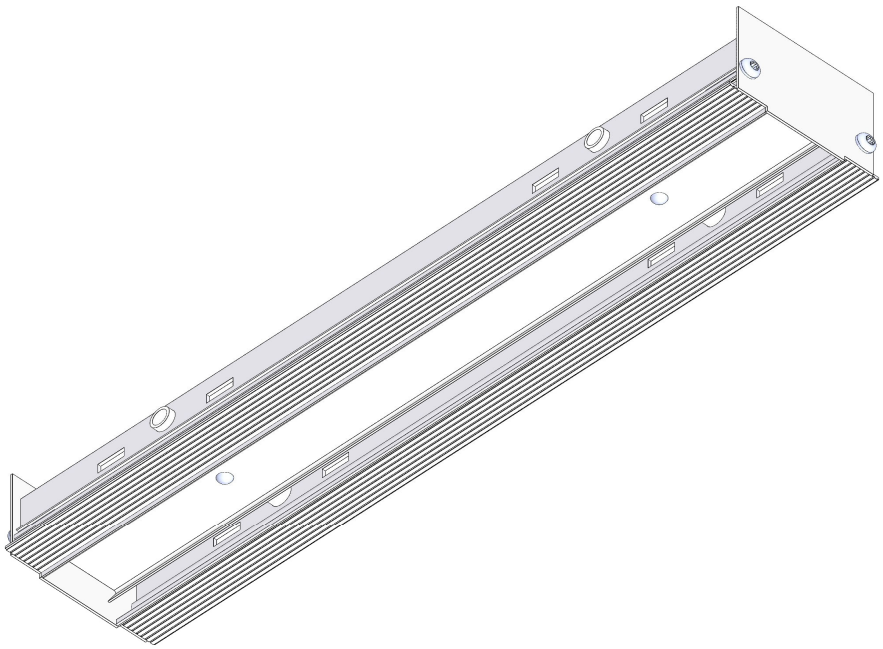


CONCEALED DESIGN
SLOT DIFFUSERS

OVERVIEW

LSD30-40-50 SERIES



OVERVIEW:
The **LSD30-40-50** 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 and temperature uniformity even in large rooms.

CHARACTERISTICS AND FUNCTIONING:
The **LSD30-40-50** series diffusers consist of an aluminum body and a series of metal sheet deflectors.

APPLICATIONS:
The **LSD30-40-50** series diffusers are used in ventilation systems for rooms with ceiling heights of 3 to 6 metres like shopping malls.

DIFFUSER INSTALLATION:
The **LSD30-40-50** series diffusers can be mounted directly on the ceiling or on plenum through screws or rivets. It is possible to realise continuous lines.

FINISH:
The **LSD30-40-50** series loudspeakers are made with:
Frame: anodised aluminium, white RAL 9010 glossy, black RAL 9005 matte.
Deflectors: galvanized, 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.

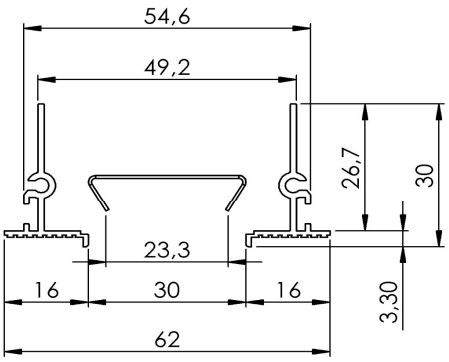


CONCEALED DESIGN
SLOT DIFFUSERS

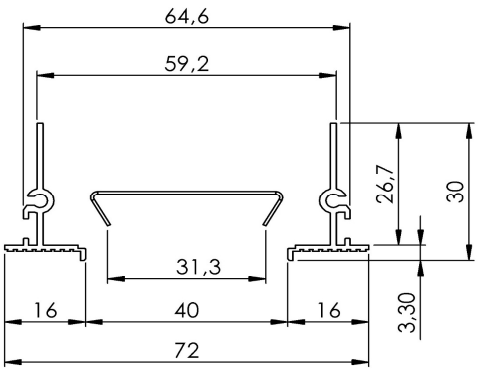
PINCIPAL DIMENSIONS
LSD30-40-50

LSD30-40-50
SERIES

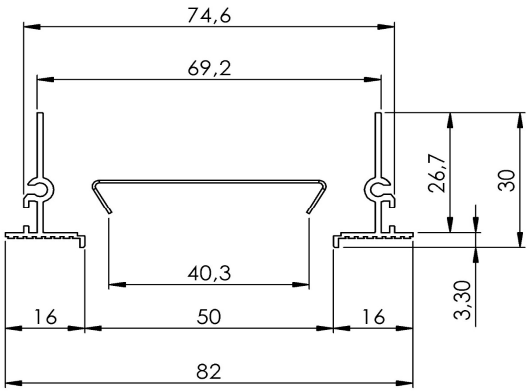
LSD30



LSD40



LSD50



Sezione efficace Ak [m^2]

	Length [mm]			
	500	1000	1500	2000
	Vertical throw	Vertical throw	Vertical throw	Vertical throw
LSD30	0,0089	0,0178	0,0267	0,0356
LSD40	0,0096	0,0192	0,0288	0,0384
LSD50	0,0101	0,0202	0,0303	0,0404

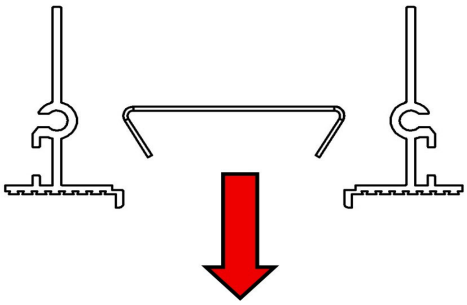


CONCEALED DESIGN
SLOT DIFFUSERS

THROW SETTING

LSD30-40-50
SERIES

Adjustment for vertical throw
Metal sheet deflectors
The launch penetrates directly into the room
prevents the layering effect



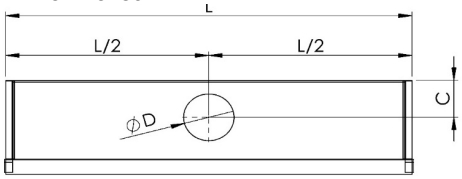


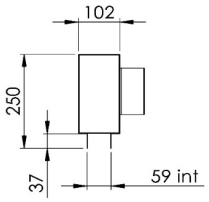
CONCEALED DESIGN
SLOT DIFFUSERS

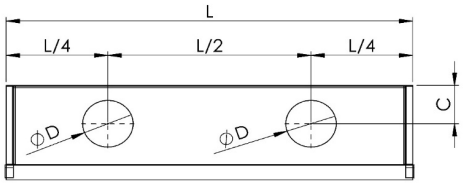
LSD30-40-50
SERIES

STANDARD PLENUM FOR LSD30-40-50

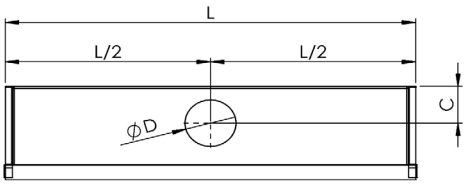
PLENUM LSD30

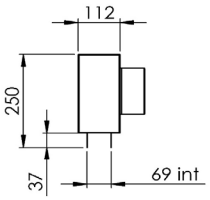


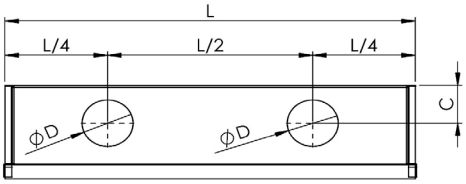




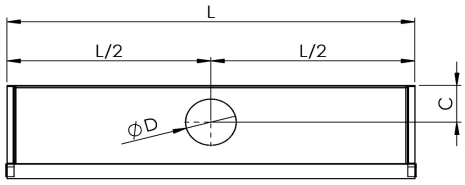
PLENUM LSD40

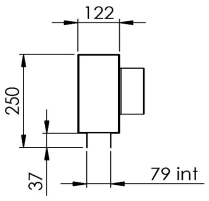


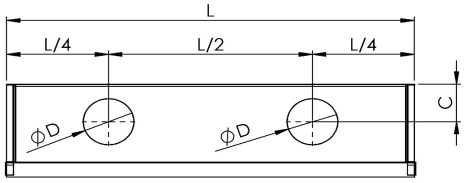




PLENUM LSD50







L Nominal diffuser length

				L ≤ 1200 mm		1201≤ L ≤ 2000 mm	
VERSIONS	H (mm)	S (mm)	C (mm)	connector qty	ØD (mm)	connector qty	ØD (mm)
LSD30	250	59	100	1	124	2	124
LSD40	250	69	100	1	124	2	124
LSD50	250	79	100	1	124	2	124



CONCEALED DESIGN
SLOT DIFFUSERS

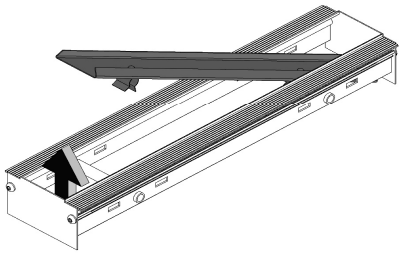
DIFFUSER INSTALLATION
WITHOUT PLENUM

LSD30-40-50
SERIES



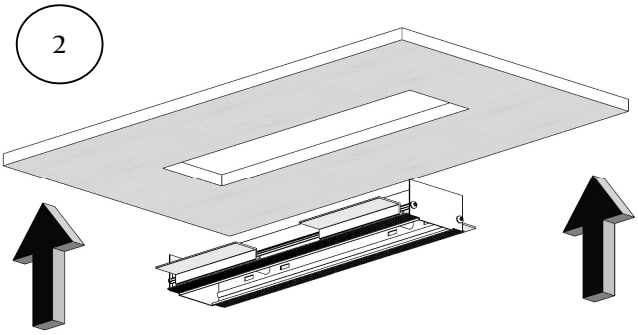
dimensions of the hole in the ceiling
B+10 X H+2

1



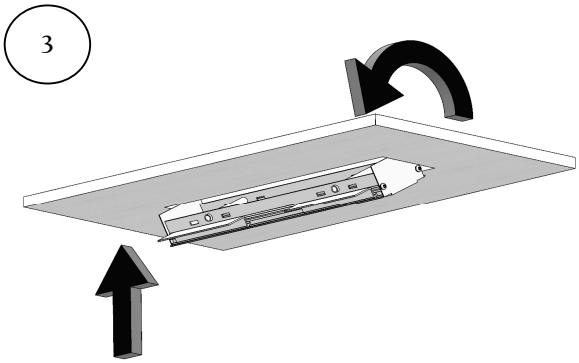
Remove the deflector by turning and pushing it

2



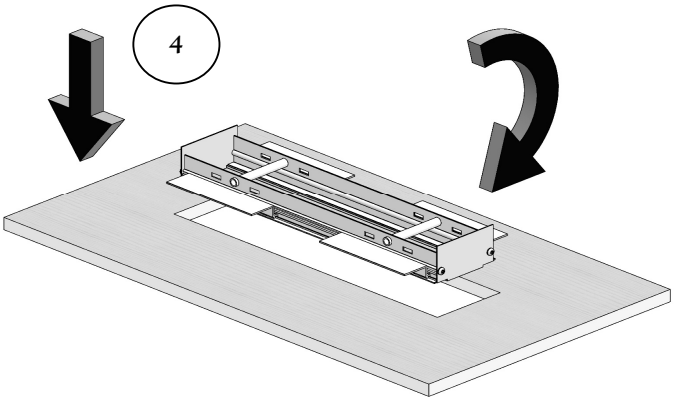
Insert the diffuser into the hole in the ceiling

