VSD-2

VARIABILNI VRTINČNI DIFUZOR
VARIABLE SWIRL DIFFUSER

OPIS:

Variabilni vrtinčni difuzor VSD-2 je namenjen hlajenju in ogrevanju velikih prostorov višine od 4 do 12 m. Omogoča turbulenten tok zraka, dolge domete pri ogrevanju in enakomerno razpršitev zraka pod stropom pri hlajenju – Coanda efekt.

KONSTRUKCIJA:
Difuzor sestavlja lijakasto oblikovano ohišje in 6 centralno nastavljivih lopatic.

MATERIAL:
- jeklena pločevina pobarvana v belo barvo RAL 9010 MAT ali na željo kupca poljubno barvo po RAL lestvici
- OPCIJA: nerjaveča pločevina INOX AISI 304 SB

POGON:
C - centralna ročna nastavitev položaja lopatic.

E - pripravljen za montažo elektromotornega pogona.
Na željo kupca se elektromotor tudi namesti na ohišje difuzorja:
- LM230A LM24A
- LM230A SR LM 24A SR

T - difuzor ima vgrajen termostatski pogon, ki zaznava temperaturo vpihovanega zraka in samodejno uravnava položaj lopatic. Termostatski element deluje v temperaturnem območju 22 ºC do 38 ºC. Deluje avtomatsko in ne potrebuje dodatnih virov energije in s tem povezanih instalacij. Difuzor je nastavljen na optimalen položaj in aktiviran že v tovarni. Lopatice so pri temperaturi 38 ºC odprte pod kotom 85º. Pri temperaturi 20 ºC mehanska blokada zaustavi zapiranje lopatic pod kotom 35º.

DESCRIPTION:

The VSD-2 variable swirl diffuser can be used for various ceiling heights from 4 m to 12 m. It enables turbulent airflow, long-range constant airflow and the Coanda effect – where cold air is dispersed below the ceiling.

CONSTRUCTION:
The device includes a casing of nozzle shaped aluminium and 6 centrally adjustable blades.

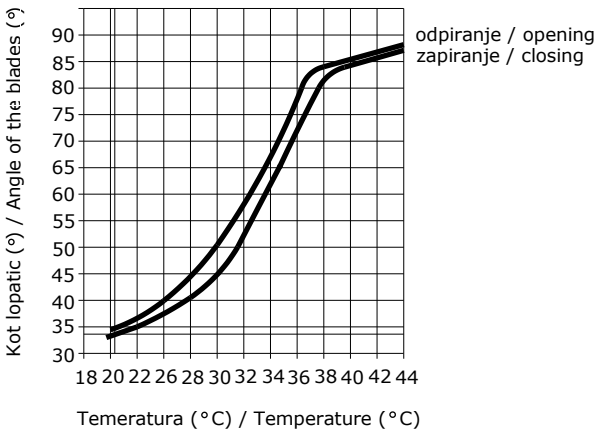
MATERIAL:
- steel sheet metal painted in white finish RAL 9010 MATT or any RAL colour according to the customer's request.
- OPTION: stainless steel sheet metal AISI 304 SB

DRIVE:
C - central manual drive

E - ready for electric drive.
Upon request, the electric motor drive can be added on the diffuser:
- LM230A LM24A
- LM230A SR LM 24A SR

T - the thermostatic drive installed inside diffuser perceives a surroundings temperature and automatically adjusts the position of the blades. It does not need any additional source of energy, installations or settings. Diffuser is set in an optimal position and activated in the production. The wax element works in a temperature range from 20 ºC to 35 ºC. At temperature 30 ºC the blades are fully open at 85º angle. At temperature 20 ºC the blockade fixed on the holder stops the blades in position of 35º angle.

Delovanje difuzorja s termostatskim pogonom: / Operation of diffuser with thermostatic drive:



DODATKI in OPCIJE / ACCESSORIES and OPTIONS:

PL – plošča dim 595x595 mm za vgradnjo difuzorja v spuščen strop / plate dim. 595x595 for installation in prefabricated ceilings

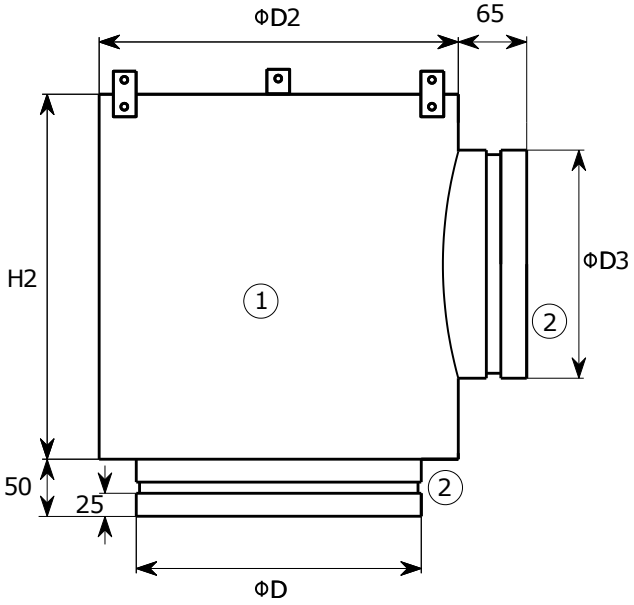
LM – zaščita proti udarcem žoge v telovadnicah / ball impact protection in gyms

