



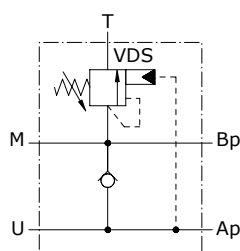
## Type VEP/FC two pump "high-low" unloading valves

- Single acting
- Flanged solution

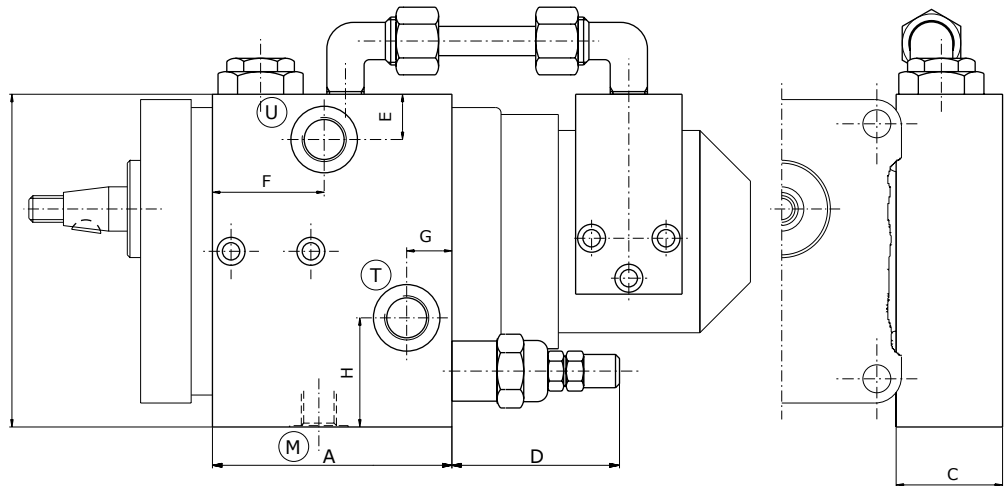
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

Line	VEP/FC 38	VEP/FC 12	VEP/FC 34	VEP/FC 100	
Nominal flow	<b>Ap</b> (high pressure inlet port)	10 l/min (2.6 US gpm)	20 l/min (5.3 US gpm)	30 l/min (7.9 US gpm)	50 l/min (13.2 US gpm)
	<b>Bp</b> (low pressure inlet port)	25 l/min (6.6 US gpm)	45 l/min (11.9 US gpm)	80 l/min (21.1 US gpm)	150 l/min (39.6 US gpm)
	<b>U</b> (work port)	30 l/min (7.9 US gpm)	55 l/min (14.5 US gpm)	100 l/min (26.4 US gpm)	180 l/min (47.6 US gpm)
Max. pressure	Aluminium body = 210 bar (3050 psi) Steel body = 350 bar (5100 psi)				
Fluid	mineral based oil				
Viscosity	from 10 to 200 cSt				
Max. level of contamination	18/16/13 ISO4406				
Fluid temperature	with NBR seals from -20°C (-4°F) to 80°C (176°F) with FPM seals from -20°C (-4°F) to 100°C (212°F)				
Environmental temp. for working conditions	from -40°C (-40°F) to 100°C (212°F)				
Weight	aluminium	1.36 kg (3.05 lb)	2.50 kg (5.51 lb)	3.50 kg (7.72 lb)	6.21 kg (13.69 lb)
	steel	2.48 kg (5.47 lb)	4.22 kg (9.30 lb)	7.91 kg (17.44 lb)	-

NOTE - For different conditions, please contact Walvoil Sales Dpt.