3



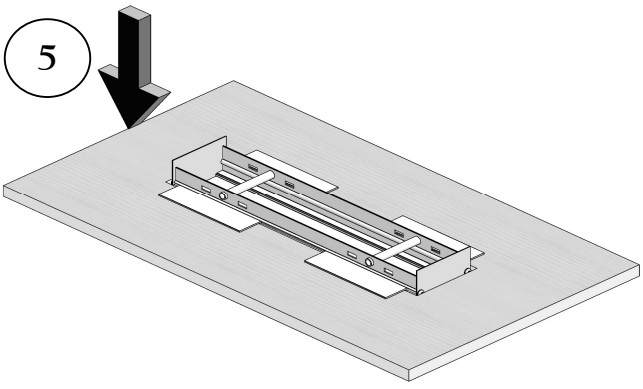
Rotate the diffuser to facilitate entry

4



Place the diffuser inside the hole

5



Attach the anchoring bayonets to the suspended ceiling

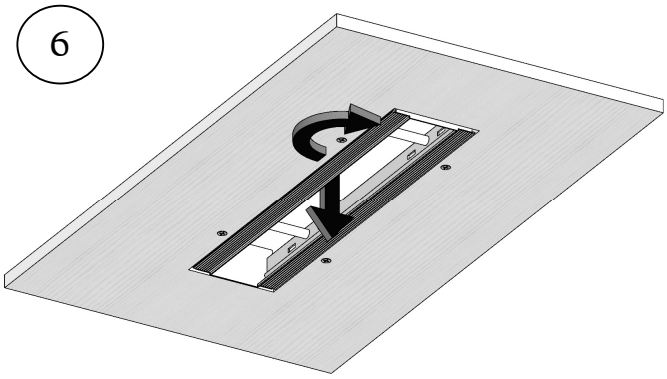


CONCEALED DESIGN
SLOT DIFFUSERS

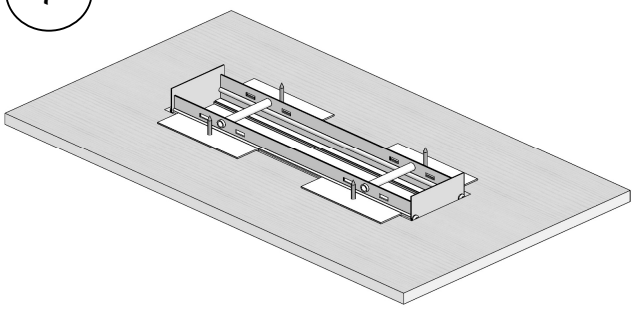
DIFFUSER INSTALLATION
WITHOUT PLENUM

LSD30-40-50
SERIES

6

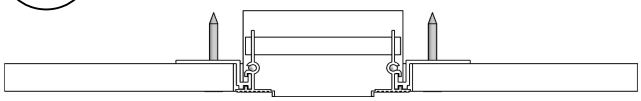


7



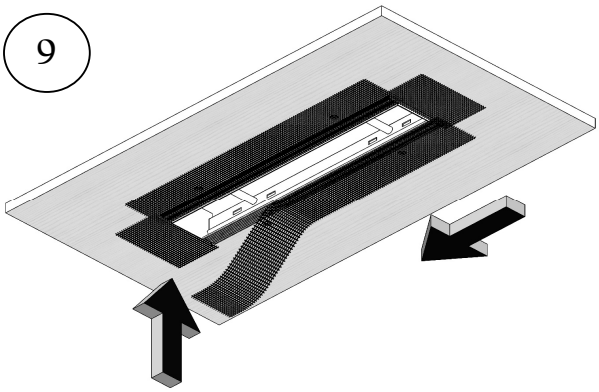
Keeping the diffuser in contact with the counter ceiling insert a self-drilling screw from bottom to top at each bayonet

8



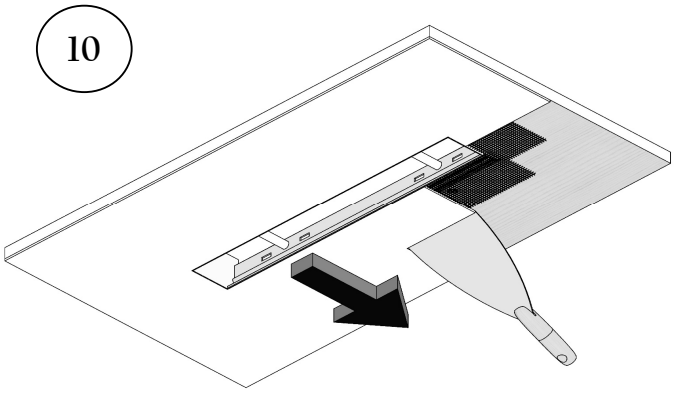
plasterboard thickness 12.5mm

9



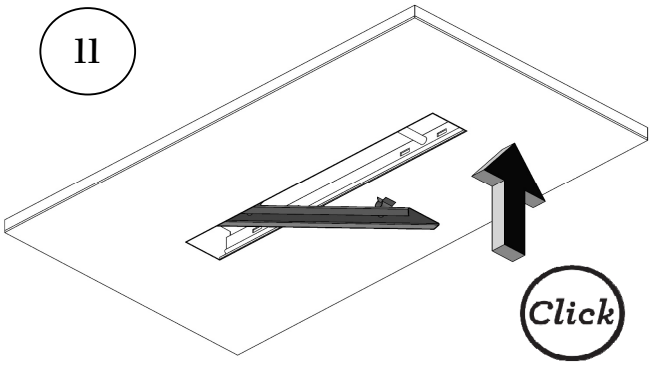
Apply plasterboard joint-covering tape

10



Apply skimming filler

11



Refit the deflector

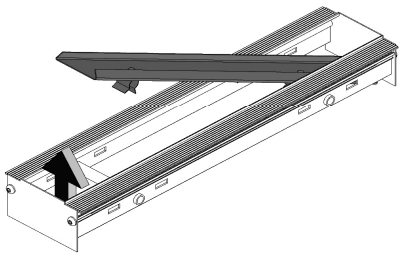


CONCEALED DESIGN
SLOT DIFFUSERS

LSD30-40-50
SERIES

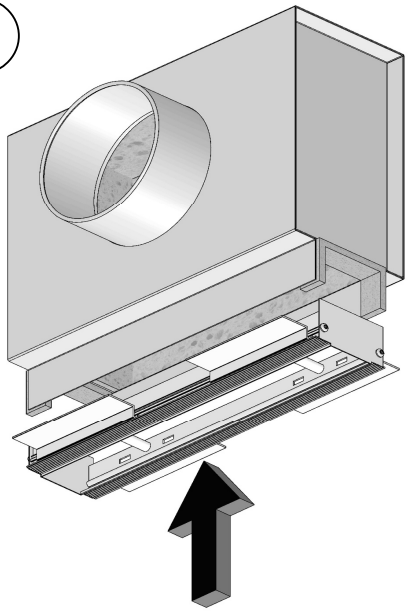
DIFFUSER INSTALLATION
WITH PLENUM

1



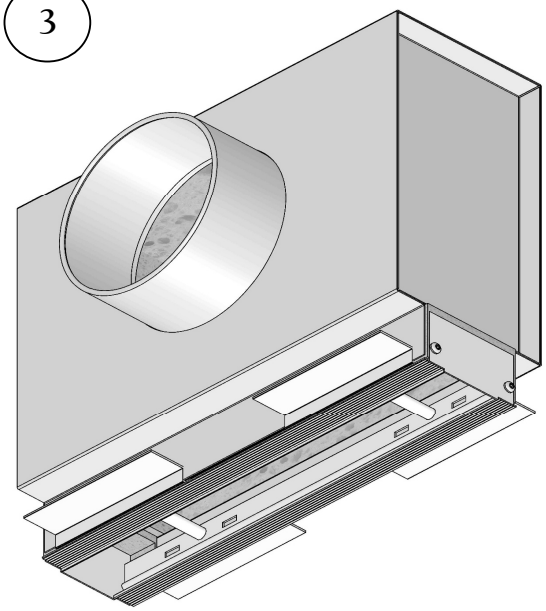
Remove the deflector by turning and pushing it

2



Insert the diffuser inside the plenum

3



Bring the plenum to a stop on the anchorage bayonets

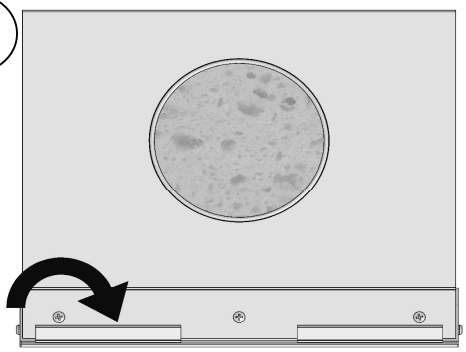


CONCEALED DESIGN
SLOT DIFFUSERS

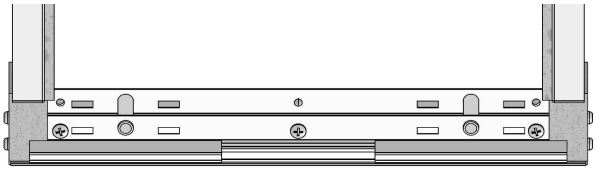
DIFFUSER INSTALLATION
WITH PLENUM

LSD30-40-50
SERIES

4



5

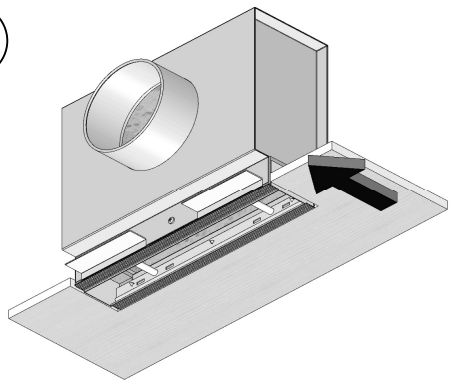


Fasten the plenum and diffuser frame with self-drilling screws When fixing with screws, take care not to damage the diffuser



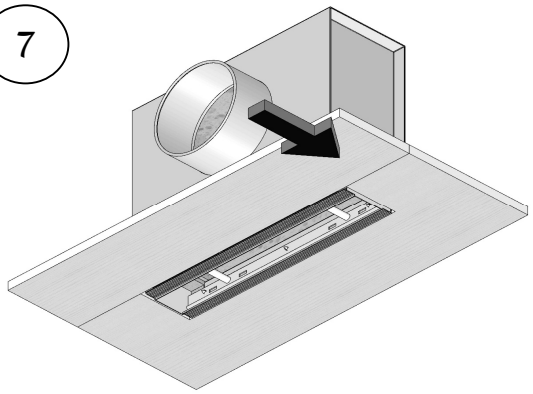
dimensions of the hole in the ceiling
B+10 X H+2

