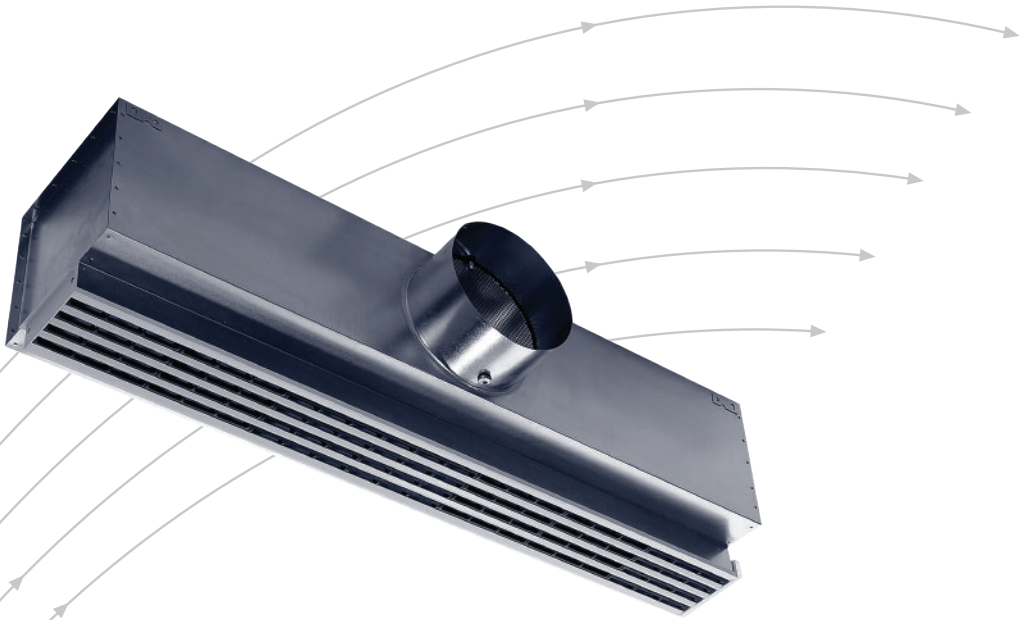
Slot diffuser

Type VSD35

with 35 mm wide slot



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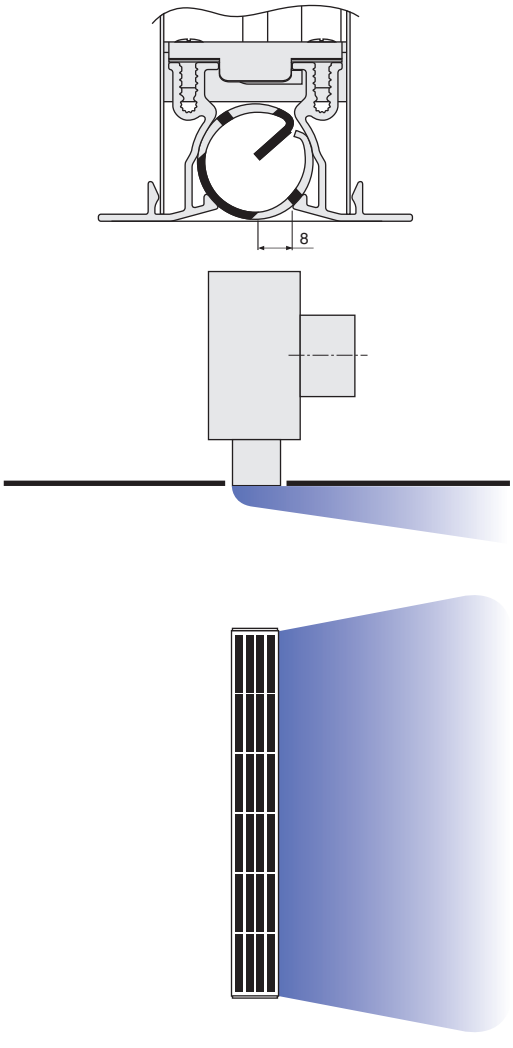
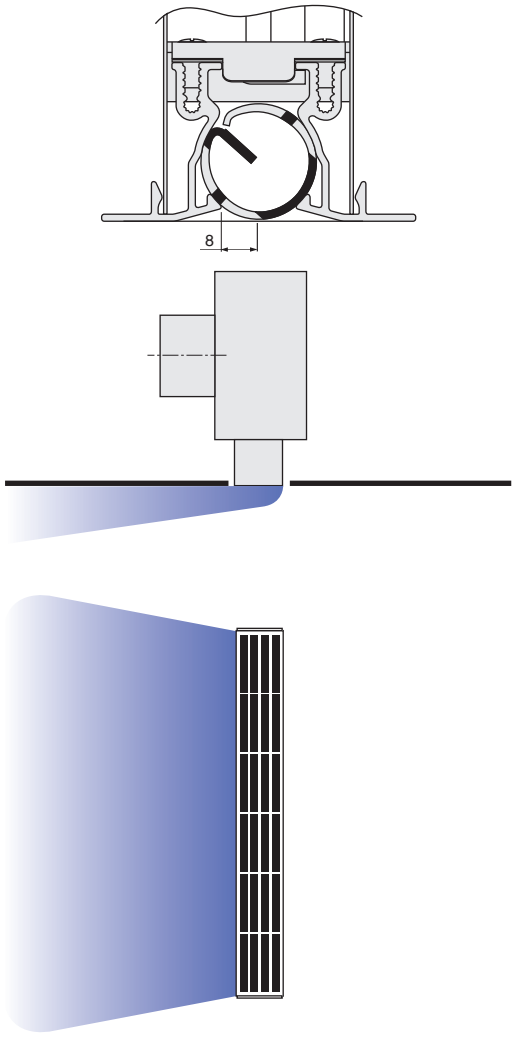
Contents · Air Diffuser Discharge

Air Discharge Horizontal Right



Air Discharge Horizontal Left



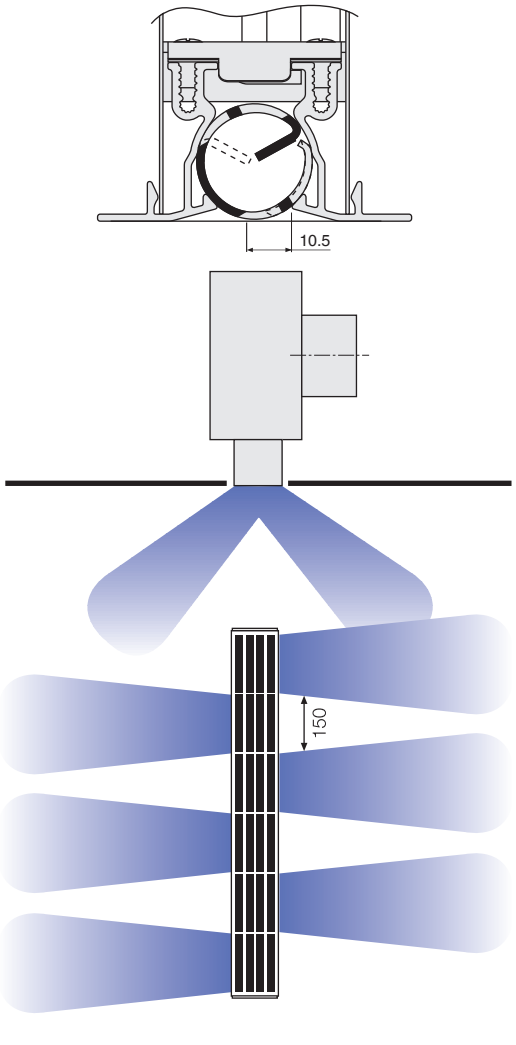
Description · Air Diffuser Discharge

The type VSD35 slot diffuser is available with 1-4 slots, it can be used in rooms with ceiling heights from approx. 2.60 m to 4.00 m. The low overall height means that the slot diffusers are particularly suitable for use in restricted ceiling voids and in suspended ceiling systems. They are characterised by high induction, which results in a rapid decay of supply air velocity and temperature differential.