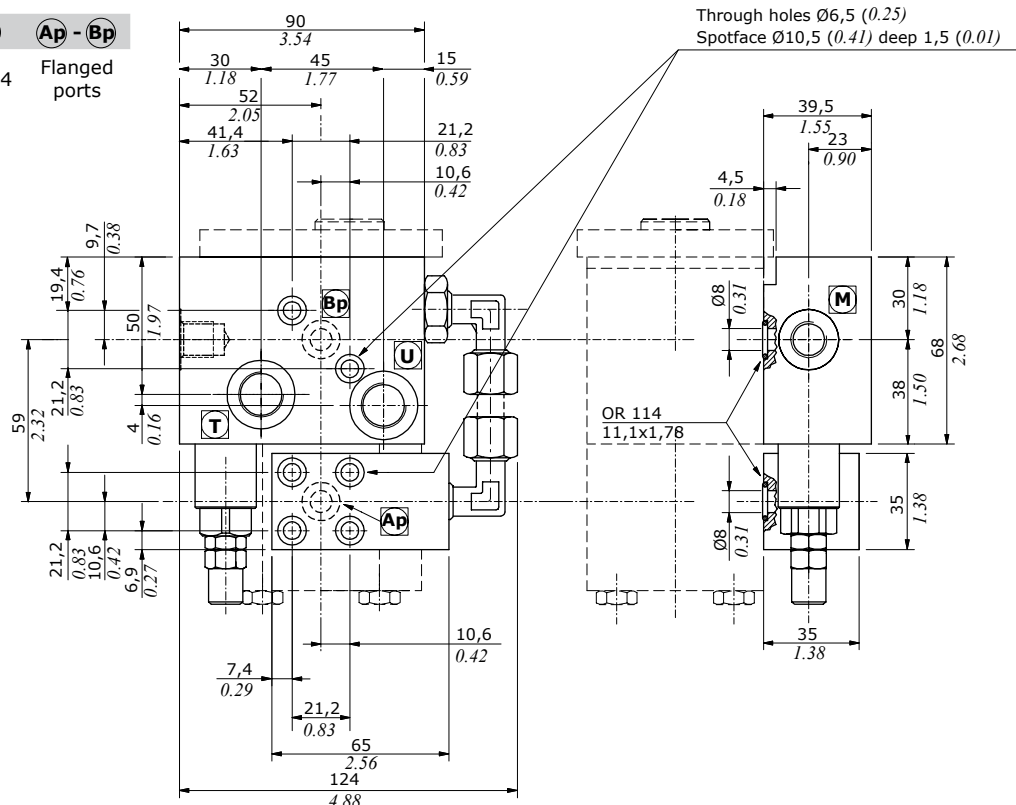
Valve type	(M)	(T-U)
VEP/FC 38 Gr 1+1	G1/4	G3/8
VEP/FC 12 Gr 2+1	G1/4	G1/2
VEP/FC 12 Gr 2+2	G1/4	G1/2
VEP/FC 34 Gr 3+1	G1/4	G3/4
VEP/FC 34 Gr 3+1	G1/4	G3/4
VEP/FC 34 Gr 3+2	G1/4	G3/4
VEP/FC 50 Gr 3+3	G1/4	G1"
VEP/FC 100 Gr 3,5+3	G1/4	G1"



Dimensions are in mm-in

Valve type	A	B	C	D	E	F	G	H	Ap	Bp
VEP/FC 38 Gr 1+1	80 3.15	90 3.54	40 1.57	60 2.36	15 0.59	46 1.81	18 0.7	30 1.18	10 0.39	25 0.98
VEP/FC 12 Gr 2+1	90 3.54	125 4.92	40 1.57	65 2.56	17 0.67	43 1.69	17 0.67	41 1.61	15 0.59	45 1.77
VEP/FC 12 Gr 2+2	90 3.54	125 4.92	40 1.57	65 2.56	17 0.67	43 1.69	17 0.67	41 1.61	25 0.98	45 1.77
VEP/FC 34 Gr 3+1	120 4.72	130 5.11	60 2.36	72 2.83	30 1.18	64 2.52	22 0.86	51 2	20 0.79	80 3.15
VEP/FC 34 Gr 3+1	120 4.72	130 5.11	60 2.36	72 2.83	30 1.18	64 2.52	22 0.86	51 2	35 1.38	80 3.15
VEP/FC 34 Gr 3+2	120 4.72	130 5.11	60 2.36	72 2.83	30 1.18	64 2.52	22 0.86	51 2	45 1.77	80 3.15
VEP/FC 50 Gr 3+3	140 5.51	160 6.3	75 2.95	90 3.54	31 1.22	84 3.3	32 1.26	66 2.6	60 2.36	120 4.72
VEP/FC 100 Gr 3,5+3	140 5.51	160 6.3	75 2.95	90 3.54	31 1.22	84 3.3	32 1.26	66 2.6	80 3.15	150 5.9

