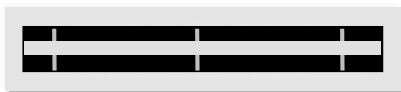


LINEAR SLOT DIFFUSER

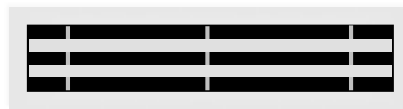
Model: 1-LSD, 2-LSD, 3-LSD, ...

For ceiling, sidewall, and sill installation

MODEL: 2-LSD



MODEL: 3-LSD



Order code

1 - LSD + OVD + BF +

1

2

3

4

4

1 Number of Slots

1, 2, 3, 4, 5, and 6

*Could be specified

2 Type

LSD: Linear slot diffuser

3 Volume Damper

OVD: Opposed blade volume damper

PVD: Parallel blade volume damper

*Could be specified

4 Additional Accessories

BF: Black synthetic filter

WF: White synthetic filter

NF: Black nylon filter

AF: Aluminium filter

BFM: Black synthetic filter frame

WFM: White synthetic filter frame

INS: Aluminum wire mesh

Plenum boxes

*Could be specified

★ Features

- 1-way or 2-way vertical or horizontal air diffusion pattern
- Aluminium construction 6063 gauge extruded aluminium margins, mechanically interlocked with hairline corners, and quality moisture proof construction throughout
- End-to-end joints between section for continuous appearance
- Energy-efficient and acoustically optimised air discharge

+ General Optional Equipment and Accessories

- Plenum boxes
- Opposed blade volume damper
- Air filter for air purification
- Aluminum wire mesh

*Could be specified

✂ Installation

1. Prepare the air duct edge size according to the neck size of diffuser
2. Fix diffuser frame to air duct with screws
2.1 or tie the diffuser with wires

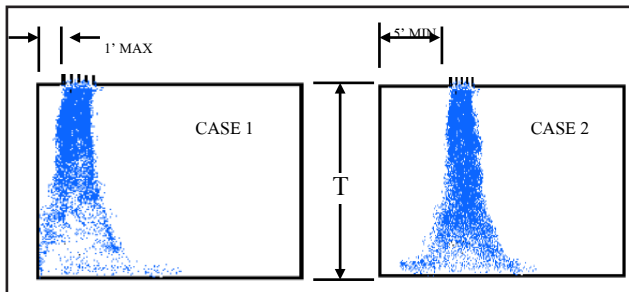
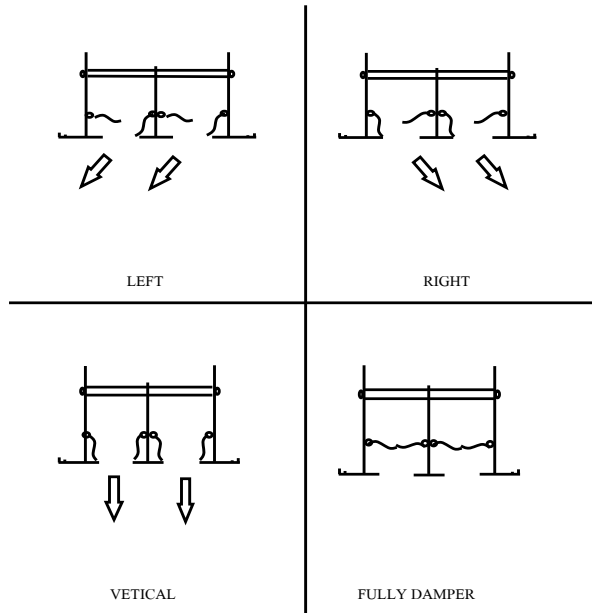
🏆 Certification

