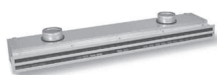


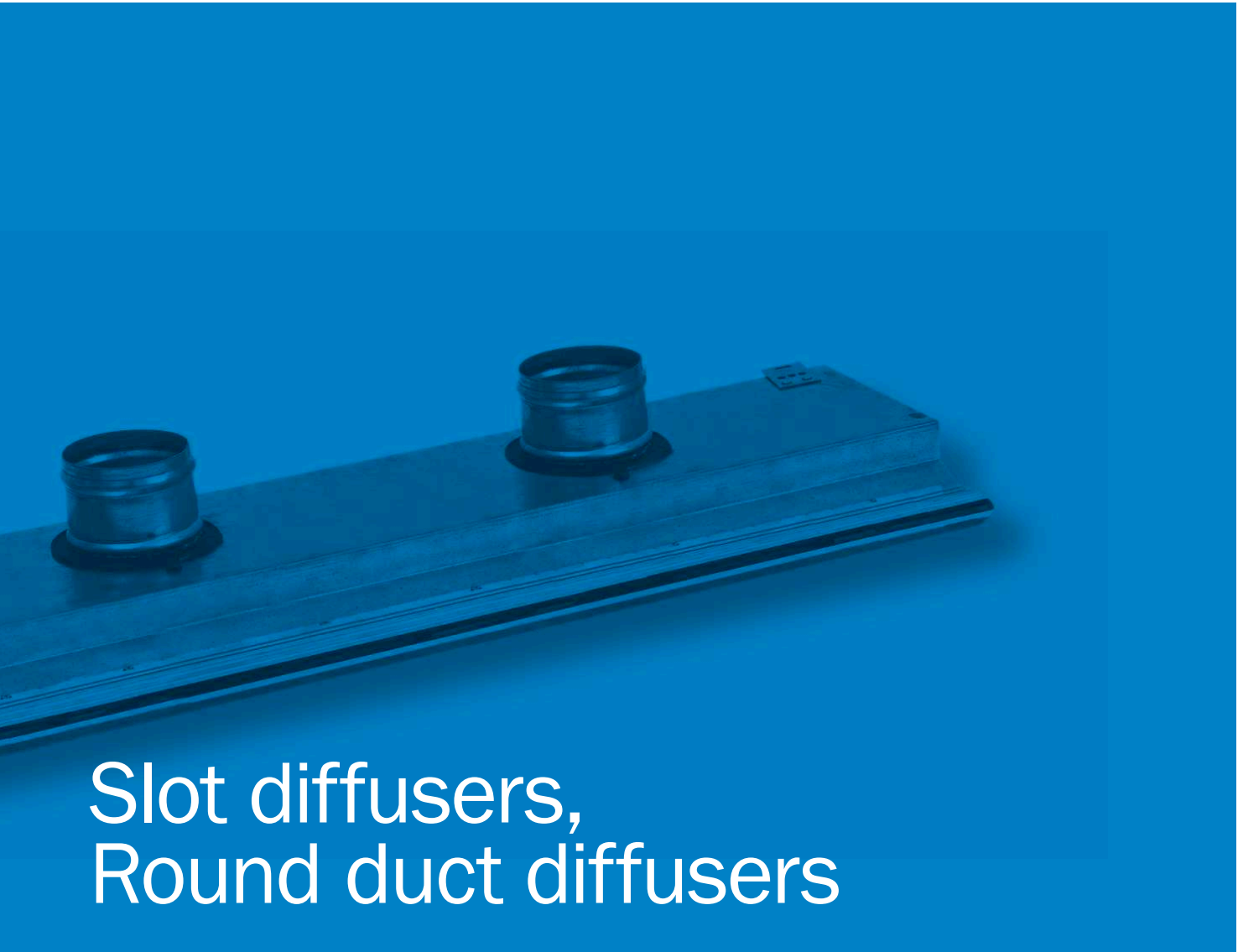
# 04



Slot diffusers



Round duct diffusers



# Slot diffusers, Round duct diffusers

Slot diffusers are designed for air supply in rooms with floor to ceiling heights of 2.5 to 4 m. They are suitable for supplying either cold or warm air, in particular in applications where air conditioning comfort demands are stringent. Due to their high induction rate and rapid decrease of temperature difference, these diffusers are also suitable for variable systems.

Round duct diffusers can be installed at various locations within the duct network. They are suitable for supplying either cold or warm air.