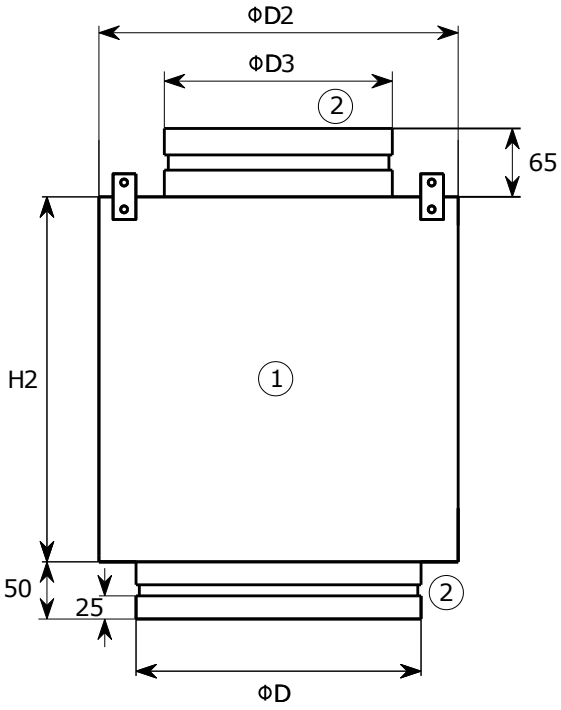
PP - perforirana plošča v vratu difuzorja / perforated plate placed on the neck of the diffuser

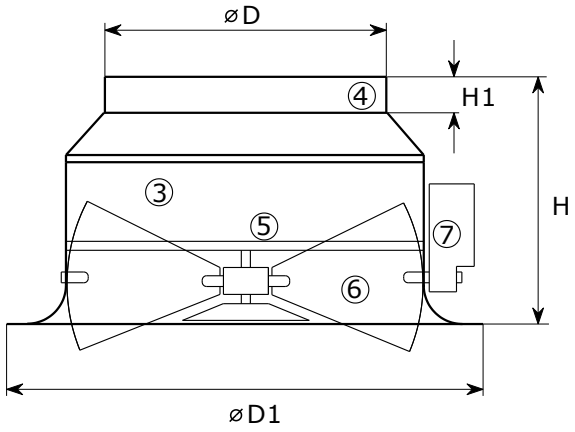
INOX AISI 304 SB – nerjaveča pločevina / stainless steel sheet metal AISI 304

PB 3 - priključna komora / plenum box

DIMENZIJE / DIMENSIONS:



