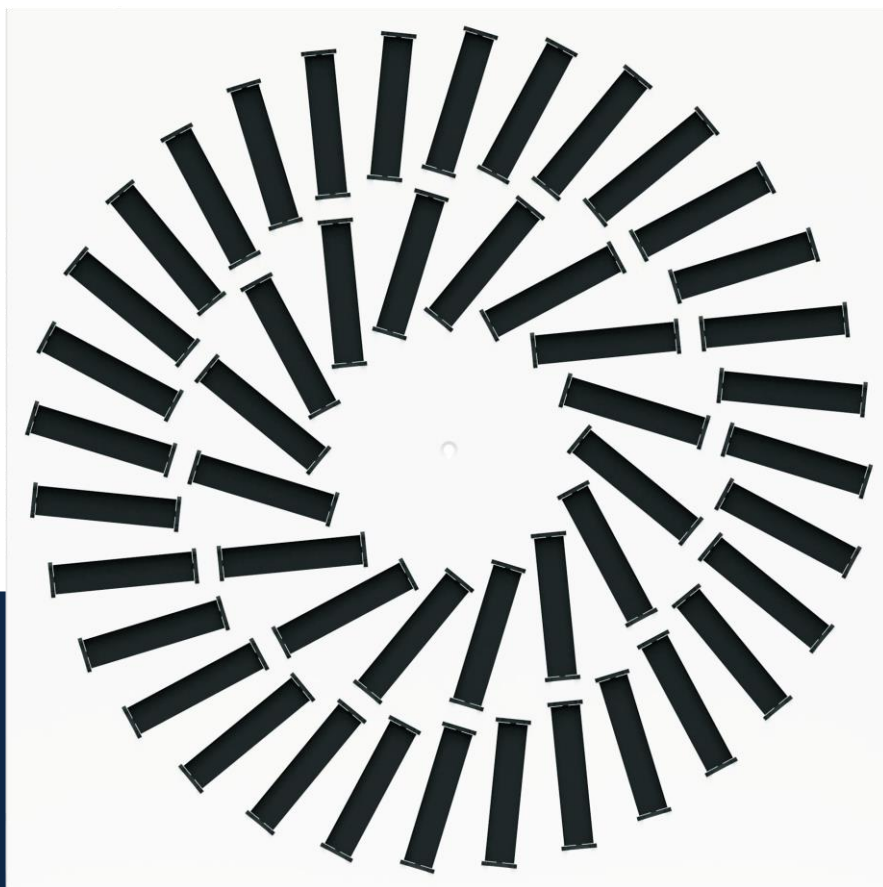


Air through perfection

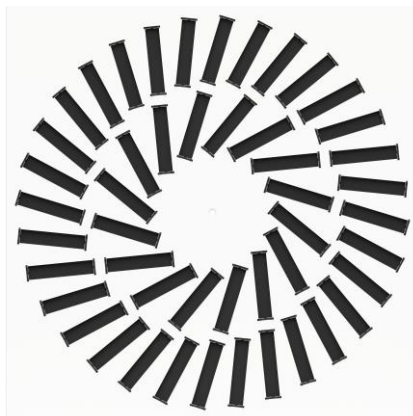
## Swirl diffuser

# SW-R



**ACP**  
Swirl diffusers

## Swirl diffuser SW-R



### Description

SW-R is a swirl diffuser with a square front plate, used to introduce or exhaust air.

The diffuser is recommended for rooms with heights between 2.6 and 4 m.

The design of the blades, their radial arrangement and the swirl action determine a high level of induction rate.

The diffuser can be used for installations with constant or variable air flow.

### Technical specifications

#### Characteristics

The diffuser has external dimensions 595x595 mm and can be made with 24 or 48 slots.

The diffuser is provided with individually adjustable black aluminum blades.

Air induction occurs rapidly due to the swirl action, resulting in a rapid change in temperature.

The product is delivered with the following elements: mounting bracket, fixing screw, screw cover cap and sealing gasket.