VENTILATING GRILLES,  
VENTILATING VALVES

CIRCULAR DIFFUSERS,  
SQUARE DIFFUSERS

SWIRL DIFFUSERS,  
VARIABLE SWIRL  
DIFFUSERS

SLOT DIFFUSERS,  
ROUND DUCT DIFFUSERS

AIR DISPLACEMENT  
UNITS

SUPPLY AIR NOZZLES

EXTERNAL ELEMENTS

AIR FLOW  
CONTROL UNITS

SOUND ATTENUATORS,  
SOUND ATTENUATING  
LOUVRES

# Overview

## Slot diffusers

Slot diffusers are designed for air supply in rooms with floor to ceiling heights of 2.5 to 4 m. They are suitable for supplying either cold or warm air, in particular in applications where air conditioning comfort demands are stringent. Due to their high induction rate and rapid decrease of temperature difference, these diffusers are also suitable for variable systems.

## Nozzle diffusers

Nozzle diffusers LD-19 are designed for supply of warm or cold air and can be mounted in the wall or in the ceiling. Adjustable deflectors allow us to set different directions of air discharge.

Nozzle diffusers LD-20 are designed to supply low quantities of air on big window surfaces to prevent condensation (ceiling installation near windows) or for big throws for cooling when wall installation (Coanda effect).

## Panel design slot diffusers

A panel design slot diffuser consists of a face plate and a plenum box. Cylindrical air deflectors, equal to those in LD-13 and LD-14 diffusers, are installed in the slots, to allow continuous adjustment of discharged air direction within the 360° range. On order, diverse plate designs and slot patterns are available.

## Floor slot diffusers

LD-16N floor slot diffusers are a suitable solution for swimming pools and similar rooms with large glass surfaces and windows. They are designed for installation in the floor. Warm air is supplied in the upwards direction, towards the window.

## Round duct diffusers

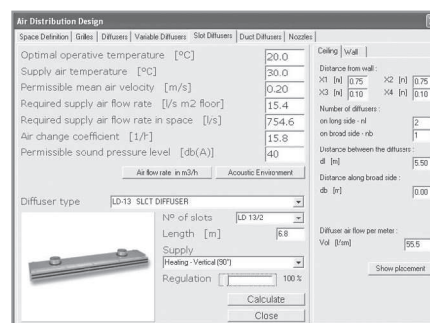
Round duct diffusers can be installed at various locations within the duct network. They are suitable for supplying either cold or warm air.

## Software: KLIMA ADE

LD and SKD Software:

- available calculation and graphical display of air supply for slot diffusers LD-13, LD-14 and LD-15
- available calculation of technical specifications for the application of wall- or ceiling-mounted slot diffusers
- available calculation of ceiling-mounted multiple-diffuser configuration air supply
- application of vertical or horizontal slot diffuser air supply into the room, depending on the mode of operation – heating or cooling
- the package supports basic air supply mode models for the SKD-13 round duct diffuser
- available calculation of SKD-13 round duct diffusers cooling mode: single-side and two-side horizontal supply and alternating horizontal supply heating mode: vertical air supply

## Software: Klima ADE



## Slot diffusers



LD-13

LD-14



LD-15

LD-18

## Nozzle diffusers



LD-19

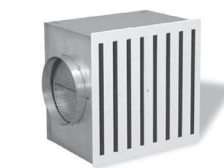
LD-20

## Floor slot diffusers



LD-16N

## Panel design slot diffusers



LDP-14

## Round duct diffusers












SKD-13D

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## Legend of symbols

- |  |   |   |
|--|---|---|
| <b>Al</b> Element is made of aluminium profiles, aluminium sheet or aluminium casting.   |  Element is intended to be built in the wall.  |  Element is suitable for the supply of cool air (cooling).   |
| <b>St</b> Element is made of steel sheet.  |  Element is intended to be built in the ceiling or in the wall.                      | <b>M</b> Element allows regulation by electric motor (Belimo electric motors).  |
|  Element is powder painted in standard RAL 9010 colour. Other desired colour is to be specified in the order. |  Element for air conditioning of rooms with floor to ceiling heights room up to 4 m. | <b>F EU...</b> Element is intended for air filtration. The filter of class ... is built in.   |
|  Shady symbol means possibility of optional material, surface protection, motor version, ...                  |  Element for air conditioning of rooms with floor to ceiling heights from 6 to 15 m. | <b>CD</b> The possibility of the automatic selection and calculation of the technical characteristics of grilles and difusers in regard to the given conditions with the assistance of the Klima ADE program. |
|  Element is intended to be built in the floor.  |  Element is suitable for the supply of warm air (heating).                           | <b>INOX</b> The element is made of stainless sheet steel AISI 304.  |

