

Air through perfection

Circular ceiling diffuser

**RCD-H-R**



**ACP**  
Ceiling diffusers

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## Circular ceiling diffuser RCD-H-R



### Description

Diffuser for high ceiling with square front panel and circular connection.

RCD-H-R is recommended for 600x600 mm false suspended ceiling.

The design of the product determines a high level of induction rate.

The ceiling diffuser can be used to introduce or evacuate air.

Installation height 2.7-6 m.

### Technical specifications

#### Characteristics

The diffuser has a 595x595 mm square front plate and a circular connection.

The central cones are adjustable.

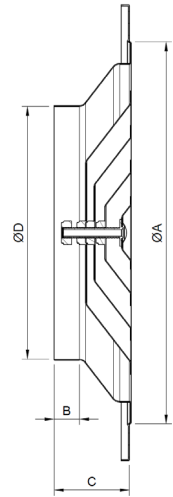
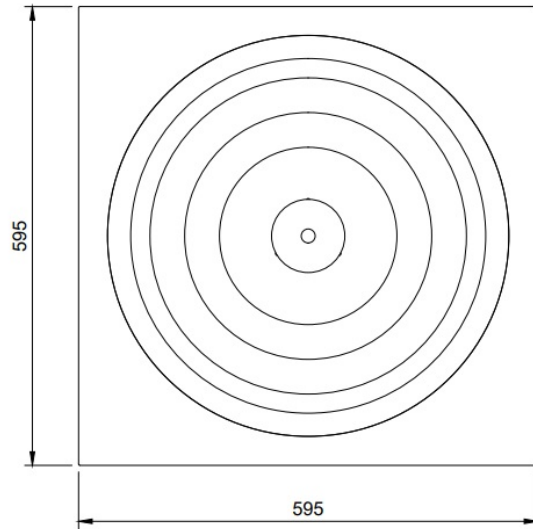
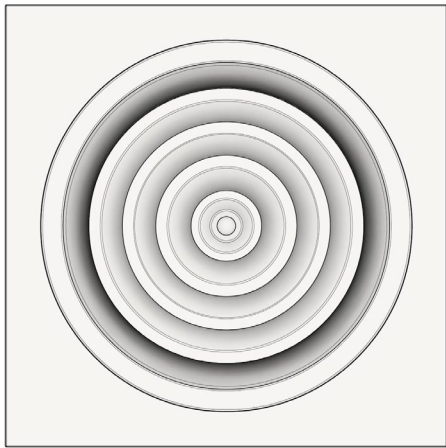
The ceiling diffuser is available with the following connection diameters: 100, 150, 160, 200, 250, 300 and 315 mm.

## Materials

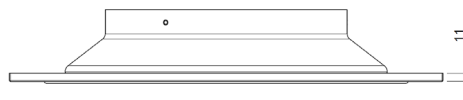
The ceiling diffuser is made of aluminum and steel, electrostatic field painted in glossy white RAL 9016.

Other RAL colours are available on request.

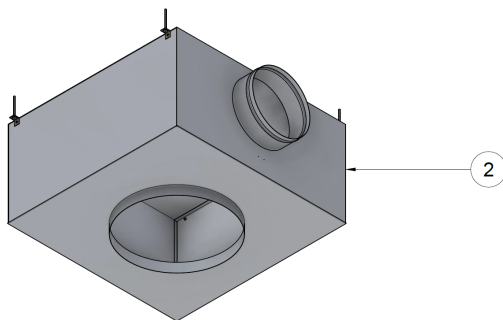
## Technical drawing



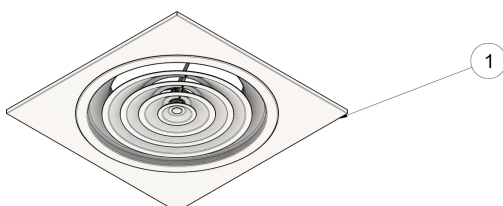
RCD-H-R	ØD [mm]	C [mm]	B [mm]
100	96	85	33
150	146	90	23
160	156	90	28
200	196	115	37
250	246	135	37
300	296	115	45
315	311	115	44



## Product specifications



- 1 - RCD-H-R Ceiling diffuser
- 2 - Plenum box (optional)



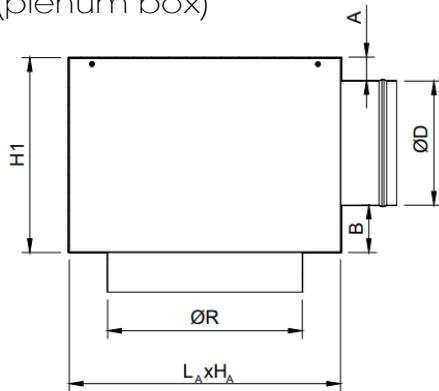
## Accessories

RCD-H-R diffuser can be delivered with a connecting plenum to the circular duct, with a horizontal connection.

