

# VEP SERIES

## THREADED FLAT FACE COUPLERS

The VEP Series is a popular solution for hydraulic circuit applications subject to high-pressure impulses and circuits which experience high residual or trapped pressure in a line. Thread-to-connect design eliminates premature wear or brinelling, a patented internal valve allows connection/disconnection with high residual pressures, and the flat face design avoids loss of hydraulic fluid and contamination in the circuit. A yellow O-ring indicator makes the VEP series even easier to work with.

Repair Kits – page 48

Protective Caps & Plugs – page 49



### FEATURES

**Size range:** 1/4" thru 2"

**Port options:** NPT, SAE, BSP, ORFS

**Interchanges** with VEPHD, VEPHDL Series

**Connect/disconnect** up to 25 MPa/3625 psi residual pressure

**Working pressure:** 35-60 MPa/5075-8700 psi range

- Eliminates brinelling, reduces leakage
- Saves time changing tools

### APPLICATIONS

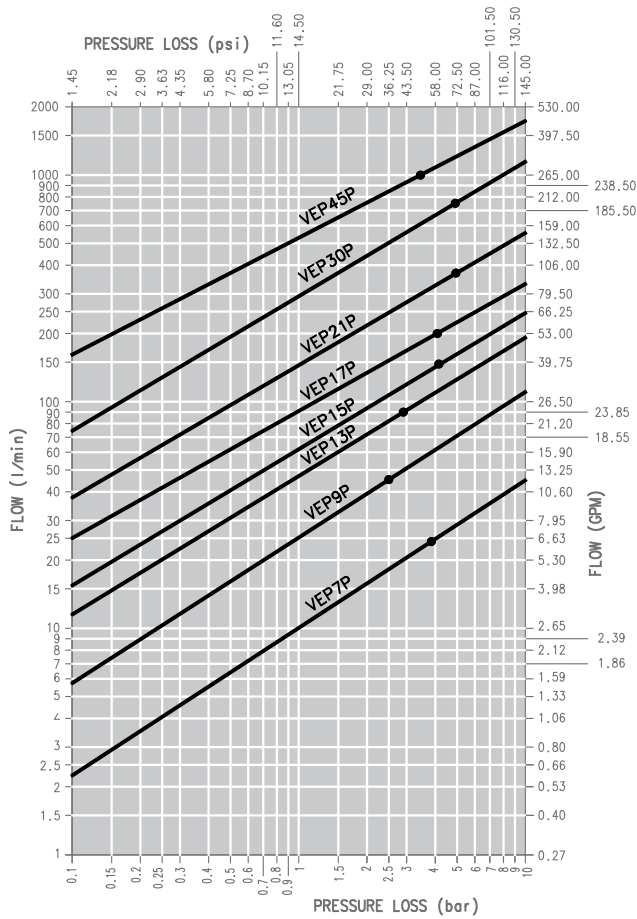
All construction equipment applications with higher pressure requirements or connection/disconnection issues with tool attachments under residual pressure

- All large equipment needing junction points in circuit: cranes, drilling machines, oil field, well head drives, porta-power
- Excavators w/ auxiliary line for attachments: thumbs, grapples, hammers, compactors/hopaks

