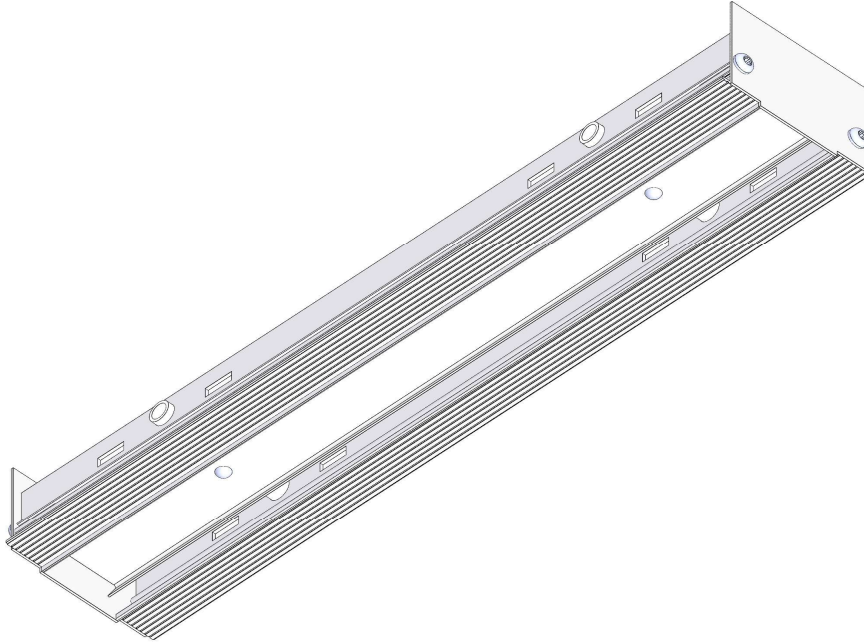




CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

OVERVIEW



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:

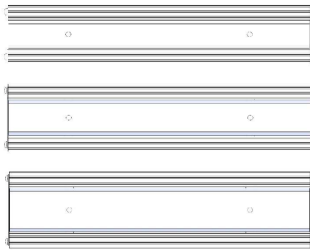
Frame: anodised aluminium, white RAL 9010 glossy, black RAL 9005 matte.

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.

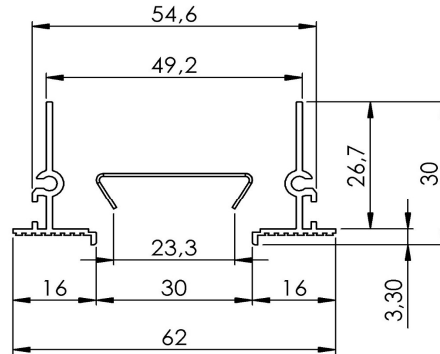


CONCEALED DESIGN SLOT DIFFUSERS

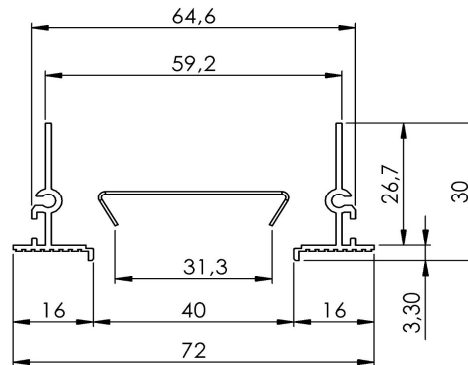
LSD30-40-50 SERIES

PRINCIPAL DIMENSIONS LSD30-40-50

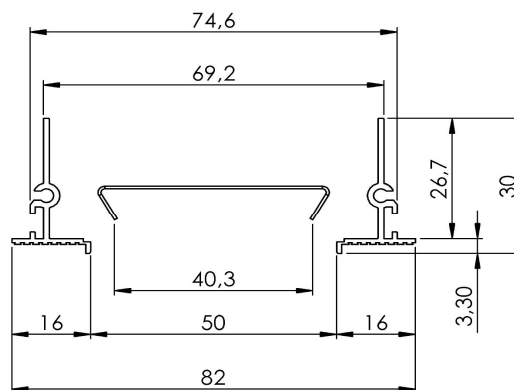
LSD30



LSD40

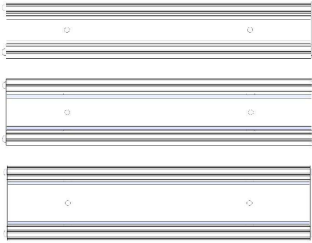


LSD50



Sezione efficace A_k [m²]

	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

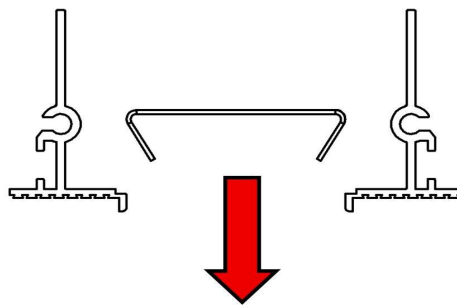
THROW SETTING

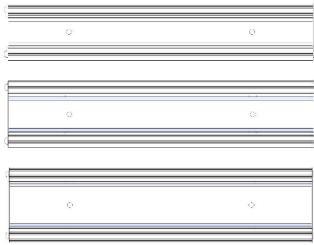
LSD30-40-50
SERIES

Adjustment for vertical throw

Metal sheet deflectors

The launch penetrates directly into the room
prevents the layering effect



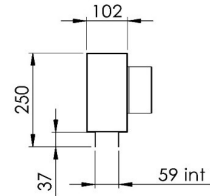
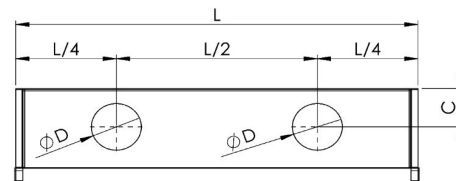
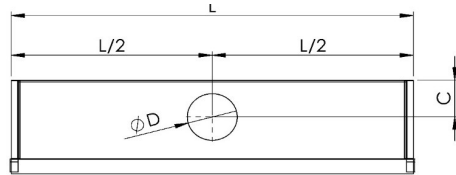


CONCEALED DESIGN SLOT DIFFUSERS

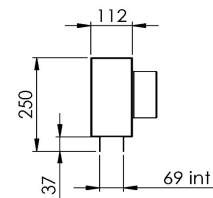
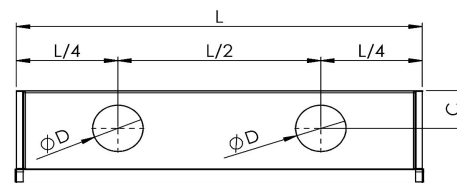
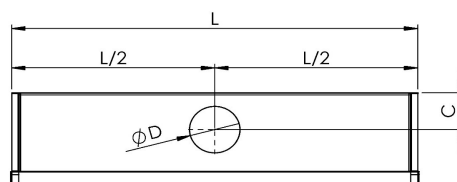
LSD30-40-50 SERIES

STANDARD PLENUM FOR LSD30-40-50

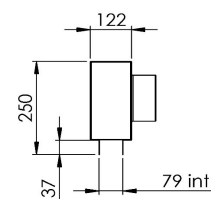
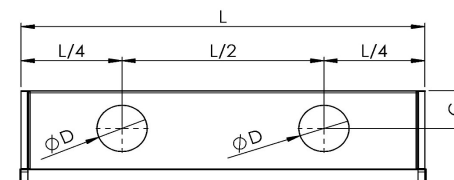
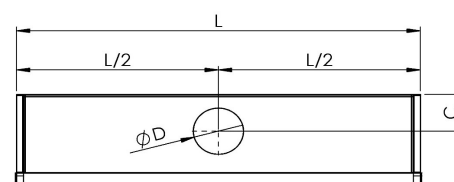
PLENUM LSD30



PLENUM LSD40

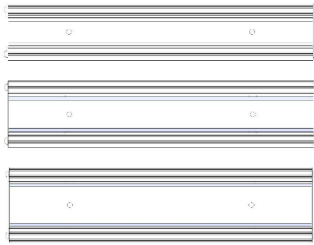


PLENUM LSD50



L Nominal diffuser length

VERSIONS	H (mm)	S (mm)	C (mm)	L ≤ 1200 mm		1201 ≤ L ≤ 2000 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

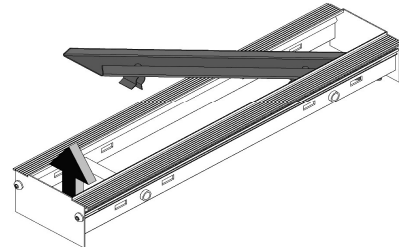


CONCEALED DESIGN SLOT DIFFUSERS

DIFFUSER INSTALLATION
WITHOUT PLENUM

LSD30-40-50
SERIES

1

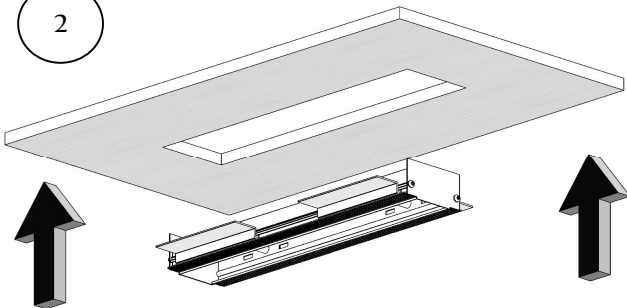


dimensions of the
hole in the ceiling

$B+10 \times H+2$

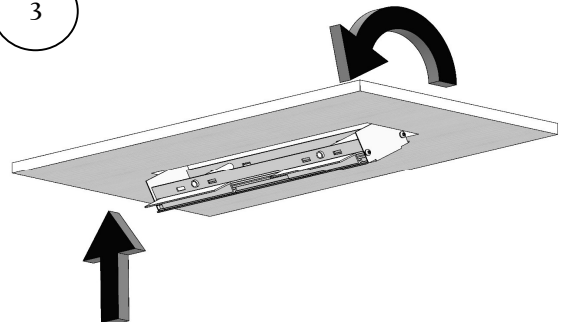
Remove the deflector by turning and pushing it

2



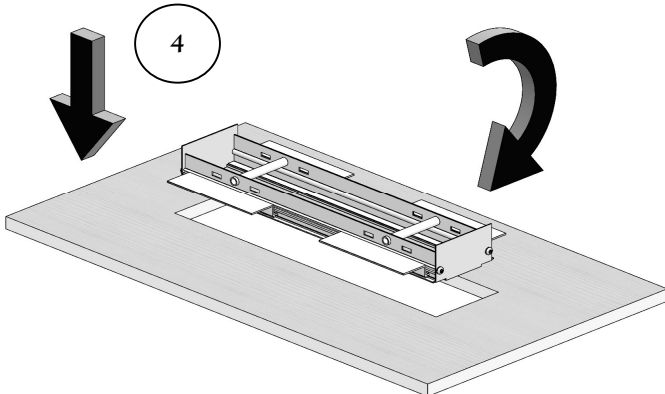
Insert the diffuser into the hole in the ceiling

3



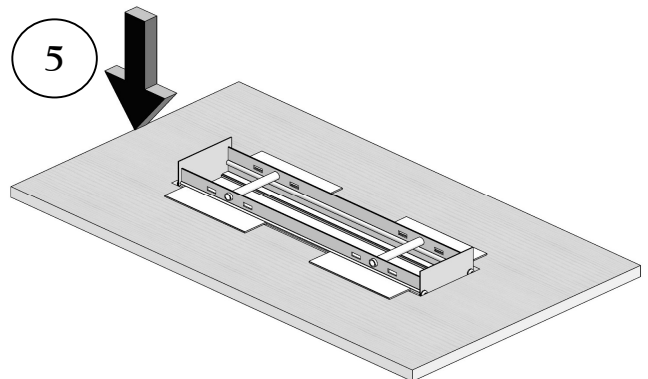
Rotate the diffuser to facilitate entry

4



Place the diffuser inside the hole

5



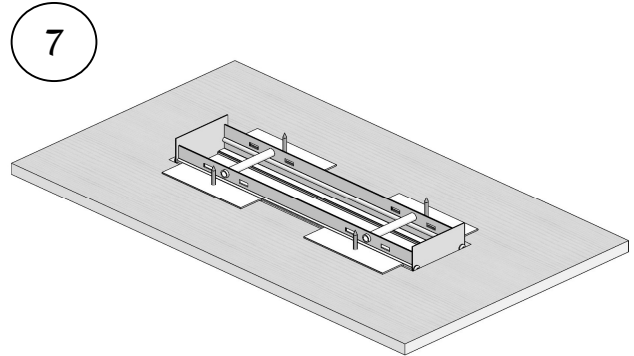
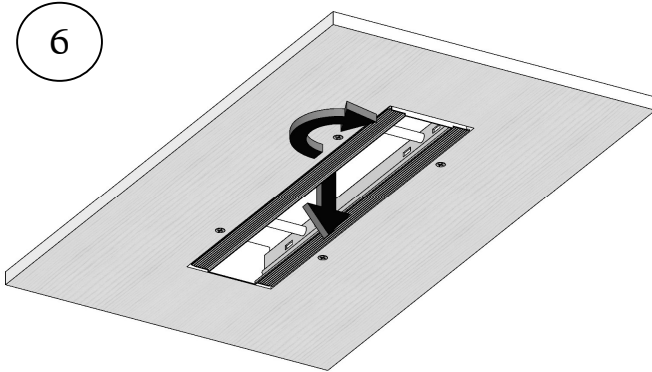
Attach the anchoring bayonets to the suspended ceiling



