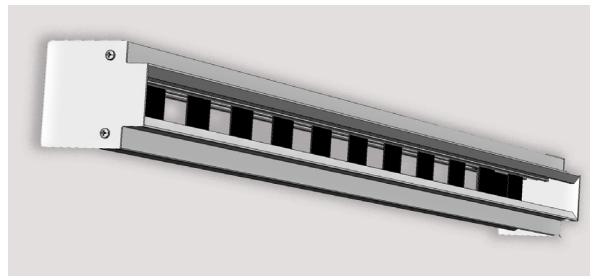


# HIDDEN MULTI-SLOT LINEAR DIFFUSERS



## Series EDLH-EDLHB

Hidden linear diffuser with single or multi slots, width 20 or 30 mm, with aluminium aerodynamic profile and adjustable deflectors for optimal air throw control. Also available with equalizer and sliding damper.

### FEATURES

Material: aluminium;  
EDLH finish: RAL9005 black painted aluminium;  
EDLHB finish: RAL9016 white painted aluminium;  
Slots number: from 1 to 3;  
Slots width: 20 or 30 mm;  
Installation: by plenum box with mounting bridge;  
Possible dimensions in one piece:  
- Minimum length 300 mm;  
- Maximum length 2000 mm;

### USE

Diffuser suitable for both air supply and exhaust in large rooms. Its modularity allows great freedom of design. The EDLH system is designed for the use on plasterboard walls and false ceiling with width 12,5 mm.

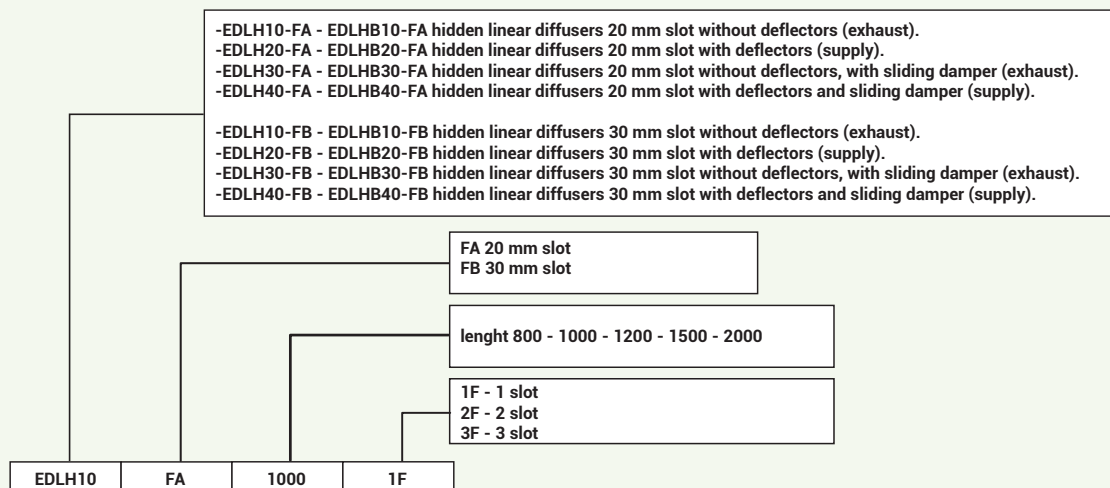
### MODELLI

- EDLH10-FA - EDLHB10-FA hidden linear diffusers 20 mm slot without deflectors (exhaust).
- EDLH20-FA - EDLHB20-FA hidden linear diffusers 20 mm slot with deflectors (supply).
- EDLH30-FA - EDLHB30-FA hidden linear diffusers 20 mm slot without deflectors, with sliding damper (exhaust).
- EDLH40-FA - EDLHB40-FA hidden linear diffusers 20 mm slot with deflectors and sliding damper (supply).
- EDLH10-FB - EDLHB10-FB hidden linear diffusers 30 mm slot without deflectors (exhaust).
- EDLH20-FB - EDLHB20-FB hidden linear diffusers 30 mm slot with deflectors (supply).
- EDLH30-FB - EDLHB30-FB hidden linear diffusers 30 mm slot without deflectors, with sliding damper (exhaust).
- EDLH40-FB - EDLHB40-FB hidden linear diffusers 30 mm slot with deflectors and sliding damper (supply).

