

# VEPHD SERIES

## THREADED FLAT FACE COUPLERS

The **VEPHD (Heavy Duty) Series** offers the same features of the VEP series, with upgraded material, a yellow O-ring visual ID, and larger mating areas. Like the VEP, the VEPHD is a popular solution for hydraulic circuit applications subject to high pressure impulses and circuits that experience high residual or trapped pressure in a line, offered in a more durable, higher grade of steel and all QPQ plating for increased longevity.

**Repair Kits, Protective Caps & Plugs – page 54**



### FEATURES

**Size range:** 3/4" thru 1 1/2"

**Port options:** NPT, SAE, Flange Ports

**Interchanges** with VEP, VEPHDL Series

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

**Working pressure:** 40-55 MPa/5800-7975 psi range

- Higher grade of steel for longer life
- Eliminates brinelling, reduces leakage
- Entire body in QPQ
- Wrench flats on male for ease of connection

### APPLICATIONS

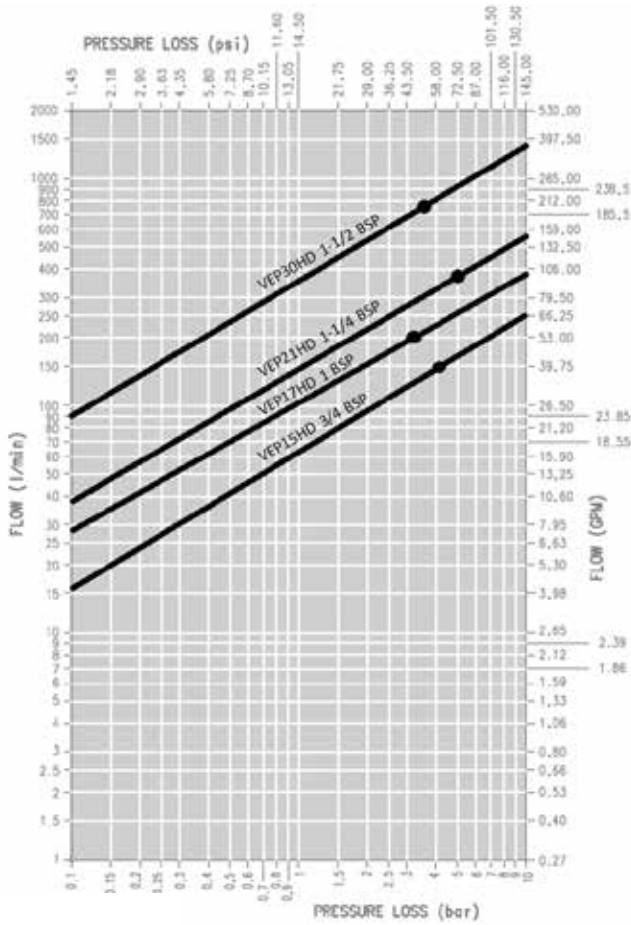
High impulse mobile circuits

- All construction equipment applications with higher pressure requirements or connection/disconnection issues with tool attachments under residual pressure
- Excavators w/ auxiliary line for attachments: thumbs, grapples, hammers, hydraulic compactors, hydraulic tampers, demolition