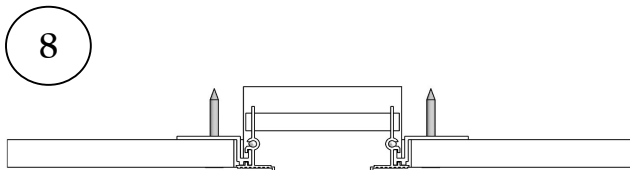
CONCEALED DESIGN SLOT DIFFUSERS

DIFFUSER INSTALLATION WITHOUT PLENUM

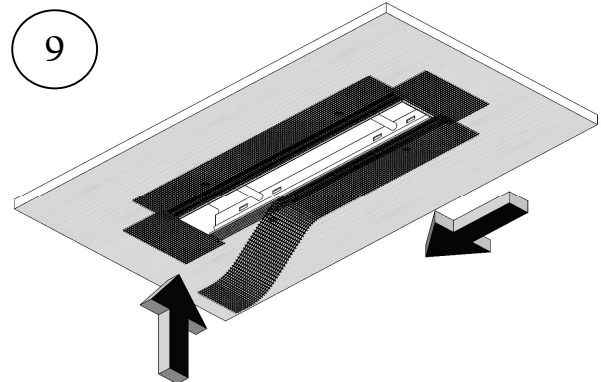
LSD30-40-50 SERIES



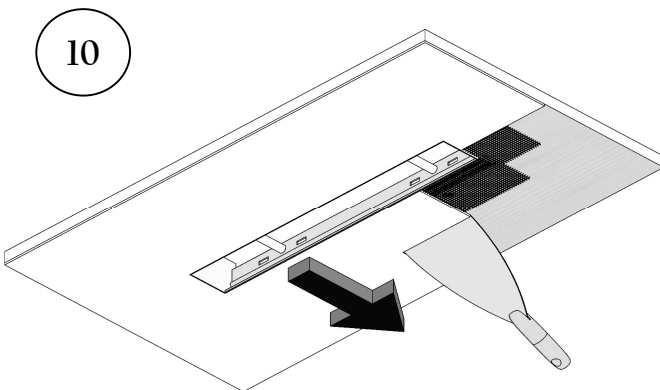
Keeping the diffuser in contact with the counter ceiling insert a self-drilling screw from bottom to top at each bayonet



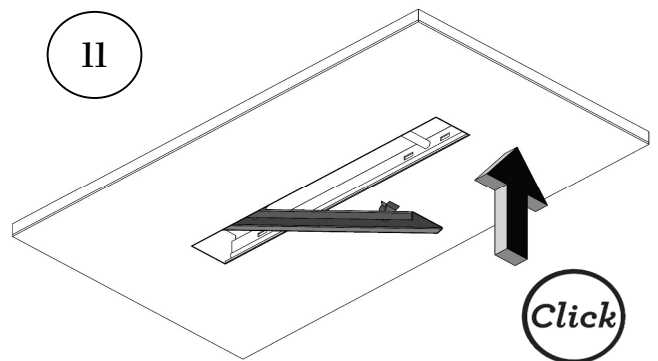
plasterboard thickness 12.5mm



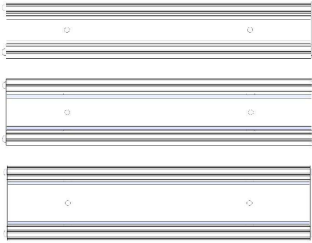
Apply plasterboard joint-covering tape



Apply skimming filler



Refit the deflector

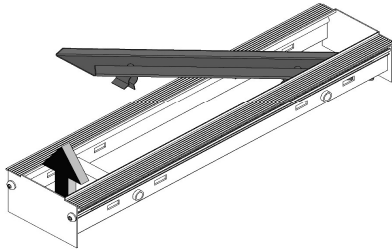


CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50
SERIES

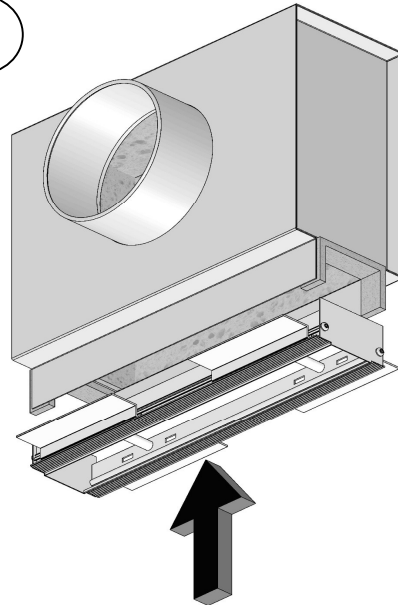
DIFFUSER INSTALLATION WITH PLENUM

1



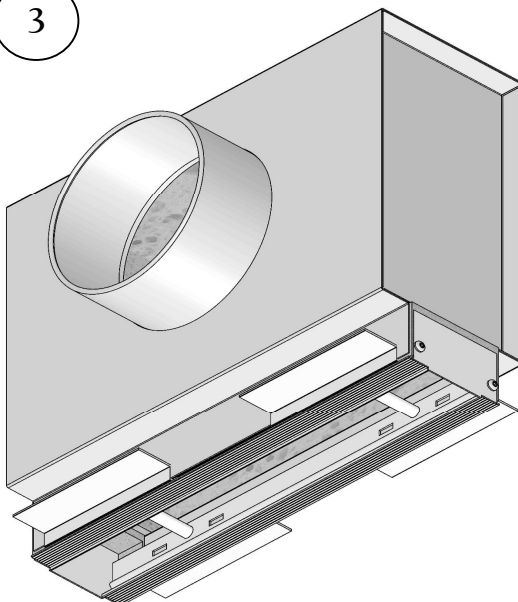
Remove the deflector by turning and pushing it

2

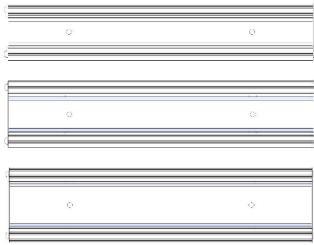


Insert the diffuser inside the plenum

3



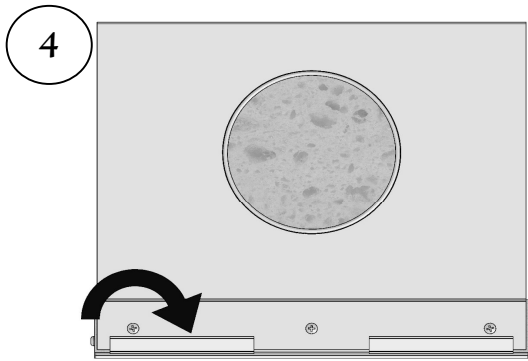
Bring the plenum to a stop on the anchorage bayonets



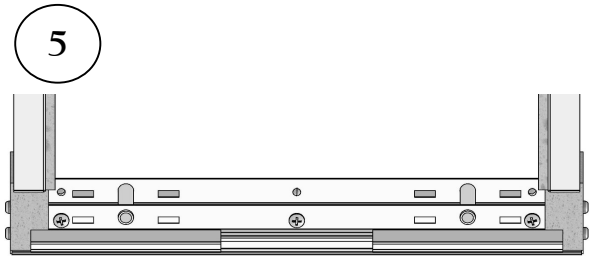
CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50
SERIES

DIFFUSER INSTALLATION WITH PLENUM



Fasten the plenum and diffuser frame with self-drilling screws

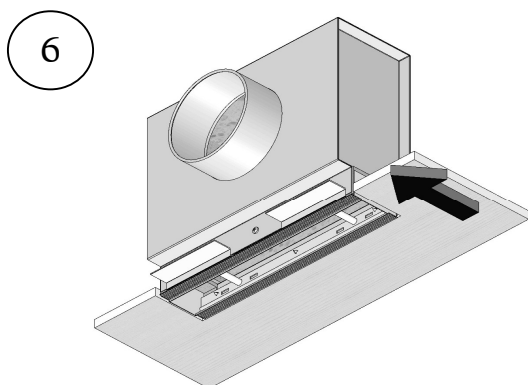


When fixing with screws, take care not to damage the diffuser

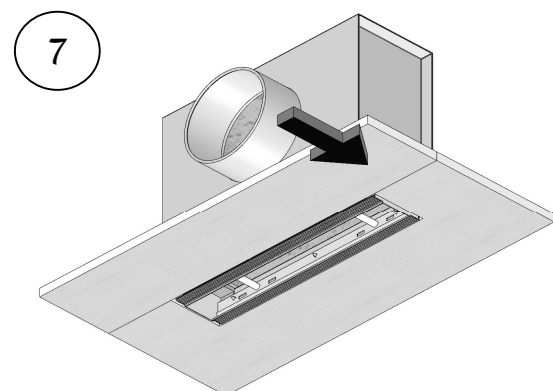


dimensions of the
hole in the ceiling

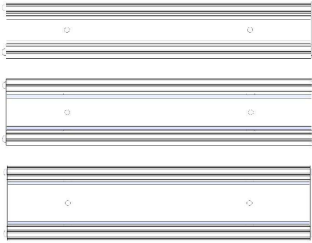
$B+10 \times H+2$



Add the first piece of plasterboard



Add the second piece of plasterboard

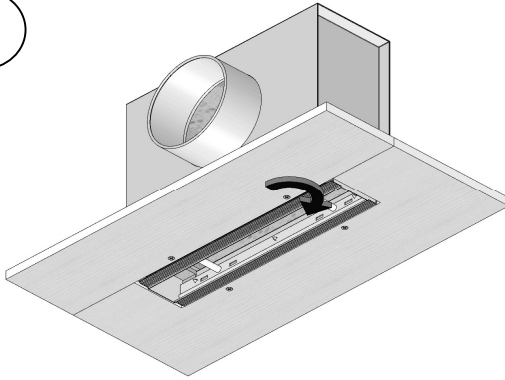


CONCEALED DESIGN SLOT DIFFUSERS

DIFFUSER INSTALLATION
WITH PLENUM

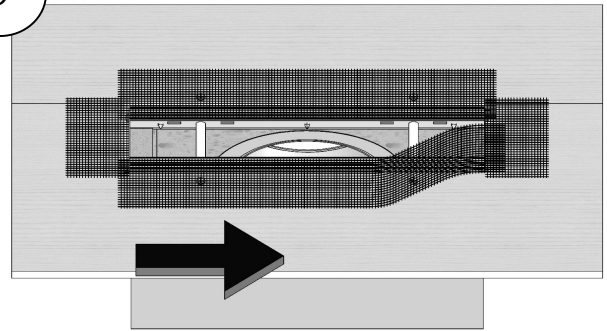
LSD30-40-50
SERIES

8



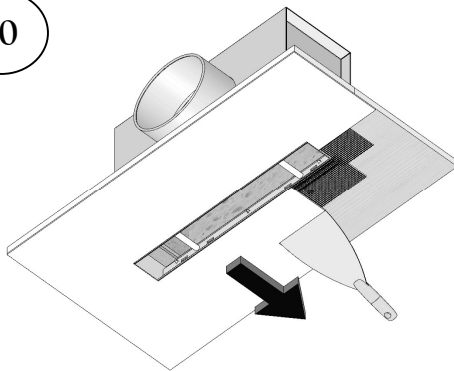
Tighten one screw per bayonet

9



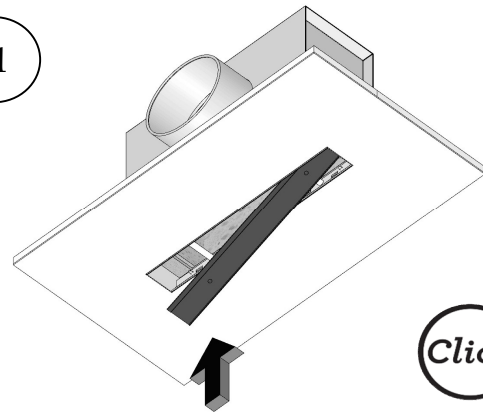
Apply plasterboard joint-covering tape

10



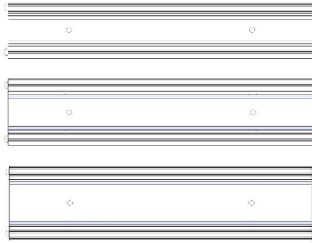
Apply skimming filler

11



Reinstall the deflector

Click

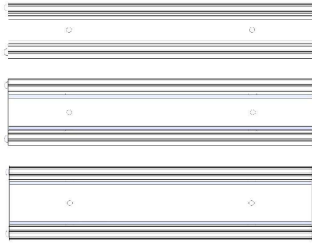


CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

QUICK SELECTION LSD30

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 (0,0089)	LwA	<20	29	38	45	50									
	Veff	1,9	3,1	4,4	5,6	6,9									
	Setting vertical	12	33	64	106	157									
	throw	10,2	1	1	2	3									
LSD30700 (0,0125)	LwA		22	31	37	42	47								
	Veff		2,2	3,1	4	4,9	5,8								
	Setting vertical		16	32	52	78	109								
	throw		10,2	1	1	2	3								
LSD301000 (0,0178)	LwA		<20	23	29	35	39	43	46	49					
	Veff		1,6	2,2	2,8	3,4	4	4,7	5,3	6					
	Setting vertical		7	14	23	35	48	64	82	104					
	throw		10,2	1	1	2	2	3	3	3					
LSD301200 (0,0214)	LwA		<20	<20	25	31	35	39	42	45	48	50			
	Veff		1,3	1,8	2,3	2,9	3,4	3,9	4,4	5	5,5	6			
	Setting vertical		5	10	17	25	35	47	60	76	93	111			
	throw		10,2	1	1	1	2	2	3	3	3	4			
LSD301500 (0,0267)	LwA			<20	20	26	30	34	37	40	43	45	47	49	
	Veff			1,5	1,9	2,3	2,7	3,1	3,5	4	4,4	4,8	5,2	5,6	
	Setting vertical			6	11	16	22	29	38	48	58	70	82	96	
	throw			10,2	1	1	2	2	2	3	3	3	4	4	
LSD301800 (0,032)	LwA			<20	<20	22	26	30	33	36	39	41	43	45	47
	Veff			1,2	1,6	1,9	2,2	2,6	2,9	3,3	3,7	4	4,3	4,7	5
	Setting vertical			4	7	11	15	20	26	33	40	48	56	66	76
	throw			10,2	1	1	2	2	2	2	3	3	3	4	4
LSD302000 (0,0356)	LwA				<20	<20	24	27	31	34	37	39	41	43	45
	Veff				1,4	1,7	2	2,3	2,6	3	3,3	3,6	3,9	4,2	4,5
	Setting vertical				6	9	12	16	21	26	32	38	45	53	61
	throw				10,2	1	2	2	2	2	3	3	3	3	4

