

# LD – LINEAR DIFFUSERS WITH PLASTIC BLADES

## LD-AL – LINEAR DIFFUSERS WITH ALUMINIUM BLADES



### LD

#### Description

- Designed for uniform supply of air in the ventilation and air-conditioning installations.
- Air flow direction can be controlled.

#### Construction

- Frame of extruded aluminium profiles with grille of galvanized metal sheet with plastic blades installed on it.
- Plastic blades allow manual air flow direction control.
- Powder coated in RAL 9010 as standard, all RAL colours – available on request.

#### Installation

- Joined to the air duct system with a plenum box and flexible ducts.

#### Accessories

- Standard plenum box with side connector. (+K)
- Regulation damper (+D)
- Internal (+li) or external (+le) plenum box insulation

### LD-AL

#### Description

- Designed for uniform supply of air in the ventilation and air-conditioning installations.

#### Construction

- Wholly constructed of anodized aluminium profiles.
- Powder coated in RAL9010 as standard, all RAL colours – available on request.

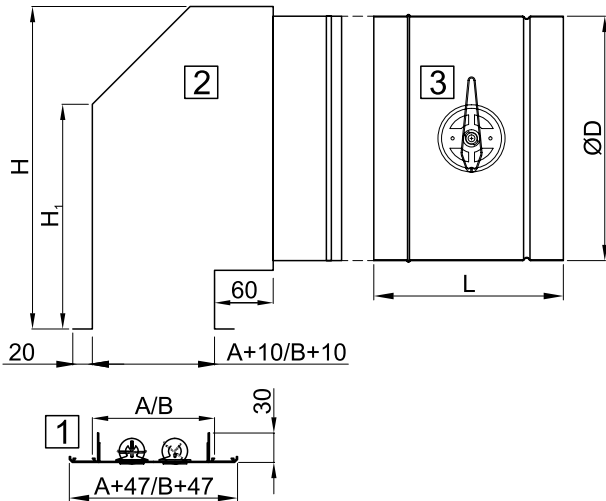
#### Installation

- Joined to the air duct system with a plenum box and flexible ducts

#### Accessories

- Standard plenum box with side connector (+K)
- Regulation damper (+D)
- Internal (+li) or external (+le) plenum box insulation

LD – Overall and joined dimensions



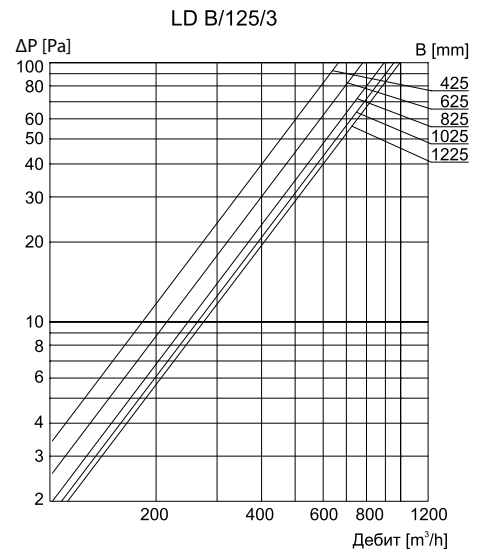
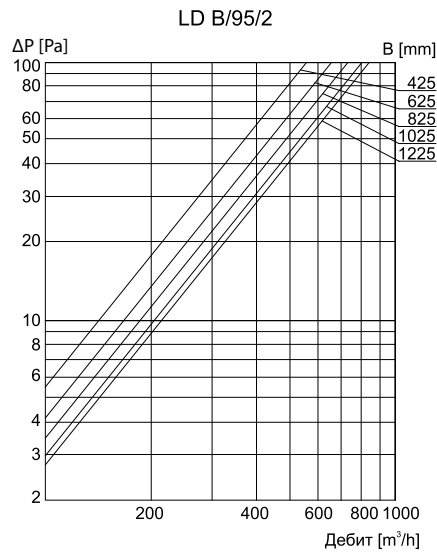
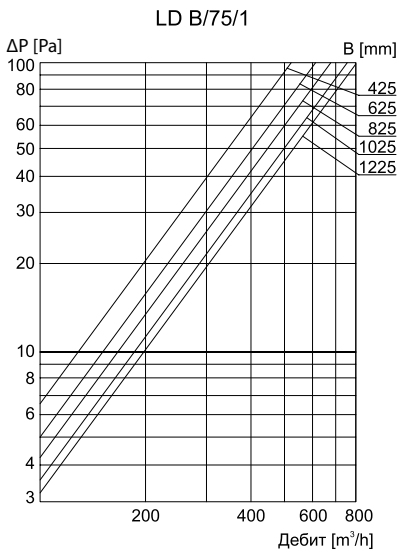
- 1. Ventilation diffuser
- 2. Standard plenum box
- 3. Regulation damper

| Model      | A [mm] | B [mm] | H [mm] | H <sub>1</sub> [mm] | L [mm] | ØD [mm] |
|------------|--------|--------|--------|---------------------|--------|---------|
| LD-B/75/1  | 75     | 425    | 250    | 150                 | 180    | 145     |
| LD-B/95/2  | 95     |        | 250    | 150                 | 180    | 145     |
| LD-B/125/3 | 125    | 1225   | 340    | 180                 | 230    | 195     |

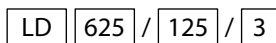
Note:

- Standard dimensions for side B, mm: 425, 525, 625, 825, 1025, 1225.
- Plenum boxes for side B=1025 and 1225 are produced with two connectors.
- Plenum boxes with top connectors can be produced on request.