## Materials

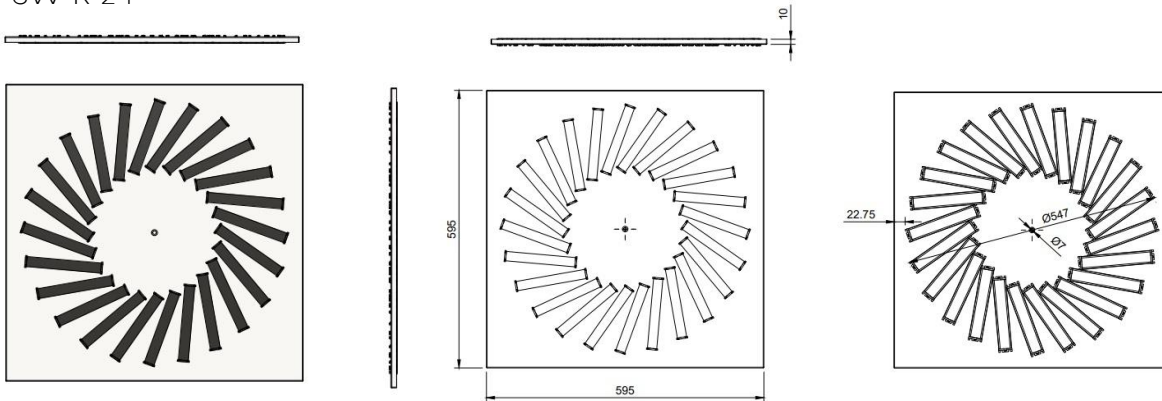
The product is made of galvanized steel sheet and is electrostatic field painted in glossy white RAL9016.

Other RAL colours are available on request.

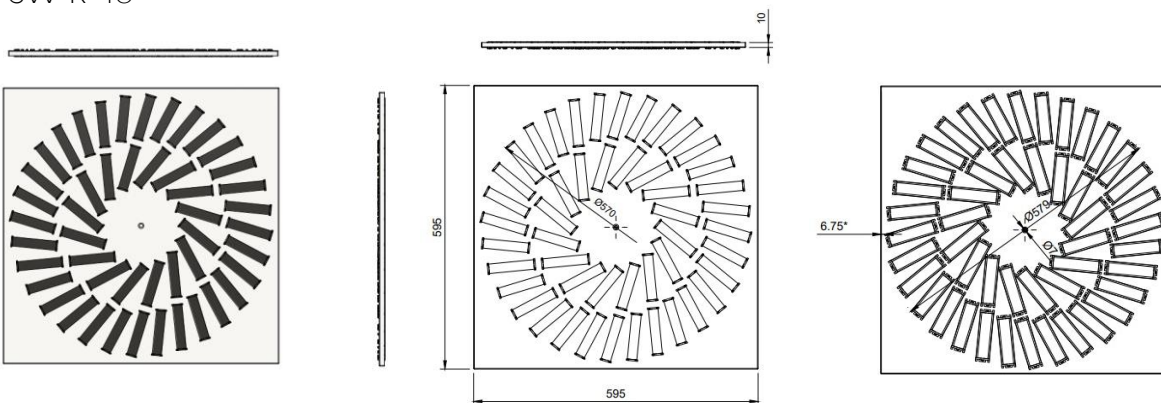
The diffuser blades are made of black anodized aluminum.

## Technical drawing

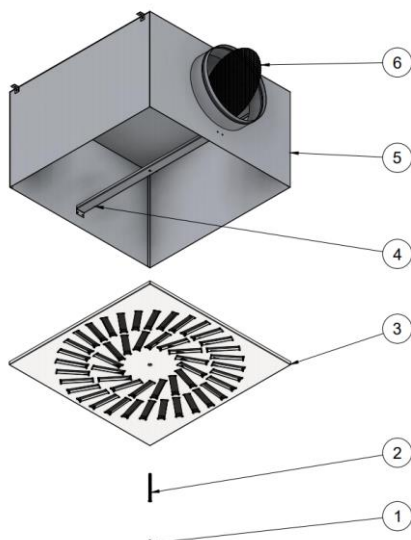
SW-R-24



SW-R-48



## Product specifications

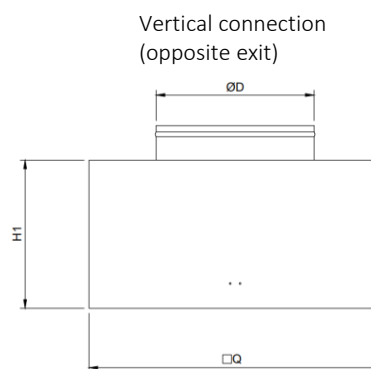
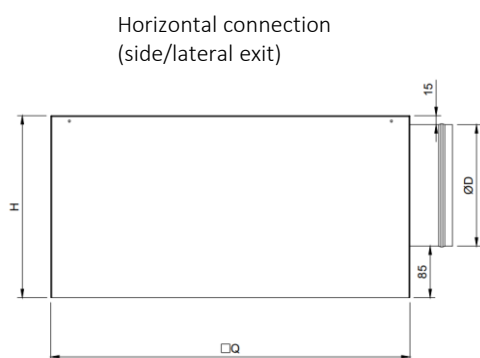