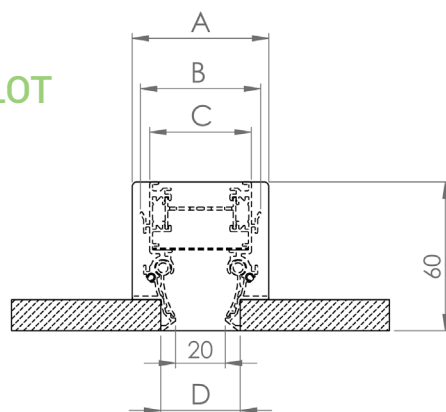
### ACCESSORI

- galvanized plenum box;
- insulated plenum box;
- mounting bridge;
- continues line kit.

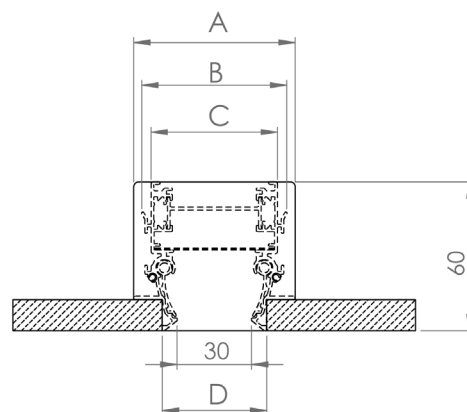
### CODE



## EDLH - EDLHB ONE SLOT DIMENSIONS



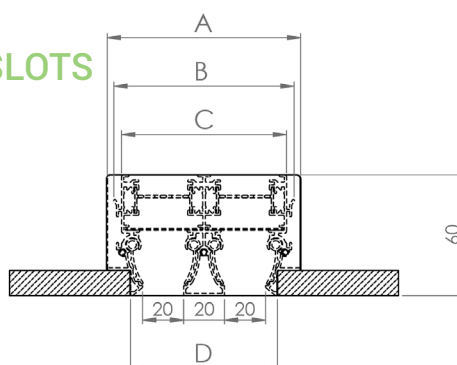
EDLH-FA 1 slot 20 mm  
EDLHB-FA 1 slot 20 mm



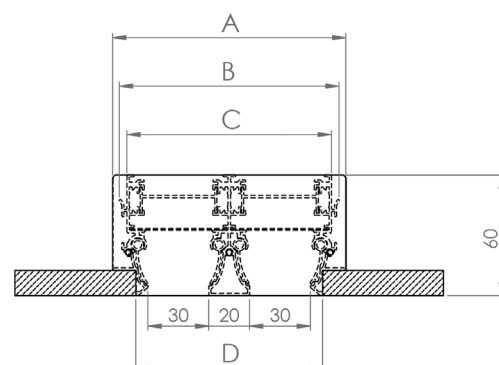
EDLH-FB 1 slot 30 mm  
EDLHB-FB 1 slot 30 mm

| One slot   | L    | A  | B  | C  | D  | number of fixing brackets |
|------------|------|----|----|----|----|---------------------------|
| 20 mm slot | 800  | 55 | 48 | 41 | 34 | 2                         |
|            | 1000 |    |    |    |    | 2                         |
|            | 1200 |    |    |    |    | 2                         |
|            | 1500 |    |    |    |    | 2                         |
|            | 2000 |    |    |    |    | 2                         |
| 30 mm slot | 800  | 65 | 58 | 51 | 44 | 2                         |
|            | 1000 |    |    |    |    | 2                         |
|            | 1200 |    |    |    |    | 2                         |
|            | 1500 |    |    |    |    | 2                         |
|            | 2000 |    |    |    |    | 2                         |

## EDLH - EDLHB TWO SLOTS DIMENSIONS



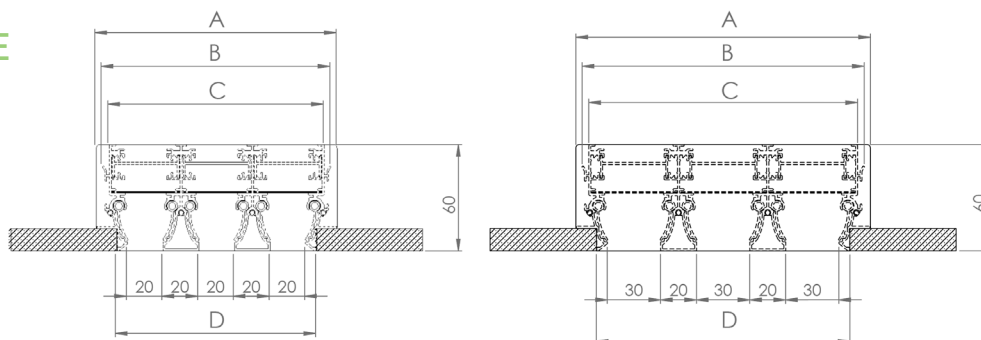
EDLH-FA 2 slots 20 mm  
EDLHB-FA 2 slots 20 mm