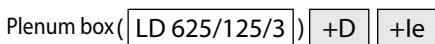
LD – Air flow and pressure drop



LD – Order designation

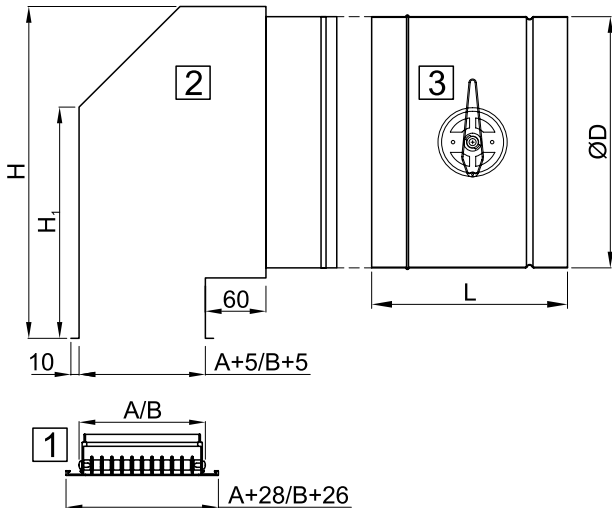


- Number of slots: 1, 2 or 3
- Joined height: 75, 95 or 125
- Joined width: 425, 525, 625, 825, 1025, 1225
- Linear diffuser with plastic blades



- +li – internal plenum box insulation
- +le – external plenum box insulation
- +D – regulation damper
- Type and size of the diffuser

LD-AL – Overall and joined dimensions



Note:

- Standard length B[mm]: 300, 400, 500, 600, 800, 1000, 1200, 1500 or 2000
- Plenum boxes with top connectors can be produced on customer's request.
- Production of grilles with different dimensions is possible on customer's request

1. Linear diffuser
2. Standard plenum box
3. Regulation damper

LD-AL – Free cross section  $F_0$  [m<sup>2</sup>]

| B [mm] | 300   | 400   | 500   | 600   | 800   | 1000  | 1200  | 1500  | 2000  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| A [mm] |       |       |       |       |       |       |       |       |       |
| 75     | 0.015 | 0.021 | 0.026 | 0.032 | 0.043 | 0.054 | 0.065 | 0.081 | 0.111 |
| 105    | 0.027 | 0.036 | 0.046 | 0.055 | 0.074 | 0.093 | 0.112 | 0.141 | 0.188 |
| 125    | 0.029 | 0.040 | 0.050 | 0.061 | 0.082 | 0.103 | 0.124 | 0.155 | 0.208 |
| 225    | 0.057 | 0.078 | 0.098 | 0.119 | 0.160 | 0.201 | 0.242 | 0.303 | 0.406 |
| 325    | 0.085 | 0.116 | 0.146 | 0.177 | 0.238 | 0.299 | 0.36  | 0.451 | 0.604 |

LD-AL – Selection of plenum box

| Free cross section $F_0$ [m <sup>2</sup> ] | Air flow [m <sup>3</sup> /h] | H [mm] | H <sub>1</sub> [mm] | ØD [mm] | L [mm] |
|--|------------------------------|--------|---------------------|---------|--------|
| to 0.025                                   | 100 ÷ 200                    | 230    | 120                 | 120     | 140    |
| to 0.039                                   | 200 ÷ 400                    | 230    | 120                 | 145     | 140    |
| to 0.069                                   | 400 ÷ 600                    | 280    | 120                 | 195     | 190    |
| to 0.099                                   | 600 ÷ 1000                   | 330    | 150                 | 245     | 240    |
| over 0.100                                 | over 1000                    | 330    | 150                 | 245     | 240    |

LD-AL – Pressure drop  $\Delta P$  [Pa] and noise levels L [dB(A)]

| W <sub>0</sub> [m/s] | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.5 | 5.0 |
|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| $\Delta P$ [Pa]      | -   | -   | -   | 5   | 8   | 11  | 15  | 21  | 24  |
| L [dB(A)]            | -   | -   | -   | 25  | 31  | 34  | 35  | 38  | 42  |

W<sub>0</sub> is determined to section F<sub>0</sub>.

LD-AL – Order designation