The plenum is provided with suspension elements (lugs) and bead roll on the spigot, for easy fixing of the flexible duct.

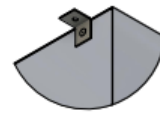
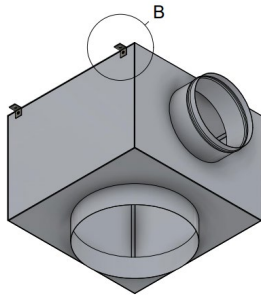
Optionally can be delivered with DAM-RCDH control damper .

### Adapter (plenum box)



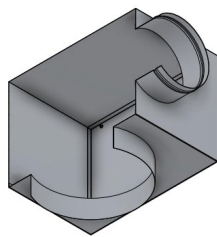
$L_A \times H_A$  – depending on  $\varnothing R$   
 A, B, H1 – depending on demand and  $\varnothing D$   
 $\varnothing R$  – connection diameter RCD-H-R + 4 mm

The adapter is made of galvanized steel sheet Z140 and is equipped with 4 lugs for suspension.

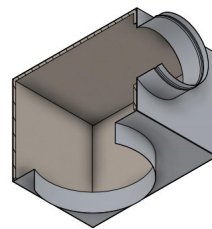


B - Suspension lug

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



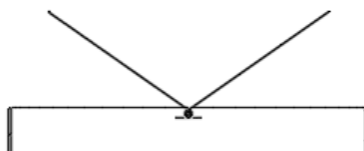
AN - Uninsulated adapter



AIZ - Insulated adapter

### Control damper DAM-RCDH

DAM-RCDH can be used to adjust the air flow.



## Functional parameters

Air flow (m <sup>3</sup> /h)	Diameter	100	160	200	250	315
	Ak [m <sup>2</sup> ]	0.0059	0.015	0.027	0.044	0.073
75	X [m]	0.7				
	NR [dB(A)]	27.0				
	Veff [m/s]	3.5				
	ΔPt [pa]	20.0				
100	X [m]	1.0				
	NR [dB(A)]	35.0				
	Veff [m/s]	4.7				
	ΔPt [pa]	47.0				
150	X [m]	1.4	1.0			
	NR [dB(A)]	45.0	21.0			
	Veff [m/s]	7.1	2.8			
	ΔPt [pa]	94.0	9.0			
200	X [m]		1.4			
	NR [dB(A)]		25.0			
	Veff [m/s]		3.7			
	ΔPt [pa]		14.0			
250	X [m]		1.7	1.3		
	NR [dB(A)]		30.0	18.0		
	Veff [m/s]		4.6	2.6		
	ΔPt [pa]		20.5	6.8		
300	X [m]		2.1	1.5	1.3	
	NR [dB(A)]		36.0	23.0	15.0	
	Veff [m/s]		5.6	3.1	1.9	
	ΔPt [pa]		33.5	10.5	4.3	
400	X [m]			2.1	1.7	1.6
	NR [dB(A)]			30.0	22.0	3.0
	Veff [m/s]			4.1	2.5	1.5
	ΔPt [pa]			17.5	7.7	4.2
500	X [m]			2.6	2.1	1.9
	NR [dB(A)]			36.0	27.0	20.0
	Veff [m/s]			5.1	3.2	1.9
	ΔPt [pa]			26.5	12.5	6.5
600	X [m]			3.3	2.6	2.3
	NR [dB(A)]			42.0	33.0	25.0
	Veff [m/s]			6.2	3.8	2.3
	ΔPt [pa]			38.0	17.0	10.0
800	X [m]				3.5	3.5
	NR [dB(A)]				41.0	34.0
	Veff [m/s]				5.1	3.1
	ΔPt [pa]				33.5	17.0
1000	X [m]				4.5	3.8
	NR [dB(A)]				50.0	40.0
	Veff [m/s]				6.3	3.8
	ΔPt [pa]				52.5	26.5
1250	X [m]					4.6
	NR [dB(A)]					47.0
	Veff [m/s]					4.8
	ΔPt [pa]					40.5

