



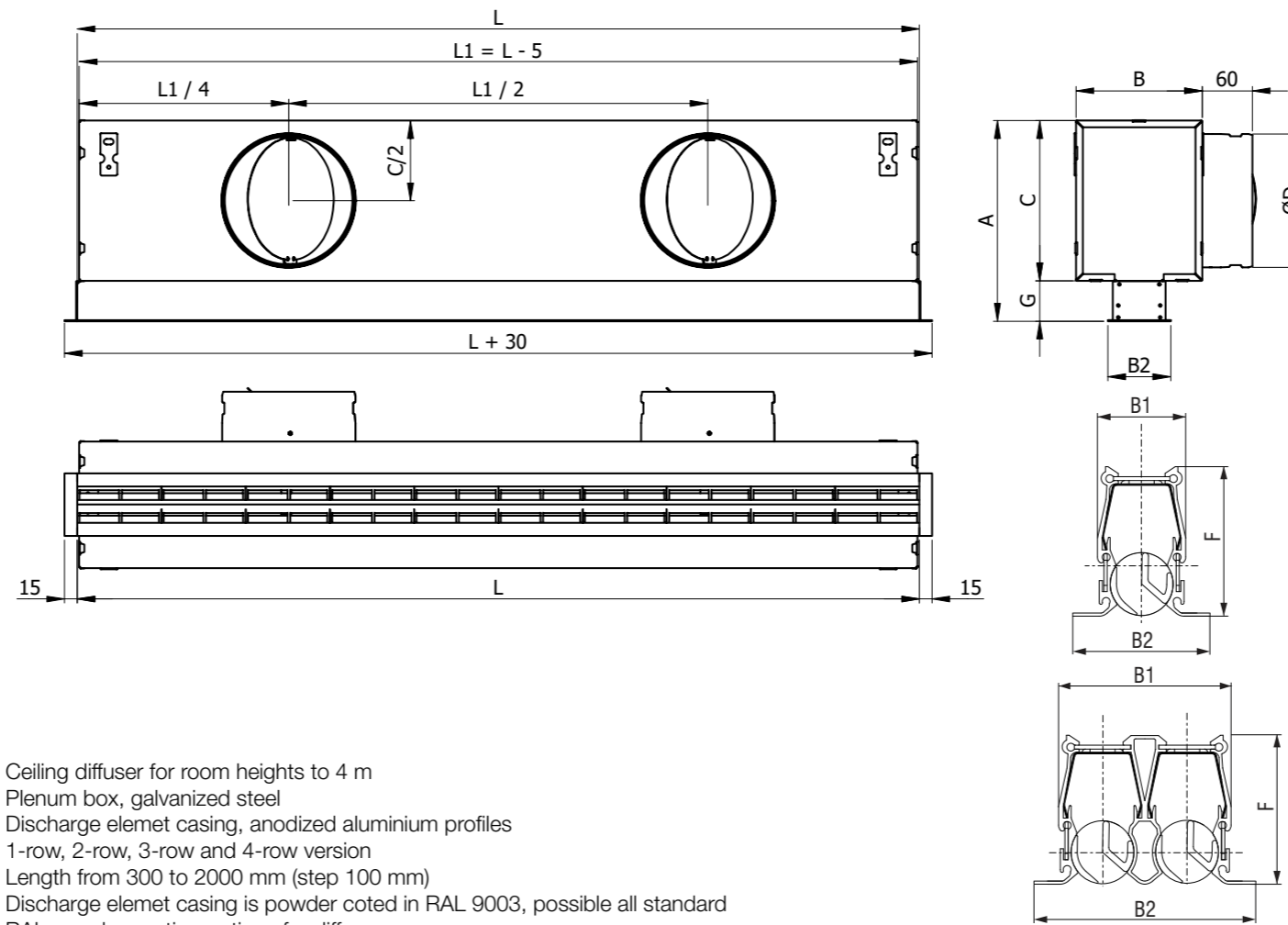
Product manual

# Linear diffusers

LDD, LDF, LDM, LDA, LDH

Air distribution

Version 1.2.2  
Date: 11.05.2023.



# LDD

Linear diffusers with 30 mm (LDD-30) and 50 mm (LDD-50) discharge element diameter. Discharge elements are individually adjustable, providing flexibility to meet various space requirements. Linear diffusers LDD are ideal for highly discrete architectural applications, with accessories for easy inline combination of multiple diffusers and plenum boxes.

- Ceiling diffuser for room heights to 4 m
- Plenum box, galvanized steel
- Discharge element casing, anodized aluminium profiles
- 1-row, 2-row, 3-row and 4-row version
- Length from 300 to 2000 mm (step 100 mm)
- Discharge element casing is powder coated in RAL 9003, possible all standard RAL powder coating options for diffusers

- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser



## AIR DISTRIBUTION

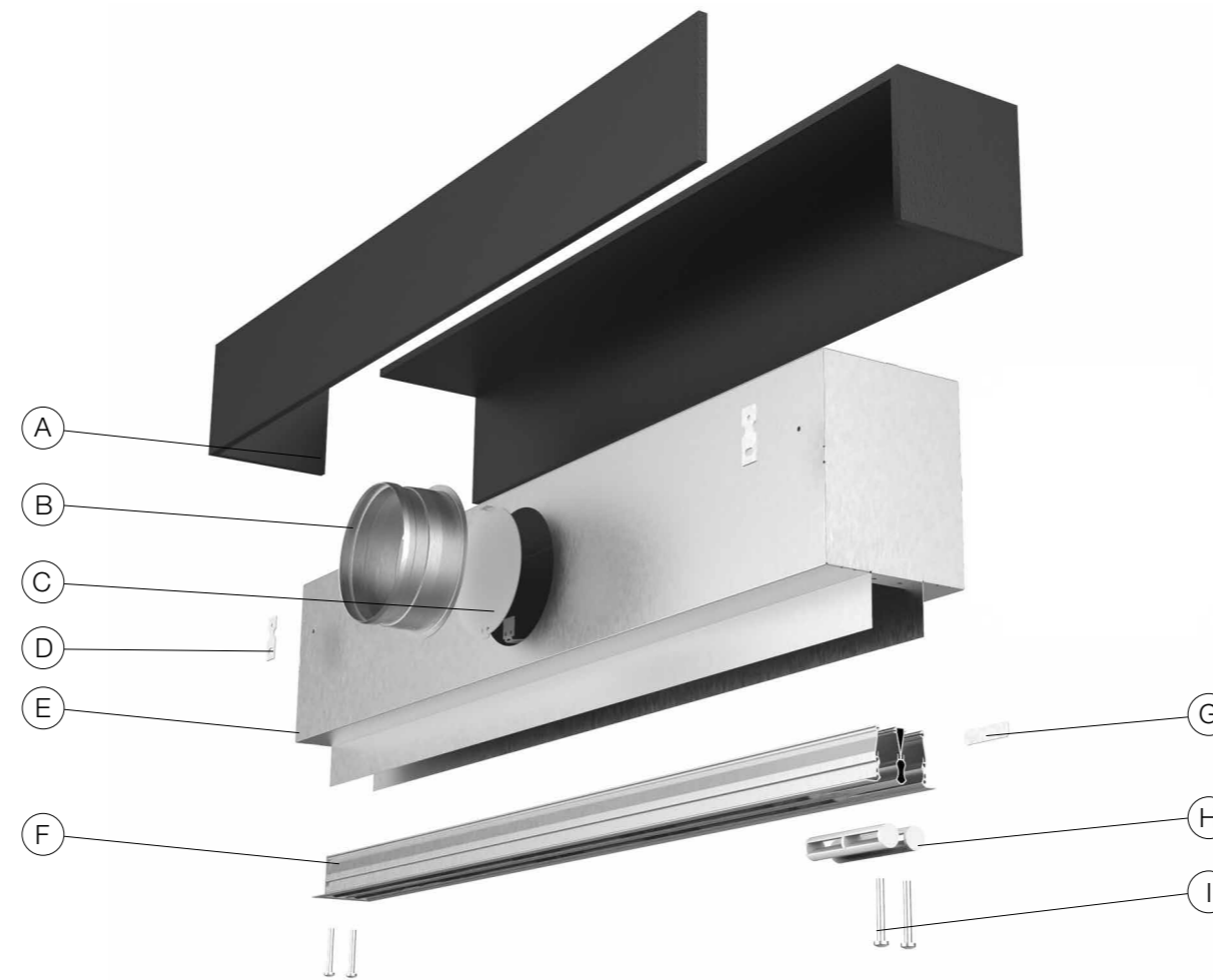
### DIMENSIONS

Type	No. of slots	A <sub>ef</sub> [m <sup>2</sup> /m]	L [mm]	V [m <sup>3</sup> /h]	h [m]	B1 [mm]	B2 [mm]	A [mm]	B [mm]	C [mm]	øD [mm]	No. of connections	F [mm]	G [mm]	
LDD 30	1	0,00752	do 1000	40 -130	2,7 -4,0	28	47,5	223	120	175	98	1	47,5	48	
			1100-1500								98	2			
			1600-2000								123	2			
	2	0,01504	do 1000	70 -240	2,7 -4,5	55	74,5	238	150	190	158	1	47,5	48	
											1100-1500	123			2
											1600-2000	158			2
	3	0,02256	do 1000	120 -320	3,0 -5,0	82	101,5	263	180	215	158	1	47,5	48	
											1100-1500	158			2
											1600-2000	158			2
	4	0,03008	do 1000	160 -400	3,5 -5,0	109	128,5	303	210	255	198	1	47,5	48	
											1100-1500	158			2
											1600-2000	198			2

Type	No. of slots	A <sub>ef</sub> [m <sup>2</sup> /m]	L [mm]	V [m <sup>3</sup> /h]	h [m]	B1 [mm]	B2 [mm]	A [mm]	B [mm]	C [mm]	øD [mm]	No. of connections	F [mm]	G [mm]	
LDD 50	1	0,01504	do 1000	75 -210	2,7 -4,0	43,5	71	253	130	195	123	1	57,5	58	
			1100-1500								123	2			
			1600-2000								158	2			
	2	0,03008	do 1000	130 -390	2,7 -4,5	93,5	121	273	180	215	158	1	57,5	58	
											1100-2000	158			2
											1600-2000	158			2
	3	0,04512	do 1000	195 -520	3,0 -5,0	143,5	171	313	230	255	198	1	57,5	58	
											1100-1500	158			2
											1600-2000	198			2
	4	0,06016	do 1000	260 -650	3,5 -5,0	193,5	221	338	280	280	248	1	57,5	58	
											1100-1500	198			2
											1600-2000	248			2



Easy connection of multiple diffusers in line with serial connection piece



- A 5 side insulation
- B Plenum connection
- C RD regulation damper
- D Mounting suspension
- E Galvanized steel casing
- F LDD diffuser
- G End plates and joints
- H Discharge elements
- I Mounting screw

- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser

DIFFUSER \ LDD

AIR DISTRIBUTION

ORDERING KEY LDD

(1) Diffuser model    (2) Number of slots    (3) Diffuser length    (4) Discharge element color    (5) RAL

LDD30	-	2	-	2000	-	S	-	RAL
-------	---	---	---	------	---	---	---	-----

- (1) LDD30  
LDD50
- (2) 1/2/3/4
- (3) Diffusers length  
(500...2000 mm in 100 mm increments)
- (4) C - black discharge elements  
B - white discharge elements  
S - grey discharge elements
- (5) RAL

ORDERING KEY LDD Plenum box

(1) Plenum box    (2) Diffuser model    (3) Number of slots    (4) Diffuser length    (5) Insulation    (6) No. of connections / diameter

PBL-D	-	30	-	1	-	500	-	Z	-	1x98
-------	---	----	---	---	---	-----	---	---	---	------

- (1) PBL-D plenum box
- (2) 30 - LDD30  
50 - LDD50
- (3) 1/2/3/4
- (4) Diffusers length  
(500...2000 mm in 100 mm increments)
- (5) Z - internal insulation
- (6) No. of connections/ diameter  
(see table pg. 2)

\* Diffuser comes standard with two alignment pins



End profile L

A Connection seal  
B Corner section

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- ▼ LDF Fixed linear diffuser
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- ▼ LDH Flush mounted linear diffuser

⊕ ACCESSORIES / LDD

AIR DISTRIBUTION

**ORDERING KEY Connection seal**

(1) Connection seal	(2) Plenum box diameter [mm]
<b>LDD -A-SL</b>	<b>98</b>
(1) SL	
(2) 98	
123	
158	
198	
248	