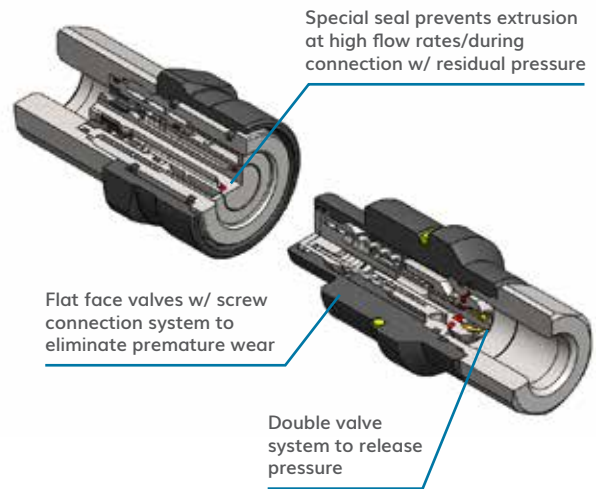




## PRESSURE DROP



OIL = ISO VG32, TEMP = 40C, VISCOSITY = 28.8-35.2 MM<sup>2</sup>/S



## PERFORMANCE

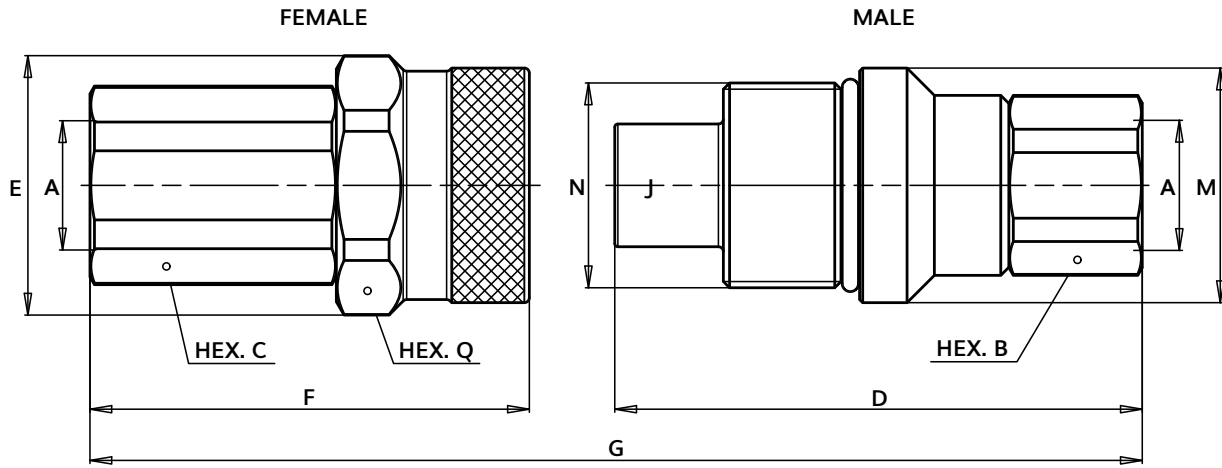
DESCRIPTION	SIZE	MAX. OPERATING PRESSURE COUPLED		COUPLED		BURST PRESSURE				MAX. RESIDUAL PRESSURE DURING CONNECTION		SPILLAGE*
		MPa	psi	MPa	psi	MALE		FEMALE		MPa	psi	
VEP7P	1/4	60	8700	150	21750	150	21750	126	18270	30	4350	0.012
VEP9P	3/8	55	7975	140	20300	140	20300	100	14500	25	3625	0.040
VEP13P	1/2	55	7975	140	20300	140	20300	100	14500	25	3625	0.025
VEP15P	3/4	55	7975	140	20300	140	20300	100	14500	25	3625	0.033
VEP17P	1	50	7250	125	18125	125	18125	100	14500	25	3625	0.018
VEP21P	1 1/4	47	6815	120	17400	120	17400	80	11600	25	3625	0.060
VEP30P	1 1/2	40	5800	110	15950	110	15950	80	11600	25	3625	0.200
VEP45P	2	35	5075	110	15950	110	15950	80	11600	25	3625	0.350

\* Spillage is an indicative value of the fluid loss per couple-uncouple cycle.