- VIPAC
- NATA
- King Mongkut's University of Technology Thonburi

💡 Application

- Designed for installation in ceiling, sidewall, or sill
- For heating, ventilating & cooling, returning, and exhausting, which are required directional air diffusion patterns
- Air pattern direction is full 180° adjustable
- The direction and volume of the air flow could be adjusted by moving the controller blades, and provide 1-way or 2-way air pattern to suit local requirements
- The performance assures confident uses of cooling temperature differentials up to 25 F, at the predicted low air motion (35 fpm) in the zone of occupancy
- LSDs efficiently perform with air loadings of 1 to 3 cfm per square foot of the floor area or 6 to 19 air changes per hour (based on 10 ft. ceiling height) at a sound level range of NC 25 to 35
- Attractive and excellence design
- Special anodised or duranodic finished are available to match architectural requirements
- Satin anodised surface with special colour finishes can be applied
- Available in aluminium, stainless steel, and steel
- Customised design is available

DIRECTION FLOW AND TECHNICAL DATA



| TABLE 2 CONTINUOUS DIFFUSER LENGTH FACTORS | | | |
|---|-------------------|--------------------|----------------|
| Modify Table 1 by factors for diffuser lengths above 4 feet | | | |
| Diffuser Length | Ceiling Min.-Max. | Sidewall Min.-Max. | Sill Min.-Max. |
| 4'-6' | No change | | + 0 |
| 7'-20' | T x 1.10 | | + 5 |
| 21'-100' | T x 1.15 | | +10 |

| TABLE 4 VERTICAL DOWN-THROW AND SUPPLY AIR TEMPERATURE FACTORS | | | |
|---|-----------------------|--------------------------|-----------------------|
| Multiply Throw-Sidewall in Table 1 (or factor in Table 2 if used) by listed value | | | |
| | @ - 20F ΔT Cooling | @ - 0F ΔT Ventilatiog | @ + 25F ΔT Heating |
| CASE 1 | T x 1.0 | T x 0.09 | T x 0.60 |
| CASE 2 | T x 0.70 | T x 0.60 | T x 0.40 |

| TABLE 3 SUPPLY AIR TEMPERATURE FACTORS | | | |
|--|-----------------------|--------------------------|-----------------------|
| Multiply Throw in Table 1 (or factor in Table 2 if used) by listed value | | | |
| Side wall Ceiling Sill | @ - 20F ΔT Cooling | @ - 0F ΔT Ventilatiog | @ + 25F ΔT Heating |
| | T x 1.0 | T x 1.1 | T x 1.2 |

TABLE 5: SUPPLY DIFFUSER AREAS PER FOOT OF LENGTH

| Area | No. of slot | | | | | | | | | |
|------|-------------|------|------|------|------|------|------|------|------|------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| AK. | 0.05 | 0.1 | 0.14 | 0.18 | 0.21 | 0.25 | 0.29 | 0.34 | 0.38 | 0.42 |
| AN. | 0.08 | 0.17 | 0.25 | 0.33 | 0.42 | 0.50 | 0.58 | 0.67 | 0.75 | 0.84 |

Ak constant for horizontal 1-way and vertical pattern

AK = Outlet area in Sq.Ft.
AN = Neck area in Sq.Ft.

Linear Slot Diffuser Performance Data Ceiling, Side Wall Application

| No. Of Slots | CFM PER FT | 20 | 30 | 40 | 60 | 80 | 100 | 125 | 150 | 200 | 250 | 300 |
|--------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1 | VEL SP THROW | 320 0.016 5 | 480 0.038 10 | 640 0.060 15 | 960 0.100 20 | 1280 0.142 22 | 1600 0.394 35 | | | | | |
| 2 | VEL SP THROW | | 240 0.009 4 | 320 0.017 7 | 480 0.040 11 | 640 0.065 20 | 800 0.113 24 | 1000 0.176 30 | 1200 0.270 35 | 1600 0.040 41 | | |
| 3 | VEL SP THROW | | | 213 0.009 6 | 320 0.018 9 | 427 0.036 15 | 533 0.060 20 | 667 0.085 24 | 800 0.150 30 | 1066 0.221 34 | 1333 0.350 42 | |
| 4 | VEL SP THROW | | | | 240 0.014 10 | 320 0.023 14 | 400 0.040 18 | 500 0.060 20 | 600 0.095 26 | 800 0.140 30 | 1000 0.242 38 | 1200 0.320 46 |
| 5 | VEL SP THROW | | | | | 256 0.014 12 | 320 0.018 16 | 400 0.040 20 | 480 0.058 24 | 640 0.098 28 | 800 0.156 36 | 960 0.240 42 |

