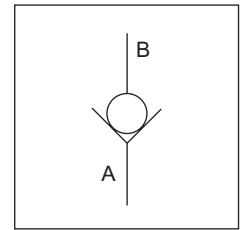


Veljan flange model Check Valve Series VC5V are direct operated poppet type and are suitable for mounting directly on the delivery port of Veljan vane pumps or any SAE 61 port. These valves can be used in conjunction with Veljan VR5V pressure control valves in stack formation. VC5V check valves are matched to the flow capabilities of Veljan range of vane pumps and are available for pressures up to 3000 psi (210 bar) and flow up to 263 gpm (1000 lpm)

VC5V Check Valves used as stack with VR5U unloader valve have an additional port X for pilot action of VR5U. The valves are zero - leak for flow from port B to port A and free flow in the opposite direction.



SPECIFICATIONS

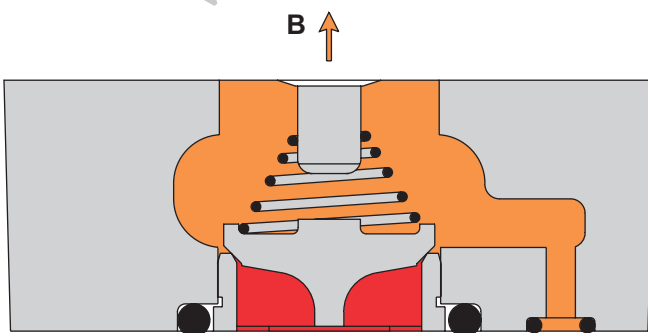
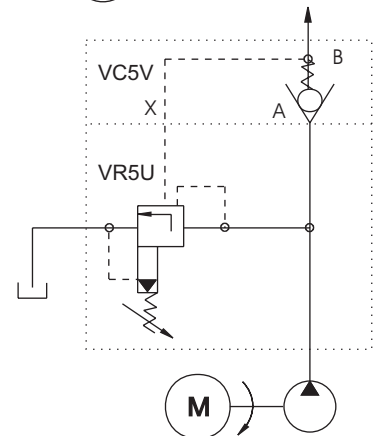
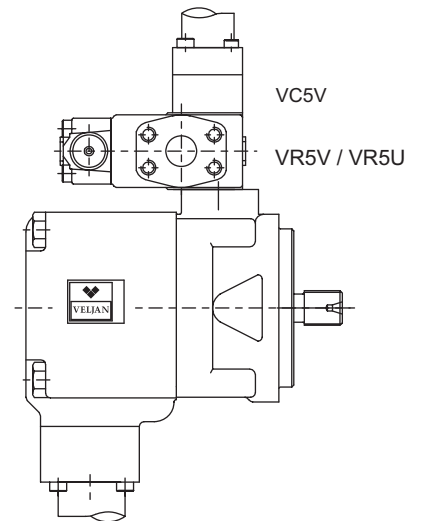
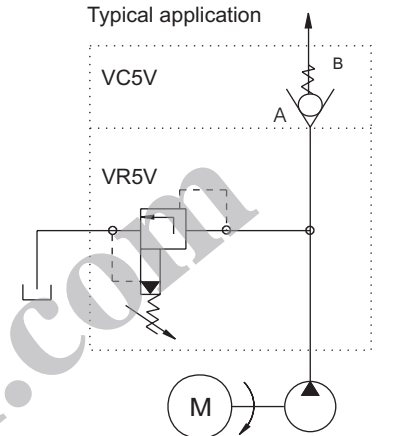
General

| | | |
|----------------------------|---|--|
| Type | : | Check valve |
| Design | : | Poppet type |
| Mounting | : | Flanged (mounted on valves series VR5) |
| Mounting position | : | Optional |
| Port sizes (nominal) | : | 3/4", 1", 1 1/4", 1 1/2", 2" |
| Direction of flow | : | A → B |
| Ambient temperature | : | -20°C...+60°C (-4°F...+140°F) |
| Special working conditions | : | Consult VELJAN |

Hydraulics

| | | |
|--------------------------|---|---|
| Operating Pressure range | : | Minimum 0 psi (0 bar) Maximum 3000 psi (210 bar) |
| Cracking pressure | : | 4.5 psi (0.3 bar) |
| Maximum flow gpm (lpm) | : | |
| VC5V 06 (3/4) | : | 27 (100) |
| VC5V 08 (1") | : | 53 (200) |
| VC5V 10 (1 1/4") | : | 105 (400) |
| VC5V 12 (1 1/2") | : | 200 (750) |
| VC5V 16 (2") | : | 263 (1000) |
| Nominal flow gpm (lpm) | : | depends on pump delivery |
| Fluid | : | Mineral oil as per DIN 51524/25 or other fluids on request |
| Fluid Temperature Range | : | -18°C...+80°C (0°F...+176°F) |
| Viscosity recommended | : | 10 to 650 cSt (60 to 3900 SSU) |

Typical application



For unloader application only

ORDERING CODE

VC5V 08 - 3 1 1 - A 1

Series

Size

06 - 3/4" 08 - 1" 10 - 1 1/4" 12 - 1 1/2" 16 - 2"