**Panel design slot diffusers**  
**LDP-13, LDP-14**

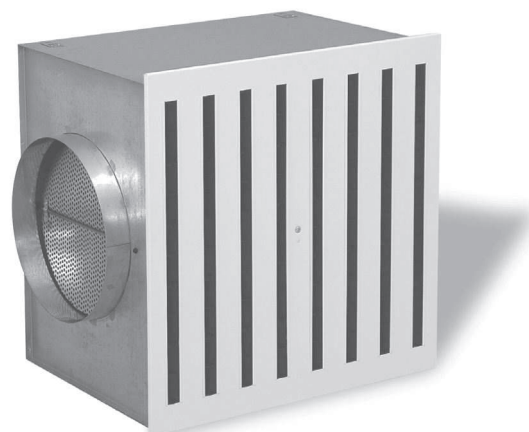
**Application**

Panel design slot diffusers are designed for the supply of air in rooms with floor to ceiling heights from 2.4 m to 4 m. They are suitable for supplying either cold or warm air.

St



RAL 9010



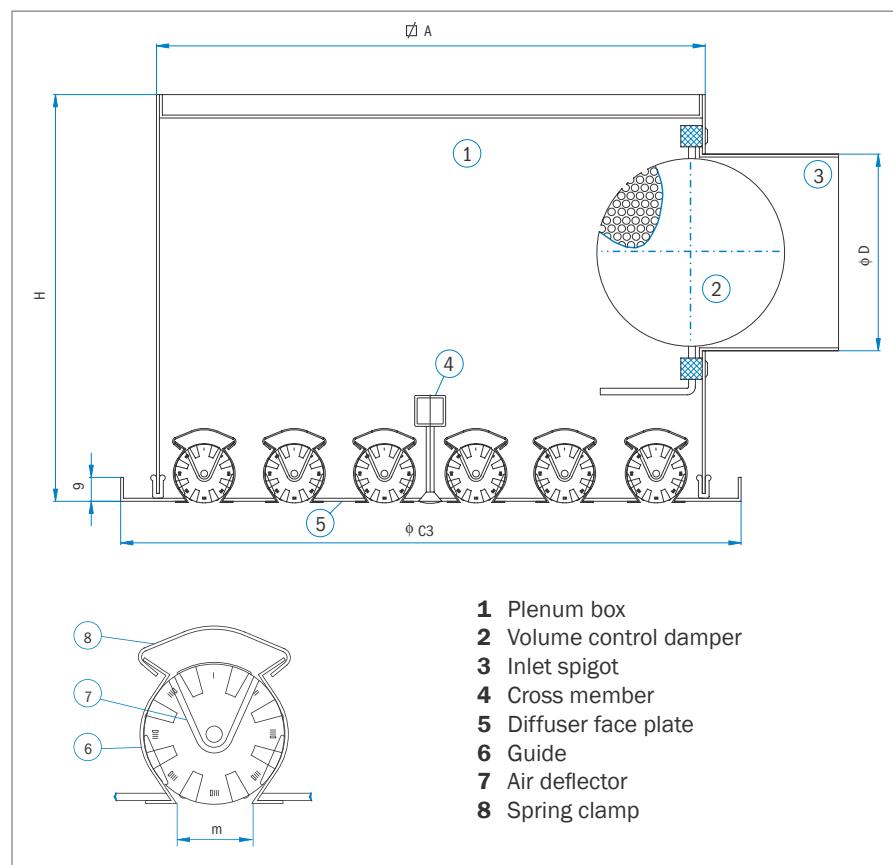
**Description**

LDP-13 and LDP-14 consists of a diffuser face plate and a plenum box. The diffuser face plate is commonly made of sheet steel and its design can be suited to the customer's requirements. Longitudinal guides, fitting tight to the sheet steel, are inserted in the diffuser face plate. Cylindrical deflectors, made of recycled plastics (ABS-antistatic) are installed in the guides, to allow free adjustment of both air jet discharge direction and flow rate. The number of slots per unit depends on the size of the unit. Diffuser face plate is powder painted in a RAL 9010 scale colour, or, on special orders, in other colours. The deflectors, equal to those of LD-13 or LD-14 slot diffusers, are white or black as standard.

The plenum box is made of galvanised sheet steel. It is fitted with a flow rate control damper, designed for fine air flow rate adjustment.