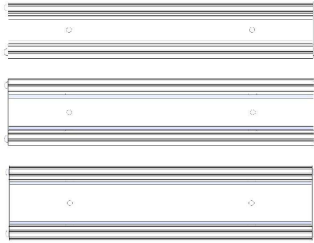


CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

QUICK SELECTION LSD40

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

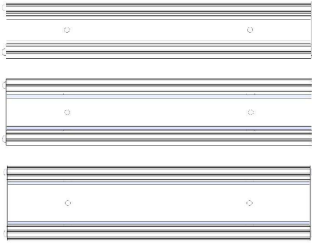


CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

QUICK SELECTION LSD50

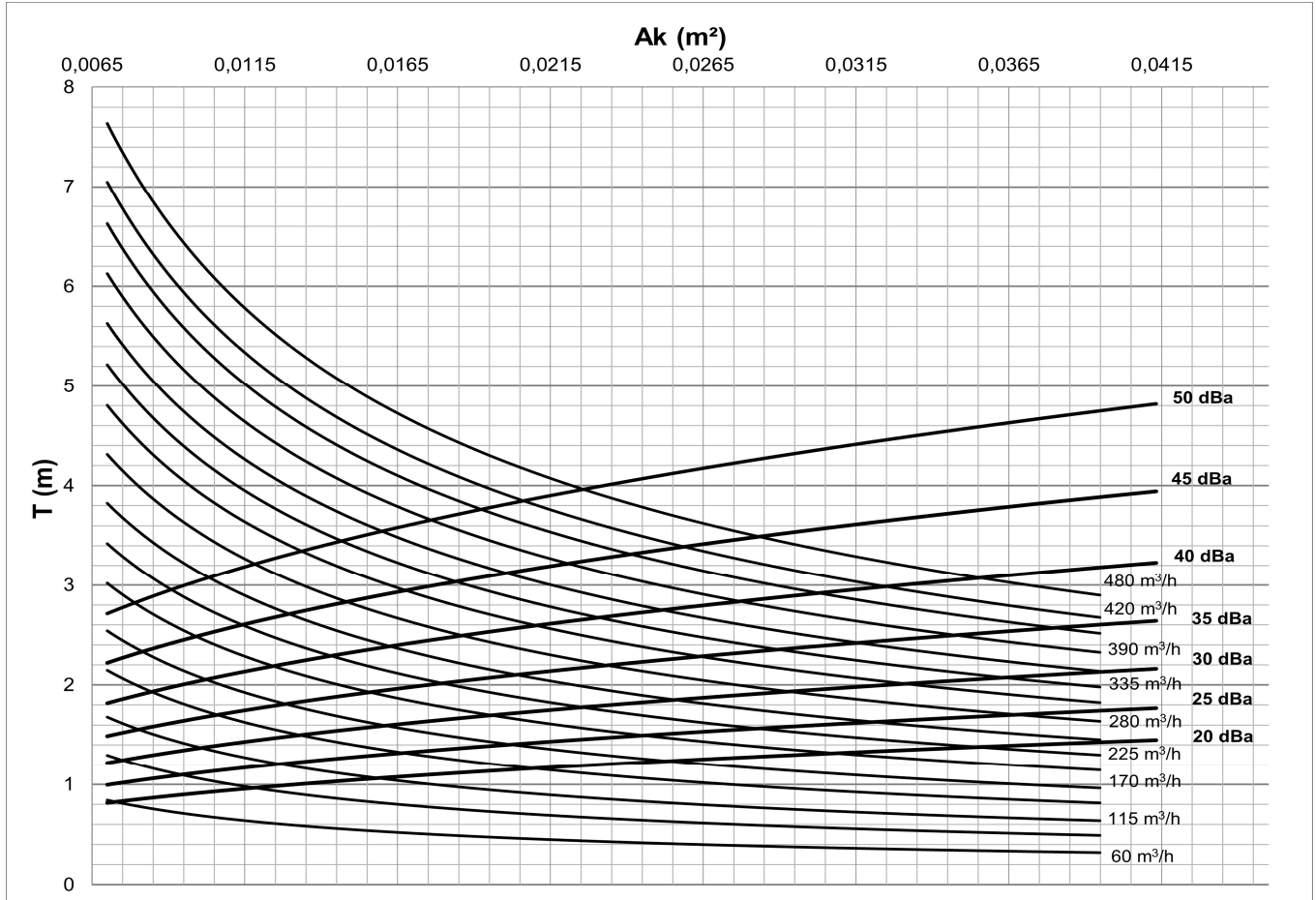
Model		Airflow m³/h (l/s)													
		80	130	180	230	280	330	380	430	480	530	580	630	680	730
		(22)	(36)	(50)	(64)	(78)	(92)	(106)	(119)	(133)	(147)	(161)	(175)	(189)	(203)
LSD50500 (0,0101)	LwA	20	33	42	48										
	Veff	2,2	3,6	5	6,3										
	Setting vertical	14	39	75	122										
	throw	10,2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



CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

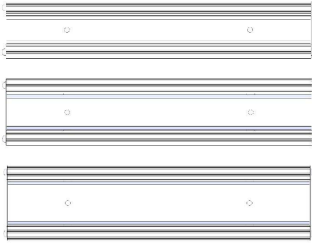
PERFORMANCE LSD30



T= Throw with terminal velocity 0.2m/s

Effective section Ak [m²]

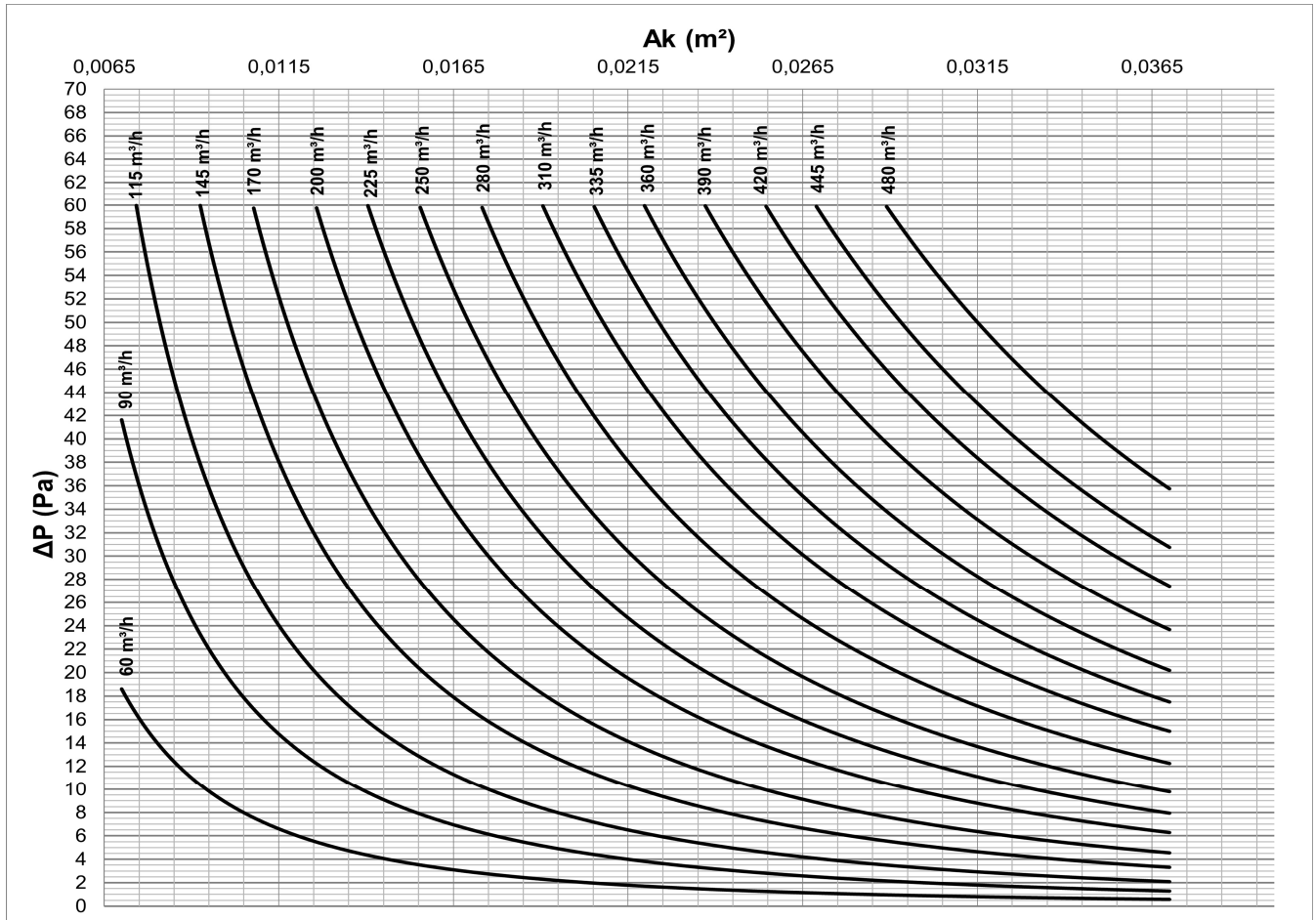
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD30	0,0089	0,0178	0,0267	0,0356



CONCEALED DESIGN SLOT DIFFUSERS

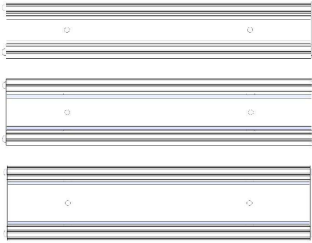
LSD30-40-50 SERIES

PERFORMANCE LSD30



Effective section A_k [m²]

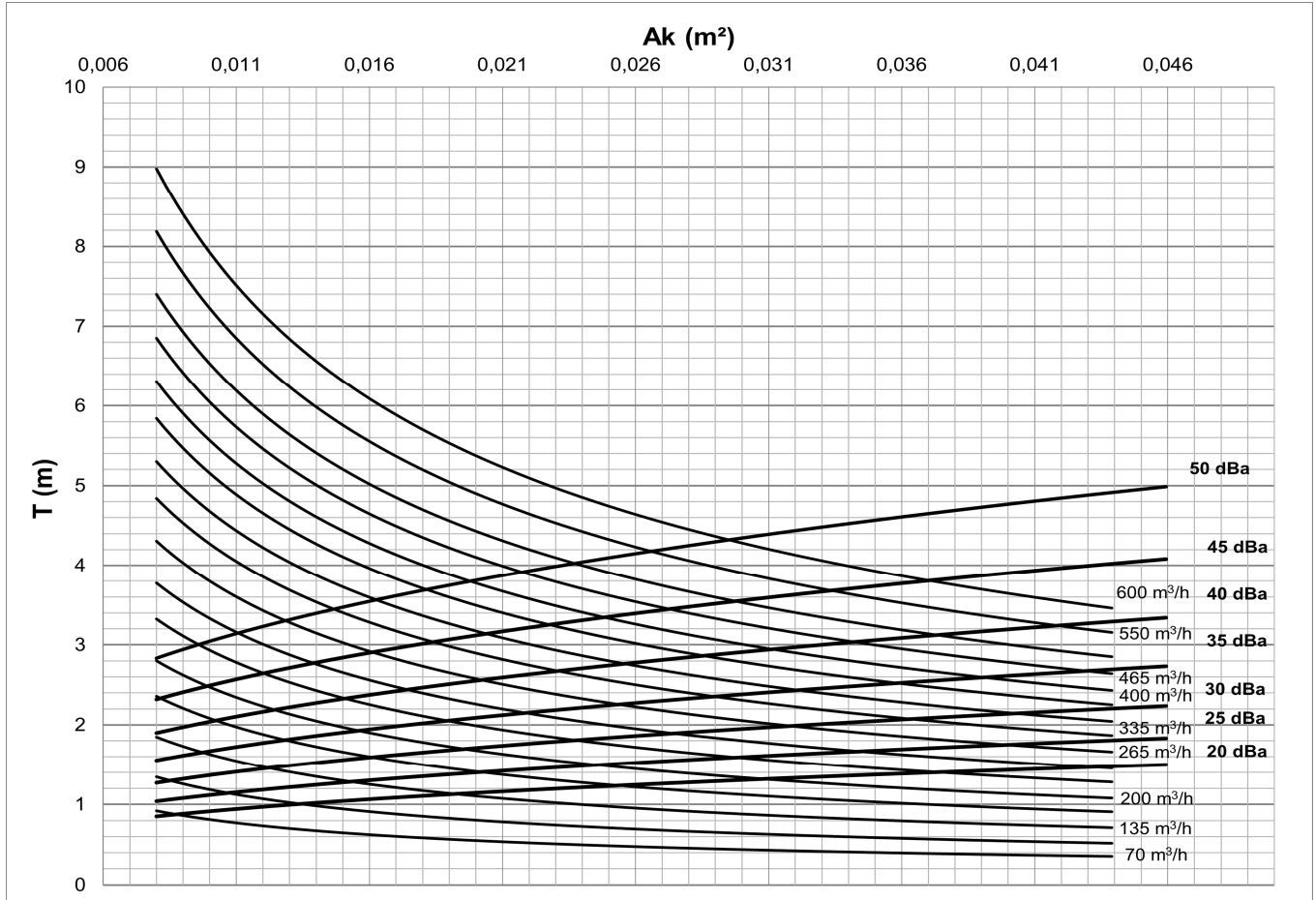
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD30	0,0089	0,0178	0,0267	0,0356



CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

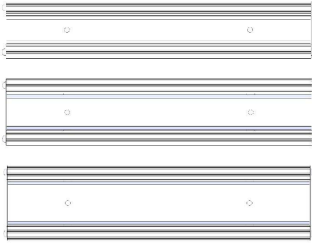
PERFORMANCE LSD40



T= Throw with terminal velocity 0.2m/s

Effective section Ak [m²]

