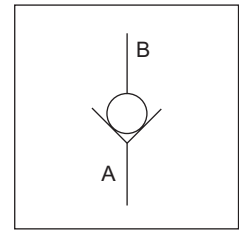


Veljan flange model Check Valve Series VC5V are direct operated poppet type and are suitable for mounting directly on the delivery port of Veljan vane pumps or any SAE 61 port. These valves can be used in conjunction with Veljan VR5V pressure control valves in stack formation. VC5V check valves are matched 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**

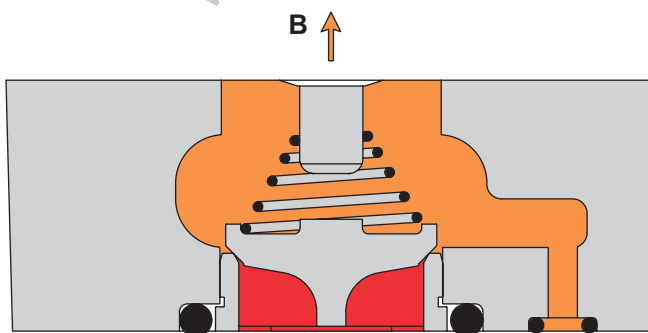
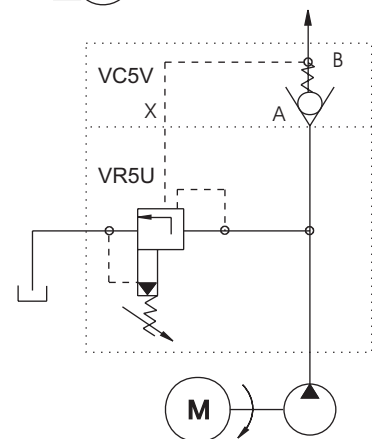
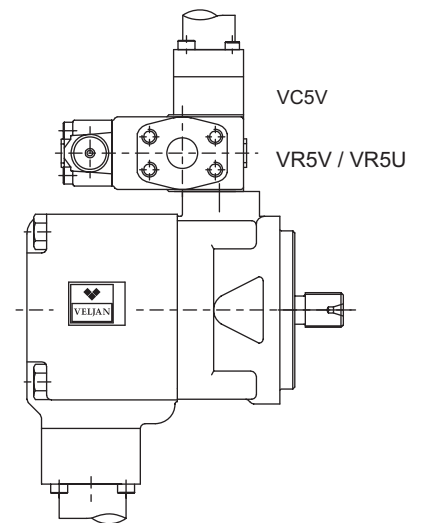
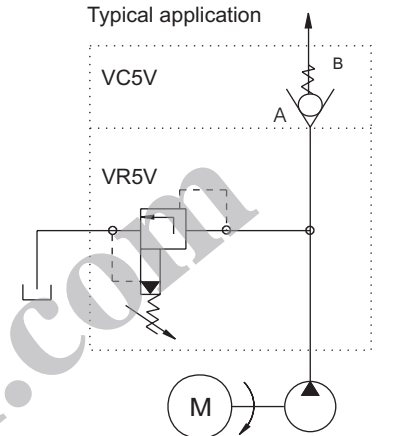
**General**

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 <b>VELJAN</b>

**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

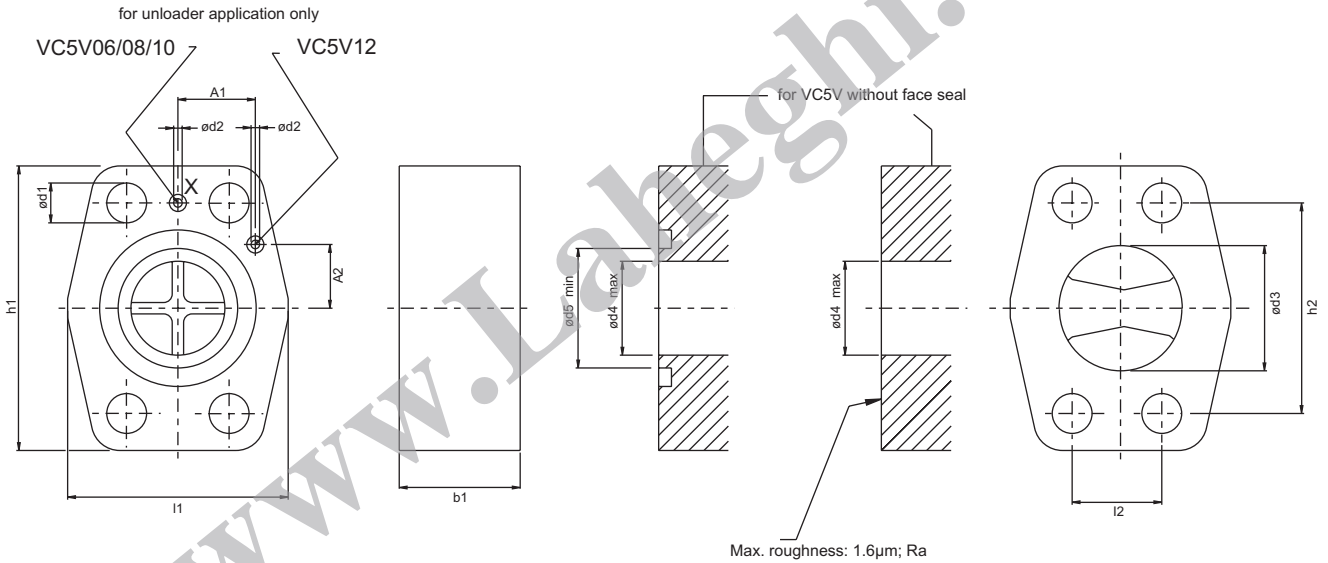
**Seal class**  
 1 - Standard  
 5 - Viton  
 (for special fluids consult **VELJAN**)

