



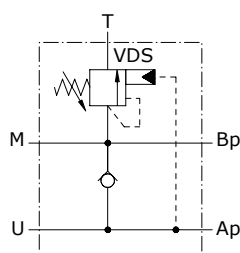
Type VEP/FC two pump "high-low" unloading valves

- Single acting
- Flanged solution

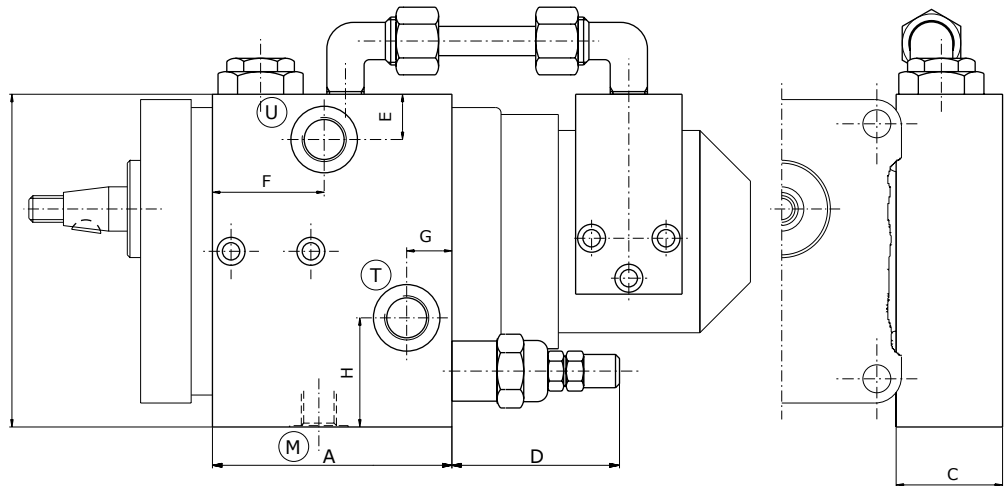
Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

| Line | VEP/FC 38 | VEP/FC 12 | VEP/FC 34 | VEP/FC 100 | |
|--|---|--------------------------|---------------------------|----------------------------|----------------------------|
| Nominal flow | Ap (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) |
| | Bp (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) |
| | U (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.



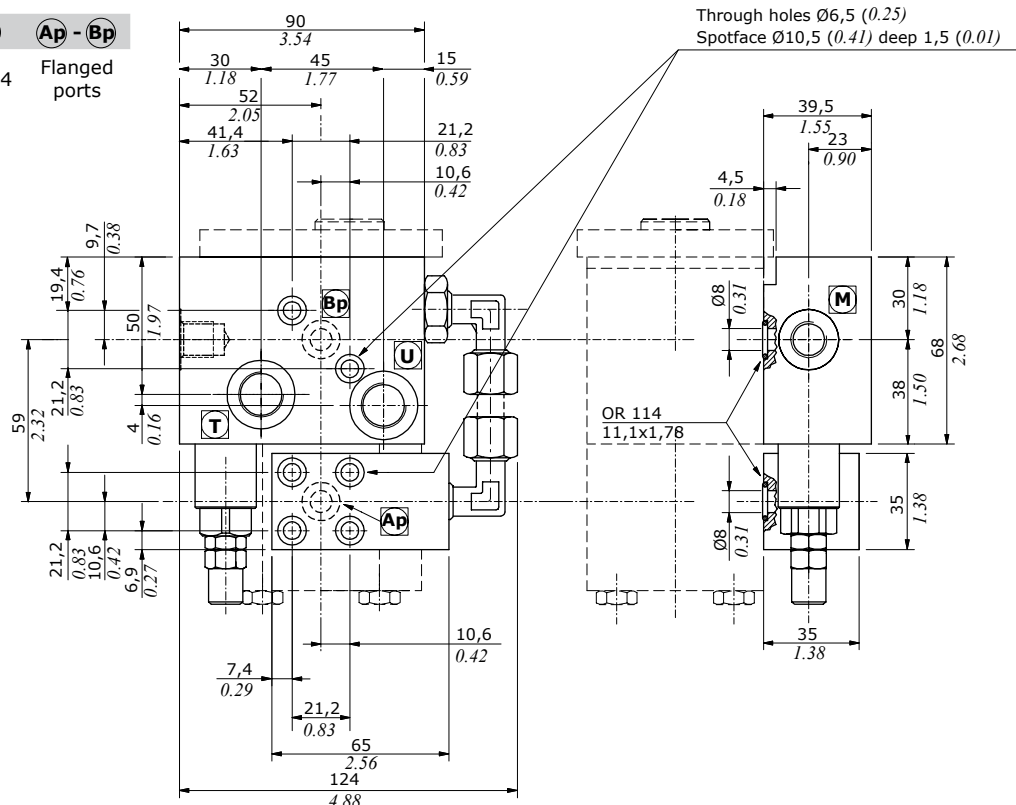
| Valve type | (M) | (T-U) |
|---------------------|------|-------|
| VEP/FC 38 Gr 1+1 | G1/4 | G3/8 |
| VEP/FC 12 Gr 2+1 | G1/4 | G1/2 |
| VEP/FC 12 Gr 2+2 | G1/4 | G1/2 |
| VEP/FC 34 Gr 3+1 | G1/4 | G3/4 |
| VEP/FC 34 Gr 3+1 | G1/4 | G3/4 |
| VEP/FC 34 Gr 3+2 | G1/4 | G3/4 |
| VEP/FC 50 Gr 3+3 | G1/4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