EDLH-FB 2 slots 30 mm  
EDLHB-FB 2 slots 30 mm

| Two slots   | L    | A   | B   | C   | D  | number of fixing brackets |
|-------------|------|-----|-----|-----|----|---------------------------|
| 20 mm slots | 800  | 95  | 88  | 81  | 74 | 2                         |
|             | 1000 |     |     |     |    | 2                         |
|             | 1200 |     |     |     |    | 2                         |
|             | 1500 |     |     |     |    | 2                         |
|             | 2000 |     |     |     |    | 2                         |
| 30 mm slots | 800  | 115 | 108 | 101 | 94 | 2                         |
|             | 1000 |     |     |     |    | 2                         |
|             | 1200 |     |     |     |    | 2                         |
|             | 1500 |     |     |     |    | 2                         |
|             | 2000 |     |     |     |    | 2                         |

## EDLH - EDLHB THREE SLOTS DIMENSIONS



**EDLH-FA 3 slots 20 mm**  
**EDLHB-FA 3 slots 20 mm**

**EDLH-FB 3 slots 30 mm**  
**EDLHB-FB 3 slots 30 mm**

| three slots | L    | A   | B   | C   | D   | number of fixing brackets |
|-------------|------|-----|-----|-----|-----|---------------------------|
| 20 mm slots | 800  | 135 | 128 | 121 | 114 | 2                         |
|             | 1000 |     |     |     |     | 2                         |
|             | 1200 |     |     |     |     | 2                         |
|             | 1500 |     |     |     |     | 2                         |
|             | 2000 |     |     |     |     | 3                         |
| 30 mm slots | 800  | 165 | 158 | 151 | 144 | 2                         |
|             | 1000 |     |     |     |     | 2                         |
|             | 1200 |     |     |     |     | 2                         |
|             | 1500 |     |     |     |     | 2                         |
|             | 2000 |     |     |     |     | 3                         |

## OPERATING DATA

Data referring to 1m long diffusers, with a terminal throw speed  $V_t=0.25$  m/s, in ceiling installations and with lateral launch with coanda effect.

Data referring to diffusers without damper or with open sliding damper.

Data referring to diffusers with deflectors in the working position with a 50% reduction of the air passage surface.

The position of the deflectors reduces the effective cross-section. When the deflectors are fully open, or when the diffuser is used for exhaust air, the flow rates (expressed in  $m^3/h$ ) indicated in the table can change.

| slots          | slot dimen-<br>sion | effective cross-<br>section m² | Air flow and throw |       |     |     |     |      |      |
|----------------|---------------------|--------------------------------|--------------------|-------|-----|-----|-----|------|------|
| 1 slot         | 20 mm slot          | 0,0097                         | m³/h               | 70    | 105 | 140 | 175 | 210  | 245  |
|                |                     |                                | L(m)               | 1.8   | 2.7 | 3.6 | 4.5 | 5.4  | 6.3  |
|                | 30 mm slot          | 0,0146                         | m3/h               | 105   | 158 | 210 | 262 | 315  | 368  |
|                |                     |                                | L(m)               | 1,6   | 2,5 | 3,4 | 4,2 | 5    | 5,8  |
|                |                     |                                | noise level        | dB(A) | <20 | 22  | 32  | 37   | 44   |
| 2 slots        | 20 mm slot          | 0,0194                         | m³/h               | 140   | 210 | 280 | 350 | 420  | 490  |
|                |                     |                                | L(m)               | 2,6   | 3,9 | 5,1 | 6,4 | 7,7  | 9,0  |
|                | 30 mm slot          | 0,0292                         | m³/h               | 210   | 316 | 420 | 524 | 630  | 736  |
|                |                     |                                | L(m)               | 2,3   | 3,6 | 4,9 | 6,0 | 7,1  | 8,3  |
|                |                     |                                | noise level        | dB(A) | <20 | 24  | 34  | 39   | 46   |
| 3 slots        | 20 mm slot          | 0,0291                         | m³/h               | 210   | 315 | 420 | 525 | 630  | 735  |
|                |                     |                                | L(m)               | 3,9   | 5,8 | 7,7 | 9,6 | 11,6 | 13,5 |
|                | 30 mm slot          | 0,0438                         | m³/h               | 315   | 474 | 630 | 786 | 945  | 1104 |
|                |                     |                                | L(m)               | 3,4   | 5,4 | 7,3 | 9,0 | 10,7 | 12,4 |
|                |                     |                                | noise level        | dB(A) | <20 | 26  | 36  | 41   | 48   |
| Vk             |                     |                                | m/s                | 2     | 3   | 4   | 5   | 6    | 7    |
| pressure drops |                     |                                | Pa                 | 7     | 15  | 26  | 41  | 59   | 80   |