6



Add the first piece of plasterboard

7



Add the second piece of plasterboard

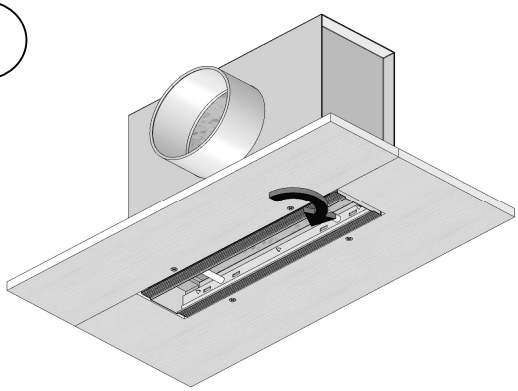


CONCEALED DESIGN
SLOT DIFFUSERS

DIFFUSER INSTALLATION
WITH PLENUM

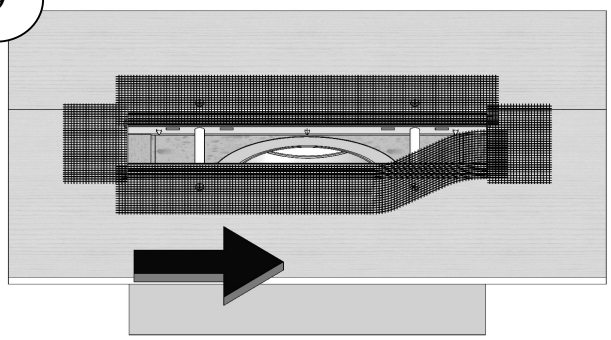
LSD30-40-50
SERIES

8



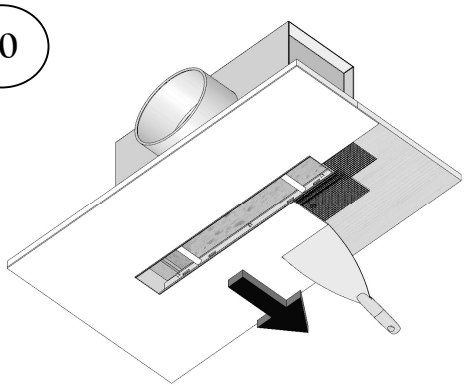
Tighten one screw per bayonet

9



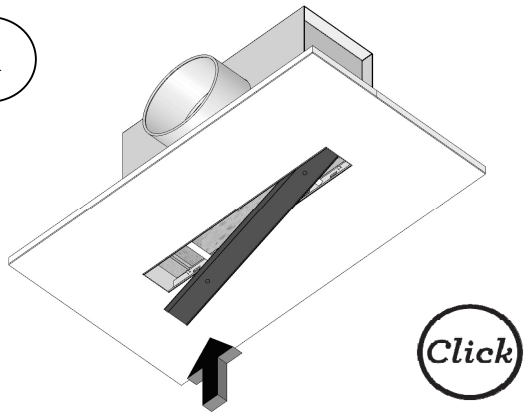
Apply plasterboard joint-covering tape

10



Apply skimming filler

11



Reinstall the deflector



CONCEALED DESIGN
SLOT DIFFUSERS

QUICK SELECTION
LSD30

LSD30-40-50
SERIES

Model		Airflow m³/h (l/s)													
		60	100	140	180	220	260	300	340	380	420	460	500	540	580
Ak [m²]		(17)	(28)	(39)	(50)	(61)	(72)	(83)	(94)	(106)	(117)	(128)	(139)	(150)	(161)
LSD30500	LwA	<20	29	38	45	50									
(0,0089)	Veff	1,9	3,1	4,4	5,6	6,9									
	ΔPt	12	33	64	106	157									
Setting vertical throw	l 0,2	1	1	2	2	3									
LSD30700	LwA		22	31	37	42	47								
(0,0125)	Veff		2,2	3,1	4	4,9	5,8								
	ΔPt		16	32	52	78	109								
Setting vertical throw	l 0,2		1	1	2	2	3								
LSD301000	LwA		<20	23	29	35	39	43	46	49					
(0,0178)	Veff		1,6	2,2	2,8	3,4	4	4,7	5,3	6					
	ΔPt		7	14	23	35	48	64	82	104					
Setting vertical throw	l 0,2		1	1	2	2	2	3	3	3					
LSD301200	LwA		<20	<20	25	31	35	39	42	45	48	50			
(0,0214)	Veff		1,3	1,8	2,3	2,9	3,4	3,9	4,4	5	5,5	6			
	ΔPt		5	10	17	25	35	47	60	76	93	111			
Setting vertical throw	l 0,2		1	1	1	2	2	2	3	3	3	4			
LSD301500	LwA			<20	20	26	30	34	37	40	43	45	47	49	
(0,0267)	Veff			1,5	1,9	2,3	2,7	3,1	3,5	4	4,4	4,8	5,2	5,6	
	ΔPt			6	11	16	22	29	38	48	58	70	82	96	
Setting vertical throw	l 0,2			1	1	2	2	2	2	3	3	3	4	4	
LSD301800	LwA			<20	<20	22	26	30	33	36	39	41	43	45	47
(0,032)	Veff			1,2	1,6	1,9	2,2	2,6	2,9	3,3	3,7	4	4,3	4,7	5
	ΔPt			4	7	11	15	20	26	33	40	48	56	66	76
Setting vertical throw	l 0,2			1	1	1	2	2	2	2	3	3	3	4	4
LSD302000	LwA				<20	<20	24	27	31	34	37	39	41	43	45
(0,0356)	Veff				1,4	1,7	2	2,3	2,6	3	3,3	3,6	3,9	4,2	4,5
	ΔPt				6	9	12	16	21	26	32	38	45	53	61
Setting vertical throw	l 0,2				1	1	2	2	2	2	3	3	3	3	4



CONCEALED DESIGN
SLOT DIFFUSERS

QUICK SELECTION
LSD40

LSD30-40-50
SERIES

Model		Airflow m³/h (l/s)													
		70	115	160	205	250	295	340	385	430	475	520	565	610	655
Ak [m²]		(19)	(32)	(44)	(57)	(69)	(82)	(94)	(107)	(119)	(132)	(144)	(157)	(169)	(182)
LSD40500	LwA	<20	31	40	46										
(0,0096)	Veff	2	3,3	4,6	5,9										
	ΔPt	12	35	66	112										
Setting vertical throw	l 0,2	1	1	2	3										
LSD40700	LwA	<20	24	32	39	44	49								
(0,0134)	Veff	1,4	2,4	3,3	4,2	5,1	6,1								
	ΔPt	6	17	33	55	81	114								
Setting vertical throw	l 0,2	1	1	2	2	3	3								
LSD40500	LwA		<20	24	31	36	41	44	48						
(0,0192)	Veff		1,7	2,3	3	3,6	4,3	4,9	5,6						
	ΔPt		8	15	25	36	51	67	86						
Setting vertical throw	l 0,2		1	1	2	2	3	3	3						
LSD401200	LwA		<20	20	27	32	37	40	44	47	49				
(0,023)	Veff		1,4	1,9	2,5	3	3,6	4,1	4,6	5,2	5,7				
	ΔPt		6	11	18	26	37	49	63	78	96				
Setting vertical throw	l 0,2		1	1	2	2	2	3	3	3	4				
LSD401500	LwA			<20	22	27	32	35	39	42	44	47	49		
(0,0288)	Veff			1,5	2	2,4	2,8	3,3	3,7	4,1	4,6	5	5,5		
	ΔPt			7	11	16	23	31	40	49	60	72	85		
Setting vertical throw	l 0,2			1	1	2	2	2	3	3	3	4	4		
LSD401800	LwA			<20	<20	23	28	31	35	38	40	43	45	47	49
(0,0346)	Veff			1,3	1,6	2	2,4	2,7	3,1	3,4	3,8	4,2	4,5	4,9	5,3
	ΔPt			5	8	11	16	21	27	34	41	49	58	68	78
Setting vertical throw	l 0,2			1	1	2	2	2	2	3	3	3	4	4	4
LSD402000	LwA				<20	21	25	29	32	35	38	40	43	45	47
(0,0384)	Veff				1,5	1,8	2,1	2,4	2,8	3,1	3,4	3,8	4,1	4,4	4,7
	ΔPt				6	9	13	17	22	27	33	39	47	54	63
Setting vertical throw	l 0,2				1	1	2	2	2	3	3	3	3	4	4



CONCEALED DESIGN
SLOT DIFFUSERS

QUICK SELECTION
LSD50

LSD30-40-50
SERIES

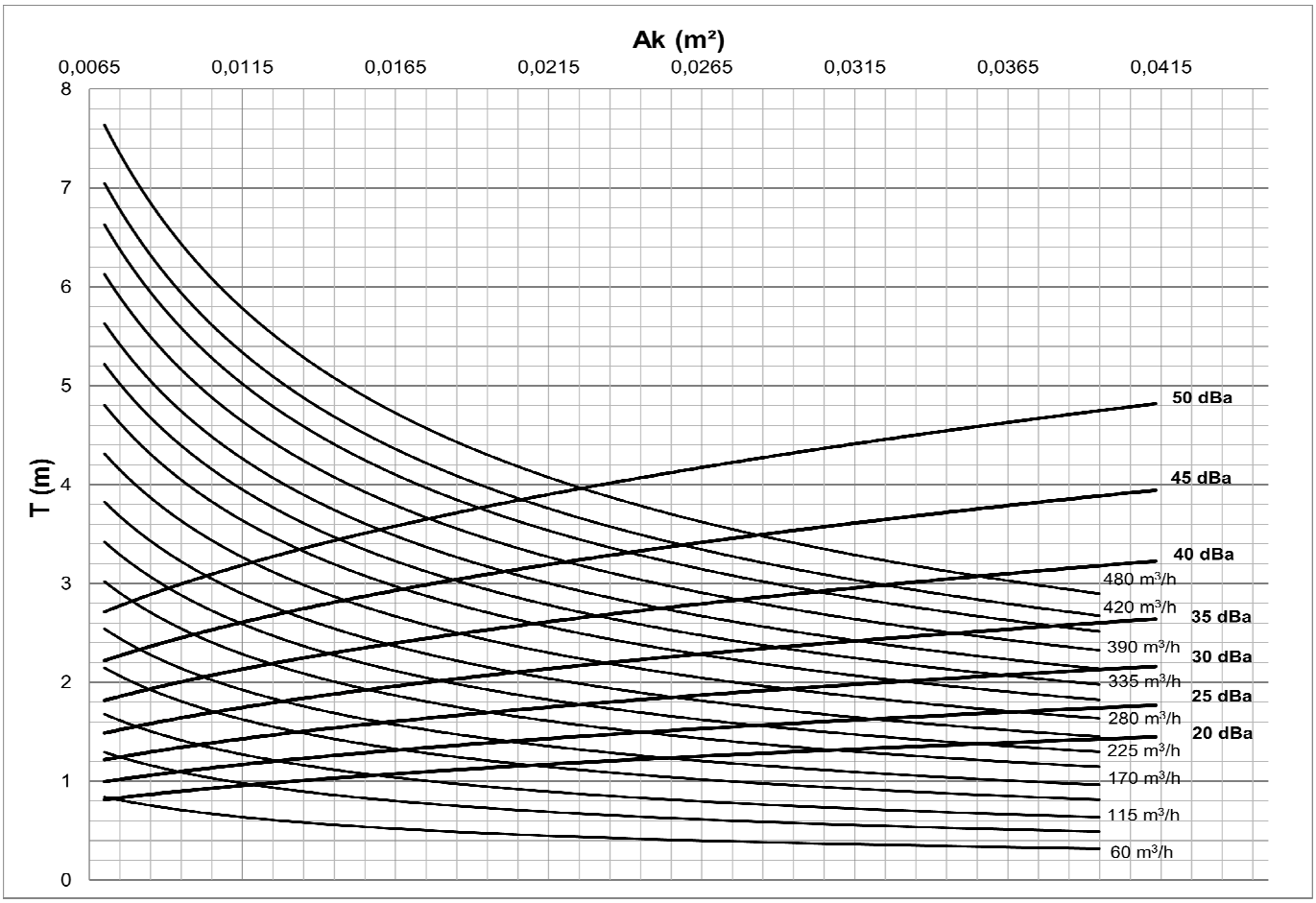
Model		Airflow m³/h (l/s)													
		80	130	180	230	280	330	380	430	480	530	580	630	680	730
Ak [m²]		(22)	(36)	(50)	(64)	(78)	(92)	(106)	(119)	(133)	(147)	(161)	(175)	(189)	(203)
LSD50500	LwA	20	33	42	48										
(0,0101)	Veff	2,2	3,6	5	6,3										
	ΔPt	14	39	75	122										
Setting vertical throw	l 0,2	1	2	2	3										
LSD50700	LwA	<20	26	34	41	46									
(0,0141)	Veff	1,6	2,5	3,5	4,5	5,5									
	ΔPt	7	19	37	61	90									
Setting vertical throw	l 0,2	1	1	2	2	3									
LSD501000	LwA		<20	27	33	38	43	46	49						
(0,0202)	Veff		1,8	2,5	3,2	3,9	4,6	5,2	5,9						
	ΔPt		9	17	27	40	56	74	93						
Setting vertical throw	l 0,2		1	1	2	2	3	3	4						
LSD501200	LwA		<20	22	29	34	39	42	45	48					
(0,0242)	Veff		1,5	2,1	2,6	3,2	3,8	4,4	4,9	5,5					
	ΔPt		6	12	20	29	41	54	68	85					
Setting vertical throw	l 0,2		1	1	2	2	2	3	3	4					
LSD501500	LwA			<20	24	29	34	37	41	43	46	49			
(0,0303)	Veff			1,7	2,1	2,6	3	3,5	3,9	4,4	4,9	5,3			
	ΔPt			8	12	18	26	34	43	53	65	78			
Setting vertical throw	l 0,2			1	2	2	2	3	3	3	4	4			
LSD501800	LwA			<20	20	25	30	33	36	39	42	44	47	49	
(0,0364)	Veff			1,4	1,8	2,1	2,5	2,9	3,3	3,7	4	4,4	4,8	5,2	
	ΔPt			5	8	13	17	23	29	36	45	53	63	74	
Setting vertical throw	l 0,2			1	1	2	2	2	3	3	3	4	4	4	
LSD502000	LwA			<20	<20	23	27	31	34	37	40	42	44	46	48
(0,0404)	Veff			1,2	1,6	1,9	2,3	2,6	2,9	3,3	3,6	4	4,3	4,7	5
	ΔPt			4	7	10	14	19	23	29	36	43	51	59	68
Setting vertical throw	l 0,2			1	1	2	2	2	2	3	3	3	4	4	4



CONCEALED DESIGN
SLOT DIFFUSERS

PERFORMANCE
LSD30

LSD30-40-50 SERIES



T= Throw with terminal velocity 0.2m/s

Effective section Ak [m²]

