

VSD2

VARIABILNI VRTINČNI DIFUZOR VARIABLE SWIRL DIFFUSER



OPIS:

Difuzor VSD2 je namenjen hlajenju in ogrevanju velikih prostorov višine 4 do 12m. 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 šest centralno nastavljivih lopatic.

MATERIAL: jeklena pločevina

BARVA: bela barva RAL 9010 ali na željo kupca poljubna barva po RAL lestvici

DODATKI:

PL – plošča dim 595x595 mm za vgradnjo difuzorja v spušen strop

PP - perforirana plošča v vratu difuzorja

PB 3 - priključna komora PB3

POGON:

C - centralna ročna nastavev položaja lopatic.

E - pripravljen za montažo elektromotornega pogona. Na željo kupca se elektromotor tudi namesti na ohišje difuzorja.

T - difuzor ima vgrajen termostatski pogon, ki zaznava temperaturo vpihovanega zraka in samodejno uravnava položaj lopatic. Termostatski element deluje v temperaturnem območju 22°C do 38°C. 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°C odprte pod kotom 85°. Pri temperaturi 20°C mehanska blokada zaustavi zapiranje lopatic pod kotom 35°.

DESCRIPTION:

The VSD2 diffuser can be used for various ceiling heights from 4m to 12m. It enables turbulent air flow, long range constant air flow 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

FINISH: white RAL 9010 or can be any RAL colour according to the customer's request.

ACCESSORIES:

PL - plate dim.595x595 for installation in prefabricated ceilings

PP - perforated plate placed on the neck of the diffuser

PB 3 - plenum box PB3

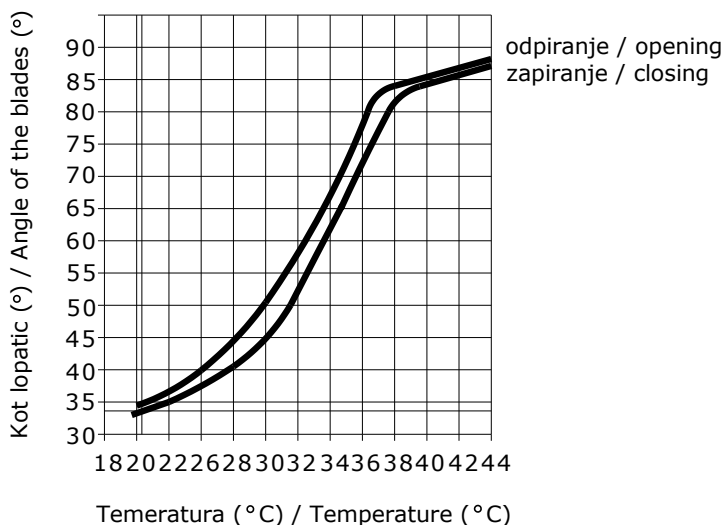
DRIVE:

