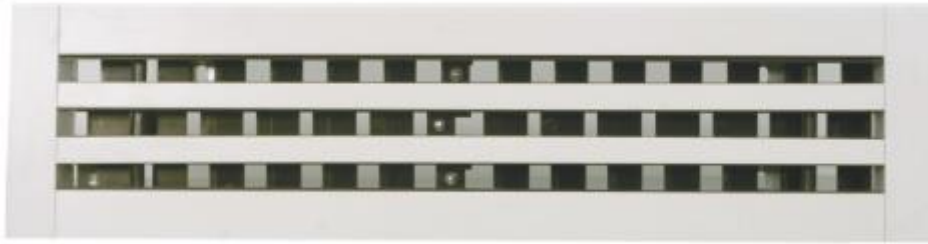




LINEAR SLOT DIFFUSER



Linear Slot Diffuser SD123



DESCRIPTION:

The SD123 linear slot diffuser is designed to satisfy architectural applications that require continuous lengths without compromising air distribution performance. These linear slot diffusers feature fully adjustable, aerodynamic pattern controllers fabricated from extruded aluminum, and are available in a large selection of frame styles. The SD123 provides the ideal combination of engineering excellence and architectural appeal.

MATERIAL :

Extruded aluminium frame and deflector

FUNCTION :

The slot diffuser, type SD123 is used for the supply and return of cooled and heated air in facilities such as offices, shops, meeting rooms. It is designed for installation in the ceiling or sidewall is available from 1 to 4 slots. Each slot is individually adjustable and equipped with 2 deflector vanes of a special design to minimize the internal turbulences. Also one can obtain an ideal air supply pattern adjustable over 180°. All lengths are available so that the diffuser fits ideally in every ceiling system.

SD123: Supply slot diffuser with damper and deflector blades

SD124 : Return slot diffuser with damper

SD125: Curved Supply / Return

SD126 : 4-way Slot Diffuser

FINISHING :

- Standard finishing is natural anodized. Electrostatic powder coating is optional.
- Standard colors are RAL 9010 and RAL 9016 . Other colors are available with enamel paint.

LINEAR SLOT DIFFUSER

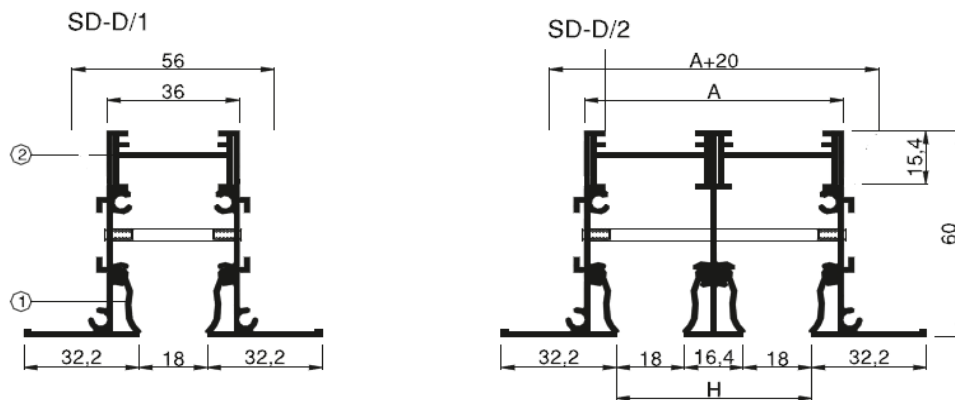
INSTALLATION :

- Bridge (standart)

ACCESSORIES:

- Plenum box

STANDARD SIZES (mm):

