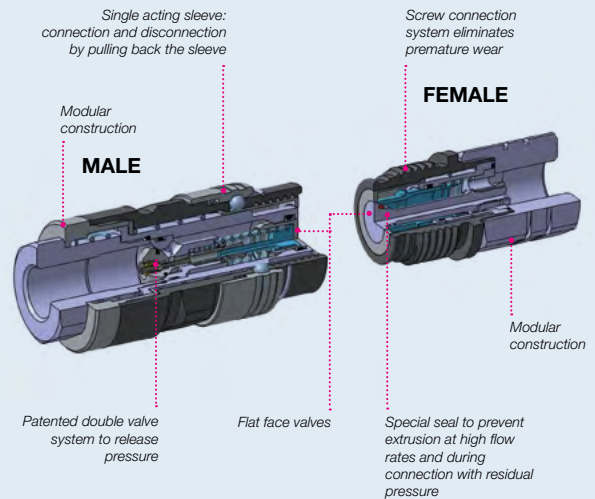
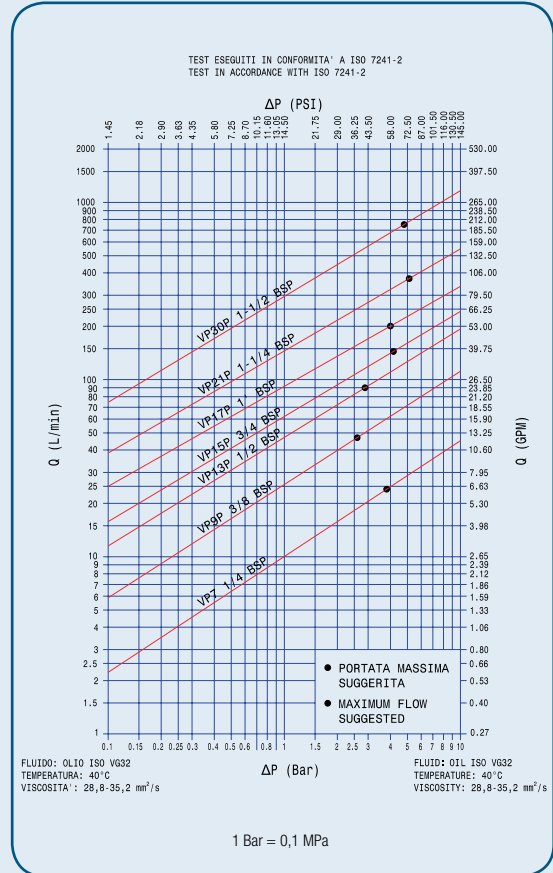
Connection under pressure
Connection: Both side (see Benefits).
Disconnection: Allowed (see Benefits).

BENEFITS

- Easy connection/disconnection with both side under residual pressure thanks to the Stucchi patented design.
- Flat face is easy to clean, reducing the inclusion of contamination inside the hydraulic circuit.
- Specific dimensions of Stucchi VP-P series are fire tested and Lloyd certified in accordance with API 16D and the EUB Directive #36.
- Minimal fluid spillage during disconnection, reducing fluid spillage to the environment.
- Minimal air inclusion during connection.
- Patented internal valve design creates minimal pressure drop, maintaining circuit efficiency in the system.
- Internal pressure release valve system allows an easy connection with high internal residual pressure.
- The safety sleeve integrated in the patented connection system prevents the accidental disconnection.
- The modular design allows flexibility with a wide range of configurations.
- High resistance to pressure impulses.
- Safe and 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 align the female coupling to the male coupling, push the male and twist in one motion to catch the first thread on the female half and continue to thread together (do not push together couplers, screw only).
- The screwing of the threads should be done by hand without the use of the tools for the first part of the connection.
- Always connect male and female with the male adaptor fixed on the hose (male adaptor should not rotate during connection)
- The use of tools for the second part of connection can be necessary if there is high residual pressure in the circuit.
- Thread the mating halves until the sleeve lock clicks into position. This activates the safety lock and eliminates accidental disconnection of the coupling.
- To disconnect push the safety locking sleeve towards the male coupling and unthread the connection.
- The lock is disengaged after one complete rotation of the coupler, continue to unthread until both halves disconnect.
- If safety lock sleeve will not push back rotate the male coupling to couple direction until the sleeve will pull back.



