

# Exhaust and Supply Air Valves

Models EPV-1 and SPV-2

## Features

- Supply and Exhaust Air Valves
- Easy Airflow Adjustment
- Steel Construction
- Mounting Ring



# Air Diffusion

Grilles Diffusers Louvres Chilled Beams

Ruskin Air Management Limited  
[www.ruskinuk.co.uk](http://www.ruskinuk.co.uk)

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## Introduction

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Air valves offer a simple yet effective means of providing supply and extract air for most commercial, industrial and domestic ventilation applications. The Models EPV-1, SPV-2 are typically installed in Hotels, Flats, Apartments, Halls of Residence and Hospitals.

The Model EPV-1 has a convex inner cone for use on exhaust systems, whilst the Model SPV-2 has a concave inner cone for use on supply systems, both are supplied with a steel fixing collar. Adjustment of the airflow rate is obtained by rotating the inner cone either inward or outward. Once the required setting is achieved the inner cone is held in place by use of an integral locknut.



**Model EPV-1 Exhaust Air Valve**



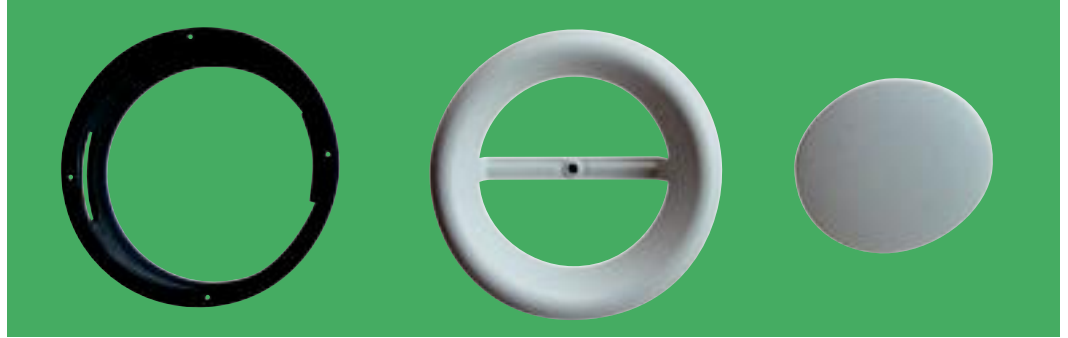
**Model SPV-2 Supply Air Valve**

**Important Note:** All orders must be addressed to Air Diffusion, Ruskin Air Management Limited.

### Model EPV-1 Exhaust Air Valve



**Model EPV-1**



**Mounting Ring**

**Valve Seat**

**Inner Cone**

#### Description

Model EPV-1 is a circular exhaust air valve constructed in three sections, a convex inner cone, an outer valve seat having a foam gasket and a mounting ring. It is suitable for installation either in a duct, wall or ceiling. The 50mm mounting ring is provided for fixing into a duct or structural opening using screws (by others). Once the mounting ring is fixed into position, the valve seat should be rotated to engage the cross bar onto the flange grooves in the mounting ring. This retains the valve seat onto the mounting ring and compresses the foam gasket to create an airtight seal. The central bolt on the inner cone is located into the cross bar and turned clockwise to the desired position. Regulation of the airflow is carried out by simply rotating the inner cone clockwise or anti-clockwise until the required air volume is obtained.

#### Specification

#### Construction

All main components from Pressed Steel with foam gasket seal.

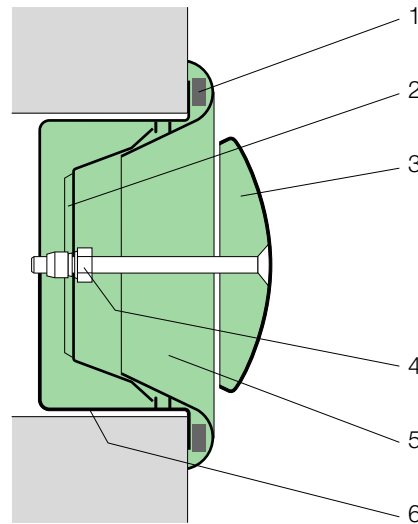
#### Installation

Screw fixing (by others).