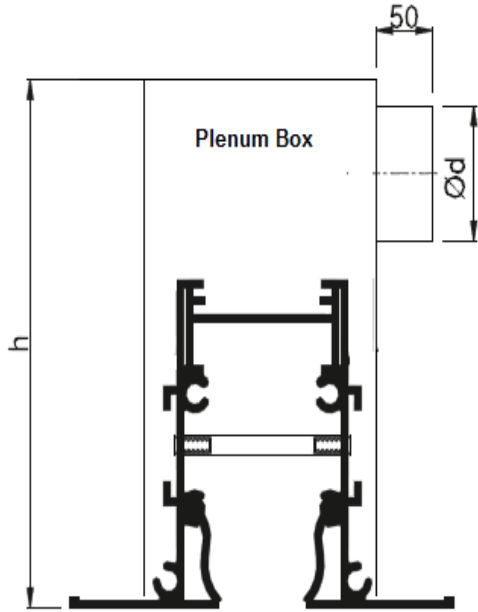


① Air supply direction blade ② Volume damper

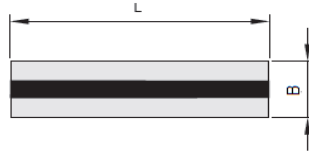
Number of Slots	1S	2S	3S	4S
H (mm)	18mm	52,4mm	86,8mm	121,2mm
A (mm)	36mm	71mm	105mm	137mm
Box Neck Size (mm)	56mm	91mm	125mm	157mm

Plenum Box Dimensions (mm):

LINEAR SLOT DIFFUSER

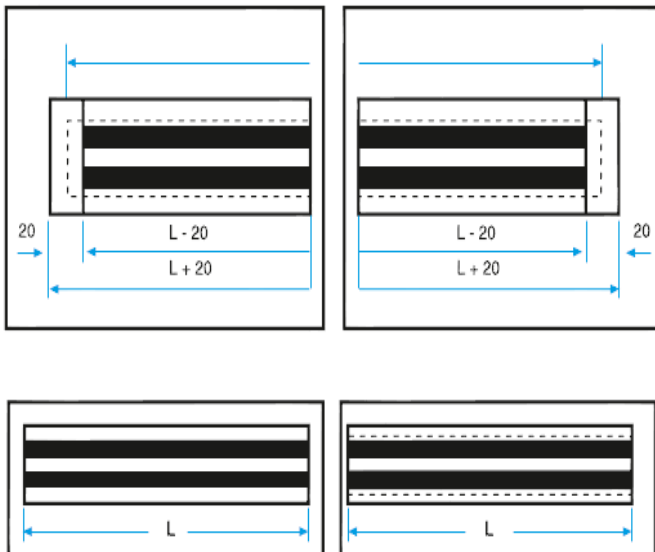


L(mm)		1	2	3	4
600	d				
700	h	138	198	218	248
800		273	297	350	350
900					
1000					
1100	d	138	198	218	248
1200	h	273	297	350	400
1300					
1400					
1500					
1600	d	138	198	218	248
1700	h	273	341	400	487
1800					
1900					
2000					