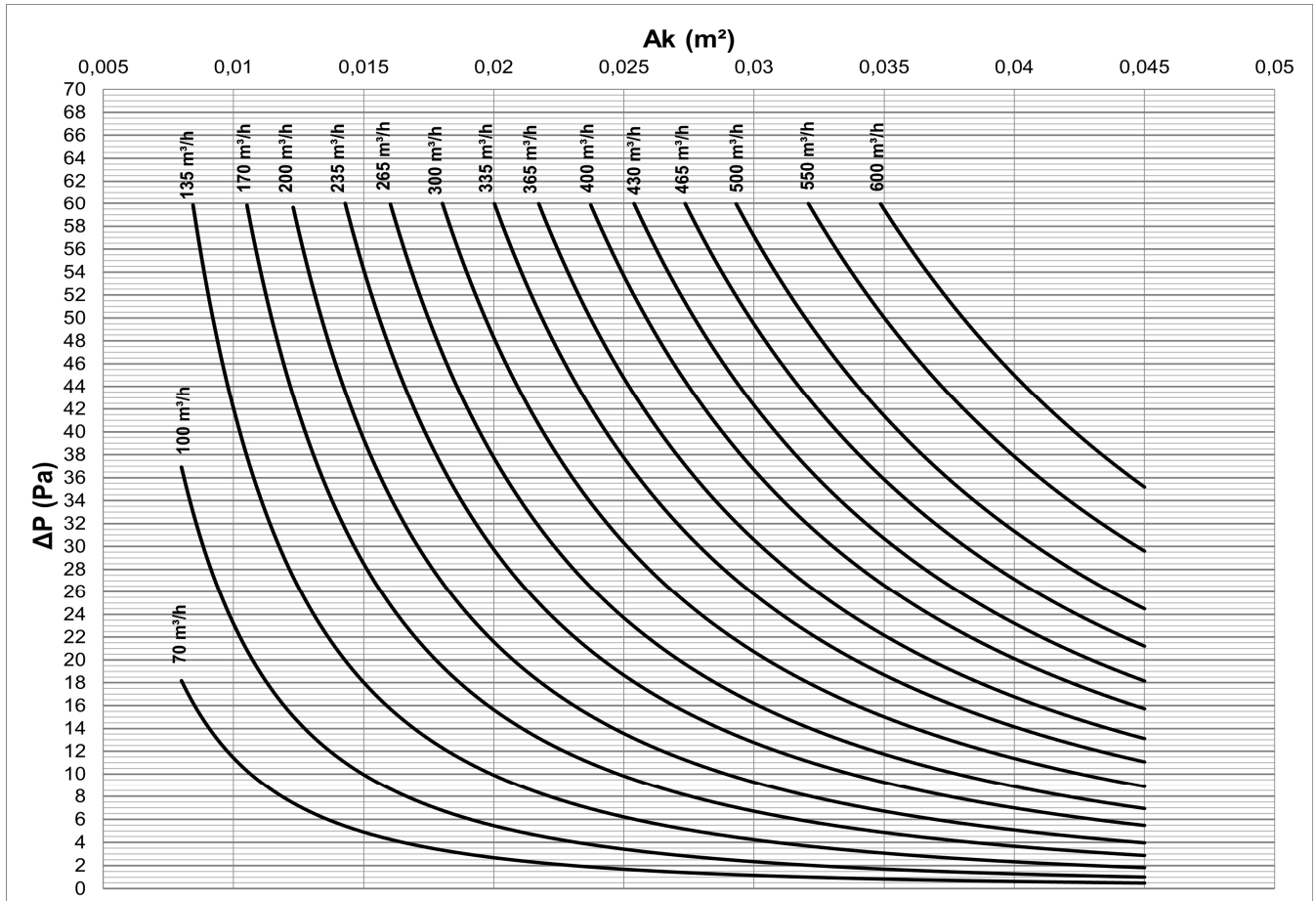
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD40	0,0096	0,0192	0,0288	0,0384



CONCEALED DESIGN SLOT DIFFUSERS

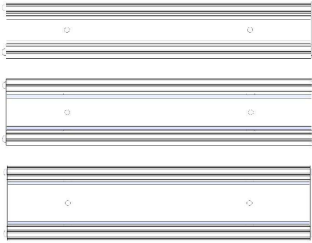
LSD30-40-50
SERIES

PERFORMANCE
LSD40



Effective section A_k [m²]

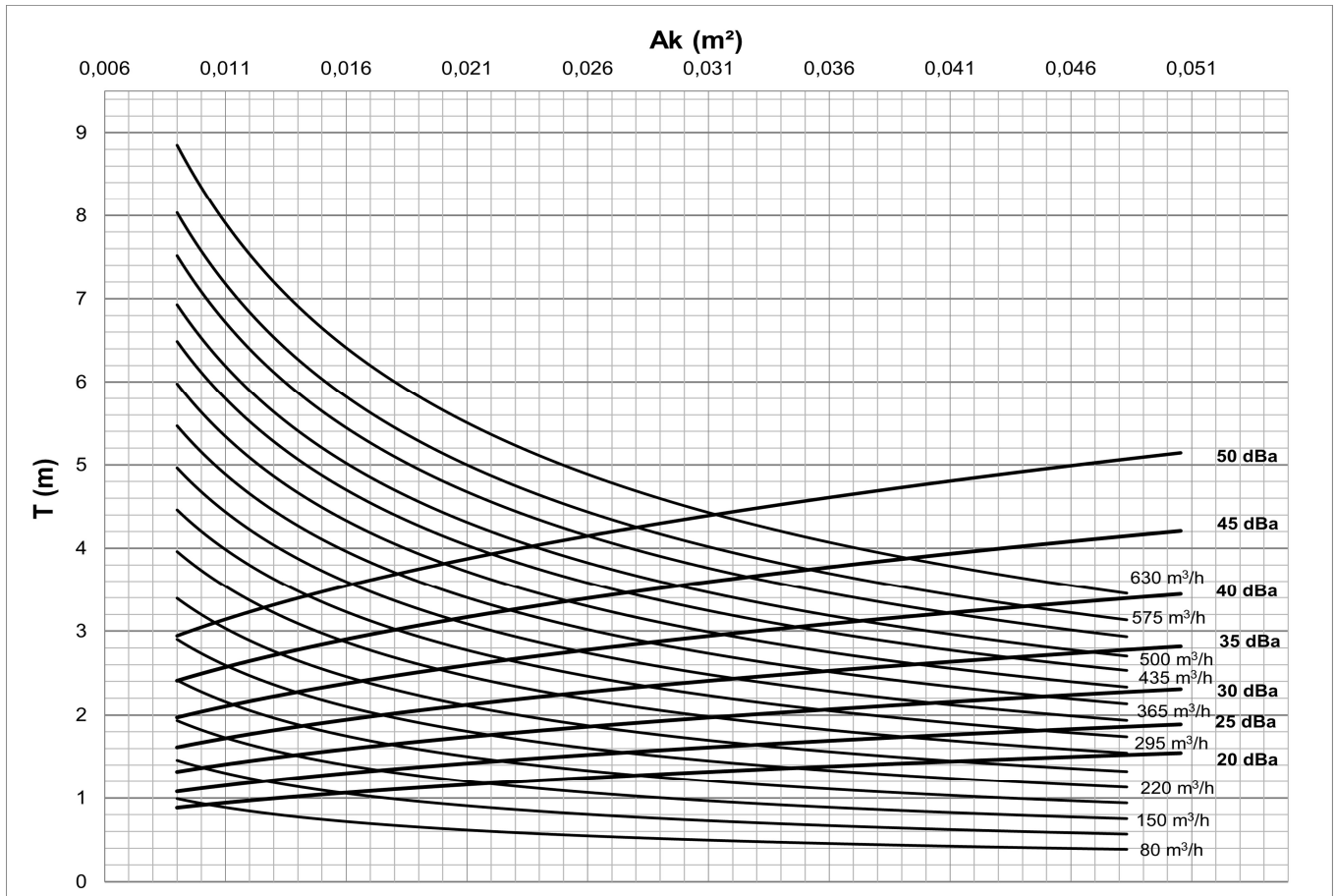
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD40	0,0096	0,0192	0,0288	0,0384



CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

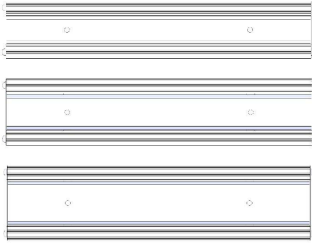
PERFORMANCE LSD50



T= Throw with terminal velocity 0.2m/s

Effective section A_k [m²]

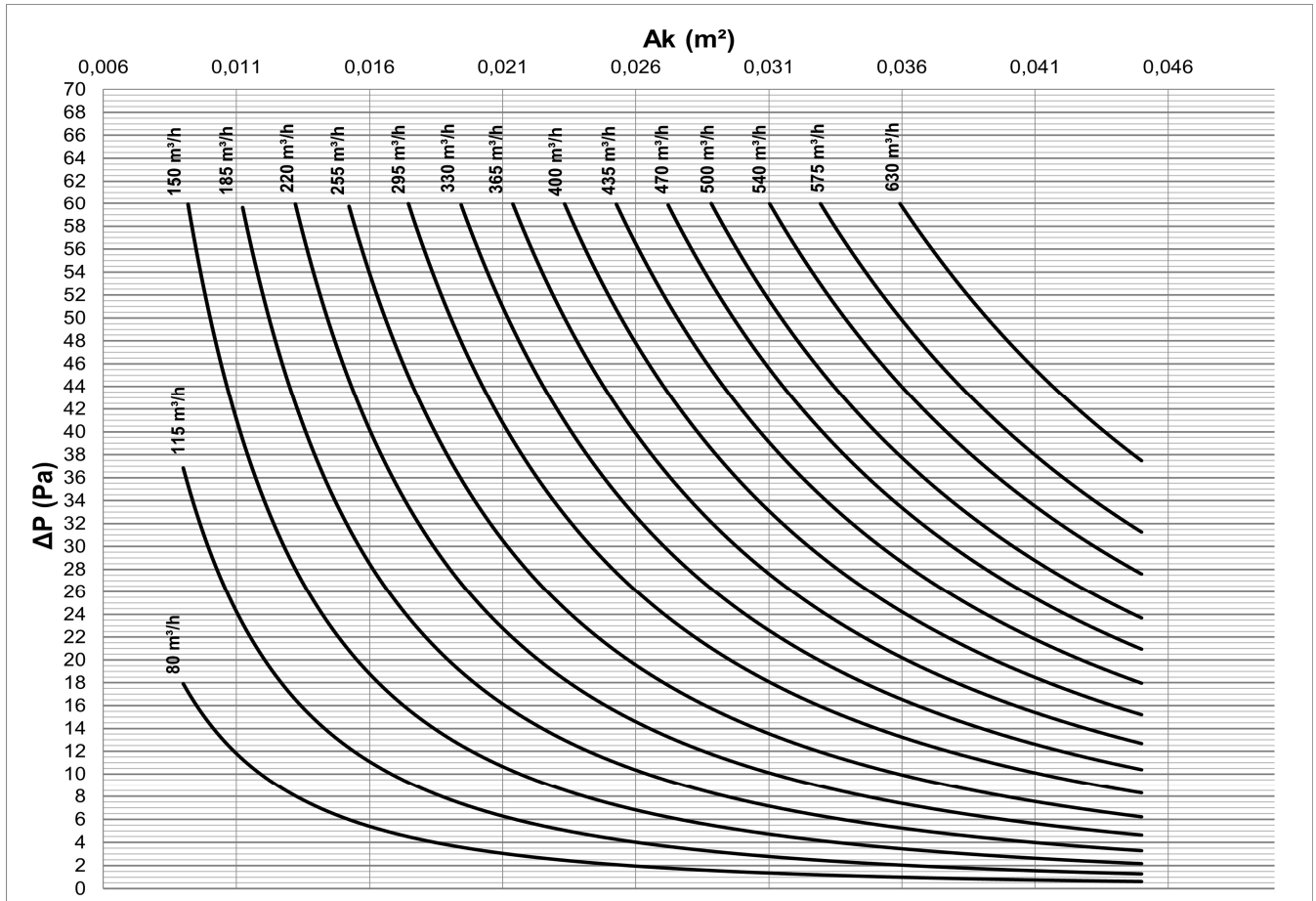
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD50	0,0101	0,0202	0,0303	0,0404



CONCEALED DESIGN SLOT DIFFUSERS

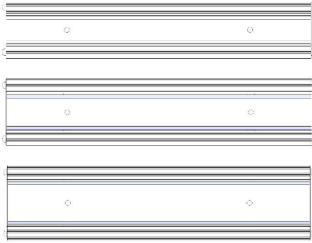
LSD30-40-50
SERIES

PERFORMANCE
LSD50



Effective section A_k [m²]

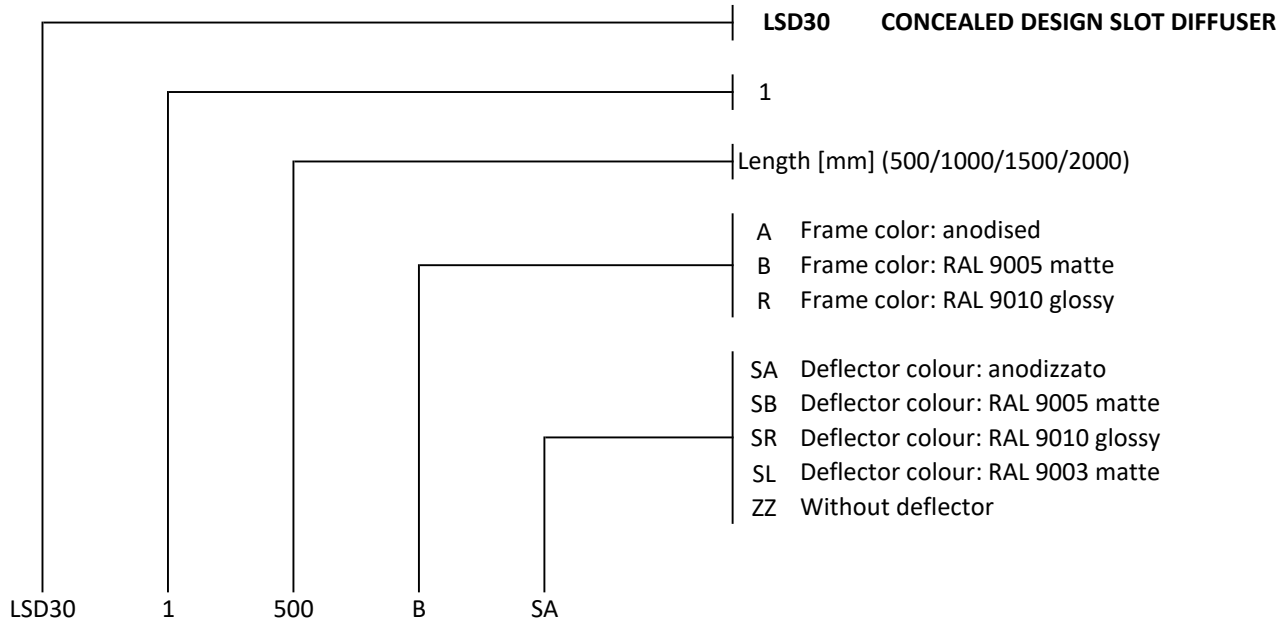
	Length [mm]			
	500	1000	1500	2000
	vertical throw	vertical throw	vertical throw	vertical throw
LSD50	0,0101	0,0202	0,0303	0,0404