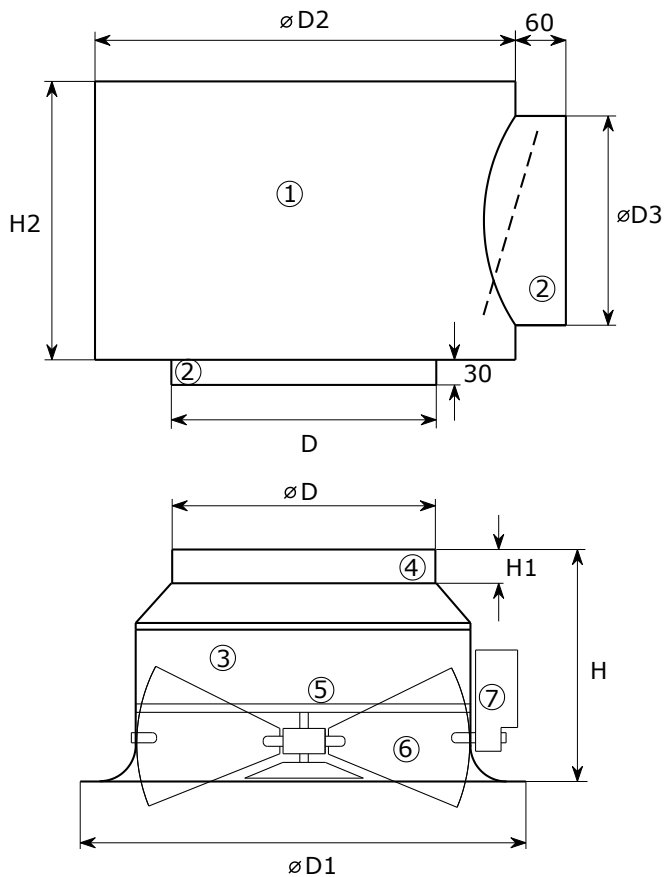
C - central manual drive

E - ready for electric drive. Upon request the electric motor drive can be added on the diffuser.

T - the thermostatic drive installed inside diffuser perceives a surroundings temperature and automatically adjusts the position of the blades. It doesn't 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°C to 35°C. At temperature 30°C the blades are fully open at 85° angle. At temperature 20 °C the blockade fixed on the holder stops the blades in position of 35° angle.

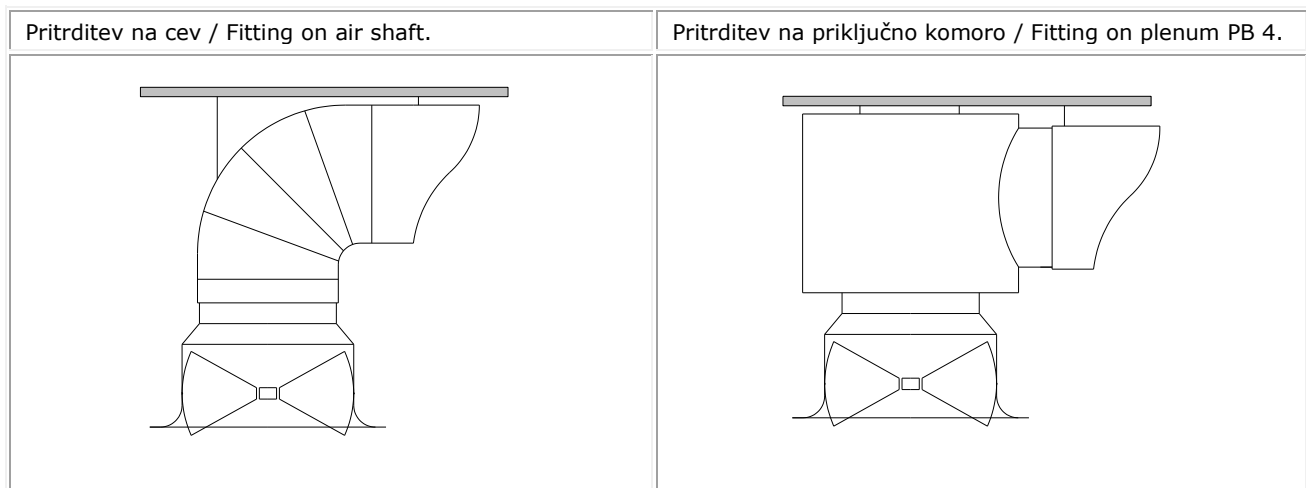
Delovanje difuzorja s termostatskim pogonom: / Operation of diffuser with thermostatic drive:



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

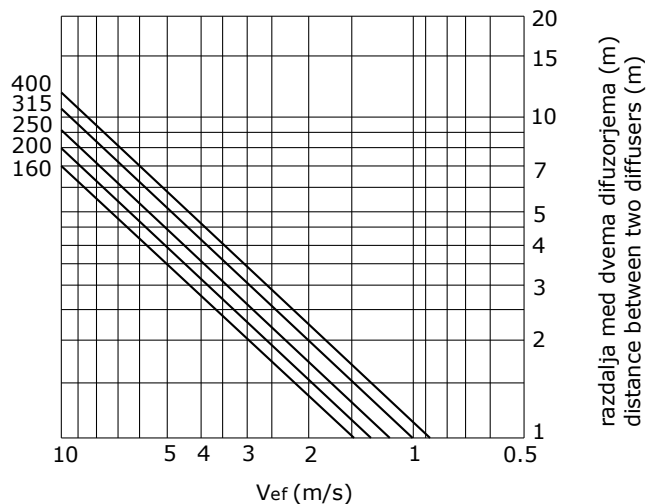
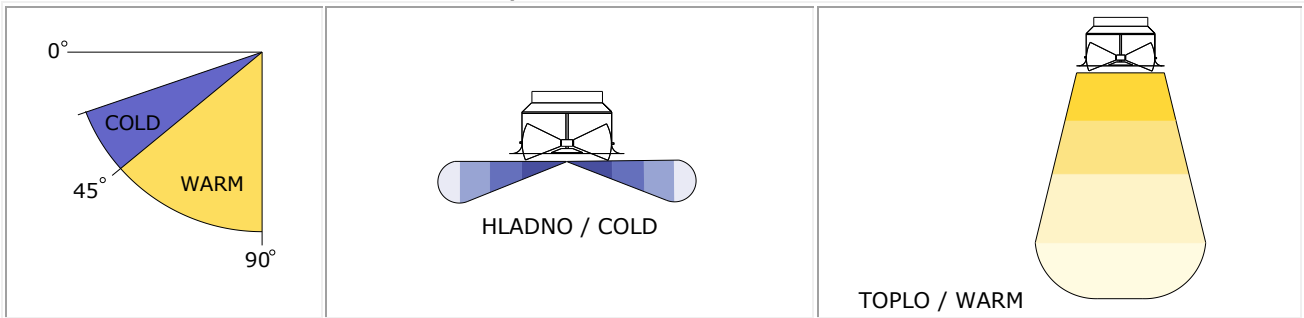
| D | $\varnothing D$ | $\varnothing D1$ | $\varnothing D2$ | $\varnothing D3$ | H | H1 | H2 |
|-----|-----------------|------------------|------------------|------------------|-----|----|-----|
| 160 | 158 | 280 | 260 | 123 | 170 | 40 | 205 |
| 200 | 198 | 345 | 300 | 158 | 195 | 40 | 240 |
| 250 | 248 | 425 | 350 | 198 | 230 | 40 | 280 |
| 315 | 313 | 530 | 415 | 248 | 275 | 40 | 330 |
| 400 | 398 | 660 | 500 | 313 | 340 | 60 | 395 |

MONTAŽA / MONTAGE:

MINIMALNA RAZDALJA MED DIFUZORJI: / MINIMUM DISTANCE BETWEEN DIFFUSERS:

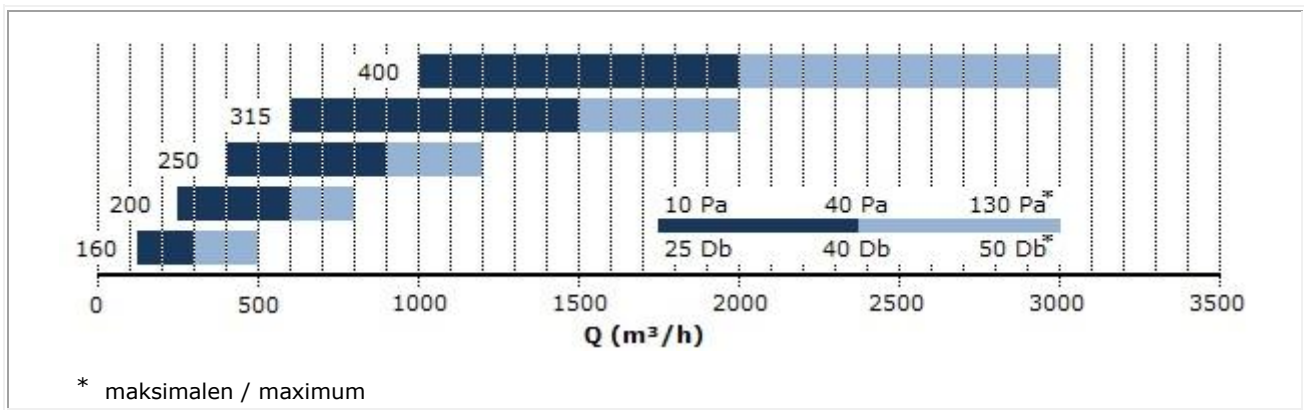
Min. razdalja med difuzorjema mora biti pri minimalnem pretoku zraka vsaj 5x premer difuzorja in vsaj 10x premer difuzorja pri maksimalnem pretoku zraka.