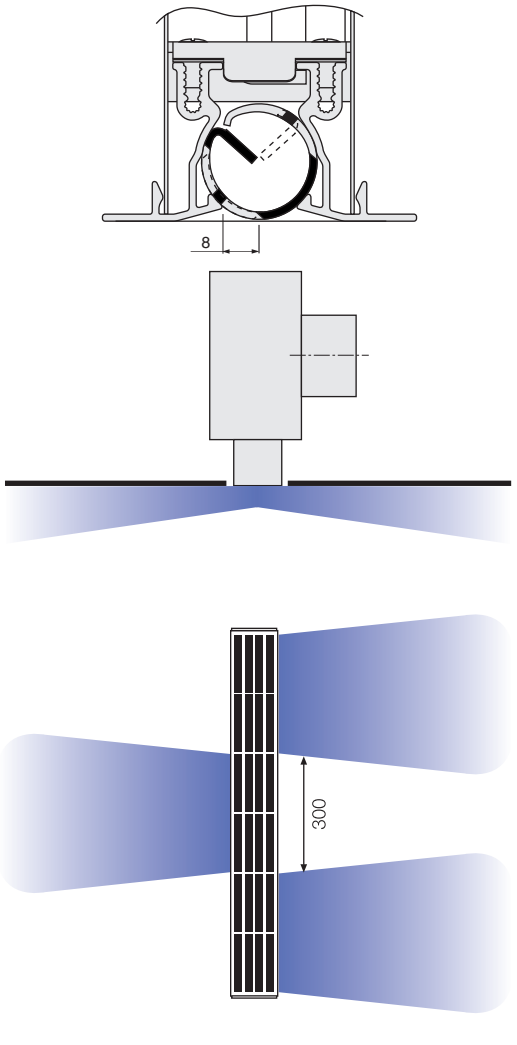
The recommended supply air temperature differential range is ±10 K. Because of their stable discharge characteristics, the slot diffusers are suitable for use in systems with constant or variable volume air flows.

The direction of air discharge can be adapted to the required room conditions. The air control blades are set to the customer's requirements as stated on the order. If the discharge direction(s) have to be subsequently changed, this can easily be done on site by rotating the air control blades.

Air Discharge
Alternating Angled



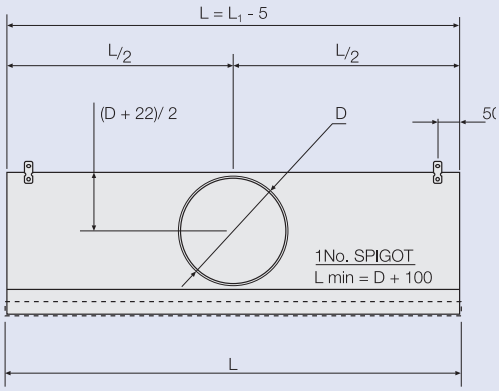
Air Discharge
Alternating Horizontal



Construction · Dimensions

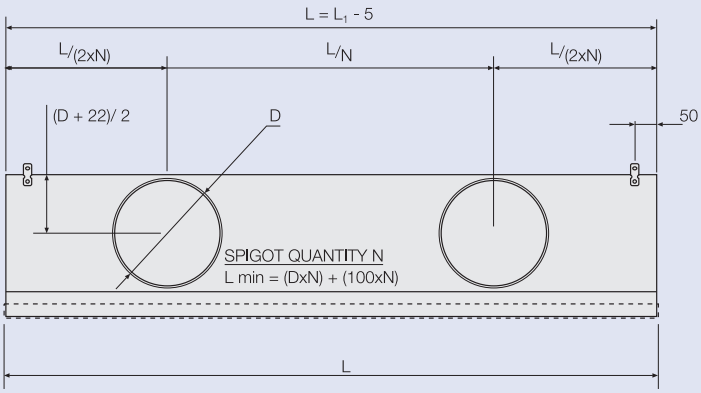
		AKV-VSD35 plenum details		AKV-VSD35 extended height plenum details	
Slots	**Ø D**	**W**	**B**	**W**	**B**
1	98, 123,148, 158, 198, 248, 298, 313, 348	138	36.8	87	36.8
2		176	63.6	114	63.6
3		214	90.4	140	90.4
4		254	117	167	117.2

AKV-VSD35



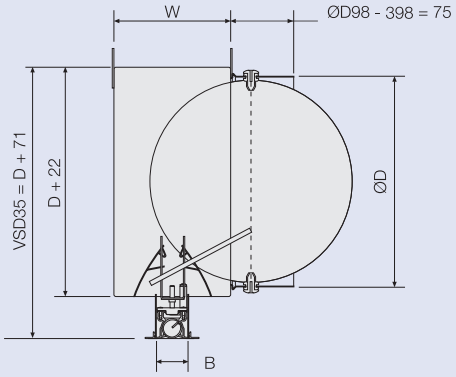
Plenum Length L - 300mm to 1500mm (150mm increments)

AKV-VSD35

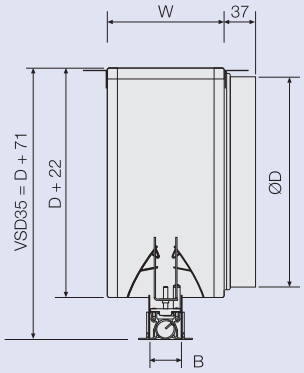


Plenum Length L - 1650, 1800 (2 Spigots)

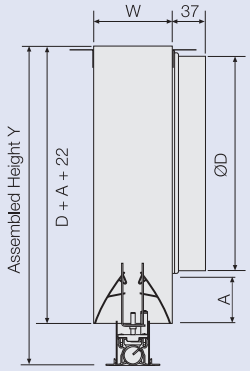
AKV-VSD....M/



AKV-VSD....D12-O/

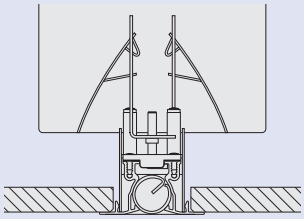


Extended Height Plenum

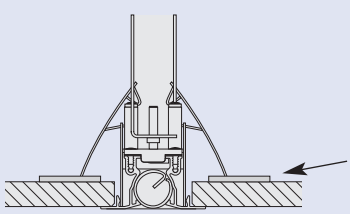


Assembled Height Y = VSD35 (D+A+71)
Extension A = 125, 150, 200

Plenum to slot fixing detail



Slot installed in board detail



NOTE: Suitable support battens (by others) should be used at each spring clip location to distribute the weight of the diffuser and to prevent penetration of the substrate.

Minimum Board Thickness
VSD35 = 12.5mm

Slot Width Dimensions VSD35				
Slots	'P'			
	FL	NF	PL	TZ
1	64	44	-	-
2	91	71	-	-
3	118	98	-	133
4	144.5	124.5	299	-
O/A Height	37*	37*	37*	37*

*Overall height excludes 'FK' fixing kit

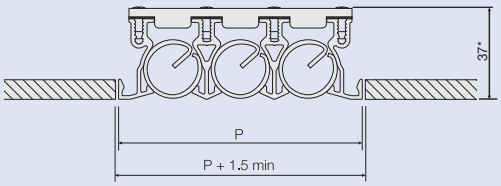
Tolerance Length 'L_1' +/- 1
Width 'P' +/- 1

VSD35 slot diffusers are supplied separate from the plenum box which is fitted to the rear of the diffuser on site by others. Lined plenums are available as an option. The supply air is connected via the circular side entry spigot which is optionally available with a volume control damper. The face sections are available without flanges type NF or with integral edge flanges type FL, or with flange profiles types PL or TZ to suit various ceiling requirements. Matching end caps are available for the diffuser faces, in the form of end angles or end plates. The alignment pins used at the joints are also included in the scope of supply, to enable the alignment and interconnection of individual L_1 sections. Mitre corners pieces are for aesthetic reasons not fitted with air control blades.

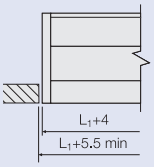
NF = No Flange. The flangeless VSD slot diffuser is suited to installing in apertures in ceiling tiles where the slot diffuser face can sit flush with the tile. It is combined with the L02 end angle for levelling.
FL = Flanged. The flanged VSD can be used to lay on a ceiling T bar or be pulled up and cover an opening in the ceiling.
PL = Plank Ceiling. VSD35 4 slot diffusers with extended flanges to replace a 300mm x 30mm plank ceiling tile. It is combined with the PL02 end angle and edge mounted bracket on each side for levelling.
TZ = Techzone. VSD35 3 slot diffuser to integrate into a 150mm Armstrong Techzone with Microlook 8 edge detail.

