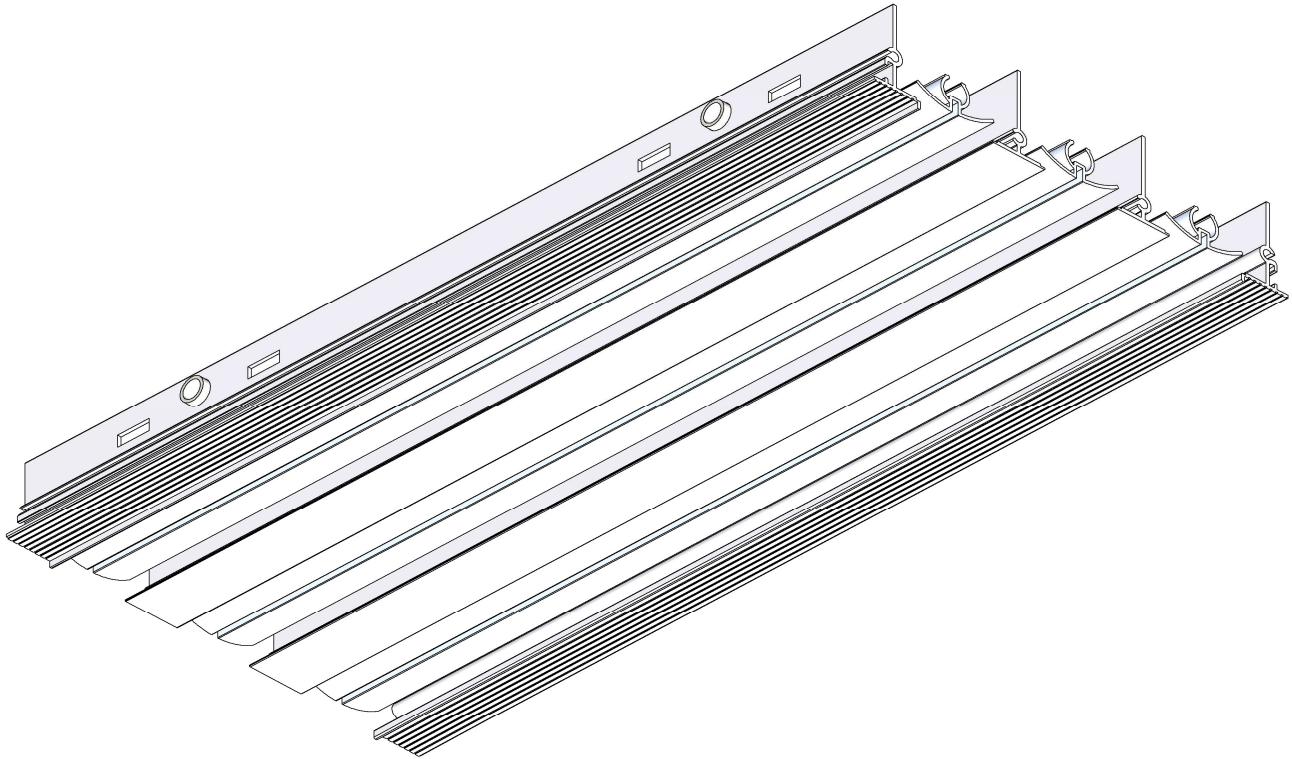




CONCEALED DESIGN SLOT DIFFUSERS

LSD SERIES

OVERVIEW



OVERVIEW:

The **LSD** series linear diffusers allow the management of high air flow rates with minimum values of pressure drop and sound power generated, guaranteeing excellent comfort conditions, absence of sensible currents and temperature uniformity even in large rooms. They also have a double deflector regulation system, two horizontal throw modes, the first exploits the Coandă effect, the second allows high flow rates to be diffused.

CHARACTERISTICS AND FUNCTIONING:

The **LSD** series diffusers consist of a body and a series of aluminium blades, the latter adjustable without removing the diffuser.

APPLICATIONS:

The **LSD** series diffusers are used in ventilation systems for rooms with ceiling heights of 3 to 6 metres, such as open-plan offices, shopping malls, hospital wards and hotel rooms.

DIFFUSER INSTALLATION:

The **LSD** series diffusers can be mounted directly on the ceiling or on special plenum by means of suspension bridges. It is possible to realise continuous lines.

FINISH:

The **LSD** series loudspeakers are made with:

Frame: anodised aluminium, white RAL 9003 matte, black RAL 9005 matte.

Deflectors: anodised aluminium, white RAL 9010 glossy, white RAL 9003 matte, black RAL 9005 matte.

Special finishes of the diffuser body can be realised on request.

UNSUITABLE ENVIRONMENTS:

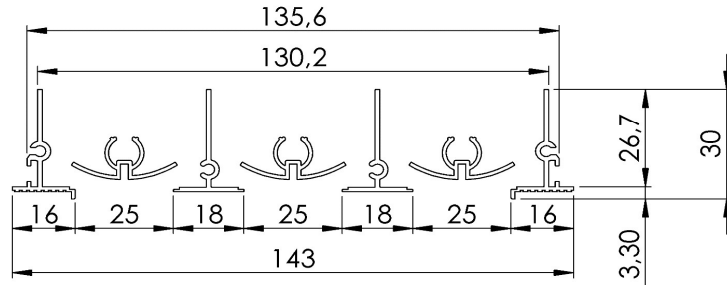
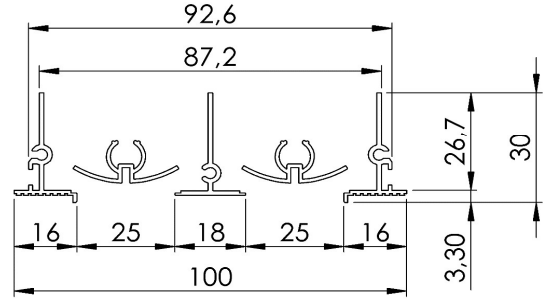
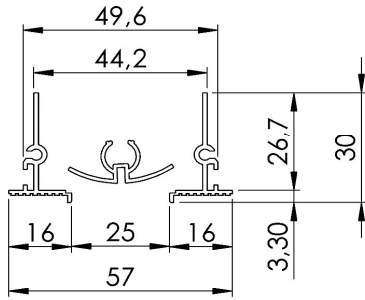
Aluminium products are not suitable for installation in environments with an atmosphere containing corrosive substances for this material and in particular containing chlorine, such as swimming pools, spas and certain types of food industries.



CONCEALED DESIGN SLOT DIFFUSERS

LSD SERIES

OVERVIEW



Effective section A_k [m²]

n° of slots	Length [mm]			
	500		1000	
	high Coanda effect	high air flow	high Coanda effect	high air flow
1	0,0047	0,0077	0,0094	0,0154
2	0,0094	0,0154	0,0189	0,0309
3	0,0142	0,0232	0,0283	0,0463

n° of slots	Length [mm]			
	1500		2000	
	high Coanda effect	high air flow	high Coanda effect	high air flow
1	0,0142	0,0232	0,0189	0,0309
2	0,0283	0,0463	0,0378	0,0618
3	0,0425	0,0695	0,0566	0,0926



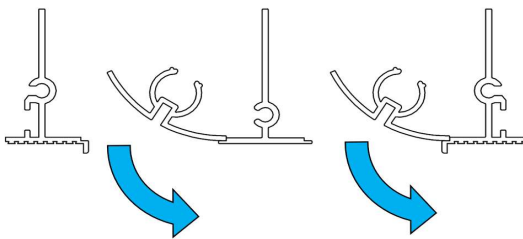
CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

OVERVIEW

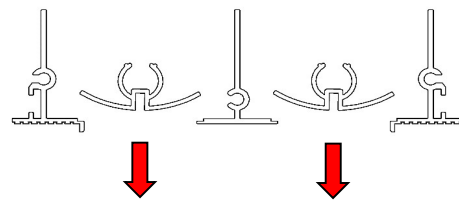
Adjustment for horizontal throw high Coandă effect

The throw flows along the ceiling
guarantees the absence of sensitive air currents
used in both cooling and heating



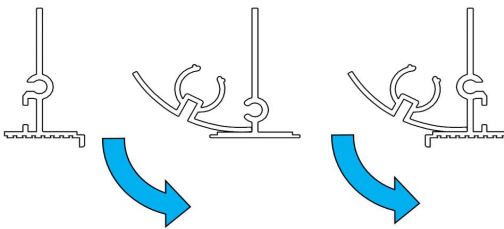
Adjustment for vertical throw

The launch penetrates directly into the room
prevents the layering effect
used in heating



Adjustment for horizontal throw high air flow

The throw flows along the ceiling
guarantees the ability to deliver high flow rates
with minimum pressure drop and sound power levels



CHOICE OF LAUNCH ORIENTATION :

The horizontal throw is the most common use of this type of diffuser, both in heating and cooling. The throw adheres to the ceiling and spreads horizontally within the room. This generates a vertical recall effect of the air already present in the room, guaranteeing perfect mixing without the presence of currents within the occupied zone. The vertical throw, used in heating, allows the warm air to be sent directly into the occupied zone, counteracting the tendency of warmer air to stratify, due to lower density, in the upper parts of the room.

The orientation of the throw is changed by rotating the deflector fin from inclined to horizontal and vice versa. The blade is rotated by acting from the outside of the diffuser using a lever at either end of each slot.