**Design letter**

**Spring**  
 1 - Standard



Installation



Dimensions		
	in	mm
A1	1.071	27.2
A2	0.88	22.4

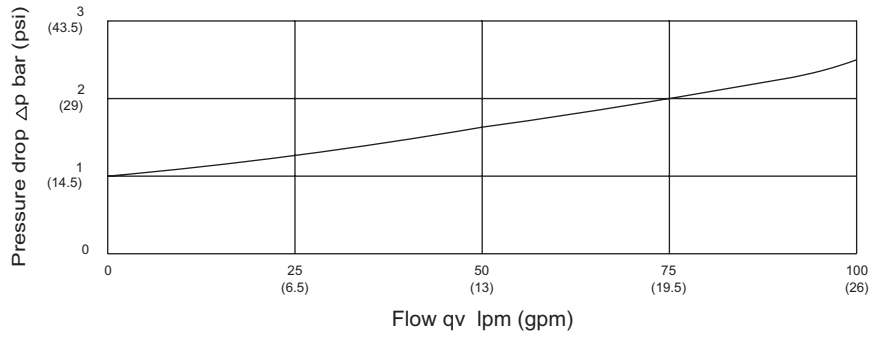
Dimensions

	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	4.346	2.748	1.398	0.531	0.12	1.772	1.693	1.713	3.37 lbs	
			mm	2.953		69.8		13.5						
		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	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	

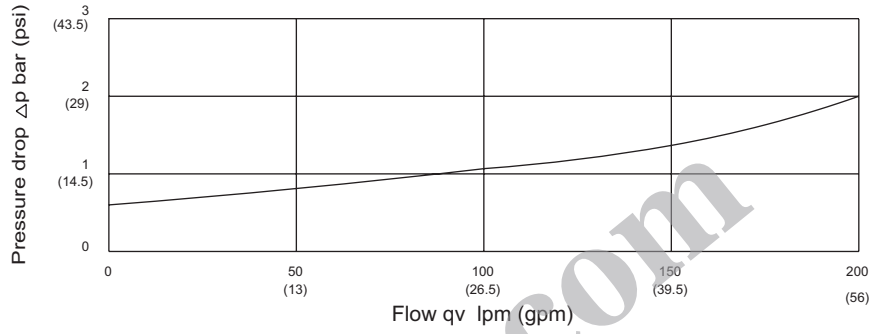
$\Delta p - q_v$  - Characteristics

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

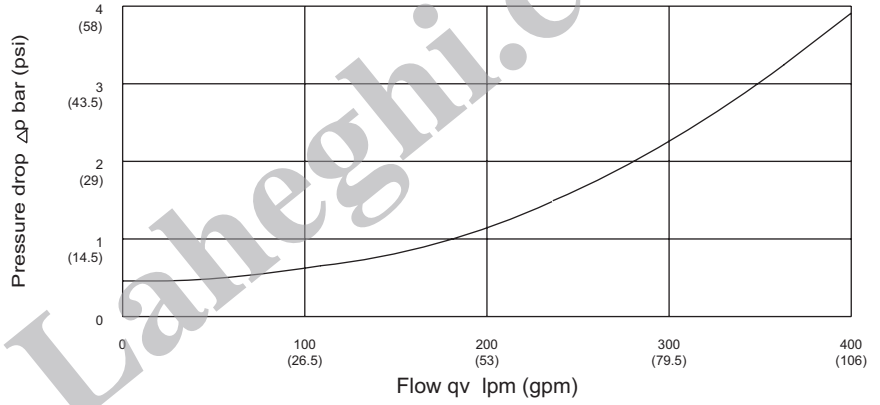
**VC5V06**



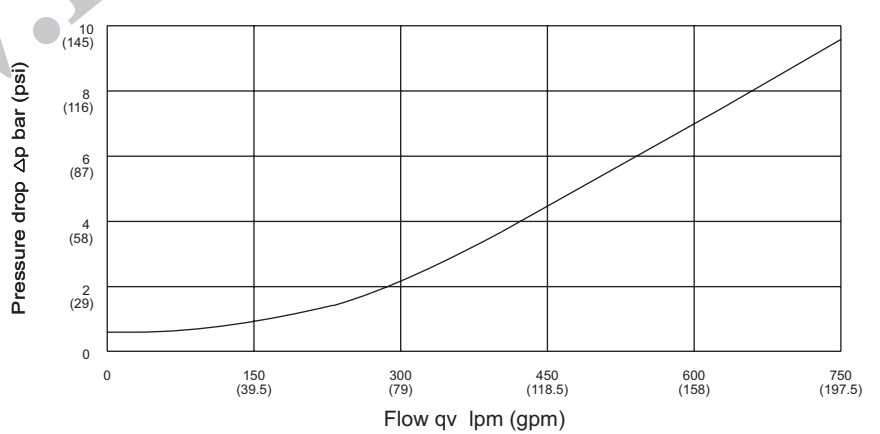
**VC5V08**



**VC5V10**



**VC5V12**



**VC5V16**