MAIN APPLICATIONS



Agriculture



Oil & Gas



Industry



High Pressure



Cooling



Refrigeration



Earth Moving



Vehicles



Hydraulic Equipment



Chemical & Food Industry

PERFORMANCES

Size	Series/Size	Max. flow suggested		Connect torque		Disconnect torque		Spillage*
Inch		l/min	GPM	Nm	lbf ft	Nm	lbf ft	ml
1/4	VP7	24	6,36	0,6	0,44	0,4	0,29	0,01
3/8	VP9P	46	12,19	0,8	0,59	0,5	0,37	0,04
1/2	VP13P	90	23,85	1,1	0,81	1,0	0,74	0,02
5/8	VP15P**	148	39,22	1,1	0,81	1,0	0,74	0,03
3/4	VP17P**	200	53,00	2,0	1,47	1,4	1,03	0,01
1	VP21P	378	100,17	2,2	1,62	1,8	1,33	0,06
1-1/2	VP30P	750	198,75	6,5	4,79	3,2	2,36	0,20

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
Inch		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
1/4	VP7	60	8700	60	8700	42	6090	150	21750	150	21750	126	18270
3/8	VP9P	55	7975	55	7975	33	4785	140	20300	140	20300	100	14500
1/2	VP13P	55	7975	55	7975	33	4785	140	20300	140	20300	100	14500
5/8	VP15P**	55	7975	55	7975	33	4785	140	20300	140	20300	100	14500
3/4	VP17P**	50	7250	50	7250	33	4785	125	18125	125	18125	100	14500
1	VP21P	47	6815	47	6815	30	4350	120	17400	120	17400	80	11600
1-1/2	VP30P	40	5800	40	5800	27	3915	110	15950	110	15950	80	11600

Size	Series/Size	Max. residual pressure during connection						Max. residual pressure during disconnection	
		Male, female to drain		Female, male to drain		Male and female			
Inch		MPa	psi	MPa	psi	MPa	psi	MPa	psi
1/4	VP7	30	4350	25	3625	25	3625	25	3625
3/8	VP9P	25	3625	25	3625	25	3625	25	3625
1/2	VP13P	25	3625	25	3625	20	2900	20	2900
5/8	VP15P**	25	3625	25	3625	20	2900	20	2900
3/4	VP17P**	25	3625	25	3625	15	2175	15	2175
1	VP21P	25	3625	25	3625	15	2175	15	2175
1-1/2	VP30P	25	3625	25	3625	5	725	5	725

* Spillage is an indicative value of the fluid loss during disconnection (according to ISO 7241-2 test method)
Connect torque and disconnect torque without residual pressure.
The torque increase to increasing of internal residual pressure.

** Specific dimensions of Stucchi VP-P series are fire tested and Lloyd certified in accordance with API 16D and the EUB Directive #36.
For complete technical information please contact technical Stucchi support.

Temperature range:

Standard seals NBR, PUR, POM from -20 °C to +100 °C (from -4 °F to +212 °F).
Please read carefully "instruction and warning" for proper selection of the products.

Tests performed:

The couplings have been tested at max. operating pressure for 100.000 impulses according to ISO 7241-2.

Note:

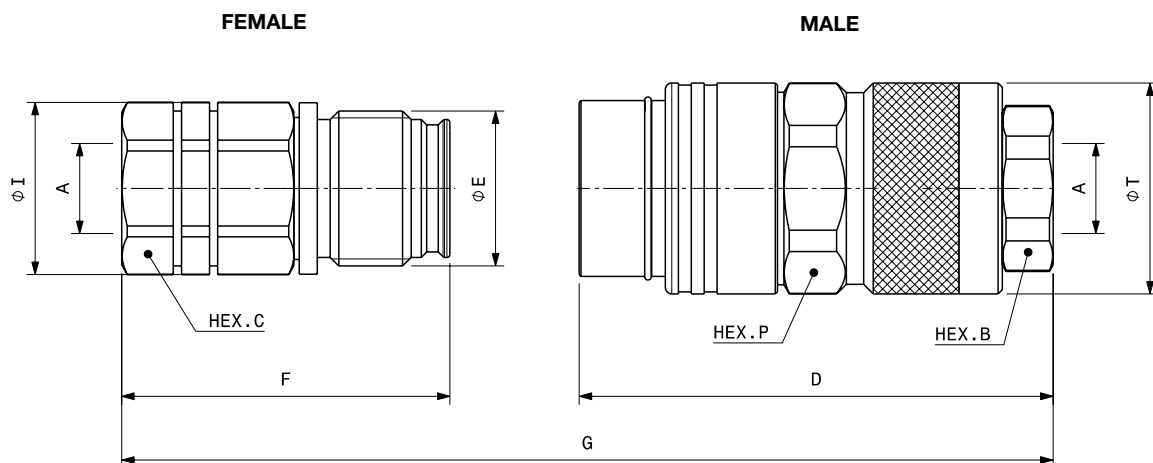
VP7 has metal to metal sealing system in the internal valve of male and in the valve of female coupling. Different male thread available upon request.



