

Air through perfection

Jet diffuser



ACP
Jet diffusers

Jet diffuser JD



Description

JD is an adjustable nozzle jet diffuser that allows air to be introduced at a long jet length.

Suitable for heating or cooling in spaces with long distances between the diffuser and the occupied area, concert halls, museums, etc.

JD can be mounted on a wall, ceiling or duct.

The diffuser is recommended in various ventilation applications for the introduction of air.

Technical specifications

Characteristics

The diffuser allows the supply air with a long throw distance.

The diffuser consists of a spherical nozzle, a circular connection and a decorative ring.

The constructive form and design of the product offer an unlimited number of air jet direction settings.

The spherical nozzle can be adjusted manually which allows the air jet to be directed to the desired area.

The decorative ring masks the fastening/fixing mode.

Allows high airflow with low noise levels.

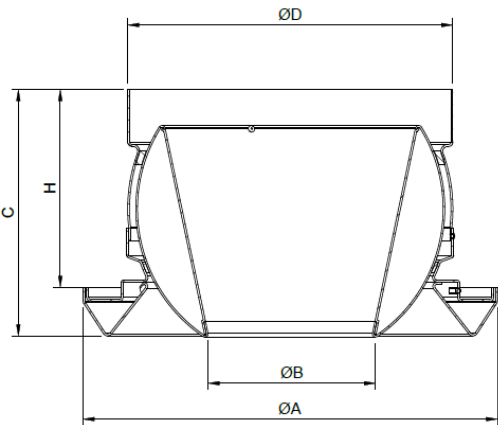
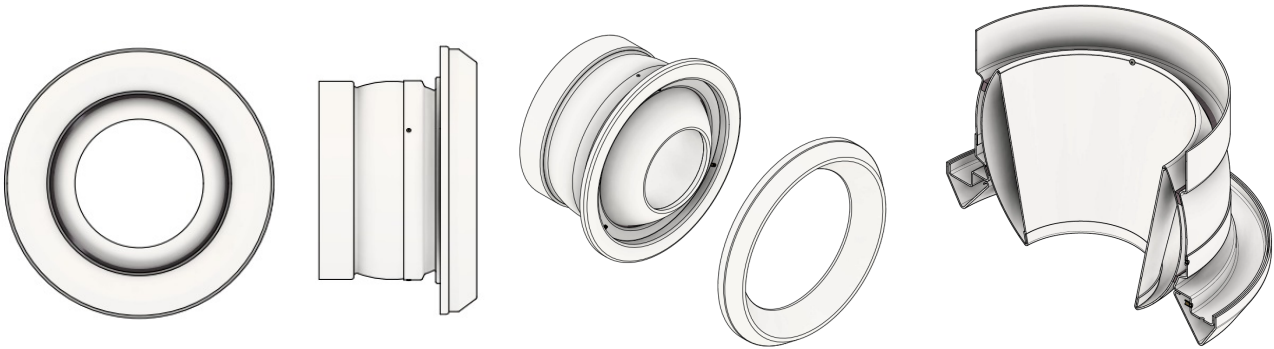
The discharge angle is adjustable $\pm 30^\circ$.

Available diameters: 100, 125, 150, 160, 200, 250, 315, 350, 400 and 450 mm.

Materials

The nozzle and the decorative ring are made of aluminum, electrostatic field painted in glossy white RAL 9016.
Other RAL colours are available on request.

Technical drawing



JD	ØD	ØA	ØB	C	H
100	98	139	45	83	63
125	122	172	61	96	72
150	147	200	75	113	83
160	157	210	80	120	91
200	197	265	105	142	107
250	247	314	128	179	135
315	312	390	165	230	174
350	347	433	185	251	186
400	397	495	210	285	218
450	447	559	235	316	235

Directing the air jet

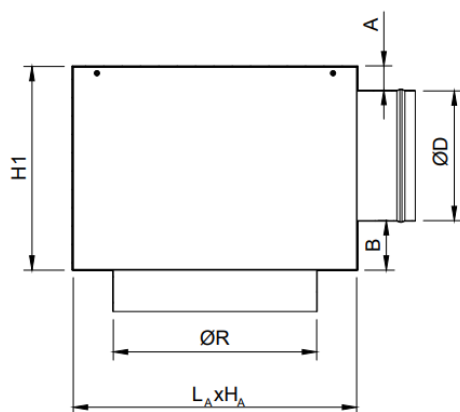


Accessories

The diffuser can be supplied with a plenum connecting to a circular duct with horizontal connection.