Ceiling Integration/Sections

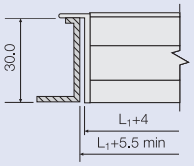
NF



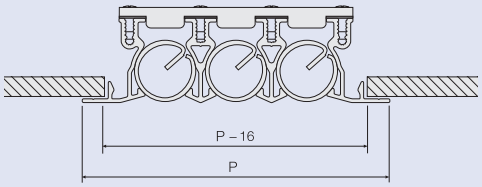
Type 'P' end cap



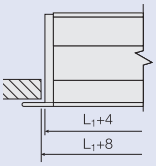
Type 'L' end cap



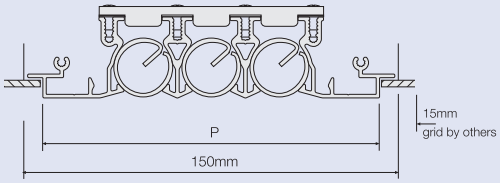
FL



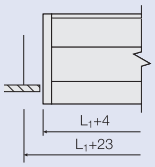
Type 'A' end cap



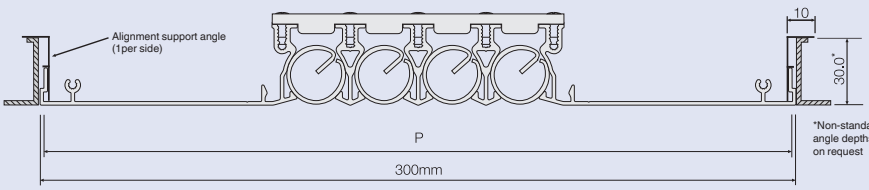
TZ



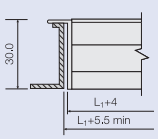
Type 'P' end cap



PL



Type 'PL' end cap



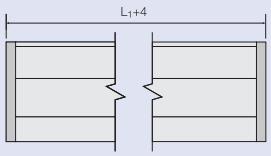
NOTE: 'PL' diffuser type only available as finite section L_1 = 300 min / 1800 max
Must be specified with PL02 (end cap at each end of diffuser).

Construction · Dimensions

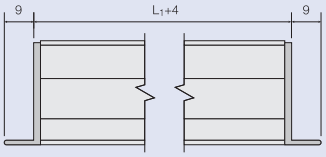
End Caps					
End Cap	Description	Border			
		NF	FL	PL	TZ
PO1	'P' type fitted on one end only	✔			
PO2	'P' type fitted on both ends	✔			✔
AO1	'A' type fitted on one end only		✔		
AO2	'A' type fitted on both ends		✔		
LO2	'L' type fitted on both ends	✔			
PLO2	'PL' type fitted on both ends			✔	

End Caps

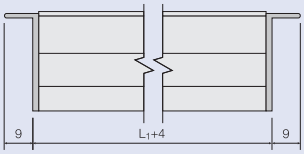
Type P



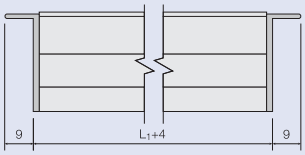
Type A



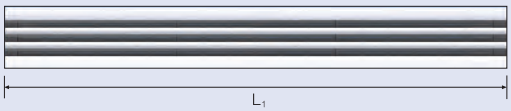
Type L



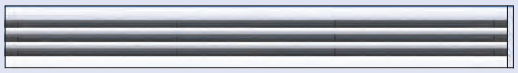
Type PL



Without end caps ('0')



End caps on one end ('XX01')

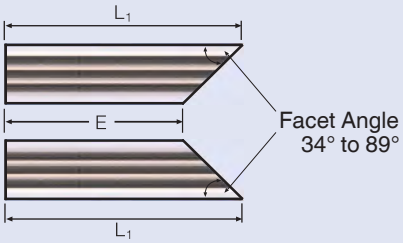


End caps on both ends ('XX02')

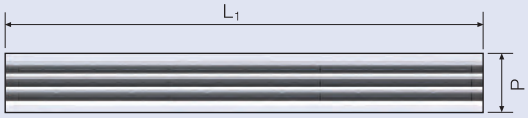
Faceted Ends

Non Standard
E = 300 minimum
Angle = 34° to 89° in
1 degree increments

Tolerance +/- 1°



Front face

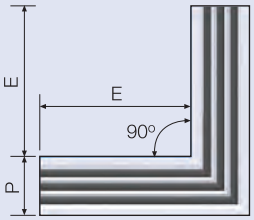


Mitred Corners

Standard
E = 200 : Angle = 90° or 135°

Non Standard
E = 200 : Angle = 68° to 179°
in 1 degree increments

Tolerance +/- 1°



Installation Details

Figure 1
Standard method of installing slot diffuser assemblies is to use the four suspension points on the plenum box. Suitable support rods/wires and fixing accessories by others on site.

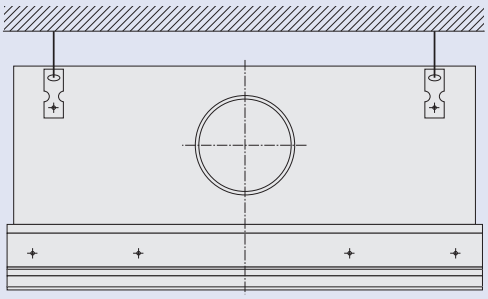
Figure 2
If there are linear runs of slot diffusers, the alignment pins supplied can be used to keep the face of the diffuser aligned. The alignment pins (2 per slot) are initially fitted on one side and then inserted approx. halfway into the other section.

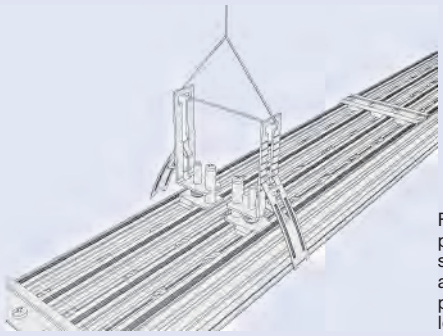
Figure 3
Installation spring clip is supplied with 8 pre-set notch positions to suit variable ceiling types. The required notch should be selected on each spring clip prior to installation within the ceiling. NOTE - When used in conjunction with type AKV plenums, notch position 1 should be used.

Figure 4
In order to fit the diffuser to the plenum box, the air control blades below the fixing points must be adjusted so that the screw can be reached with a screw driver. Push the diffuser into the neck of the plenum compressing the spring clips. Once inside the plenum the spring clips will spring out preventing the diffuser from coming out.
Then turn the screw so the diffuser pulls up tight into the plenum.

Figure 5
The airflow rate can be adjusted from the front face of the diffuser. To do this, the air control blade below the spigot must be adjusted until the damper can be moved using a screwdriver or round bar (max. dia. 3.5mm, length depending on the neck extension).

Figure 1





For diffusers without plenums the use of a safety wire by others attached to the slab provides an extra level of safety.