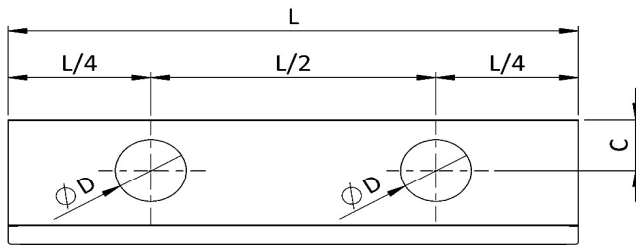
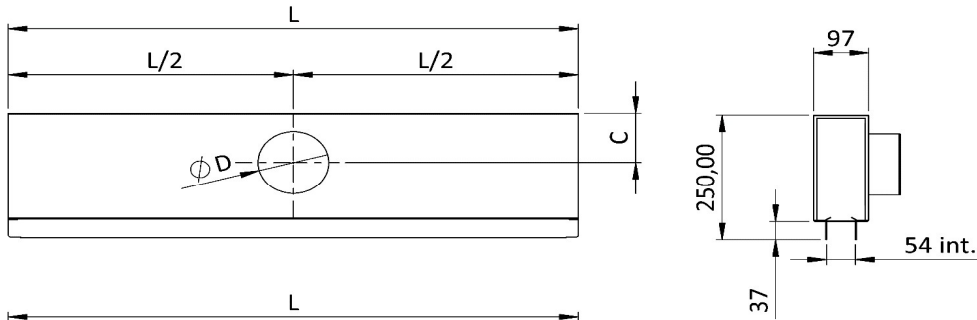


CONCEALED DESIGN SLOT DIFFUSERS

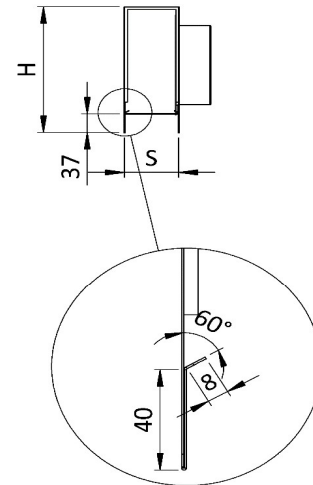
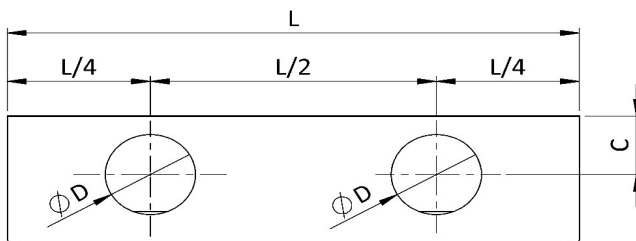
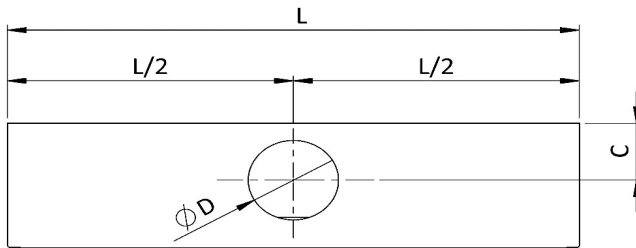
STANDARD PLENUM FOR LSD

LSD SERIES

1 slot



2-3 slots



L Nominal diffuser length

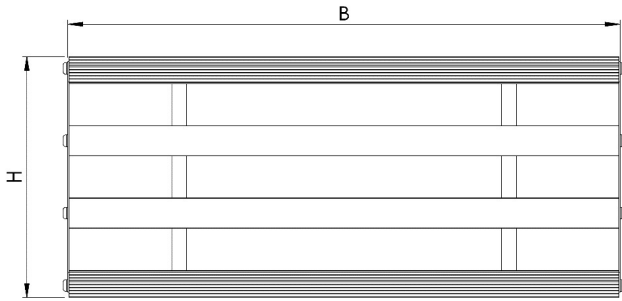
slots	H (mm)	S (mm)	C (mm)	L ≤ 1200 mm		1201 ≤ L ≤ 2000 mm		Holes in the counter ceiling
				connector qty	ØD (mm)	connector qty	ØD (mm)	
1	250	54	100	1	124	2	124	L+10 x 59
2	250	95	115	1	158	2	158	L+10 x 102
3	320	138	135	1	198	2	198	L+10 x 145



CONCEALED DESIGN SLOT DIFFUSERS

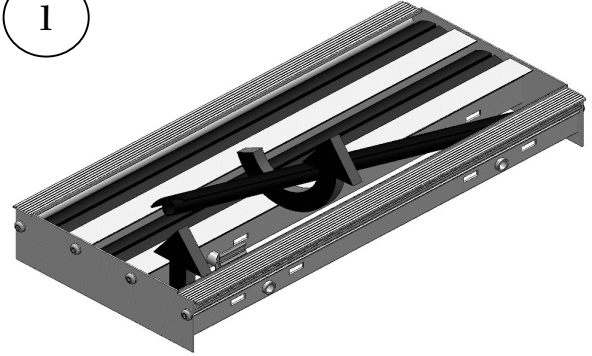
LSD SERIES

DIFFUSER INSTALLATION WITHOUT PLENUM



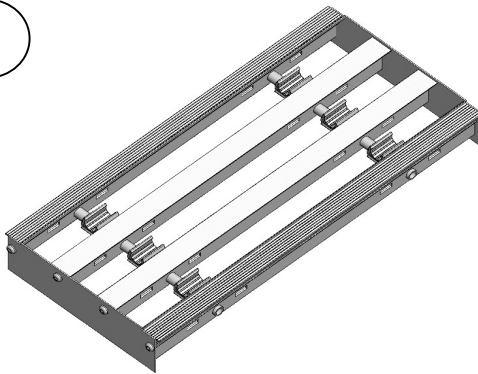
dimensions of the
hole in the ceiling
B+10 X H+2

1



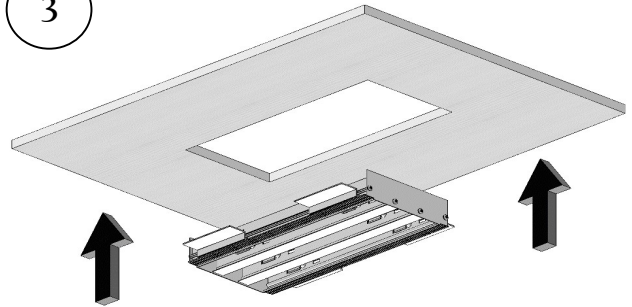
Remove the first deflector by turning and pushing it

2



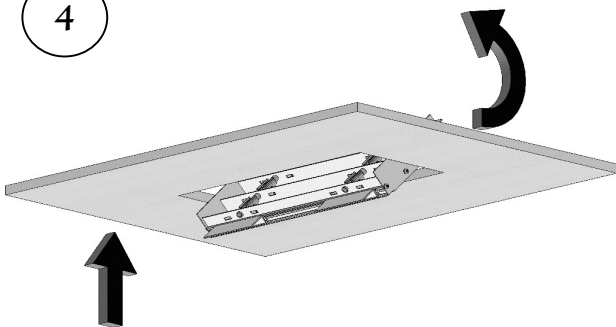
Remove all deflectors

3



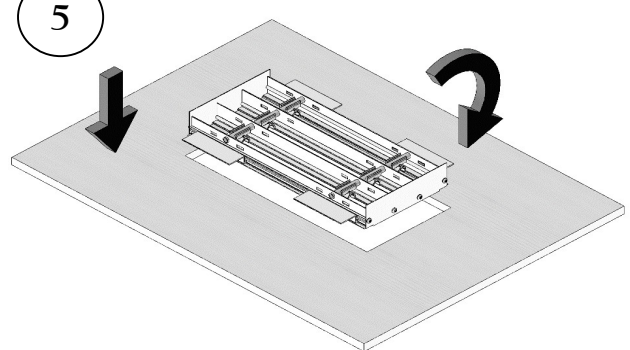
Insert the diffuser into the hole in the ceiling

