Supply and Exhaust Valves

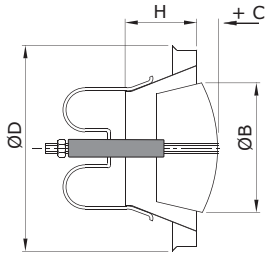
VA / VB / VC / VCF

Introduction

A range of high quality valves for supply and exhaust applications for commercial and industrial projects. Series V valves are best applied to air distribution systems handling relatively low air flow rates within small circular ductwork. The valves provide high initial resistance with wide throttling capability which is necessary to offset the relatively high system resistances.

All valves are constructed from steel spinnings protected by a polyester powder gloss white finish. Flanges are fitted with sealing gaskets and all units are supplied as standard with plated steel mounting subframes.

Model VCF is a combination fire damper and air valve for exhaust air ventilation systems, fire rated for 2 hrs to BS476 part 20. The damper blade will close when the temperature in the vicinity of the valve reaches the fusible link rating - standard temperature 70°C. (Alternative release temperatures of 50°C and 100°C available to special order).



Exhaust Valve VCF
fire damper valve

Product Description

VA Supply valve with spindle locknut
VB Exhaust valves with spindle locknut
VC Exhaust valve with tamper proof screw locking of inner core
VCF Exhaust fire damper valve

Installation

All units are supplied with a steel mounting subframe which should be fixed to the prepared opening.

- Cut aperture to suit subframe size shown in table below
- Screw subframe into aperture
- Offer valve body into subframe and rotate into bayonet fixing

Finishes

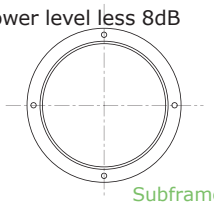
Standard - polyester powder gloss white
Other colours available on request

Selection Criteria

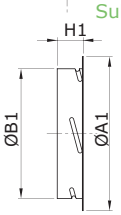
Throw is the radius of diffusion (V_t = 0.2 m/s)
(Supply valve VA only).
P_s is the static pressure loss (Pa).
Noise level is based on diffuser sound power level less 8dB room absorption.

Selection Example

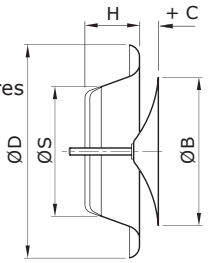
VA/200
Air Volume 80 l/s
Throw 2.1 m
Pressure Drop 24 Pa
Noise Level <20 dBA



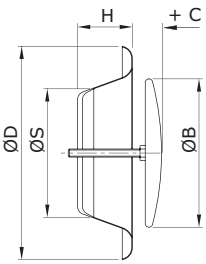
Subframe



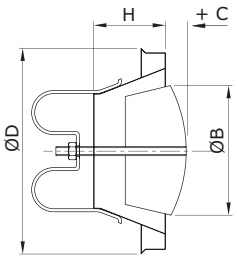
	Subframe				
	Ø 100	Ø 125	Ø150	Ø160	Ø 200
B1	100	125	150	160	200
A1	130	155	180	190	236
H1	28	29	31	31	33



Supply Valve VA



Exhaust Valve VB



Exhaust Valve VC
C - Core adjustment

Performance Tables for C = Max

VA	Air Volume										
	m³/h	36	72	108	144	180	216	288	360	432	504
	l/s	10	20	30	40	50	60	80	100	120	140
100 Dia	Throw	0.8	1.2	1.9							
	P_s (Pa)	7	26	60							
	L_w (dBA)	-	22	34							
125 Dia	Throw		-	2.0	2.4	2.8	3.1				
	P_s (Pa)		-	11	27	41	61				
	L_w (dBA)		-	-	25	31	37				
150 Dia	Throw			0.8	1.1	1.3	1.6				
	P_s (Pa)			9	16	25	37				
	L_w (dBA)			-	-	20	26				
160 Dia	Throw			0.7	1.1	1.3	1.6	2.1			
	P_s (Pa)			10	19	30	44	72			
	L_w (dBA)			-	-	-	28	37			
200 Dia	Throw					1.3	1.6	2.1	2.4	2.0	3.3
	P_s (Pa)					10	14	24	36	44	80
	L_w (dBA)					-	-	-	25	28	37

VC/VCF	Air Volume							
	m³/h	36	72	108	144	180	216	288
	l/s	10	20	30	40	50	60	80
100 Dia	P_s (Pa)	10	39	85				
	L_w (dBA)	-	20	25				
125 Dia	P_s (Pa)		16	34	62			
	L_w (dBA)		-	22	28			
150/160 Dia	Ps (Pa)		8	16	30	45	70	
	L_w (dBA)		-	-	-	22	28	
200 Dia	P_s (Pa)			12	20	32	50	80
	L_w (dBA)			-	-	-	24	34

VB	Air Volume										
	m³/h	36	72	108	144	180	216	288	360	432	504
	l/s	10	20	30	40	50	60	80	100	120	140
100 Dia	P_s (Pa)	4	21	50							
	L_w (dBA)	-	-	25							
125 Dia	P_s (Pa)		9	19	35						
	L_w (dBA)		-	-	20						
150/160 Dia	P_s (Pa)		6	12	22	32	47				
	L_w (dBA)		-	-	-	20	27				
200 Dia	P_s (Pa)					7	11	18	29	37	60
	L_w (dBA)					-	-	-	22	25	30

Order Example

VA/125
Type
Size

	VA					VB					VC / VCF				
	Ø 100	Ø 125	Ø 150	Ø 160	Ø 200	Ø 100	Ø 125	Ø 150	Ø 160	Ø 200	Ø 100	Ø 125	Ø 150	Ø 160	Ø 200
Ø D	137	161	202	212	249	137	161	202	212	248	135	160	187	189	240
S	74	97	117	127	156	74	97	117	127	156	-	-	-	-	-
B	94	110	135	145	194	75	100	120	130	157	87	103	120	130	175
H	47	49	50	54	63	47	49	50	54	63	50	47	47	47	47