



Check Valves
Flanged Type
Series VC5V-B



We Help You See Your Ideas Work

Veljan flange mounted Check Valves VC5V, B-design series are direct operated BALL type design suitable for mounting directly on the delivery port of Veljan Vane Pumps or any SAE-61/SAE-62 port. These valves can be used in conjunction with Veljan VR5V/VR5U pressure control valves in stack formation. VC5V check valves are designed for use up to 6000 psi pressure and are available with a choice of 7.1, 14.2 and 28.4 PSI (0.5, 1.0 & 2.0 bar) cracking pressure springs in each size.

VC5V - B design check valves used in conjunction with VR5U unloader valves have an additional port X for providing the pilot to the VR5U valve. These check valves have zero leak from port-B to port-A and full flow in the opposite direction above the cracking pressure.

Specifications

General

Type	: Flange Mounted Check Valve
Design	: Spring loaded Ball
Mounting	: Inline SAE-61 / SAE-62 Flange
Mounting position	: Any
Port sizes (nominal)	: 3/4", 1", 1 1/4", 1 1/2"
Direction of flow	: A → B
Ambient temperature	: -20°C...+60°C (-4°F...+140°F)

Hydraulics

Operating Pressure range	: Minimum 0 psi (0 bar)
	Maximum for SAE-61 5000 psi (350bar) size 6 & 8
	4000 psi (280 bar) size 10
	3000 psi (210 bar) size 12
	SAE-62 6000 psi (420 bar) for all sizes

Cracking pressure : 7.1 or 14.2 or 28.4 psi (0.5 or 1.0 or 2.0 bar)

Maximum flow gpm (lpm)

VC5V 06 (3/4") : 27 (100)

VC5V 08 (1") : 53 (200)

VC5V 10 (1 1/4") : 105 (400)

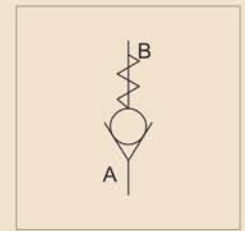
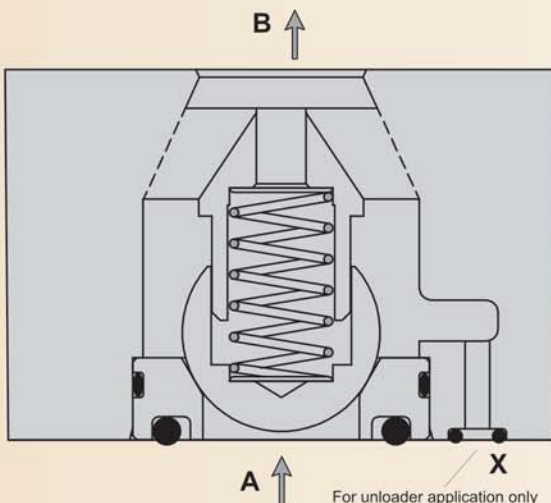
VC5V 12 (1 1/2") : 200 (750)

Nominal flow gpm (lpm) : depends on pump delivery

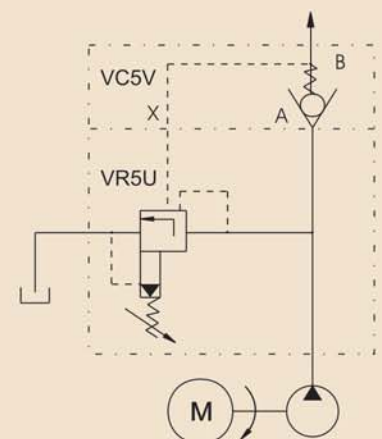
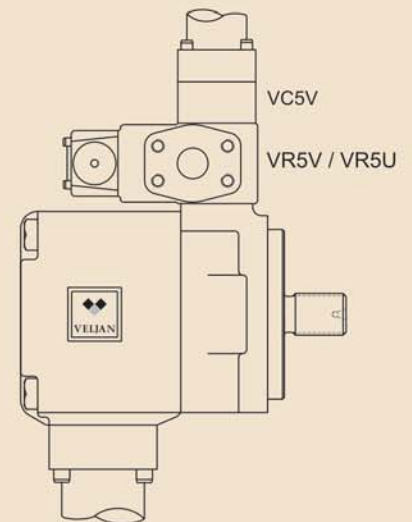
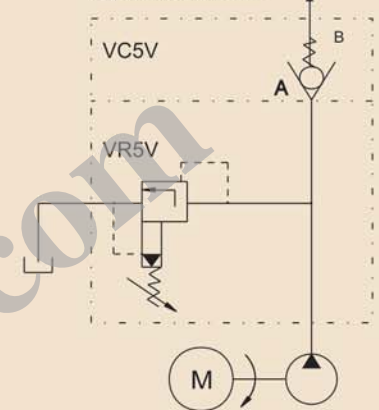
Fluid : Mineral oil as per DIN 51524/25
(for other fluids contact us)

