

Air through perfection

Circular ceiling diffuser

RCD-H



ACP

Ceiling diffusers

Circular ceiling diffuser RCD-H



Description

Circular diffuser for high ceiling with adjustable central cones.

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 adjustable cones.

The ceiling diffuser is available in the following diameters: 100, 160, 200, 250, 315, 350, 400 and 450 mm.

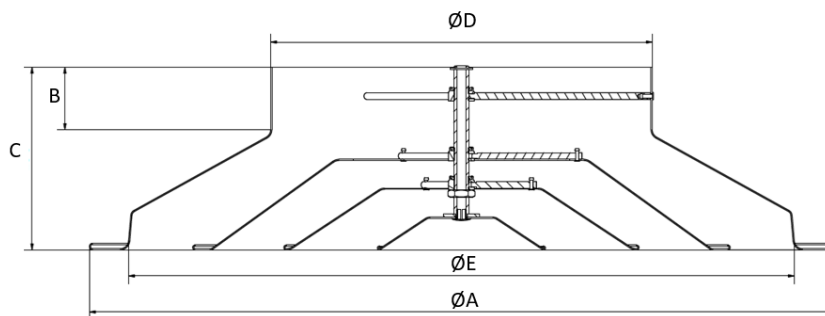
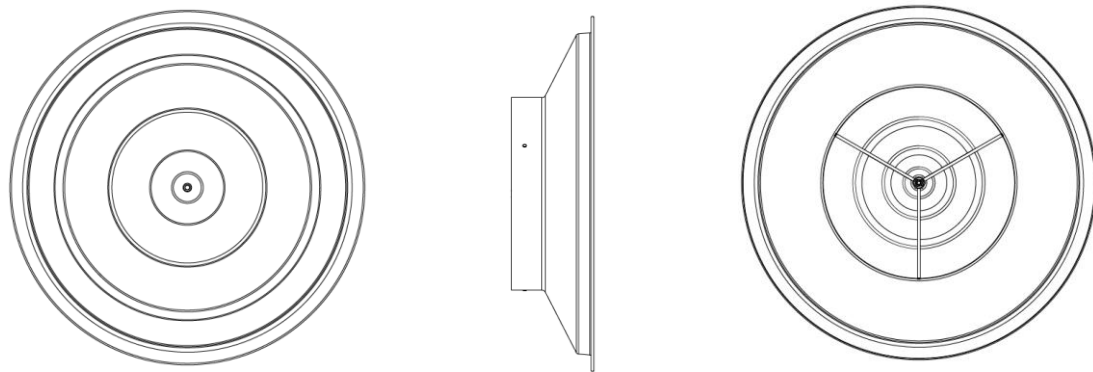
Materials

The ceiling diffuser is made of aluminum and steel (assembly elements).

Standard finish, RAL 9016 glossy white.

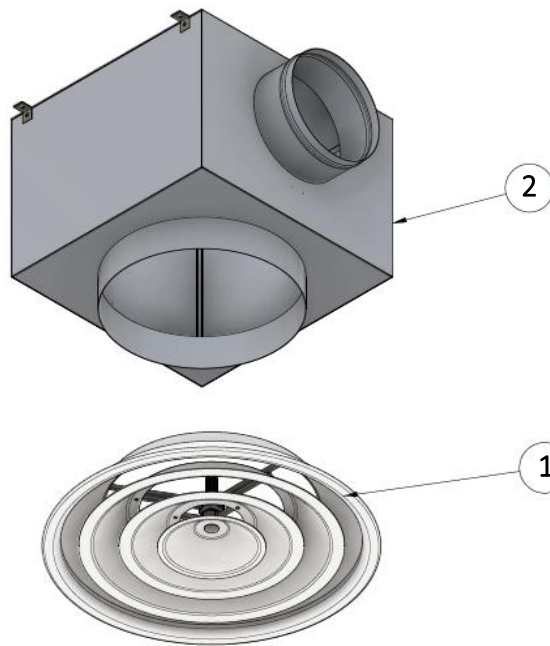
Other RAL colours are available on request.