4



Rotate the diffuser to facilitate entry

5



Place the diffuser inside the hole

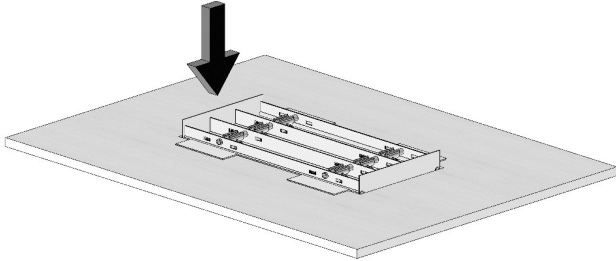


CONCEALED DESIGN SLOT DIFFUSERS

LSD SERIES

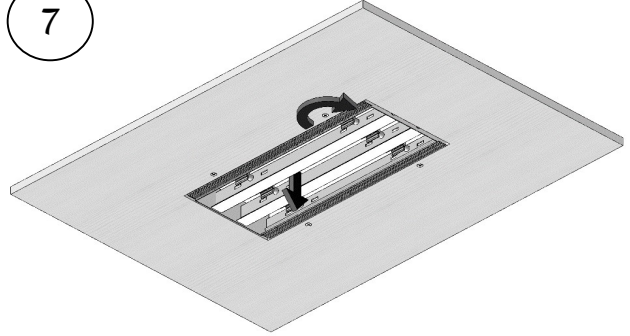
DIFFUSER INSTALLATION WITHOUT PLENUM

6



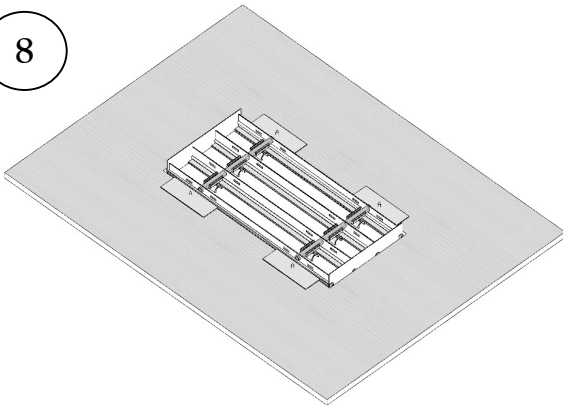
Attach the anchoring bayonets to the suspended ceiling

7

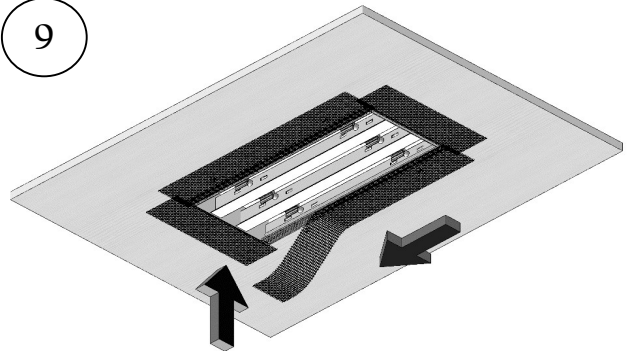


Keeping the diffuser in contact with the counter ceiling insert a self-drilling screw from bottom to top at each bayonet

8

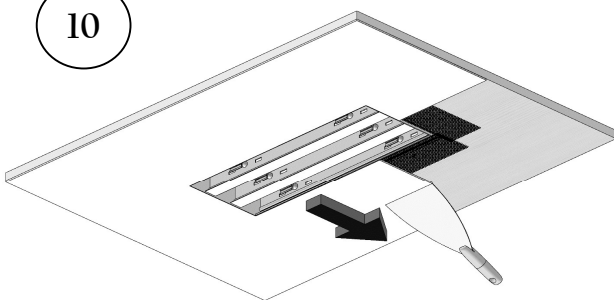


9



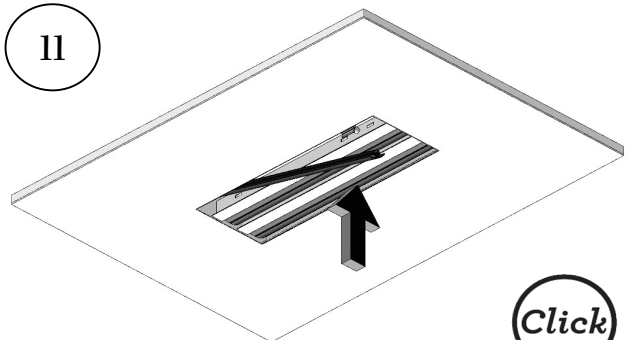
Apply plasterboard joint-covering tape

10



Apply skimming filler

11



Click

Refit the deflectors by attaching them to the appropriate



CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

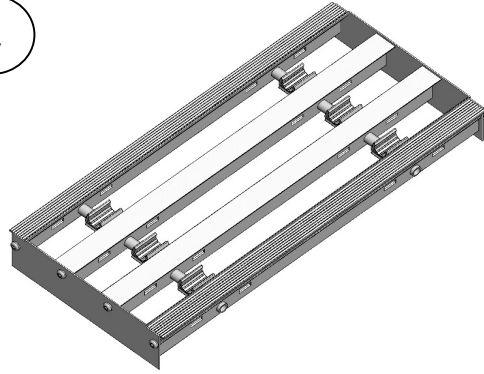
DIFFUSER INSTALLATION
WITH PLENUM AND QUICK FIXES

1



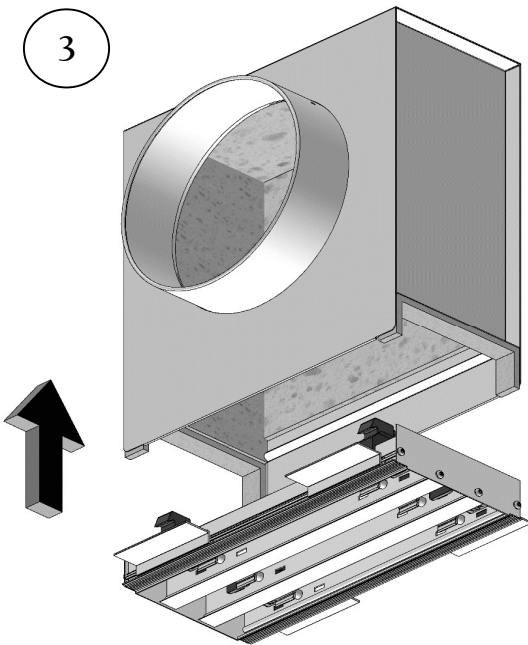
Remove the first deflector by turning and pushing it

2



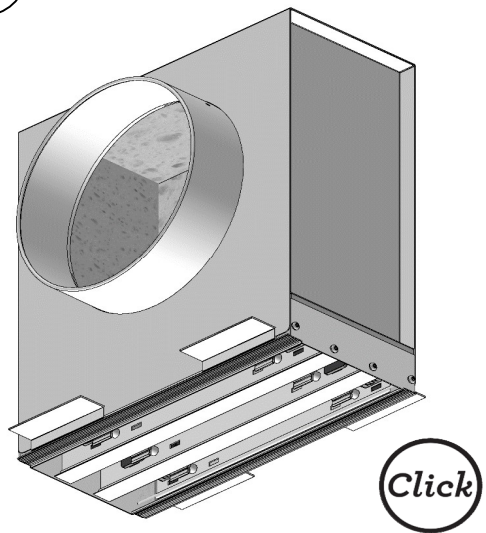
Remove all deflectors

3



Insert the diffuser inside the plenum

4



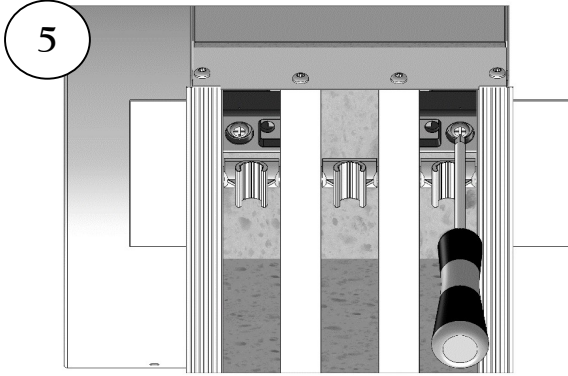
Attach the quick fixes to the plenum



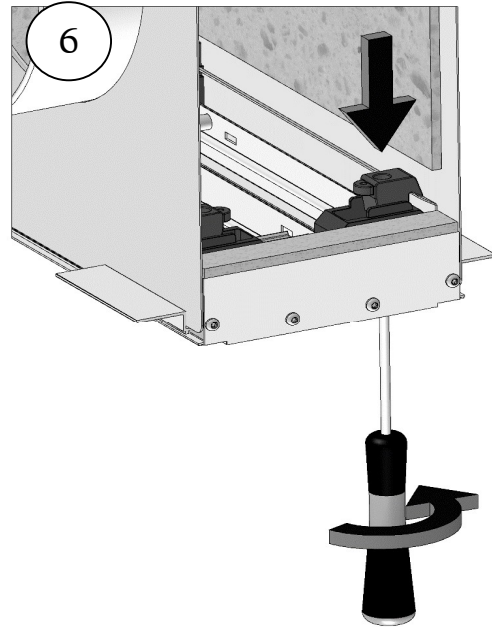
CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