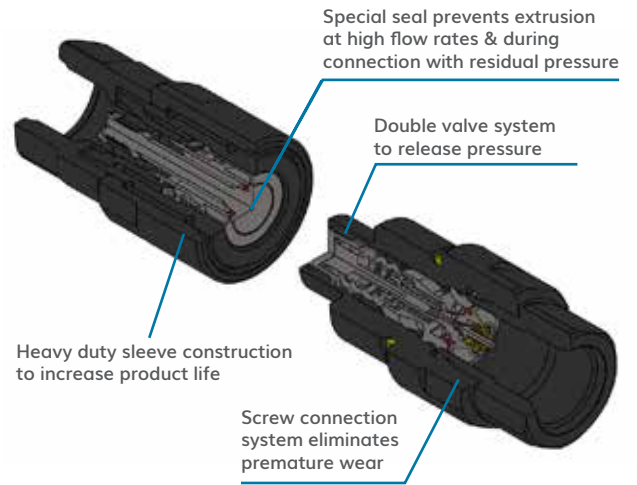




## PRESSURE DROP



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



THREADED FLAT FACE  
COUPLERS

## PERFORMANCE

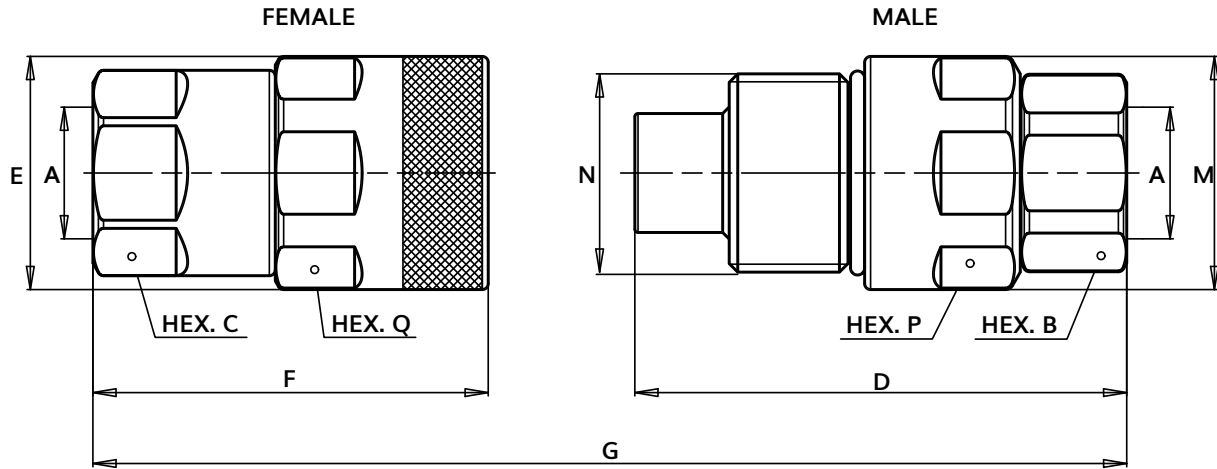
DESCRIPTION	PORT TYPE	SIZE	MAX. OPERATING PRESSURE COUPLED		COUPLED		BURST PRESSURE				MAX. RESIDUAL PRESSURE DURING CONNECTION		SPILLAGE*
			MPa	psi	MPa	psi	MALE	FEMALE	MPa	psi	MPa	psi	
<b>VEPHD FLANGE PORT</b>													
VEP17HD	FLANGE	1	42	6091	165	24000	165	24000	100	14500	25	3625	0.018
VEP21HD	FLANGE	1 1/4	42	6091	165	24000	165	24000	80	11600	25	3625	0.060
VEP30HD	FLANGE	1 1/2	42	6091	165	24000	165	24000	80	11600	25	3625	0.200
<b>VEPHD NPT / SAE</b>													
VEP15HD	NPT/SAE	3/4	55	7975	140	20300	140	20300	100	14500	25	3625	0.033
VEP17HD	NPT/SAE	1	50	7250	125	18125	125	18125	100	14500	25	3625	0.018
VEP21HD	NPT/SAE	1 1/4	47	6815	120	17400	120	17400	80	11600	25	3625	0.060
VEP30HD	NPT/SAE	1 1/2	40	5800	110	15950	110	15950	80	11600	25	3625	0.200

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

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## THREADED FLAT FACE COUPLERS