# VEP SERIES

## THREADED FLAT FACE COUPLERS

### SIZE DIAGRAM



DESCRIPTION	BODY SIZE	A	UNIT	B	C	D	E	F	G	M	N	G	UNIT	WEIGHT	
														MALE	FEMALE
VEP7P	1/4	1/4	mm	22.0	27.0	71.0	38.8	54.1	113.3	34.8	M30X2	36.0	kg	0.235	0.25
			inch	0.87	1.06	2.80	1.53	2.13	4.46	1.37		1.42	lb	0.52	0.55
VEP9P	3/8	3/8	mm	27.0	30.0	82.5	41.8	65.8	131.3	37.8	M33X2	38.0	kg	0.325	0.335
			inch	1.06	1.18	3.25	1.65	2.59	5.17	1.49		1.50	lb	0.72	0.74
VEP9P	3/8	1/2	mm	27.0	30.0	85.0	41.8	70.8	138.8	37.8	M33X2	38.0	kg	0.320	0.345
			inch	1.06	1.18	3.35	1.65	2.79	5.46	1.49		1.50	lb	0.71	0.76
VEP13P	1/2	1/2	mm	36.0	36.0	95.0	49.8	77.8	154.6	45.8	M40X3	46.0	kg	0.605	0.635
			inch	1.42	1.42	3.74	1.96	3.06	6.09	1.80		1.81	lb	1.33	1.40
VEP13P	1/2	3/4	mm	36.0	36.0	97.4	49.8	84.8	164.0	45.8	M40X3	46.0	kg	0.59	0.60
			inch	1.42	1.42	3.83	1.96	3.34	6.46	1.80		1.81	lb	1.30	1.32
VEP15P	3/4	3/4	mm	36.0	41.0	99.0	53.8	84.9	165.4	49.8	M45X3	50.0	kg	0.69	0.765
			inch	1.42	1.61	3.90	2.12	3.34	6.51	1.96		1.97	lb	1.52	1.69
VEP17P	1	3/4	mm	46.0	46.0	113.6	58.8	96.7	187.5	54.8	M50X3	55.0	kg	1.065	1.168
			inch	1.81	1.81	4.47	2.31	3.81	7.38	2.16		2.17	lb	2.35	2.57
VEP17P	1	1	mm	46.0	46.0	113.6	58.8	99.7	190.5	54.8	M50X3	55.0	kg	1.025	1.115
			inch	1.81	1.81	4.47	2.31	3.93	7.50	2.16		2.17	lb	2.26	2.46
VEP21P	1 1/4	1	mm	55.0	55.0	123.4	69.8	105.8	205.2	64.5	M58X3	65.0	kg	1.540	1.780
			inch	2.17	2.17	4.86	2.75	4.17	8.08	2.54		2.56	lb	3.40	3.92
VEP21P	1 1/4	1 1/4	mm	55.0	55.0	123.4	69.8	106.8	206.2	64.5	M58X3	65.0	kg	1.465	1.700
			inch	2.17	2.17	4.86	2.75	4.20	8.12	2.54		2.56	lb	3.23	3.75
VEP30P	1 1/2	1 1/4	mm	65.0	65.0	150.0	92.0	133.5	253.9	89.8	M80X4	85.0	kg	3.245	3.910
			inch	2.56	2.56	5.91	3.62	5.26	10.00	3.54		3.35	lb	7.15	8.62
VEP30P	1 1/2	1 1/2	mm	65.0	65.0	150.0	92.0	133.5	253.9	89.8	M80X4	85.0	kg	3.18	3.84
			inch	2.56	2.56	5.91	3.62	5.26	10.00	3.54		3.35	lb	7.01	8.47
VEP45P	2	2	mm	90.0	90.0	218.4	200.0	224.8	383.5	145.0	M130X6	0.00	kg	11.67	14.76
			inch	3.54	3.54	8.60	7.87	8.85	15.10	5.71		0.00	lb	25.73	32.54



### VEP NPT Thread Flat Face Thread Coupling with High Residual Pressure

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	DESCRIPTION
<b>VEP NPT THREAD</b>					
COUPLER	1/4	1/4	NPT	806501008	F. VEP7 1/4 NPT
NIPPLE	1/4	1/4	NPT	806501009	M. VEP7 1/4 NPT
COUPLER	3/8	3/8	NPT	806501002	F. VEP9P 3/8 NPT
NIPPLE	3/8	3/8	NPT	806501003	M. VEP9P 3/8 NPT
COUPLER	3/8	1/2	NPT	806501014	F. VEP9P 1/2 NPT
NIPPLE	3/8	1/2	NPT	806501015	M. VEP9P 1/2 NPT
COUPLER	1/2	1/2	NPT	806501000	F. VEP13P 1/2 NPT
NIPPLE	1/2	1/2	NPT	806501001	M. VEP13P 1/2 NPT
COUPLER	1/2	3/4	NPT	806501016	F. VEP13P 3/4 NPT
NIPPLE	1/2	3/4	NPT	806501017	M. VEP13P 3/4 NPT
COUPLER	3/4	3/4	NPT	806501004	F. VEP15P 3/4 NPT
NIPPLE	3/4	3/4	NPT	806501005	M. VEP15P 3/4 NPT
COUPLER	1	1	NPT	806501006	F. VEP17P 1 NPT
NIPPLE	1	1	NPT	806501007	M. VEP17P 1 NPT
COUPLER	1 1/4	1 1/4	NPT	806501010	F. VEP21P 1 1/4 NPT
NIPPLE	1 1/4	1 1/4	NPT	806501011	M. VEP21P 1 1/4 NPT
COUPLER	1 1/2	1 1/2	NPT	806501012	F. VEP30P 1 1/2 NPT
NIPPLE	1 1/2	1 1/2	NPT	806501013	M. VEP30P 1 1/2 NPT
COUPLER	2	2	NPT	807201018	F. VEP45P 2 NPT
NIPPLE	2	2	NPT	807201019	M. VEP45P 2 NPT



