

# Connect Under Pressure Threaded Flat Face Coupling



## Flat Face: Threaded Coupling

**Series:** VEP

**Interchange:** None

- High working pressures: 40-60 MPa/5800-8700 psi range based on size
- Thread coupling system eliminates brinelling, premature leakage
- Connect/disconnect under residual pressure up to 25 MPa/3625 psi
- Valve limits fluid movement during connection avoiding damage to other elements of circuit
- Low connection force required

**Fire Tested and Lloyd's Certified\* in compliance with API 16D Test and EUB Directive 36.**

\* Lloyd's document available upon request

### Overview

Stucchi VEP series is the ultimate solution and most popular for hydraulic circuit applications subject to high pressure impulses, and circuits which experience high residual or trapped pressure in a line. The VEP thread-to-connect design eliminates premature wear or brinelling associated with locking ball designs subjected to high impulse pressures. The patented internal valve allows connection and disconnection with high residual pressures. Flat face design avoids loss of hydraulic fluid during connection/disconnection. Flat face design is easy to clean, limiting contamination into the circuit.

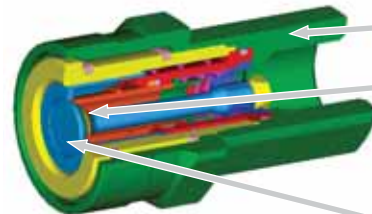
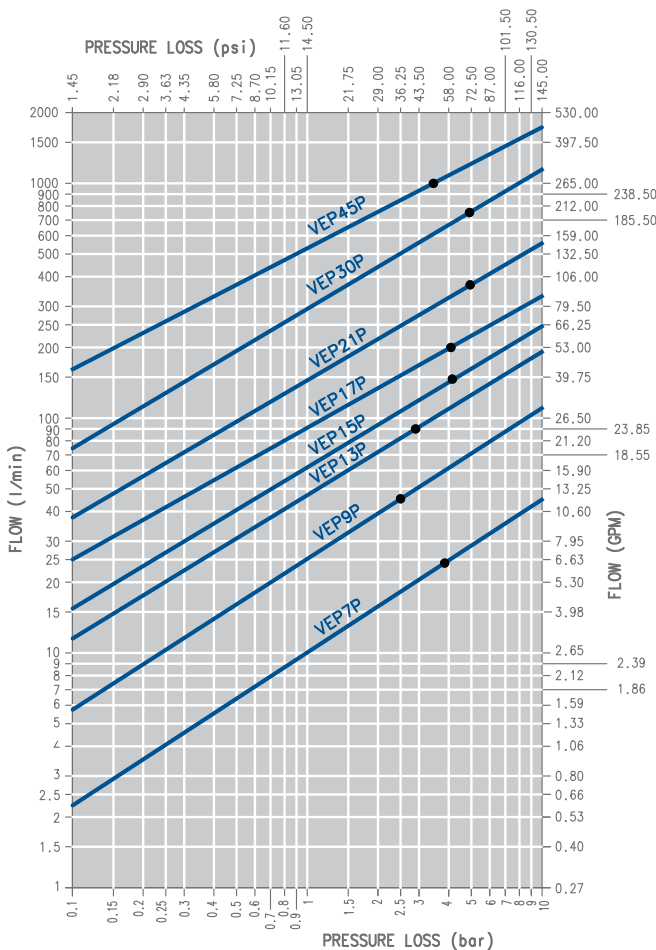
### Applications & Features

- Excavators w/auxiliary line for attachments: thumbs, grapples, hammers, and compactors/hopaks
- Oil Field, well head drives, porta-power
- Cranes, drilling machines, all large equipment needing junction points in circuit
- All construction equipment applications with higher pressure requirements or issues of connecting/disconnecting tool attachments under residual pressure
- Eliminates brinelling, reduces leakage
- Save time changing tools

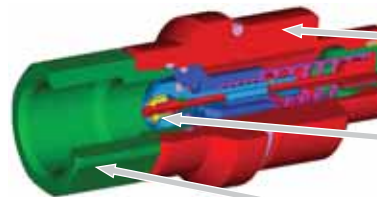
# Connect Under Pressure Threaded Flat Face Coupling

DESCRIPTION	SIZE	MAX. OPERATING PRESSURE COUPLED		BURST PRESSURE						MAX. RESIDUAL PRESSURE DURING CONNECTION		SPILLAGE*
				COUPLED		MALE		FEMALE				
		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	
VEP7	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-UNCUPLE CYCLE