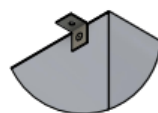
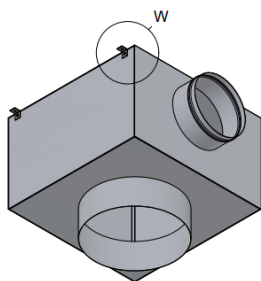
The plenum is provided with suspension elements (lugs) and bead roll on the spigot, for easy fixing of the flexible duct.

Adapter (plenum box)



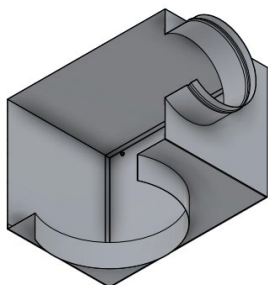
$L_A \times H_A$ – depending on $\varnothing R$
 $A, B, H1$ – depending on demand and $\varnothing D$
 $\varnothing R$ = connection diameter JD + 4 mm

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

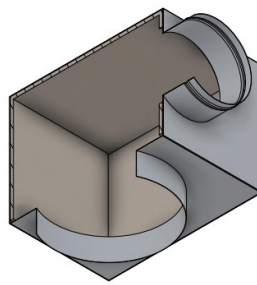


W - Suspension lug

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



AN - Uninsulated adapter



AIZ - Insulated adapter

Functional parameters

Air flow [m³/h]	Ø [mm]	100	125	160	200	250	315
	Ak[m²]	0.0018	0.0032	0.0050	0.00850	0.0132	0.02140
50	Veff [m/s]	7.7					
	NR [dB(A)]	16					
	X [m]	5.6					
	ΔPt [Pa]	26					
60	Veff [m/s]	9.3	5.2				
	NR [dB(A)]	17	8.0				
	X [m]	7	5.1				
	ΔPt [Pa]	40	18.0				
70	Veff [m/s]	10.8	6.0	3.9			
	NR [dB(A)]	22	10	4			
	X [m]	7.8	5.7	3.8			
	ΔPt [Pa]	50	25	10			
80	Veff [m/s]	12.3	6.9	4.4			
	NR [dB(A)]	24	12	5			
	X [m]	8.1	6	5			
	ΔPt [Pa]	69	30	14			
90	Veff [m/s]	13.9	7.8	5.0			
	NR [dB(A)]	27	17	12			
	X [m]	9.2	7.5	5.2			
	ΔPt [Pa]	85	40	17			
100	Veff [m/s]	15.4	8.6	5.6			
	NR [dB(A)]	30	18	13			
	X [m]	10	8.1	5.9			
	ΔPt [Pa]	100	47	19			
125	Veff [m/s]	19.3	10.8	6.9	4.1		
	NR [dB(A)]	35	25	15	5		
	X [m]	11.8	9.2	7.2	5.5		
	ΔPt [Pa]	140	70	30	10		
150	Veff [m/s]	23.1	13.0	8.3	4.9		
	NR [dB(A)]	42	28	22	12		
	X [m]	14	10.5	8.1	6.5		
	ΔPt [Pa]	210	100	42	16		
200	Veff [m/s]		17.3	11.1	6.5	4.2	
	NR [dB(A)]		38	28	16	8	
	X [m]		15	11.6	8.5	7	
	ΔPt [Pa]		170	75	26	11	
250	Veff [m/s]			13.9	8.2	5.3	
	NR [dB(A)]			35	23	10	
	X [m]			15	12	8.7	
	ΔPt [Pa]			110	40	16	
300	Veff [m/s]			16.7	9.8	6.3	
	NR [dB(A)]			40	27	18	
	X [m]			18	14	10.5	
	ΔPt [Pa]			160	60	25	
350	Veff [m/s]			19.4	11.4	7.4	4.5
	NR [dB(A)]			45	31	23	10
	X [m]			22	17	12.5	10
	ΔPt [Pa]			220	80	33	12
400	Veff [m/s]			22.2	13.1	8.4	5.2
	NR [dB(A)]			48	36	27	12
	X [m]			23	18	15	11
	ΔPt [Pa]			280	105	42	15

