

LSD-A – linear outlet adjustable



Technical parameters

Version

Linear outlet with drop deflector.

Construction

The outlets are made of aluminium as standard, the deflector of black (RAL 9005) polypropylene. Burn-in paint in basic RAL shades at extra cost, other colour variants on request. Deflector in white (RAL 9003) on request.

Installation

Linear outlets are designed for ceiling mounting for both supply and exhaust air. Installation height 2,5–3,1 m.

Mounting

using the screws on the front of the outlet or mounting in the plenum box using springs or mounting brackets.

Accessories

Plenum boxes made of galvanized steel, standard or insulated. Set for standard and set for scythe connection stems. Mounting bracket, springs.

Type key for ordering

plenum box

PBL 1 - 1 000 1

1 2 3 4

- 1 – implementation
- PBL – standard
- PBLI – with external insulation of 6 mm
- 2 – number of anemostat slots
- 3 – length of the anemostat
- 4 – connection of the anemostat to the plenum box
 - 1 – by means of CM springs
 - 2 – using CVL mounting brackets, screw fixing
 - 3 – using CVL mounting brackets, fixing by means of latches

linear result

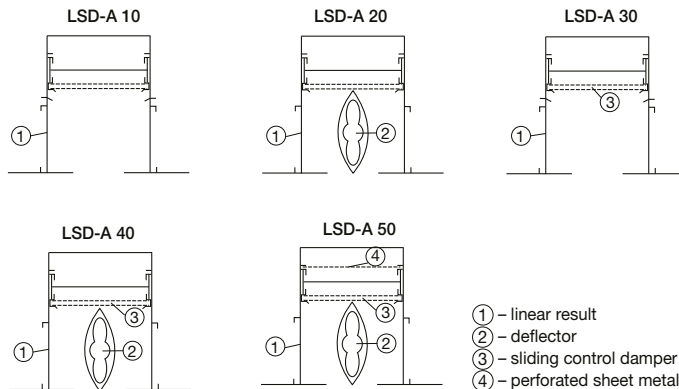
LSD-A-R 10-1-1000 RAL9010 LSD 90

1 2 3 4 5 6

- 1 – type
 - LSD-A – standard
 - LSD-A-R – with adjustable current air (for variants 20, 40, 50)
- 2 – implementation
 - 10 – basic implementation
 - 20 – implementation with deflector
 - 30 – implementation with sliding control with deflector flap

number of slots	length [mm]	LSD-A					PBL	PBLI	LSD 90
		10	20	30	40	50			
1	800	•	•	•	•	•	•	•	•
	1000	•	•	•	•	•	•	•	•
	1500	•	•	•	•	•	•	•	•
	2000	•	•	•	•	•	•	•	•
2	800	•	•	•	•	•	•	•	•
	1000	•	•	•	•	•	•	•	•
	1500	•	•	•	•	•	•	•	•
	2000	•	•	•	•	•	•	•	•
3	800	•	•	•	•	•	•	•	•
	1000	•	•	•	•	•	•	•	•
	1500	•	•	•	•	•	•	•	•
	2000	•	•	•	•	•	•	•	•
4	800	•	•	•	•	•	•	•	•
	1000	•	•	•	•	•	•	•	•
	1500	•	•	•	•	•	•	•	•
	2000	•	•	•	•	•	•	•	•

Different variants of linear LSD-A results:



- ① – linear result
- ② – deflector
- ③ – sliding control damper
- ④ – perforated sheet metal

LSD-A 40

LSD-A 50

① – linear result

② – deflector

③ – sliding control damper

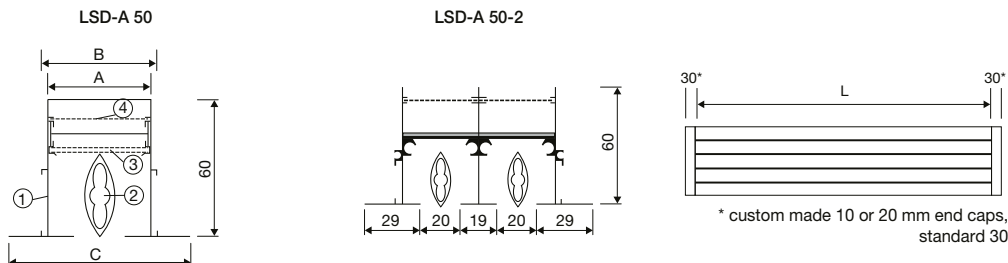
④ – perforated sheet metal

- 40 – version with deflector and sliding damper control damper
- 50 – version with deflector, sliding damper with deflector and perforated sheet
- 3 – number of slots (1–8)
- 4 – length (800, 1000, 1500, 2000)