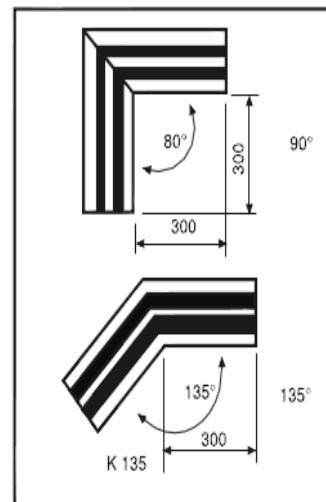


INSTALLATION COMBINATION

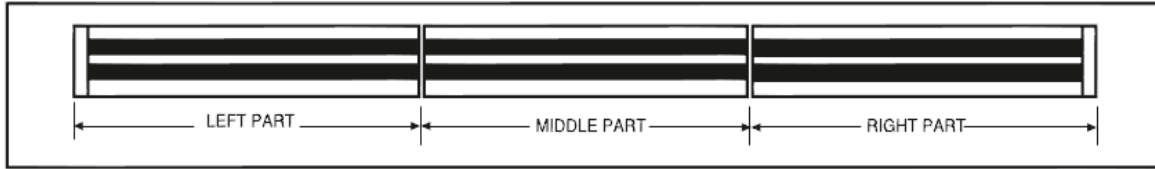
END CAB COMBINATIONS



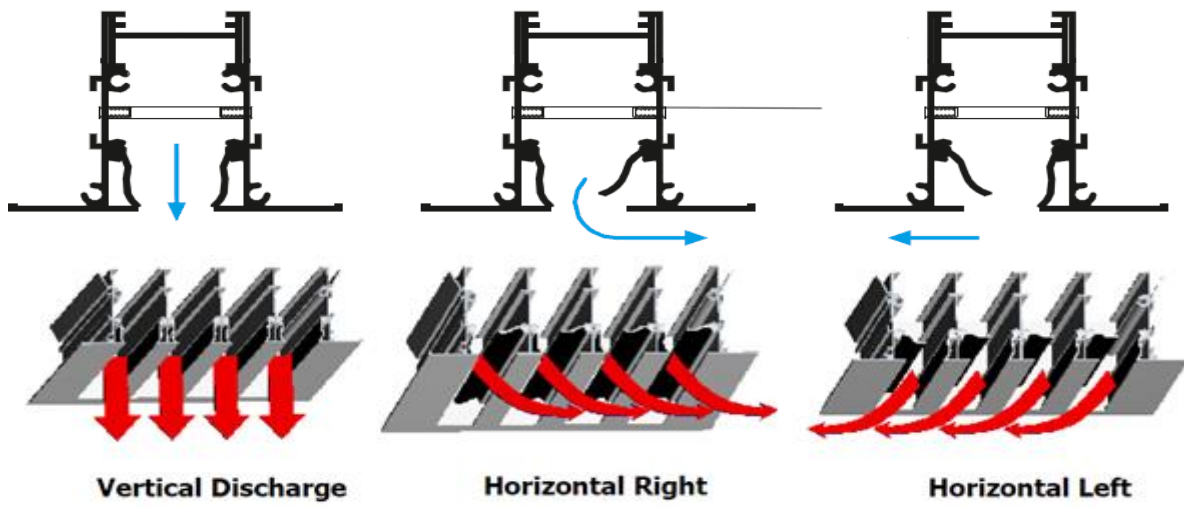
CORNER PIECES



LINEAR SLOT DIFFUSER



AIR DEFLECTION TYPES



SUPPLY SLOT DIFFUSERS QUICK SELECTION TABLE:



LINEAR SLOT DIFFUSER

Qv(m³/h)	MODEL	1 SLOT	2 SLOT	3 SLOT	4 SLOT
	A (m2)	0,007	0,014	0,021	0,028
80	Lt (m)	3,7			
	NR	<20			
	Pt (Pa)	9,2			
	Vk (m/s)	3,2			
100	Lt (m)	4,6			
	NR	24			
	Pt (Pa)	14,0			
	Vk (m/s)	4,0			
125	Lt (m)	5,7	4,0		
	NR	30	<20		
	Pt (Pa)	22,0	6,0		
	Vk (m/s)	5,0	2,5		
150	Lt (m)	7,0	4,9		
	NR	35	20		
	Pt (Pa)	32,0	8,0		
	Vk (m/s)	6,0	3,0		
200	Lt (m)		6,6	5,4	
	NR		27	<20	
	Pt (Pa)		14,0	6,4	
	Vk (m/s)		4,0	2,6	
250	Lt (m)		8,2	6,6	5,8
	NR		33	24	<20
	Pt (Pa)		22,0	9,8	6,0
	Vk (m/s)		5,0	3,3	2,5
300	Lt (m)		9,8	8,0	7,0
	NR		38	29	23
	Pt (Pa)		32,0	14,0	8,0
	Vk (m/s)		6,0	4,0	3,0
400	Lt (m)			10,6	9,2
	NR			36	30
	Pt (Pa)			25,0	14,0
	Vk (m/s)			5,3	4,0
500	Lt (m)				11,4
	NR				36
	Pt (Pa)				22,0
	Vk (m/s)				5,0
600	Lt (m)				14,0
	NR				41
	Pt (Pa)				32,0
	Vk (m/s)				6,0