Coupler



Nipple

THREADED FLAT FACE  
COUPLERS

### VEP BSP Thread Flat Face Thread Coupling with High Residual Pressure

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	DESCRIPTION
<b>VEP BSP THREAD</b>					
COUPLER	3/8	3/8	BSP	807200002	F. VEP9P 3/8 BSP
NIPPLE	3/8	3/8	BSP	807200003	M. VEP9P 3/8 BSP
COUPLER	1/2	1/2	BSP	807200006	F. VEP13P 1/2 BSP
NIPPLE	1/2	1/2	BSP	807200007	M. VEP13P 1/2 BSP
COUPLER	3/4	3/4	BSP	807200010	F. VEP15P 3/4 BSP
NIPPLE	3/4	3/4	BSP	807200011	M. VEP15P 3/4 BSP
COUPLER	1	1	BSP	807200012	F. VEP17P 1 BSP
NIPPLE	1	1	BSP	807200013	M. VEP17P 1 BSP
COUPLER	1 1/4	1	BSP	807200020	F. VEP21P 1 BSP
NIPPLE	1 1/4	1	BSP	807200021	M. VEP21P 1 BSP
COUPLER	1 1/4	1 1/4	BSP	807200014	F. VEP21P 1 1/4 BSP
NIPPLE	1 1/4	1 1/4	BSP	807200015	M. VEP21P 1 1/4 BSP
COUPLER	1 1/2	1 1/2	BSP	807200016	F. VEP30P 1 1/2 BSP
NIPPLE	1 1/2	1 1/2	BSP	807200017	M. VEP30P 1 1/2 BSP
COUPLER	2	2	BSP	807200018	F. VEP45P 2 BSP
NIPPLE	2	2	BSP	807200019	M. VEP45P 2 BSP

# VEP SERIES

## THREADED FLAT FACE COUPLERS

### VEP SAE and Flange Thread Flat Face Thread Coupling with High Residual Pressure

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	DESCRIPTION
<b>VEP SAE THREAD</b>					
COUPLER	1/4	3/8	SAE	806504008	F. VEP7 3/8 SAE
NIPPLE	1/4	3/8	SAE	806504009	M. VEP7 3/8 SAE
COUPLER	3/8	3/8	SAE	806504014	F. VEP9P 3/8 SAE
NIPPLE	3/8	3/8	SAE	806504015	M. VEP9P 3/8 SAE
COUPLER	3/8	1/2	SAE	806504000	F. VEP9P 1/2 SAE
NIPPLE	3/8	1/2	SAE	806504001	M. VEP9P 1/2 SAE
COUPLER	1/2	1/2	SAE	807204006	F. VEP13P 1/2 SAE*
NIPPLE	1/2	1/2	SAE	807204007	M. VEP13P 1/2 SAE*
COUPLER	1/2	3/4	SAE	806504004	F. VEP13P 3/4 SAE
NIPPLE	1/2	3/4	SAE	806504005	M. VEP13P 3/4 SAE
COUPLER	3/4	3/4	SAE	806504006	F. VEP15P 3/4 SAE
NIPPLE	3/4	3/4	SAE	806504007	M. VEP15P 3/4 SAE
COUPLER	1	1	SAE	806504002	F. VEP17P 1 SAE
NIPPLE	1	1	SAE	806504003	M. VEP17P 1 SAE
COUPLER	1 1/4	1 1/4	SAE	806504010	F. VEP21P 1 1/4 SAE
NIPPLE	1 1/4	1 1/4	SAE	806504011	M. VEP21P 1 1/4 SAE
COUPLER	1 1/2	1 1/2	SAE	806504012	F. VEP30P 1 1/2 SAE
NIPPLE	1 1/2	1 1/2	SAE	806504013	M. VEP30P 1 1/2 SAE
COUPLER	2	2	SAE	807204018	F. VEP45P 2 SAE
NIPPLE	2	2	SAE	807204019	M. VEP45P 2 SAE
<b>VEP FLANGE THREAD</b>					
COUPLER	2	2	FLANGE HEAD	807224018	F. VEP45P 2 CODE 62 FH
NIPPLE	2	2	FLANGE HEAD	807224019	M. VEP45P 2 CODE 62 FH
COUPLER	2	2	FLANGE PAD	807224020	F. VEP45P 2 CODE 62 FP
NIPPLE	2	2	FLANGE PAD	807224021	M. VEP45P 2 CODE 62 FP
COUPLER	2	2	NPT	807201026	F. VEP45P GG 2 NPT*



