

Vacuum breaker, Vacuum ventilating valves,
Vacuum limiting valves

Technical Data

Connection	VV 34 DN 20 - 250 VV 35 G 3/4A - 2 1/2A VV 36 G 1/2A - 2 1/2A
Nominal Pressure	PN 6 - 40
Setting Range	0.05 - max. 0.95 bar differential pressure (see table below)
K _{vs} -value	1.2 - 388 m ³ /h

Description

Vacuum breakers – also called vacuum venting valves or vacuum limiters - are valves which allow air to be aspirated once a set vacuum or pressure difference to atmosphere is reached. These valves are installed on pipelines, vessels, machines and equipment and are used, for instance, for venting tanks, limiting the vacuum in vacuum systems and protecting steam installations.

Under normal operating conditions the valve is kept closed by a pre-loaded spring and the internal vacuum acting on the valve cone. If the vacuum drops below the value set by means of the spring, the valve is opened by the atmospheric pressure and air enters the system. With increasing air flow the cone stroke and spring force increase. The pressure difference increases accordingly.

The VV 34 and VV 35 vacuum breakers have a tension spring and a bonnet complete with scale for setting the breaking pressure.

Vacuum breaker VV 36 is an open version without bonnet or setting scale made entirely of stainless steel.

For control duties vacuum breakers may be used only to a limited degree. For such duties we recommend using the diaphragm-controlled vacuum control valve VV 33.

STANDARD EQUIPMENT

- VV 34 and 35 with brass bonnet and setting scale
- VV 36 all stainless steel construction (CrNiMo steel)

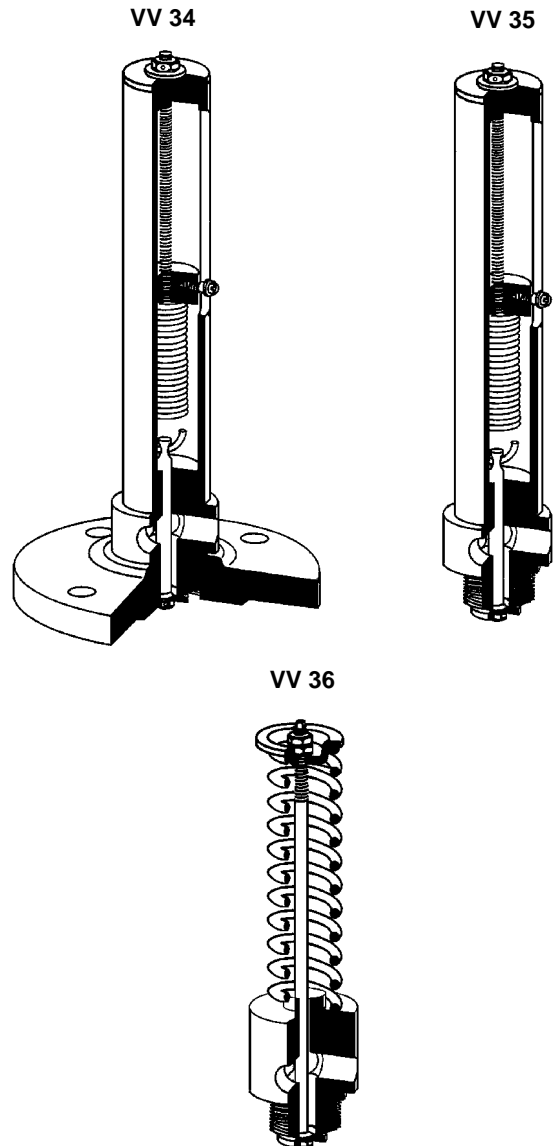
OPTIONS

- VV 34 and 35 all stainless steel construction (CrNiMo steel)
- Special connections: ANSI or DIN flanges, other connections on request
- Special versions on request

Operating instructions, Know How and Safety instructions must be observed.

The pressure has always been indicated as overpressure.

We reserve the right to alter technical specifications without notice.



K _{vs} -values [m ³ /h]		20	25	32	40	50	65
nom. dia.	DN	1/2	3/4	1	1 1/4	1 1/2	2
	G.A	1/2	3/4	1	1 1/4	1 1/2	2
K _{vs} -value	m ³ /h	1.2	1.5	3.2	6	9	16

K _{vs} -values [m ³ /h]		80	100	125	150	200	250
nom. dia.	DN	80	100	125	150	200	250
K _{vs} -value	m ³ /h	41	70	107	169	266	388

Adjustable Differential Pressure [bar]				
Type	34		35	36
	≤ DN 100	≥ DN 125		
Δp bar	0.05-0.95	0.05-0.5	0.05-0.95	0.05-0.1

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Materials	
Type	VV 34
Body	CrNi-steel optional CrNiMo-steel
Flange	steel optional CrNiMo-steel
Bonnet	Ms optional CrNiMo-steel
Cone	CrNiMo-steel
Valve Seal	CrNiMo-steel

Materials	
Type	VV 35
Body	CrNi-steel optional CrNiMo-steel
Bonnet	Ms optional CrNiMo-steel
Cone	CrNiMo-steel
Valve Seal	CrNiMo-steel

Materials	
Type	VV 36
Body	CrNiMo-steel
Cone	CrNiMo-steel
Valve Seal	CrNiMo-steel

Dimensions [mm] VV 34												
size	nominal diameter											
	20	25	32	40	50	65	80	100	125	150	200	250
A	250	280	350	350	380	530	600	650	700	860	1155	1390

Weights [kg] VV 34												
nominal diameter DN												
	20	25	32	40	50	65	80	100	125	150	200	250
	2	2.2	4.2	4.2	5.2	9.7	10.5	11.5	20	25	34	44

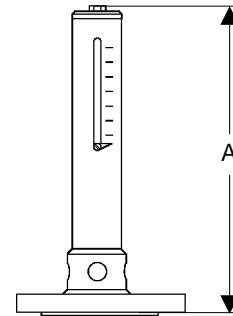
Dimensions (mm) VV 35							
size	nominal diameter G...A						
	3/4	1	1 1/4	1 1/2	2	2 1/2	
A	250	280	350	350	380	530	

Weights [kg] VV 35						
nominal diameter G...A						
	3/4	1	1 1/4	1 1/2	2	2 1/2
	1	1	1.8	2.3	2.5	6

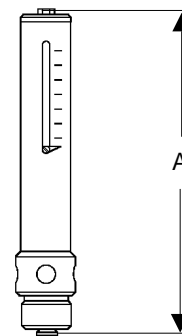
Dimensions [mm] VV 36							
size	nominal diameter G...A						
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
A	120	120	130	140	150	150	180

Weights [kg] VV 36							
nominal diameter G...A							
	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
	0.5	0.6	0.8	1	1.2	1.5	2

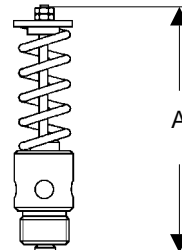
VV 34



VV 35



VV 36



Special designs on request.

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Mankenberg reserves the right, to alter or improve the designs or specifications of the products described herein without notice.

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