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.

**KOT LOPATIC IN SMER ZRAČNEGA CURKA: / ANGLE OF BLADES AND DIRECTION OF AIR FLOW:****NAČIN NAROČANJA / HOW TO ORDER:**

| VSD-2 | C | 315 | RAL 9010 | PP | PB 3 | 315 | / | 250 | S | L | ISO 6mm |
|--------------------------------------|---|-----|----------|----|------|-----|---|-----|---|---|---|
| | | | | | | | | | | | izolacija / insulation 6mm, 10mm, 19mm loputka / damper pozicija priključka / position of connection S - stranski / side 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 barva / colour standard RAL 9010 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 | | | | | | | | | | | |

HITRA IZBIRA / FAST SELECTION:



IZBIRNA TABELA / SELECTION TABLE:

| Q [m ³ /h] | dim | 160 | 200 | 250 | 315 | 400 |
|-----------------------|------------|-----|-----|-----|-----|-----|
| 150 | Lh [m] | 1,3 | | | | |
| | PT [Pa] | 7 | | | | |
| | NH [db(A)] | <25 | | | | |
| | Lv [m] | 1,5 | | | | |
| | PT [Pa] | 4 | | | | |
| | NH [db(A)] | <25 | | | | |
| 200 | Lh [m] | 1,8 | | | | |
| | PT [Pa] | 13 | | | | |
| | NH [db(A)] | 27 | | | | |
| | Lv [m] | 2,2 | | | | |
| | PT [Pa] | 6 | | | | |
| | NH [db(A)] | 25 | | | | |
| 300 | Lh [m] | 2,7 | 1,7 | | | |
| | PT [Pa] | 28 | 12 | | | |
| | NH [db(A)] | 43 | 28 | | | |
| | Lv [m] | 3,2 | 1,9 | | | |
| | PT [Pa] | 14 | 6 | | | |
| | NH [db(A)] | 38 | <25 | | | |
| 400 | Lh [m] | 3,5 | 2,3 | 1,9 | | |
| | PT [Pa] | 50 | 20 | 8 | | |
| | NH [db(A)] | 47 | 34 | <25 | | |
| | Lv [m] | 4,2 | 2,6 | 2,2 | | |
| | PT [Pa] | 25 | 10 | 4 | | |
| | NH [db(A)] | 44 | 30 | <25 | | |
| 500 | Lh [m] | 4,4 | 2,8 | 2,3 | | |
| | PT [Pa] | 78 | 32 | 13 | | |
| | NH [db(A)] | >50 | 41 | 27 | | |
| | Lv [m] | 5 | 3,1 | 2,6 | | |
| | PT [Pa] | 39 | 16 | 6 | | |
| | NH [db(A)] | 48 | 36 | 25 | | |