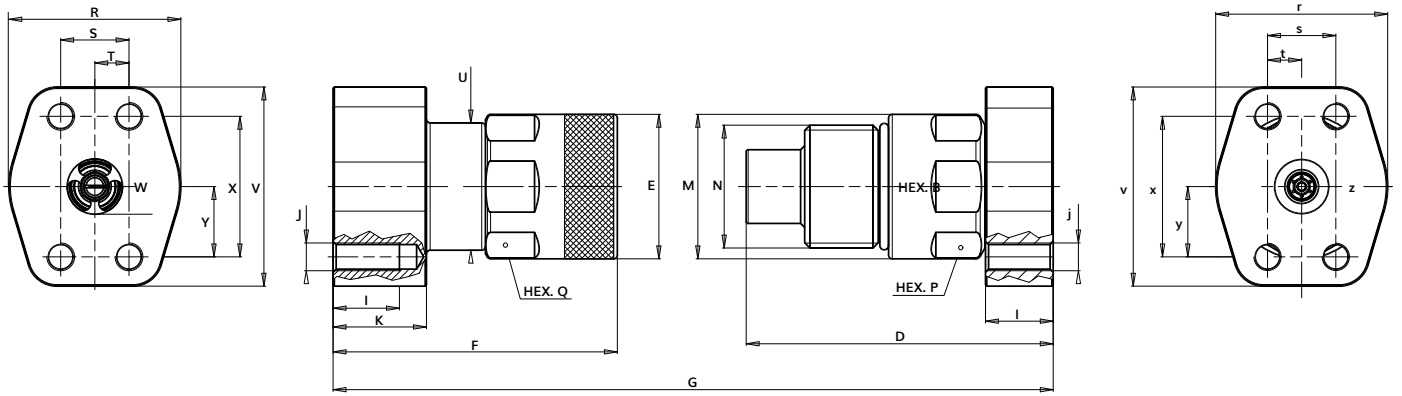
### SIZE DIAGRAM



DESCRIPTION	BODY SIZE	A	UNIT	B	C	D	E	F	G	M	N	P	Q	UNIT	WEIGHT	
															MALE	FEMALE
VEP15HD	5/8	3/4	mm	36.0	41.0	106	53.8	84.9	172.4	53.8	M34x3	50	50	kg	0.93	2.05
			inch	1.42	1.61	4.17	2.12	3.34	6.79	2.12		1.97	1.97	lb	0.95	2.09
VEP17HD	1	3/4	mm	46	46	124	58.8	99.7	200.9	58.8	M50x3	55	55	kg	1.350	1.330
			inch	1.81	1.81	4.88	2.31	3.93	7.91	2.31		2.17	2.17	lb	2.98	2.93
VEP17HD	1	1	mm	46	46	12	58.8	99.7	200.9	58.8	M50x3	55	55	kg	1.300	1.280
			inch	1.81	1.81	4.88	2.31	3.93	7.91	2.31		2.17	2.17	lb	2.87	2.82
VEP21HD	1 1/4	1	mm	55	55	133.4	69.8	106.8	216.2	69.8	M58x3	65	65	kg	1.890	2.120
			inch	2.17	2.17	5.25	2.75	4.20	8.51	2.75		2.56	2.56	lb	4.17	4.67
VEP21HD	1 1/4	1 1/4	mm	55	55	133.4	69.8	106.8	216.2	69.8	M58x3	65	65	kg	1.790	2.020
			inch	2.17	2.17	5.25	2.75	4.20	8.51	2.75		2.56	2.56	lb	3.95	4.45
VEP30HD	1 1/2	1 1/4	mm	65	65	150	95	133.5	253.9	94.4	M80x4	75	85	kg	3.400	4.460
			inch	2.56	2.56	5.91	3.74	5.26	10.0	3.72		2.95	3.35	lb	7.50	9.83
VEP30HD	1 1/2	1 1/2	mm	65	65	150	95	133.5	253.9	94.4	M80x4	75	85	kg	3.300	4.360
			inch	2.56	2.56	5.91	3.74	5.26	10.0	3.72		2.95	3.35	lb	7.28	9.61