Valve type	(U)	(T)	(M)	(Ap - Bp)
VEP/FC 38 Gr 1+1 PLP	G3/8	G3/8	G1/4	Flanged ports



## Logic valves

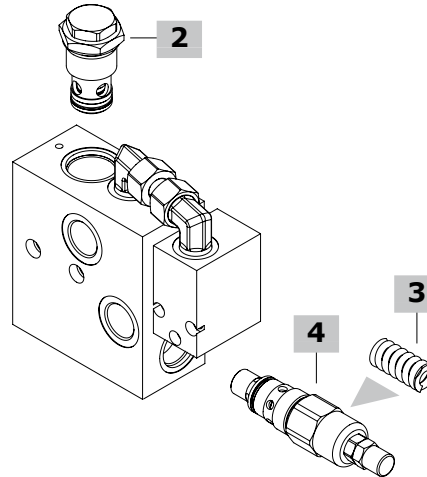
Two pump "hi-low" unloading-valves

VEP/FC

## Ordering codes and description composition

Port size  
**VEP/FC 38/Gr1+1/TV.S**

3



### VEP/FC complete valves

*Single type valve configuration; standard setting is referred to 5 l/min (1.32 US gpm)*

#### Configuration with G3/8 standard thread

TYPE: **VEP/FC 38/Gr1+1/TV.S** CODE: 1222021100  
 DESCRIPTION: Aluminium body, range 20-80 bar (290-1160 psi), standard setting 60 bar (870 psi)

TYPE: **VEP/FC 38/Gr1+1/TV.S/ac** CODE: 1222022100  
 DESCRIPTION: Steel body, as previous one

TYPE: **VEP/FC 38/Gr1+1/PLP/TV.S** CODE: 1222021107  
 DESCRIPTION: Aluminium body, range 20-80 bar (290-1160 psi), standard setting 60 bar (870 psi), with "PLP" special flange

#### Configuration with G1/2 standard thread

TYPE: **VEP/FC 12/Gr2+1/TV.S** CODE: 1222031100  
 DESCRIPTION: Aluminium body, range 5-80 bar (72.5-1160 psi), standard setting 40 bar (580 psi)

TYPE: **VEP/FC 12/Gr2+1/TV.S/ac** CODE: 1222032105  
 DESCRIPTION: Steel body, as previous one

TYPE: **VEP/FC 12/Gr2+2/TV.S** CODE: 1222031101  
 DESCRIPTION: Aluminium body, range 5-80 bar (72.5-1160 psi), standard setting 40 bar (580 psi)

TYPE: **VEP/FC 12/Gr2+2/TV.S/ac** CODE: 1222032100  
 DESCRIPTION: Steel body, as previous one

#### Configuration with G3/4 standard thread

TYPE: **VEP/FC 34/Gr3+1/TV.S** CODE: 1222041100  
 DESCRIPTION: Aluminium body, range 10-50 bar (145-725 psi), standard setting 50 bar (725 psi)

TYPE: **VEP/FC 34/Gr3+2/TV.S** CODE: 1222041101  
 DESCRIPTION: Aluminium body, range 10-80 bar (145-1160 psi), standard setting 50 bar (725 psi)

TYPE: **VEP/FC 34/Gr3+2/TV.S/ac** CODE: 1222042101  
 DESCRIPTION: Steel body, as previous one

TYPE: **VEP/FC 34/Gr3+3/TV.S** CODE: 1222041102  
 DESCRIPTION: Aluminium body, range 10-80 bar (145-1160 psi), standard setting 50 bar (725 psi)

#### Configuration with G 1" standard thread

TYPE: **VEP/FC 100/Gr3,5+3/TV.S** CODE: 1222051100  
 DESCRIPTION: Aluminium body, range 20-80 bar (290-1160 psi), standard setting 60 bar (870 psi)

For not listed steel body configurations, different flanging, SAE thread, or configurations with FPM (Viton) seals, please contact our Sales Dpt.