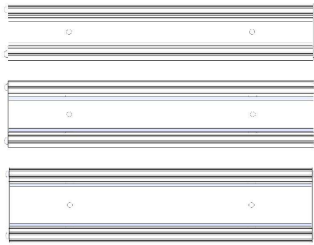


CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER LSD30

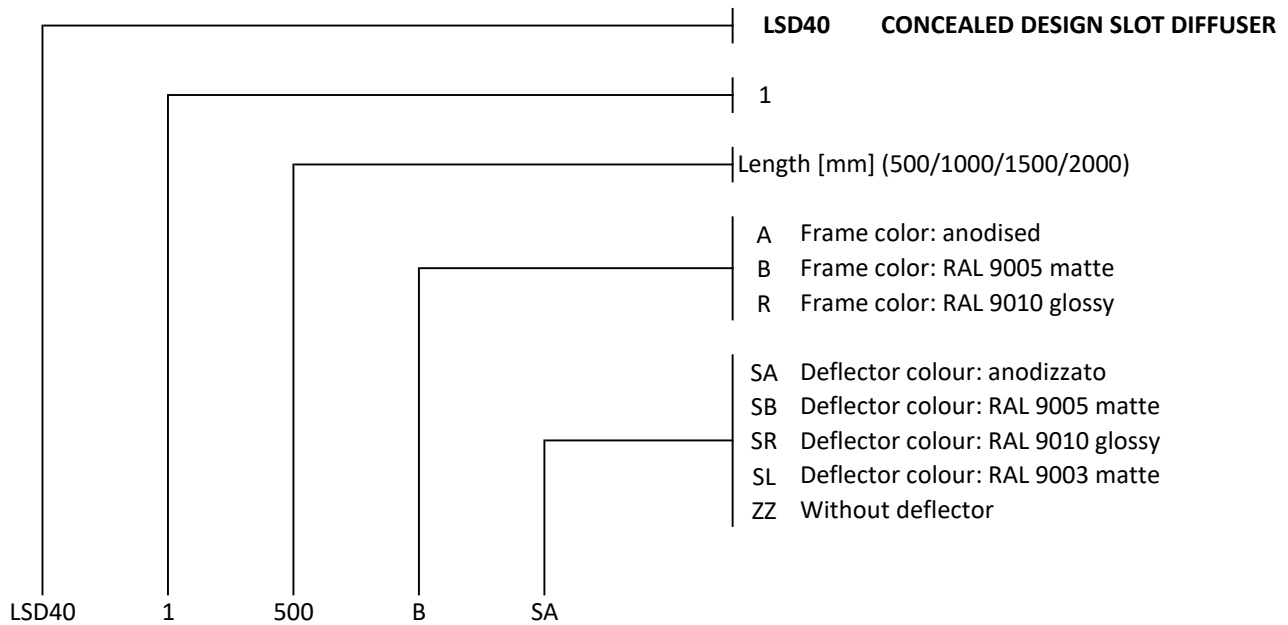


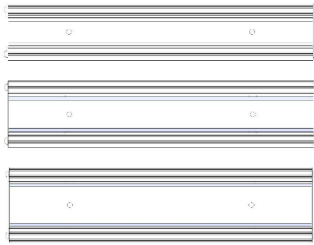


CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER LSD40

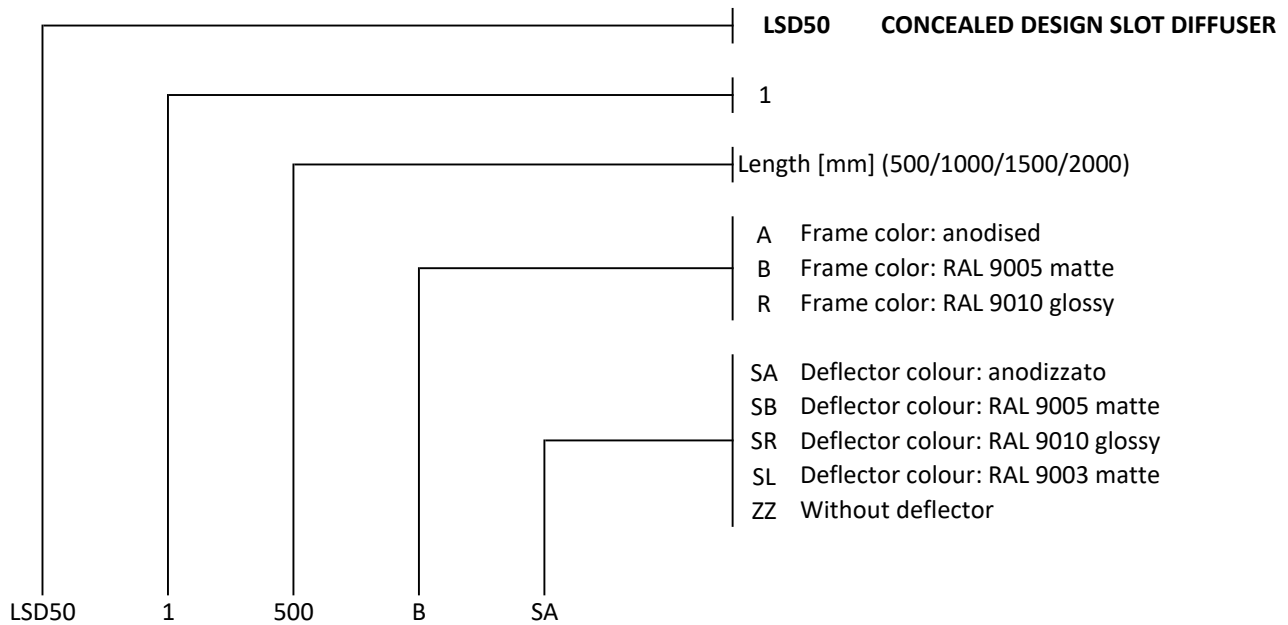


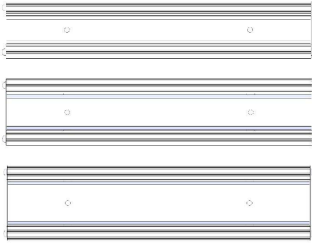


CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER LSD50

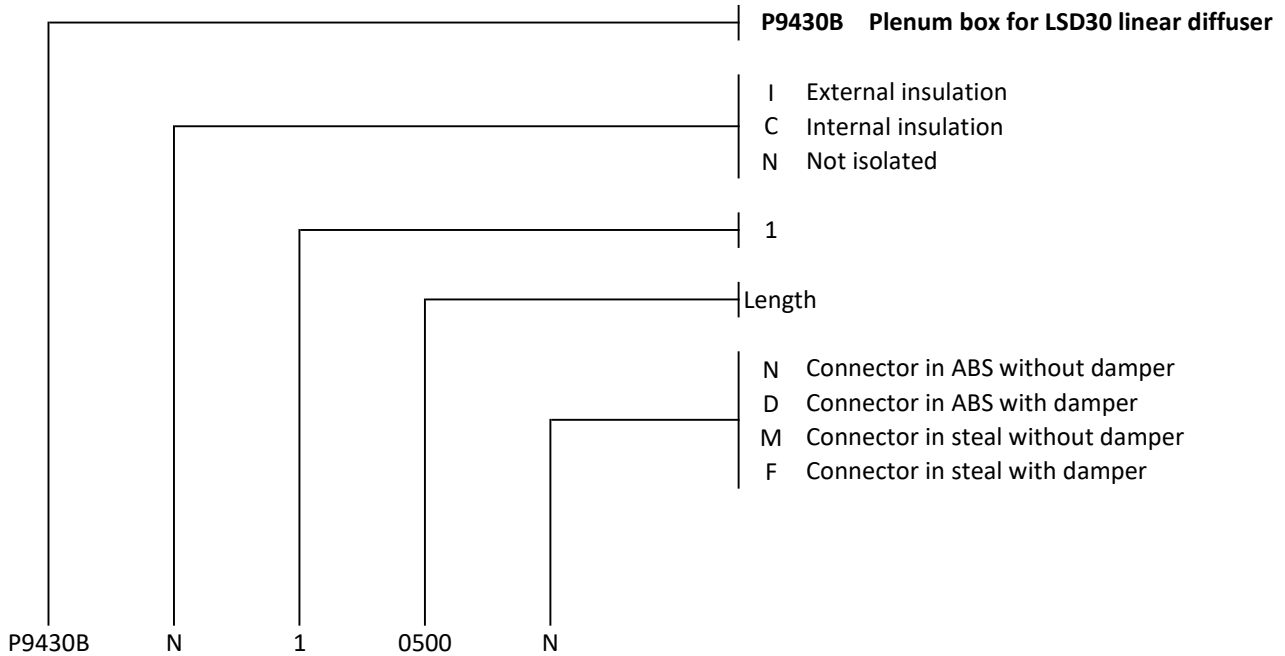




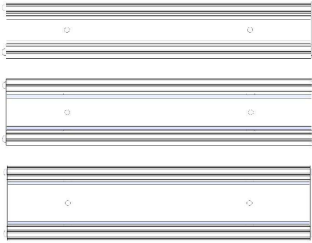
CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER PLENUM LSD30



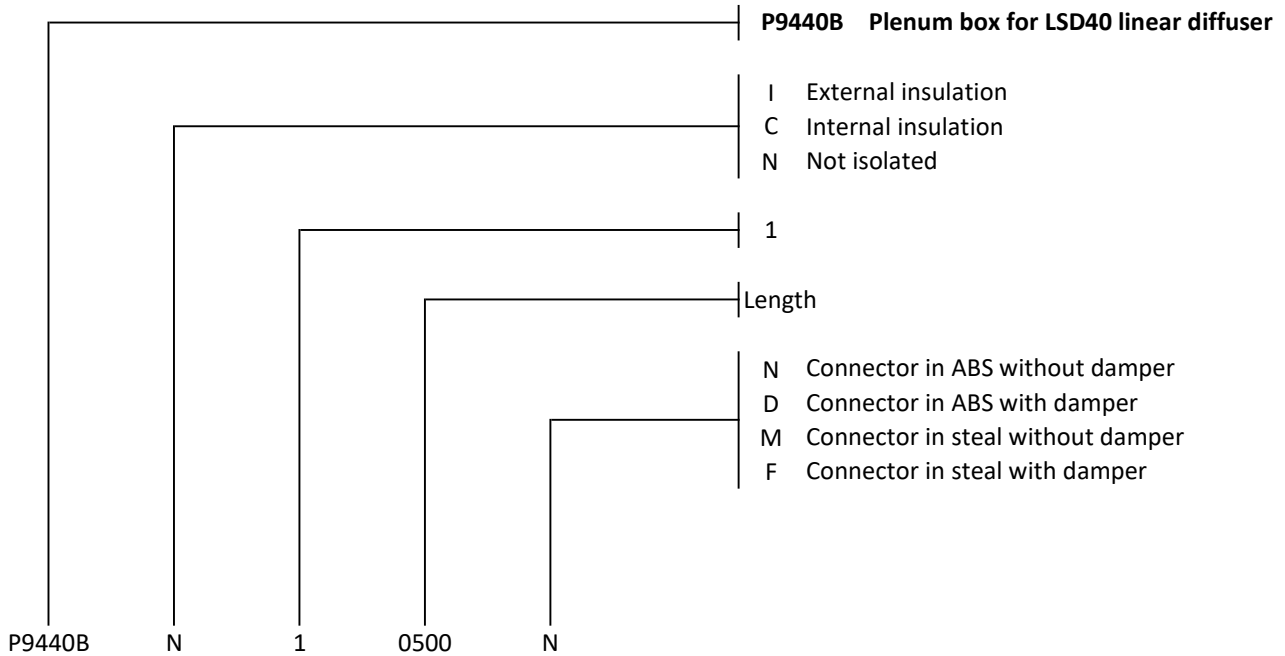
As standard, plenums are supplied unmounted on the diffuser



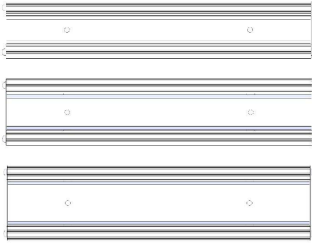
CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER PLENUM LSD40



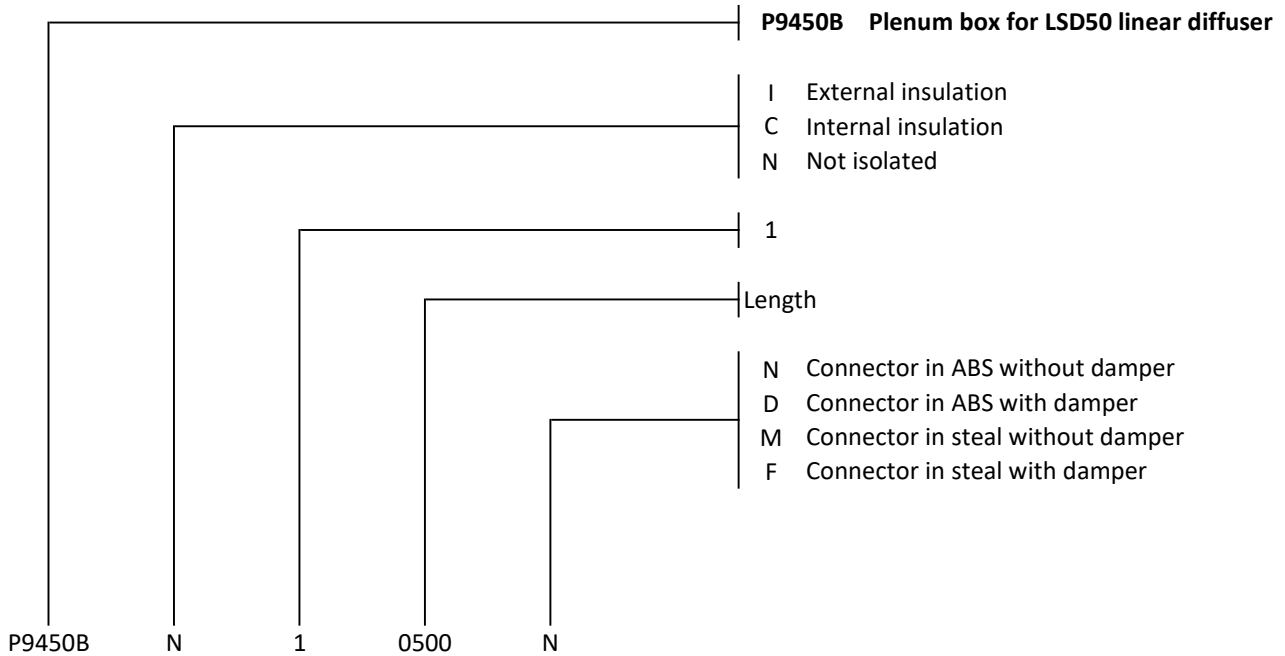
As standard, plenums are supplied unmounted on the diffuser