#### Colour Finish

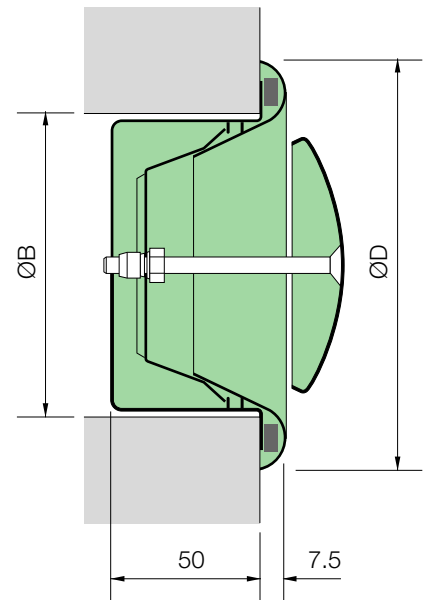
White RAL9010 (30% gloss) polyester powder coat.

#### Component Parts



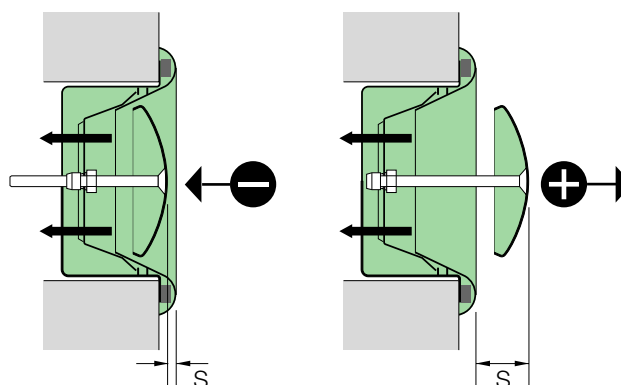
1. Foam Gasket
2. Cross Bar
3. Inner Cone
4. Locknut
5. Valve Seat
6. Mounting Ring.

#### Dimensions



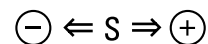
Size	ØB	ØD
100	100	139
125	125	160
150	150	192
160	160	196
200	200	232

#### Air Flow Regulation



#### Air flow regulation:

Adjust the air volume by rotating the valve disc in plus or minus direction.



s (mm). See Selection Tables on page 5 for details.

## Exhaust and Supply Air Valves

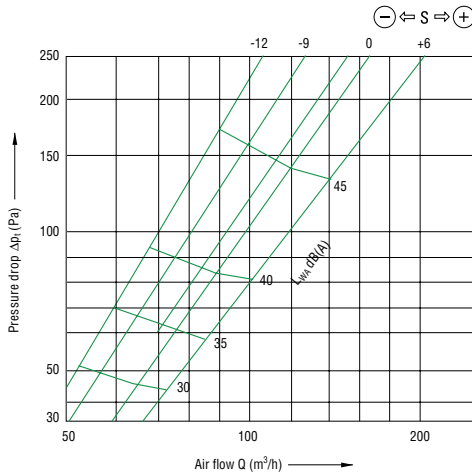
### Quick Selection Guide

#### Model EPV-1 Exhaust Air Valve

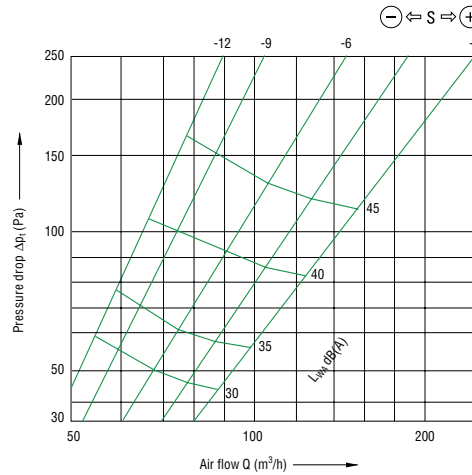
Size	Setting (mm)	Air Volume L/s	M3/hr	Pressure Drop Pa	Sound Level Lw dB(A)
100	"0"	20	72	60	35
	"0"	25	90	85	40
	"0"	35	126	145	45
125	"0"	20	72	40	30
	"0"	25	90	60	35
	"0"	30	108	85	40
	"0"	35	126	140	45
150/160	"0"	25	90	40	30
	"0"	30	108	60	35
	"0"	35	126	85	40
	"0"	50	180	150	45
200	"0"	45	162	70	33
	"0"	55	198	105	36
	"0"	65	234	130	40

### Selection Guide

#### EPV-1 Size 100



#### EPV-1 Size 125



#### Example

Use the air flow volume air flow  $Q$  (l/s) and pressure drop over the valve  $\Delta P_t$  (Pa) to determine the valve set-up  $s$  (mm) - using the positive negative direction.