Maximum pressure

3 - 3000 psi (210 bar) (VC5V06/08/10/12 - S.A.E. 61)
 6 - 3000 psi (210 bar) (VC5V12 - S.A.E. 62)

Body

1 - with face seal, 2 - with face seal (for unloader application),
 3 - without face seal

Seal class

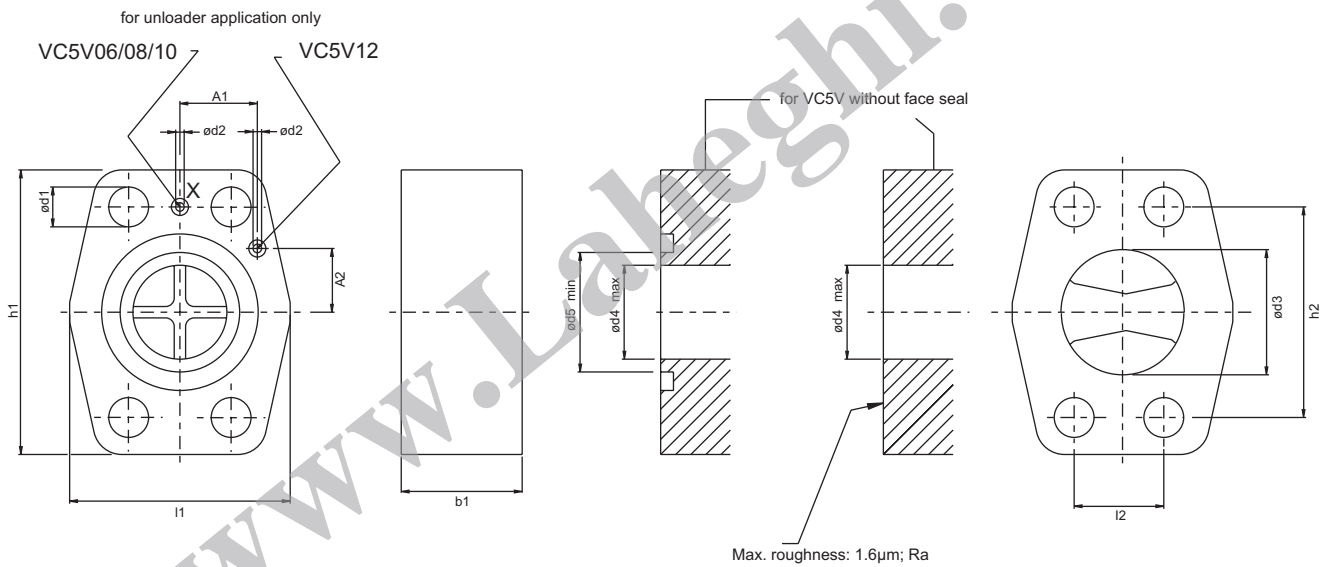
1 - Standard
 5 - Viton
 (for special fluids consult VELJAN)

Design letter

Spring

1 - Standard

Installation



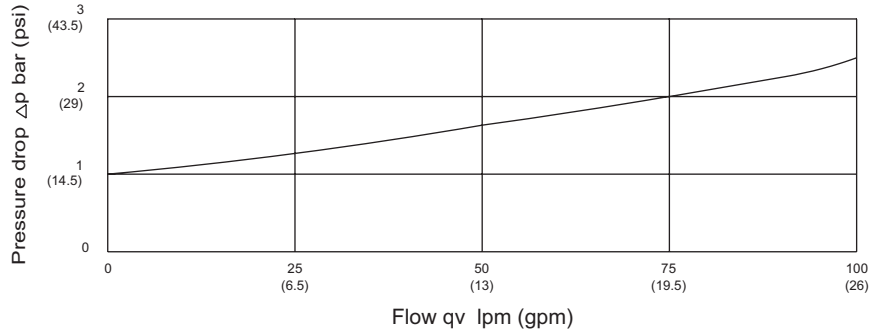
| Dimensions | | |
|------------|-------|------|
| | in | mm |
| A1 | 1.071 | 27.2 |
| A2 | 0.88 | 22.4 |