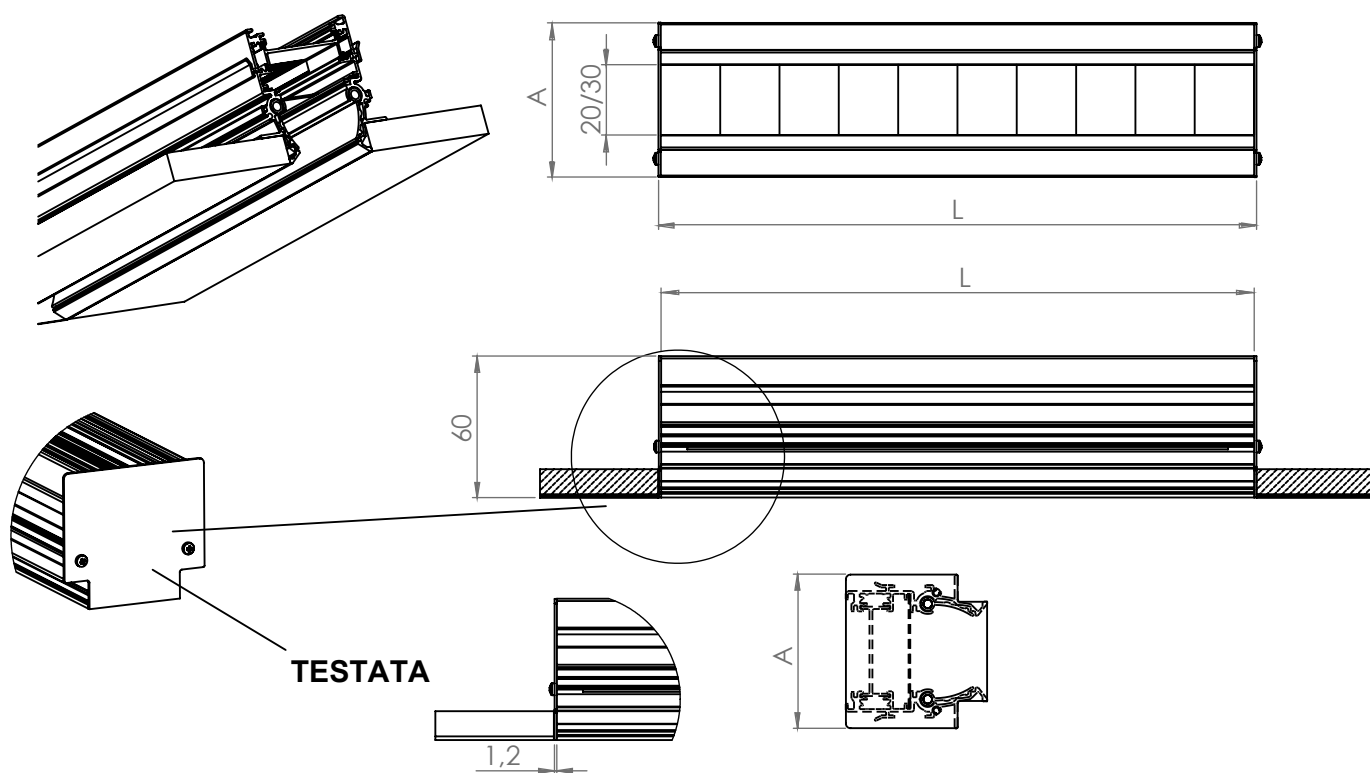
Vk: effective speed (m/s)  
 $m^3/h$ : air flow rate