Figure 2

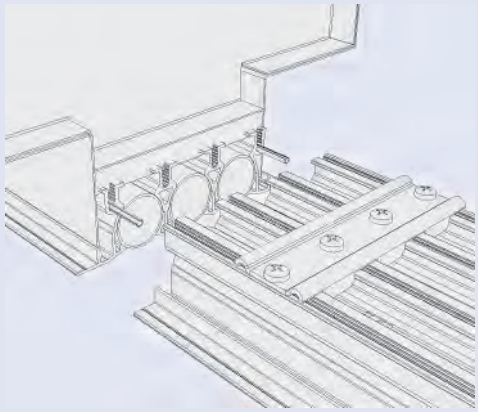
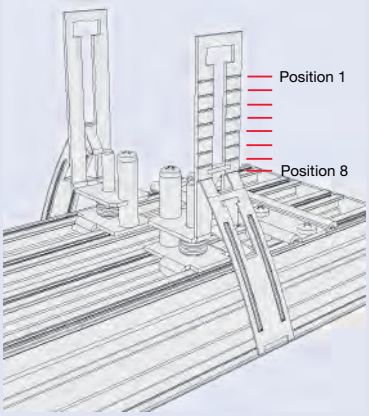


Figure 3



Notch Positions		
Notch Position	Min board thickness mm	Max board thickness mm
1	45	52
2	40	47
3	35	42
4	30	37
5	25	32
6	20	27
7	15	22
8	12.5	17

Figure 4

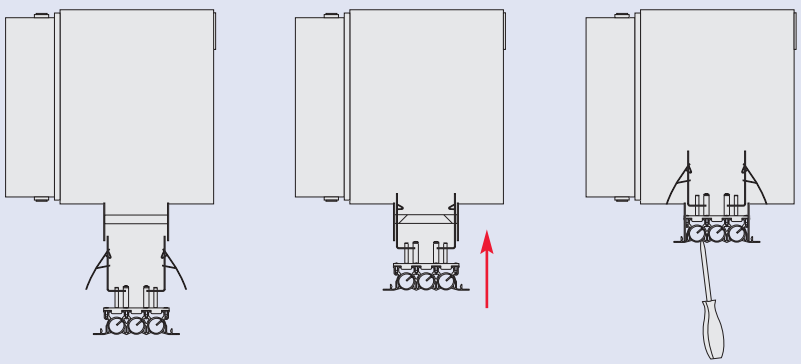
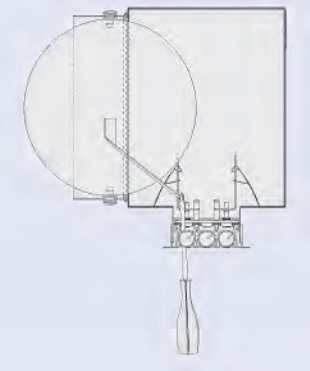


Figure 5



Nomenclature

Nomenclature

$\dot{V}$	in l/s · m:	Volume flow per unit length
$\dot{V}$	in m³/h · m:	Volume flow per unit length
$\dot{V}_t$	in l/s:	Total volume flow
$\dot{V}_t$	in m³/h:	Total volume flow
A	in m:	Spacing between two diffusers
H_1	in m:	Distance between ceiling and occupied zone
$H_{1\,max}$	in m:	Maximum penetration depth when heating
L	in m:	Distance from diffuser $L = A/2 + H_1$ or $L = X + H_1$
$\bar{v}_{H_1}$	in m/s:	Time average air velocity between two diffusers at distance H_1 from ceiling
$\bar{v}_L$	in m/s:	Time average air velocity at wall at distance L
v_{eff}	in m/s:	Effective jet velocity
Δt_Z	in K:	Temperature difference between room air and supply air
Δt_L	in K:	Difference between room temperature and core temperature at distance L
Δt_{H_1}	in K:	Difference between room temperature and core temperature at distance H_1
Δp_t	in Pa:	Total pressure drop
L_{WA}	in dB(A):	A-weighted sound power level
$L_{W\,NC}$	:	NC rating of sound power spectrum
$L_{W\,NR}$	:	$L_{W\,NR} = L_{W\,NC} + 2$
L_{pA}, L_{pNC}	:	A weighting and NC rating respectively of room sound pressure level $L_{pA} \approx L_{WA} - 8$ dB $L_{pNC} \approx L_{W\,NC} - 8$ dB
ΔL	in dB/oct.:	Relative level with respect to L_{WA}
L_W	in dB/oct.:	Octave band sound power level of regenerated noise $L_W = L_{WA} + \Delta L$

Effective Jet Velocity

$\dot{V}_t$ in l/s

$$v_{eff} = \frac{\dot{V}_t}{s_{eff} \cdot L_1 \cdot 1000} [m/s]$$

$\dot{V}_t$ in m³/h

$$v_{eff} = \frac{\dot{V}_t}{s_{eff} \cdot L_1 \cdot 3600} [m/s]$$

L_1 = Length of slot diffuser in m

Effective Slot Width

Air discharge	Horizontal	Angled
s_{eff} in m	0.0062	0.0049

Example

Data given:
VSD35-1; Air discharge alternating, angled

Slot length L_1 = 1050 mm
Total volume flow $\dot{V}_t$ = 25 l/s
Spigot diameter D = 98 mm

Required: Sound power level of regenerated noise L_W

Diagram 1: Sound power and pressure drop
Δp_t = 17 Pa · 1.4 ≈ 24 Pa
L_{WA} = 29 dB(A)

Effective jet velocity v_{eff}:

$$v_{eff} = \frac{\dot{V}_t}{s_{eff} \cdot L_1 \cdot 1000} = \frac{25}{0.0049 \cdot 1.05 \cdot 1000} = 4.9 \text{ m/s}$$

Octave band centre frequency in Hz	63	125	250	500	1000	2000	4000	8000
L_{WA} in dB (A)	29	29	29	29	29	29	29	29
ΔL in dB	3	1	7	– 3	– 15	– 23	– 31	– 38
L_W in dB	32	30	36	26	14	6	– 2	– 9

Relative Spectra ΔL for Damper Angle 0°

Type	Length mm	Effective jet velocity v_{eff} m/s	Octave band centre frequency in Hz							
			63	125	250	500	1000	2000	4000	8000
VSD35-1	600	2	13	6	6	– 6	– 28	– 42	– 45	– 50
	1050		17	2	7	– 10	– 30	– 43	– 46	– 52
	1500		16	8	6	– 8	– 26	– 36	– 47	– 53
	600	3	9	5	6	– 4	– 21	– 32	– 35	– 40
	1050		11	2	7	– 6	– 22	– 34	– 42	– 48
	1500		11	6	7	– 5	– 20	– 29	– 38	– 46
	600	5	3	2	6	– 1	– 14	– 21	– 28	– 34
	1050		3	1	7	– 3	– 15	– 23	– 31	– 38
	1500		3	2	6	– 2	– 13	– 20	– 30	– 40
	600	7	– 2	0	4	0	– 10	– 14	– 27	– 31
	1050		– 3	0	6	– 2	– 10	– 16	– 29	– 34
	1500		– 3	– 1	5	– 1	– 9	– 16	– 33	– 36
VSD35-2	600	2	14	9	5	– 5	– 24	– 33	– 37	– 42
	1050		20	7	6	– 9	– 20	– 27	– 35	– 45
	1500		5	8	7	– 5	– 18	– 26	– 37	– 47
	600	3	9	7	6	– 3	– 18	– 26	– 30	– 36
	1050		14	6	7	– 5	– 15	– 23	– 34	– 43
	1500		1	5	7	– 3	– 14	– 22	– 36	– 43
	600	5	0	3	6	– 1	– 11	– 19	– 27	– 33
	1050		6	3	6	– 3	– 12	– 19	– 30	– 38
	1500		– 5	1	6	– 2	– 10	– 17	– 32	– 40
	600	7	– 6	– 1	5	– 1	– 8	– 15	– 29	– 30
	1050		– 1	0	6	– 2	– 10	– 17	– 35	– 38
	1500		– 10	– 2	5	– 1	– 8	– 15	– 36	– 38
VSD35-3	600	2	10	5	6	– 3	– 24	– 39	– 44	– 51
	1050		9	6	7	– 7	– 16	– 28	– 38	– 48
	1500		11	2	7	– 5	– 17	– 26	– 36	– 48
	600	3	5	4	6	– 2	– 18	– 28	– 35	– 42
	1050		3	4	7	– 5	– 13	– 23	– 36	– 45
	1500		5	1	7	– 4	– 13	– 21	– 35	– 45
	600	5	– 2	1	6	– 2	– 10	– 17	– 28	– 36
	1050		– 6	0	7	– 3	– 11	– 17	– 29	– 39
	1500		– 3	0	6	– 3	– 9	– 15	– 33	– 42
	600	7	– 8	– 2	4	– 2	– 6	– 10	– 30	– 34
	1050		– 12	– 3	6	– 2	– 9	– 14	– 32	– 36
	1500		– 8	– 2	5	– 3	– 7	– 12	– 36	– 40
VSD35-4	600	2	9	6	7	– 5	– 18	– 29	– 34	– 45
	1050		13	5	7	– 7	– 18	– 28	– 38	– 50
	1500		4	3	7	– 5	– 13	– 21	– 36	– 45
	600	3	5	5	7	– 4	– 13	– 22	– 29	– 40
	1050		5	3	7	– 5	– 13	– 21	– 32	– 44
	1500		1	2	7	– 4	– 10	– 18	– 26	– 38
	600	5	– 2	2	6	– 4	– 7	– 15	– 28	– 36
	1050		– 6	– 1	6	– 4	– 7	– 15	– 28	– 38
	1500		– 4	1	6	– 3	– 7	– 14	– 26	– 35
	600	7	– 7	– 1	4	– 4	– 5	– 11	– 31	– 35
	1050		– 14	– 4	3	– 4	– 4	– 11	– 30	– 33
	1500		– 8	– 1	5	– 3	– 6	– 12	– 27	– 32