**Given data:**  $Q = 19$  l/s  $\Delta P_t = 60$  Pa

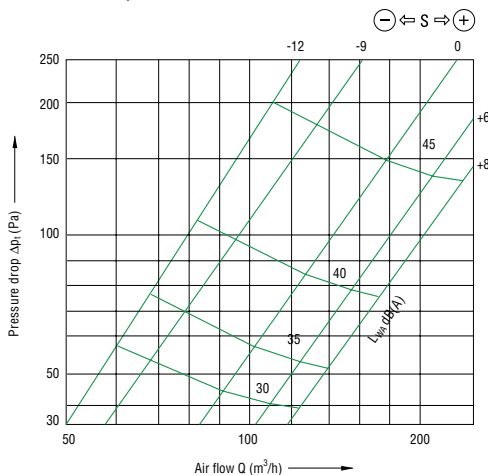
Sizing diagram at the valve 100 gives the valve set-up  $s = -3$ mm.

**Q (m³/h)** Air flow

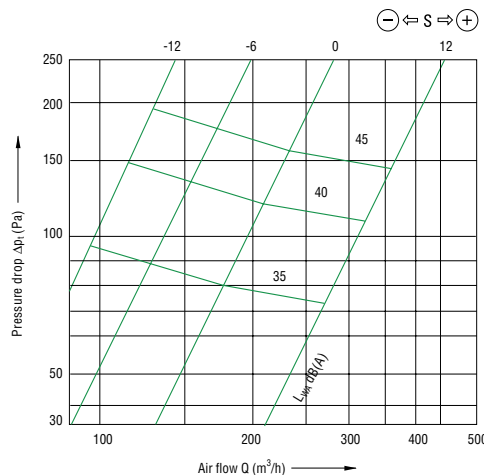
**$\Delta P_t$  (Pa)** Pressure Drop

**LWA dB(A)** Sound power level.

#### EPV-1 Size 150, 160



#### EPV-1 Size 200



### Ordering Information

#### Example

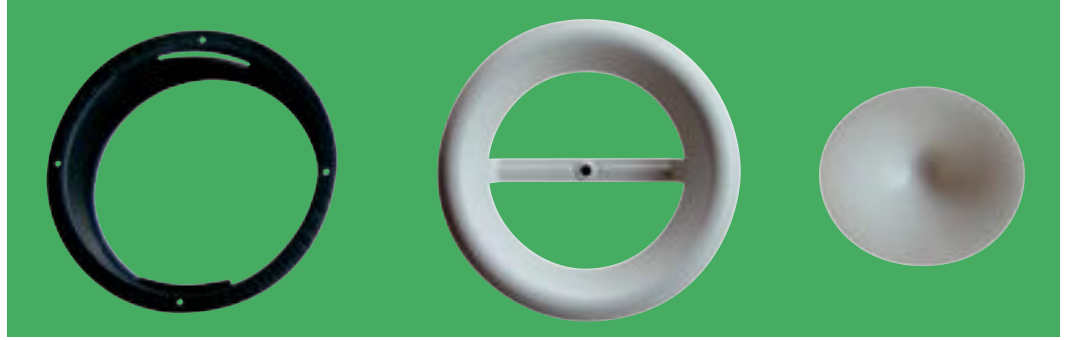
Model Type	Size	Colour Finish
EPV-1	160	White
EPV-1 Exhaust Air Valve	100, 125, 150, 160, 200	White RAL 9010 (30% Gloss) Polyester Powder Coat

**Important Note:** If the overall size is critical then it must be clearly stated on the order. All orders must be addressed to AIR DIFFUSION, Ruskin Air Management Limited.