**ORDERING KEY End profile**

(1) Connection seal	(2) Diffuser model	(3) Number of slots	(4) RAL
<b>LDD-A-L</b>	<b>30</b>	<b>2</b>	<b>RAL</b>
(1) L - End profile	(3) Number of slots (1, 2, 3, 4)		
(2) 30 - LDD30	(4) RAL		
50 - LDD50			

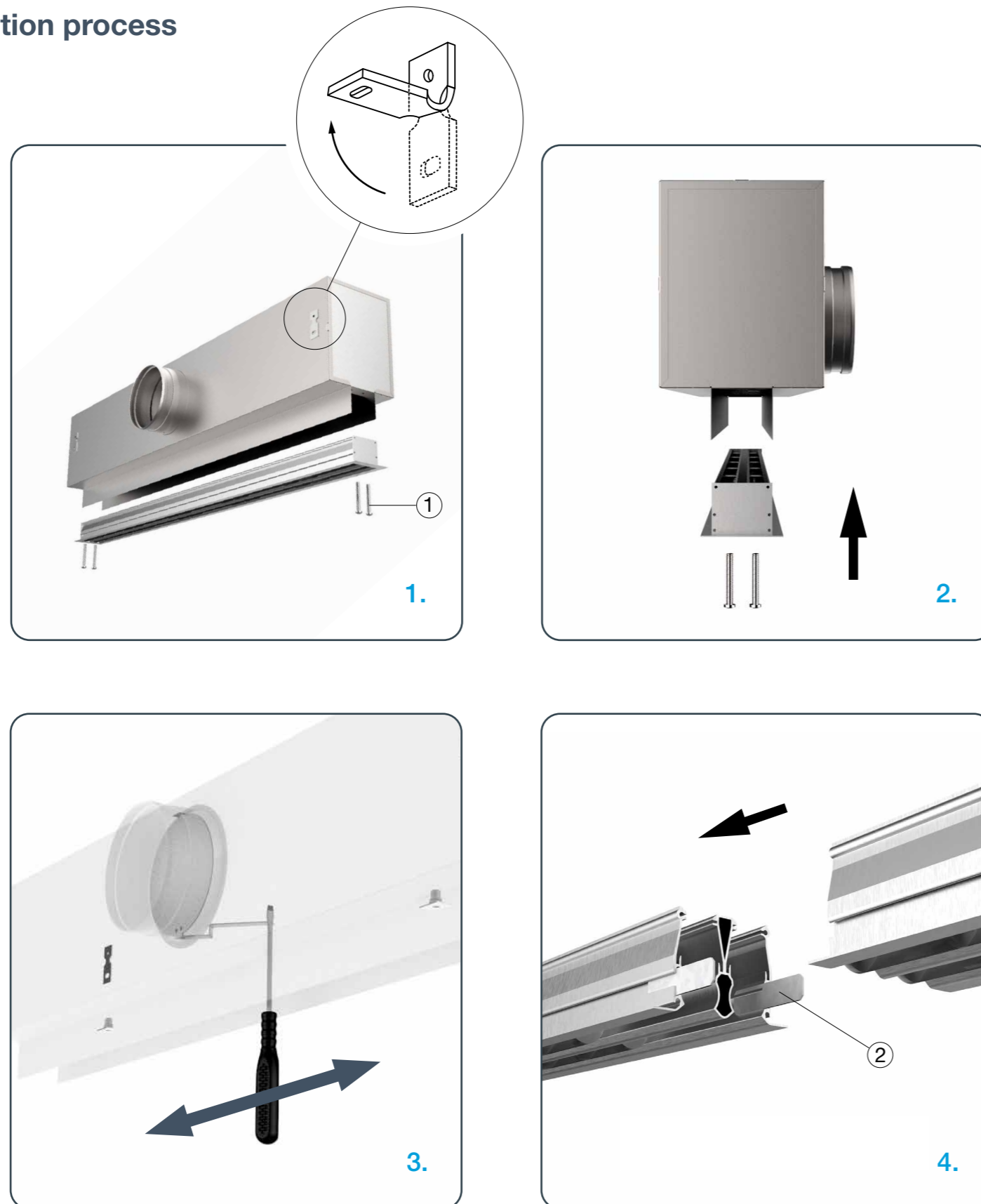
**ORDERING KEY Corner section**

(1) Corner section	(2) Number of slots	(3) Diffuser angle	(4) Discharge element color	(5) RAL
<b>LDD-A-CS- 30</b>	<b>2</b>	<b>90°</b>	<b>B</b>	<b>RAL</b>
(1) LDD-A-CS-30			(4) C - black discharge elements	
LDD-A-CS-50			B - white discharge elements	
(2) 1/2/3/4			S - grey discharge elements	
(3) 90°			(5) RAL	

**Corner section LDD**

- Angular blind joints do not have the function of air flow
- External dimensions: - L=300 x 300 mm  
- angle 90°

## Installation process LDD



- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser



## LDD DIFFUSER

1. Inspect the products before the installation for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier.

Locate the four mounts on the sides of PBL-D box and bend them 90°. Suspend the box on the drop rods (8/10 mm) on the wanted height.

2. Install the plenum box flush with the ceiling and suspend it appropriately. Fix the diffuser with screws (1) in the plenum box.

3. To adjust airflow, insert screwdriver into PBL-D box and move RD damper handle left or right.

4. For installation of multiple diffusers in line, alignment pins (2) are provided with the diffuser. Insert a alignment pin (2 each per diffuser) on one side, then connect the next diffuser to it.

\* Lengths >1500 mm have cross-bar in the middle of the diffuser!

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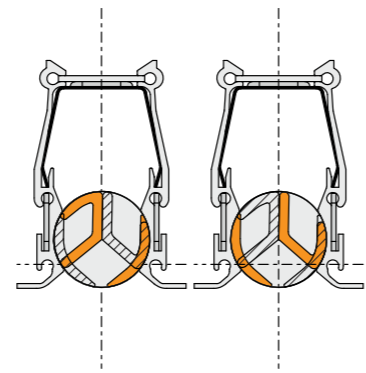
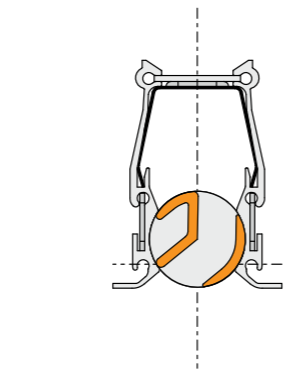
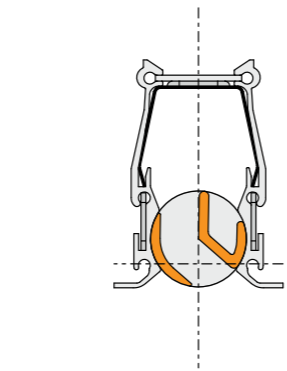
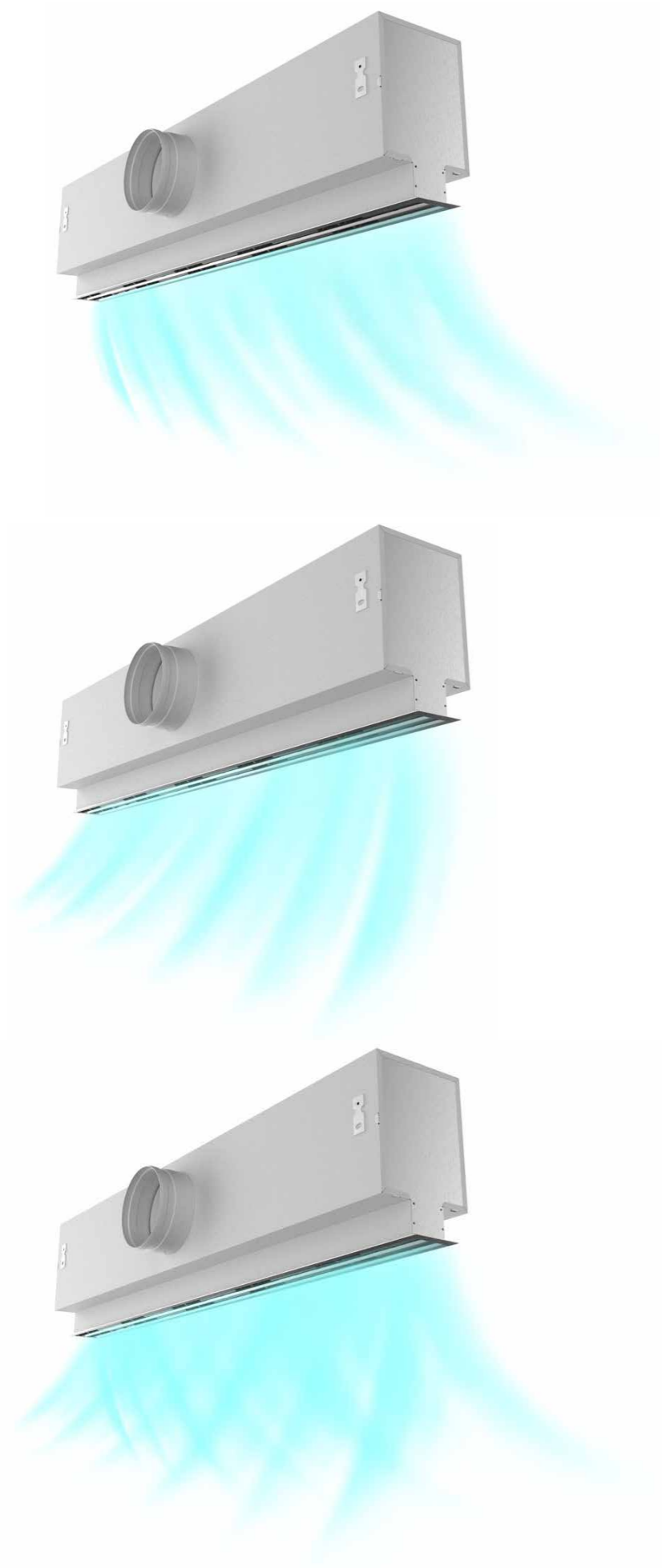
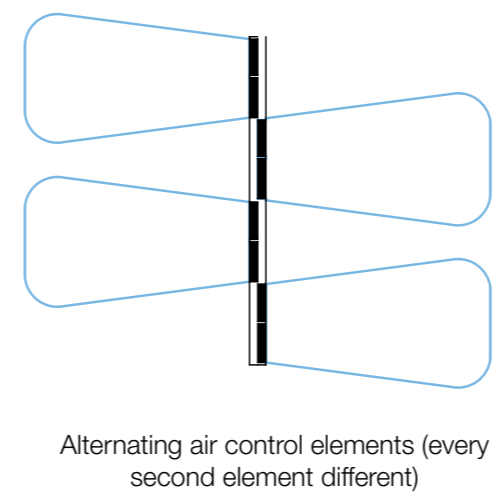
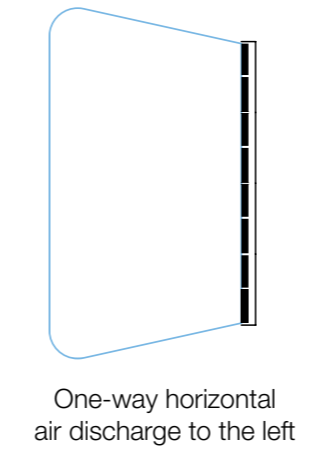
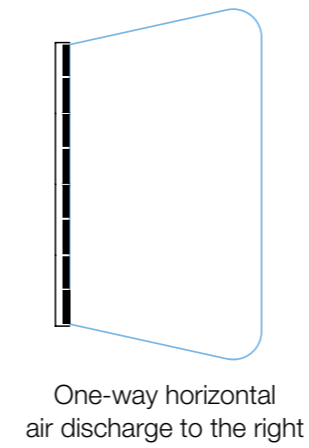


## LDD DIFFUSER

### Setting of the discharge patterns

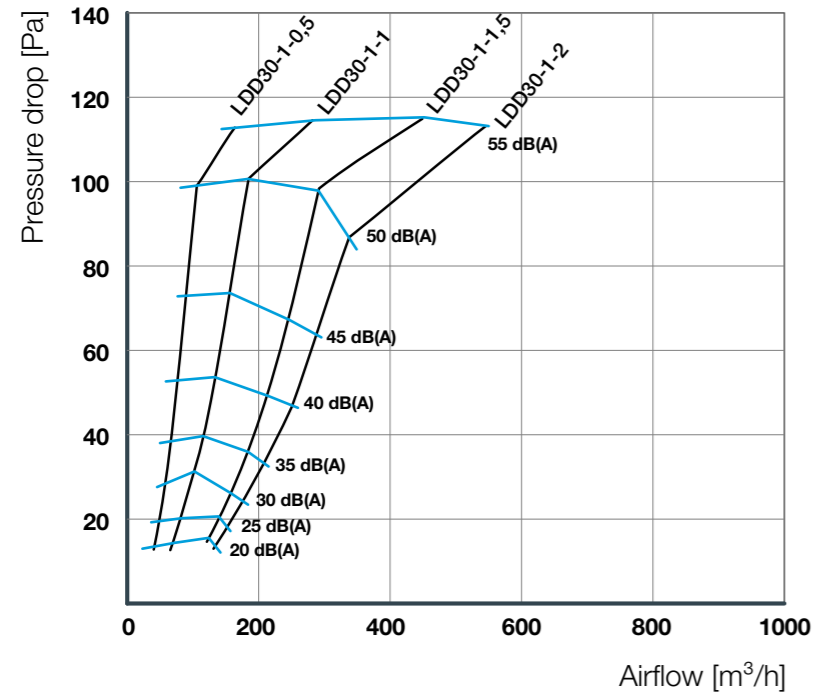
Individual diffusion elements can be manually adjusted according to the needs in the room. Depending on the setting air discharge can be directed with all discharge elements on one side or alternating with discharge on both sides.

