

Supply and Exhaust Valves

AV / ZV / KAV / KSO-P

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 spinings 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 KSO-P 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).

Product Description

- ZV** Supply valve with spindle locknut
- AV** Exhaust valves with spindle locknut
- KAV** Exhaust valve with tamper proof screw locking of inner core. Polypropylene plastic.
- KSO-P** 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 ($V_t = 0.2 \text{ m/s}$) (Supply valve ZV only).

P_s is the static pressure loss (Pa).

Noise level is based on diffuser sound power level less 8dB room absorption.

Selection Example

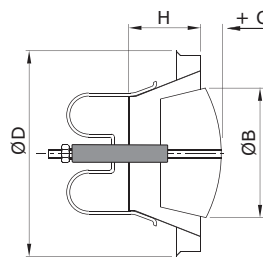
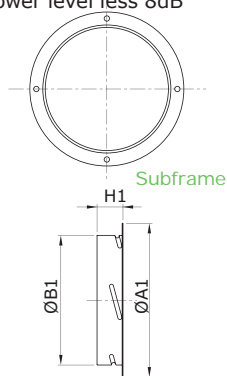
ZV/200

Air Volume 80 l/s

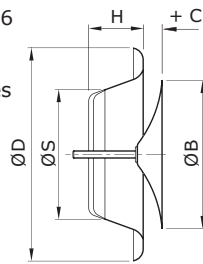
Throw 2.1 m

Pressure Drop 24 Pa

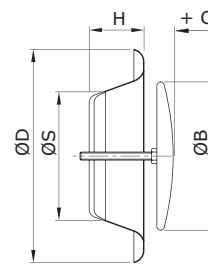
Noise Level <20 dBA



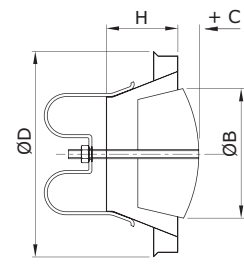
Exhaust Valve KSO-P fire damper valve



Supply Valve ZV



Exhaust Valve AV



Exhaust Valve KAV

Performance Tables for C = Max

| ZV | 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 |

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

| KAV KSO-P | 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 | P_s (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 |

| AV | 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

ZV/125

Type _____

Size _____

| | ZV | | | | | AV | | | | | KAV / KSO-P | | | | |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------------|-------|-------|-------|-------|
| | 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 |