**Type**

- **LDP-13** m = 12 mm
- **LDP-14** m = 22 mm



| Size | φC3 | Slot length | φA  | φD  | H   | LDP-13       |    | LDP-14       |    |
|------|-----|-------------|-----|-----|-----|--------------|----|--------------|----|
|      |     |             |     |     |     | No. of slots | h  | No. of slots | h  |
| 400  | 395 | 300         | 370 | 198 | 320 | 8            | 25 | 6            | 40 |
| 500  | 495 | 400         | 470 | 198 | 320 | 10           |    | 6            |    |
| 600  | 595 | 500         | 570 | 248 | 380 | 12           |    | 8            |    |
| 625  | 620 | 500         | 570 | 248 | 380 | 12           |    | 8            |    |

### Special orders

On special order, we can deliver diffuser face plates of any design. The shape and dimensions are specified in agreement with the designer or customer.

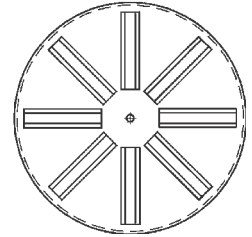
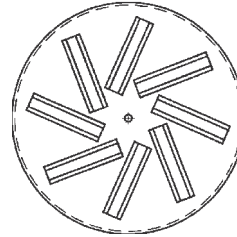
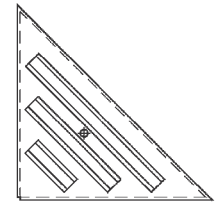
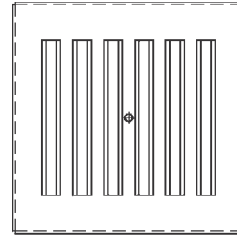
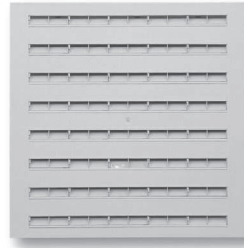
### Technical data

Technical data are determined upon the definition of the shape, design, number of discharge slots and other factors.

### Fast flow rate determination (at $L_{WA} < 35$ dB(A))

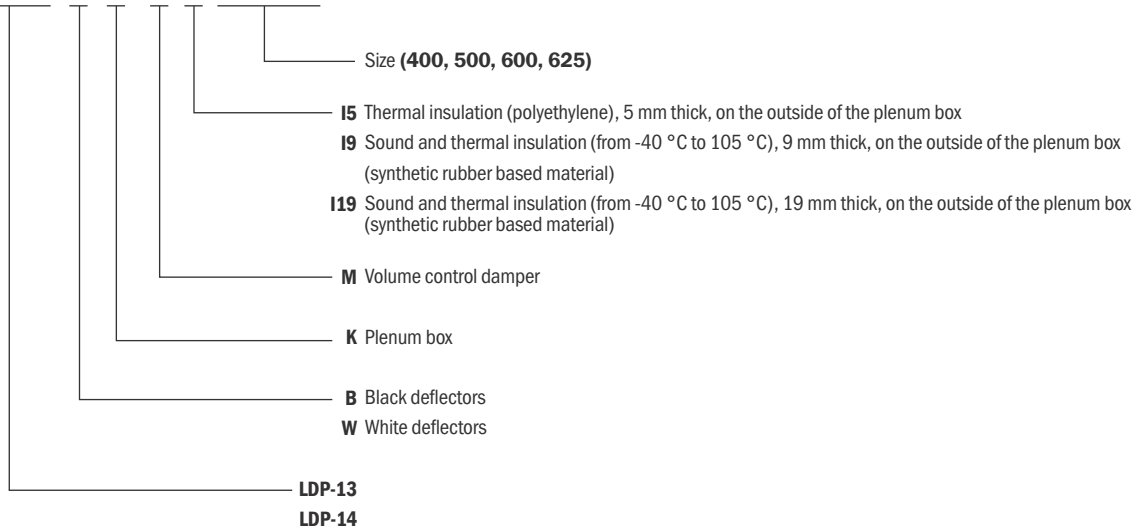
LPD-13: flow rate per 1 meter length  
 $\approx 100$  m<sup>3</sup>/h

LPD-14: flow rate per 1 meter length  
 $\approx 150$  m<sup>3</sup>/h



### Ordering key

#### LDP-13/B/K/M/I Size 400



#### Note:

- Please specify the deflector colour in your order.
- Versions with insulation on the inside of the plenum box are also available.