When the diffuser is used for a supply air, usual discharge angles are from 0° to 40° respective to the ceiling.

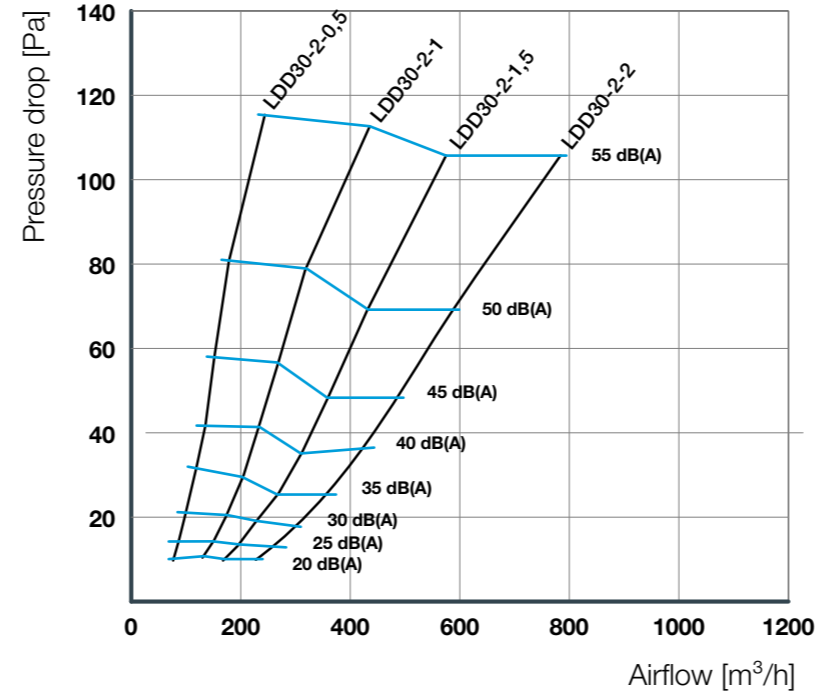


# Sound and pressure drop LDD30

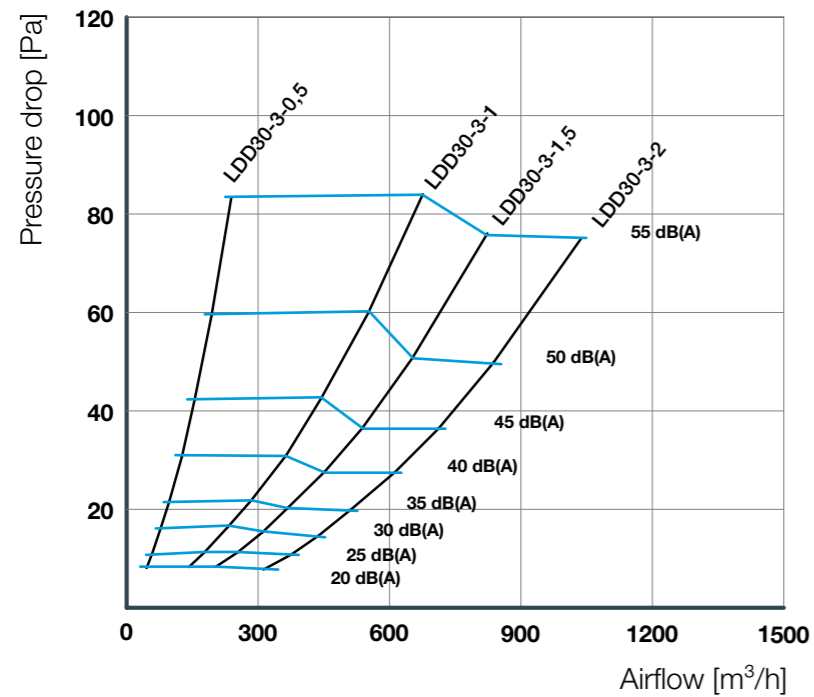
### LDD30-1



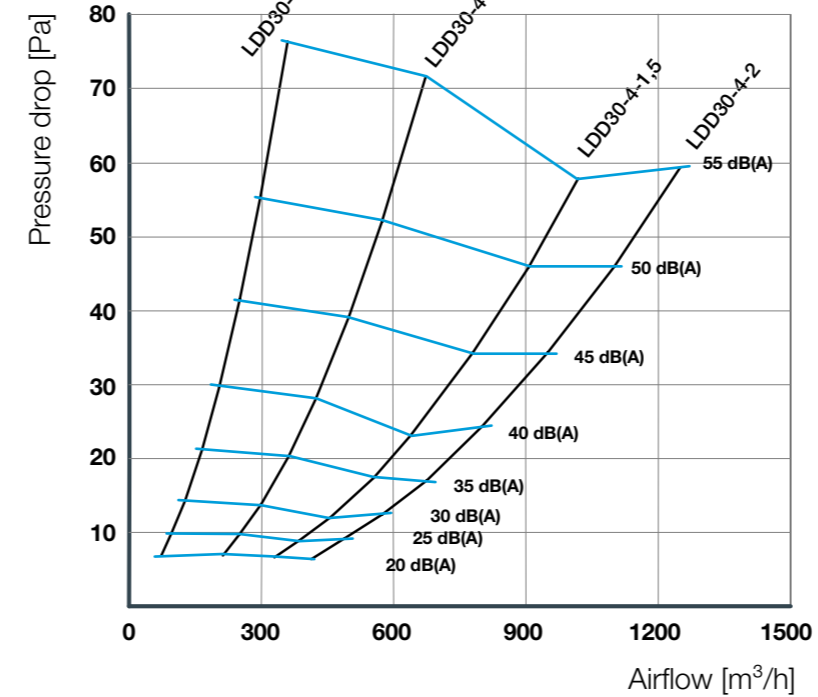
### LDD30-2



### LDD30-3



### LDD30-4



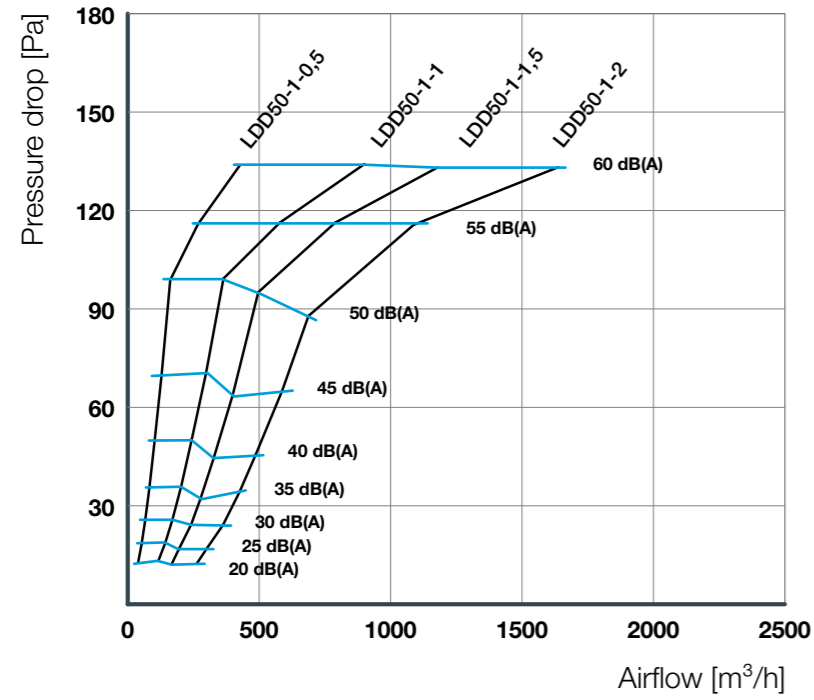
- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser

DIAGRAMS

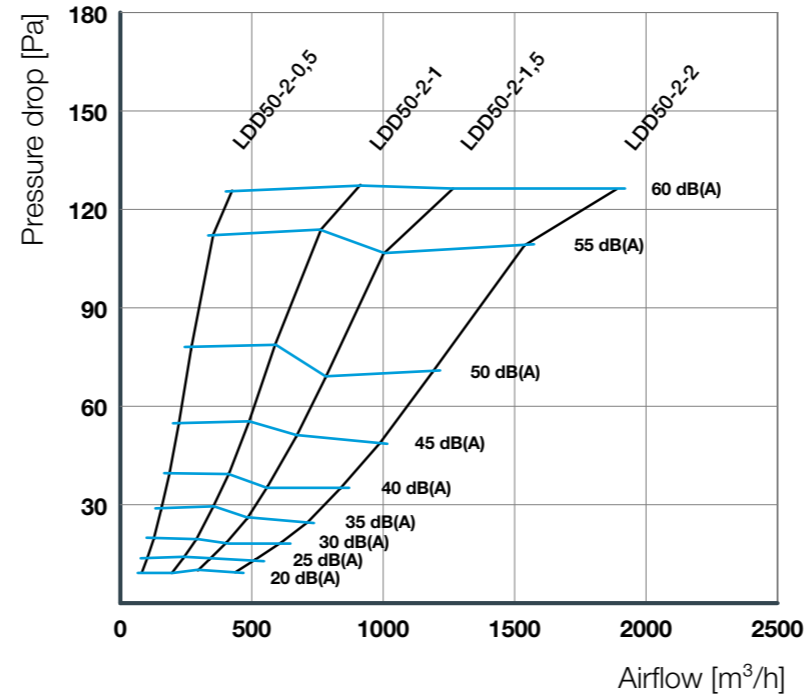
## LDD DIFFUSER

# Sound and pressure drop LDD50

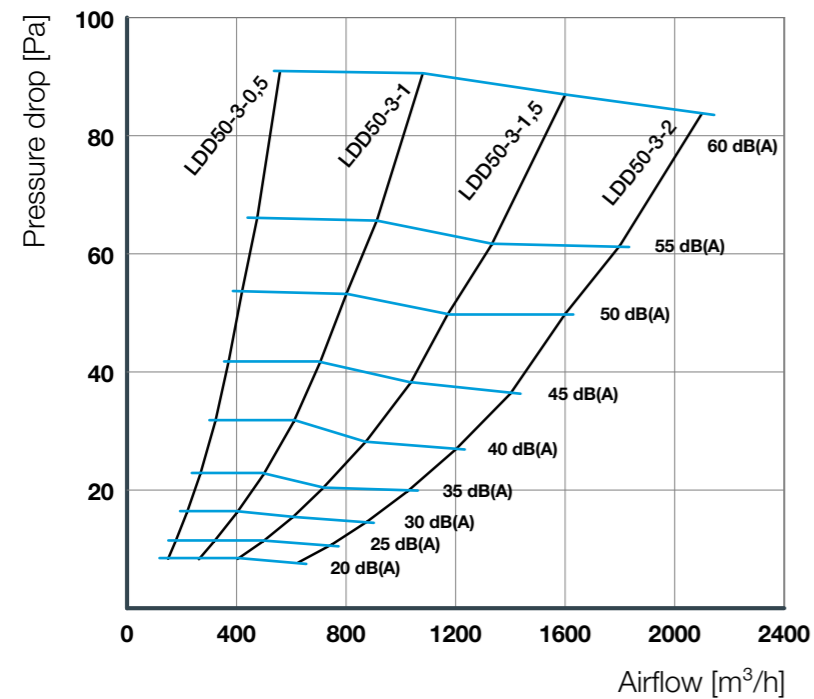
### LDD50-1



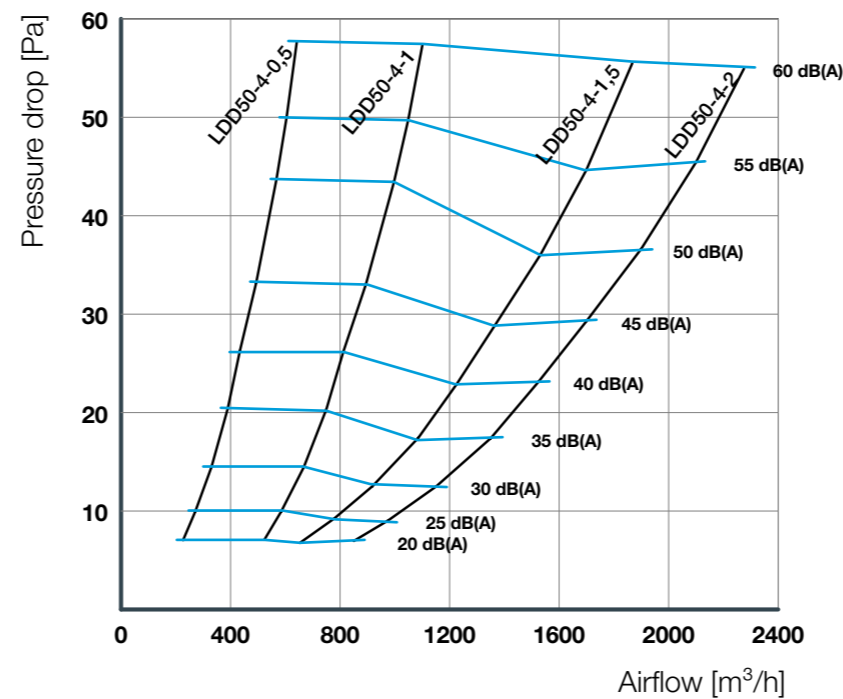
### LDD50-2



### LDD50-3



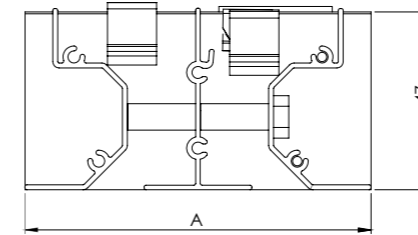
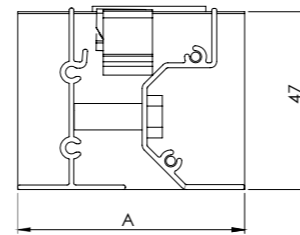
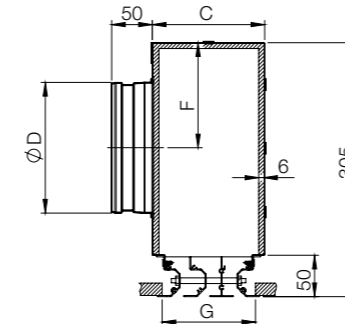
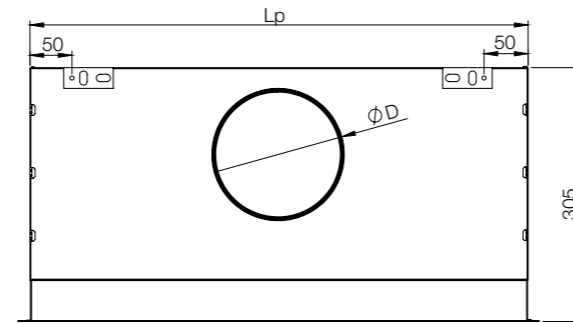
### LDD50-4



- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser



## LDD DIFFUSER



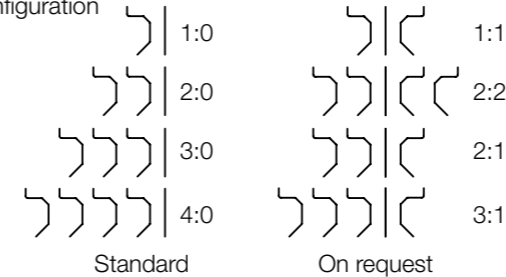
- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
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- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser

## LDF

Linear diffuser with fixed horizontal air jet.  
Suitable for horizontal supply and variable flow: when the flow is low, the air stream follows the contours of the diffuser (Coanda effect). Usable up to 25% of maximum flow rate.

- Plenum box, galvanized steel
- Version removable plenum (clips), supplied not fitted to diffuser
- Plenum with integrated damper
- Discharge element, anodized aluminium profiles
- Discharge element is powder coated in RAL 9003, possible all standard RAL powder coating options for diffusers

Slot configuration



## DIFFUSER \ LDF

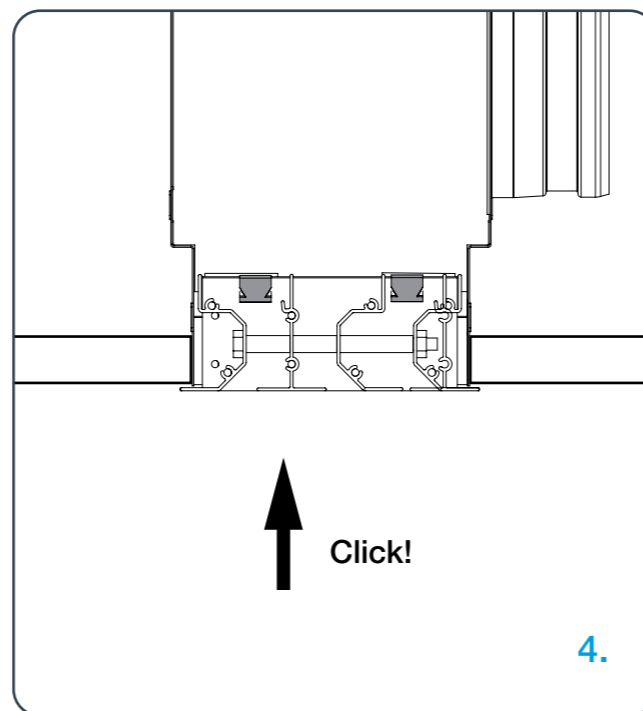
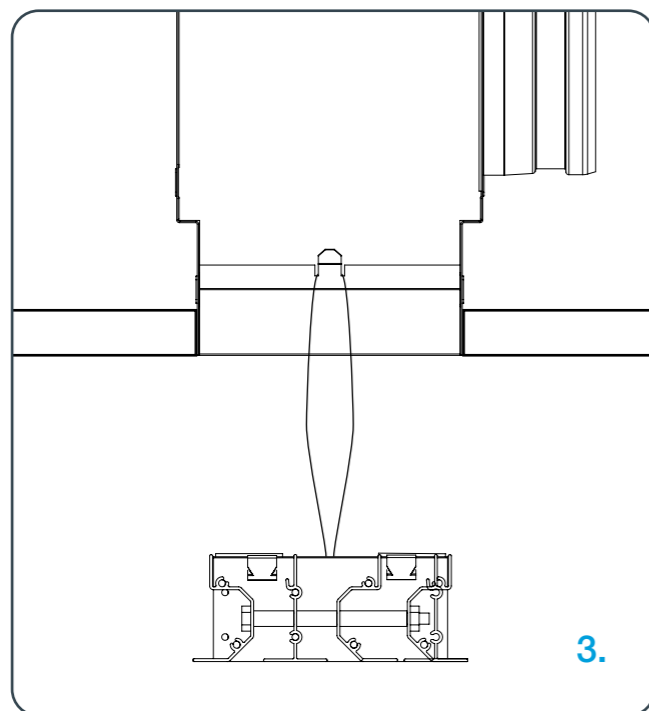
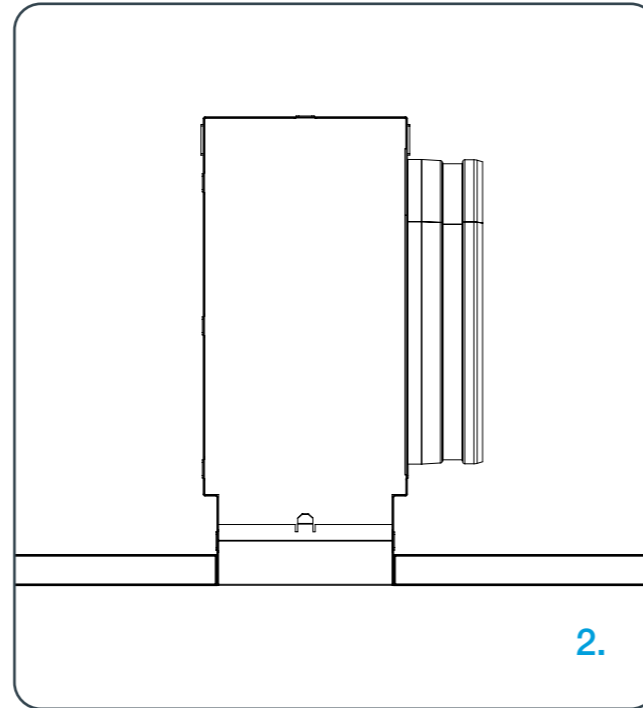
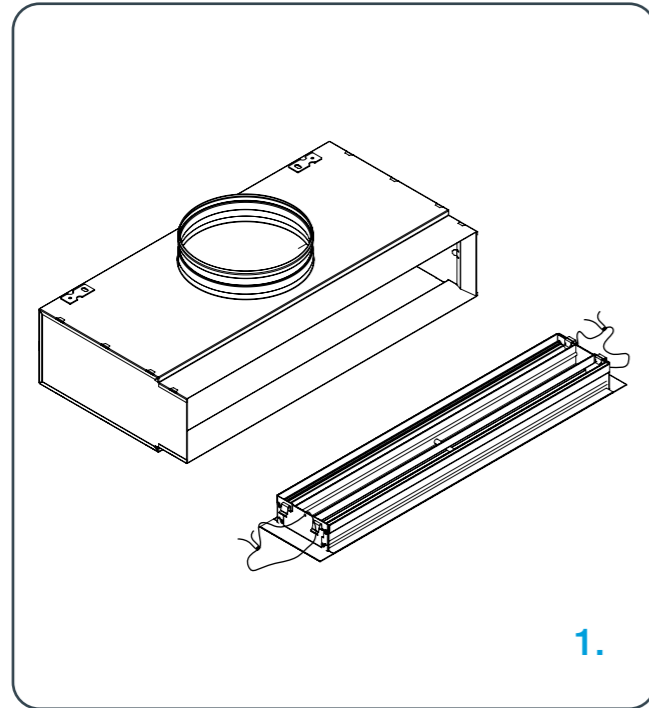
## AIR DISTRIBUTION

DIMENSIONS	Type	No. of slots	Slot lay-out	L [mm]	A [mm]	G [mm]	Lp [mm]	C [mm]	No. of spigots	Ø D [mm]	F [mm]
LDF	1	1:0	275	60	50	300	79	1	98	77	
			575			600		1	123	89,5	
			875			900		1	158	107	
			1175			1200		1	200	107	
	2	2:0	275	91,5	81,5	300	99	1	123	107	
			575			600		1	198	127	
			875			900		1	198	127	
			1175			1200		2	198	127	
	3	1:1	275	123	113	300	105	1	158	107	
			575			600		1	198	127	
			875			900		1	198	127	
			1175			1200		2	198	127	
	3	3:0	275	123	113	300	131	1	158	107	
			575			600		2	198	127	
			875			900		2	198	127	
			1175			1200		2	198	127	
	3	2:1	275	123	113	300	137	1	158	107	
			575			600		1	198	127	
			875			900		2	198	127	
			1175			1200		2	198	127	
4	3:1 - 2:2	275	154,5	144,5	300	169	1	198	127		
		575			600		2	198	127		
		875			900		2	198	127		
		1175			1200		2	198	127		
4	4:0	275	154,5	144,5	300	163	1	158	107		
		575			600		1	198	127		
		875			900		2	198	127		
		1175			1200		2	198	127		

### ORDERING KEY

(1) Diffuser model	(2) Number of slots	(3) Diffuser length	(4) RAL	(5) Plenum box	(6) Insulation
<b>LDF</b>	<b>- 2</b>	<b>- 1175</b>	<b>- RAL</b>		
(1) <b>LDF</b>				<b>PBL-F</b>	<b>Z</b>
(2) <b>1 (1:0)</b> <b>2 (2:0, 1:1)</b> <b>3 (3:0, 2:1)</b> <b>4 (4:0, 3:1, 2:2)</b>				(5) <b>PBL-F</b>	
(3) Diffusers length:	<b>275</b> <b>575</b> <b>875</b> <b>1175</b>				(6) Internal insulation
(4) <b>RAL</b>					

## Installation process LDF



- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser



### LDF DIFFUSER

1. Inspect the products before the installation for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier.
2. Install the plenum box flush with the ceiling and suspend it appropriately
3. Secure the diffuser to the plenum box using the strings provided with the diffuser
4. Gently push the diffuser in the plenum box until you hear the "click" sound that the diffuser is set properly in the plenum box.