Acoustic Data

Correction to diagram 1: Damper setting

D = 98 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.3	x 2.0	x 1.7	x 1.9	x 2.6
L_1 = 1050	Δp_t	x 1	x 1.3	x 2.6	x 1.4	x 1.7	x 3.0
L_1 = 1500	Δp_t	x 1	x 1.5	x 3.5	x 1.2	x 1.6	x 3.8
	L_{WA}	–	+ 3	+ 5	–	+ 3	+ 5
	L_{WNC}	–	+ 3	+ 5	–	+ 4	+ 6

Correction to diagram 2: Damper setting

D = 123 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.1	x 1.6	x 1.8	x 1.9	x 2.3
L_1 = 1050	Δp_t	x 1	x 1.2	x 2.2	x 1.6	x 1.8	x 2.8
L_1 = 1500	Δp_t	x 1	x 1.3	x 2.3	x 1.4	x 1.7	x 3.2
	L_{WA}	–	+ 3	+ 5	–	+ 4	+ 5
	L_{WNC}	–	+ 4	+ 6	+ 1	+ 5	+ 6

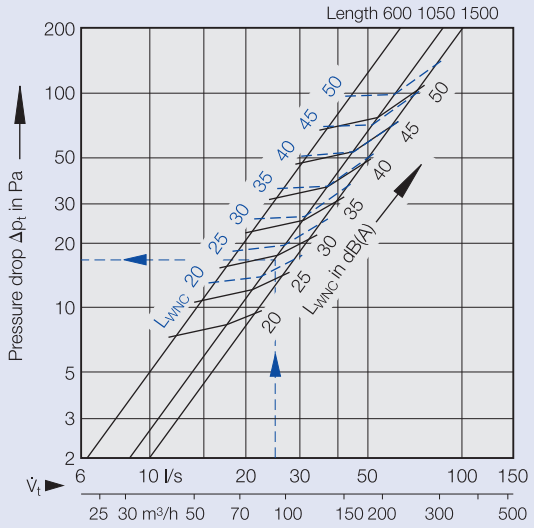
Correction to diagram 3: Damper setting

D = 123 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.3	x 2.4	x 1.7	x 2.0	x 3.4
L_1 = 1050	Δp_t	x 1	x 1.6	x 3.8	x 1.3	x 1.9	x 4.7
L_1 = 1500	Δp_t	x 1	x 1.5	x 4.3	x 1.2	x 1.8	x 4.4
	L_{WA}	–	+ 3	+ 5	–	+ 4	+ 7
	L_{WNC}	–	+ 4	+ 6	+ 1	+ 5	+ 8

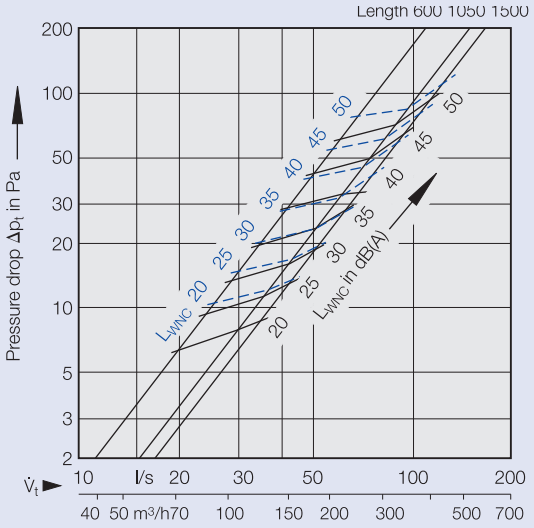
Correction to diagram 4: Damper setting

D = 138 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.3	x 2.4	x 1.5	x 1.8	x 3.4
L_1 = 1050	Δp_t	x 1	x 1.5	x 4.0	x 1.5	x 1.9	x 5.1
L_1 = 1500	Δp_t	x 1	x 1.7	x 4.9	x 1.3	x 2.0	x 6.6
	L_{WA}	–	+ 4	+ 7	–	+ 5	+ 8
	L_{WNC}	–	+ 4	+ 6	+ 1	+ 5	+ 8

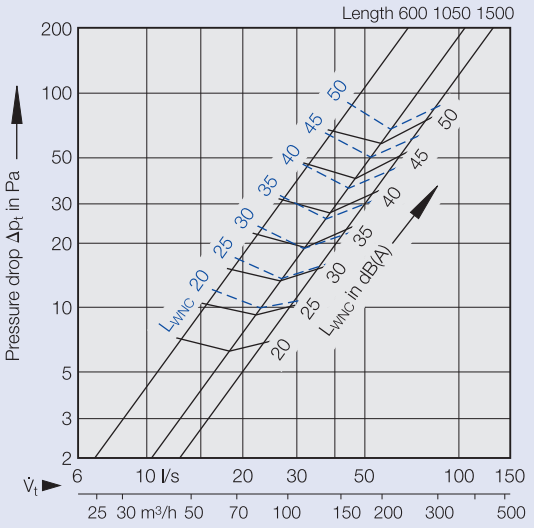
1 Sound power level and pressure drop
VSD35-1; D = 98 mm



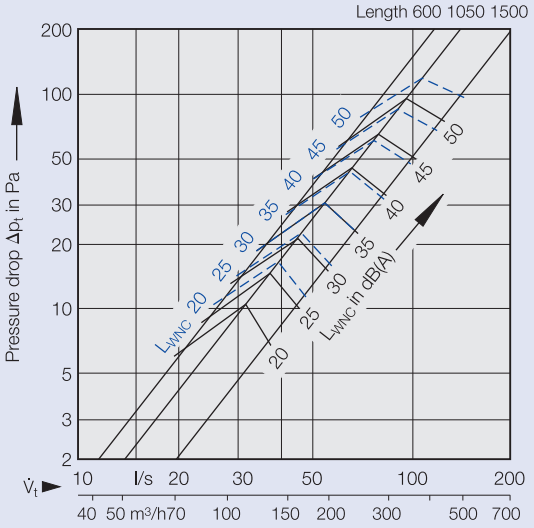
3 Sound power level and pressure drop
VSD35-2; D = 123 mm



2 Sound power level and pressure drop
VSD35-1; D = 123 mm



4 Sound power level and pressure drop
VSD35-2; D = 138 mm



Correction to diagram 5: Damper setting

D = 138 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.4	x 3.3	x 1.6	x 1.9	x 4.3
L_1 = 1050	Δp_t	x 1	x 1.7	x 4.9	x 1.3	x 2.0	x 6.1
L_1 = 1500	Δp_t	x 1	x 1.7	x 4.4	x 1.2	x 1.8	x 6.2
	L_{WA}	–	+ 4	+ 6	+ 1	+ 5	+ 7
	L_{WNC}	–	+ 4	+ 6	+ 1	+ 6	+ 8

Correction to diagram 6: Damper setting

D = 158 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.2	x 2.2	x 1.6	x 1.8	x 5.8
L_1 = 1050	Δp_t	x 1	x 1.5	x 3.2	x 1.4	x 2.2	x 7.4
L_1 = 1500	Δp_t	x 1	x 1.9	x 4.8	x 1.2	x 2.1	x 9.2
	L_{WA}	–	+ 3	+ 6	+ 1	+ 5	+ 8
	L_{WNC}	–	+ 4	+ 6	+ 1	+ 5	+ 8