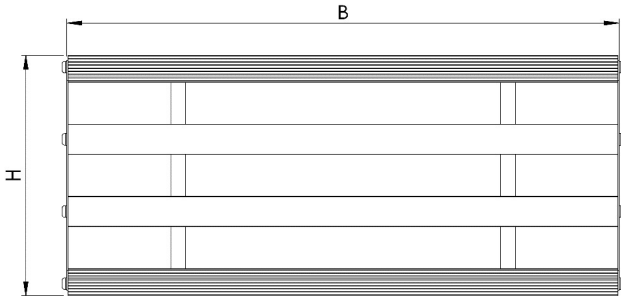
DIFFUSER INSTALLATION WITH PLENUM AND QUICK FIXES



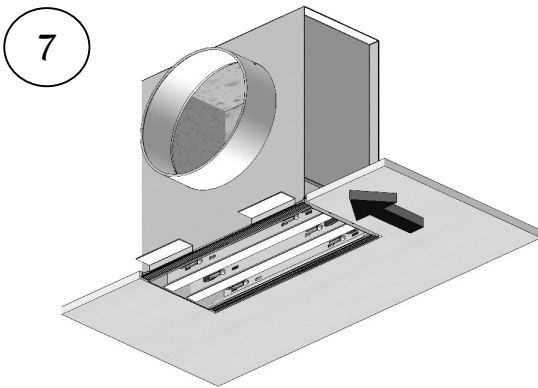
Insert a screwdriver



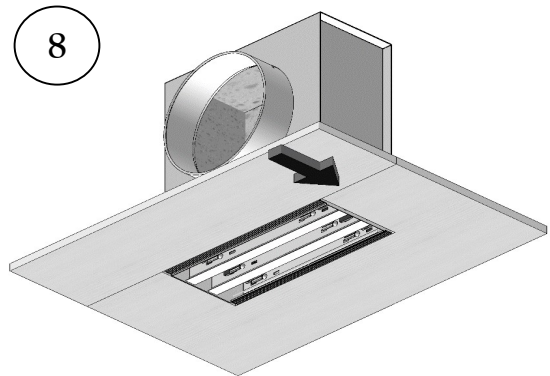
Tighten the screws of the quick fixes



dimensions of the
hole in the ceiling
 $B+10 \times H+2$



Add the first piece of plasterboard



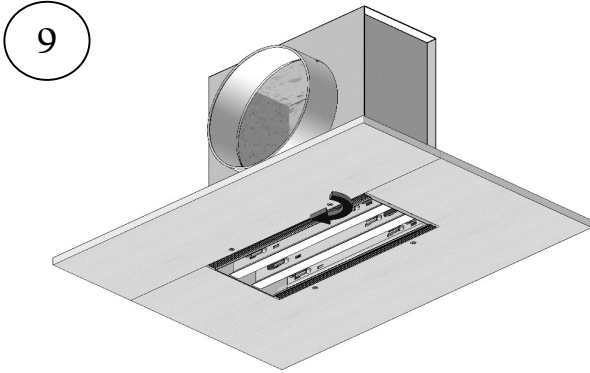
Add the second piece of plasterboard



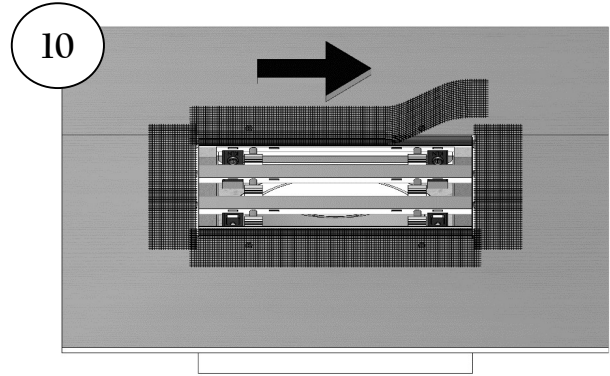
CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

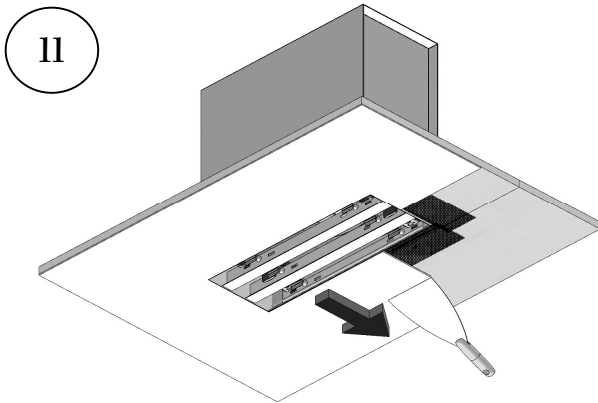
DIFFUSER INSTALLATION
WITH PLENUM AND QUICK FIXS



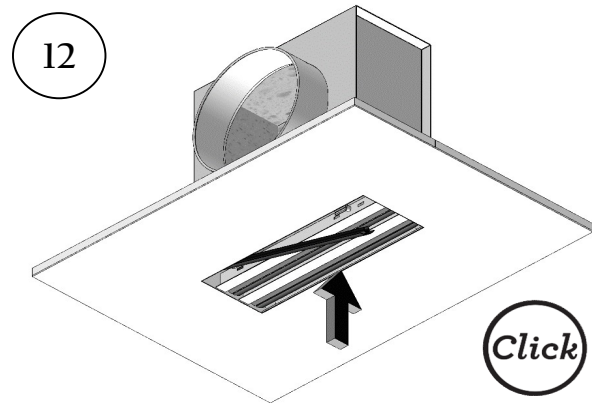
Tighten one screw per bayonet



Apply plasterboard joint-covering tape



Apply skimming filler



Reinstall the deflectors by attaching them to the appropriate clips



CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

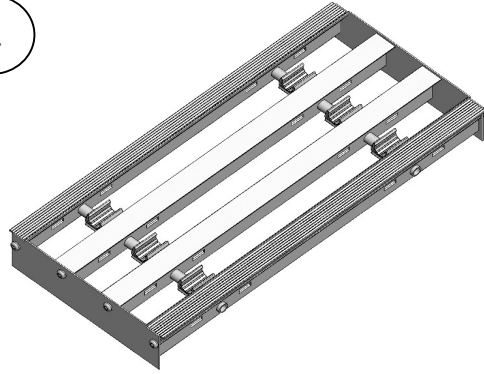
DIFFUSER INSTALLATION
WITH PLENUM WITHOUT QUICK FIXES

1



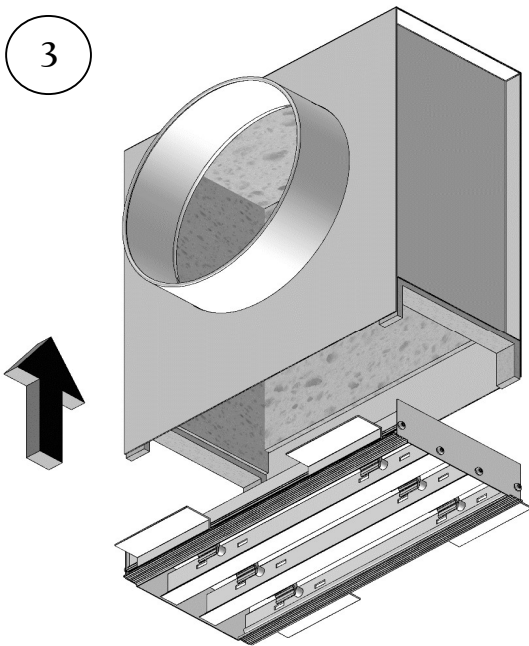
Remove the first deflector by turning and pushing it