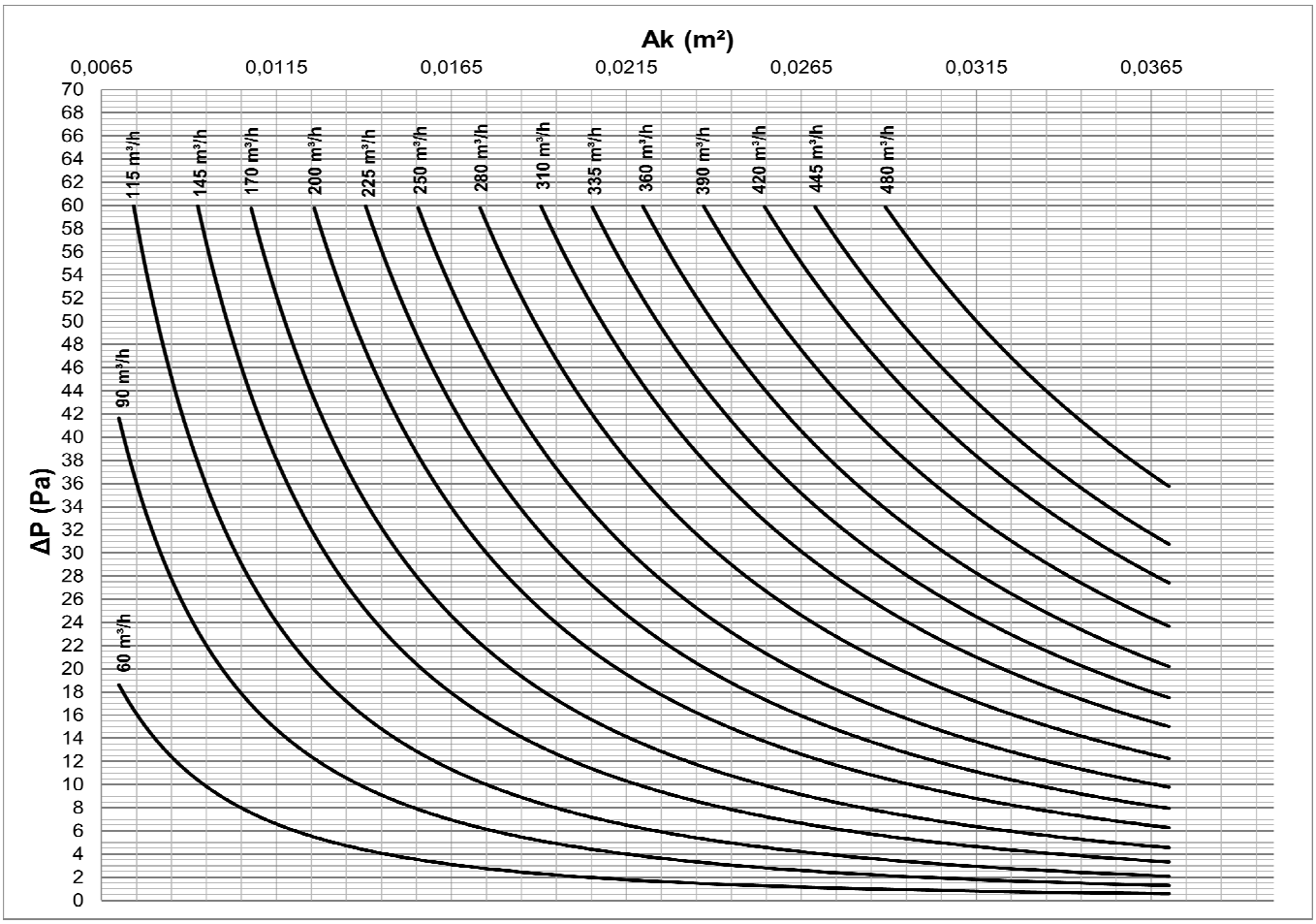
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD30	0,0089	0,0178	0,0267	0,0356



CONCEALED DESIGN
SLOT DIFFUSERS

PERFORMANCE
LSD30

LSD30-40-50
SERIES



Effective section Ak [m^2]

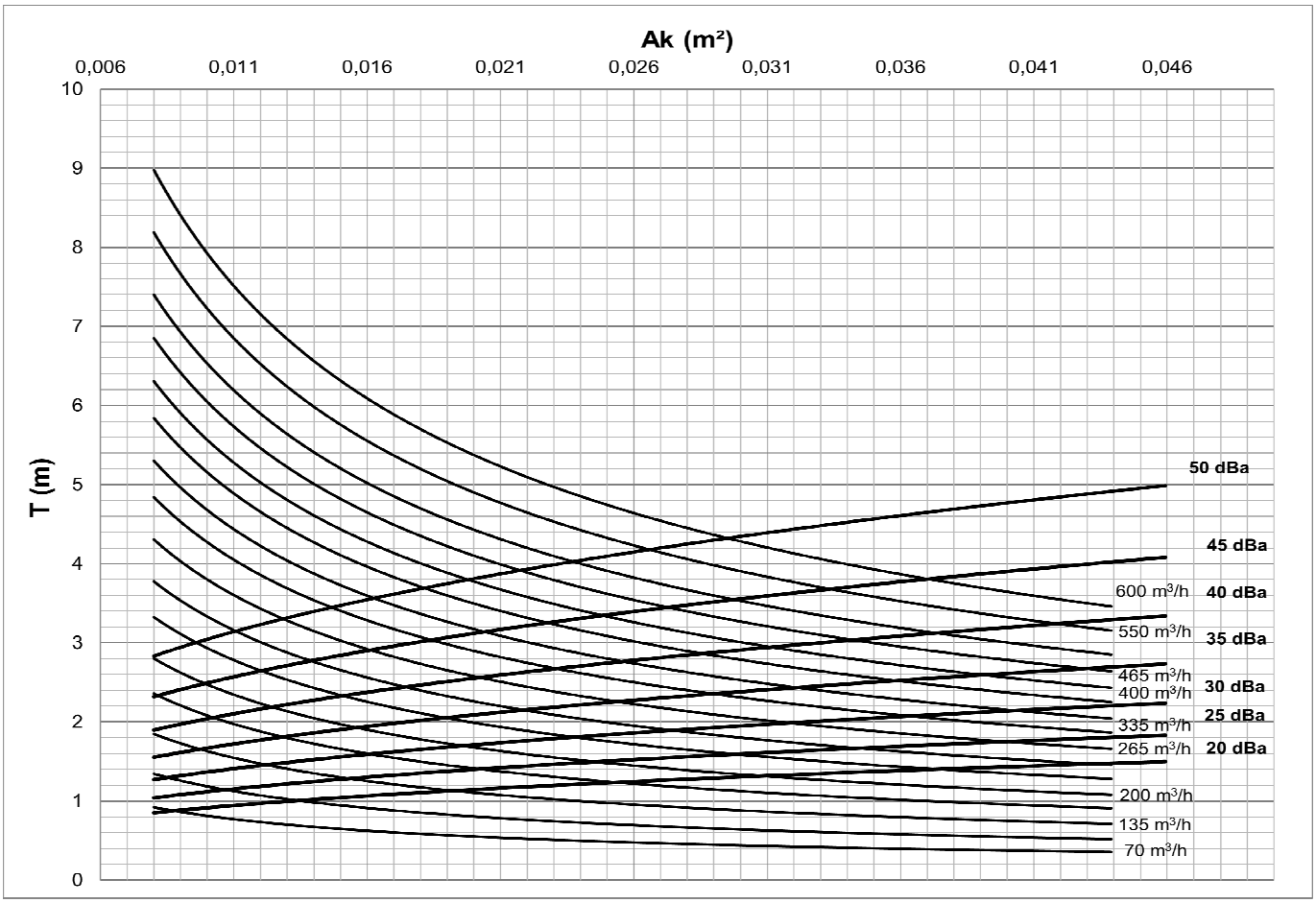
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD30	0,0089	0,0178	0,0267	0,0356



CONCEALED DESIGN
SLOT DIFFUSERS

PERFORMANCE
LSD40

LSD30-40-50 SERIES



T= Throw with terminal velocity 0.2m/s

Effective section Ak [m²]

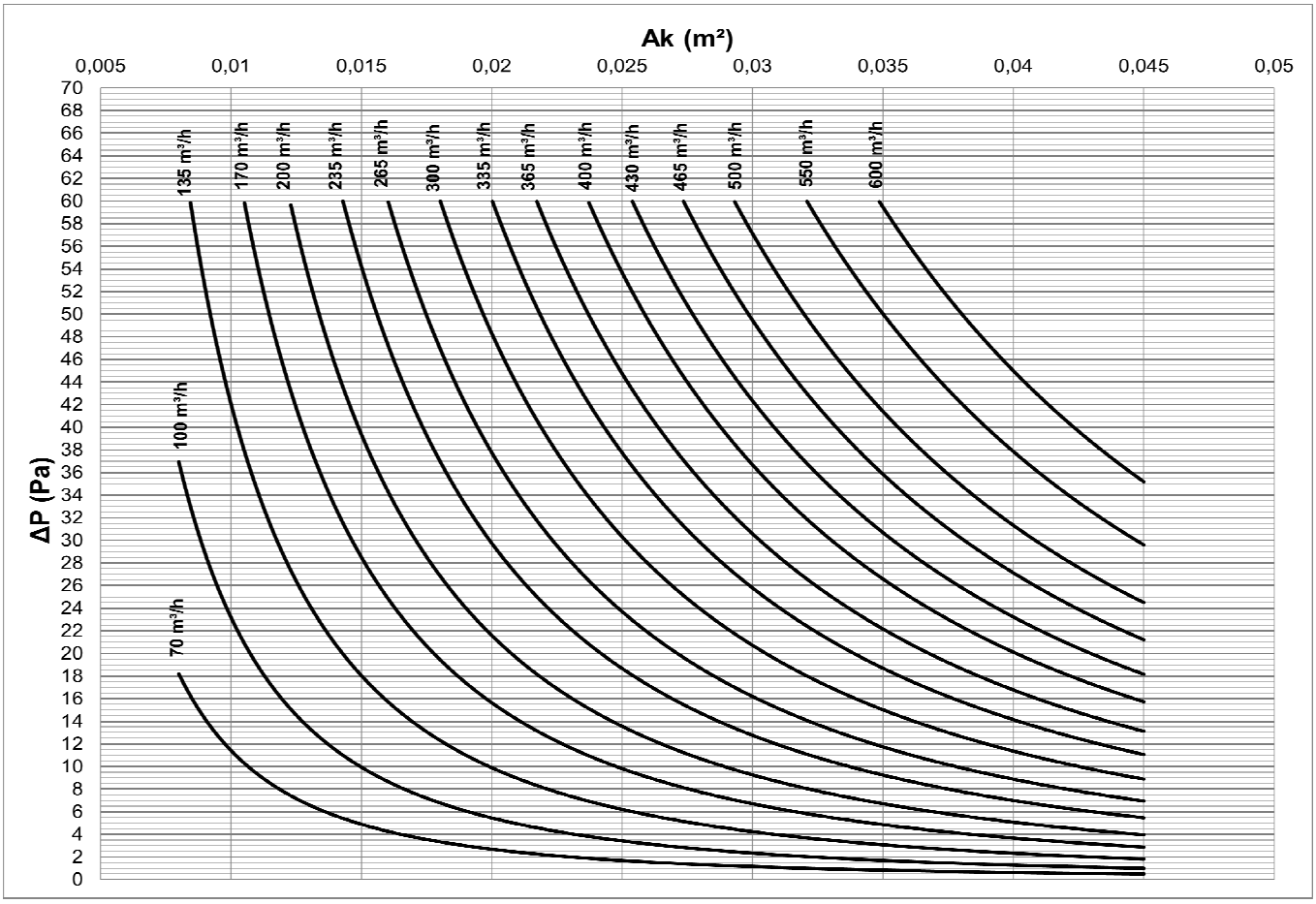
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD40	0,0096	0,0192	0,0288	0,0384



CONCEALED DESIGN
SLOT DIFFUSERS

PERFORMANCE
LSD40

LSD30-40-50 SERIES



Effective section Ak [m²]