Technical drawing



RCD-H	ØD [mm]	ØE [mm]	ØA [mm]	B [mm]	C [mm]
100	97	193	247	45	105
160	157	293	352	45	120
200	197	366	420	50	120
250	247	453	525	50	153
315	312	572	644	50	151
350	347	648	732	65	192
400	397	693	776	65	193
450	447	748	827	70	193

Product specifications



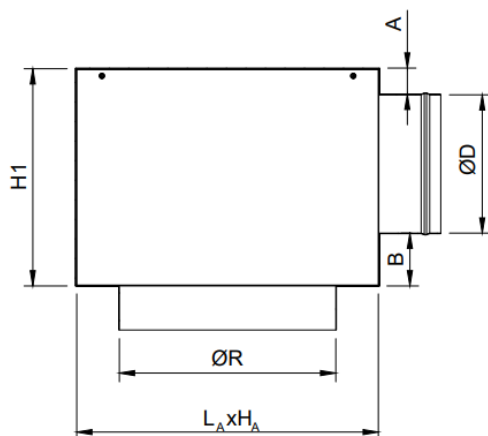
- 1 - RCD-H Circular ceiling diffuser
- 2 - Plenum box (optional)

Accessories

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

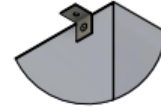
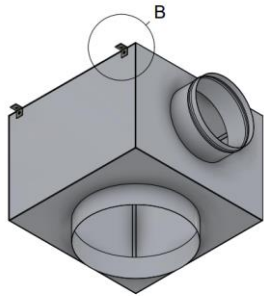
The plenum is provided with suspension elements (lugs) and bead roll on the spigot, for easy fixing of the flexible duct.

Adapter (plenum box)



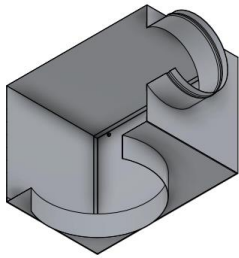
- $L_A \times H_A$ – depending on $\varnothing R$
- A, B, H1 – depending on demand and $\varnothing D$
- $\varnothing R$ – connection diameter RCD-H + 5 mm

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

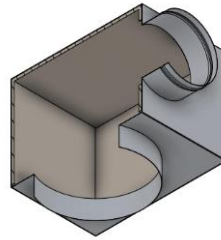


B - Suspension lug

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



AN - Uninsulated adapter



AIZ - Insulated adapter

Functional parameters

Air flow (m ³ /h)	Diameter	100	160	200	250	315	350	400	450
	Ak [m ²]	0.0059	0.015	0.027	0.044	0.073	0.090	0.118	0.150
100	X [m]	1.0							
	NR [dB(A)]	35.0							
	Veff [m/s]	4.7							
	ΔPt [pa]	47.0							
150	X [m]	1.4							
	NR [dB(A)]	45.0							
	Veff [m/s]	7.1							
	ΔPt [pa]	94.0							
200	X [m]	1.9	1.4						
	NR [dB(A)]	58.0	25.0						
	Veff [m/s]	9.4	3.7						
	ΔPt [pa]	171.0	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]		2.8	2.1	1.6	1.6			
	NR [dB(A)]		45.0	30.0	22.0	3.0			
	Veff [m/s]		7.4	4.1	2.5	1.5			
	ΔPt [pa]		55.0	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]			3.2	2.6	2.3	1.9		
	NR [dB(A)]			42.0	33.0	25.0	20.0		
	Veff [m/s]			6.2	3.8	2.3	1.9		
	ΔPt [pa]			38.0	17.0	10.0	5.5		
800	X [m]				3.5	3.5	2.6	2.3	
	NR [dB(A)]				41.0	34.0	25.0	20.0	
	Veff [m/s]				5.1	3.1	2.5	1.9	
	ΔPt [pa]				33.5	17.0	9.2	6.5	
1000	X [m]				4.5	3.8	3.4	3.0	2.7
	NR [dB(A)]				50.0	40.0	34.0	28.0	22.0
	Veff [m/s]				6.3	3.8	3.1	2.4	1.9
	ΔPt [pa]				52.5	26.5	16.0	9.0	6.5
1250	X [m]					4.6	4.1	3.8	3.3
	NR [dB(A)]					47.0	42.0	35.0	26.0
	Veff [m/s]					4.8	3.9	3.0	2.3
	ΔPt [pa]					40.5	23.5	16.0	9.0
1500	X [m]						5.2	4.5	4.0
	NR [dB(A)]						47.0	41.0	35.0
	Veff [m/s]						4.6	3.5	2.8
	ΔPt [pa]						32.5	22.0	16.0
1750	X [m]								4.8
	NR [dB(A)]								40.0
	Veff [m/s]								3.2
	ΔPt [pa]								20.0