### 1 Sequence valve

*Setting range 20-80 bar (290-1150 psi) (Lp)*

*Standard setting 160 bar at 5 l/min (2320 psi at 1.32 US gpm)*

TYPE	CODE	DESCRIPTION
<b>VDS/VEP 38/TV.S</b>	1205020400	For G3/8 port configuration
<b>VDS/VEP 12/TV.S</b>	1205030400	For G1/2 port configuration
<b>VDS/VEP 34/TV.S</b>	1205040405	For G3/4 port configuration
<b>VDS/VEP 100/TV.S</b>	1205050400	For G1" port configuration

### 2 Check valve

*Opening pressure 0.5 bar (7.25 psi)*

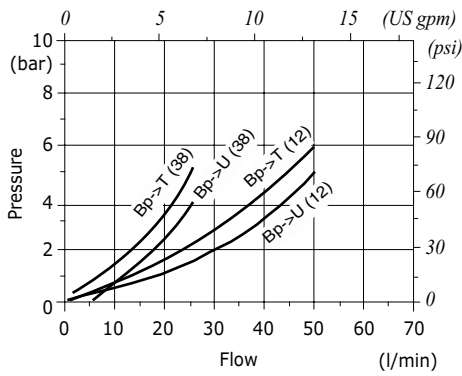
TYPE	CODE	DESCRIPTION
<b>VUI 38/Pa0,5</b>	1300020400	For G3/8 port configuration
<b>VUI 12/Pa0,5 pass.magg</b>	1300030401	For G1/2 port configuration
<b>VUI 34/Pa0,5 pass.magg</b>	1300040401	For G3/4 and G1" port configuration

### 3 Pressure setting springs

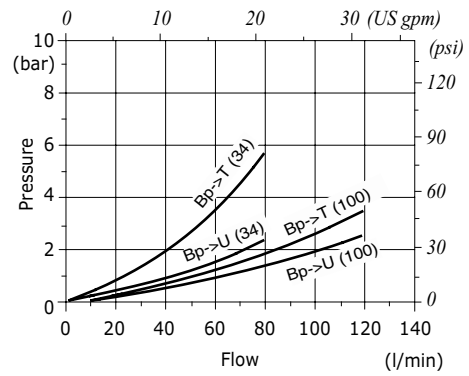
TYPE	CODE	DESCRIPTION
<b>For VDS/VEP 38 valve on VEP/FC 38 complete valve</b>		
<b>TB</b>	3MOL314311	Setting range 5-40 bar (72.5-580 psi)
<b>TV</b>	3MOL314330	Setting range 20-80 bar (290-1150 psi)
<b>For VDS/VEP 12 valve on VEP/FC 12 complete valve</b>		
<b>TV</b>	3MOL317420	Setting range 5-80 bar (72.5-1150 psi)
<b>For VDS/VEP 34 valve on VEP/FC 34 complete valve</b>		
<b>TB</b>	3ML1174500	Setting range 10-50 bar (145-725 psi)
<b>TV</b>	3ML1204200	Setting range 10-80 bar (145-1150 psi)
<b>For VDS/VEP 100 valve on VEP/FC 100 complete valve</b>		
<b>TB</b>	3MOL314311	Setting range 5-40 bar (72.5-580 psi)
<b>TV</b>	3MOL314330	Setting range 20-80 bar (290-1150 psi)

Rating diagrams

VEP/FC 38-12 pressure drop vs. flow from Bp→T and Bp→U



VEP/FC 34-100 pressure drop vs. flow from Bp→T and Bp→U



VEP/FC 38 PLP pressure drop vs. flow from Bp→T and Bp→U