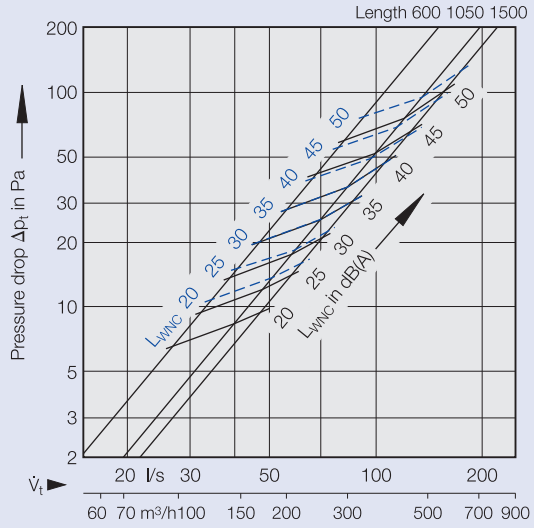
Correction to diagram 7: Damper setting

D = 158 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.2	x 2.4	x 1.5	x 1.7	x 4.4
L_1 = 1050	Δp_t	x 1	x 1.9	x 4.0	x 1.2	x 1.8	x 6.7
L_1 = 1500	Δp_t	x 1	x 1.7	x 4.2	x 1.2	x 2.3	x 7.2
	L_{WA}	–	+ 4	+ 6	+ 1	+ 5	+ 7
	L_{WNC}	–	+ 4	+ 6	+ 1	+ 6	+ 7

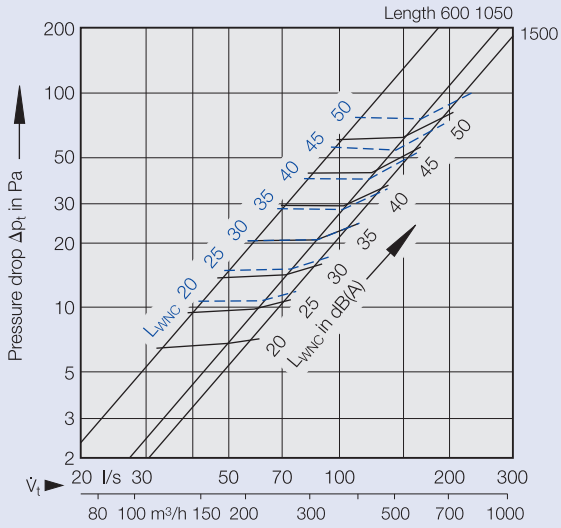
Correction to diagram 8: Damper setting

D = 198 mm		Air discharge horizontal			Air discharge angled		
Damper angle		0°	45°	90°	0°	45°	90°
L_1 = 600	Δp_t	x 1	x 1.1	x 2.0	x 1.5	x 1.8	x 3.3
L_1 = 1050	Δp_t	x 1	x 1.4	x 3.2	x 1.2	x 1.7	x 4.7
L_1 = 1500	Δp_t	x 1	x 1.7	x 4.1	x 1.2	x 2.1	x 6.0
	L_{WA}	–	+ 3	+ 5	+ 1	+ 5	+ 6
	L_{WNC}	–	+ 3	+ 5	+ 1	+ 6	+ 7

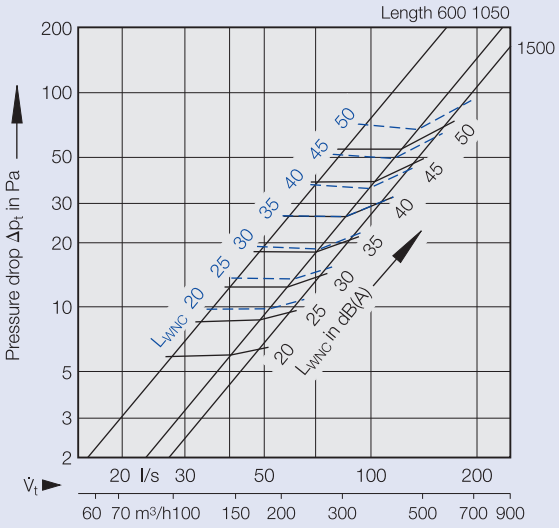
5 Sound power level and pressure drop
VSD35-3; D = 138 mm



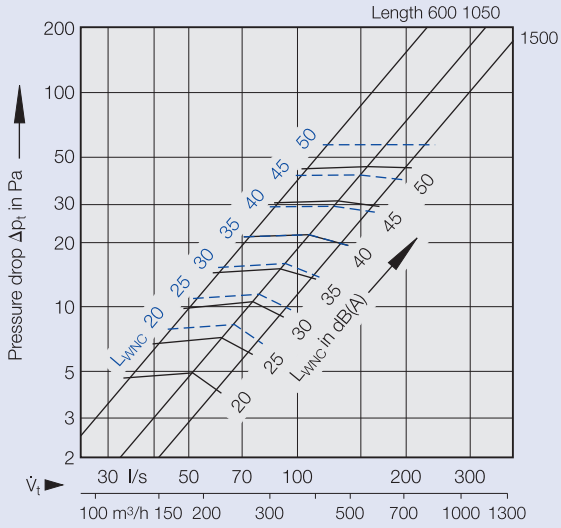
7 Sound power level and pressure drop
VSD35-4; D = 158 mm



6 Sound power level and pressure drop
VSD35-3; D = 158 mm



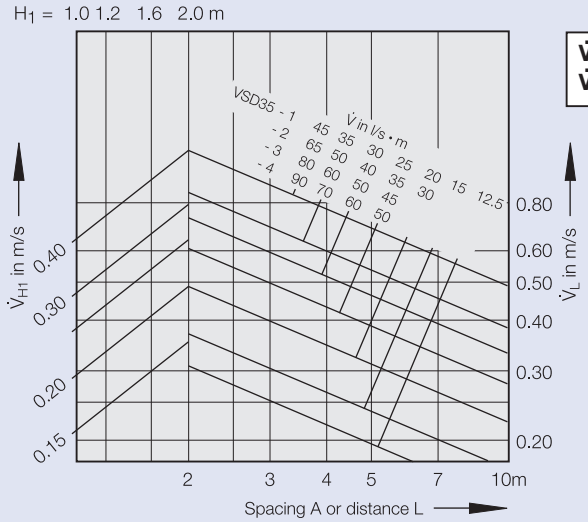
8 Sound power level and pressure drop
VSD35-4; D = 198 mm



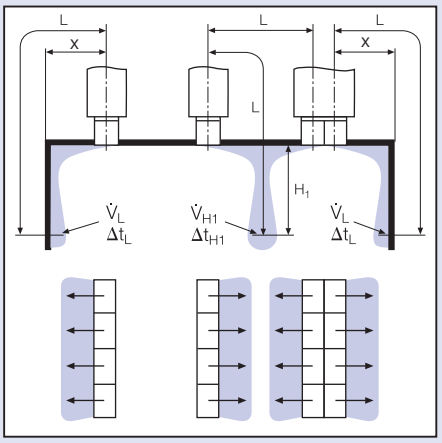
Aerodynamic Data

Air discharge: Horizontal, one or two directions

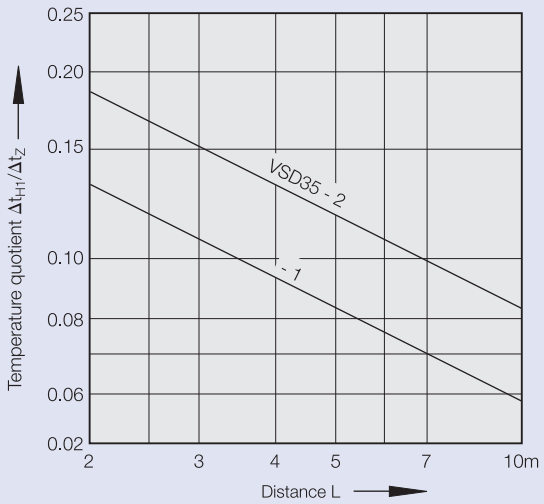
9 Air velocity between two diffusers and at the wall