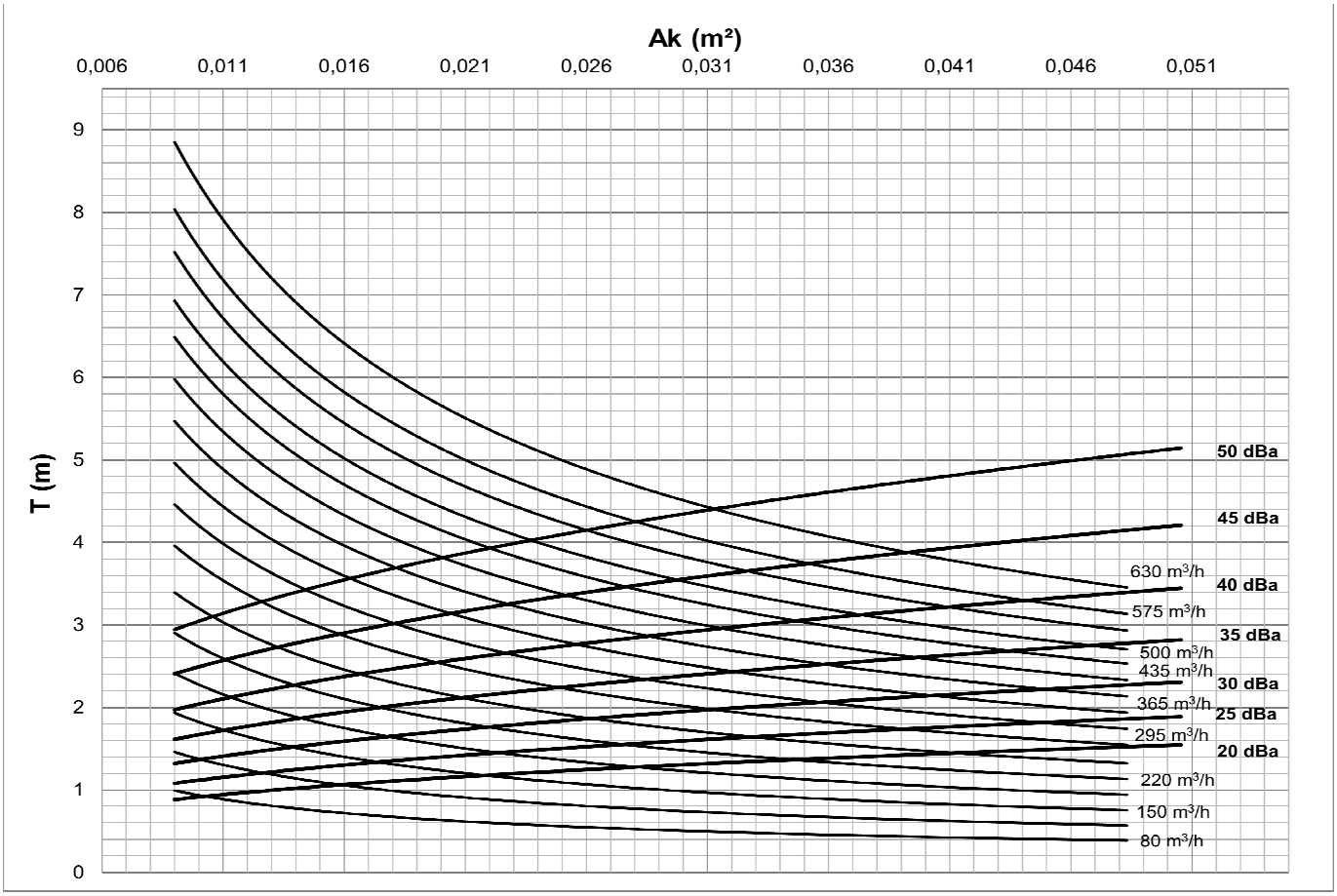
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD40	0,0096	0,0192	0,0288	0,0384



CONCEALED DESIGN
SLOT DIFFUSERS

PERFORMANCE
LSD50

LSD30-40-50 SERIES



T= Throw with terminal velocity 0.2m/s

Effective section Ak [m²]

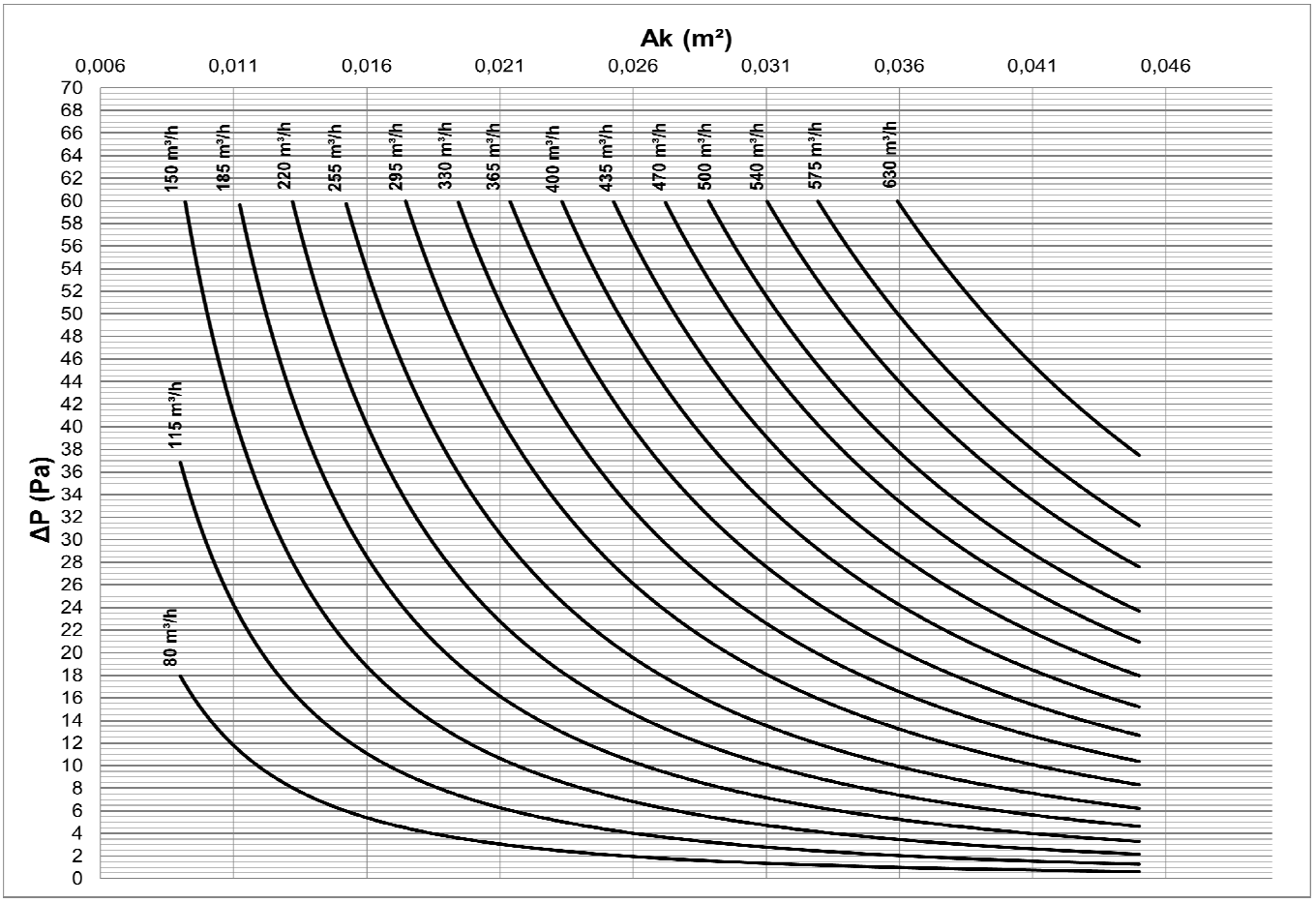
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD50	0,0101	0,0202	0,0303	0,0404



CONCEALED DESIGN
SLOT DIFFUSERS

PERFORMANCE
LSD50

LSD30-40-50 SERIES



Effective section Ak [m²]

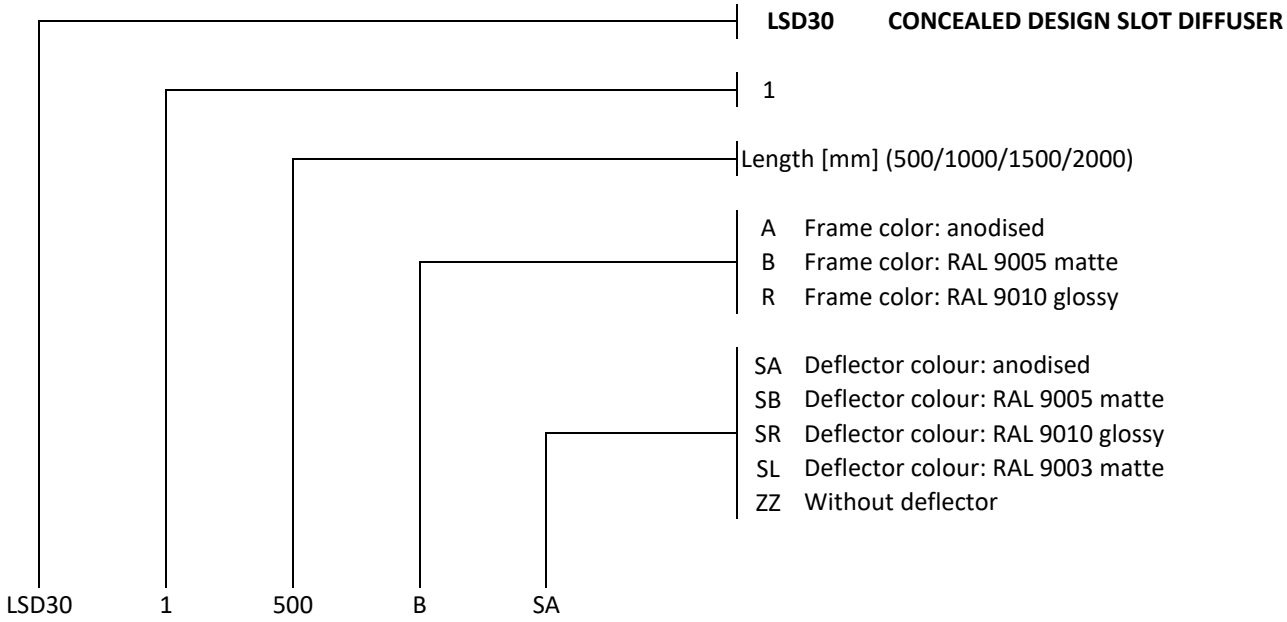
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD50	0,0101	0,0202	0,0303	0,0404