## Sound and pressure drop LDF

Airflow rate [m³/h]	Type	275-1	275-2 575-1	275-3 875-1	275-4 575-2 1175-1	575-3 875-2	575-4 1175-2	875-3	875-4 1175-3	1175-4
50	X [m]	1,9								
	Pt [Pa]	11								
	NR	< 20								
100	X [m]	3,8	2,6	2,1	1,9					
	Pt [Pa]	44	10	4	3					
	NR	30	< 20	< 20	< 20					
150	X [m]	5,7	4,0	3,2	2,8					
	Pt [Pa]	99	23	10	6					
	NR	41	27	< 20	< 20					
200	X [m]		5,3	4,3	3,7	3,0	2,6	2,5	2,1	
	Pt [Pa]		40	17	10	4	2	2	1	
	NR		35	27	22	< 20	< 20	< 20	< 20	
300	X [m]			6,4	5,6	4,5	3,9	3,7	3,2	2,8
	Pt [Pa]			39	23	10	5	4	2	1
	NR			38	33	25	< 20	< 20	< 20	< 20
400	X [m]			8,5	7,5	6,0	5,2	4,9	4,3	3,7
	Pt [Pa]			69	40	17	10	8	4	2
	NR			46	41	33	27	25	< 20	< 20
500	X [m]				9,3	7,6	6,5	6,2	5,3	4,6
	Pt [Pa]				63	27	15	12	7	4
	NR				47	41	33	31	26	20
600	X [m]					9,1	7,8	7,4	6,4	5,5
	Pt [Pa]					39	22	17	10	5
	NR					44	38	36	31	25
700	X [m]					10,6	9,1	8,6	7,5	6,5
	Pt [Pa]					53	29	24	13	7
	NR					48	43	41	35	29
900	X [m]						11,7	11,1	9,6	8,3
	Pt [Pa]						49	39	22	12
	NR						50	48	42	36
1000	X [m]								10,6	9,2
	Pt [Pa]								27	15
	NR								45	39
1200	X [m]									11,1
	Pt [Pa]									22
	NR									44
1400	X [m]									12,9
	Pt [Pa]									29
	NR									49

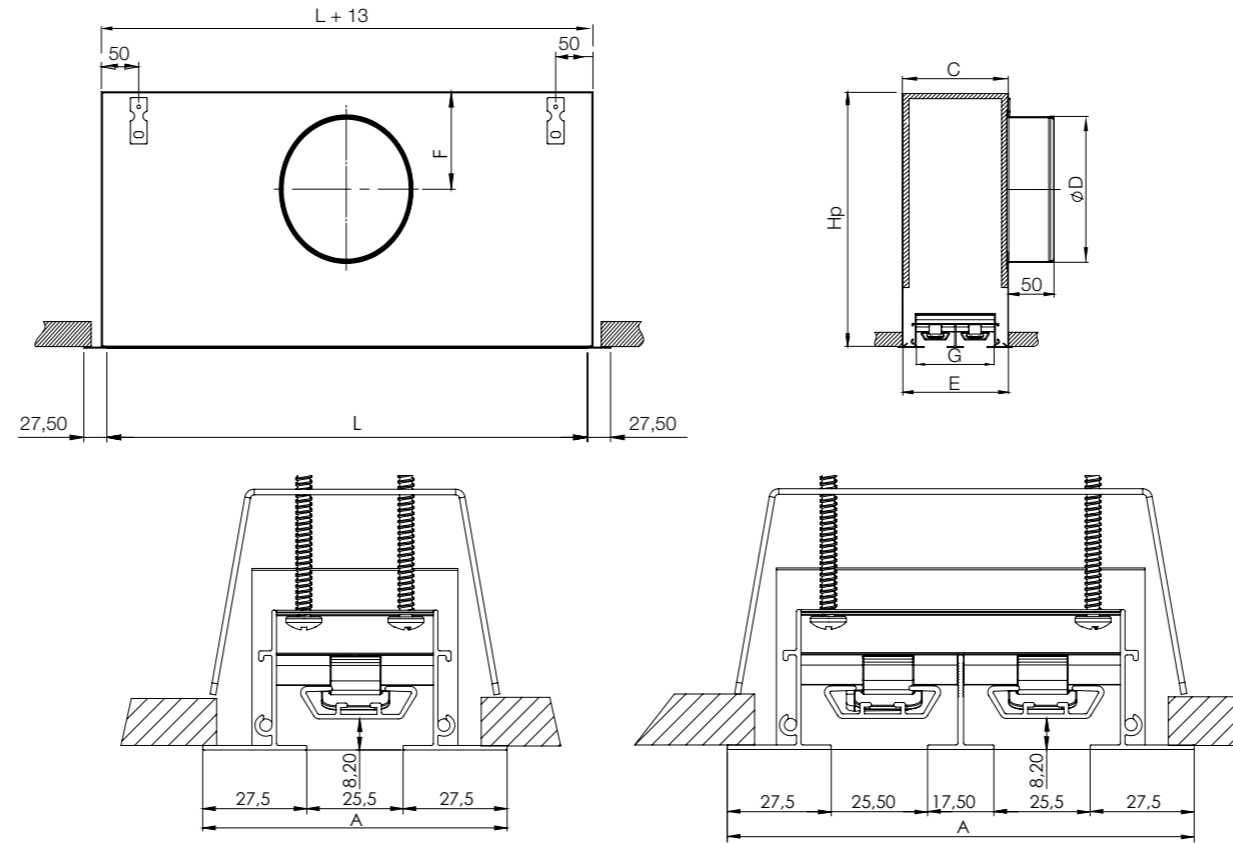
	NR < 25
	25 NR < 35
	35 NR < 45
	NR 45

X (m): range for a maximum velocity in the occupied space of  $V_t = 0,25$  m/s.  
 Pt (Pa): Total pressure.  
 NR: Noise Rating. Sound power without attenuation in the room  $L_w = NR + 5$  dB(A) approx.

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 DIAGRAMS

### LDF DIFFUSER



# LDM

Specially designed for ceiling installation, the diffusers allow direction of the air jet over 180° (horizontal or vertical supply). Small change in pressure drop with change in the direction of the air jet.

- Attractive appearance: slots concealed by the deflectors
- Can be used for high airflows
- Plenum box,galvanized steel
- Discharge element is powder coated in RAL 9003, possible all standard RAL powder coating options for diffusers
- Number of slots: 1 to 6
- Option to assemble several units to make an attractive linear strip (max.: 20 m)
- Angled pieces for creating corners

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## DIFFUSER \ LDM

## AIR DISTRIBUTION

DIMENSIONS	Type	No. of slots	L	E	G	Hp	C	F	A	No. of spigots
			[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
LDM	1		575	80	73	225	70	87	80,5	1 x Ø 123
			875							1 x Ø 123
			1175							2 x Ø 123
	2		575	123	116	275	113	105	123,50	1 x Ø 158
			875							1 x Ø 158
			1175							2 x Ø 158
	3		575	166	159	325	156	125	166,50	1 x Ø 198
			875							1 x Ø 198
			1175							2 x Ø 198
	4		575	209	202	325	199	125	209,50	1 x Ø 198
			875							1 x Ø 198
			1175							2 x Ø 198
	5		575	252	243	375	242	150	252,50	1 x Ø 248
			875							1 x Ø 248
			1175							2 x Ø 248
	6		575	295	288	375	285	150	295,50	1 x Ø 248
			875							1 x Ø 248
			1175							2 x Ø 248
				1475						2 x Ø 248

### ORDERING KEY

(1) Diffuser model	(2) Number of slots	(3) Diffuser length	(4) RAL	(5) Plenum box	(6) Insulation
<b>LDM</b>	<b>- 2</b>	<b>- 1175</b>	<b>- RAL</b>		
(1) <b>LDM</b>				<b>PBL-M</b>	<b>- Z</b>
(2) <b>1/2/3/4/5/6</b>				(5) <b>PBL-M</b>	
(3) Diffusers length:	<b>575</b>			(6) Internal insulation	
	<b>875</b>				
	<b>1175</b>				
	<b>1475</b>				
(4) <b>RAL</b>					

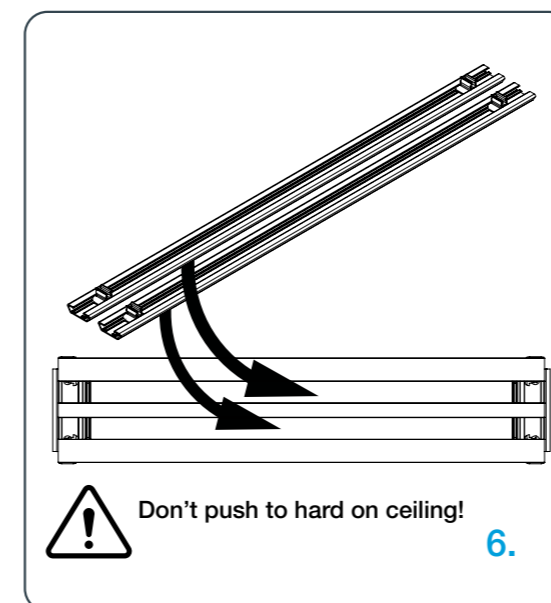
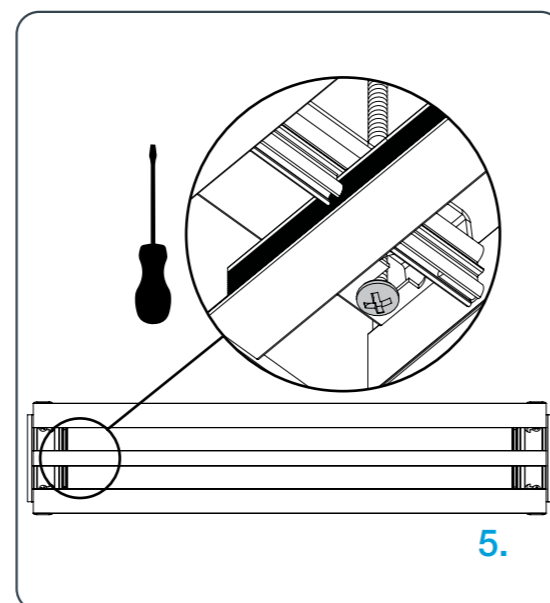
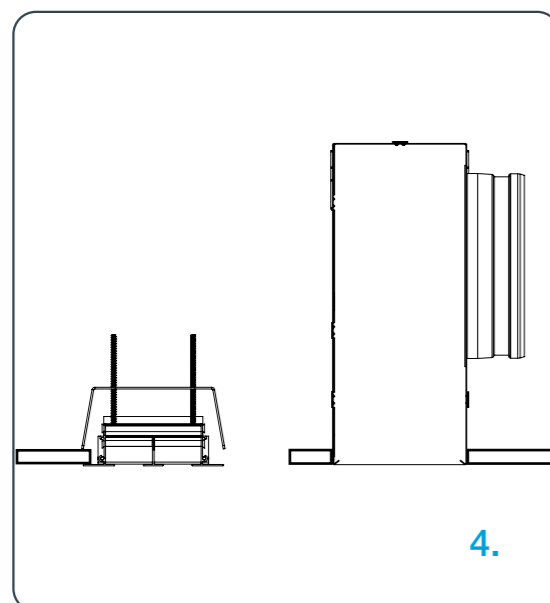
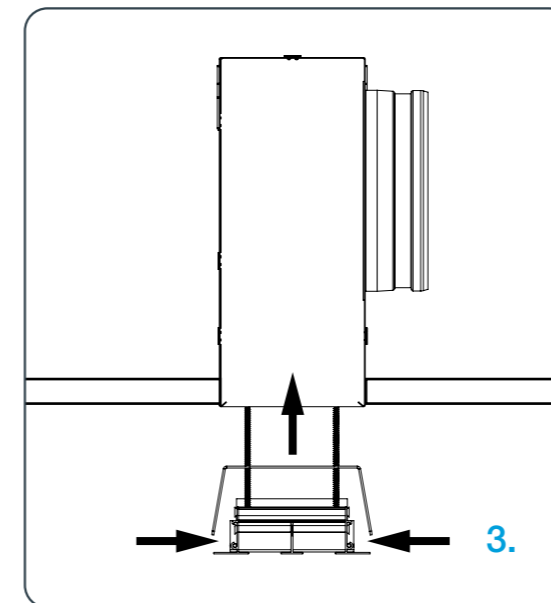
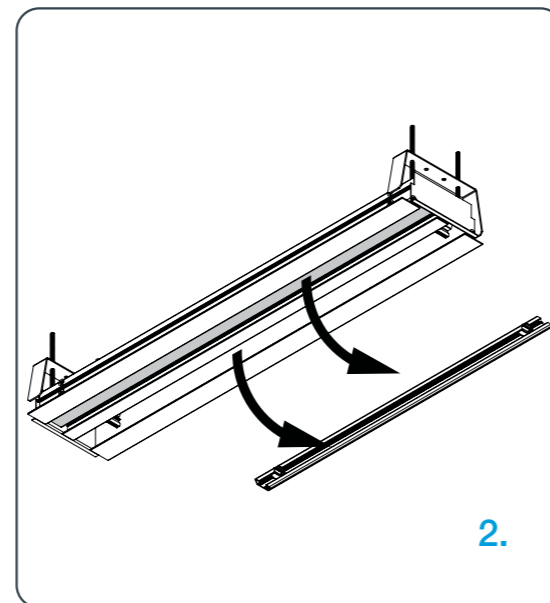
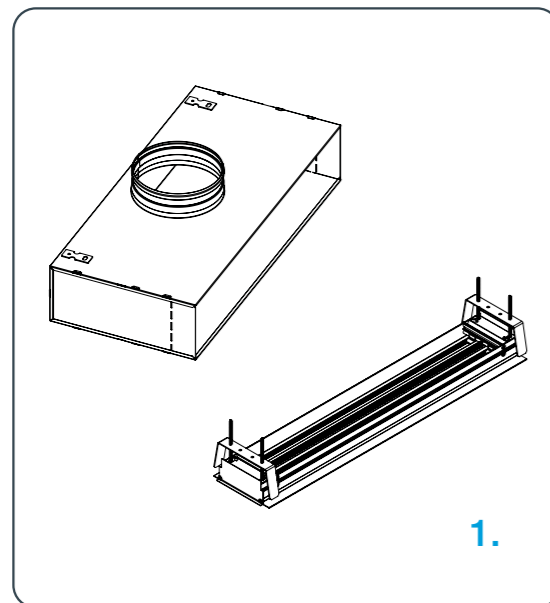
## Installation process LDM

- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser



### LDM DIFFUSER

1. Inspect the products before the installation for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier.
2. Take out the deflectors from the diffuser
3. In case of diffuser installation without a plenum box, adjust the clips to the thickness dimension of the ceiling boards.
4. Tighten the diffuser to the ceiling or the plenum box with the screwdriver
5. Reinstall back the deflectors by attaching them to the appropriate pins in diffuser



# Sound and pressure drop LDM

Airflow rate [m³/h]	Size A <sub>ef</sub> [m²]	575-1 0,0066	875-1 0,0101	1175-1 0,0133	575-2 0,0135	1475-1 0,0170	575-3 0,0199	875-2 0,0202	575-4 0,0265	875-3 0,0303	1475-2 0,0340	875-4 0,0404	1175-3 0,0406	1475-3 0,0510	1475-3 0,0510	1175-4 0,0542	1175-4 0,0680	
50	X [m]	1,4	1,1															
	Pt [Pa]	8	3															
	NR	< 20	< 20															
100	X [m]	2,8	2,3	2,0	2,0	1,8	1,6	1,6										
	Pt [Pa]	31	13	6	7	5	3	3										
	NR	29	20	< 20	< 20	< 20	< 20	< 20										
150	X [m]		3,4	3,0	3,0	2,6	2,4	2,4	2,1	2,1	2,0	1,9						
	Pt [Pa]		30	13	17	11	6	6	3	3	3	2						
	NR		30	24	23	< 20	< 20	< 20	< 20	< 20	< 20	< 20						
200	X [m]		4,6	4,0	4,0	3,5	3,3	3,2	2,8	2,8	2,6	2,5	2,3	2,3	2,0			
	Pt [Pa]		54	24	30	19	11	10	6	6	5	4	3	3	2			
	NR		37	31	30	25	22	21	< 20	< 20	< 20	< 20	< 20	< 20	< 20			
300	X [m]			6,0	5,9	5,3	4,9	4,9	4,2	4,2	4,0	3,7	3,4	3,4	3,1	3,0	2,6	
	Pt [Pa]			54	67	43	24	23	13	13	10	8	6	6	4	3	2	
	NR			41	40	35	32	31	25	25	22	< 20	< 20	< 20	< 20	< 20	< 20	
400	X [m]					7,1	6,5	6,5	5,7	5,6	5,3	5,0	4,6	4,6	4,1	4,0	3,5	
	Pt [Pa]					76	42	41	24	23	18	15	10	10	6	6	4	
	NR					42	39	38	32	32	29	27	23	23	< 20	< 20	< 20	
500	X [m]						8,2	8,1	7,1	7,0	6,6	6,2	5,7	5,7	5,1	4,9	4,4	
	Pt [Pa]						66	64	37	36	28	23	16	16	10	9	6	
	NR						44	44	37	37	35	32	28	28	23	22	< 20	
600	X [m]						9,8	9,7	8,5	8,4	7,9	7,5	6,9	6,9	6,1	5,9	5,3	
	Pt [Pa]						95	93	54	51	41	33	23	23	15	13	8	
	NR						48	48	42	41	39	36	33	32	27	26	21	
700	X [m]								9,9	9,8	9,3	8,7	8,0	8,0	7,1	6,9	7,9	
	Pt [Pa]								73	70	56	44	32	31	20	18	18	
	NR								46	45	43	40	36	36	31	30	31	
900	X [m]										11,9	11,2	10,3	10,3	9,2	8,9	7,9	
	Pt [Pa]										93	73	52	51	33	29	18	
	NR										49	46	42	42	37	36	31	
1000	X [m]											12,5	11,5	11,4	10,2	9,9	8,8	
	Pt [Pa]											91	64	64	40	36	23	
	NR											49	45	45	40	38	33	
1200	X [m]													13,8	13,7	12,2	11,9	10,6
	Pt [Pa]													93	91	58	51	33
	NR													49	49	44	43	38
1400	X [m]														14,3	13,9	12,4	
	Pt [Pa]														79	70	44	
	NR														48	46	41	
1800	X [m]																15,9	
	Pt [Pa]																73	
	NR																47	
2000	X [m]																17,7	
	Pt [Pa]																91	
	NR																50	

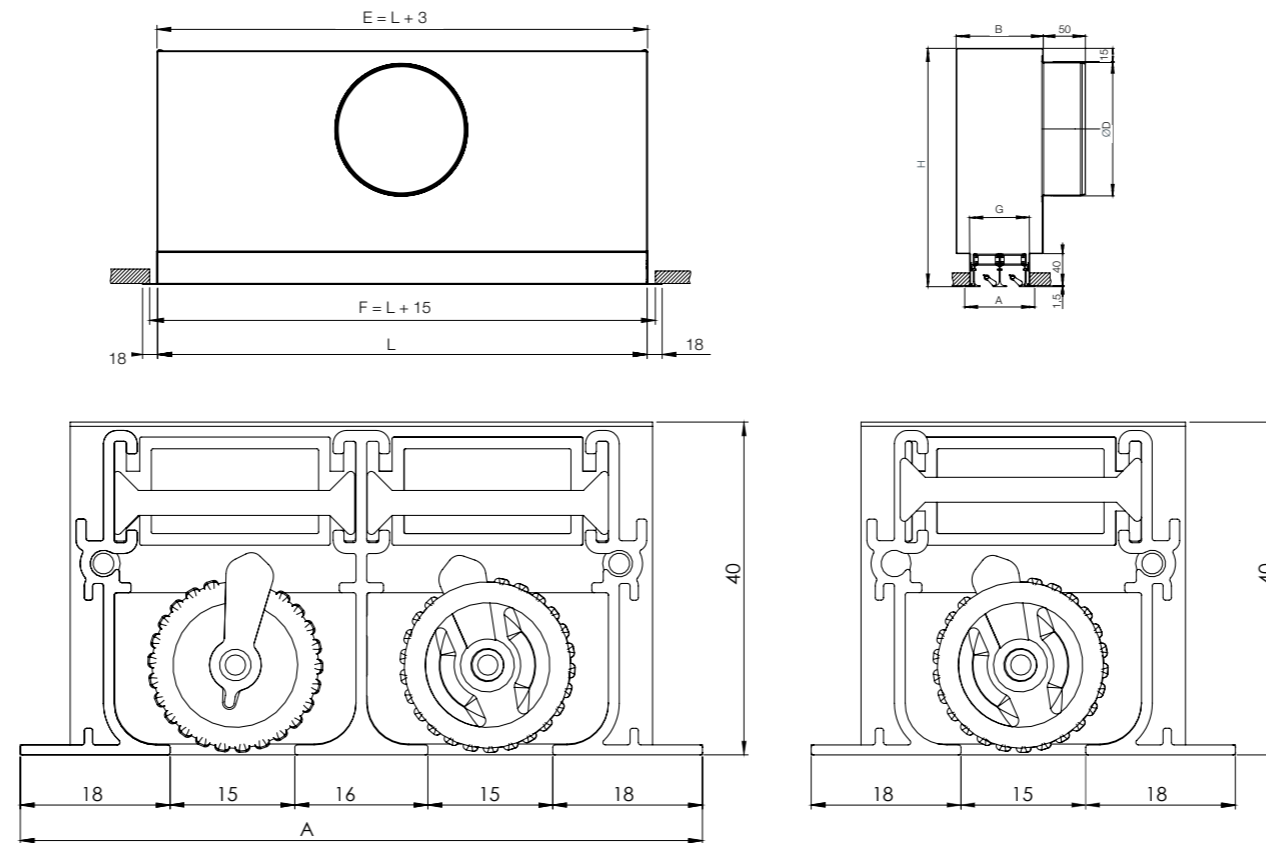
- LDD Linear drum diffuser
- LDF Fixed linear diffuser
- LDM Slide adjustable linear diffuser
- LDA Rotate adjustable linear diffuser
- LDH Flush mounted linear diffuser

DIAGRAMS

## LDM DIFFUSER

- NR < 25
- 25 NR < 35
- 35 < NR < 45
- NR > 45

X (m): range for a maximum velocity in the occupied space of V<sub>t</sub> = 0,25 m/s.  
 Pt (Pa): Total pressure.  
 NR: Noise Rating. Sound power without attenuation in the room  
 L<sub>w</sub> = NR +5 dB(A) approx.



- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser

## LDA

Linear diffuser with thin slots, horizontal or vertical airflow. Specially designed for ceiling installation. LDA airflow can be adjusted manually by rotating the directable deflector. Casing, frame and directable deflectors are made of aluminium

- Number of slots: 1 to 4
- 6 slot lengths as standard: 585, 885, 1000, 1185, 1485 and 1785 mm
- Deflector direction can be adjusted by thumb-wheel
- Plenum box,galvanized steel
- Discharge element is powder coated in RAL 9003, possible all standard RAL powder coating options for diffusers



DIFFUSER \ LDA

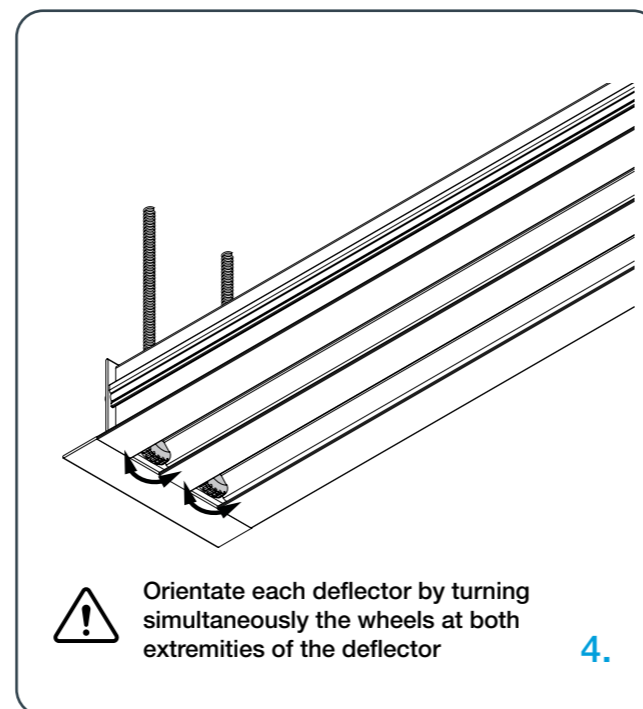
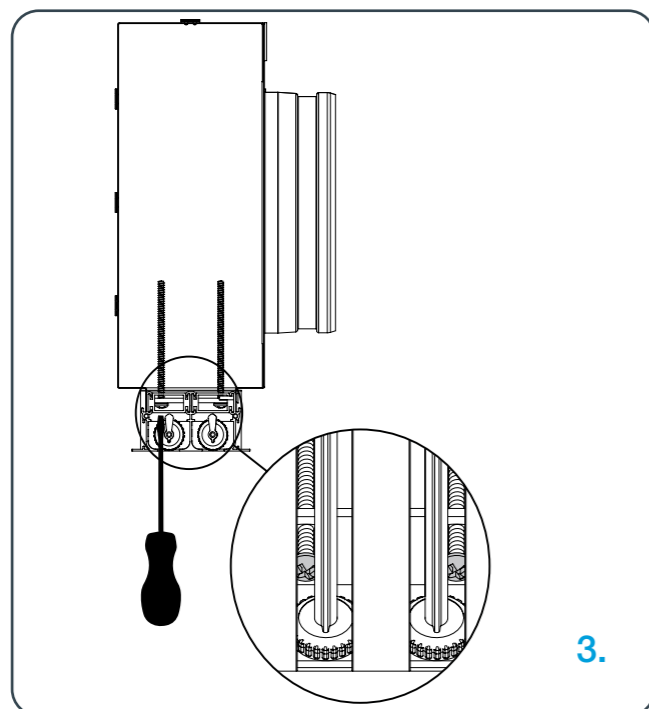
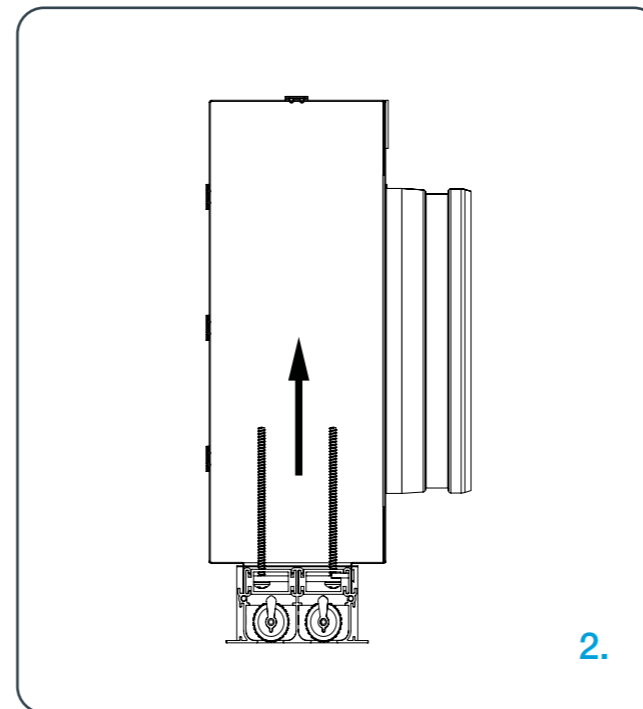
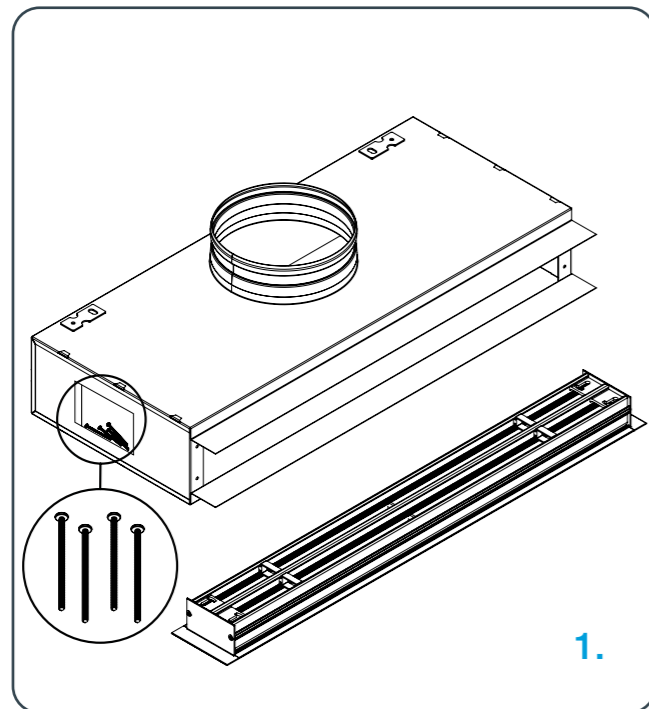
## AIR DISTRIBUTION

DIMENSIONS	Type	No. of slots	L [mm]	V [m³/h]	H [mm]	B [mm]	G [mm]	A [mm]	No. of spigots	
LDA	1	1	585	40 - 300	240	72	43	51	1 x Ø 123	
			885						1 x Ø 123	
			1 000						1 x Ø 123	
			1 185						1 x Ø 158	
			1 485						2 x Ø 123	
			1 785						2 x Ø 123	
	2	2	1	585	40 - 400	280	102	74	82	1 x Ø 158
				885						1 x Ø 158
				1 000						1 x Ø 158
				1 185						1 x Ø 198
				1 485						2 x Ø 158
				1 785						2 x Ø 158
	3	3	1	585	50 - 600	325	132	105	113	1 x Ø 158
				885						1 x Ø 198
				1 000						1 x Ø 198
				1 185						1 x Ø 198
				1 485						2 x Ø 158
				1 785						2 x Ø 158
	4	4	1	585	50 - 800	325	162	136	144	1 x Ø 198
				885						1 x Ø 198
1 000				1 x Ø 198						
1 185				1 x Ø 198						
1 485				2 x Ø 158						
1 785				2 x Ø 198						

### ORDERING KEY

(1) Diffuser model	(2) Number of slots	(3) Diffuser length	(4) RAL	(5) Plenum box	(6) Insulation
LDA	- 2	- 1000	- RAL		
(1) LDA				PBL-A	- Z
(2) 1/2/3/4				(5) PBL-A	
(3) Diffusers length:		585 885 1000 1185 1485 1785			(6) Internal insulation
(4) RAL					

## Installation process LDA



- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser



## LDA DIFFUSER

1. Inspect the products before the installation for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier. Find the screws delivered with the product on the side of the plenum box.
2. Install the diffuser in the plenum box
3. Tighten the diffuser with the screwdriver
4. Adjust the deflectors by turning the wheels at the corners of the deflectors

## Sound and pressure drop LDA

Airflow rate [m³/h]	Size A <sub>ef</sub> [m²]	585-1	885-1	585-2 1185-1	1485-1	585-3 885-2 1485-1	585-4 1185-2	885-3	1485-2	885-4 1185-3	1485-3	1185-4	1785-3	1485-4	1785-4
		0,0070	0,0106	0,0140	0,0178	0,0211	0,0281	0,0319	0,0356	0,0425	0,0535	0,0569	0,0643	0,0713	0,0857
40	X [m]	2,3	1,9	1,7	1,5										
	Pt [Pa]	4,2	1,8	1,1	0,7										
	NR	< 20	< 20	< 20	< 20										
50	X [m]	2,9	2,4	2,1	1,8	1,7	1,5								
	Pt [Pa]	6,6	2,9	1,6	1,0	0,7	0,4								
	NR	< 20	< 20	< 20	< 20	< 20	< 20								
60	X [m]	3,5	2,8	2,5	2,2	2,0	1,8	1,6	1,6	1,4					
	Pt [Pa]	9,5	4,1	2,4	1,5	1,1	0,6	0,5	0,4	0,3					
	NR	23	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20					
80	X [m]	4,7	3,8	3,3	2,9	2,7	2,3	2,2	2,1	1,9					
	Pt [Pa]	16,8	7,4	4,2	2,6	1,9	1,1	0,8	0,7	0,5					
	NR	29	23	< 20	< 20	< 20	< 20	< 20	< 20	< 20					
100	X [m]	5,8	4,7	4,1	3,7	3,4	2,9	2,7	2,6	2,4	2,1	2,0	1,9	1,8	1,7
	Pt [Pa]	26,3	11,5	6,6	4,1	2,9	1,6	1,3	1,0	0,7	0,5	0,4	0,3	0,3	0,2
	NR	34	28	23	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
150	X [m]		7,1	6,2	5,5	5,1	4,4	4,1	3,9	3,6	3,2	3,1	2,9	2,7	2,5
	Pt [Pa]		25,8	14,8	9,2	6,6	3,7	2,9	2,3	1,6	1,0	0,9	0,7	0,6	0,4
	NR		37	32	28	26	21	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
200	X [m]			8,3	7,3	6,7	5,8	5,5	5,2	4,7	4,2	4,1	3,9	3,7	3,3
	Pt [Pa]			26,3	16,3	11,7	6,6	5,1	4,1	2,9	1,8	1,6	1,3	1,0	0,7
	NR			39	35	32	28	25	24	21	< 20	< 20	< 20	< 20	< 20
250	X [m]				9,2	8,4	7,3	6,8	6,5	5,9	5,3	5,1	4,8	4,6	4,2
	Pt [Pa]				25,5	18,3	10,3	8,0	6,4	4,5	2,8	2,5	2,0	1,6	1,1
	NR				40	37	32	30	29	26	22	21	< 20	< 20	< 20
300	X [m]					10,1	8,8	8,2	7,8	7,1	6,3	6,1	5,8	5,5	5,0
	Pt [Pa]					26,3	14,8	11,5	9,2	6,5	4,1	3,6	2,8	2,3	1,6
	NR					41	36	34	33	30	26	25	23	22	< 20
350	X [m]						10,2	9,6	9,1	8,3	7,4	7,2	6,8	6,4	5,8
	Pt [Pa]						20,1	15,6	12,5	8,8	5,6	4,9	3,8	3,1	2,2
	NR						40	38	36	33	30	29	27	25	22
400	X [m]								10,4	9,5	8,5	8,2	7,7	7,3	6,7
	Pt [Pa]								16,3	11,5	7,3	6,4	5,0	4,1	2,8
	NR								39	36	32	31	30	28	25
500	X [m]										10,6	10,2	9,6	9,2	8,4
	Pt [Pa]										11,3	10,0	7,8	6,4	4,4
	NR										37	36	34	33	30
600	X [m]												11,6	11,0	10,0
	Pt [Pa]												11,3	9,2	6,4
	NR												38	37	34
700	X [m]														11,7
	Pt [Pa]														8,6
	NR														37
800	X [m]														13,4
	Pt [Pa]														11,3
	NR														40