### The legend

Ak [m<sup>2</sup>] - The free surface

X [m] - The length of the air jet at a speed of 0.25 m/s

Veff [m/s] – The effective air velocity

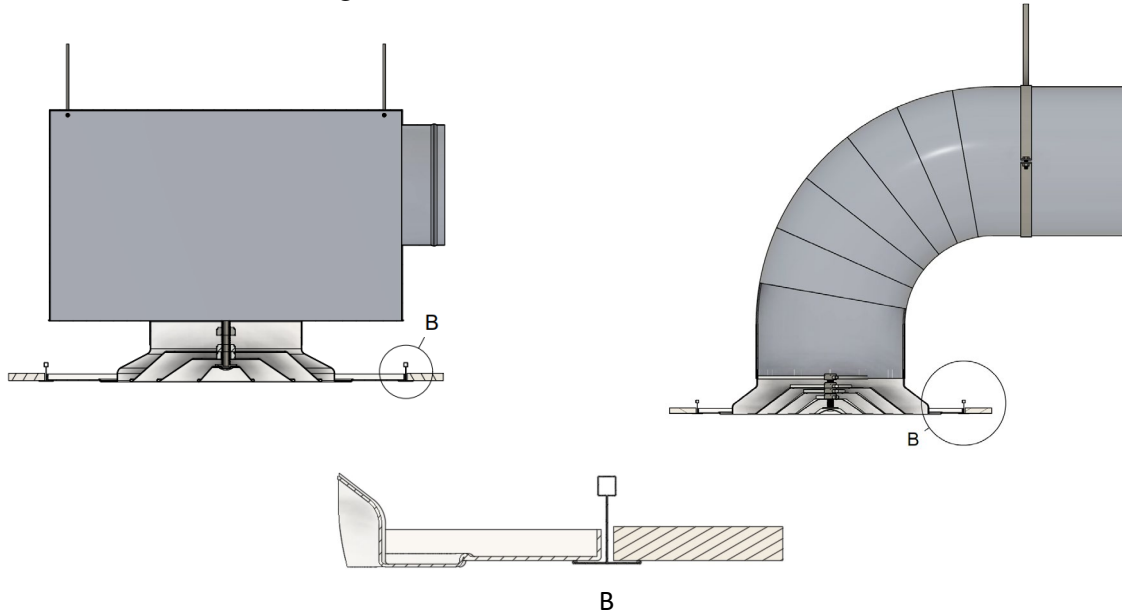
NR [dB (A)] - Noise level without room attenuation

ΔPt [Pa] - Pressure loss

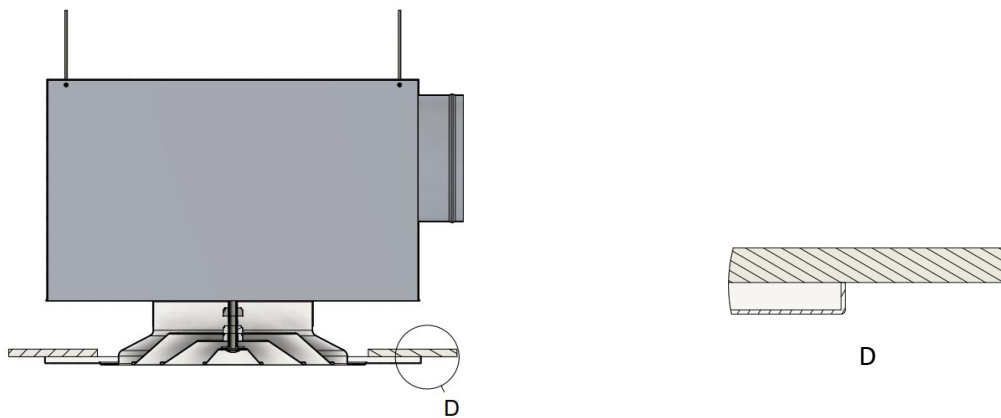
## Installation

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

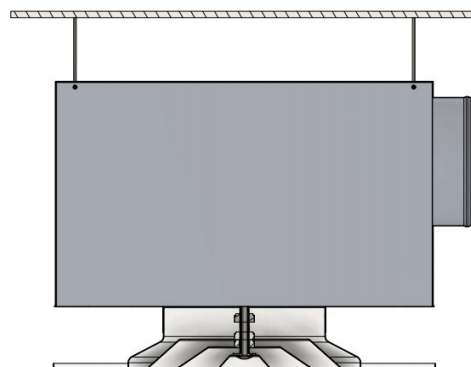
### Installation in T-bar ceiling



### Installation in continuous ceiling



### Suspended in the ceiling



## Order code

Example on how to place an order

Type	Dimensions	Accessories	Finish
<b>RCD-H-R</b>	according to the table (D100÷D315)		
<b>AIZ</b> - Insulated adapter			
<b>AN</b> - Uninsulated adapter			
<b>DAM-RCDH</b> - Control damper			
<b>RAL9016</b>			
<b>RAL..</b> - Other RAL colors on request			