CONCEALED DESIGN
SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER
LSD30

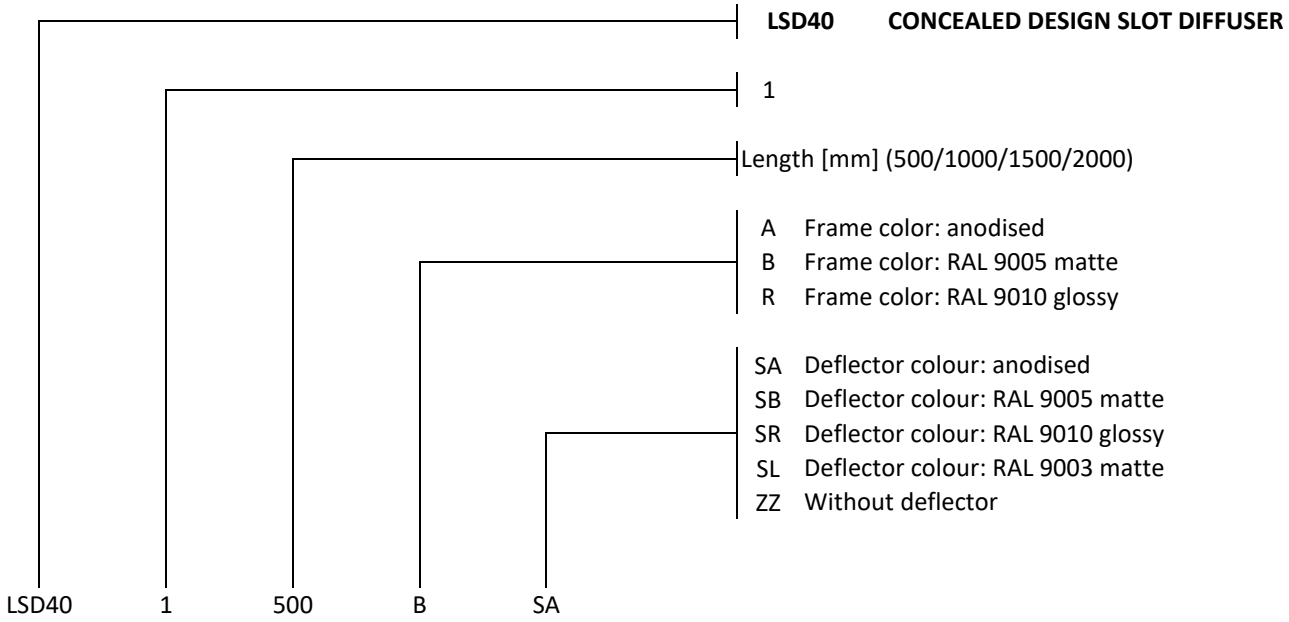




CONCEALED DESIGN
SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER
LSD40





CONCEALED DESIGN
SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER
LSD50

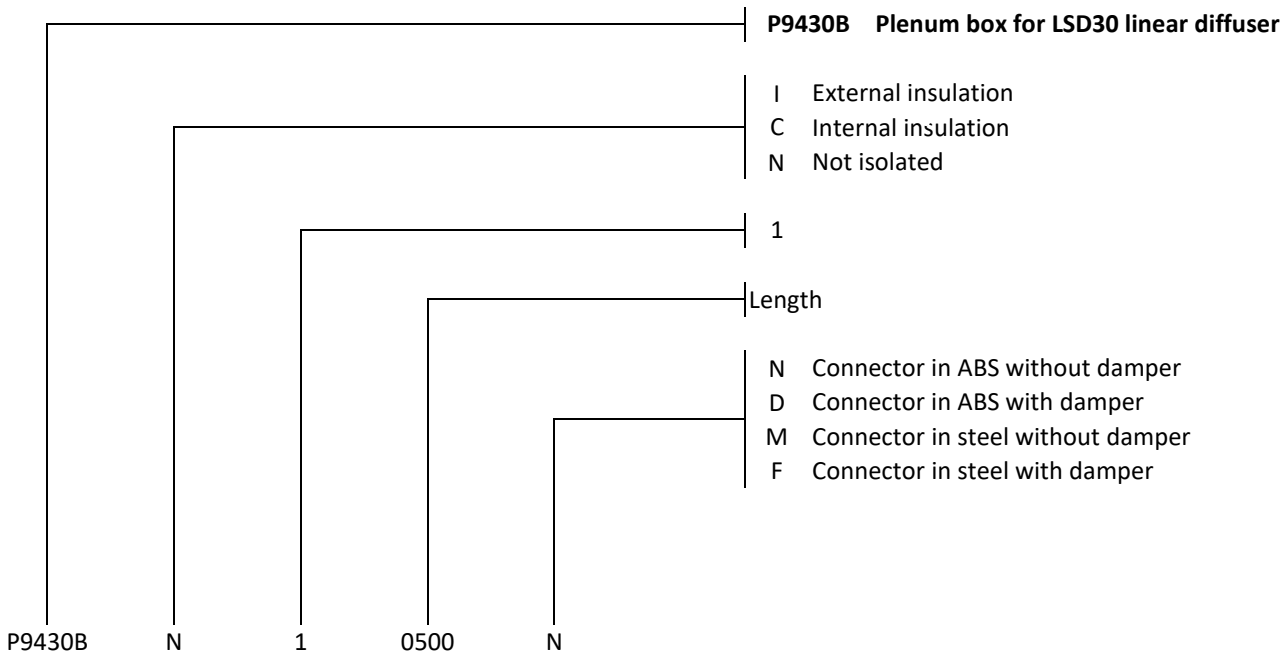




CONCEALED DESIGN
SLOT DIFFUSERS

HOW TO ORDER
PLENUM LSD30

LSD30-40-50 SERIES



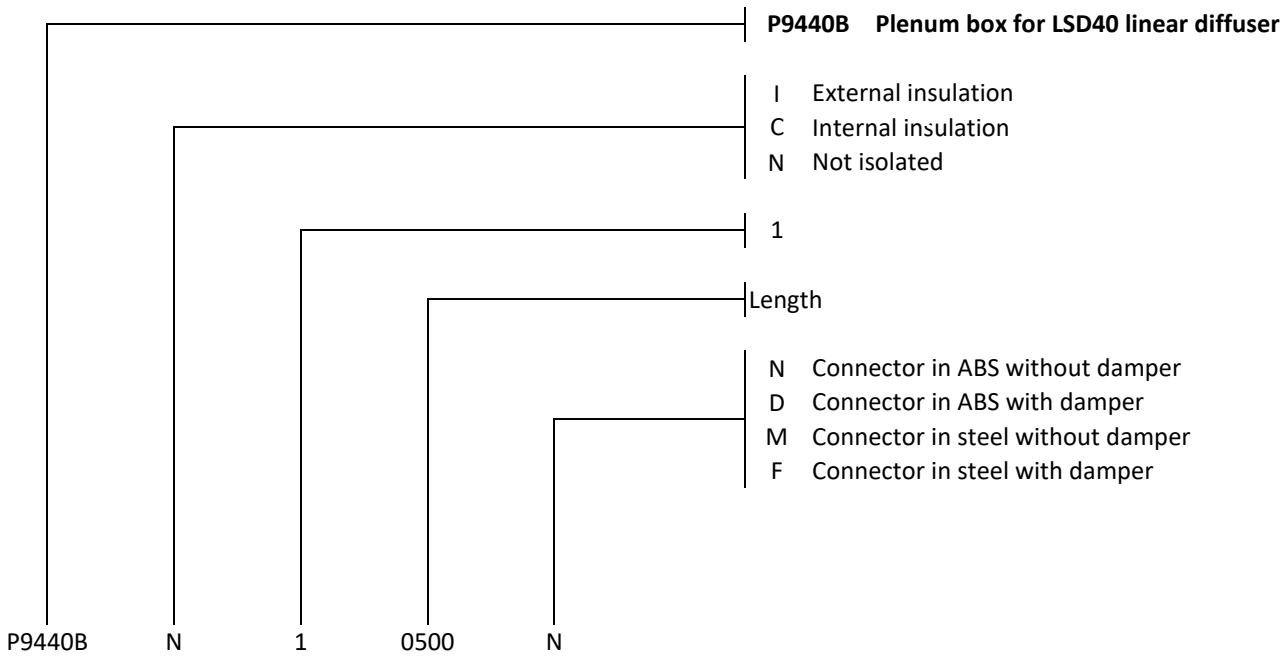
As standard, plenums are supplied unmounted on the diffuser



CONCEALED DESIGN
SLOT DIFFUSERS

HOW TO ORDER
PLENUM LSD40

LSD30-40-50
SERIES



As standard, plenums are supplied unmounted on the diffuser



CONCEALED DESIGN
SLOT DIFFUSERS

HOW TO ORDER
PLENUM LSD50

LSD30-40-50
SERIES

P9450B **Plenum box for LSD50 linear diffuser**

- I External insulation
- C Internal insulation
- N Not isolated

1

Length

- N Connector in ABS without damper
- D Connector in ABS with damper
- M Connector in steel without damper
- F Connector in steel with damper

P9450B N 1 0500 N

As standard, plenums are supplied unmounted on the diffuser

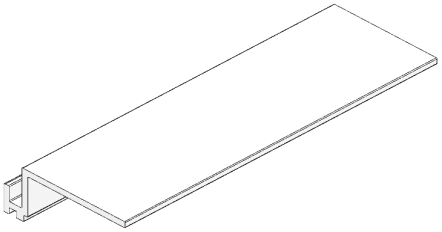


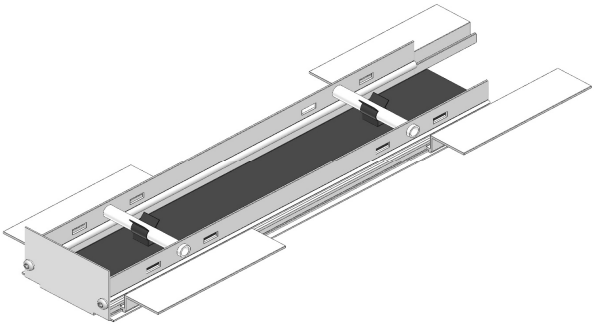
CONCEALED DESIGN
SLOT DIFFUSERS

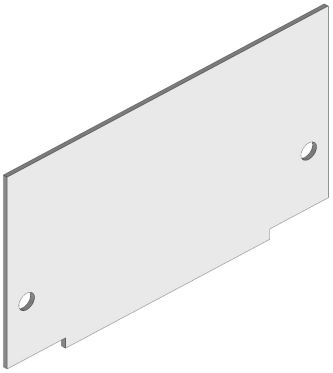
ACCESSORIES

LSD30-40-50 SERIES

Bayonet for fixing the deflector







Standard aluminium header

CD G0 LSD30TEST 1 F

G0	Anodised
V2	RAL 9010 glossy
9005	RAL 9005 matte

Header for LSD30

1

CD G0 LSD40TEST 1 F

G0	Anodised
V2	RAL 9010 glossy
9005	RAL 9005 matte

Header for LSD40

1

CD G0 LSD50TEST 1 F

G0	Anodised
V2	RAL 9010 glossy
9005	RAL 9005 matte

Header for LSD50

1

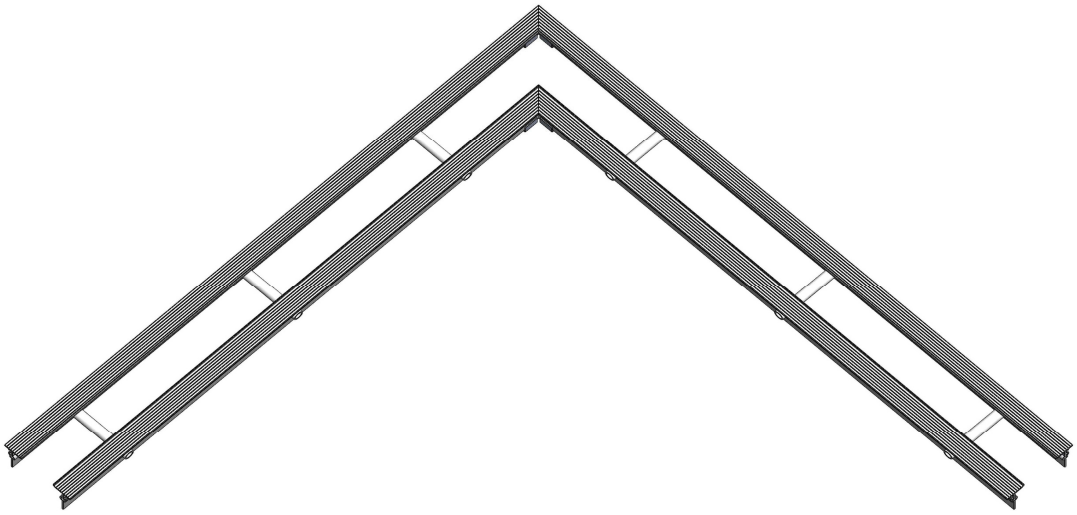


CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

LSDC30 Corner connection



LSDC30	**LSDC30**	**Corner connection for LSD30**
1	1	
A	A	Frame color: anodised
	B	Frame color: RAL 9005 matte
	R	Frame color: RAL 9010 glossy
SA	SA	Metal sheet deflector color: galvanized
	SB	Metal sheet deflector color: RAL 9005 matte
	SR	Metal sheet deflector color: RAL 9010 glossy
	SL	Metal sheet deflector color: RAL 9003 matte
	ZZ	Without deflector

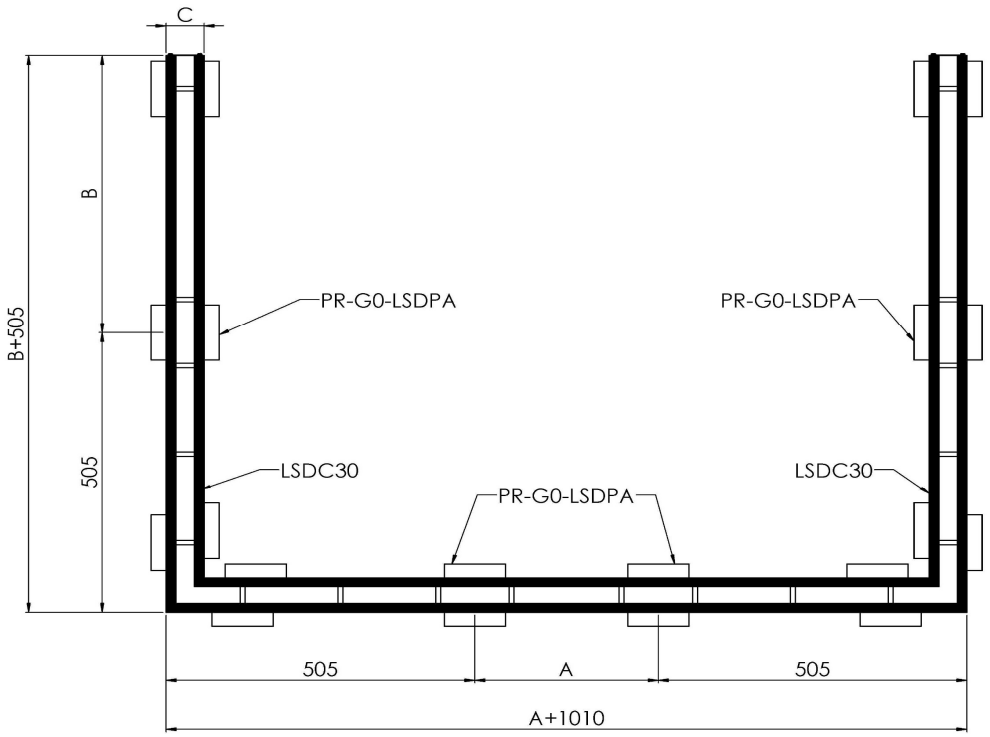


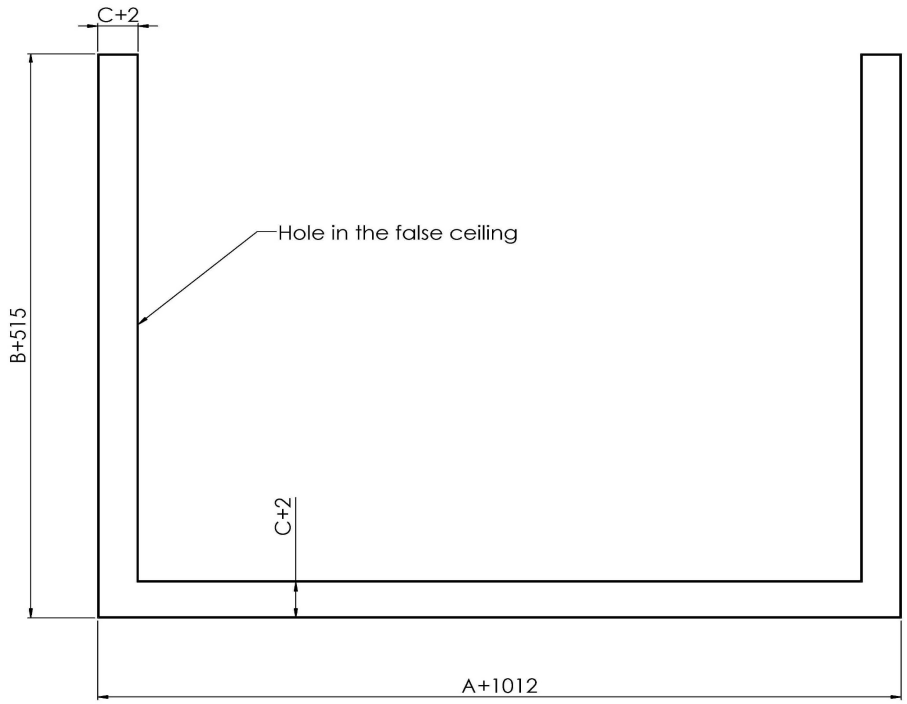
CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