### Model SPV-2 Supply Air Valve



**Model SPV-2**



**Mounting Ring**

**Valve Seat**

**Inner Cone**

#### Description

Model SPV-2 is a circular supply air valve constructed in three sections, a concave inner cone, an outer valve seat having a foam gasket and a mounting ring. It is suitable for installation either in a duct, wall or ceiling. The 50mm mounting ring is provided for fixing into a duct or structural opening using screws (by others). Once the mounting ring is fixed into position, the valve seat should be rotated to engage the cross bar onto the flange grooves in the mounting ring. This retains the valve seat onto the mounting ring and compresses the foam gasket to create an airtight seal. The central bolt on the inner cone is located into the cross bar and turned clockwise to the desired position. Regulation of the airflow is carried out by simply rotating the inner cone clockwise or anti-clockwise until the required air volume is obtained.

#### Specification

##### Construction

All main components from Pressed Steel with foam gasket seal.

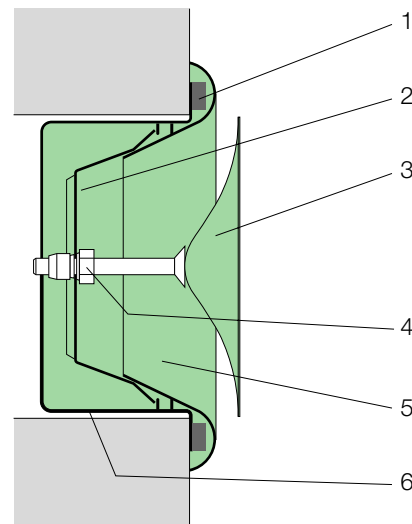
##### Installation

Screw fixing (by others)

##### Colour Finish

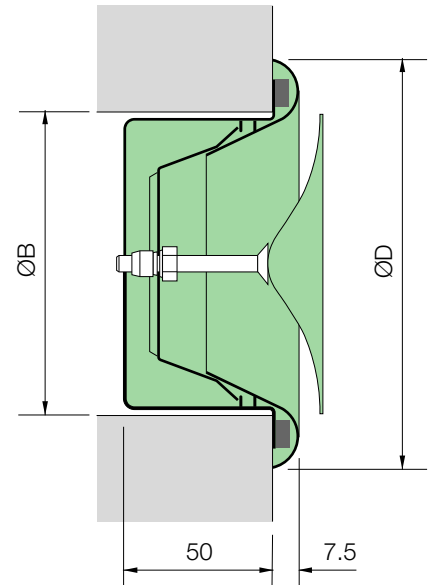
White RAL9010 (30% gloss) polyester powder coat

#### Component Parts



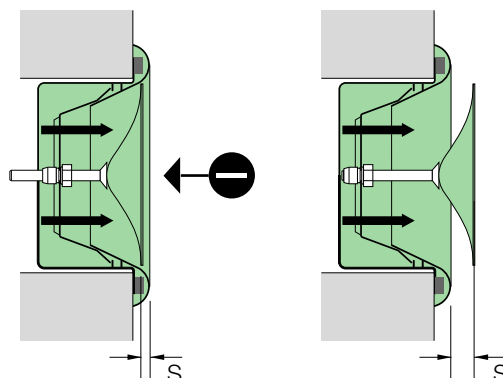
1. Foam Gasket
2. Cross Bar
3. Inner Cone
4. Locknut
5. Valve Seat
6. Mounting Ring.

#### Dimensions



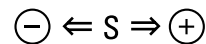
Size	ØB	ØD
100	100	139
125	125	160
150	150	192
160	160	196
200	200	232

#### Air Flow Regulation



#### Air flow regulation:

Adjust the air volume by rotating the valve disc in plus or minus direction.



s (mm). See Selection Tables on page 7 for details.