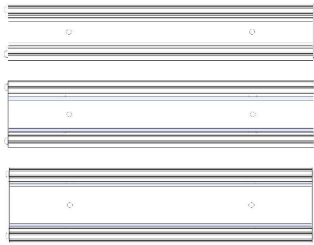
CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

HOW TO ORDER PLENUM LSD50



As standard, plenums are supplied unmounted on the diffuser



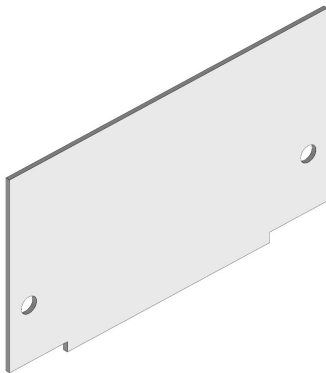
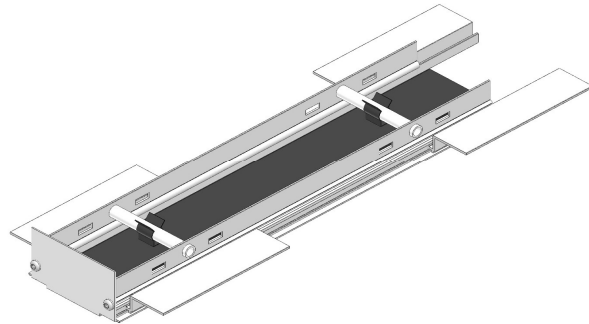
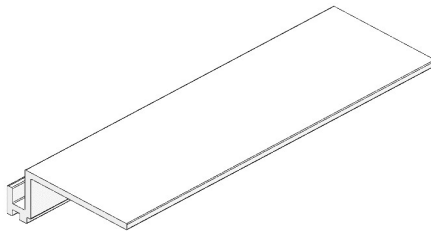
CONCEALED DESIGN SLOT DIFFUSERS

LSD30-40-50 SERIES

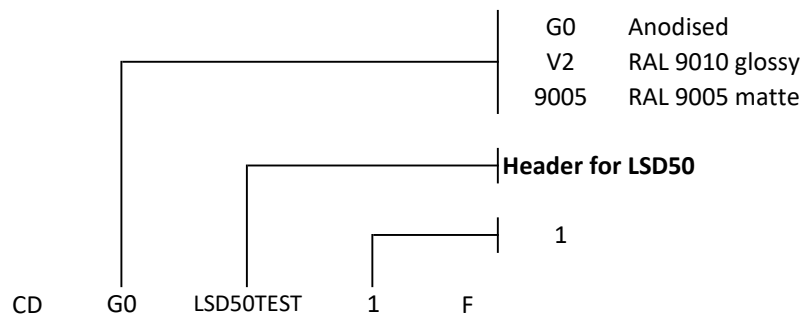
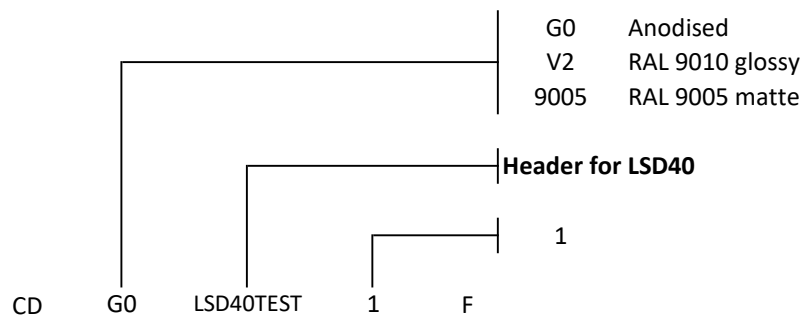
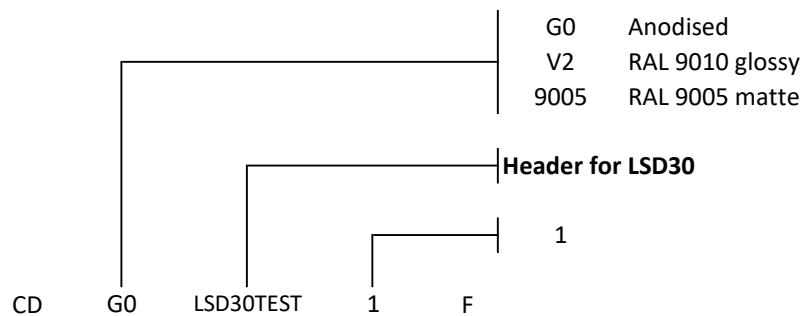
ACCESSORIES

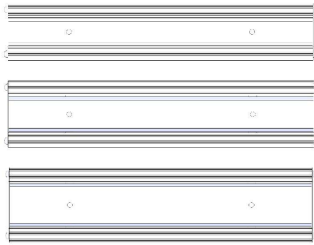
PR-G0-LSDPA

Bayonet for fixing the deflector



Standard aluminium header



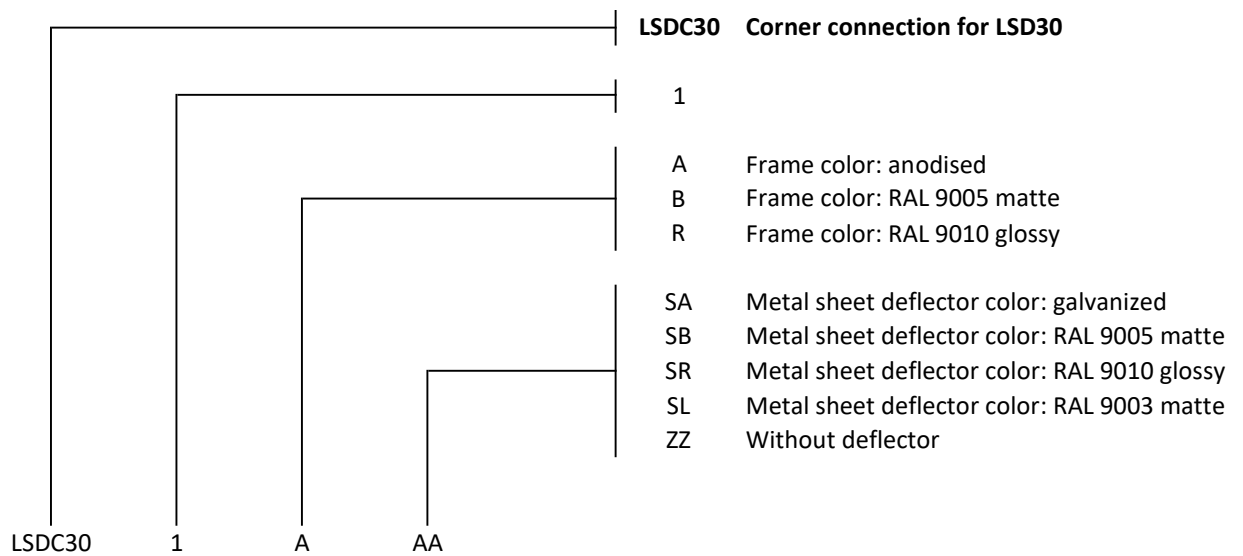
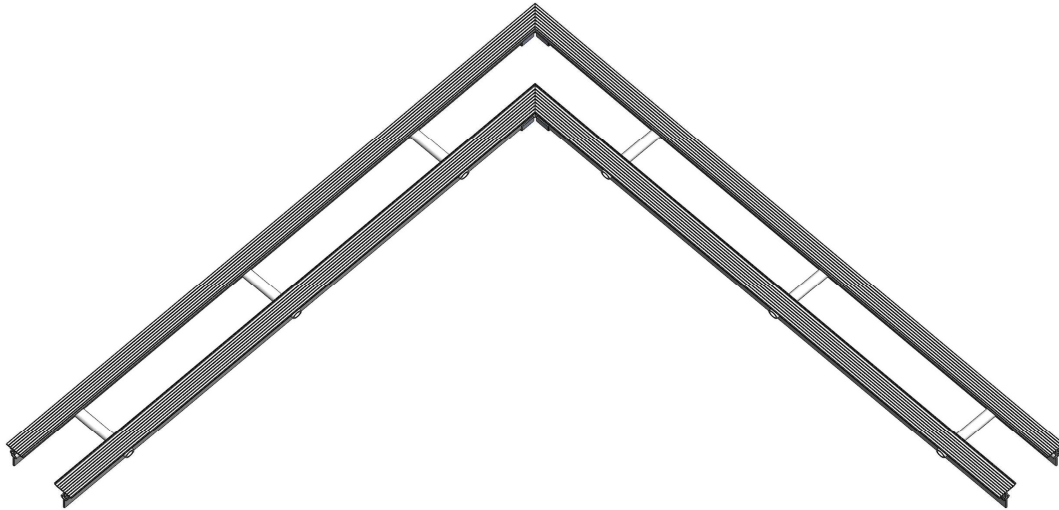


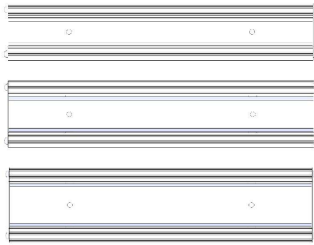
CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50 SERIES

LSDC30 Corner connection



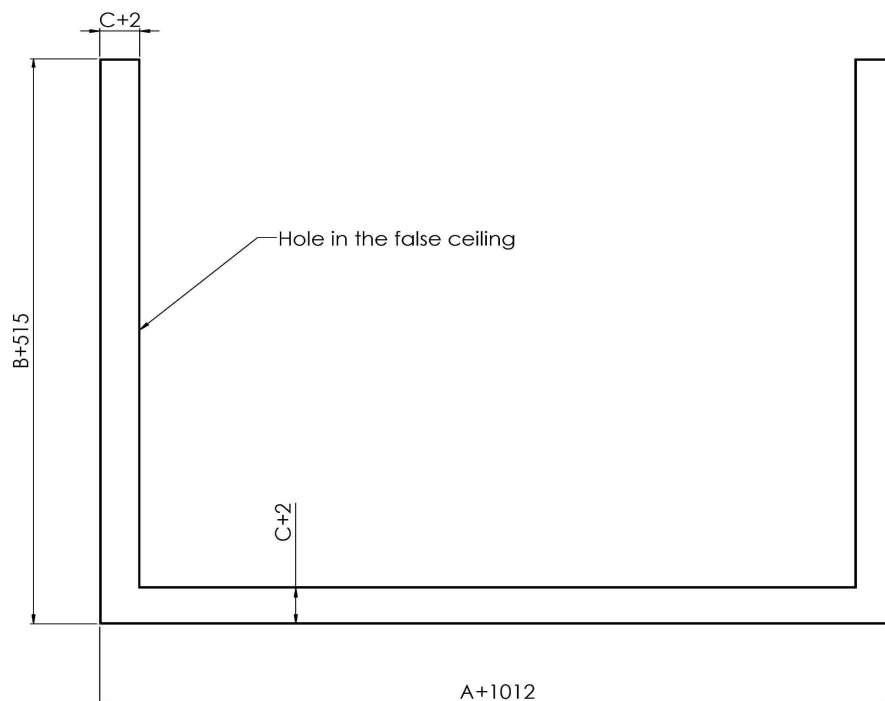
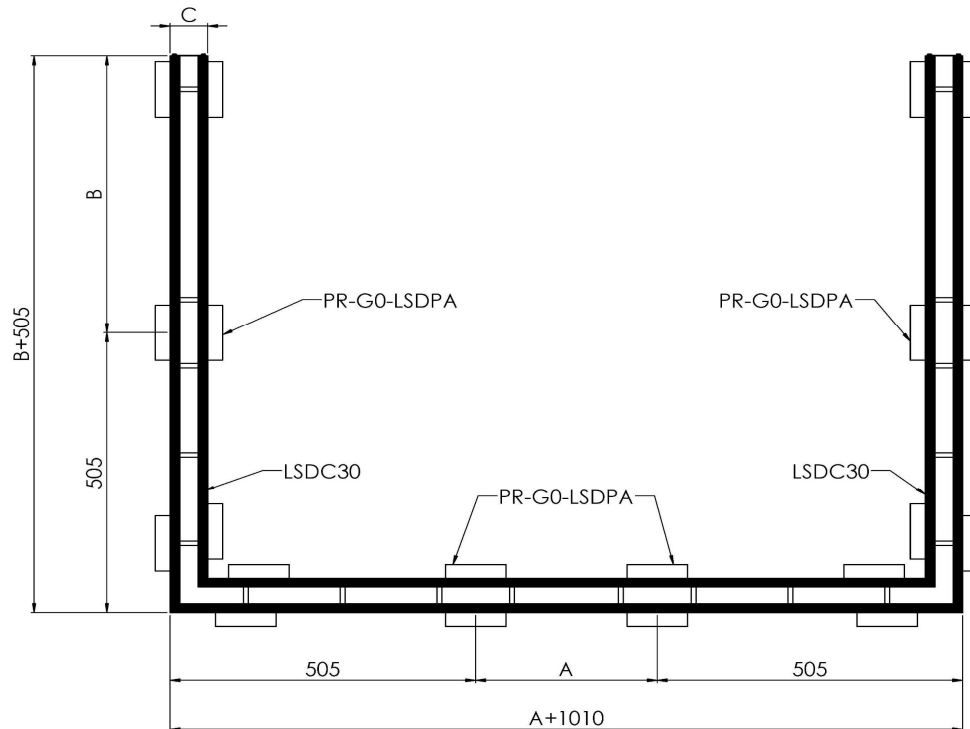


