

# Air Diffusion

## Pattern Swirl Diffusers

### Model SW-V



SW-V front view

#### Description

The Model SW-V is a variable air pattern swirl diffuser having a set of movable inner vanes to alter the angle of discharge from horizontal to vertical, which is imperative to ensure optimum heating and cooling function. By regulating the inner vanes, varying throw discharges can be achieved from fully horizontal to vertical projection, which is important in the heating mode. To accomplish this adjustment two types of control are offered, manual or electric motor operation. Supplied with a circular outer tube casing having a flush flange and a set of movable inner vanes.

Typical applications include shopping malls, exhibition halls and other large open spaces with mounting heights of between 3m to 12m, where large air volumes and temperature differentials are required.

#### Specification

##### Material

Outer tube casing constructed from aluminium sheet with other components from sheet steel.

##### Installation Methods

Two alternative installation methods are available as follows:

Direct Spigot Connection to duct.  
Plenum box supplied with diffuser.

(When using a diffuser and plenum box combination, the diffuser is normally fixed to the plenum box through the spigot)

All installation methods require diffuser or plenum box / diffuser combination to be supported independently.

#### Size Range

Model SW-V

**Size 200**

**Size 250**

**Size 315**

**Size 400**

See reverse for full dimensions.

#### Model Type

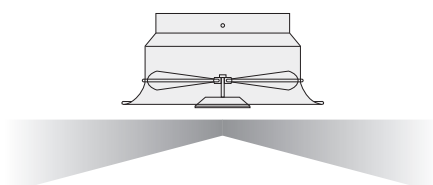
**Model SW-V:** circular variable swirl diffuser with manual handle adjustment for ganged operation of the inner vane assembly.

**Model SW-V / EM:** circular variable swirl diffuser with electric motor adjustment for ganged operation of the inner vane assembly.

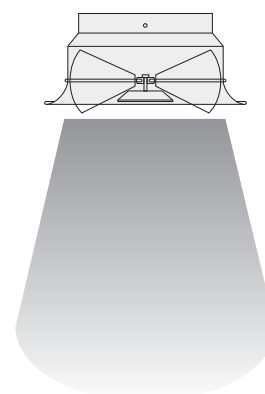
#### Finish

Standard finish: WHITE RAL9010 (30% gloss) Polyester Powder Coat.

Discharge type by cooling



Discharge type by heating



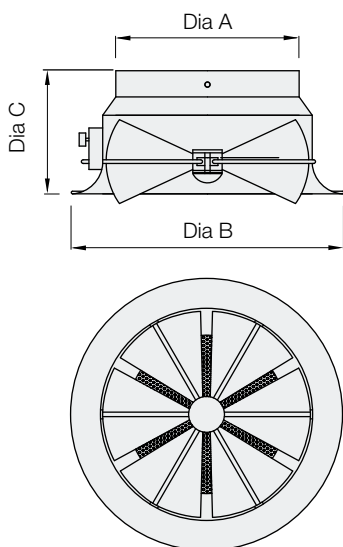
# Model SW-V Pattern Swirl Diffusers

## Performance Guide

\* 1. Indicates blades set for heating mode.  
\* 2. Indicates blades set for cooling mode.

	Velocity m/s	2	3	4	5	6	8	10
	Terminal Velocity	<b>0.25m/s</b>						
	Size mm	<b>Air flow (l/s)</b>						
<b>CODE: SWV</b>	Ø200	62	93	124	155	186	247	310
	Ø250	97	145	194	241	291	387	483
	Ø315	154	232	308	385	462	616	769
	Ø400	249	374	498	622	747	996	1244
<b>Blade Angle 45%</b>	Noise level (dB)A 1*	28-42	31-46	34-50	37-55	40-60	46-70	52-80
	Noise level (dB)A 2*	29-44	33-48	36-52	39-57	42-62	48-72	55-80
	Pressure drop pa-1*	10-23	19-46	31-76	44-111	59-152	99-294	130-564
	Pressure drop pa-2*	18-31	37-46	63-108	94-161	131-224	220-377	329-564
<b>Blade Angle 67.5%</b>	Noise level (dB)A 1*	29-43	32-47	35-52	38-57	42-62	48-72	56-82
	Noise level (dB)A 2*	30-45	33-51	37-57	41-63	45-63	51-79	59-90
	Pressure drop pa-1*	16-57	33-120	55-203	81-305	111-424	183-715	529-1072
	Pressure drop pa-2*	24-65	51-138	87-235	131-354	183-496	311-843	469-1272
Throw (m) without equalising grid		3.4	5.1	6.8	8.5	10.2	13.6	17
Throw (m) with equalising grid		2.4	3.6	4.8	6	7.24	9.6	12

## Dimensions



Size	A	B	C
200	198	350	170
250	248	400	205
315	313	500	225
400	398	618	275

## Ordering Information

### Example

Model Type	Fixing and Panel Type	Colour Finish	Size
SW-V	V	83	400
Variable Air Pattern Swirl Diffuser	V – Manual / Ganged operation EM – Electric / Ganged operation	Standard Finish: <b>83 - White RAL9010</b> (30% gloss)	200 250 315 400

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

# Air Diffusion

Grilles Diffusers Louvres Chilled Beams

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Ruskin Air Management Limited is a ISO 9001 and 14001 registered company

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