The legend

Ak [m²] - 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

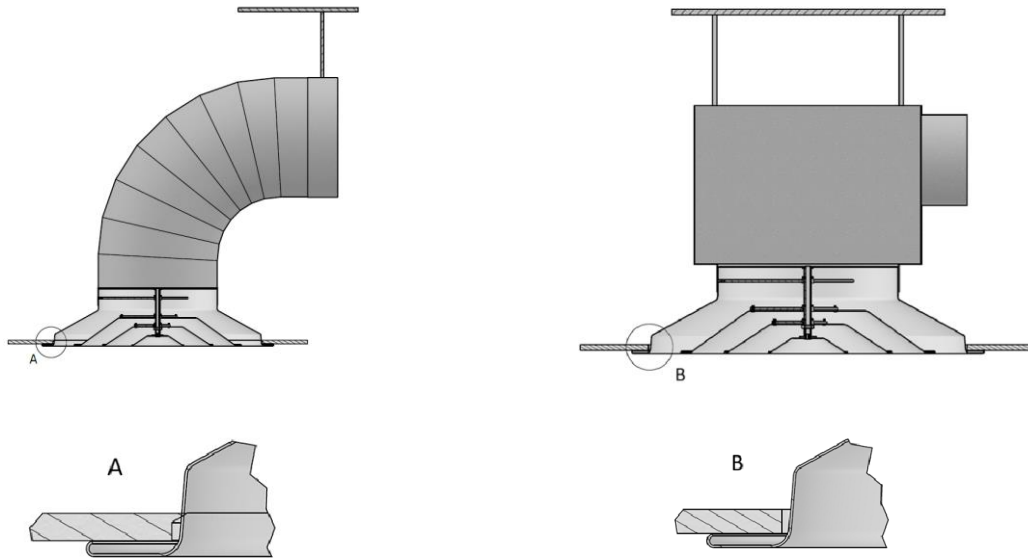
NR [dB (A)] - Noise level without room attenuation

ΔPt [Pa] - Pressure loss

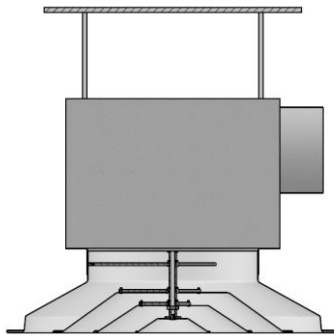
Installation

The diffuser can be installed suspended or in continuous ceiling. The fixing is done with screws in the diffuser connection.

Installation in continuous ceiling



Suspended in the ceiling



Order code

Example on how to place an order

Type	Dimensions	Accessories	Finish
RCD-H			
according to the table (D100÷D450)			
AIZ - Insulated adapter			
AN - Uninsulated adapter			
RAL9016			
RAL.. - Other RAL colors on request			