2



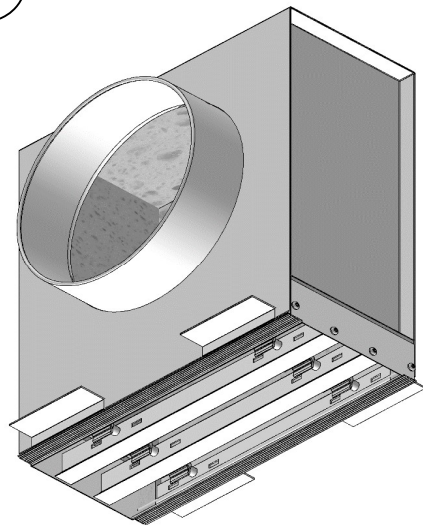
Remove all deflectors

3



Insert the diffuser inside the plenum

4



Bring the plenum to a stop on the anchorage bayonets

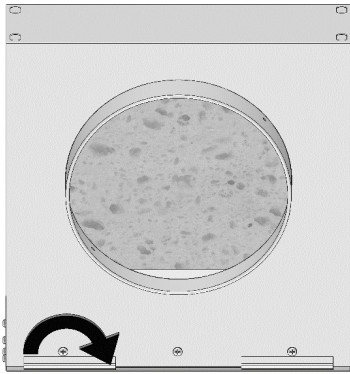


CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

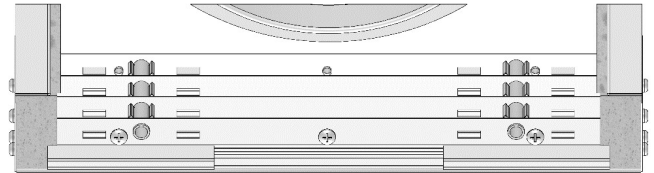
DIFFUSER INSTALLATION WITH PLENUM WITHOUT QUICK FIXS

5

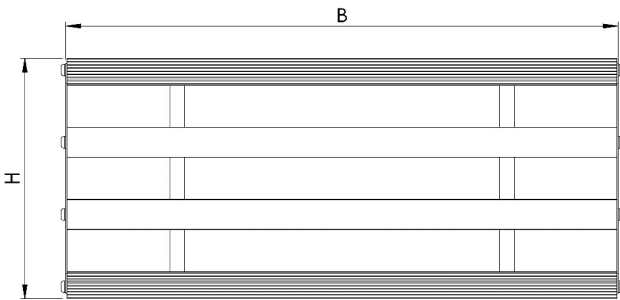


Fasten the plenum and diffuser frame with self-drilling screws

6

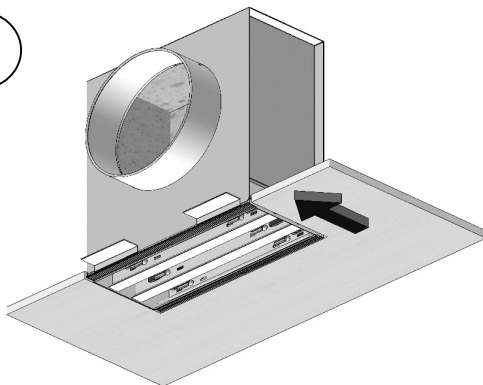


When fixing with screws, take care not to damage the diffuser



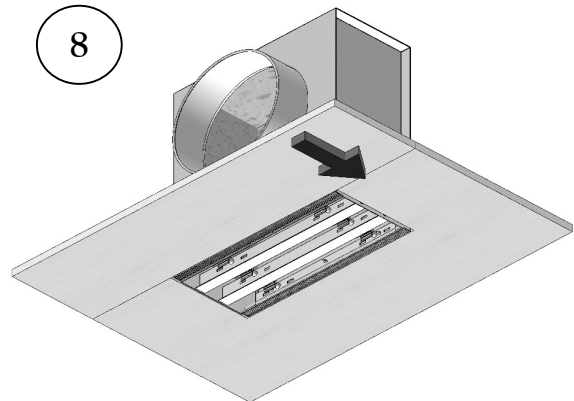
dimensions of the
hole in the ceiling
B+10 X H+2

7



Add the first piece of plasterboard

8



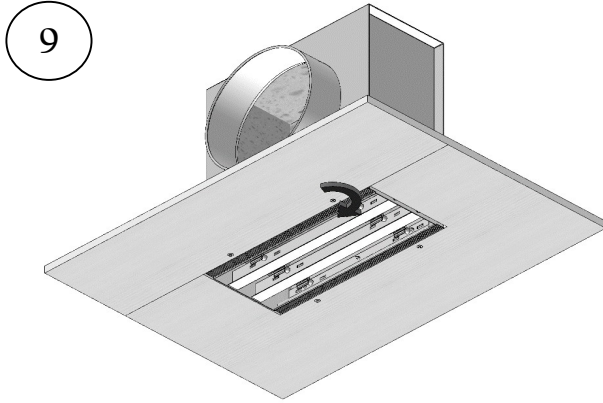
Add the second piece of plasterboard



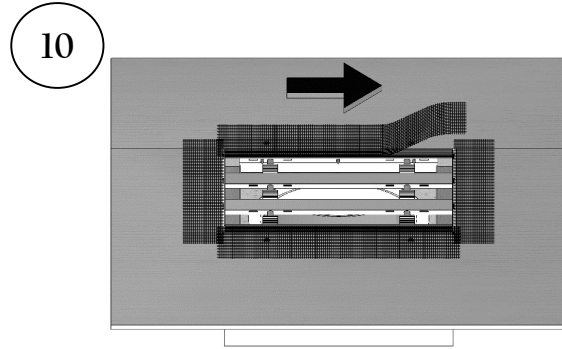
CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

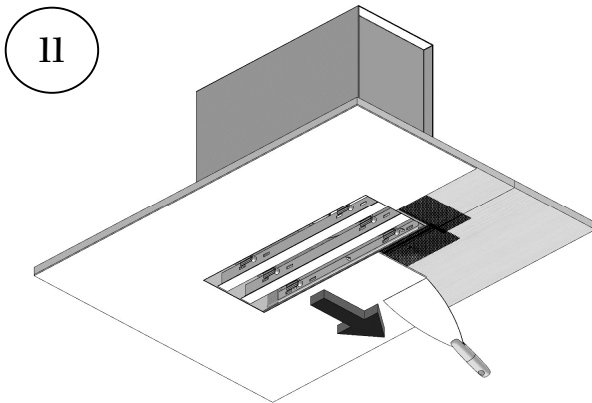
DIFFUSER INSTALLATION
WITH PLENUM WITHOUT QUICK FIXS



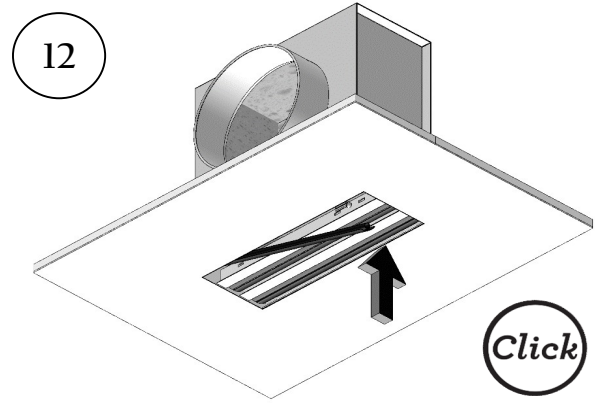
Tighten one screw per bayonet



Apply plasterboard joint-covering tape



Apply skimming filler



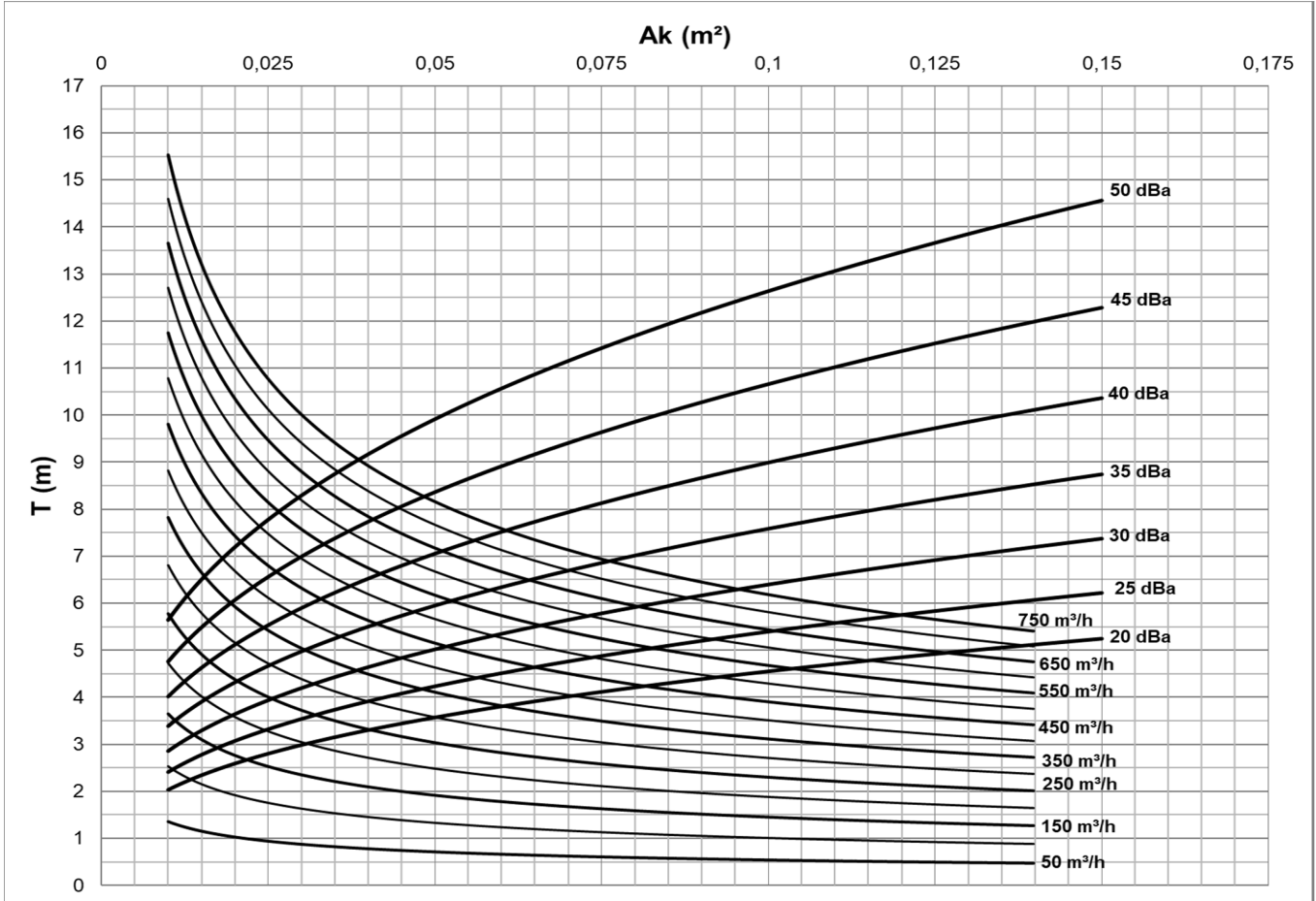
Reinstall the deflectors by attaching them to the appropriate clips



**CONCEALED DESIGN
SLOT DIFFUSERS**

**LSD
SERIES**

PERFORMANCE



T= Launch with terminal velocity 0.2m/s

Effective section Ak [m²]

n° of slots	Length [mm]			
	500		1000	
	high Coanda effect	high air flow	high Coanda effect	high air flow
1	0,0047	0,0077	0,0094	0,0154
2	0,0094	0,0154	0,0189	0,0309
3	0,0142	0,0232	0,0283	0,0463