Example of continuous line installation with corners





C [mm]
62

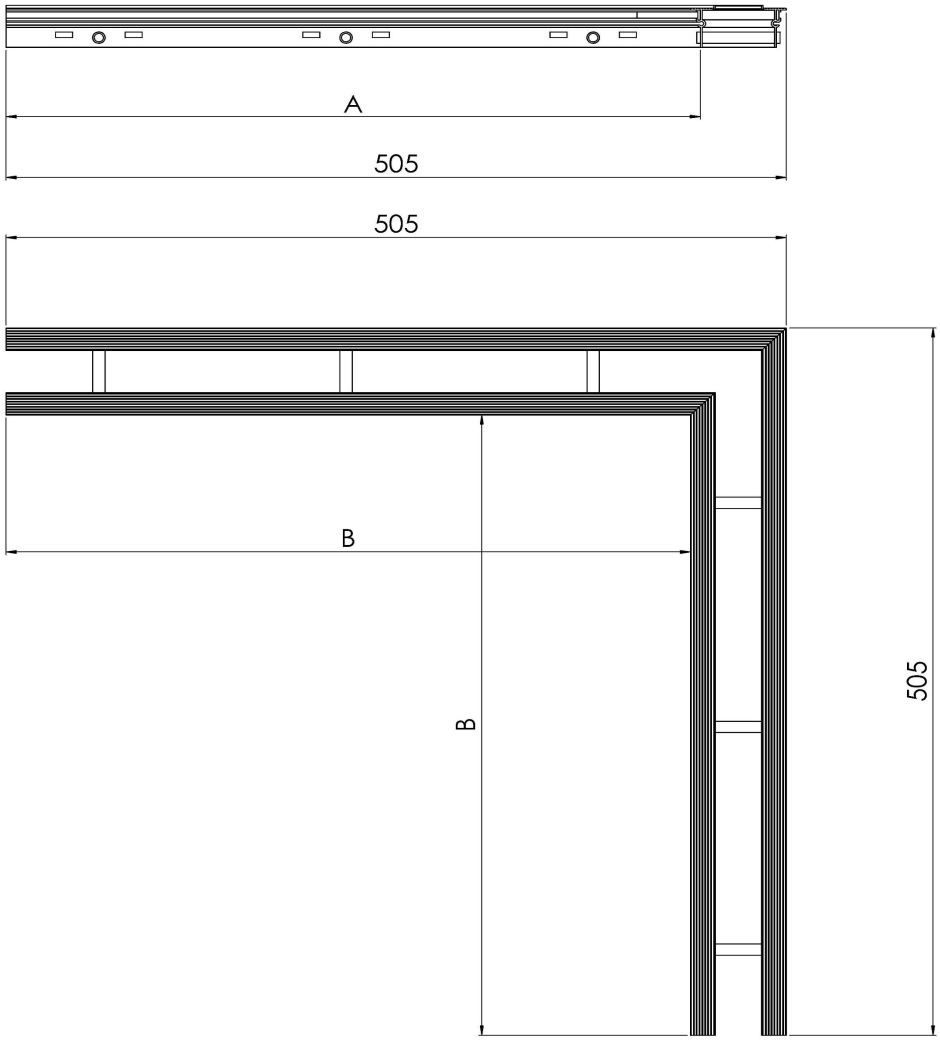


CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

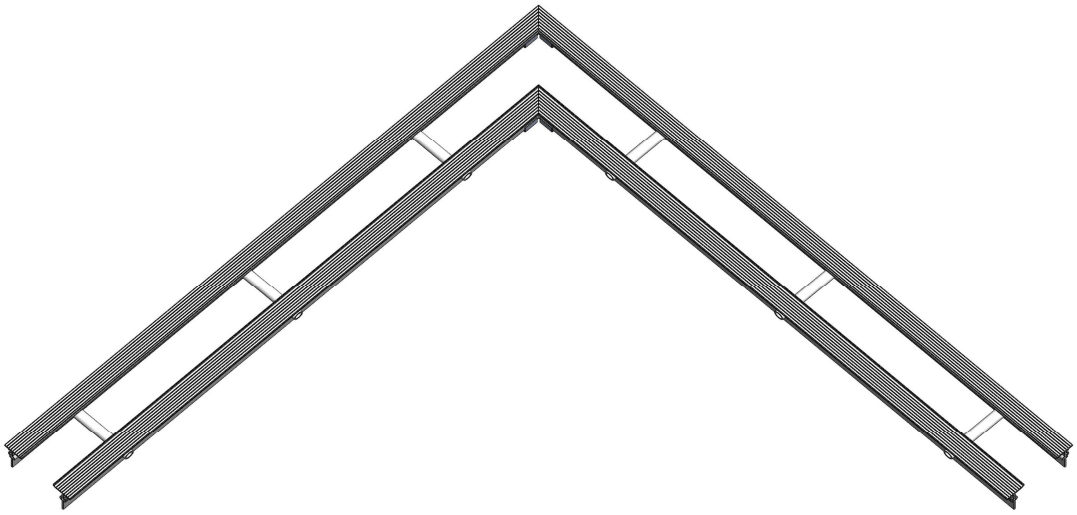
LSDC30 **Corner connection**



A [mm]	B [mm]
449	443



LSDC40 Corner connection



LSDC40	**LSDC40**	**Corner connection for LSD40**
1	1	
A	A	Frame color: anodised
	B	Frame color: RAL 9005 matte
	R	Frame color: RAL 9010 glossy
SA	SA	Metal sheet deflector color: galvanized
	SB	Metal sheet deflector color: RAL 9005 matte
	SR	Metal sheet deflector color: RAL 9010 glossy
	SL	Metal sheet deflector color: RAL 9003 matte
	ZZ	Without deflector