Pa: pressure drops  
in Pascal

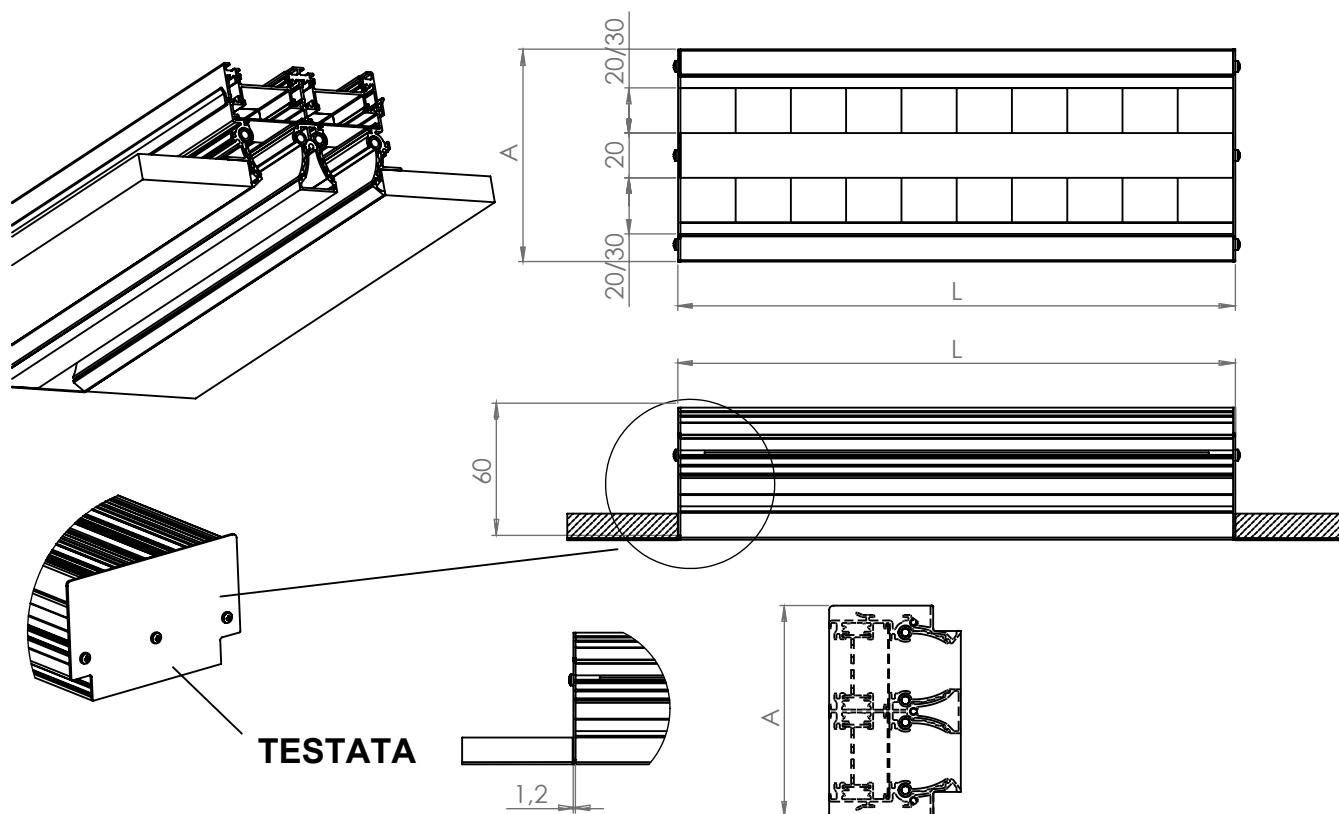
L(m): air throw in meters

dB(A): noise level

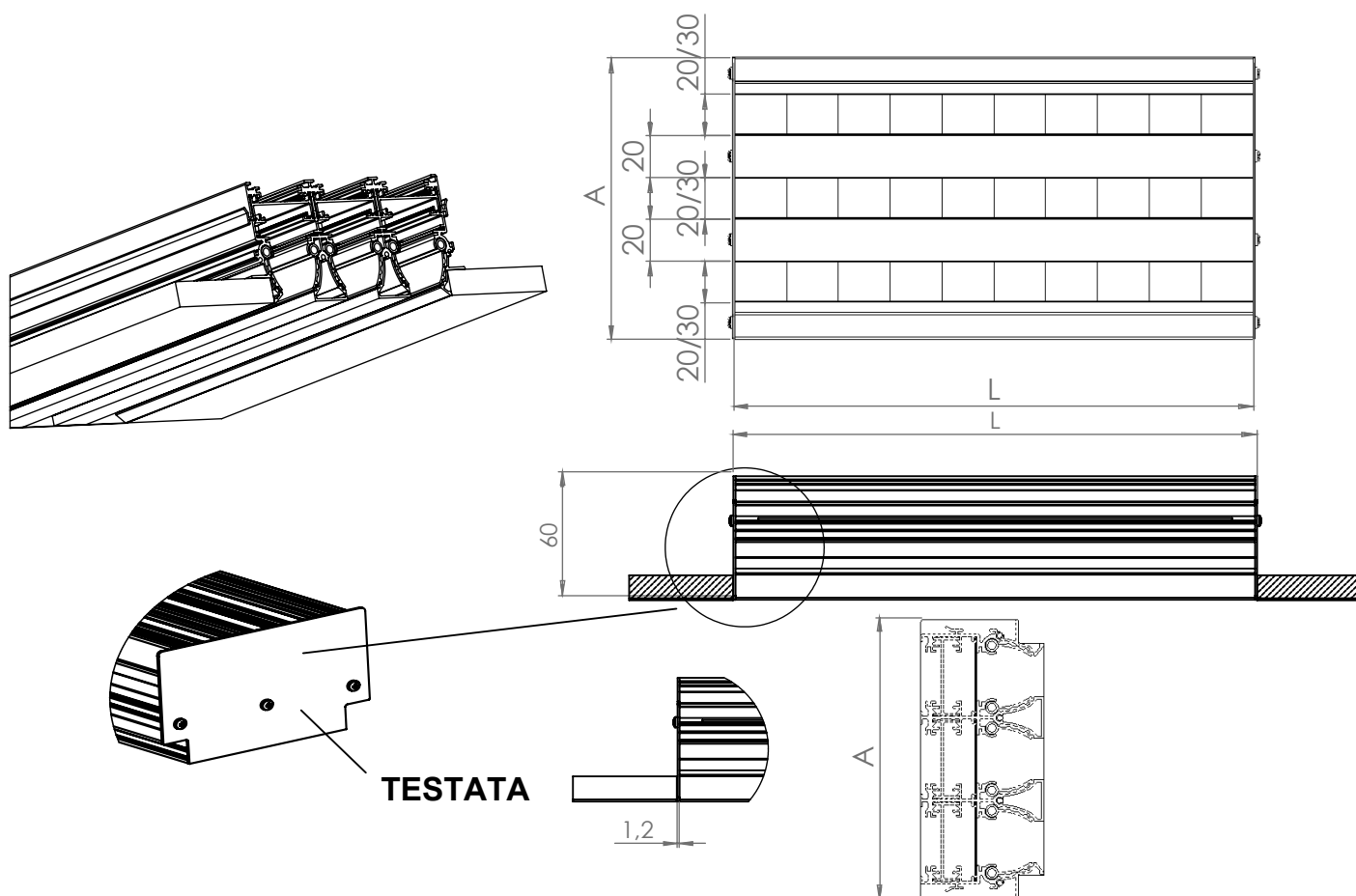
## DIMENSIONAL DETAILS OF THE 1-SLOT DIFFUSER



## DIMENSIONAL DETAILS OF THE 2-SLOT DIFFUSER



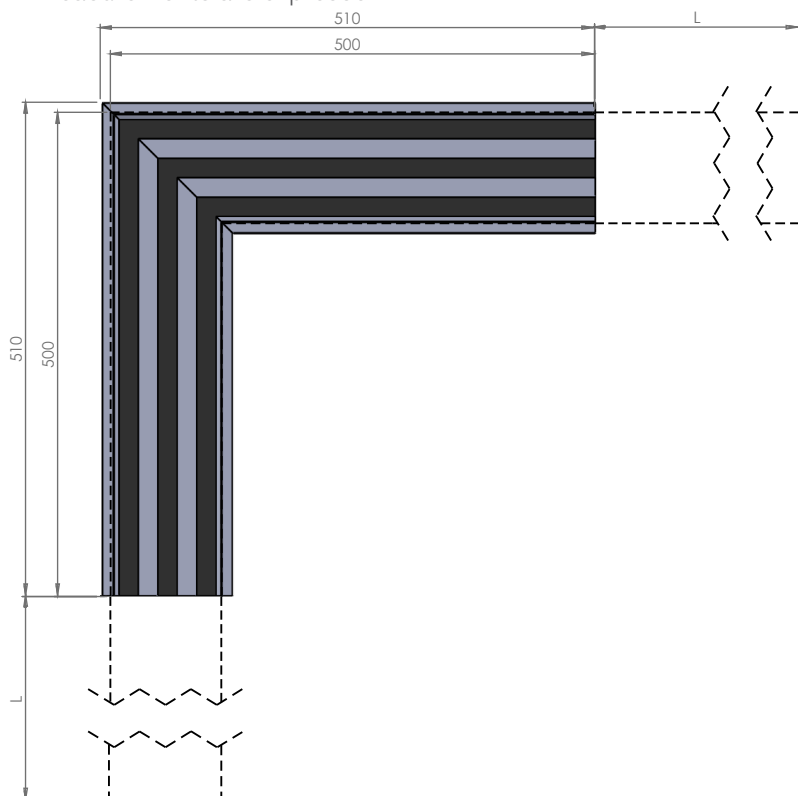
## DIMENSIONAL DETAILS OF THE 3-SLOTS DIFFUSER



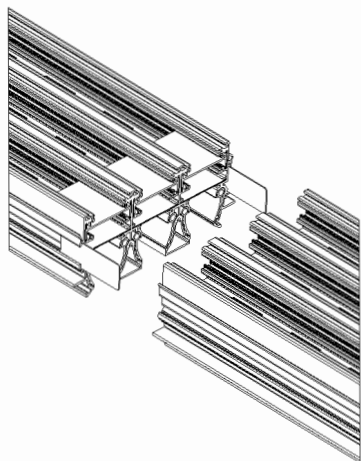
## CORNER CONNECTION

Aesthetic connecting element between two linear diffuser lines with a 90° angle and 500 mm length on each side. It has no ventilation features. The corner has the same length dimensions for the 3 versions except for the width which varies depending on the number of slots. The continuity kits must be purchased separately, not supplied with the corner element.