- 1 - Masking cap
- 2 - Fixing screw
- 3 - SW-R-48 diffuser
- 4 - Bracket (mounting crossbar)
- 5 - Plenum box (optional)
- 6 - Perforated damper (optional)

## Accessories

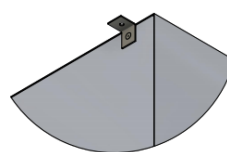
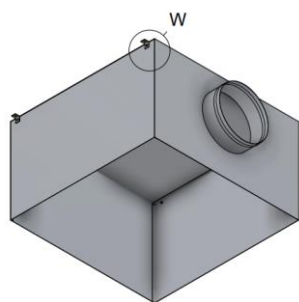
The diffuser can be delivered with a connecting plenum to the circular duct, with horizontal or vertical connection. The plenum is provided with suspension elements (lugs) and bead roll on the spigot, for easy fixing of the flexible duct. Optionally, a perforated damper can be mounted on the plenum connection to balance the air flow.

### Adapter (plenum box)



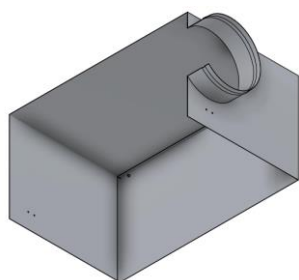
Q: 590 x 590 mm  
H – depending on D  
H1 - on request

The adapter is made of Z140 galvanized steel sheet and has 4 suspension lugs.

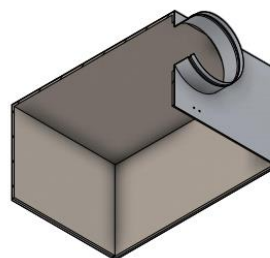


W - Suspension lug

On request, the plenum can be insulated with 6 mm thick elastomeric rubber.

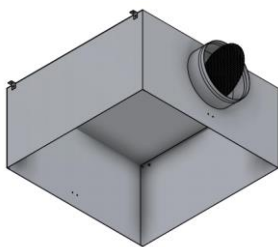


AN - Uninsulated adapter

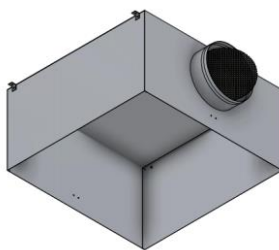


AIZ - Insulated adapter

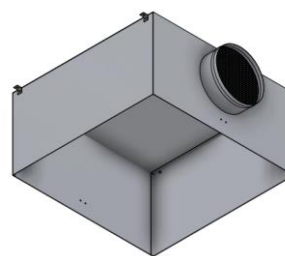
## Perforated damper



Position 0°



Position 45°



Position 90°

The perforated damper is mounted on the adapter spigot and has the role of balancing the air flow.

## Functional parameters

SW-R-24

Air flow [m³/h]	Lx H [mm]	595 x 595	
	Ak [m²]	0.0295	
	Role	Extraction	Supply
250	Veff[m/s]	2.35	2.4
	NR [dB(A)]	16.0	13.0
	ΔPt [Pa]	4.0	3.0
400	Veff[m/s]	3.77	3.8
	NR [dB(A)]	24.0	16.0
	ΔPt [Pa]	12.0	4.0
500	Veff[m/s]	4.71	4.7
	NR [dB(A)]	30.0	18.0
	ΔPt [Pa]	15.0	6.0
600	Veff[m/s]	5.65	5.6
	NR [dB(A)]	33.0	20.0
	ΔPt [Pa]	20.0	8.0
700	Veff[m/s]	6.59	6.6
	NR [dB(A)]	36.0	23.0
	ΔPt [Pa]	25.0	9.0
800	Veff[m/s]	7.53	7.5
	NR [dB(A)]	43.0	30.0
	ΔPt [Pa]	35.0	15.0
1000	Veff[m/s]		9.4
	NR [dB(A)]		35.0
	ΔPt [Pa]		20.0
1200	Veff[m/s]		11.3
	NR [dB(A)]		40.0
	ΔPt [Pa]		30.0