WARNING

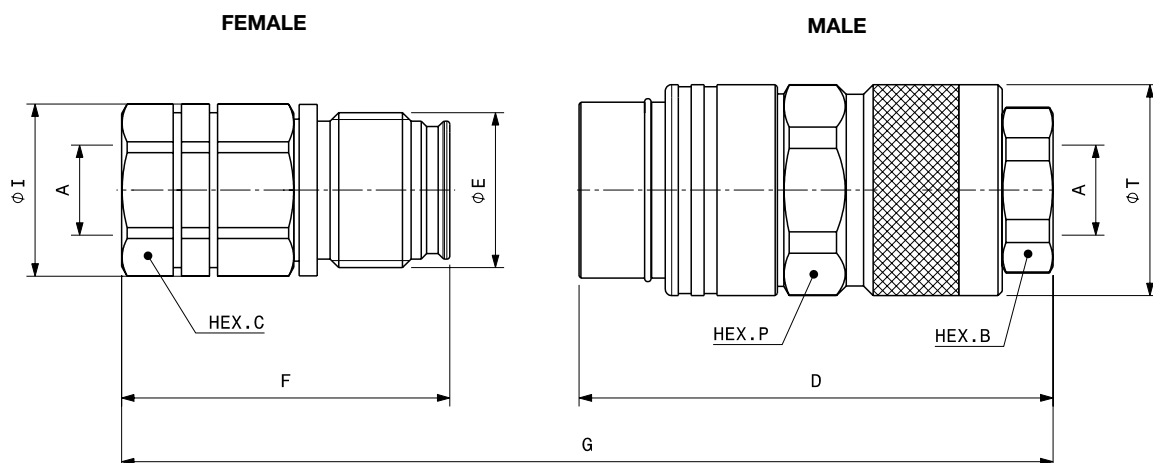
A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Connect under pressure products are suitable to be connected under residual (static) pressure.
Never connect or disconnect with dynamic pressure (e.g. pump on).
Do not use the female coupling disconnected with high impulse pressure.
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).
Check the maximum allowable working pressure of the port in use.
It is important to limit contamination in the circuit to avoid compromising the function of the internal valves.
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 read and closely follow the instructions. Last updated version always apply at time of installation, see latest written Instructions on Stucchi website (www.stucchi.it) before selecting or using Stucchi products.

OVERALL DIMENSIONS



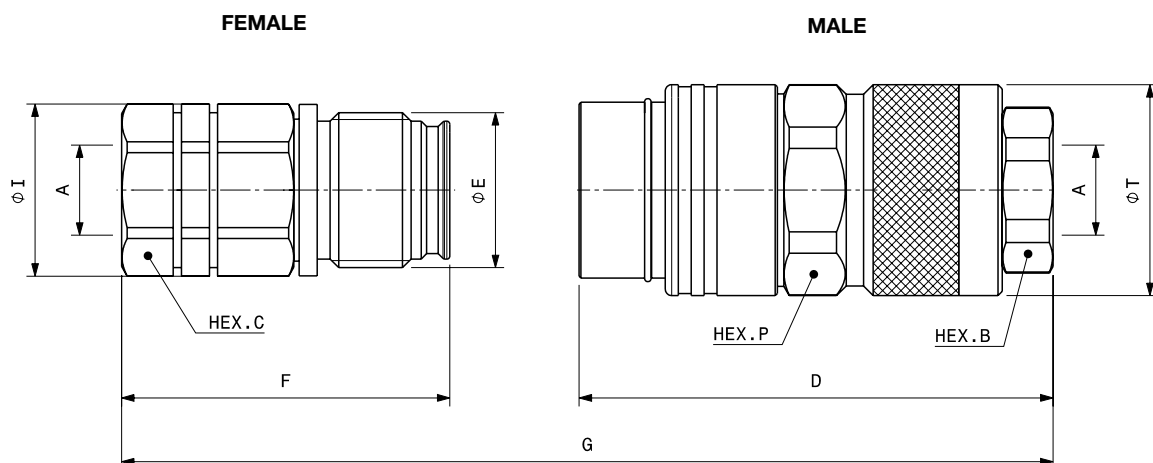
Port description: FEMALE THREAD BSPP (ISO 1179-1)