Air flow [m³/h]	Ø [mm]	100	125	160	200	250	315	400
	Ak[m²]	0.0018	0.0032	0.0050	0.00850	0.0132	0.02140	0.0380
450	Veff [m/s]				14.7	9.5	5.8	3.3
	NR [dB(A)]				37	28	15	1
	X [m]				20	17	12	8.5
	ΔPt [Pa]				120	58	19	1
500	Veff [m/s]				16.3	10.5	6.5	3.7
	NR [dB(A)]				43	32	18	2
	X [m]				22	18	14	10
	ΔPt [Pa]				150	67	24	2
600	Veff [m/s]				19.6	12.6	7.8	4.4
	NR [dB(A)]				48	37	23	5
	X [m]				28	22	17	13
	ΔPt [Pa]				225	90	32	11
700	Veff [m/s]				22.9	14.7	9.1	5.1
	NR [dB(A)]				52	42	28	15
	X [m]				30	24	19	14.8
	ΔPt [Pa]				270	130	45	16
800	Veff [m/s]					16.8	10.4	5.8
	NR [dB(A)]					46	31	20
	X [m]					28	22	18
	ΔPt [Pa]					140	57	20
900	Veff [m/s]					18.9	11.7	6.6
	NR [dB(A)]					48	34	23
	X [m]					31	25	20
	ΔPt [Pa]					200	70	25
1000	Veff [m/s]					21.0	13.0	7.3
	NR [dB(A)]					53	37	26
	X [m]					32.5	26	22
	ΔPt [Pa]					240	80	30
1250	Veff [m/s]						16.2	9.1
	NR [dB(A)]						43	32
	X [m]						32	26
	ΔPt [Pa]						120	43
1500	Veff [m/s]						19.5	11.0
	NR [dB(A)]						50	38
	X [m]						35	31
	ΔPt [Pa]						195	68
2000	Veff [m/s]							14.6
	NR [dB(A)]							47
	X [m]							36
	ΔPt [Pa]							110
3000	Veff [m/s]							21.9
	NR [dB(A)]							65
	X [m]							42
	ΔPt [Pa]							250

The legend

Ak [m²] - The free surface

Veff [m/s] - Air velocity in the diffuser

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

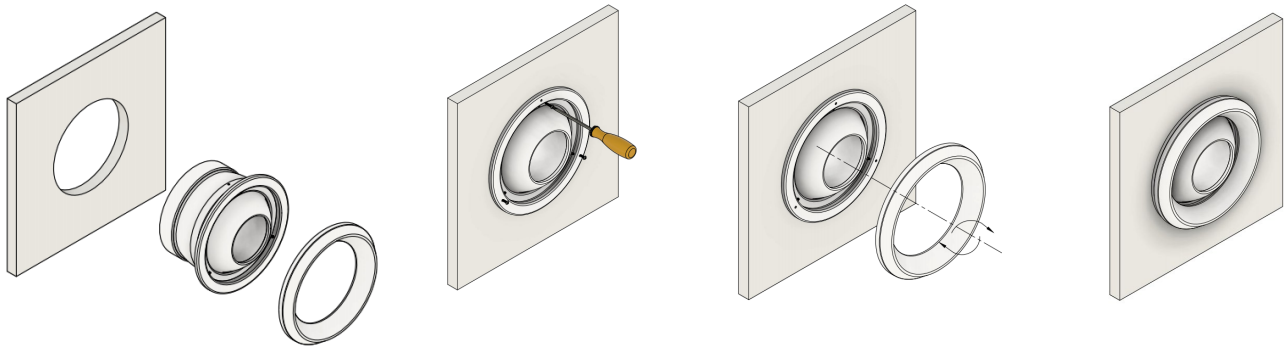
X [m] - The length of the air jet at a speed of 0.5 m/s

ΔPt [Pa] - Pressure loss

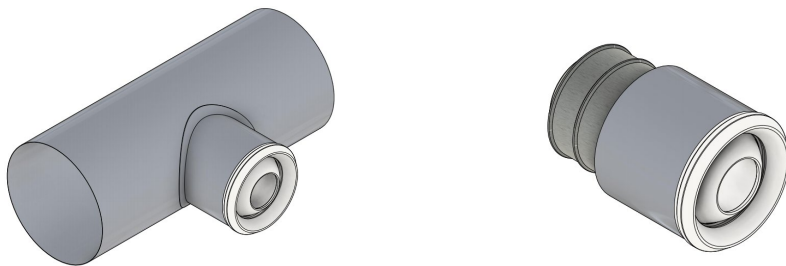
Installation

The diffuser can be mounted on a wall, ceiling or duct. Fastening is done with screws.

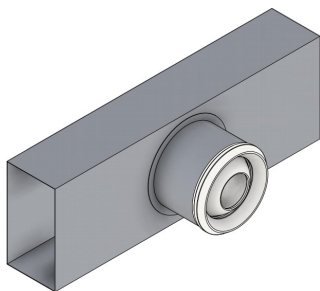
Ceiling/wall installation



Circular duct installation



Rectangular duct installation with circular connection



Order code

Example on how to place an order

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