SW-R-48

Air flow [m³/h]	Lx H [mm]	595 x 595	
	Ak [m²]	0.0390	
	Role	Extraction	Supply
350	Veff[m/s]	2.49	2.5
	NR [dB(A)]	20.0	15.0
	ΔPt [Pa]	6.0	3.0
400	Veff[m/s]	2.85	2.8
	NR [dB(A)]	23.0	16.0
	ΔPt [Pa]	12.0	4.0
500	Veff[m/s]	3.56	3.6
	NR [dB(A)]	27.0	18.0
	ΔPt [Pa]	14.0	5.0
600	Veff[m/s]	4.27	4.3
	NR [dB(A)]	30.0	20.0
	ΔPt [Pa]	17.0	6.0
700	Veff[m/s]	4.99	5.0
	NR [dB(A)]	33.0	23.0
	ΔPt [Pa]	20.0	7.5
800	Veff[m/s]	5.70	5.7
	NR [dB(A)]	36.0	25.0
	ΔPt [Pa]	28.0	8.0
1000	Veff[m/s]	7.12	7.1
	NR [dB(A)]	43.0	35.0
	ΔPt [Pa]	45.0	15.0
1400	Veff[m/s]		10.0
	NR [dB(A)]		45.0
	ΔPt [Pa]		30.0

The legend

Ak [m²] - The free surface

Veff [m/s] – The effective air velocity

NR [dB (A)] - Noise level without room attenuation

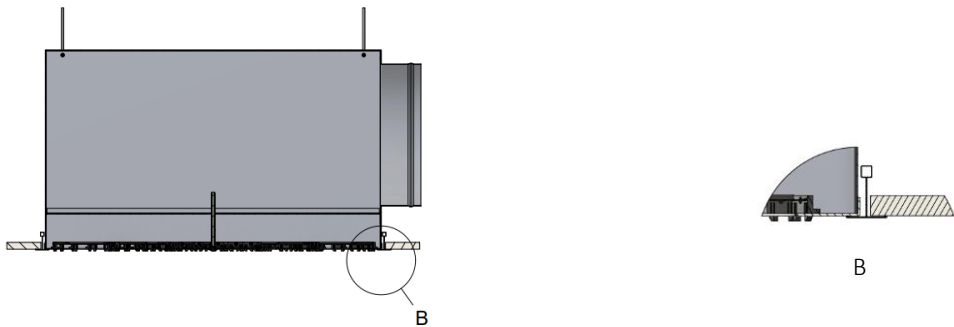
ΔPt [Pa] - Pressure loss

## Installation

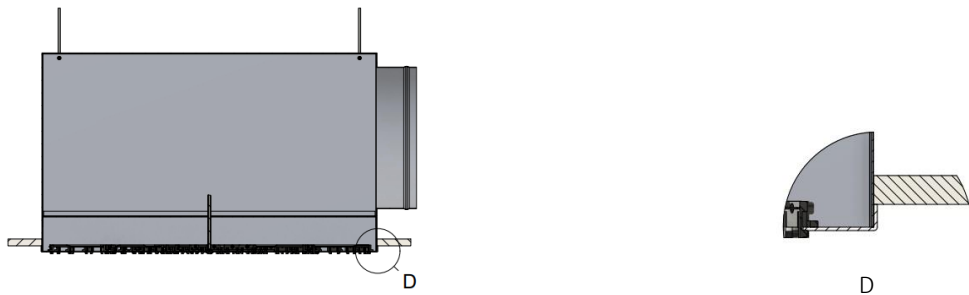
The diffuser can be mounted in 600 x 600 mm T-bar false ceiling, continuous ceiling or suspended.

The fixing of the plenum diffuser is done by using a central screw screwed into the mounting bracket, positioned inside of the plenum box.

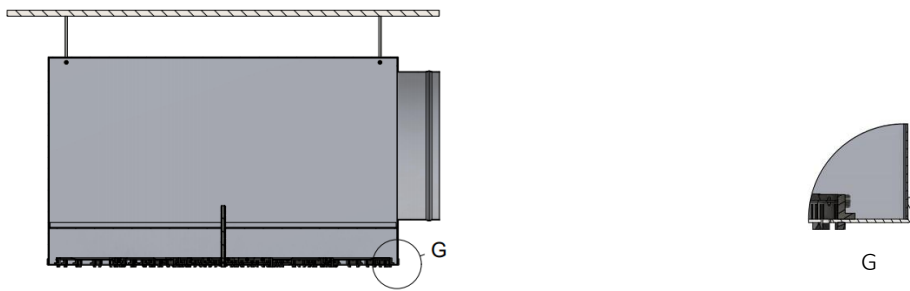
### Installation in T-bar suspended ceiling



### Installation in continuous ceiling



### Suspended in the ceiling



## Order code

Example on how to place an order

Type	Slot number	Dimensions	Accessories	Finish
SW-R				
24, 48 slots				
595 x 595				
AIZ - Insulated adapter				
AN - Uninsulated adapter				
Perforated damper (plenum box)				
RAL9016 (black blades)				
RAL.. - Other RAL colors on request (black blades)				