- 5 – colour
 - no indication – transparent anodized RAL 9010, 9016, 7035 or on request
- 6 – set for scythe connection of linear outlets

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Dimensions

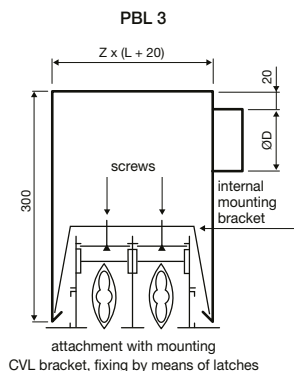
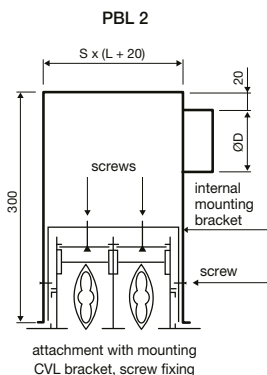
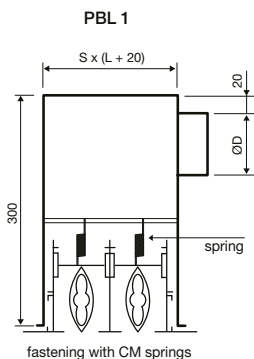


number of slots	length L [mm]	number and diameter of connection nozzles [mm]	A [mm]	B [mm]	C [mm]	S [mm]	Z [mm]	number of CVL mounting brackets*	number springs CM*
1	800	1 × 98	40	50	77	54	66	2	2
	1000	2 × 98						2	2
	1500	2 × 98						2	2
	2000	3 × 98						2	3
2	800	1 × 148	78	89	115	93	105	2	4
	1000	2 × 148						2	4
	1500	3 × 148						2	4
	2000	4 × 148						2	6
3	800	1 × 198	117	128	155	132	144	2	4
	1000	2 × 198						2	4
	1500	3 × 198						2	6
	2000	4 × 198						3	6
4	800	1 × 198	155	165	191	169	181	2	4
	1000	2 × 198						2	4
	1500	3 × 198						2	6
	2000	4 × 198						3	6
5	800	1 × 248	192	202	229	206	218	2	4
	1000	1 × 248						2	4
	1500	2 × 248						2	6
	2000	2 × 248						3	8
6	800	1 × 248	230	240	267	244	256	2	4
	1000	2 × 248						2	4
	1500	2 × 248						2	6
	2000	3 × 248						3	8
7	800	1 × 248	266	276	303	280	292	3	6
	1000	2 × 248						3	6
	1500	3 × 248						3	8
	2000	4 × 248						3	8
8	800	1 × 248	303	313	340	317	329	3	6
	1000	2 × 248						3	6
	1500	3 × 248						3	8
	2000	4 × 248						3	8

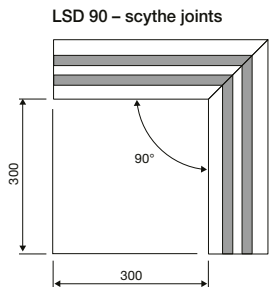
* accessories not included linear outlet

LSD-A – linear outlet adjustable

Plenum boxes



Accessories



Type key for ordering
 scythe joint

LSD 90 1
 1

1 – number of slots

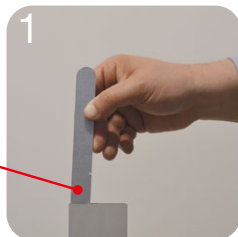
- CVL mounting brackets 1–4 slots
- CVL mounting brackets 5–8 slots
- CM Spring
- CG hook for plenum box PBL 1
- CC connection set 2 pcs