GG= No handle sleeve

\*All QPQ plating

### Repair Kits

ORDER CODE	DESCRIPTION
<b>MALE VEP O-RING</b>	
815700735	O-RING KIT M. VEP7
815700736	O-RING KIT M. VEP9
815700737	O-RING KIT M. VEP13
815700738	O-RING KIT M. VEP15
815700739	O-RING KIT M. VEP17
815700740	O-RING KIT M. VEP21
815700741	O-RING KIT M. VEP30
815700728	O-RING KIT M. VEP45





## VEP ORFS Thread Flat Face Thread Coupling with High Residual Pressure

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	DESCRIPTION
<b>VEP ORFS THREAD</b>					
COUPLER	3/8	3/8	ORFS	807213002	F. VEP9P 3/8 ORFS
NIPPLE	3/8	3/8	ORFS	807213003	M. VEP9P 3/8 ORFS
COUPLER	1/2	1/2	ORFS	807213004	F. VEP13P 1/2 ORFS
NIPPLE	1/2	1/2	ORFS	807213005	M. VEP13P 1/2 ORFS
COUPLER	3/4	3/4	ORFS	807213006	F. VEP15P 3/4 ORFS
NIPPLE	3/4	3/4	ORFS	807213007	M. VEP15P 3/4 ORFS
COUPLER	1	1	ORFS	807213008	F. VEP17P 1 ORFS
NIPPLE	1	1	ORFS	807213009	M. VEP17P 1 ORFS
COUPLER	1 1/4	1 1/4	ORFS	807213010	F. VEP21P 1 1/4 ORFS
NIPPLE	1 1/4	1 1/4	ORFS	807213011	M. VEP21P 1 1/4 ORFS
<b>VEP ORFS BH THREAD</b>					
COUPLER	3/8	3/8	ORFS BULKHEAD	807213016	F. VEP9P 3/8 ORFS BH
NIPPLE	3/8	3/8	ORFS BULKHEAD	807213017	M. VEP9P 3/8 ORFS BH
COUPLER	1/2	1/2	ORFS BULKHEAD	807213018	F. VEP13P 1/2 ORFS BH
NIPPLE	1/2	1/2	ORFS BULKHEAD	807213019	M. VEP13P 1/2 ORFS BH
COUPLER	3/4	3/4	ORFS BULKHEAD	807213020	F. VEP15P 3/4 ORFS BH
NIPPLE	3/4	3/4	ORFS BULKHEAD	807213021	M. VEP15P 3/4 ORFS BH
COUPLER	1	1	ORFS BULKHEAD	807213022	F. VEP17P 1 ORFS BH
NIPPLE	1	1	ORFS BULKHEAD	807213023	M. VEP17P 1 ORFS BH
COUPLER	1 1/4	1 1/4	ORFS BULKHEAD	807213024	F. VEP21P 1 1/4 ORFS BH
NIPPLE	1 1/4	1 1/4	ORFS BULKHEAD	807213025	M. VEP21P 1 1/4 ORFS BH



Coupler



Nipple

THREADED FLAT FACE  
COUPLERS

## VEP Series Accessories Aluminum | Coupler Dust Plug | Coupler Dust Cap

SIZE	PART	ORDER CODE	DESCRIPTION	PART	ORDER CODE	DESCRIPTION
<b>VEP COUPLER DUST PLUG</b>			<b>VEP COUPLER DUST CAP</b>			
1/4	PLUG	815300030	CAP M. VEP7R	CAP	815300031	CAP M. VEP7R
3/8	PLUG	815300032	CAP M. VEP9R	CAP	815300033	CAP M. VEP9R
1/2	PLUG	815300034	CAP M. VEP13R	CAP	815300035	CAP M. VEP13R
3/4	PLUG	815300036	CAP M. VEP15R	CAP	815300037	CAP M. VEP15R
1	PLUG	815300038	CAP M. VEP17R	CAP	815300039	CAP M. VEP17R
1 1/4	PLUG	815300040	CAP M. VEP21R	CAP	815300041	CAP M. VEP21R
1 1/2	PLUG	815300028	CAP M. VEP30R	CAP	815300029	CAP M. VEP30R
2	PLUG	815300042	CAP M. VEP45	CAP	815300043	CAP M. VEP45



Plug



Cap