## SIZE DIAGRAM VEPHD Flange Pad



THREADED FLAT FACE  
COUPLERS

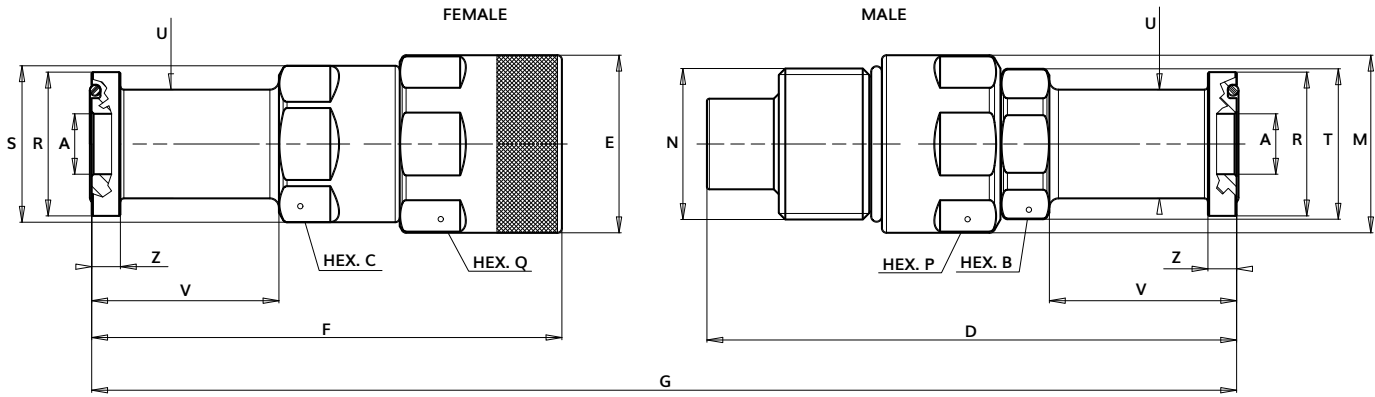
DESCRIPTION	UNIT	D	E	F	G	I	J	K	L	M	N	P
VEP17HD 1 FPU CODE 62	mm inch	125 4.92	58.8 2.31	115.7 4.56	217.9 8.58	27 1.06	UNC 7/16 - 14	38 1.5	27.55 1.08	58.8 2.31	M50X3	55 2.16
VEP21HD 1 FPM CODE 62	mm inch	135.2 5.32	69.8 2.75	116.8 4.6	228 8.98	27 1.06	M12	38 1.5	38 1.5	69.8 2.75	M58X3	65 2.56
VEP21HD 1 1/4 FPU CODE 62	mm inch	123.2 4.85	69.8 2.75	115.8 4.57	215 8.46	25 0.98	UNC 1/2 - 13	37 1.46	26 1.02	69.8 2.75	M58X3	65 2.56
VEP30HD 1 1/4 FPU CODE 62	mm inch	147.6 5.81	95 3.74	148.5 5.85	266.5 10.49	27 1.06	UNC 1/2 - 13 2B	37.9 1.49	35 1.38	94.4 3.72	80X4 TPF	75 2.95
VEP30HD 1 1/4 FPM CODE 62	mm inch	147.6 5.81	95 3.74	148.5 5.85	266.5 10.49	25 0.98	M14	37.9 1.49	35 1.38	94.4 3.72	80X4 TPF	75 2.95
VEP30HD 1 1/2 FPU CODE 62	mm inch	149.6 5.89	95 3.74	156.6 6.16	276.6 10.89	35 1.38	UNC 5/8 - 11	46 1.81	37 1.46	94.4 3.72	80X4 TPF	75 2.95

DESCRIPTION	UNIT	WEIGHT											UNIT	MALE	FEMALE
		Q	R	S	T	U	V	W	X	Y	Z				
VEP17HD 1 FPU CODE 62	mm inch	55 2.16	70 2.76	27.8 1.09	13.9 0.55	51.8 2.04	81.05 3.19	22.5 0.89	57.2 2.25	28.6 1.13	22 0.87	kg lb	1.96 4.31	2.34 5.15	
VEP21HD 1 FPM CODE 62	mm inch	65 2.56	70 2.76	27.8 1.09	13.9 0.55	68 2.68	81.05 3.19	22.5 0.89	57.2 2.25	28.6 1.13	22.5 0.89	kg lb	2.23 4.91	2.82 6.2	
VEP21HD 1 1/4 FPU CODE 62	mm inch	65 2.56	78 3.07	31.8 1.25	15.9 0.63	68 2.68	95.25 3.75	25.6 1.01	66.6 2.62	33.3 1.31	25.6 1.01	kg lb	2.45 5.39	3.29 7.24	
VEP30HD 1 1/4 FPU CODE 62	mm inch	85 3.35	78 3.07	31.8 1.25	15.9 0.63	89 3.5	95.25 3.75	32 1.26	66.6 2.62	33.3 1.31	32 1.26	kg lb	4.01 8.82	5.68 12.5	
VEP30HD 1 1/4 FPM CODE 62	mm inch	85 3.35	78 3.07	31.8 1.25	15.9 0.63	89 3.5	95.25 3.75	32 1.26	66.6 2.62	33.3 1.31	32 1.26	kg lb	4.01 8.82	5.68 12.5	
VEP30HD 1 1/2 FPU CODE 62	mm inch	85 3.35	95 3.74	36.5 1.44	18.25 0.72	89 3.5	112.8 4.44	35 1.38	79.3 3.12	39.65 1.56	32 1.26	kg lb	4.81 10.58	6.91 15.2	

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## THREADED FLAT FACE COUPLERS