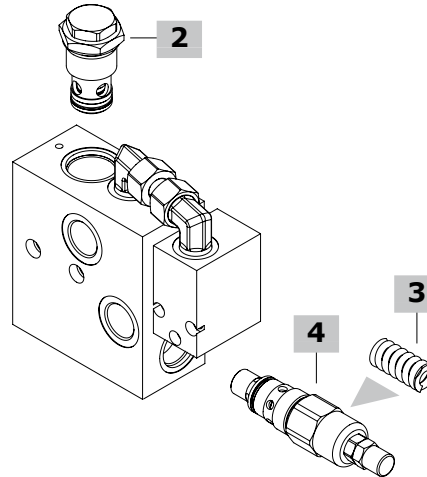
Two pump "hi-low" unloading-valves

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 |
|-------------------------|------------|-----------------------------|
| VDS/VEP 38/TV.S | 1205020400 | For G3/8 port configuration |
| VDS/VEP 12/TV.S | 1205030400 | For G1/2 port configuration |
| VDS/VEP 34/TV.S | 1205040405 | For G3/4 port configuration |
| VDS/VEP 100/TV.S | 1205050400 | For G1" port configuration |

2 Check valve

Opening pressure 0.5 bar (7.25 psi)

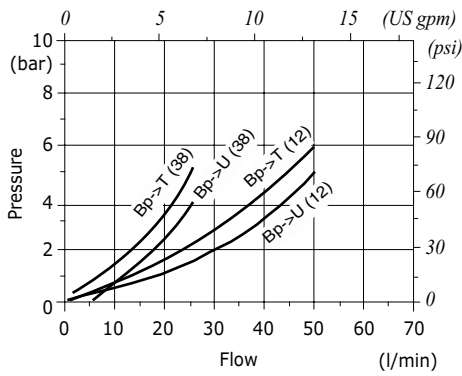
| TYPE | CODE | DESCRIPTION |
|-------------------------------|------------|-------------------------------------|
| VUI 38/Pa0,5 | 1300020400 | For G3/8 port configuration |
| VUI 12/Pa0,5 pass.magg | 1300030401 | For G1/2 port configuration |
| VUI 34/Pa0,5 pass.magg | 1300040401 | For G3/4 and G1"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

3 Pressure setting springs

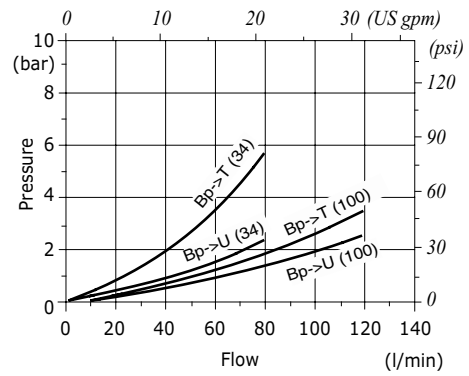
| TYPE | CODE | DESCRIPTION |
|---|------------|--|
| For VDS/VEP 38 valve on VEP/FC 38 complete valve | | |
| TB | 3MOL314311 | Setting range 5-40 bar (72.5-580 psi) |
| TV | 3MOL314330 | Setting range 20-80 bar (290-1150 psi) |
| For VDS/VEP 12 valve on VEP/FC 12 complete valve | | |
| TV | 3MOL317420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