BODY SIZE	Descriptive Code	Item Code	PORT (A)	E	Overall Length		Length		Hex		Hex		Diameter		Weight			
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs		
1/4"	F VP7 1/4 BSP	Female 801900000	1/4"	M24x2	G	125,2	4,93	F	52,8	2,08	C	27,0	1,06	I	29,0	1,14	0,16	0,35
	M VP7 1/4 BSP	Male 801900001						D	83,9	3,30	B	22,0	0,87					
3/8"	F VP9P 3/8 BSP	Female 807300002	3/8"	M28x2	G	142,3	5,60	F	64,3	2,53	C	30,0	1,18	I	32,0	1,26	0,24	0,53
	M VP9P 3/8 BSP	Male 807300003						D	94,5	3,72	B	27,0	1,06					
3/8"	F VP9P 1/2 BSP	Female 807300004	1/2"	M28x2	G	147,3	5,80	F	69,3	2,73	C	30,0	1,18	I	32,0	1,26	0,25	0,54
	M VP9P 1/2 BSP	Male 807300005						D	94,5	3,72	B	27,0	1,06					
1/2"	F VP13P 1/2 BSP	Female 807300006	1/2"	M36x3	G	167,9	6,61	F	76,2	3,00	C	36,0	1,42	I	40,0	1,57	0,42	0,93
	M VP13P 1/2 BSP	Male 807300007						D	110,0	4,33	B	36,0	1,42					
1/2"	F VP13P 3/4 BSP	Female 807300008	3/4"	M36x3	G	174,9	6,89	F	83,2	3,28	C	36,0	1,42	I	40,0	1,57	0,44	0,97
	M VP13P 3/4 BSP	Male 807300009						D	110,0	4,33	B	36,0	1,42					
5/8"	F VP15P 3/4 BSP	Female 807300010	3/4"	M39x3	G	174,9	6,89	F	83,4	3,28	C	41,0	1,61	I	44,8	1,76	0,58	1,28
	M VP15P 3/4 BSP	Male 807300011						D	110,0	4,33	B	36,0	1,42					
3/4"	F VP17P 3/4 BSP	Female 807300018	3/4"	M45x3	G	200,5	7,89	F	96,0	3,78	C	46,0	1,81	I	49,8	1,96	0,93	2,05
	M VP17P 3/4 BSP	Male 807300019						D	127,1	5,00	B	46,0	1,81					
3/4"	F VP17P 1" BSP	Female 807300012	1"	M45x3	G	202,5	7,97	F	98,0	3,86	C	46,0	1,81	I	49,8	1,96	0,91	2,00
	M VP17P 1" BSP	Male 807300013						D	127,1	5,00	B	46,0	1,81					
1"	F VP21P 1" BSP	Female 807300022	1"	M55x3	G	213,8	8,42	F	104,0	4,09	C	55,0	2,17	I	59,8	2,35	1,49	3,28
	M VP21P 1" BSP	Male 807300023						D	137,0	5,39	B	55,0	2,17					
1"	F VP21P 1-1/4 BSP	Female 807300014	1-1/4"	M55x3	G	214,8	8,46	F	105,0	4,13	C	55,0	2,17	I	59,8	2,35	1,40	3,08
	M VP21P 1-1/4 BSP	Male 807300015						D	137,0	5,39	B	55,0	2,17					
1-1/2"	F VP30P 1-1/4 BSP	Female 807300024	1-1/4"	M72x4	G	271,3	10,68	F	132,2	5,20	C	65,0	2,56	I	85,0	3,35	-	-
	M VP30P 1-1/4 BSP	Male 807300025						D	174,7	6,88	B	65,0	2,56					
1-1/2"	F VP30P 1-1/2 BSP	Female 807300016	1-1/2"	M72x4	G	271,3	10,68	F	132,2	5,20	C	65,0	2,56	I	85,0	3,35	2,93	6,46
	M VP30P 1-1/2 BSP	Male 807300017						D	174,7	6,88	B	65,0	2,56					