### SIZE DIAGRAM VEPHD Connect Under Pressure



DESCRIPTION	UNIT	A	B	C	D	E	F	G	M	N	P
VEP17HD 1 FH CODE 62	mm	20	46	46	175.4	58.8	155.7	308.3	58.8	M50X3	55
	inch	0.79	1.81	1.81	6.9	2.31	6.13	12.14	2.31		2.16
VEP21HD 1 1/4 FH CODE 62	mm	25.6	55	55	184.2	69.8	170.8	331	69.8	M58X3	65
	inch	1.01	2.16	2.16	7.25	2.75	6.72	13.03	2.75		2.56
VEP30HD 1 1/4 FH CODE 62	mm	28	65	65	201.6	95	199.5	371.5	94.4	80X4 TPF	75
	inch	1.1	2.56	2.56	7.94	3.74	7.85	14.63	3.72		2.95
VEP30HD 1 1/2 FH CODE 62	mm	32	65	65	211.6	95	209.5	391.5	94.4	80X4 TPF	75
	inch	1.26	2.56	2.56	8.33	3.74	8.25	15.41	3.72		2.95

DESCRIPTION	UNIT	Q	R	S	T	U	V	Z	UNIT	WEIGHT	
										MALE	FEMALE
VEP17HD 1 FH CODE 62	mm	55	47.6	51.8	49.8	36	62	9.5	kg	1.65	1.68
	inch	2.16	1.87	2.04	1.96	1.42	2.44	0.37	lb	3.63	3.7
VEP21HD 1 1/4 FH CODE 62	mm	65	53.9	68	59.8	41.9	69	10.3	kg	2.16	2.6
	inch	2.56	2.12	2.68	2.35	1.65	2.72	0.41	lb	4.75	5.72
VEP30HD 1 1/4 FH CODE 62	mm	85	53.9	89	69.8	44	69	10.3	kg	3.61	5.01
	inch	3.35	2.12	3.5	2.75	1.73	2.72	0.41	lb	7.94	11.02
VEP30HD 1 1/2 FH CODE 62	mm	85	63.5	89	69.8	49	79	12.6	kg	3.85	5.23
	inch	3.35	2.5	3.5	2.75	1.93	3.11	0.5	lb	8.47	11.51

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

SIZE	PART	ORDER CODE	DESCRIPTION	PART	ORDER CODE	DESCRIPTION
VEPHD COUPLER DUST PLUG			VEPHD COUPLER DUST CAP			
3/4	PLUG	815300036	CAP F. VEP15R	CAP	815300037	CAP M. VEP15R
1	PLUG	815300038	CAP F. VEP17R	CAP	815300039	CAP M. VEP17R
1 1/4	PLUG	815300040	CAP F. VEP21R	CAP	815300041	CAP M. VEP21R
1 1/2	PLUG	815300028	CAP F. VEP30R	CAP	815300029	CAP M. VEP30R



Plug



Cap



### VEPHD NPT and SAE Thread Flat Face Thread Coupling with High Residual Pressure

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	DESCRIPTION
<b>VEPHD NPT THREAD</b>					
COUPLER	3/4	3/4	NPT	808101010	F. VEP15HD 3/4 NPT
NIPPLE	3/4	3/4	NPT	808101011	M. VEP15HD 3/4 NPT
COUPLER	1	1	NPT	808101012	F. VEP17HD 1 NPT
NIPPLE	1	1	NPT	808101013	M. VEP17HD 1 NPT
COUPLER	1 1/4	1 1/4	NPT	808101014	F. VEP21HD 1 1/4 NPT
NIPPLE	1 1/4	1 1/4	NPT	808101015	M. VEP21HD 1 1/4 NPT
COUPLER	1 1/2	1 1/2	NPT	808101016	F. VEP30HD 1 1/2 NPT
NIPPLE	1 1/2	1 1/2	NPT	808101017	M. VEP30HD 1 1/2 NPT
<b>VEPHD SAE THREAD</b>					
COUPLER	3/4	3/4	SAE	808104010	F. VEP15HD 3/4 SAE
NIPPLE	3/4	3/4	SAE	808104011	M. VEP15HD 3/4 SAE
COUPLER	1	1	SAE	808104012	F. VEP17HD 1 SAE
NIPPLE	1	1	SAE	808104013	M. VEP17HD 1 SAE
COUPLER	1 1/4	1 1/4	SAE	808104014	F. VEP21HD 1 1/4 SAE
NIPPLE	1 1/4	1 1/4	SAE	808104015	M. VEP21HD 1 1/4 SAE
COUPLER	1 1/2	1 1/2	SAE	808104016	F. VEP30HD 1 1/2 SAE
NIPPLE	1 1/2	1 1/2	SAE	808104017	M. VEP30HD 1 1/2 SAE