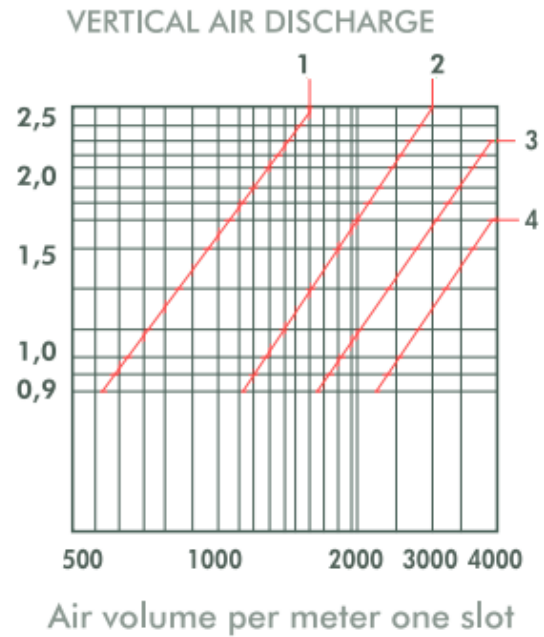
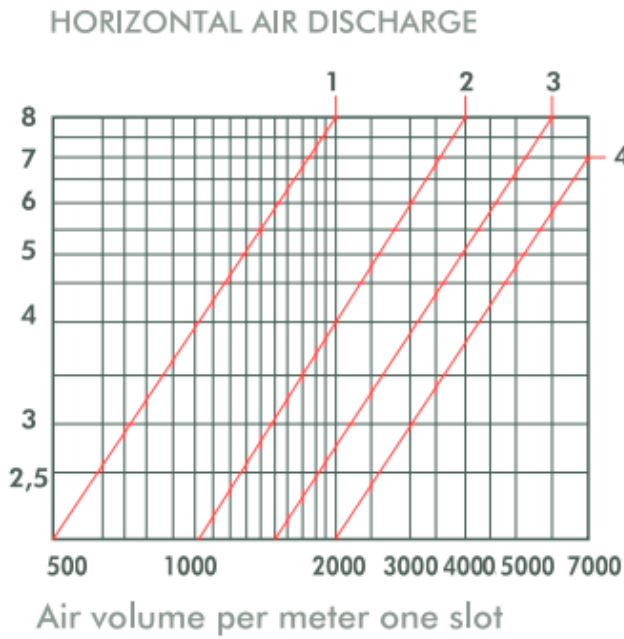
SELECTION CRITERIAS

H= 3 ± 0,5 mt (Ceiling height)
Vt: 0.25 m/s

Lt(m) : Throw Distance
NR : Sound Level
Pt(Pa) : Pressure Drop
Vk(m/s): Slot Output Speed

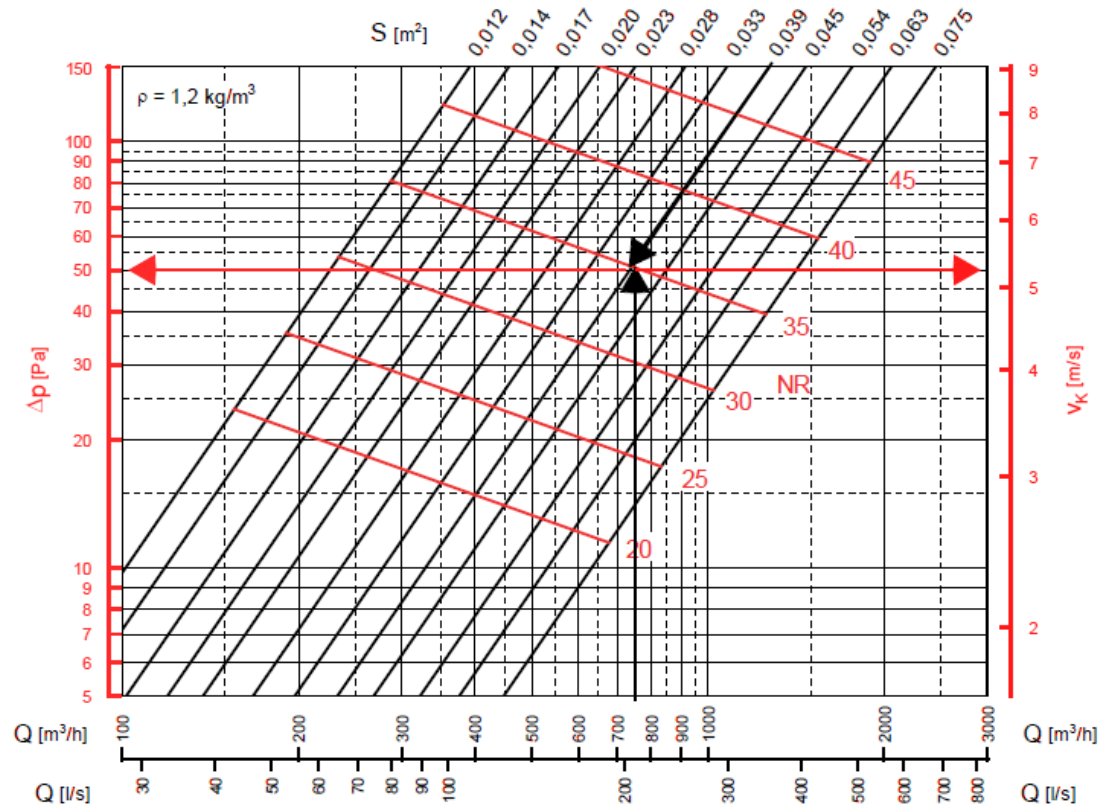
DATA DIAGRAMS

EFFECTIVE JET VELOCITY (m/s)