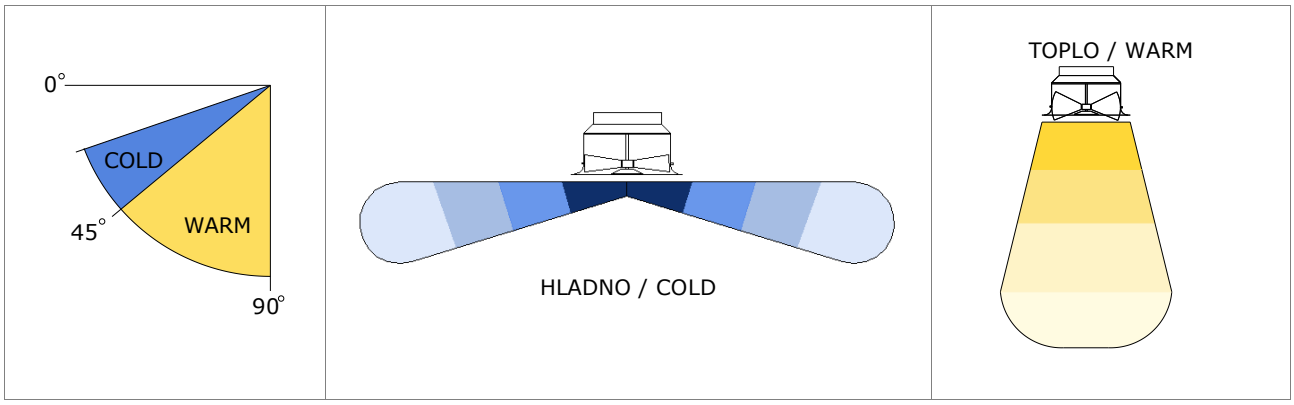




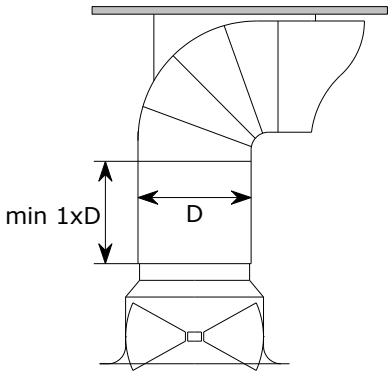
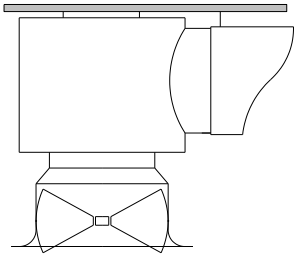
1. komora / plenum box
2. priključna odprtina / connection opening
3. difuzor / diffuser
4. reducir / reducer
5. prečka / traverse
6. lopatice / blades
7. električni pogon / electric drive

	Ø D	Ø D1	Ø D2	Ø D3	H	H1	H2
160	158	280	260	123	170	40	195
200	198	345	300	158	195	40	230
250	248	425	350	198	230	40	270
315	313	530	415	248	275	40	320
400	398	660	500	313	340	60	385

KOT LOPATIC IN SMER ZRAČNEGA CURKA: / ANGLE OF BLADES AND DIRECTION OF AIR FLOW:



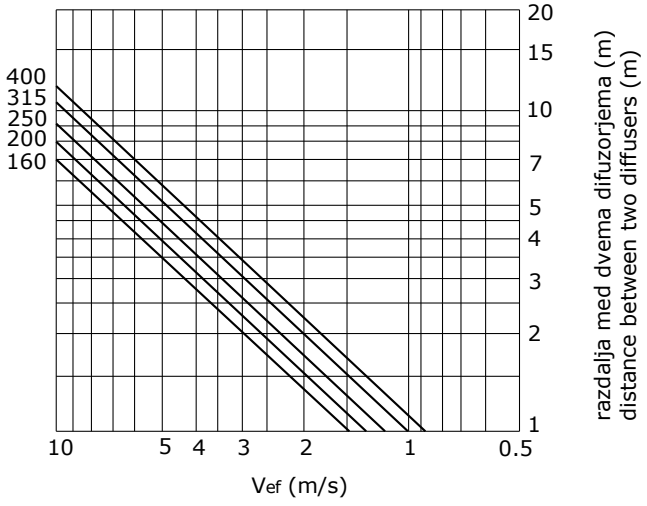
MONTAŽA / INSTALLATION:

Pritrditev na cev / Fitting on air shaft.	Pritrditev na priključno komoro / Fitting on plenum box.
	

MINIMALNA RAZDALJA MED DIFUZORJI: / MINIMUM DISTANCE BETWEEN DIFFUSERS:

Minimalna razdalja med difuzorjema mora biti pri minimalnem pretoku zraka vsaj 5x premer difuzorja in vsaj 10x premer difuzorja pri maksimalnem pretoku zraka.

Minimum distance between two diffusers must be at least 5 times the diameter of the diffuser at minimum flow and 10 times the diameter of the diffuser at maximum flow.



IZBIRNA TABELA / SELECTION TABLE:

Q [m³/h]	dim	160	200	250	315	400
150	Lh [m]	3,5				
	PT [Pa]	<5				
	NH [db(A)]	<20				
	Lv [m]	7,5				
	PT [Pa]	<5				
	NH [db(A)]	<20				
200	Lh [m]	3,7				
	PT [Pa]	8				
	NH [db(A)]	23				
	Lv [m]	8,0				
	PT [Pa]	<5				
	NH [db(A)]	<20				
300	Lh [m]	4,1	3,7			
	PT [Pa]	18	7			
	NH [db(A)]	31	22			
	Lv [m]	8,8	7,9			
	PT [Pa]	7	<5			
	NH [db(A)]	22	<20			
400	Lh [m]	4,4	3,9	3,5		
	PT [Pa]	34	13	5		
	NH [db(A)]	38	27	<20		
	Lv [m]	9,4	8,5	7,6		
	PT [Pa]	13	5	<5		
	NH [db(A)]	27	20	<20		
500	Lh [m]		4,1	3,7		
	PT [Pa]		21	8		
	NH [db(A)]		32	23		
	Lv [m]		8,9	8,0		
	PT [Pa]		8	<5		
	NH [db(A)]		23	<20		
600	Lh [m]		4,3	3,9	3,5	
	PT [Pa]		31	12	<5	
	NH [db(A)]		37	26	<20	
	Lv [m]		9,3	8,3	7,5	
	PT [Pa]		12	5	<5	
	NH [db(A)]		27	<20	<20	
700	Lh [m4]		4,5	4,0	3,6	
	PT [Pa]		43	16	6	
	NH [db(A)]		41	29	21	
	Lv [m]		9,6	8,6	7,7	
	PT [Pa]		17	6	<5	
	NH [db(A)]		30	21	<20	
800	Lh [m]			4,1	3,7	
	PT [Pa]			21	8	
	NH [db(A)]			32	23	
	Lv [m]			8,9	8,0	
	PT [Pa]			8	<5	
	NH [db(A)]			23	<20	