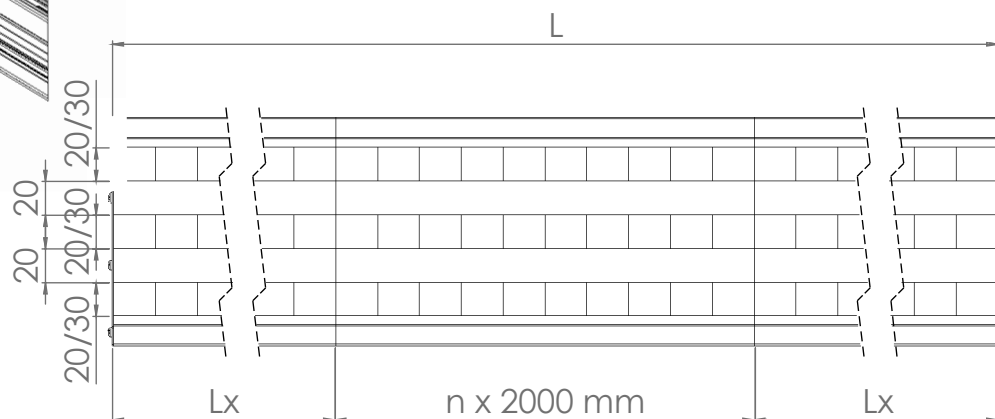
All measurements are expressed in mm.