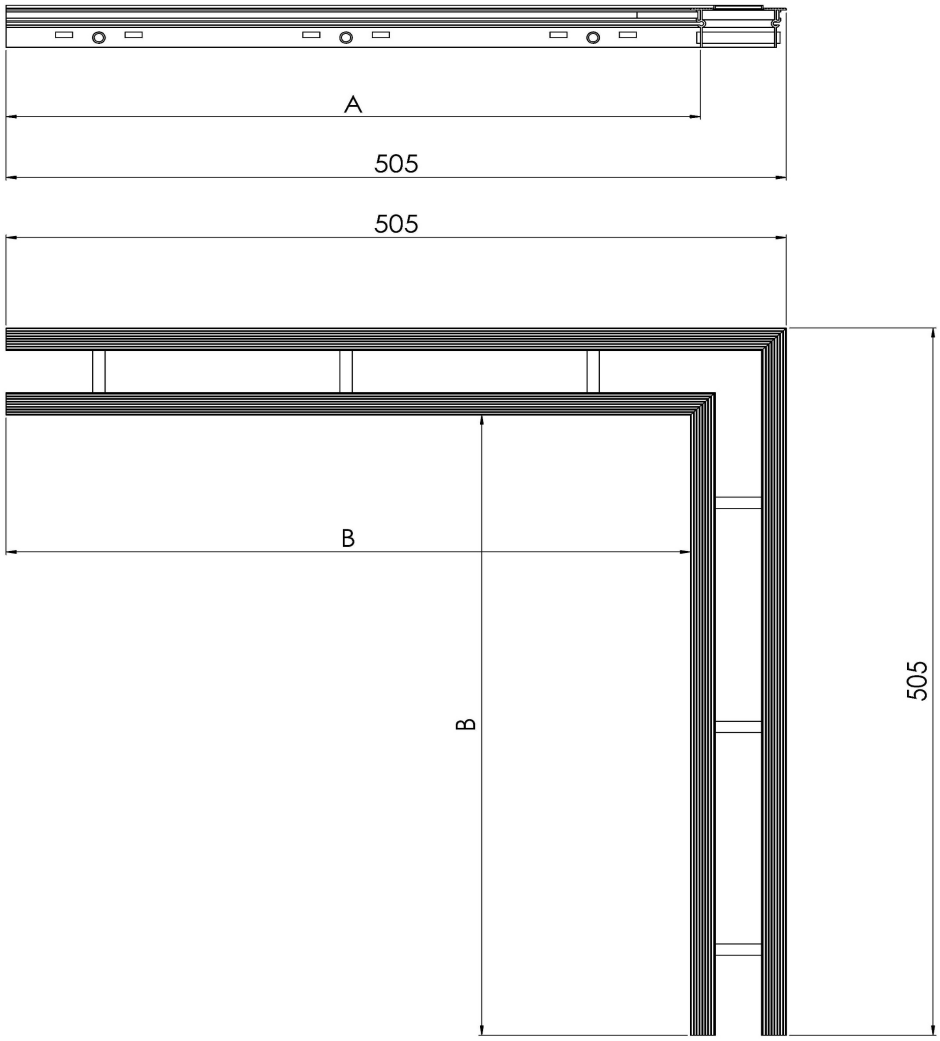


CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

LSDC40 **Corner connection**



A [mm]	B [mm]
439	433

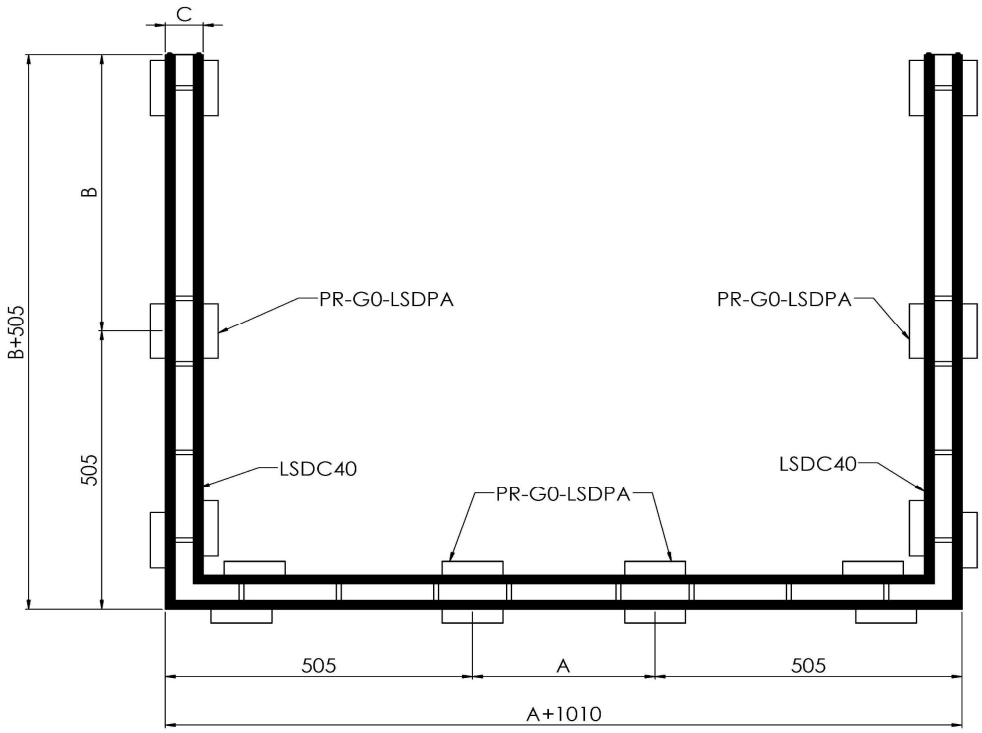


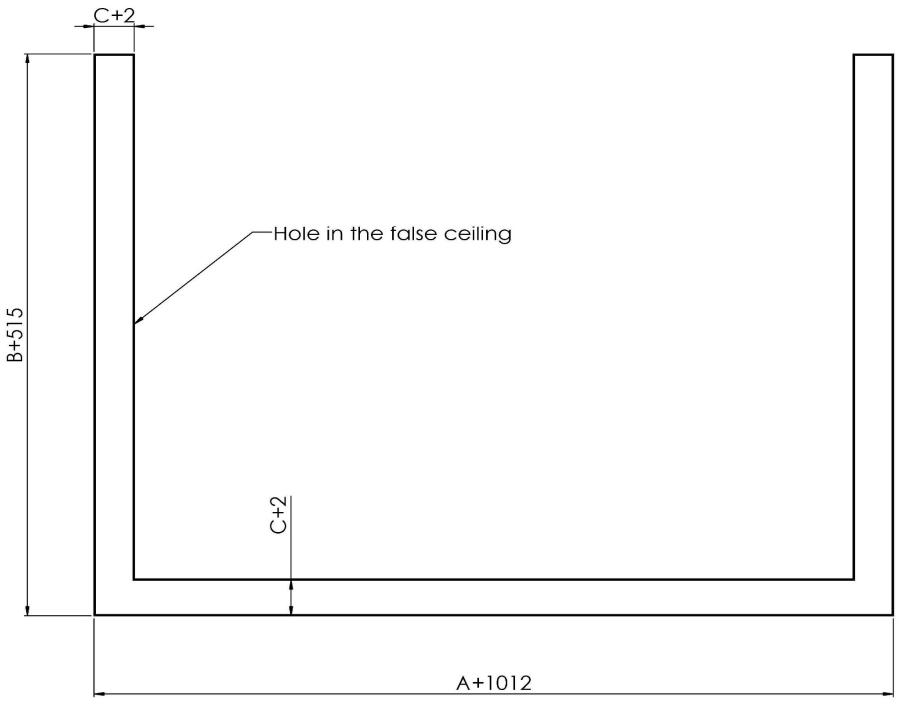
CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

Example of continuous line installation with corners





C [mm]
72

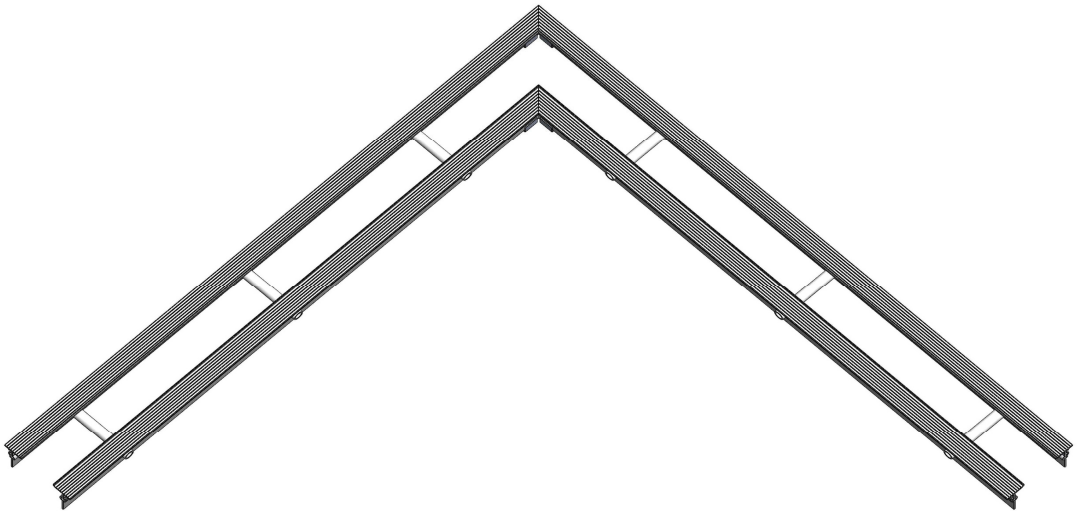


CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

LSDC50 Corner connection



LSDC50	**LSDC50**	**Corner connection for LSD50**
1	1	
A	A	Frame color: anodised
	B	Frame color: RAL 9005 matte
	R	Frame color: RAL 9010 glossy
SA	SA	Metal sheet deflector color: galvanized
	SB	Metal sheet deflector color: RAL 9005 matte
	SR	Metal sheet deflector color: RAL 9010 glossy
	SL	Metal sheet deflector color: RAL 9003 matte
	ZZ	Without deflector

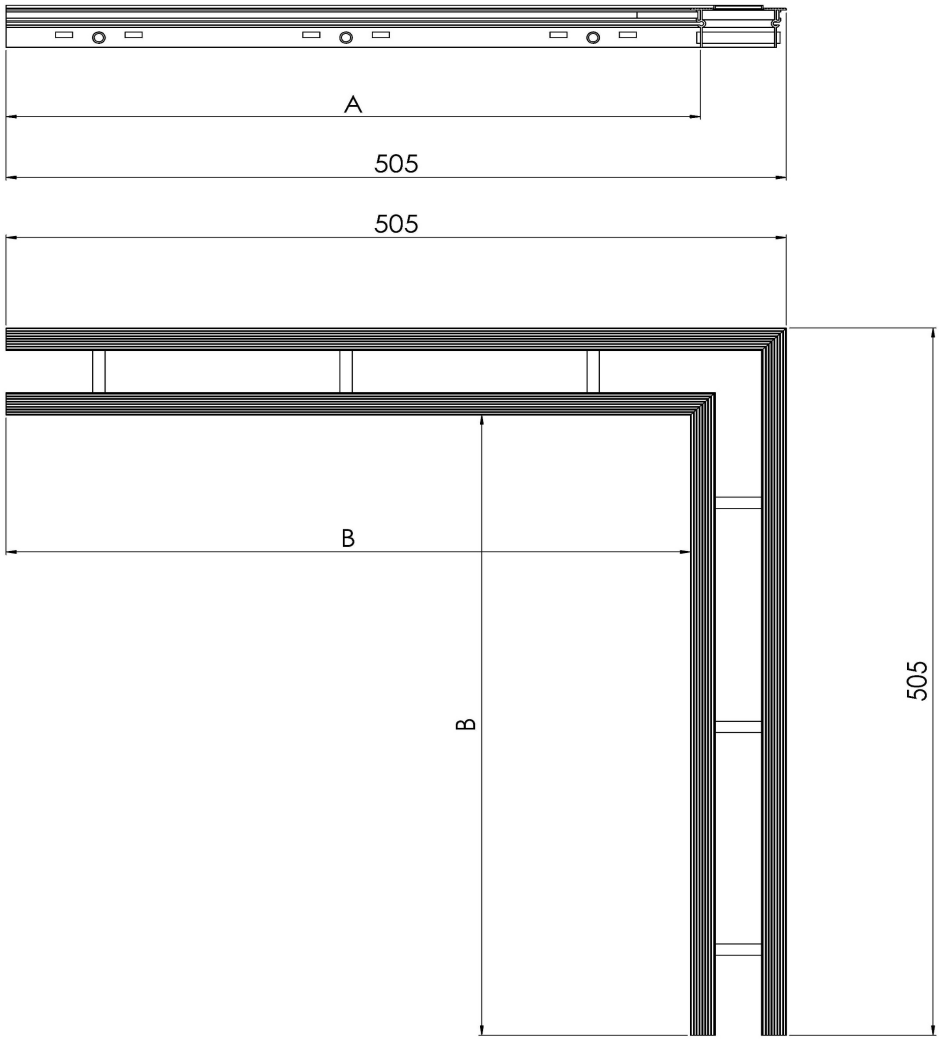


CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

LSDC50 **Corner connection**



A [mm]	B [mm]
429	423

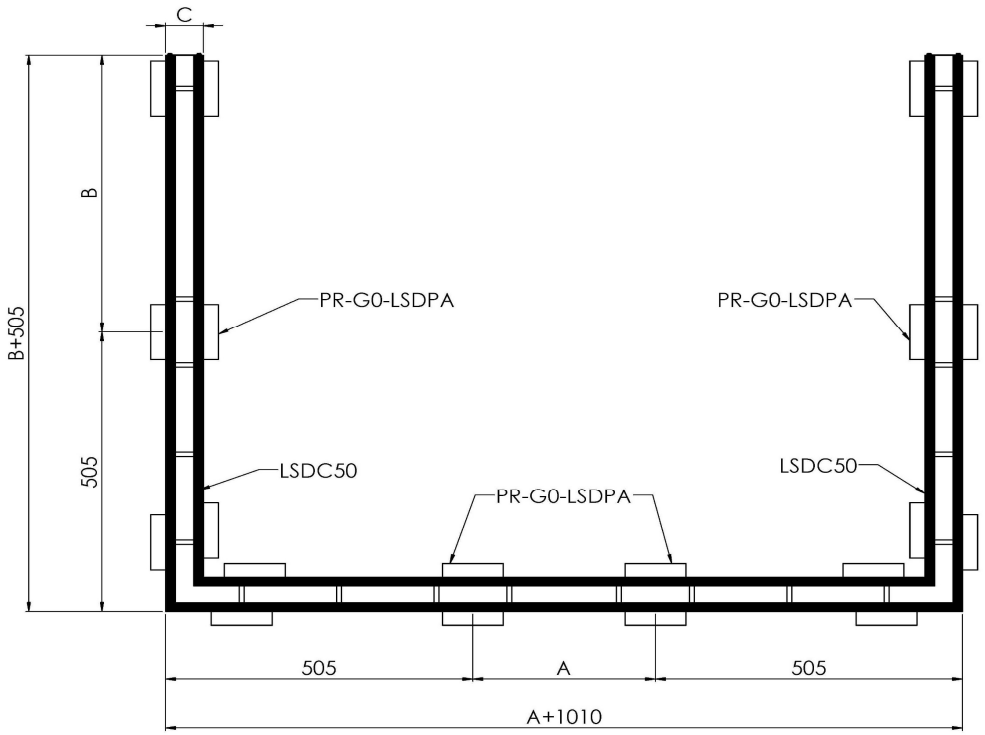


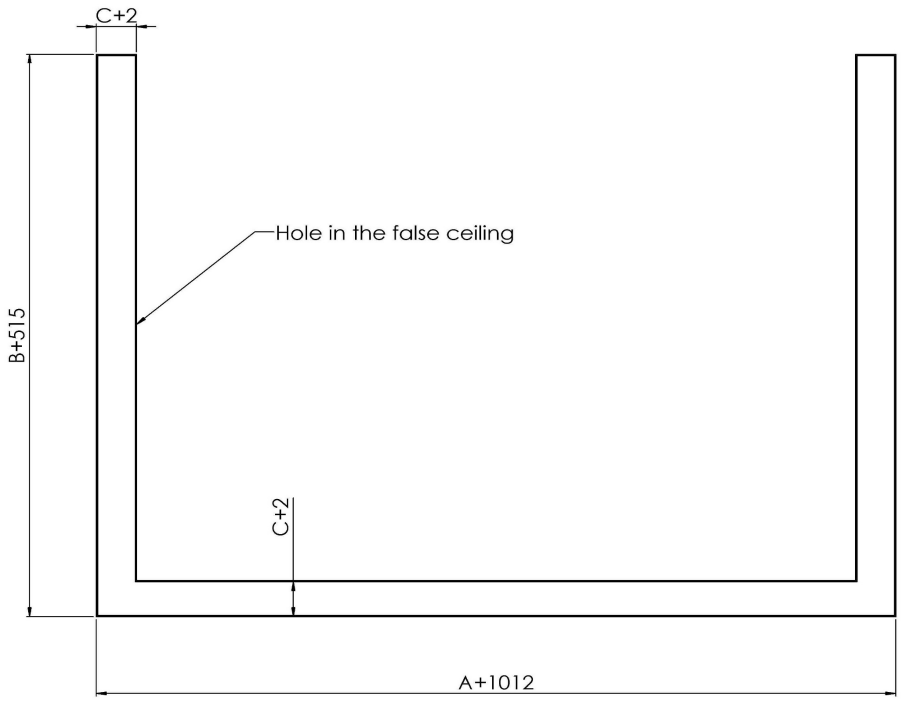
CONCEALED DESIGN
SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50
SERIES

Example of continuous line installation with corners





C [mm]
82