## Exhaust and Supply Air Valves

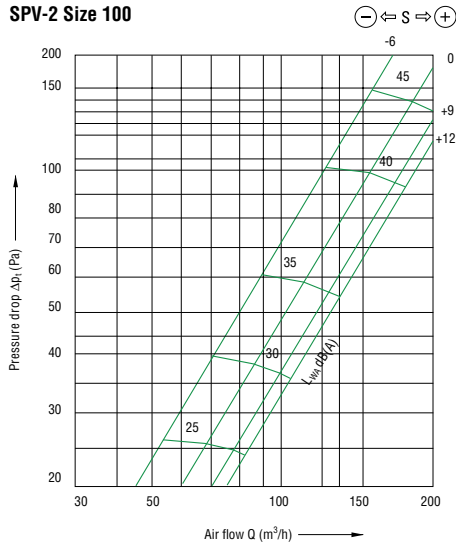
### Quick Selection Guide

#### Model SPV-1 Supply Air Valve

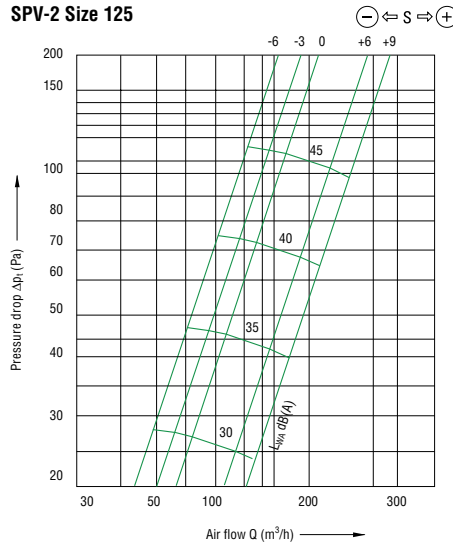
Size	Setting (mm)	Air Volume L/s	M3/hr	Pressure Drop Pa	Sound Level Lw dB(A)
100	"0"	20	72	26	25
	"0"	25	90	38	30
	"0"	35	126	58	35
125	"0"	45	162	100	40
	"0"	20	72	28	30
	"0"	30	108	48	35
	"0"	35	126	72	40
150/160	"0"	50	180	110	45
	"0"	40	144	45	35
	"0"	50	180	60	40
200	"0"	60	216	85	45
	"0"	45	162	45	35
	"0"	50	180	60	45
	"0"	60	216	85	55

### Selection Guide

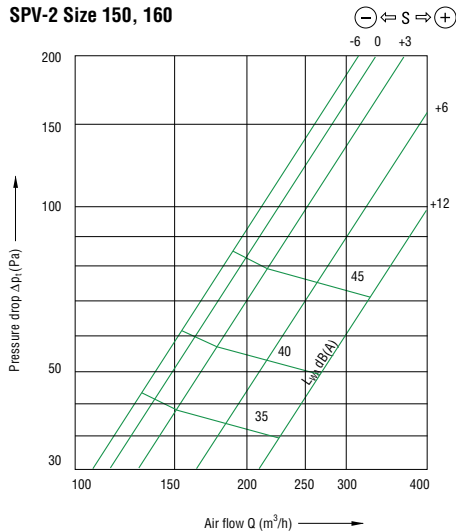
#### SPV-2 Size 100



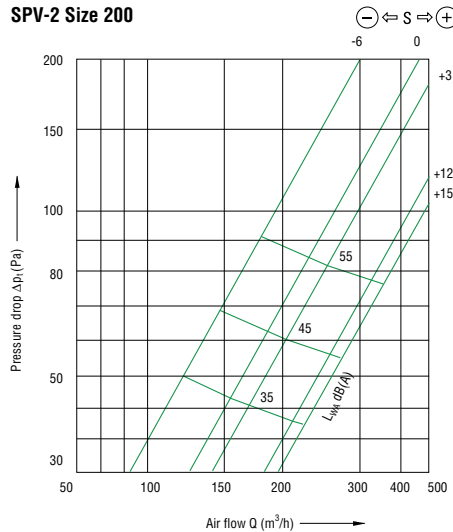
#### SPV-2 Size 125



#### SPV-2 Size 150, 160



#### SPV-2 Size 200



### Ordering Information

#### Example

Model Type	Size	Colour Finish
SPV-2	160	White
SPV-2 Supply Air Valve	100, 125, 150, 160, 200	White RAL 9010 (30% Gloss) Polyester Powder Coat

**Important Note:** If the overall size is critical then it must be clearly stated on the order. All orders must be addressed to AIR DIFFUSION, Ruskin Air Management Limited.

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## Air Diffusion

Grilles Diffusers Louvres Chilled Beams