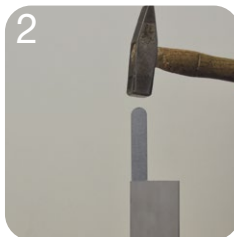
Additional illustration

the joining results in a CC joining set

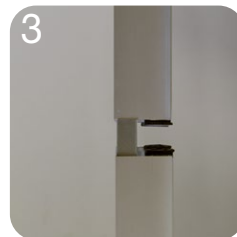
7₂



insert the extension into the connection hole



using a hammer, insert to a depth of 10–15 mm

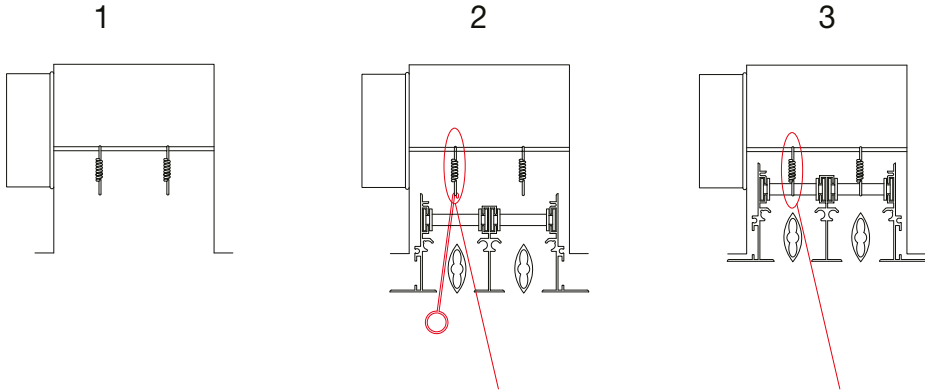


connect both outlets



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Fixing of LSD-A outlets in PBL 1 plenum box with CG hook

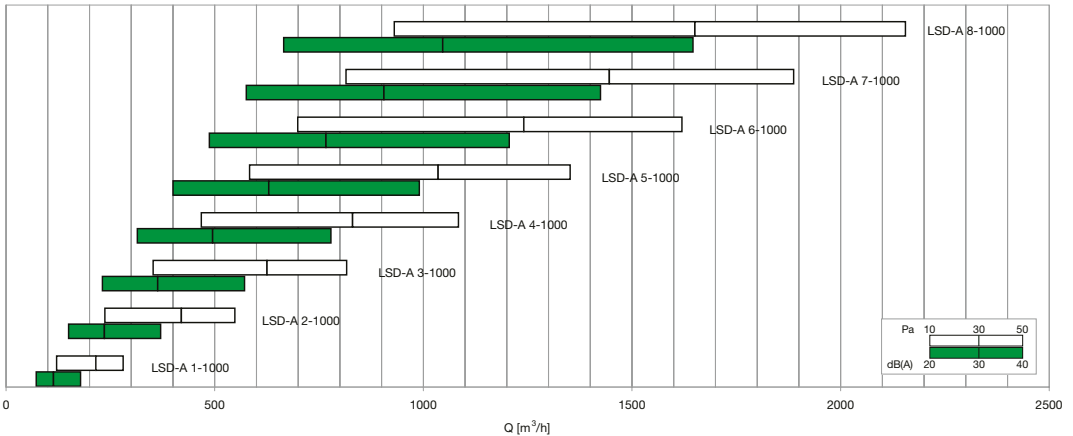


1) Attach the spring with a hook to the metal tube inside the plenum box.

2) Carefully insert the spout into the plenum box and attach the other end of the spring to the extension on the spout.

3) Check that the connection is OK and holding firmly.

Quick Design Table



Parameters for other lengths are obtained by a simple calculation: divide the required flow rate by the length of the outlet in metres and find this calculated value in the table, i.e. for a length of 1500 mm (1.5 m) and a required flow rate of 450 m³/h, find the data for $Q = 450/1.5 = 300$ m³/h in the table.

Type	A_x [m²]	Q [m³/h]		L_{WA} [dB(A)]		$X_{0,25}$ [m]		Δp_t^* [Pa]	
		min	max	min	max	min	max	min	max
LSD-A 1-1000	0,01061	120	280	31	50	3,6	8,6	10	50
LSD-A 2-1000	0,02073	240	550	30	49	5,0	11,8	10	50
LSD-A 3-1000	0,03085	350	820	29	48	5,9	14,1	10	50
LSD-A 4-1000	0,04097	470	1080	29	47	6,8	16,0	10	50
LSD-A 5-1000	0,05109	580	1350	28	47	7,5	17,7	10	50
LSD-A 6-1000	0,06121	700	1620	28	47	8,2	19,3	10	50
LSD-A 7-1000	0,07133	810	1890	28	46	8,7	20,7	10	50
LSD-A 8-1000	0,08145	930	2160	27	46	9,3	22,0	10	50

* without stabilizer and control flap, fully open

Explanatory notes:

Q [m³/h] – air flow

A_x [m²] – free discharge area

Δp_t [Pa] – total pressure drop

L_{WA} [dB(A)] – acoustic performance

$X_{0,25}$ [m] – air flow range to obtain a comfortable air speed in the living area under isothermal conditions of 0.25 m/s