Port description: FEMALE THREAD NPT (ANSI B.1.20.1)

BODY SIZE	Descriptive Code	Item Code	PORT (A)	E	Overall Length		Length		Hex		Hex		Diameter		Weight			
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs		
1/4"	F VP7 1/4 NPT	Female 801901004	1/4"	M24x2	G	126,6	4,98	F	52,8	2,08	C	27,0	1,06	I	29,0	1,14	0,17	0,36
	M VP7 1/4 NPT	Male 801901005						D	85,3	3,36	B	22,0	0,87				P	32,00
3/8"	F VP9P 3/8 NPT	Female 807301002	3/8"	M28x2	G	142,3	5,60	F	64,3	2,53	C	30,0	1,18	I	32,0	1,26	0,24	0,53
	M VP9P 3/8 NPT	Male 807301003						D	94,5	3,72	B	27,0	1,06				P	38,00
3/8"	F VP9P 1/2 NPT	Female 807301004	1/2"	M28x2	G	147,3	5,80	F	69,3	2,73	C	30,0	1,18	I	32,0	1,26	0,24	0,53
	M VP9P 1/2 NPT	Male 807301005						D	94,5	3,72	B	27,0	1,06				P	38,00
1/2"	F VP13P 1/2 NPT	Female 807301006	1/2"	M36x3	G	167,9	6,61	F	76,2	3,00	C	36,0	1,42	I	40,0	1,57	0,43	0,94
	M VP13P 1/2 NPT	Male 807301007						D	110,0	4,33	B	36,0	1,42				P	45,00
1/2"	F VP13P 3/4 NPT	Female 807301008	3/4	M36x3	G	174,9	6,89	F	83,2	3,28	C	36,0	1,42	I	40,0	1,57	0,44	0,97
	M VP13P 3/4 NPT	Male 807301009						D	110,0	4,33	B	36,0	1,42				P	45,00
5/8"	F VP15P 3/4 NPT	Female 807301010	3/4	M39x3	G	174,9	6,89	F	83,4	3,28	C	41,0	1,61	I	44,8	1,76	0,60	1,31
	M VP15P 3/4 NPT	Male 807301011						D	110,0	4,33	B	36,0	1,42				P	48,00
3/4"	F VP17P 1" NPT	Female 807301012	1	M45x3	G	202,5	7,97	F	98,0	3,86	C	46,0	1,81	I	49,8	1,96	0,92	2,02
	M VP17P 1" NPT	Male 807301013						D	127,1	5,00	B	46,0	1,81				P	55,00
1"	F VP21P 1-1/4 NPT	Female 807301014	1-1/4	M55x3	G	218,1	8,59	F	108,3	4,26	C	55,0	2,17	I	59,8	2,35	1,43	3,15
	M VP21P 1-1/4 NPT	Male 807301015						D	137,0	5,39	B	55,0	2,17				P	70,00
1-1/2"	F VP30P 1-1/2 NPT	Female 807301016	1-1/2	M72x4	G	271,3	10,68	F	132,2	5,20	C	65,0	2,56	I	85,0	3,35	2,93	6,46
	M VP30P 1-1/2 NPT	Male 807301017						D	174,7	6,88	B	65,0	2,56				P	85,00



Port description: FEMALE THREAD SAE (ISO 11926-1 & SAE J1926-1)