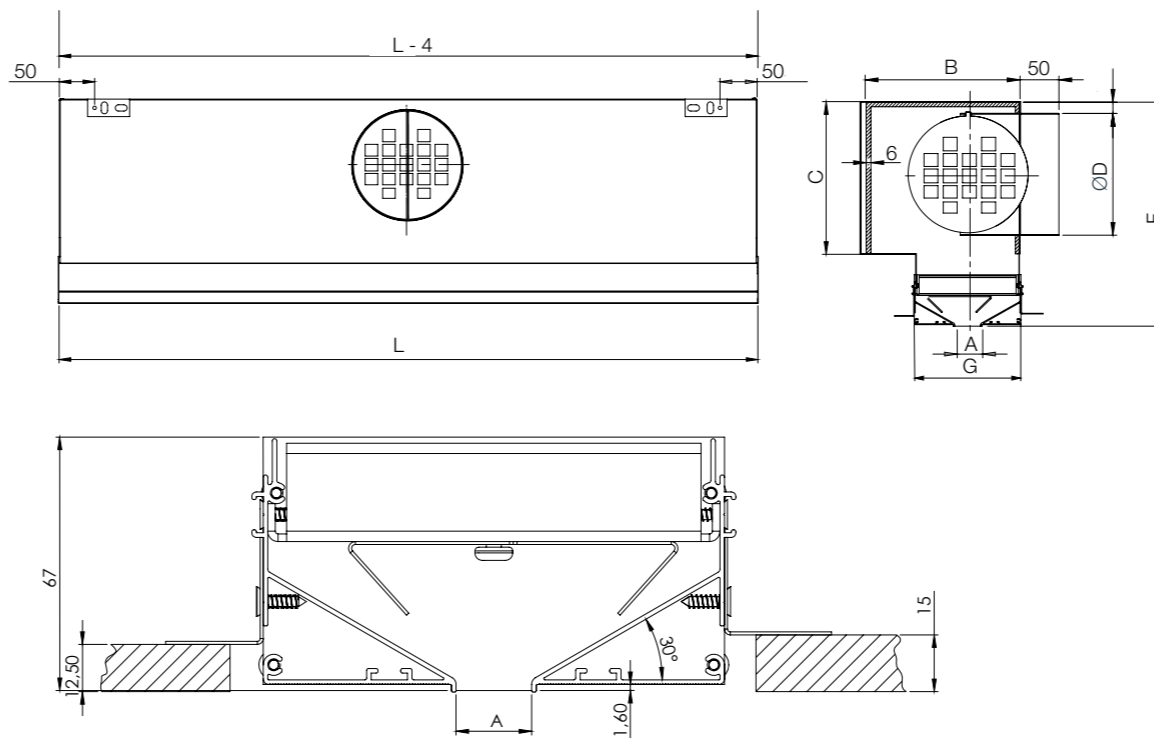
- LDD Linear drum diffuser
- LDF Fixed linear diffuser
- LDM Slide adjustable linear diffuser
- LDA Rotate adjustable linear diffuser
- LDH Flush mounted linear diffuser



### LDA DIFFUSER

	NR < 25
	25 ≤ NR < 35
	35 ≤ NR < 45

X (m): range for a maximum velocity in the occupied space of  $V_t = 0,25$  m/s.  
 Pt (Pa): Total pressure.  
 NR: Noise Rating. Sound power without attenuation in the room  $L_w = NR + 5$  dB(A) approx.



# LDH

Linear diffuser for plaster-in installation. LDH airflow can be adjusted manually by rotating the directable deflector. Ideal for reception areas in hotels. Casing and frame are made off steel and standard product is not powder coated because its installation is not visible.

- Ceiling diffuser for room heights to 4 m

- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser

### DIMENSIONS

Type	Diffuser			Plenum				øD [mm]
	L [mm]	A [mm]	G [mm]	B [mm]	C [mm]	F [mm]		
LDH	500	33	150	202	198	292	1 x Ø 158	
	800							
	1000							
	500	40	157	209	238	332	1 x Ø 158	
	800							
	1000							

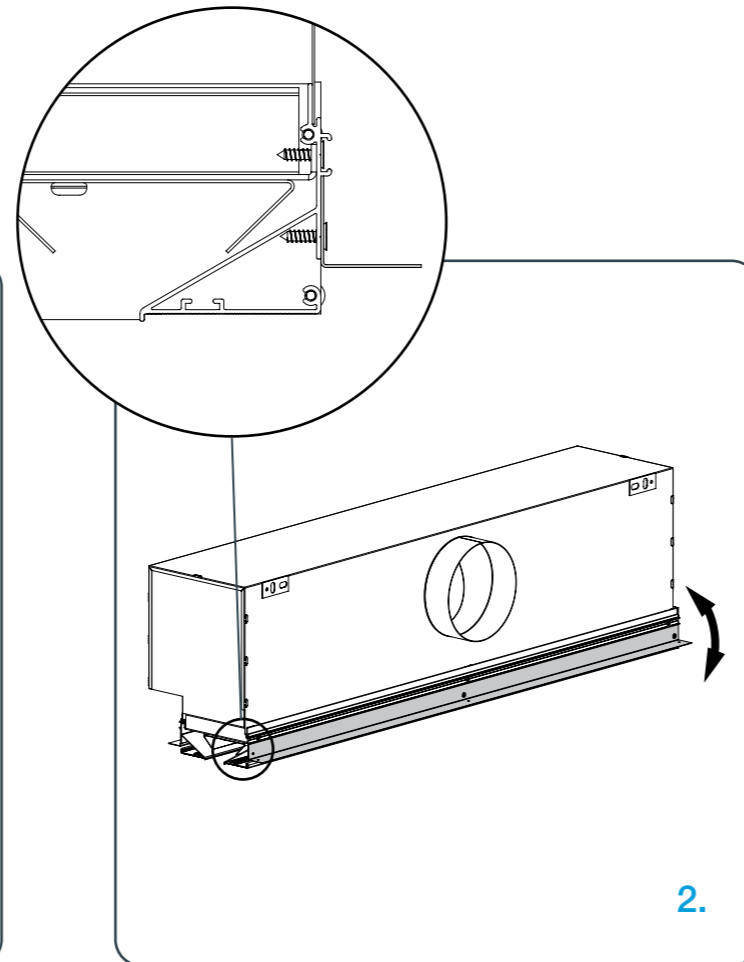
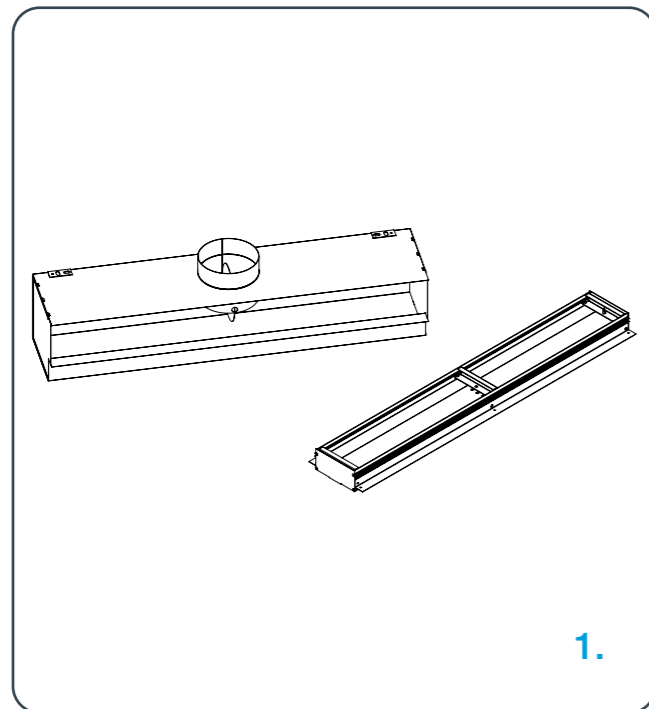
### ORDERING KEY

(1) Diffuser model (2) Slots widths (3) Diffuser length (4) Spigot diameter (5) RAL (6) Insulation

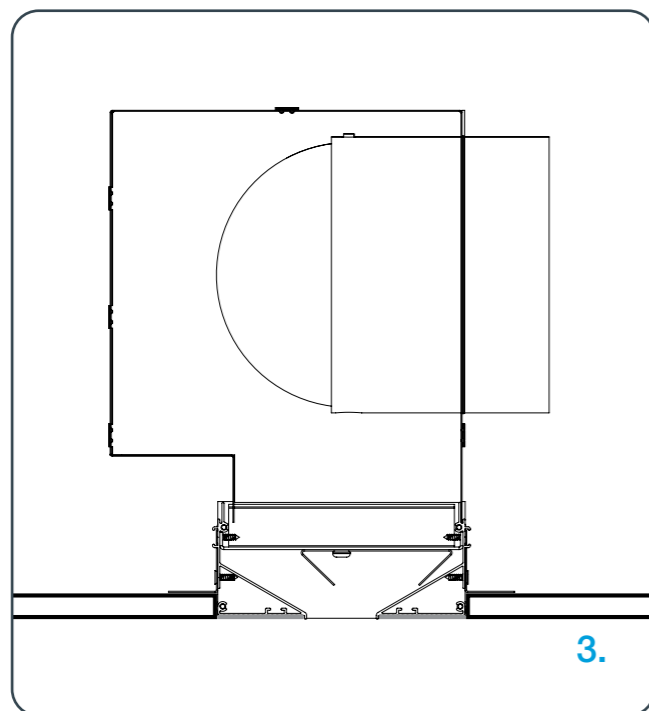
**LDH - 33 - 1000 - 160 - RAL - Z**

- (1) LDH
- (2) Slots widths: 33  
40
- (3) Diffusers length: 500  
800  
1000
- (4) Spigot diameter: 160  
200
- (5) RAL (optional)
- (6) Internal insulation

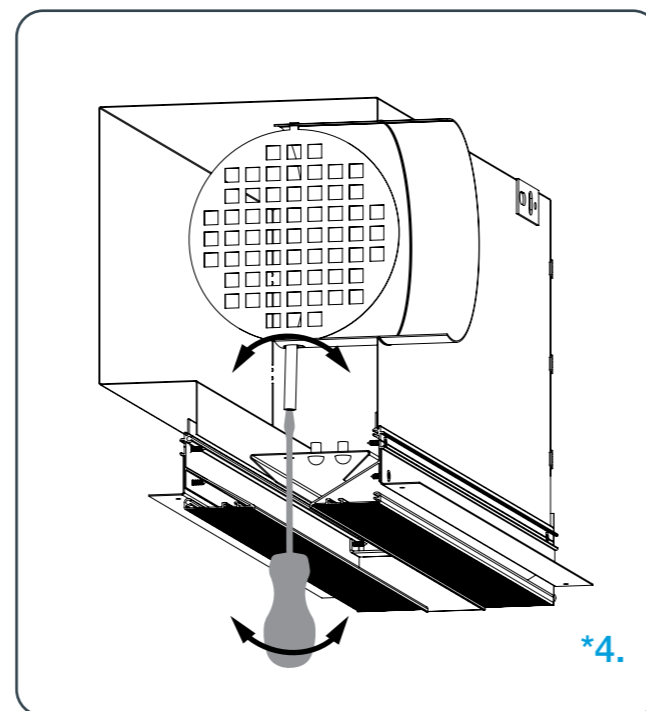
## Installation process LDH



Turn the mounting profile according to the type of gypsum board (12,5 mm / 15 mm)!



Place on ceiling and close with plaster mesh!



\*Rotation directable deflector!

- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser



### LDH DIFFUSER

1. Inspect the products before the installation for transport damage and shortcomings. In case of any damage or shortcomings, immediately contact your supplier. Find the screws delivered with the product on the side of the plenum box.
2. Install the diffuser in the plenum box
3. Place the diffuser and plenum on the ceiling and close the installation with plaster mesh.
4. Adjust the airflow volume by turning the regulating damper inside the plenum box with a screwdriver

## Sound and pressure drop LDH

Airflow rate [m <sup>3</sup> /h]	Size A [m <sup>2</sup> ]	1000-33 0,0248	1000-40 0,0300
100	X [m]	3	3
	Pt [Pa]	2	1
	NR	< 20	< 20
150	X [m]	4,6	3,9
	Pt [Pa]	5	3
	NR	< 20	< 20
200	X [m]	6,1	5,3
	Pt [Pa]	8	5
	NR	21	< 20
250	X [m]	7,6	6,6
	Pt [Pa]	13	7
	NR	25	21
300	X [m]	9,1	7,9
	Pt [Pa]	19	11
	NR	29	25
400	X [m]	12,1	10,5
	Pt [Pa]	34	19
	NR	36	31
500	X [m]	15,2	13,2
	Pt [Pa]	52,9	29,7
	NR	44	41
600	X [m]	18,2	15,8
	Pt [Pa]	76,1	42,8
	NR	45	41
700	X [m]		18,4
	Pt [Pa]		58
	NR		43
800	X [m]		21
	Pt [Pa]		76
	NR		46

□	NR < 25
■	25 ≤ NR < 35
■	35 ≤ NR

X (m): range for a maximum velocity in the occupied space of  $V_t = 0,25$  m/s.  
 Pt (Pa): Total pressure.  
 NR: Noise Rating. Sound power without attenuation in the room  $L_w = NR + 5$  dB(A) approx.

- ▼ LDD Linear drum diffuser
- ▼ LDF Fixed linear diffuser
- ▼ LDM Slide adjustable linear diffuser
- ▼ LDA Rotate adjustable linear diffuser
- ▼ LDH Flush mounted linear diffuser

 DIAGRAMS

## LDH DIFFUSER



## AIR DISTRIBUTION

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Projektiranje, proizvodnja i održavanje opreme za klimatizaciju, ventilaciju i čiste prostore.  
Design, production and service of Ventilation, Air-Conditioning and Cleanroom equipment.

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