Coupler



Nipple

THREADED FLAT FACE COUPLERS

### VEPHD Flange Ports Code 62 Flat Face Thread Coupling with High Residual Pressure

PART	BODY SIZE	PORT SIZE	PORT TYPE	BOLT SIZE FP	ORDER CODE	DESCRIPTION
<b>VEPHD FLANGE PORTS</b>						
COUPLER	1	1	FH	N/A	808124012	F. VEP17HD 1 FH CODE 62
NIPPLE	1	1	FH	N/A	808124013	M. VEP17HD 1 FH CODE 62
COUPLER	1	1	FPU	7/16 - 14 UNC	808124020	F. VEP17HD 1 FPU CODE 62
NIPPLE	1	1	FPU	7/16 - 14 UNC	808124021	M. VEP17HD 1 FPU CODE 62
COUPLER	1 1/4	1	FPM	M12	808124018	F. VEP21HD 1 FPM CODE 62
NIPPLE	1 1/4	1	FPM	M12	808124019	M. VEP21HD 1 FPM CODE 62
COUPLER	1 1/4	1 1/4	FH	N/A	808124014	F. VEP21HD 1 1/4 FH CODE 62
NIPPLE	1 1/4	1 1/4	FH	N/A	808124015	M. VEP21HD 1 1/4 FH CODE 62
COUPLER	1 1/4	1 1/4	FPU	1/2 - 13 UNC	808124022	F. VEP21HD 1 1/4 FPU CODE 62
NIPPLE	1 1/4	1 1/4	FPU	1/2 - 13 UNC	808124023	M. VEP21HD 1 1/4 FPU CODE 62
COUPLER	1 1/2	1 1/2	FH	N/A	808124016	F. VEP30HD 1 1/2 FH CODE 62
NIPPLE	1 1/2	1 1/2	FH	N/A	808124017	M. VEP30HD 1 1/2 FH CODE 62
COUPLER	1 1/2	1 1/2	FPU	5/8 - 11 UNC	808124024	F. VEP30HD 1 1/2 FPU CODE 62
NIPPLE	1 1/2	1 1/2	FPU	5/8 - 11 UNC	808124025	M. VEP30HD 1 1/2 FPU CODE 62
COUPLER	1 1/2	1 1/4	FPU	1/2 - 13 UNC	808124036	F. VEP30HD 1 1/4 FPU CODE 62
NIPPLE	1 1/2	1 1/4	FPU	1/2 - 13 UNC	808124037	M. VEP30HD 1 1/4 FPU CODE 62
COUPLER	1 1/2	1 1/4	FH	N/A	808124038	F. VEP30HD 1 1/4 FH CODE 62
NIPPLE	1 1/2	1 1/4	FH	N/A	808124039	M. VEP30HD 1 1/4 FH CODE 62
COUPLER	1 1/2	1 1/4	FPM	M14	808124034	F. VEP30HD 1 1/4 FPM CODE 62 M14
NIPPLE	1 1/2	1 1/4	FPM	M14	808124035	M. VEP30HD 1 1/4 FPM CODE 62 M14
COUPLER	1 1/2	1 1/4	FPM	M12	808124040	F. VEP30HD 1 1/4 FPM CODE 62 M12
NIPPLE	1 1/2	1 1/4	FPM	M12	808124041	M. VEP30HD 1 1/4 FPM CODE 62 M12



Flange Head



Flange Pad

Two bolt thread options for flange pad ports: UNC and Metric. For size 1 1/4 pad metric options are M12 & M14.

### VEPHD Flange Ports Code 61 Flat Face Thread Coupling with High Residual Pressure

DESCRIPTION	BODY SIZE	PORT SIZE	PORT TYPE	BOLT SIZE FP	ORDER CODE	DESCRIPTION
<b>VEPHD FLANGE PORTS</b>						
COUPLER	3/4	3/4	FH	N/A	808124046	F. VEP15HD 3/4 FH CODE 61
NIPPLE	3/4	3/4	FH	N/A	808124047	M. VEP15HD 3/4 FH CODE 61
COUPLER	1	1	FH	N/A	808124050	F. VEP17HD 1 FH CODE 61
NIPPLE	1	1	FH	N/A	808124051	M. VEP17HD 1 FH CODE 61