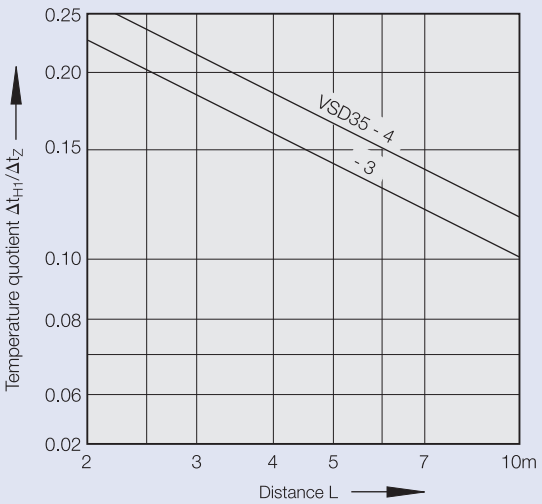
Diffuser Layout



10 Temperature quotient



11 Temperature quotient



Example
Data given:
VSD35-1; air discharge: alternating horizontal

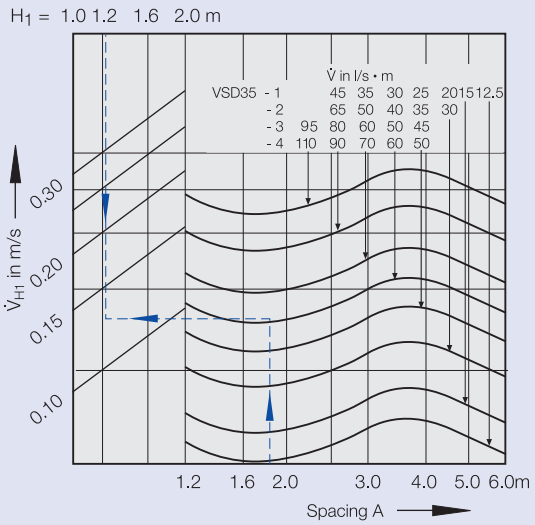
Volume flow per unit length	$\dot{V} = 30$ l/s · m
Supply air temperature differential Horizontal, cooling	$\Delta t_z = -10$ K
Spacing between diffusers	$A = 1.8$ m
Distance between ceiling and occupied zone	$H_1 = 1.2$ m
Distance between diffuser centre line and wall	$X = 2.4$ m

Diagram 12: Air velocity between two diffusers
$\bar{V}_{H1} = 0.13$ m/s

Diagram 13: Air velocity at the wall
$L = X + H_1 = 2.4 + 1.2 = 3.6$ m
$\bar{V}_L = 0.27$ m/s

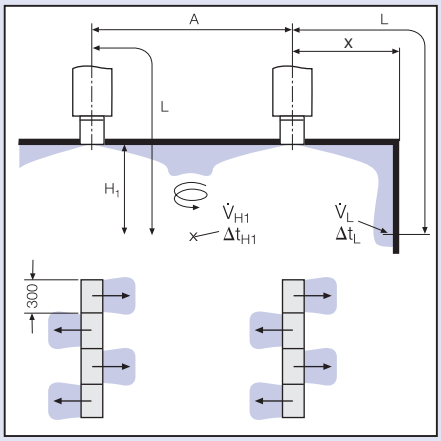
Diagram 14: Temperature quotient
$L = A/2 + H_1 = 0.9 + 1.2 = 2.1$ m
$\Delta t_L/\Delta t_Z = 0.064$
$\Delta t_L = 0.064 \times (-10)$ K
$\Delta t_L = -0.64$ K
For $L = X + H_1 = 3.6$ m; $\Delta t_L/\Delta t_Z = 0.049$;
$\Delta t_L \approx -0.5$ K

12 Air velocity between two diffusers

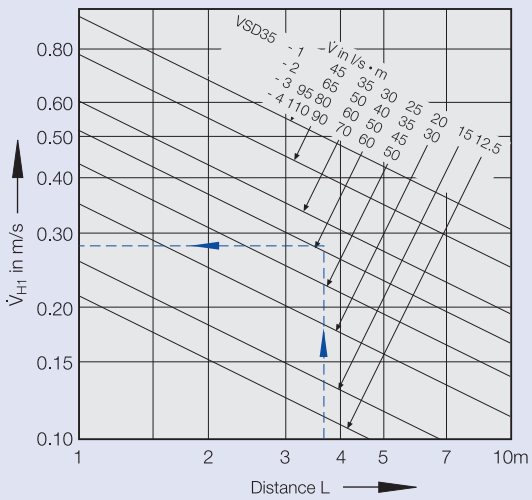


V̇ [m³/h] = V̇ [l/s] x 3.6

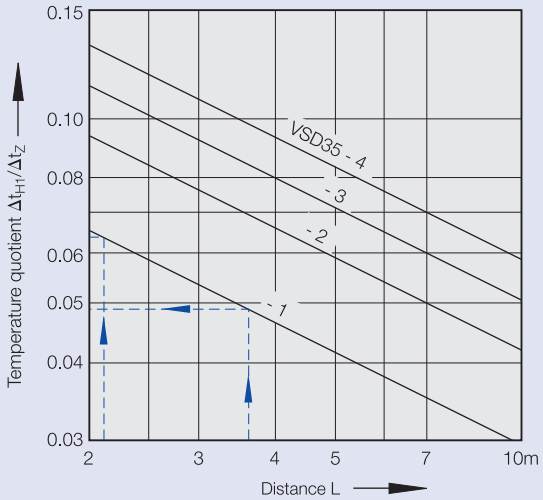
Diffuser Layout



13 Air velocity at the wall



14 Temperature quotient



Aerodynamic Data

Air discharge: Alternating angled

Example

Data given:
VSD35-1; air discharge alternating angled

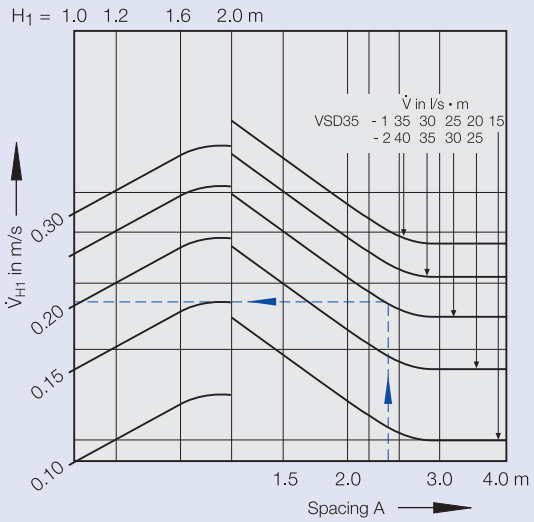
Volume flow per unit length	$\dot{V} = 25$ l/s · m
Supply air temperature differential	$\Delta t_z = -8$ K approx. $+8$ K
Spacing between diffusers	$A = 2.4$ m
Distance between ceiling and occupied zone	$H_1 = 1.0$ m

Diagram 15: Air velocity between two diffusers
$\bar{V}_{H1} = 0.20$ m/s

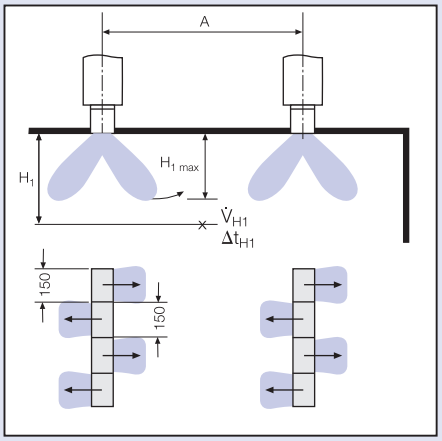
Diagram 17: Temperature quotient, cooling
$\Delta t_{H1}/\Delta t_Z = 0.051$
$\Delta t_{H1} = -0.051 \times (-8\text{ K}) \approx -0.4$ K
For heating $\Delta t_Z = +8$ K