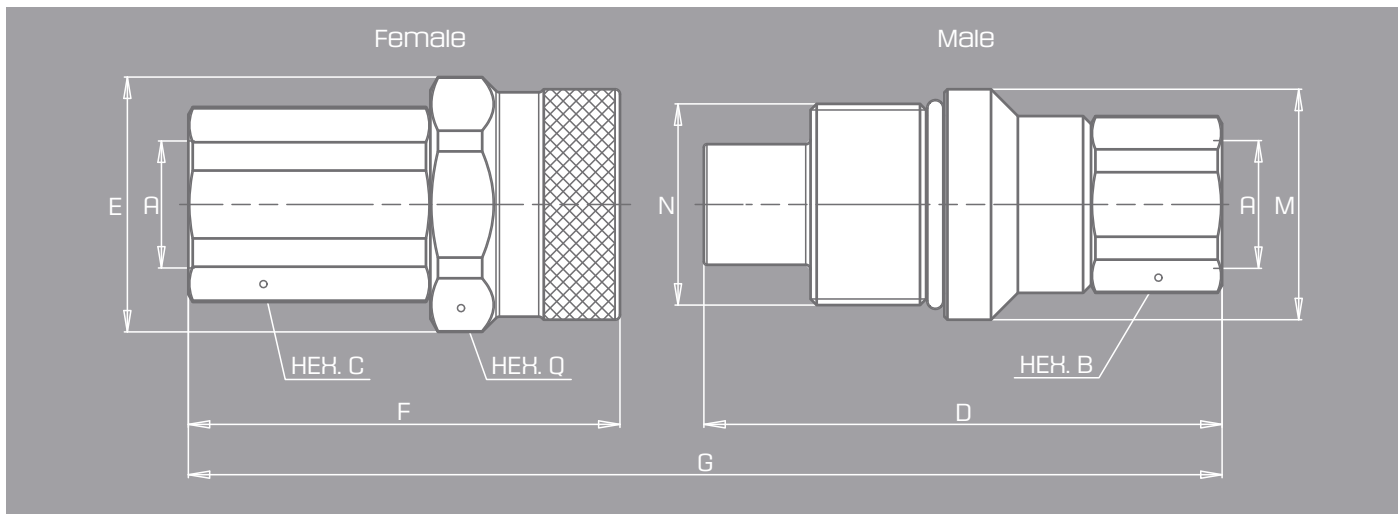
- Modular structure
- Special seal to prevent extrusion at high flow rates and during connection with residual pressure
- Flat face valves



- Screw connection system eliminates premature wear
- Double valve system to release pressure
- Modular structure
- Flat face valves



## Flat Face: Connect Under Pressure Size Diagram



DESCRIPTION	BODY SIZE	A	UNIT	B	C	D	E	F	G	M	N	Q	UNIT	WEIGHT	
														MALE	FEMALE
VEP7	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

# Connect Under Pressure Threaded Flat Face Coupling



COUPLER



NIPPLE

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

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	PART 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. VEP9 3/8 NPT
NIPPLE	3/8	3/8	NPT	806501003	M. VEP9 3/8 NPT
COUPLER	3/8	1/2	NPT	806501014	F. VEP9 1/2 NPT
NIPPLE	3/8	1/2	NPT	806501015	M. VEP9 1/2 NPT
COUPLER	1/2	1/2	NPT	806501000	F. VEP13 1/2 NPT
NIPPLE	1/2	1/2	NPT	806501001	M. VEP13 1/2 NPT
COUPLER	1/2	3/4	NPT	806501016	F. VEP13 3/4 NPT
NIPPLE	1/2	3/4	NPT	806501017	M. VEP13 3/4 NPT
COUPLER	3/4	3/4	NPT	806501004	F. VEP15 3/4 NPT
NIPPLE	3/4	3/4	NPT	806501005	M. VEP15 3/4 NPT
COUPLER	1	1	NPT	806501006	F. VEP17 1 NPT
NIPPLE	1	1	NPT	806501007	M. VEP17 1 NPT
COUPLER	1 1/4	1 1/4	NPT	806501010	F. VEP21 114 NPT
NIPPLE	1 1/4	1 1/4	NPT	806501011	M. VEP21 114 NPT
COUPLER	1 1/2	1 1/2	NPT	806501012	F. VEP30 112 NPT
NIPPLE	1 1/2	1 1/2	NPT	806501013	M. VEP30 112 NPT
COUPLER	2	2	NPT	807201018	F. VEP45 2 NPT
NIPPLE	2	2	NPT	807201019	M. VEP45 2 NPT
<b>VEP SAE THREAD</b>					
COUPLER	3/8	1/2	SAE	806504000	F. VEP 9 1/2 SAE
NIPPLE	3/8	1/2	SAE	806504001	M. VEP 9 1/2 SAE
COUPLER	1/2	3/4	SAE	806504004	F. VEP 13 3/4 SAE
NIPPLE	1/2	3/4	SAE	806504005	M. VEP 13 3/4 SAE
COUPLER	3/4	3/4	SAE	806504006	F. VEP 15 3/4 SAE
NIPPLE	3/4	3/4	SAE	806504007	M. VEP 15 3/4 SAE
COUPLER	1	1	SAE	806504002	F. VEP 17 1 SAE
NIPPLE	1	1	SAE	806504003	M. VEP 17 1 SAE
COUPLER	1 1/4	1 1/4	SAE	806504010	F. VEP21 114 SAE
NIPPLE	1 1/4	1 1/4	SAE	806504011	M. VEP21 114 SAE
COUPLER	1 1/2	1 1/2	SAE	806504012	F. VEP30 112 SAE
NIPPLE	1 1/2	1 1/2	SAE	806504013	M. VEP30 112 SAE
COUPLER	2	2	SAE	807204018	F. VEP45 2 SAE
NIPPLE	2	2	SAE	807204019	M. VEP45 2 SAE
<b>VEP FLANGE THREAD</b>					
COUPLER	2	2	FLANGE	807224020	F. VEP45 2 CODE 62 FP
NIPPLE	2	2	FLANGE	807224021	M. VEP45 2 CODE 62 FP