CONCEALED DESIGN SLOT DIFFUSERS

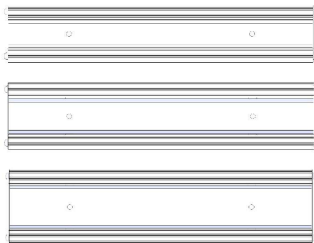
ACCESSORIES

LSD30-40-50 SERIES

Example of continuous line installation with corners



C [mm]
62



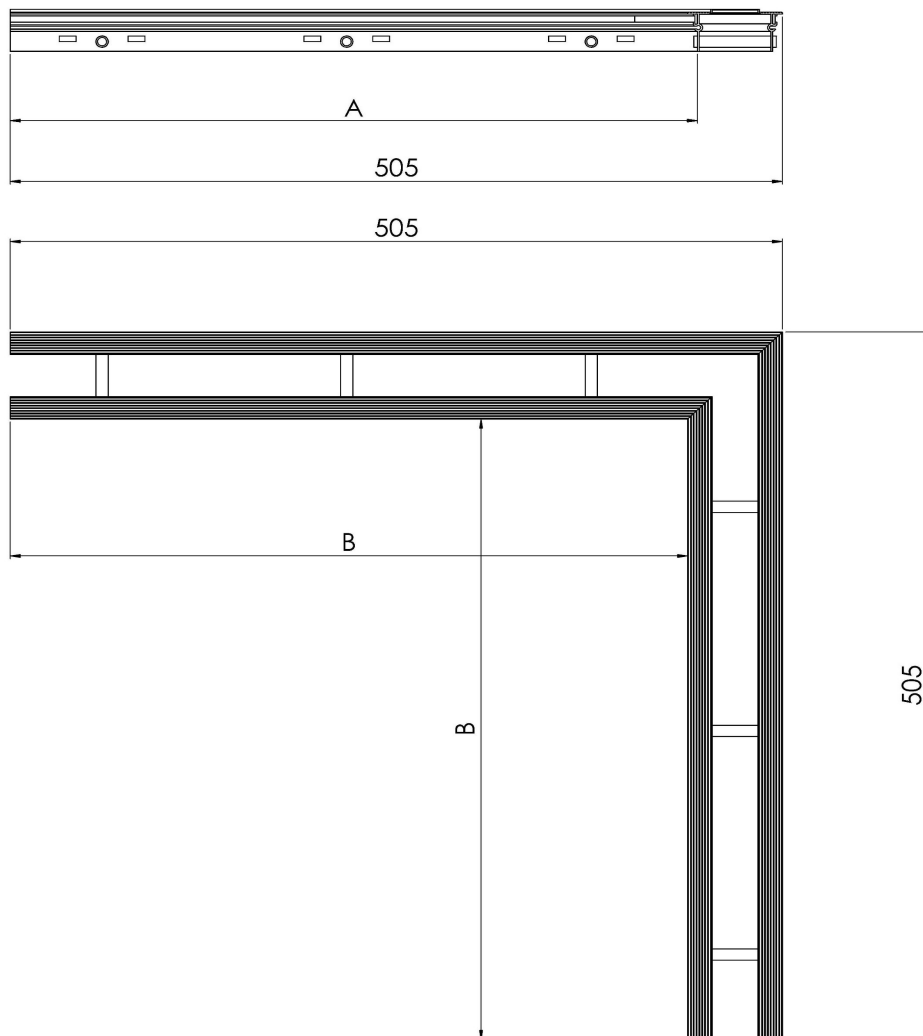
CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

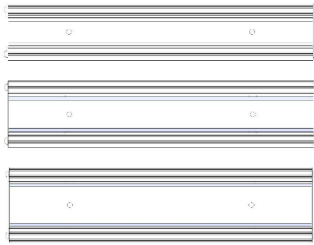
LSD30-40-50 SERIES

LSDC30

Corner connection



A [mm]	B [mm]
449	443

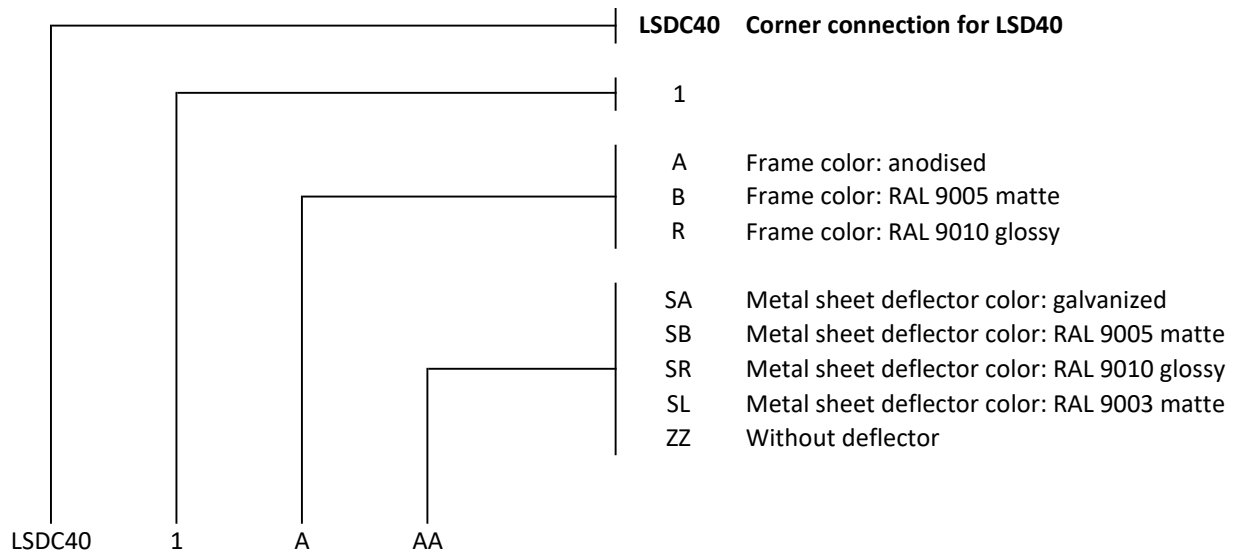
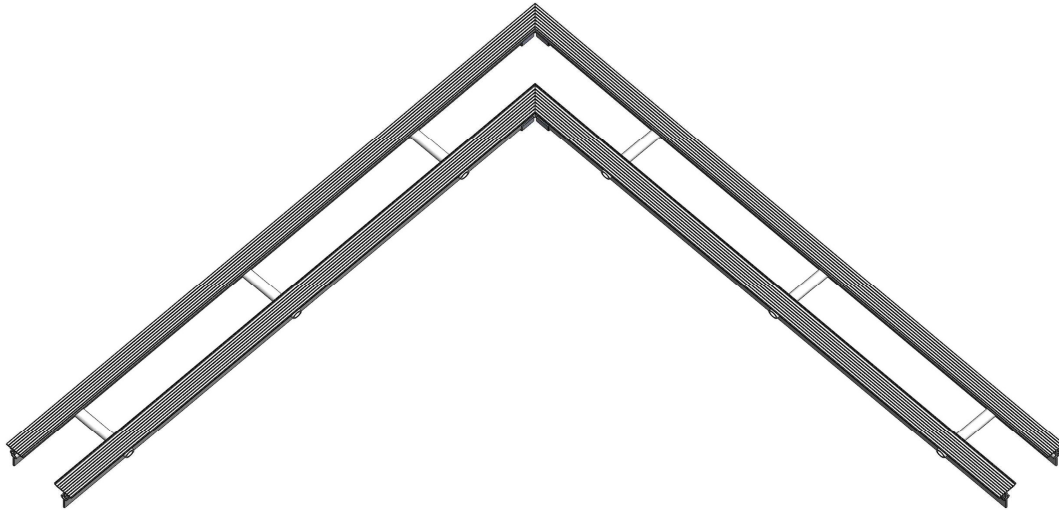


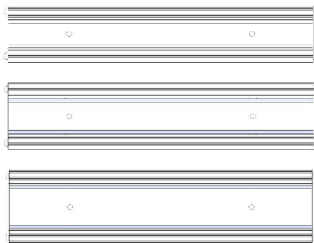
CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50 SERIES

LSDC40 Corner connection





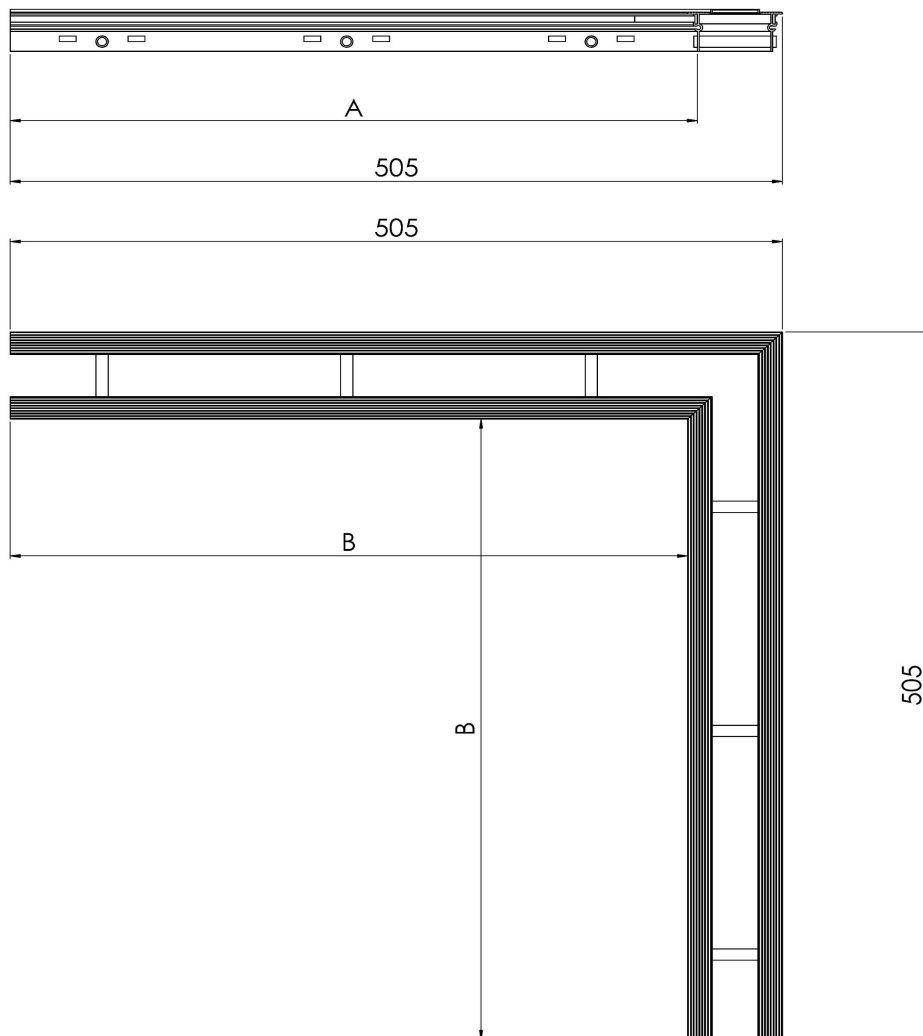
CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

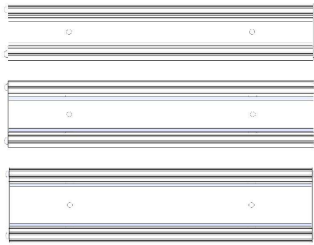
**LSD30-40-50
SERIES**

LSDC40

Corner connection



A [mm]	B [mm]
439	433

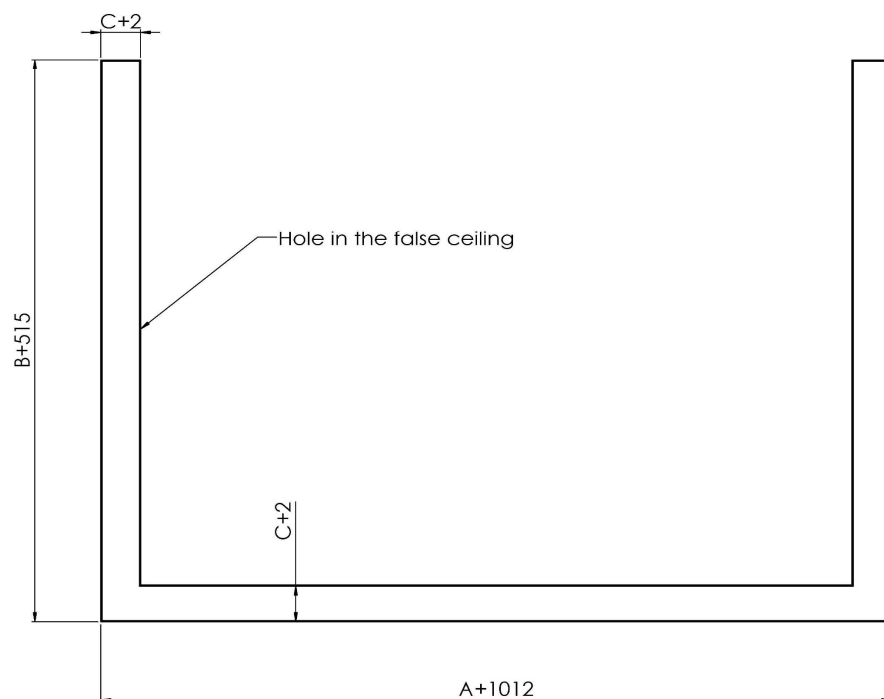
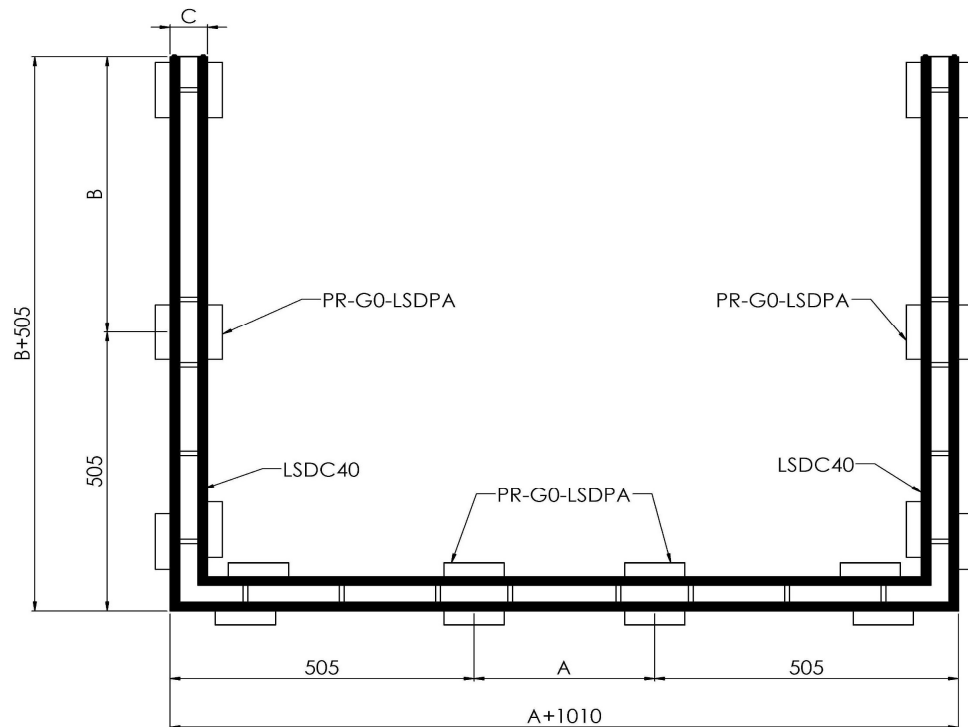