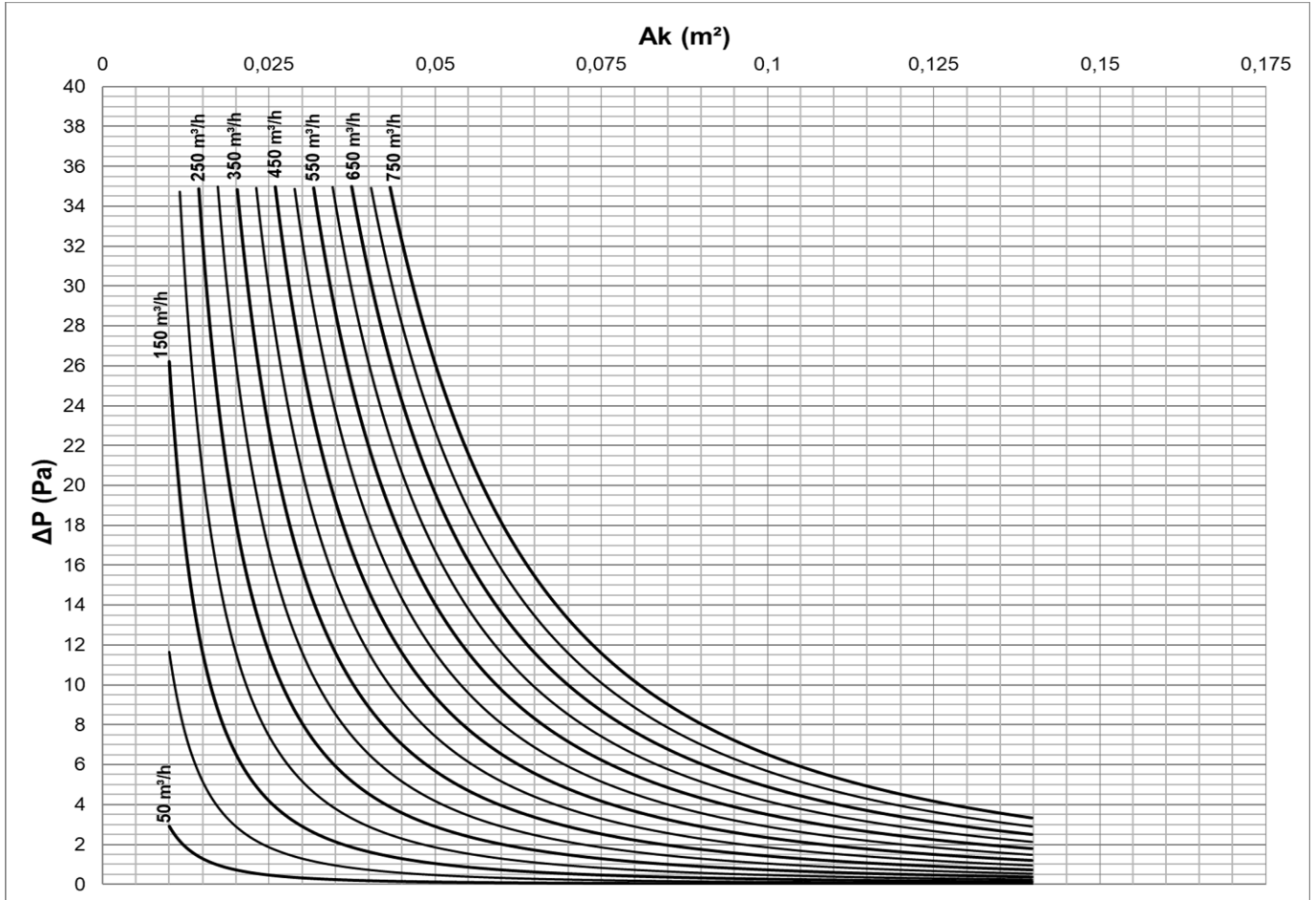
n° of slots	Length [mm]			
	1500		2000	
	high Coanda effect	high air flow	high Coanda effect	high air flow
1	0,0142	0,0232	0,0189	0,0309
2	0,0283	0,0463	0,0378	0,0618
3	0,0425	0,0695	0,0566	0,0926



CONCEALED DESIGN SLOT DIFFUSERS

LSD SERIES

PERFORMANCE



Effective section A_k [m²]

n° of slots	Length [mm]			
	500		1000	
	high Coanda effect	high air flow	high Coanda effect	high air flow
1	0,0047	0,0077	0,0094	0,0154
2	0,0094	0,0154	0,0189	0,0309
3	0,0142	0,0232	0,0283	0,0463

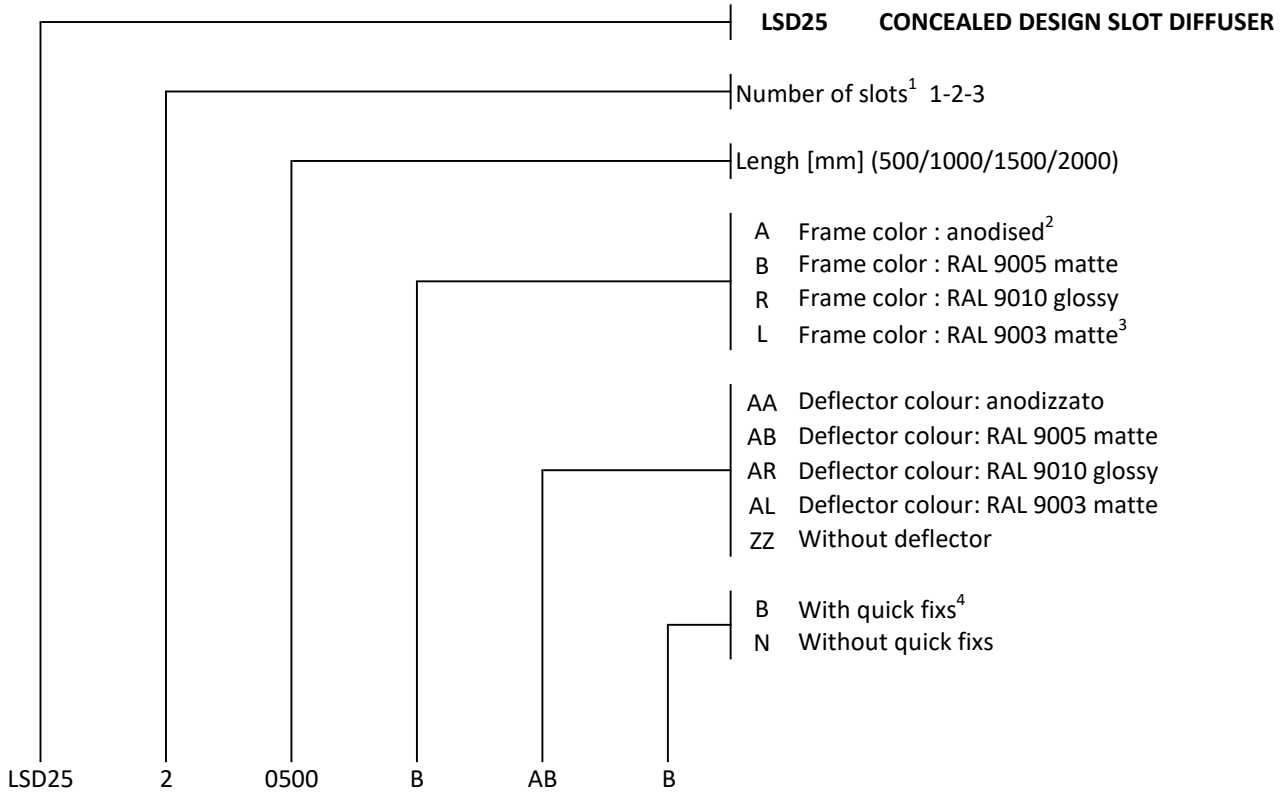
n° of slots	Length [mm]			
	1500		2000	
	high Coanda effect	high air flow	high Coanda effect	high air flow
1	0,0142	0,0232	0,0189	0,0309
2	0,0283	0,0463	0,0378	0,0618
3	0,0425	0,0695	0,0566	0,0926



CONCEALED DESIGN SLOT DIFFUSERS

LSD
SERIES

HOW TO ORDER



- 1 Up to 6 slits on request
- 2 Raw aluminium side frames
- 3 Side frames in RAL 9010 glossy
- 4 Mandatory in case of diffuser with P94A Lindab plenum:

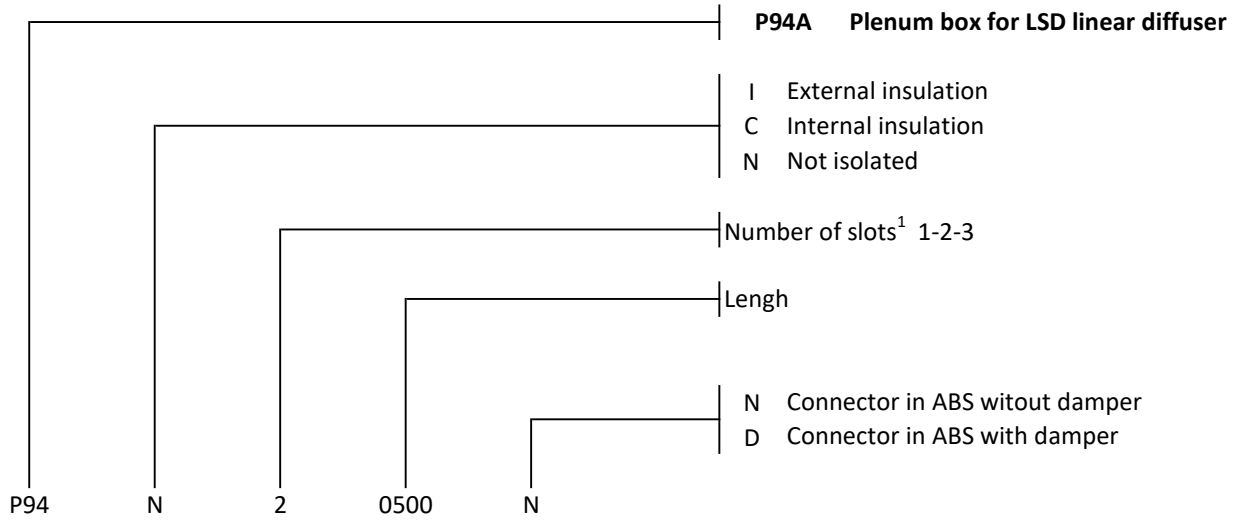
NUMBER OF PLANNED QUICK FIXES
Diffuser 1 slot Length up to 1500mm: 2 quick-fixes Length over 1500mm: 4 quick-fixes
Diffuser 2-3 slots Length up to 1500mm: 4 quick-fixes Length over 1500mm: 6 quick-fixes



CONCEALED DESIGN SLOT DIFFUSERS

LSD SERIES

HOW TO ORDER PLENUM



1 Up to 6 slots on request

As standard, plenums are supplied unmounted on the diffuser

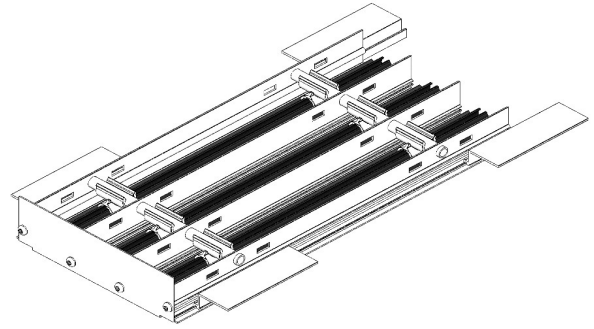
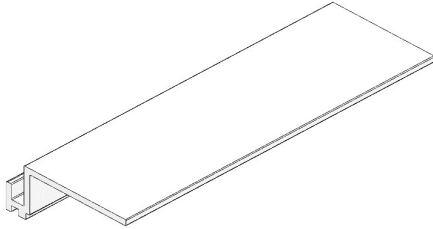


CONCEALED DESIGN SLOT DIFFUSERS

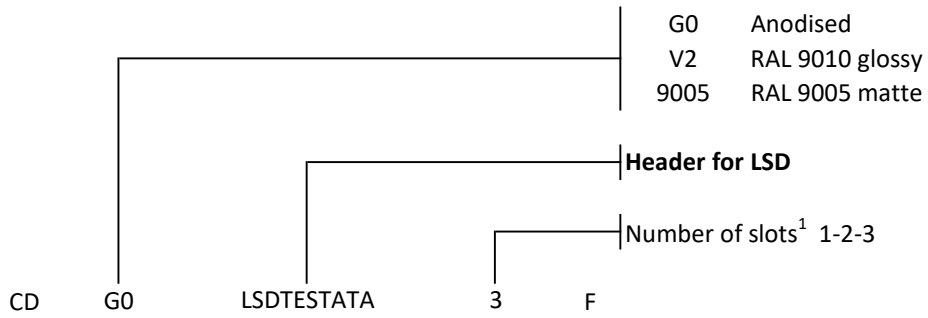
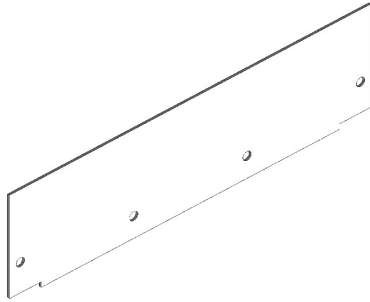
LSD
SERIES

ACCESSORIES

PR-G0-LSDPA
Bayonet for fixing the deflector

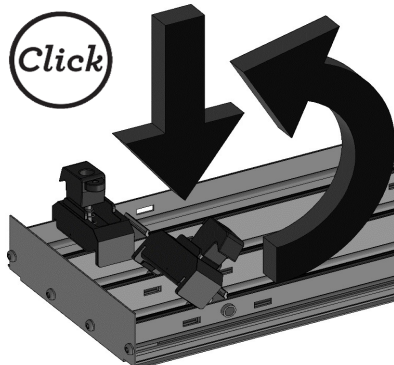
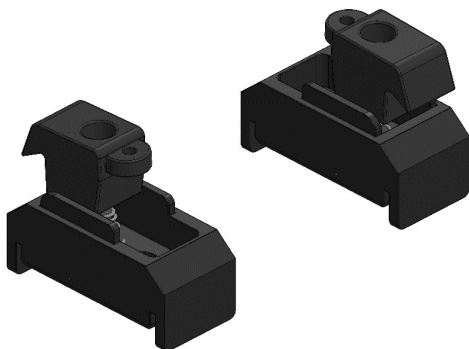


CD-G0-LSDTESTATA-3F
Standard aluminium header



¹ Up to 6 slots, on request

KLN-QF2
Pair of Quick Fix hooks



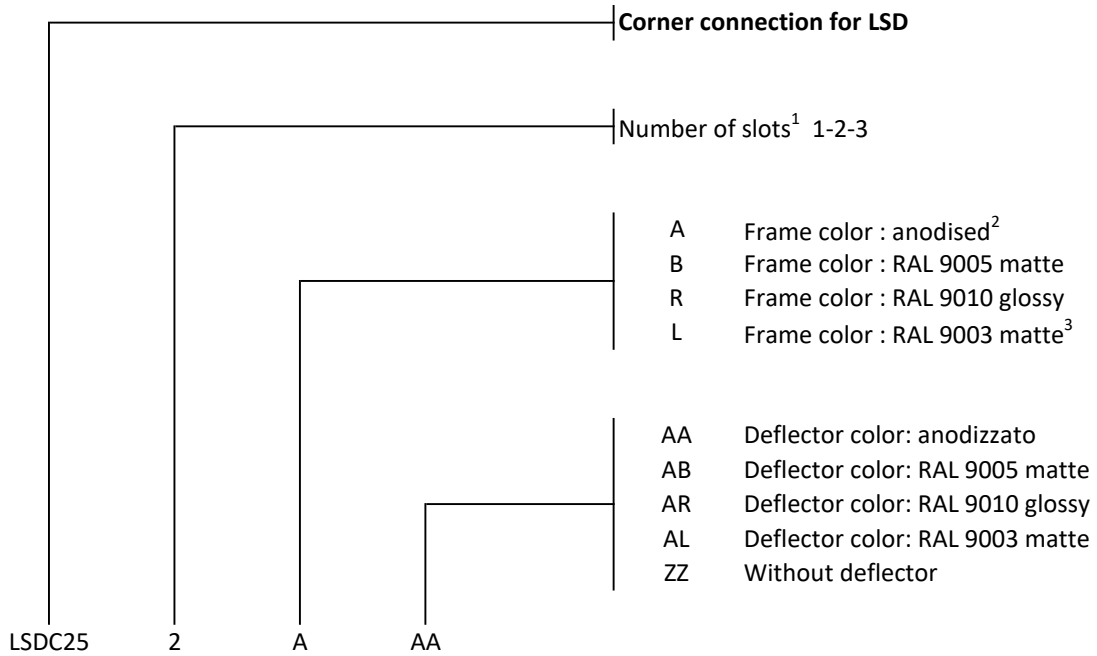
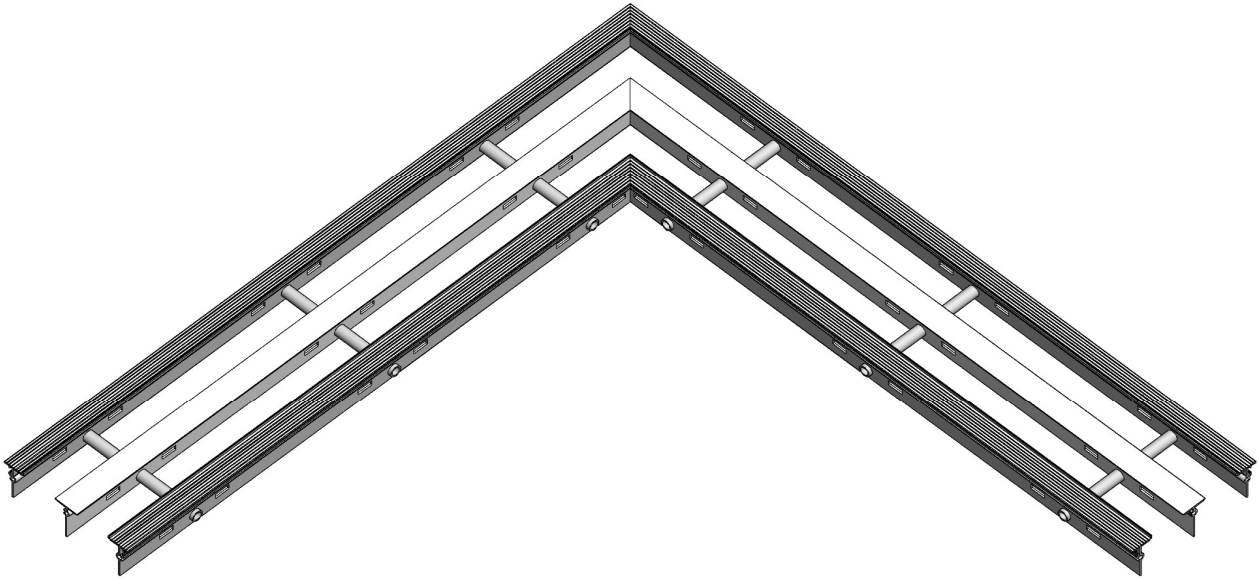