BODY SIZE	Descriptive Code	Item Code	PORT (A)	E	Overall Length		Length		Hex		Hex		Diameter		Weight				
					mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs			
3/8"	F VP9P 3/8 SAE	Female	807304020	9/16-18UNF	M28x2	G	142,3	5,60	F	64,3	2,53	C	30,0	1,18	I	32,0	1,26	0,25	0,54
	M VP9P 3/8 SAE	Male							807304021	D	94,5	3,72	B	27,0	1,06	P	38,00	1,50	T
1/2"	F VP13P 1/2 SAE	Female	807304022	3/4-16UNF		G	169,9	6,69	F	76,2	3,00	C	36,00	1,42	I	40,0	1,57	0,43	0,95
	M VP13P 1/2 SAE	Male							807304023	D	110,0	4,33	B	36,00	1,42	P	45,00	1,77	T
1/2"	F VP13P 3/4 SAE	Female	807304008	1-1/16-12UN	M36x3	G	174,9	6,89	F	83,2	3,28	C	36,0	1,42	I	40,0	1,57	0,43	0,95
	M VP13P 3/4 SAE	Male							807304009	D	110,0	4,33	B	36,0	1,42	P	45,00	1,77	T
5/8"	F VP15P 3/4 SAE	Female	807304010	1-1/16-12UN	M39x3	G	174,9	6,89	F	83,4	3,28	C	41,0	1,61	I	44,8	1,76	0,58	1,27
	M VP15P 3/4 SAE	Male							807304011	D	110,0	4,33	B	36,0	1,42	P	48,00	1,89	T
3/4"	F VP17P 1" SAE	Female	807304012	1-5/16-12UN	M45x3	G	202,5	7,97	F	98,0	3,86	C	46,0	1,81	I	49,8	1,96	0,90	1,97
	M VP17P 1" SAE	Male							807304013	D	127,1	5,00	B	46,0	1,81	P	55,00	2,17	T
1"	F VP21P 1-1/4 SAE	Female	807304014	1-5/8-12UN	M55x3	G	214,8	8,46	F	105,0	4,13	C	55,0	2,17	I	59,8	2,35	1,40	3,09
	M VP21P 1-1/4 SAE	Male							807304015	D	137,0	5,39	B	55,0	2,17	P	70,00	2,76	T
1-1/2"	F VP30P 1-1/2 SAE	Female	807304016	1-7/8-12UN	M72x4	G	271,3	10,68	F	132,2	5,20	C	65,0	2,56	I	85,0	3,35	2,92	6,44
	M VP30P 1-1/2 SAE	Male							807304017	D	174,7	6,88	B	65,0	2,56	P	85,00	3,35	T

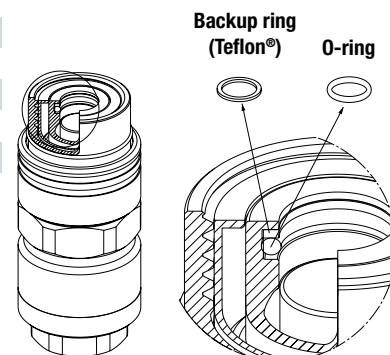


SPARE KIT SEAL FOR MALE

Repair kit / OR+BK		
Body Size	Description	Part Number
1/4"	M VP7	815700519
3/8"	M VP9P	815701096
1/2"	M VP13P	815700339
5/8"	M VP15P	815700341
3/4"	M VP17P	815700655
1"	M VP21P	815700345
1-1/2"	M VP30P*	815700697

* Kit replacement O-Ring Holder + O-Ring

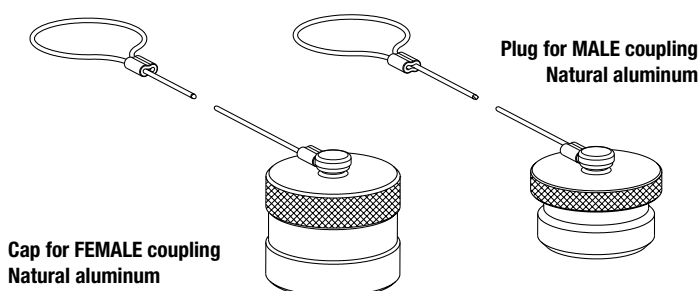
O-Ring in NBR
BackUp in Teflon®



PROTECTIVE CAPS FOR VP-P 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.

For the VP-P series aluminum screw caps complete with lanyard are available (standard colors: natural aluminum, other colors available upon request).



Body Size/Description		Protective Cap		Material/Color
		Cap for Female	Plug for Male	
1/4"	VP7	815305050	815305051	Aluminum/Natural
3/8"	VP9P	815305052	815305053	Aluminum/Natural
1/2"	VP13P	815305054	815305055	Aluminum/Natural
5/8"	VP15P	815305056	815305057	Aluminum/Natural
3/4"	VP17P	815305058	815305059	Aluminum/Natural
1"	VP21P	815305060	815305061	Aluminum/Natural
1-1/2"	VP30P	815305062	815305063	Aluminum/Natural