Fluid Temperature Range : -18°C...+80°C (0°F...+176°F)

Viscosity recommended : 10 to 650 cSt (60 to 3900 SSU)



Typical application



Ordering Code

VC5V 08 - 3 1 1 - B 1

Series _____

Size _____
06 - 3/4", 08 - 1", 10 - 1 1/4", 12 - 1 1/2"

Maximum pressure _____
3 - SAE-61 5000 psi (350 bar) Size 06 & 08
4000 psi (280 bar) Size 10
3000 psi (210 bar) Size 12
6 - SAE-62 6000 psi (420 bar) For all Sizes

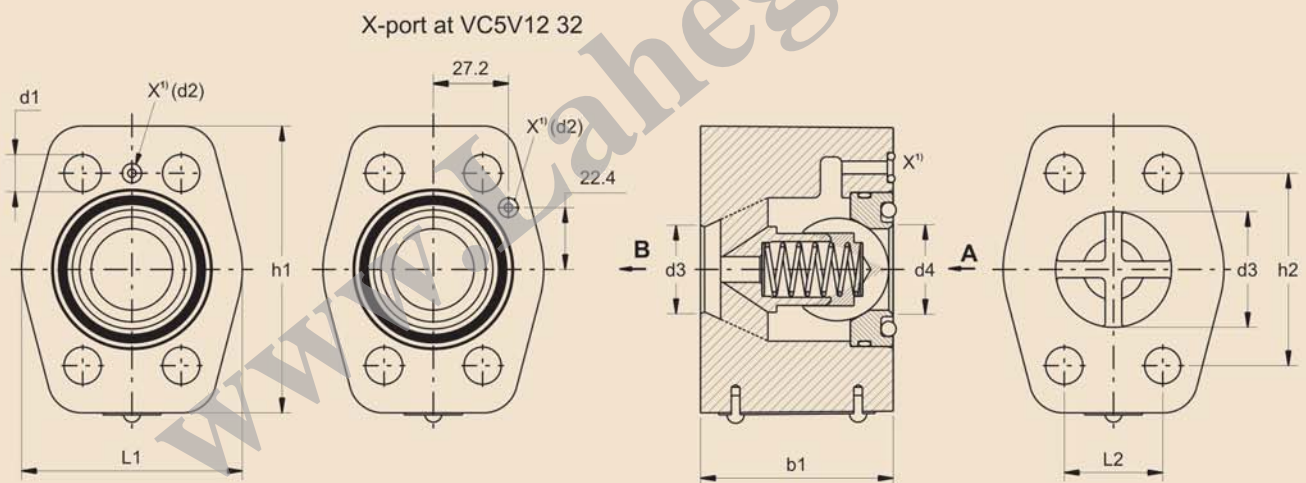
Body _____
1 - with face seal,
2 - with face seal (for unloader application), SAE-61 only
3 - without face seal

Seal class
1 - NBR (Standard)
5 - Viton

Design letter

Spring
0 = 7.1 psi (0.5 bar)
1 = 14.2 psi (1 bar) standard
2 = 28.4 psi (2 bar)

Installation



¹⁾ at SAE 61 only (for use with Unloading Valve R5U)