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

PART	BODY SIZE	PORT SIZE	THREAD TYPE	ORDER CODE	PART DESCRIPTION
<b>VEP ORFS THREAD</b>					
COUPLER	3/8	3/8	ORFS	807213002	F. VEP 9P 3/8 ORFS
NIPPLE	3/8	3/8	ORFS	807213003	M. VEP 9P 3/8 ORFS
COUPLER	1/2	1/2	ORFS	807213004	F. VEP 13P 1/2 ORFS
NIPPLE	1/2	1/2	ORFS	807213005	M. VEP 13P 1/2 ORFS
COUPLER	3/4	3/4	ORFS	807213006	F. VEP 15P 3/4 ORFS
NIPPLE	3/4	3/4	ORFS	807213007	M. VEP 15P 3/4 ORFS
COUPLER	1	1	ORFS	807213008	F. VEP 17P 1 ORFS
NIPPLE	1	1	ORFS	807213009	M. VEP 17P 1 ORFS
<b>VEP ORFS BH THREAD</b>					
COUPLER	3/8	3/8	ORFS BULKHEAD	807213016	F. VEP 9P 3/8 ORFS BH
NIPPLE	3/8	3/8	ORFS BULKHEAD	807213017	M. VEP 9P 3/8 ORFS BH
COUPLER	1/2	1/2	ORFS BULKHEAD	807213018	F. VEP 13P 1/2 ORFS BH
NIPPLE	1/2	1/2	ORFS BULKHEAD	807213019	M. VEP 13P 1/2 ORFS BH
COUPLER	3/4	3/4	ORFS BULKHEAD	807213020	F. VEP 15P 3/4 ORFS BH
NIPPLE	3/4	3/4	ORFS BULKHEAD	807213021	M. VEP 15P 3/4 ORFS BH
COUPLER	1	1	ORFS BULKHEAD	807213022	F. VEP 17P 1 ORFS BH
NIPPLE	1	1	ORFS BULKHEAD	807213023	M. VEP 17P 1 ORFS BH
<b>VEP BSP THREAD</b>					
COULER	3/8	3/8	BSP	807200002	F. VEP 9P 3/8 BSP
NIPPLE	3/8	3/8	BSP	807200003	M. VEP 9P 3/8 BSP
COULER	1/2	1/2	BSP	807200006	F. VEP 13P 1/2 BSP
NIPPLE	1/2	1/2	BSP	807200007	M. VEP 13P 1/2 BSP
COULER	3/4	3/4	BSP	807200010	F. VEP 15 3/4 BSP
NIPPLE	3/4	3/4	BSP	807200011	M. VEP 15P 3/4 BSP
COULER	1	1	BSP	807200012	F. VEP 17P 1 BSP
NIPPLE	1	1	BSP	807200013	M. VEP 17P 1 BSP
COULER	1 1/4	1	BSP	807200020	F. VEP 21P 1 BSP
NIPPLE	1 1/4	1	BSP	807200021	M. VEP 21P 1 BSP
COULER	1 1/4	1 1/4	BSP	807200014	F. VEP 21P 1 1/4 BSP
NIPPLE	1 1/4	1 1/4	BSP	807200015	M. VEP 21P 1 1/4 BSP
COULER	1 1/2	1 1/2	BSP	807200022	F. VEP 30P 1 1/2 BSP
NIPPLE	1 1/2	1 1/2	BSP	807200023	M. VEP 30P 1 1/2 BSP
COULER	2	2	BSP	807200018	F. VEP 45P 2 BSP
NIPPLE	2	2	BSP	807200019	M. VEP 45P 2 BSP



COUPLER



NIPPLE