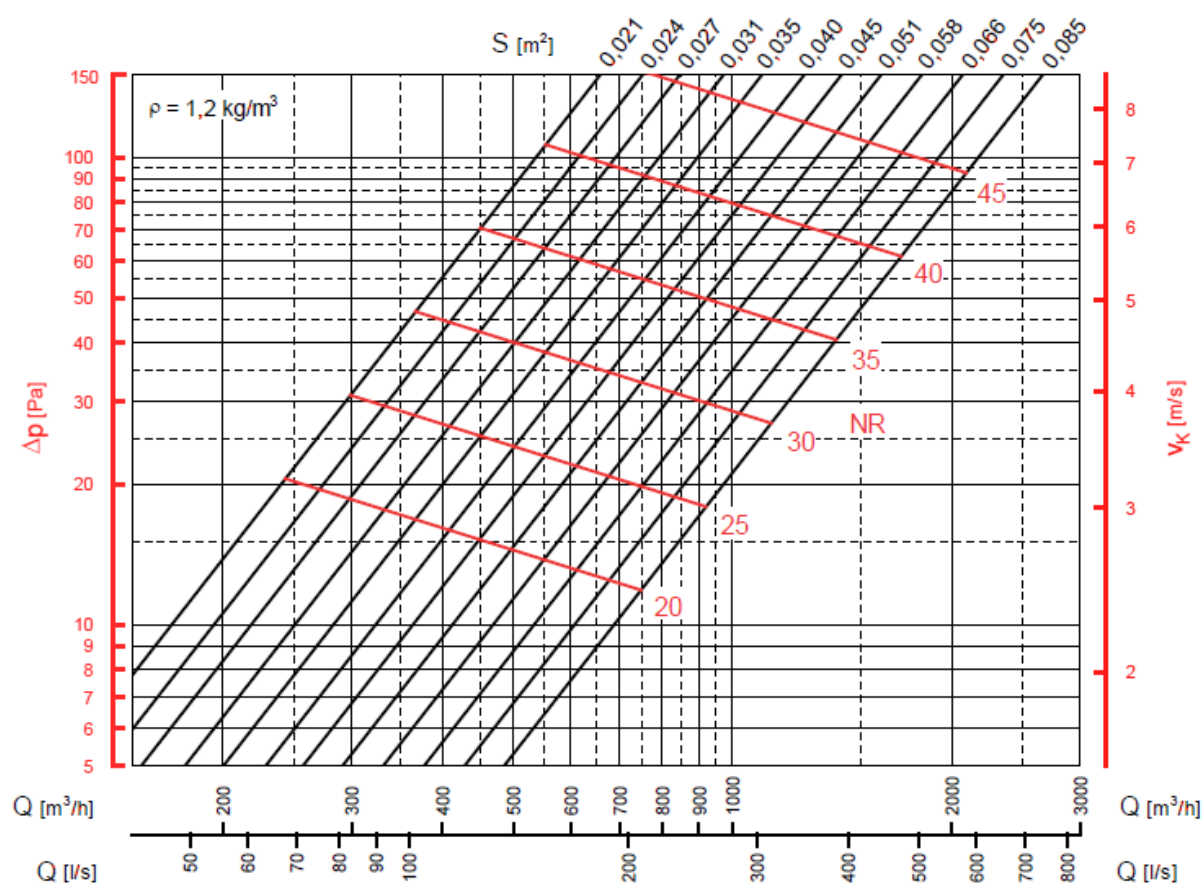
PRESSURE DROP AND NOISE LEVELS (for 1/2 slots)

LINEAR SLOT DIFFUSER



PRESSURE DROP AND NOISE LEVELS (for 3/4 slots)