**CONCEALED DESIGN
SLOT DIFFUSERS**

**LSD
SERIES**

ACCESSORIES

LSDC Corner connection



- 1 Up to 6 slots on request
- 2 Raw aluminium side frames
- 3 Side frames in RAL 9010 glossy

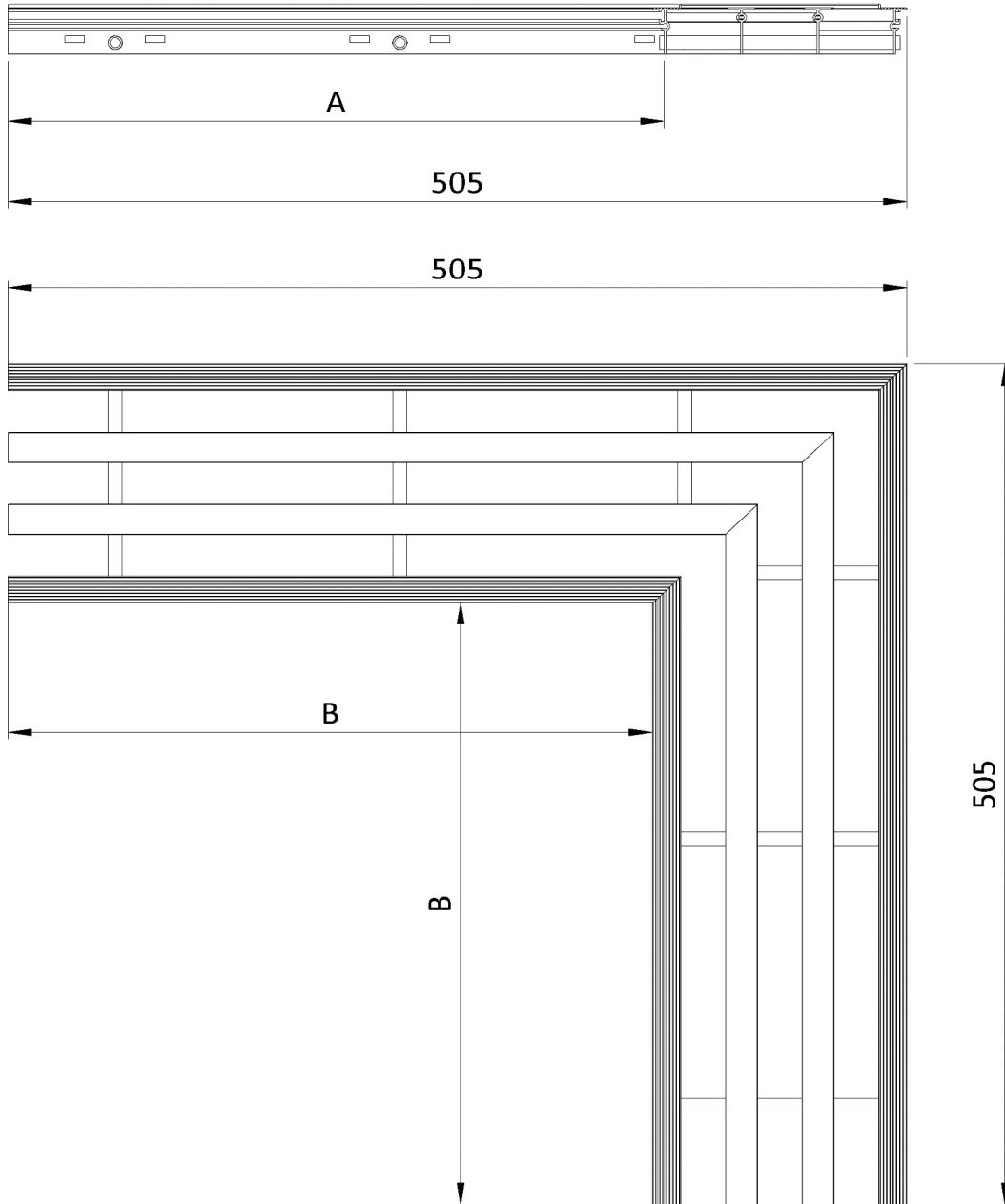


**CONCEALED DESIGN
SLOT DIFFUSERS**

**LSD
SERIES**

ACCESSORIES

LSDC Corner connection



number of slots	A	B
	mm	mm
1	455	448
2	412	405
3	369	362

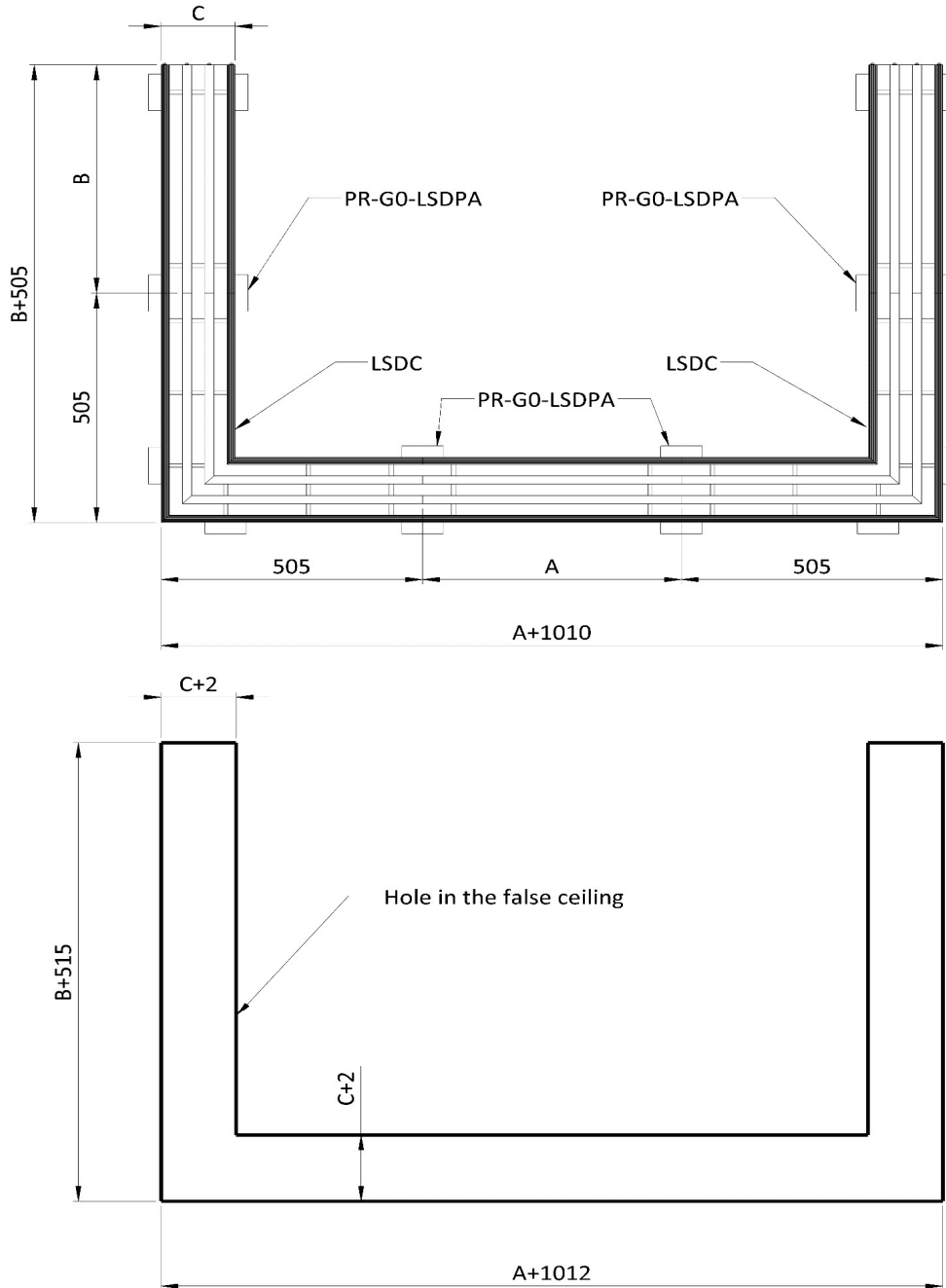


CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

LSD
SERIES

Example of continuous line installation with corners



number of slots	C (mm)
1	57
2	100
3	143