Data in the table for 0 Deflection
SP = Static pressure in inches of water

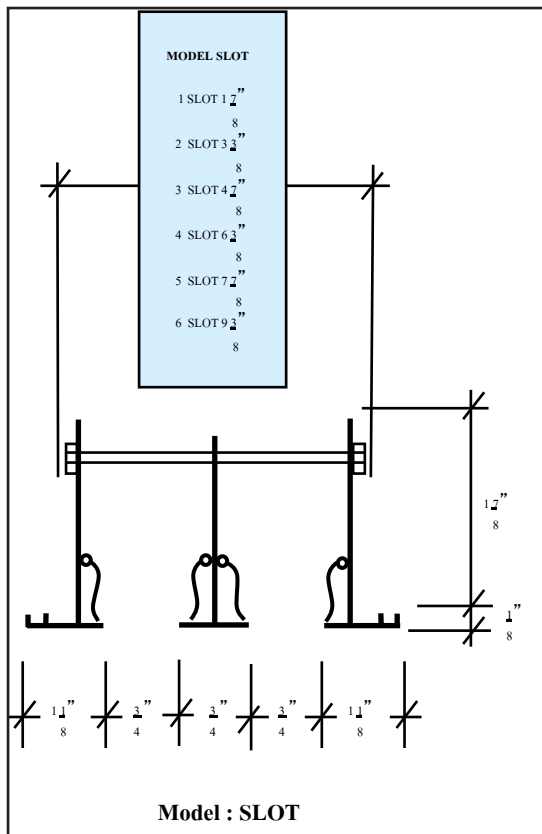
VEL. = Velocity in feet per minute
THROW. = Distance of air flow on feet

Note: According to the tests of products, the data in this report had been conducted under Smart Flow Industry Co., Ltd. in a laboratory by the expert. The materials and equipment were selected and installed accurately. In order to acquire the result of the test especially. The use of product and installation in other types and surroundings would get the different results. Please use only these information as guidance or estimation.

TABLE 6: RETURN AIR CFM PER FOOT OF LENGTH

| No. of Slots | Ak Area | NC 10-20 Application Non-Ducted | | NC 30-35 Application Non-Ducted | | NC 35-40 Application Non-Ducted | |
|--------------|---------|------------------------------------|--------|------------------------------------|----------|------------------------------------|--------|
| | | -02"Ps | -03"Ps | -08"Ps | -0.10"Ps | -15"Ps | -20"Ps |
| | | CFM | CFM | CFM | CFM | CFM | CFM |
| 1 | 0.05 | 15 | 20 | 30 | 35 | 40 | 45 |
| 2 | 0.10 | 35 | 45 | 70 | 80 | 95 | 110 |
| 3 | 0.14 | 55 | 70 | 110 | 125 | 150 | 175 |
| 4 | 0.18 | 70 | 85 | 140 | 155 | 190 | 220 |
| 5 | 0.21 | 90 | 110 | 180 | 200 | 245 | 285 |
| 6 | 0.25 | 110 | 135 | 220 | 245 | 300 | 345 |
| 7 | 0.29 | 130 | 160 | 260 | 290 | 355 | 410 |
| 8 | 0.34 | 140 | 170 | 280 | 310 | 385 | 440 |
| 9 | 0.38 | 165 | 200 | 330 | 370 | 450 | 520 |
| 10 | 0.42 | 185 | 225 | 370 | 415 | 505 | 585 |

SECTION DETAILS



MOUNTING OPENING