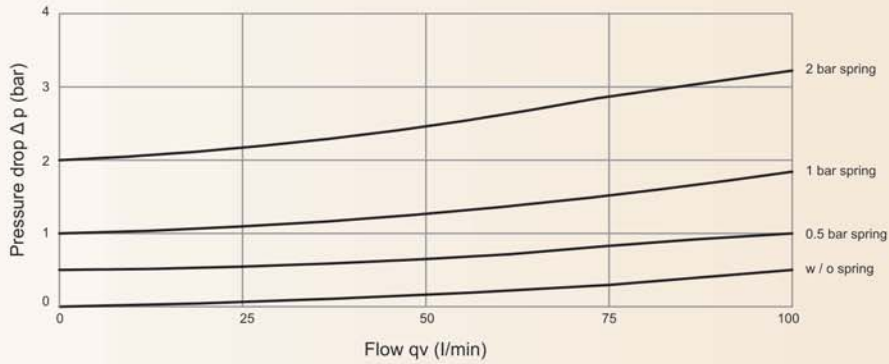
Dimensions

Series	Nominal Size	L1	L2	h1	h2	b1	d1	d2	d3 + 0.8	d4	weight	
VC5V06	3/4"	SAE - 61	48	22.2	64	47.6	45	10.5	3	19	19	0.6 kg
		SAE - 62	48	23.8	64	50.8	45	10.5	-	19	19	0.6 kg
VC5V08	1"	SAE - 61	60	26.2	74	52.4	45	10.5	3	25	25	0.9 kg
		SAE - 62	60	27.8	74	57.2	45	12.5	-	25	25	0.9 kg
VC5V10	1 1/4"	SAE - 61	68	30.2	85	58.7	50	12.5	3	32	32	1.3 kg
		SAE - 62	68	31.8	85	66.7	50	13.5	-	32	32	1.3 kg
VC5V12	1 1/2"	SAE - 61	80	35.7	104	69.8	50	13.5	3	38	38	1.8 kg
		SAE - 62	80	36.5	104	79.4	50	17	-	38	38	1.8 kg

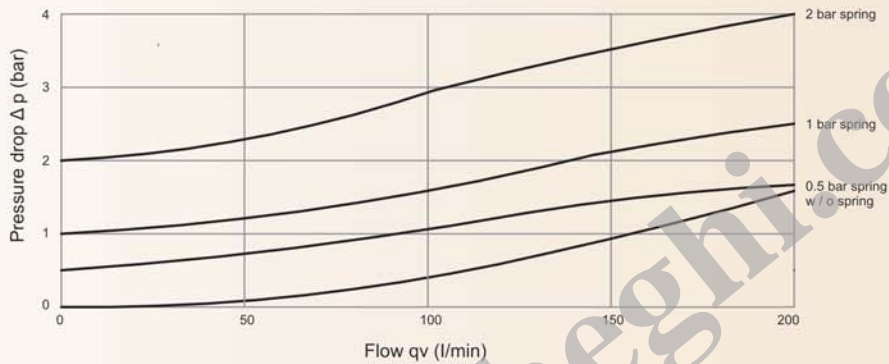
$\Delta p - q_v$ - Characteristics

(Fluid 60 cSt at 40°C
Test temp. 50°C @ 10%)

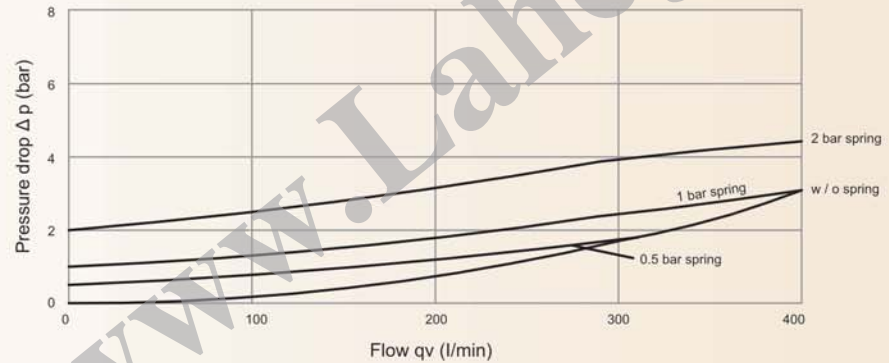
VC5V06



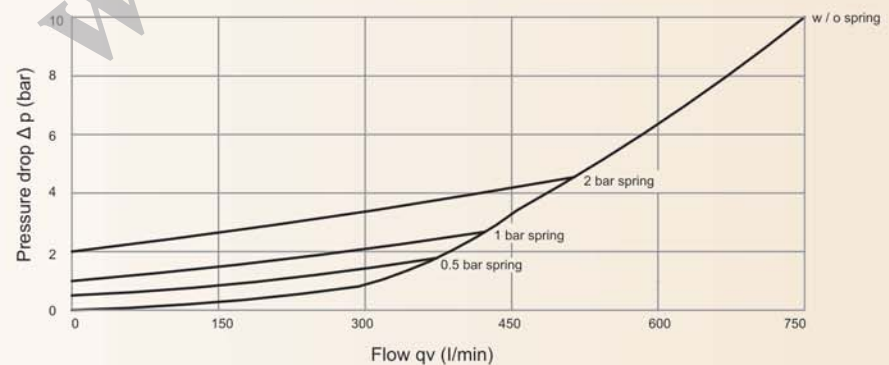
VC5V08



VC5V10



VC5V12



Note : Product details are liable to change without notice

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