Q [m³/h]	dim	160	200	250	315	400
900	Lh [m]			4,3	3,8	
	PT [Pa]			27	10	
	NH [db(A)]			35	25	
	Lv [m]			9,2	8,2	
	PT [Pa]			11	<5	
	NH [db(A)]			26	<20	
1000	Lh [m]			4,4	3,9	3,5
	PT [Pa]			34	13	5
	NH [db(A)]			38	27	<20
	Lv [m]			9,4	8,4	7,6
	PT [Pa]			13	5	<5
	NH [db(A)]			28	<20	<20
1200	Lh [m]				4,1	3,7
	PT [Pa]				18	7
	NH [db(A)]				31	22
	Lv [m]				8,8	7,9
	PT [Pa]				7	<5
	NH [db(A)]				22	<20
1400	Lh [m]				4,2	3,8
	PT [Pa]				25	10
	NH [db(A)]				34	25
	Lv [m]				9,1	8,2
	PT [Pa]				10	<5
	NH [db(A)]				25	<20
1600	Lh [m]				4,4	3,9
	PT [Pa]				34	13
	NH [db(A)]				38	27
	Lv [m]				9,4	8,5
	PT [Pa]				13	5
	NH [db(A)]				27	20
1800	Lh [m]					4,0
	PT [Pa]					17
	NH [db(A)]					30
	Lv [m]					8,7
	PT [Pa]					7
	NH [db(A)]					22
2000	Lh [m]					4,1
	PT [Pa]					21
	NH [db(A)]					32
	Lv [m]					8,9
	PT [Pa]					8
	NH [db(A)]					23
2200	Lh [m]					4,2
	PT [Pa]					26
	NH [db(A)]					34
	Lv [m]					9,1
	PT [Pa]					10
	NH [db(A)]					25

Q [m³/h]	dim	160	200	250	315	400
2400	Lh [m]					4,3
	PT [Pa]					31
	NH [db(A)]					37
	Lv [m]					9,3
	PT [Pa]					12
	NH [db(A)]					27

Domet zraka je izračunan do hitrosti 0,2 m/s / Air flow range is calculated up to the velocity of 0.2 m/s

Q - količina zraka [m³/h] / amount of air [m³/h]
Lh - dolžina horizontalnega dometa zraka pri kotu lopatic 30° [m] / length of horizontal air flow range at 30° blade angle [m]
Lv - dolžina vertikalnega dometa zraka pri kotu lopatic 70° [m] / length of vertical air flow range at 70° blade angle [m]
PT - padec tlaka [Pa] / pressure drop [Pa]
NH - nivo hrupa [db (A)] / noise level [db (A)]
A - meritev jakosti zvoka je izvedena pri 0,8 m od izvora / measurement of sound intensity is carried out at 0.8 m from the source

HITRA IZBIRA Z IZBORNIM PROGRAMOM / FAST SELECTION WITH SELECTION TOOL: https://izdelki.kosanc.si

NAČIN NAROČANJA / HOW TO ORDER:

VSD-2	C	315	RAL 9010	PP	PB 3	315	/	250	V	L	ISO 6mm

izolacija / insulation
6 mm, 10 mm, 19 mm

loputka / damper

pozicija priključka / position of connection
H – horizontalen / horizontal
V - vertikalni / vertical

priključek / connection opening
standard
poljuben / optional

dimenzija komore / plenum dimension

komora / plenum
PB3 komora / plenum
PB4 komora / plenum

dodatki / supplements
PL – plošča 595x595 / plate 595x595
PP – perforirana razpršilna plošča / perforated dispersing plate
ZM – zaščita proti udarcem žoge v telovadnicah / ball impact protection in gyms

barva / colour
standard RAL 9010 MAT
optional

dimenzija difuzorja / diffuser dimension
160, 200, 250, 315, 400

pogon / drive
C – centralni ročni pogon / central manual drive
E – pripravljeno za elektromotorni pogon / ready for electric drive
E + BELIMO … – montiran el. pogon / mounted electric drive
T – montiran termični pogon / mounted thermostatic drive

tip difuzorja / diffuser type