| Q [m ³ /h] | dim | 160 | 200 | 250 | 315 | 400 |
|-----------------------|------------|-----|-----|-----|-----|-----|
| 600 | Lh [m] | | 3,4 | 2,8 | 2,0 | |
| | PT [Pa] | | 46 | 18 | 7 | |
| | NH [db(A)] | | 44 | 33 | <25 | |
| | Lv [m] | | 3,6 | 3,1 | 2,4 | |
| | PT [Pa] | | 23 | 9 | 4 | |
| | NH [db(A)] | | 42 | 27 | <25 | |
| 700 | Lh [m4] | | 4,0 | 3,2 | 2,3 | |
| | PT [Pa] | | 63 | 25 | 10 | |
| | NH [db(A)] | | 48 | 37 | <25 | |
| | Lv [m] | | 4,5 | 3,5 | 2,7 | |
| | PT [Pa] | | 31 | 12 | 5 | |
| | NH [db(A)] | | 46 | 32 | <25 | |
| 800 | Lh [m] | | 4,5 | 3,7 | 2,7 | |
| | PT [Pa] | | 82 | 33 | 13 | |
| | NH [db(A)] | | >50 | 40 | <25 | |
| | Lv [m] | | 5,2 | 4,0 | 3,1 | |
| | PT [Pa] | | 41 | 16 | 6 | |
| | NH [db(A)] | | 50 | 36 | <25 | |
| 900 | Lh [m] | | | 4,2 | 3 | |
| | PT [Pa] | | | 41 | 16 | |
| | NH [db(A)] | | | 44 | 25 | |
| | Lv [m] | | | 4,5 | 3,4 | |
| | PT [Pa] | | | 21 | 8 | |
| | NH [db(A)] | | | 40 | <25 | |
| 1000 | Lh [m] | | | 4,6 | 3,3 | 2,3 |
| | PT [Pa] | | | 51 | 20 | 8 |
| | NH [db(A)] | | | 47 | 28 | <25 |
| | Lv [m] | | | 4,9 | 3,7 | 2,8 |
| | PT [Pa] | | | 25 | 10 | 4 |
| | NH [db(A)] | | | 43 | 26 | 25 |
| 1200 | Lh [m] | | | 5,6 | 4,0 | 2,7 |
| | PT [Pa] | | | 73 | 28 | 12 |
| | NH [db(A)] | | | >50 | 34 | 25 |
| | Lv [m] | | | 5,9 | 4,4 | 3,2 |
| | PT [Pa] | | | 37 | 14 | 6 |
| | NH [db(A)] | | | 48 | 31 | 26 |
| 1400 | Lh [m] | | | | 4,6 | 3,2 |
| | PT [Pa] | | | | 38 | 16 |
| | NH [db(A)] | | | | 38 | 33 |
| | Lv [m] | | | | 5,0 | 3,7 |
| | PT [Pa] | | | | 19 | 8 |
| | NH [db(A)] | | | | 36 | 30 |

| Q [m ³ /h] | dim | 160 | 200 | 250 | 315 | 400 |
|-----------------------|------------|-----|-----|-----|-----|-----|
| 1600 | Lh [m] | | | | 5,3 | 3,6 |
| | PT [Pa] | | | | 50 | 20 |
| | NH [db(A)] | | | | 43 | 38 |
| | Lv [m] | | | | 5,7 | 4,1 |
| | PT [Pa] | | | | 25 | 10 |
| | NH [db(A)] | | | | 40 | 35 |
| 1800 | Lh [m] | | | | 6,0 | 4,1 |
| | PT [Pa] | | | | 63 | 26 |
| | NH [db(A)] | | | | 46 | 41 |
| | Lv [m] | | | | 6,4 | 4,6 |
| | PT [Pa] | | | | 32 | 13 |
| | NH [db(A)] | | | | 43 | 33 |
| 2000 | Lh [m] | | | | 6,6 | 4,5 |
| | PT [Pa] | | | | 78 | 32 |
| | NH [db(A)] | | | | 50 | 43 |
| | Lv [m] | | | | 7,0 | 5,0 |
| | PT [Pa] | | | | 39 | 16 |
| | NH [db(A)] | | | | 50 | 41 |
| 2500 | Lh [m] | | | | | 5,7 |
| | PT [Pa] | | | | | 50 |
| | NH [db(A)] | | | | | 45 |
| | Lv [m] | | | | | 6,2 |
| | PT [Pa] | | | | | 25 |
| | NH [db(A)] | | | | | 47 |
| 3000 | Lh [m] | | | | | 6,8 |
| | PT [Pa] | | | | | 72 |
| | NH [db(A)] | | | | | 50 |
| | Lv [m] | | | | | 7,3 |
| | PT [Pa] | | | | | 36 |
| | NH [db(A)] | | | | | 50 |

Dometa 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 [m]

Lv - dolžina vertikalnega dometa zraka pri kotu lopatic 75° [m] / length of vertical air flow range [m]

PT - padec tlaka [Pa] / pressure drop [Pa]

NH - nivo hrupa [db (A)] / noise level [db (A)]

A - meritev jakosti zvoka je izvedena pri 0,8m od izvora / measurement of sound intensity is carried out at 0.8 m from the source