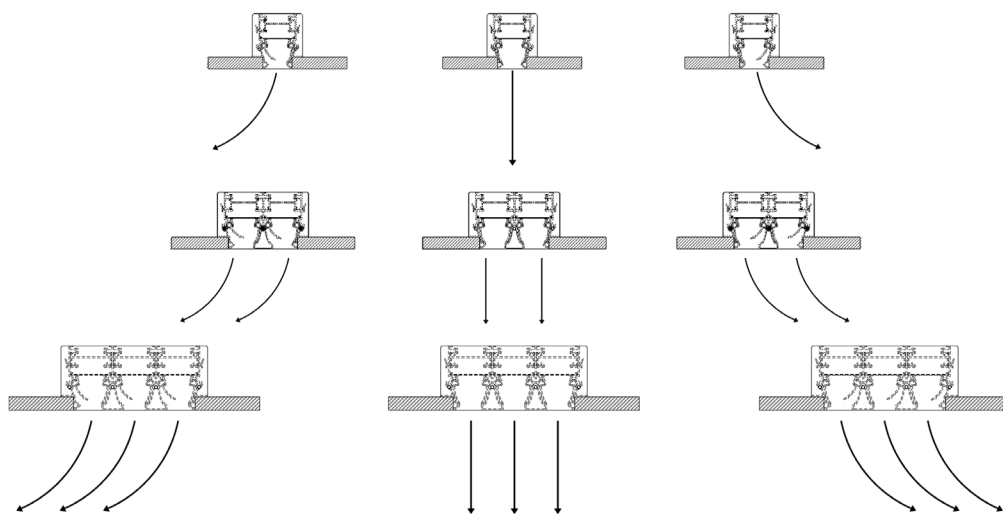
## CONTINUITY KIT



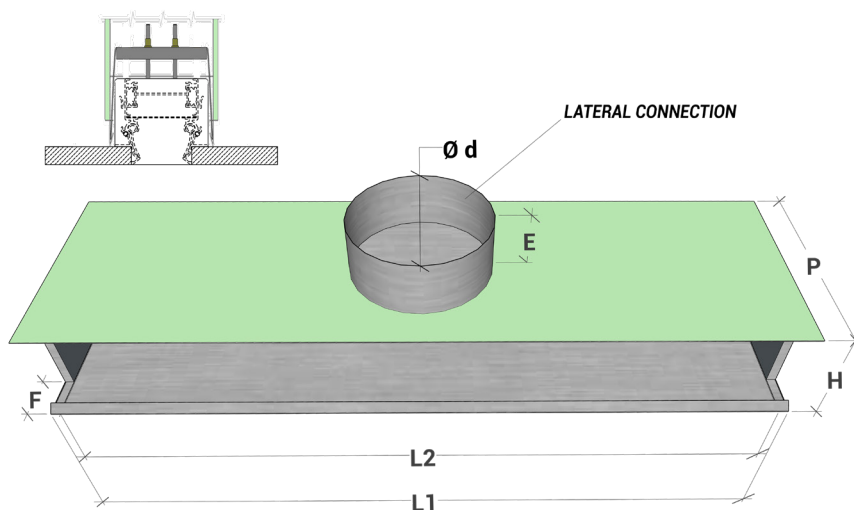
The continuity kit is an accessory required to create continuous lines of linear diffusers longer than 2 metres. It is made up of two junction plates that allow for the alignment and connection of two components of the line. It is possible to install the continuity kit in all the diffusers of the EDLH - EDLHB series for all the slot possibilities.



## AIR THROW CHARACTERISTICS



## PLENUM DIMENSIONS AND FIXING BRACKET SYSTEM



| 1 SLOT     | L    | Plenum dimensions |      |                         |     |     |    |    |    |
|------------|------|-------------------|------|-------------------------|-----|-----|----|----|----|
|            |      | L1                | L2   | No. of con-<br>nections | Ø d | P   | H  | E  | F  |
| 20 mm slot | 800  | 800               | 770  | 1                       | 145 | 240 | 65 | 80 | 49 |
|            | 1000 | 1000              | 970  | 1                       |     |     |    |    |    |
|            | 1200 | 1200              | 1170 | 2                       |     |     |    |    |    |
|            | 1500 | 1500              | 1470 | 2                       |     |     |    |    |    |
|            | 2000 | 2000              | 1970 | 2                       |     |     |    |    |    |
| 30 mm slot | 800  | 800               | 770  | 1                       | 145 | 240 | 75 | 80 | 49 |
|            | 1000 | 1000              | 970  | 1                       |     |     |    |    |    |
|            | 1200 | 1200              | 1170 | 2                       |     |     |    |    |    |
|            | 1500 | 1500              | 1470 | 2                       |     |     |    |    |    |
|            | 2000 | 2000              | 1970 | 2                       |     |     |    |    |    |

| 2 SLOTS    | L    | Plenum dimensions |      |                         |     |     |     |    |    |
|------------|------|-------------------|------|-------------------------|-----|-----|-----|----|----|
|            |      | L1                | L2   | No. of con-<br>nections | Ø d | P   | H   | E  | F  |
| 20 mm slot | 800  | 800               | 770  | 2                       | 145 | 300 | 105 | 80 | 49 |
|            | 1000 | 1000              | 970  | 2                       |     |     |     |    |    |
|            | 1200 | 1200              | 1170 | 2                       |     |     |     |    |    |
|            | 1500 | 1500              | 1470 | 2                       |     |     |     |    |    |
|            | 2000 | 2000              | 1970 | 2                       |     |     |     |    |    |
| 20 mm slot | 800  | 800               | 770  | 2                       | 198 | 300 | 125 | 80 | 49 |
|            | 1000 | 1000              | 970  | 2                       |     |     |     |    |    |
|            | 1200 | 1200              | 1170 | 2                       |     |     |     |    |    |
|            | 1500 | 1500              | 1470 | 2                       |     |     |     |    |    |
|            | 2000 | 2000              | 1970 | 2                       |     |     |     |    |    |

| 3 SLOTS    | L    | Plenum dimensions |      |                         |     |     |     |    |    |
|------------|------|-------------------|------|-------------------------|-----|-----|-----|----|----|
|            |      | L1                | L2   | No. of con-<br>nections | Ø d | P   | H   | E  | F  |
| 20 mm slot | 800  | 800               | 770  | 2                       | 198 | 300 | 145 | 80 | 49 |
|            | 1000 | 1000              | 970  | 2                       |     |     |     |    |    |
|            | 1200 | 1200              | 1170 | 2                       |     |     |     |    |    |
|            | 1500 | 1500              | 1470 | 2                       |     |     |     |    |    |
|            | 2000 | 2000              | 1970 | 2                       |     |     |     |    |    |
| 30 mm slot | 800  | 800               | 770  | 2                       | 198 | 300 | 165 | 80 | 49 |
|            | 1000 | 1000              | 970  | 2                       |     |     |     |    |    |
|            | 1200 | 1200              | 1170 | 2                       |     |     |     |    |    |
|            | 1500 | 1500              | 1470 | 2                       |     |     |     |    |    |
|            | 2000 | 2000              | 1970 | 2                       |     |     |     |    |    |