CONCEALED DESIGN SLOT DIFFUSERS

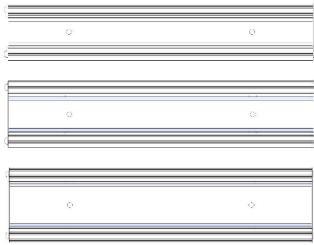
ACCESSORIES

LSD30-40-50 SERIES

Example of continuous line installation with corners



C [mm]
72

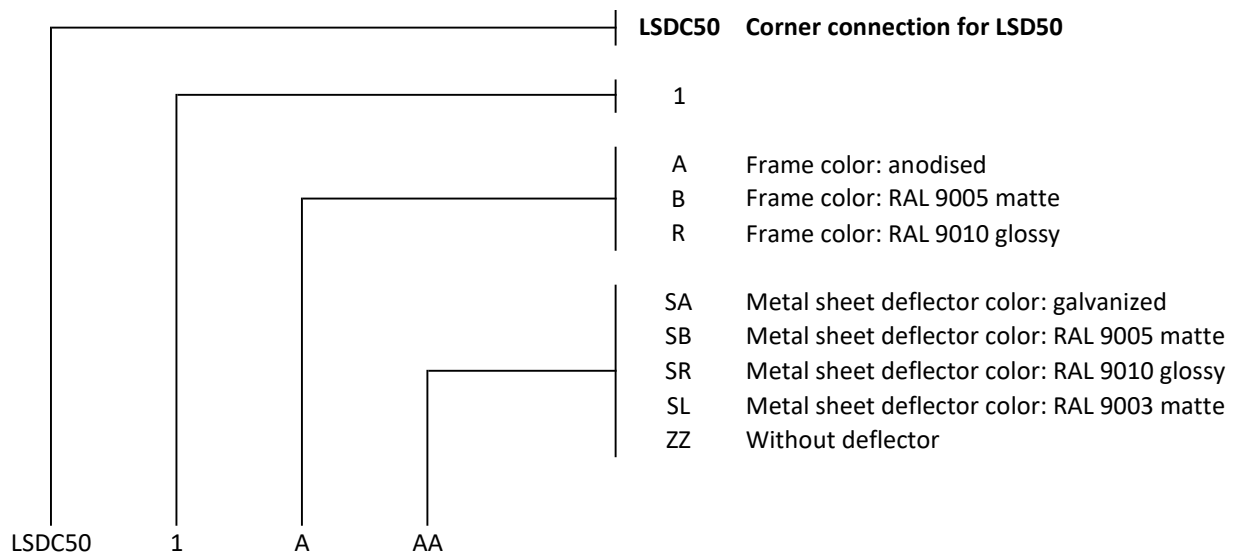
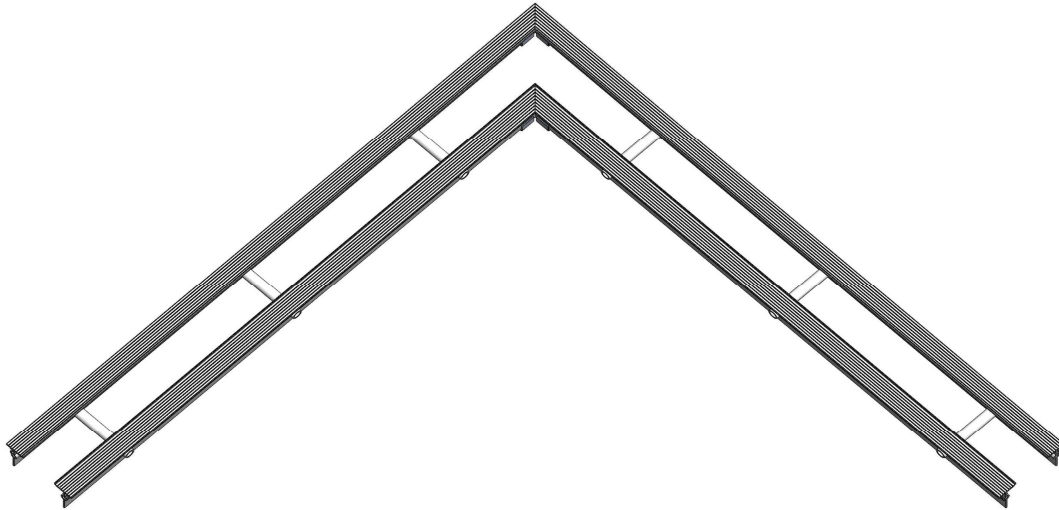


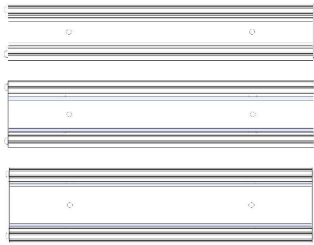
CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50 SERIES

LSDC50 Corner connection





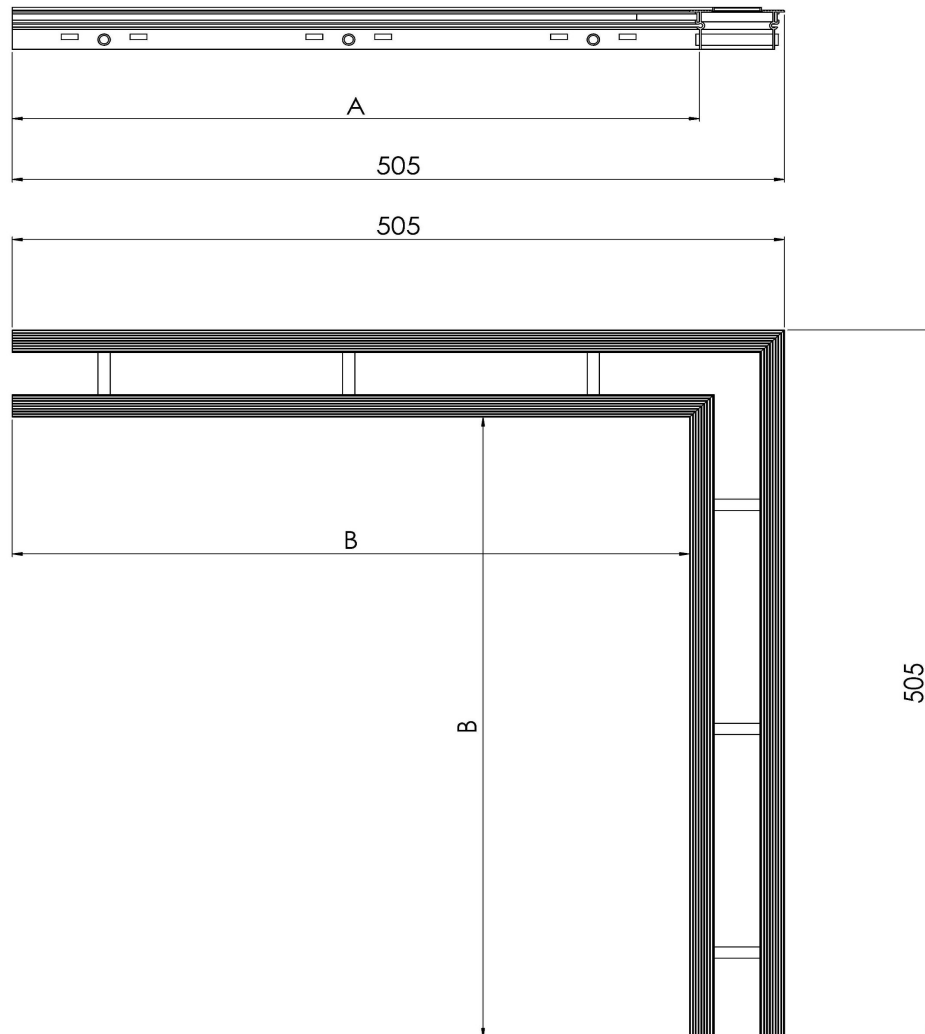
CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

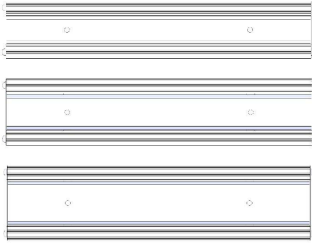
LSD30-40-50 SERIES

LSDC50

Corner connection



A [mm]	B [mm]
429	423

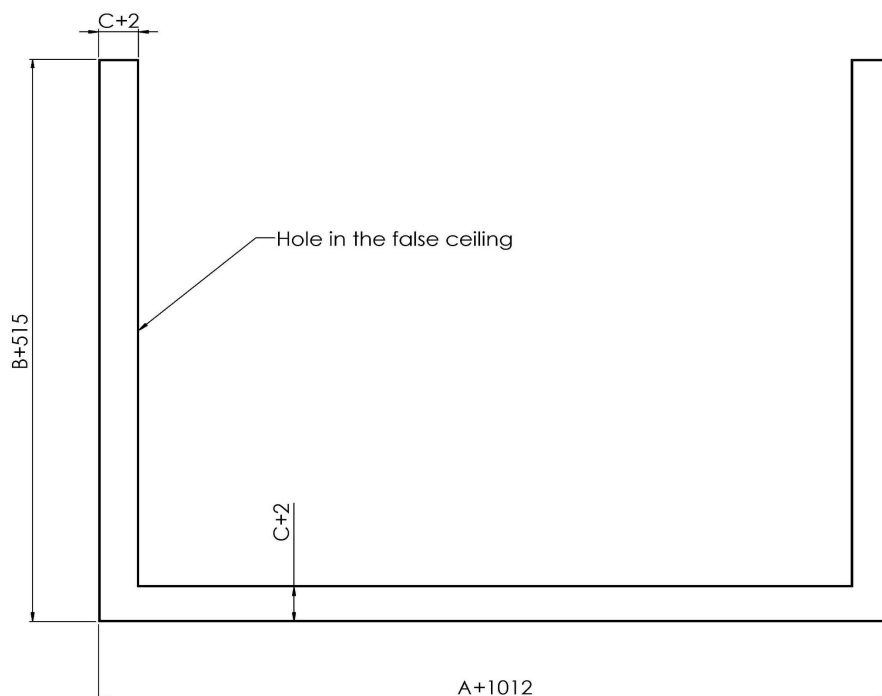
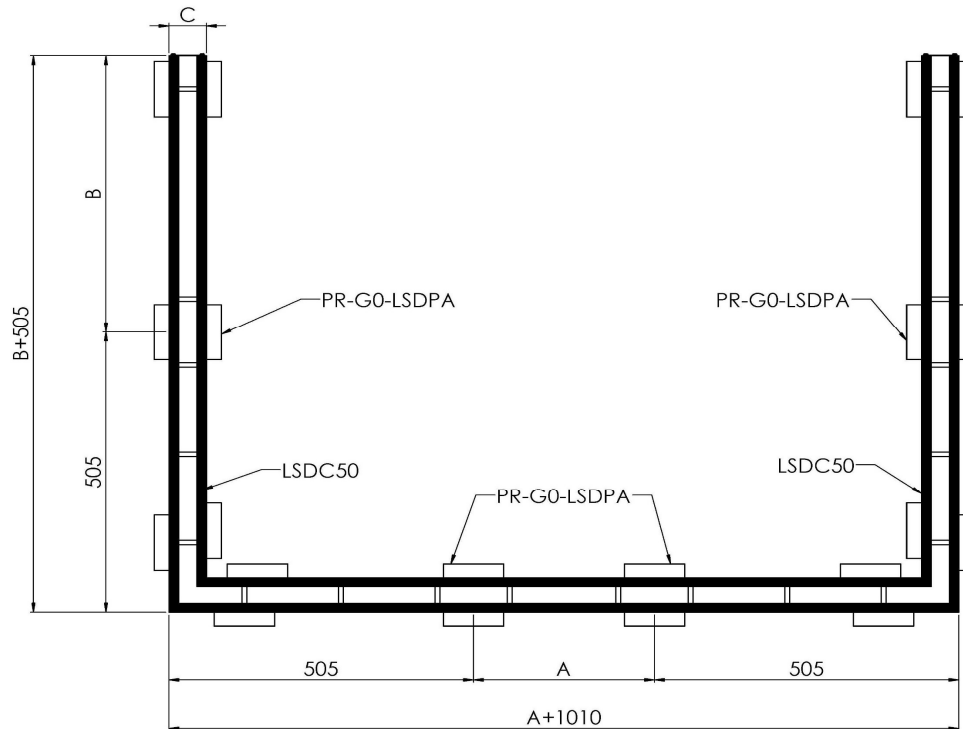


CONCEALED DESIGN SLOT DIFFUSERS

ACCESSORIES

LSD30-40-50 SERIES

Example of continuous line installation with corners



C [mm]
82