LINEAR SLOT DIFFUSER



Q [m³/hm] supply air flow rate

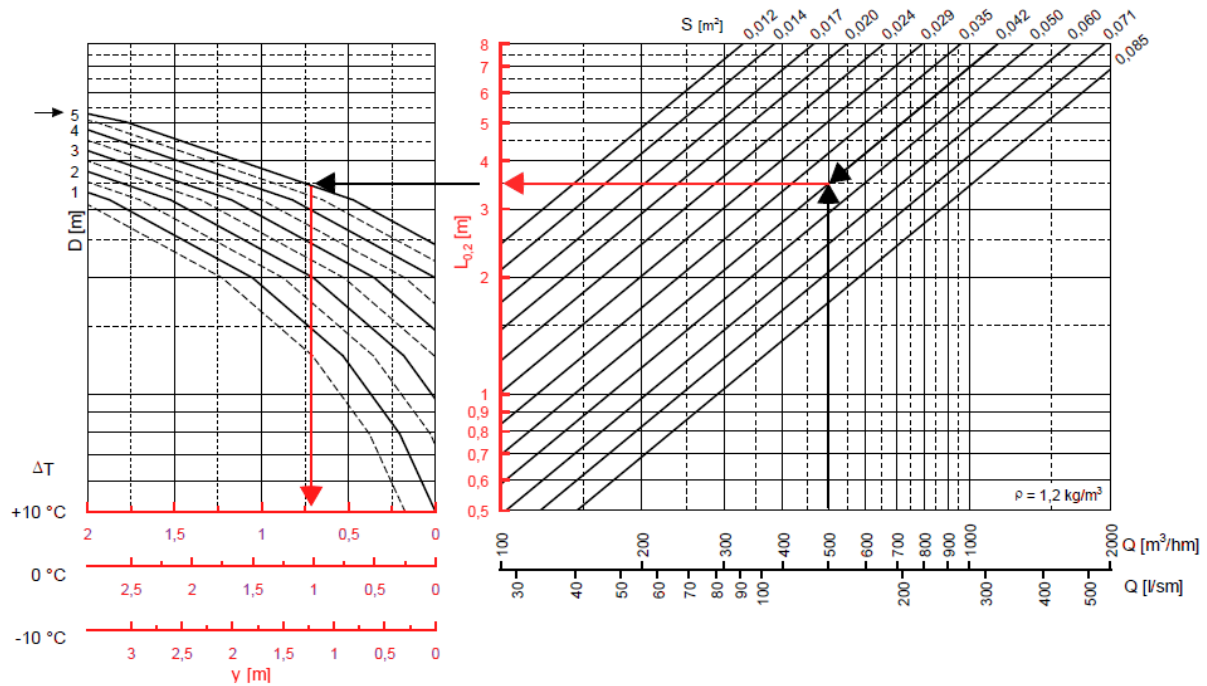
v_k [m/s] velocity relating to the effective outlet area S

Δp [Pa] total pressure loss

NR noise rating (ISO standard, in relation to 10^{-12} W) taking no account of the attenuation of the room

Correction of values Δp and NR with SS damper fully open, $\Delta p = \Delta p \times 1,3$, $NR = NR + 3$

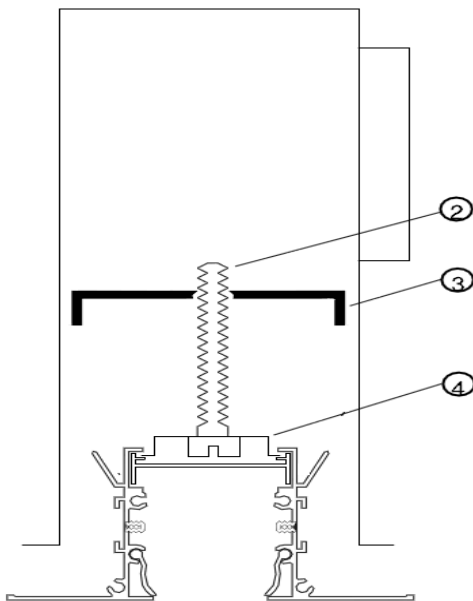
THROW DISTANCES (m)