Diagram 19: Maximum penetration depth for heating
$H_{1max} \approx 1.5$ m

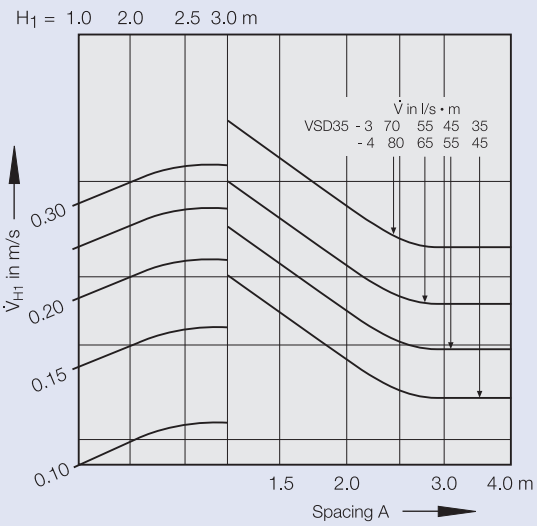
15 Air velocity between two diffusers



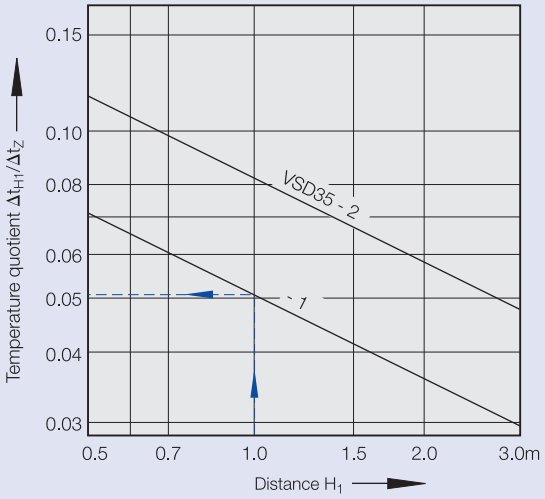
Diffuser Layout



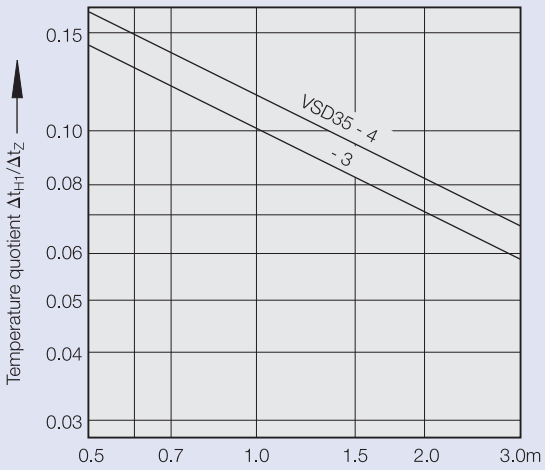
16 Air velocity between two diffusers



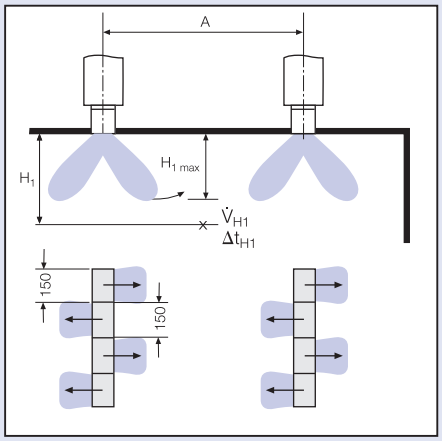
17 Temperature quotient



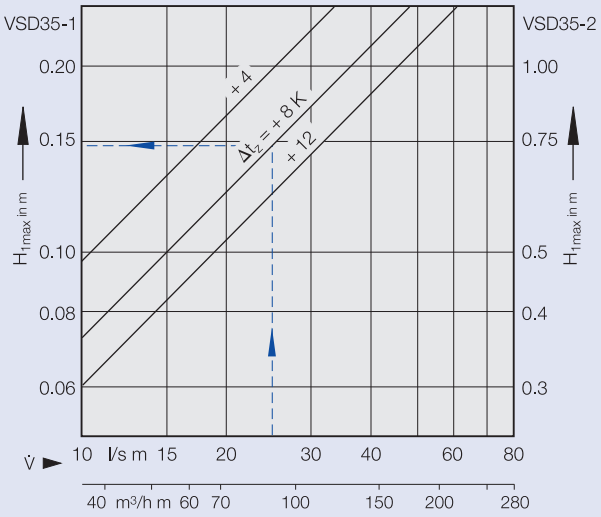
18 Temperature quotient cooling



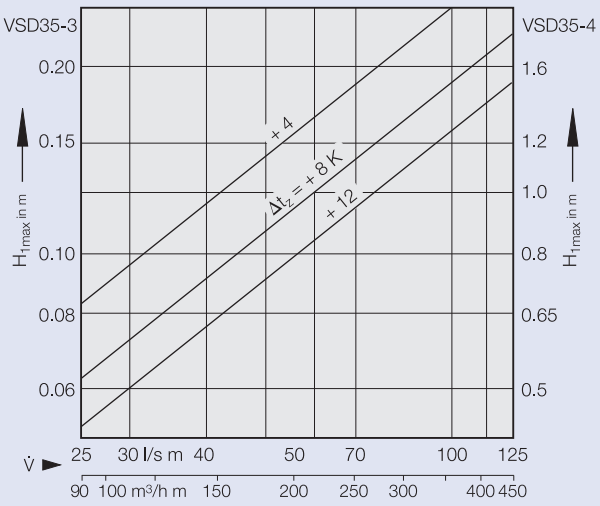
Diffuser Layout



19 Maximum penetration depth, heating



20 Maximum penetration depth, heating



Order Details

Specification

Adjustable slot diffuser with aesthetically designed face section, suitable for installation in suspended ceiling systems, comprising the diffuser face in 1 to 4-slot configuration, optionally without edge flange NF or with integral edge flange FL. End caps either as end plates or end angles, with incorporated air control blades, which are set at the factory but can be adjusted by the user at any time to enable adaptation to the prevailing conditions. The slot diffuser has a variable neck length and the diffuser face can optionally be fitted to the plenum box on site.
The plenum box is optionally available with an inner lining of 12 mm in thickness, with circular side entry spigot and four suspension points for suspension of the complete assembly from the ceiling slab, optionally with volume control damper which is adjustable on the face of the diffuser.

Materials:
Diffuser face and end caps consist of extruded aluminium sections powder coated in RAL colours. The air control blades are produced in black plastic (polystyrene) as standard, similar to RAL 9005, or on request in white (similar to RAL9010). Plenum boxes are from formed pre galvanised sheet steel, optional spigot damper is pre galvanised perforated sheet steel. Plenum boxes can be internally lined with 12mm black faced foam with a class O rating.

Order Code

VSD35-V3-BF-4-FL-A02 / **1200** / **0** / **P3** / **RAL 9010** / **20%** / **HH2**

Type
VSD35

Style
Black BF BL BN BE
White WF WL WN WE

F=Finite
L=Linear
N=Non active
E=Mitre*

No. of Slots
1 to 4

Flange
NF= Not flanged
FL = Flanged
PL = Plank ceiling[1]
TZ = Techzone[2]
1) 4 slot only
2) VSD35 3 slot only

End Cap
0 = No end plate/angle
P0X[1] = Plate
A0X[1] = Angle
L0X[1] = Offset angle
PL0X[1] = Plank
1) where X = 1 or 2

Length L_1 mm length of diffuser
or angle* of mitre in degrees
*Only in 90° or 135° with
200mm inside leg

Fixings
0 = Without
FK = Fixing kit

Finish/colour
P3 = powder coated to RAL 9010 20%[1]
P2 = powder coated to RAL 9006 30%
P4 = powder coated to RAL 9005 20%
P6 = other colours to RAL
1) standard finish

Blade Setting
HH1 = All blades in one direction
HH2 = Alternating blades every 300mm
HA2 = 45° Alternating blades every 150mm
HH3 = Alternating blade 33%/66%.
150mm then 300mm

Order Code

AKV-VSD35-V3-0-4-D12-M / **1200 x 1 x 198 x 0** / **269**

Type
VSD35

Plenum Type
0 = Standard Plenum
EH = Extended Height
RA = Light baffle return air

No. of Slots
1 to 4

Lining
None
D12 = 12mm

Length
450mm to 1800mm
150mm increments

Spigot Damper
0 = Standard spigot
M = Spigot damper
MC = Cord operated
spigot damper

No. of Spigots
1 to 4

Spigot dia

Extended Height
A = extension height mm
0 = without extended neck

Assembled Height

Order Example

Make:	TROX
Diffuser Type:	VSD35-V3-BF-4-FL-P02/1200/0/P3/RAL9010/20%/HH2
Plenum Type:	AKV-VSD35-V3-0-4-D12-M/1200x1x198x0/0