Dimensions

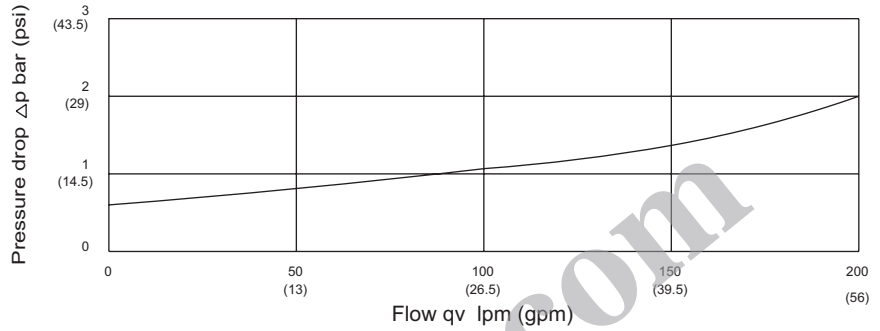
| | Size | | l1 | l2 | h1 | h2 | b1 | ød1 | ød2 | ød3 | ød4 max | ød5 min | Weight | |
|--------|--------|----------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|----------|----------|
| VC5V06 | 3/4" | in | 2.047 | 0.874 | 2.638 | 1.874 | 1.0 | 0.413 | 0.12 | 0.906 | 0.748 | 0.906 | 1.1 lbs | |
| | | mm | 52.0 | 22.2 | 67.0 | 47.6 | 25.4 | 10.5 | 3.0 | 23.0 | 19.0 | 23.0 | 0.5 kg | |
| VC5V08 | 1" | in | 2.283 | 1.032 | 2.834 | 2.063 | 1.209 | 0.413 | 0.12 | 1.26 | 0.984 | 1.181 | 1.34 lbs | |
| | | mm | 58.0 | 26.2 | 72.0 | 52.4 | 30.7 | 10.5 | 3.0 | 32.0 | 25.0 | 30.0 | 0.6 kg | |
| VC5V10 | 1 1/4" | in | 2.866 | 1.189 | 3.142 | 2.311 | 1.378 | 0.472 | 0.12 | 1.378 | 1.26 | 1.378 | 2.2 lbs | |
| | | mm | 72.8 | 30.2 | 79.8 | 58.7 | 35.0 | 12.0 | 3.0 | 35.0 | 32.0 | 35.0 | 1.0 kg | |
| VC5V12 | 1 1/2" | S.A.E.61 | in | 1.401 | | | 2.748 | | 0.531 | 0.12 | 1.772 | 1.693 | 1.713 | 3.37 lbs |
| | | | mm | 2.953 | | 4.346 | | 1.398 | | | | | | |
| | | S.A.E.62 | in | 75.0 | 1.437 | 110.4 | 3.126 | 35.5 | 0.669 | 3.0 | 45.0 | 43.0 | 43.5 | 1.5 kg |
| | | | mm | | 36.5 | | 79.4 | | 17.0 | | | | | |
| VC5V16 | 2" | in | 2.834 | 1.685 | 4.409 | 3.063 | 1.398 | 0.531 | ----- | 1.772 | 2.086 | 2.066 | 3.37 lbs | |
| | | mm | 72.0 | 42.8 | 112.0 | 77.8 | 35.5 | 13.5 | ----- | 45.0 | 53.0 | 52.5 | 1.5 kg | |

$\Delta p - q_v$ - Characteristics
 (Fluid 60 cSt at 40°C
 Test temp. 50°C ± 10%)

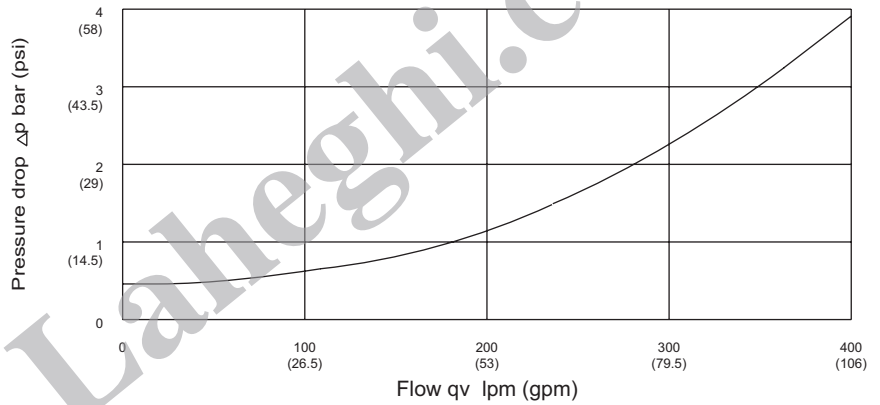
VC5V06



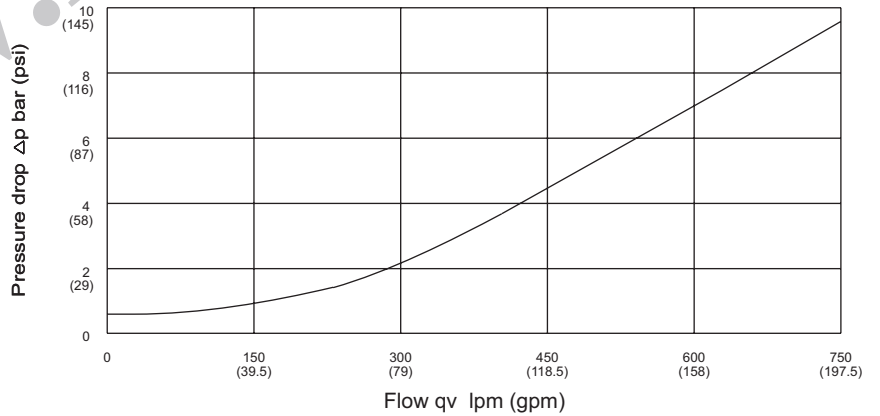
VC5V08



VC5V10



VC5V12



VC5V16