Q [m ³ /h] o [l/s]	supply air flow rate
S [m ²]	diffuser effective outlet area
v_m [m/s]	average velocity of the throw at distance L
L [m]	diffusion radius (= $x + y$)
x [m]	horizontal dimension of the throw
y [m]	vertical dimension of the throw
$L_{0,2}$ [m]	throw with terminal velocity of 0.2 m/s
D [m]	distance between two diffusers
ΔT [°C]	difference between supply air and ambient temperature

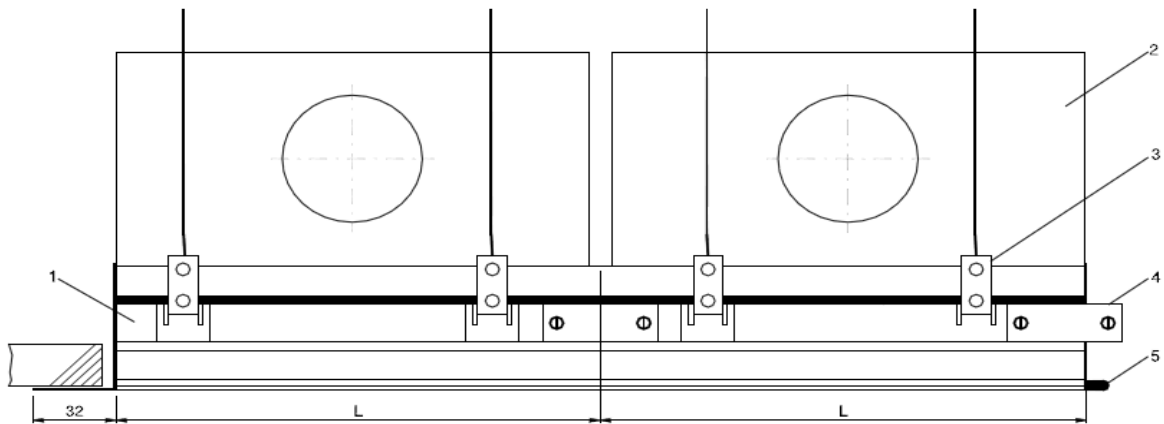
MOUNTING DETAILS :

Bridged Mounting



- 1 - Hanger
- 2 - Slot Diffuser Bridge bolt
- 3 - Plenum Box Bridge piece
- 4 - Slot Diffusers Bridge Piece

Continuous Assembly

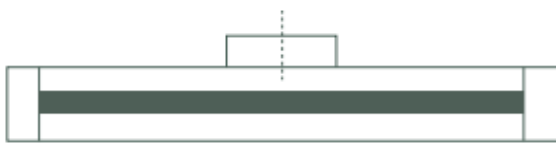


- 1 - Slot Diffusers

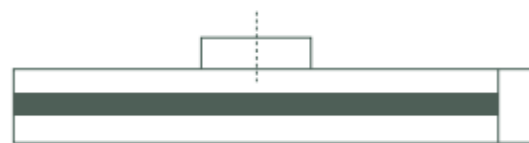
LINEAR SLOT DIFFUSER

- 2 - Plenum Box
- 3 - Hanger
- 4 - Combination Piece
- 5 - Combination Pin

END CAP ARRANGEMENTS



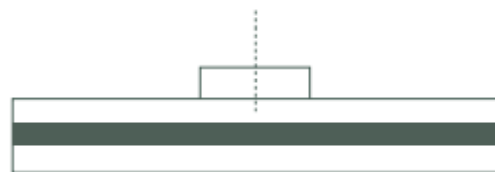
End caps - both ends (A)



End cap on right (B)



End cap on left (C)



Without end cap(O)



LINEAR SLOT DIFFUSER

ORDER CODES

SD123-D	PL	06	PFD	RAL9010	BM	L 1000	S1
SD123: Supply slot diffuser with damper and deflector blades SD124: Return slot diffuser with damper SD125: Curved Supply / Return SD126: 4-way Slot Diffuser						L: Length	NUMBER OF DIFFUSER SLOTS (Between 1to 4)
00: No Plenum Box PL: With Plenum Box							
00: PL Non-insulated 06: PL insulated (6mm) 09: PL insulated (9mm)						00: No Mounting BM: Bridge Mounting	
000: PL-Without Damper PFD: PL-Perforated Damper						00: No coating EX: Eloxal Coating RAL----: Oven Drying Coating	