

# LINEAR SLOT DIFFUSER WITH ROTATING PVC DEFLECTORS



## Serie EDFLN

Linear Slot Diffuser with adjustable PVC deflectors with a high induction ratio (mixing capacity) between the injected and the ambient air. Constructed of coupled aluminium profiles to obtain multiple slots inside which adjustable plastic deflectors are mounted. The flow of the air supply can be oriented clockwise, anticlockwise or alternating by changing the position of the deflectors. In return applications, EDFL diffusers can be supplied without deflectors. The set of the diffusers can also be made after installation so to optimize the air flow according to changes in the environments. EDFLN Linear Diffuser can be equipped with sliding damper and equalizer.

### TECHNICAL FEATURES

**MATERIAL:** extruded anodised aluminium profiles, ABS supports and black PVC deflectors

**STANDARD SURFACE FINISH:** anodized aluminium, black deflectors. On request, frame coating in RAL 9010 or nonstandard RAL colours.

**FASTENING TO THE PLENUM:** by means of side screws or a central screw

**INSTALLATION HEIGHT:** 2.5 – 4 m

### MODELS

EDFLN-10 exhaust diffusers without deflectors

EDFLN-20 supply diffusers with black ABS deflectors.

EDFLBN-20 white RAL9010 supply diffusers with black ABS deflectors.

EDFLN-40 supply diffusers with black ABS deflectors and sliding damper

EDFLBN-40 white RAL9010 supply diffusers with black ABS deflectors and sliding damper

EDFLN-50 supply diffusers with black ABS deflectors, equalizer and sliding damper

EDFLBN-50 white RAL9010 supply diffusers with black ABS deflectors, equalizer and sliding damper

### ACCESSORIES

- Plenum box in galvanised steel;
- Insulated plenum box;
- Corners 90°;
- Continues line kit

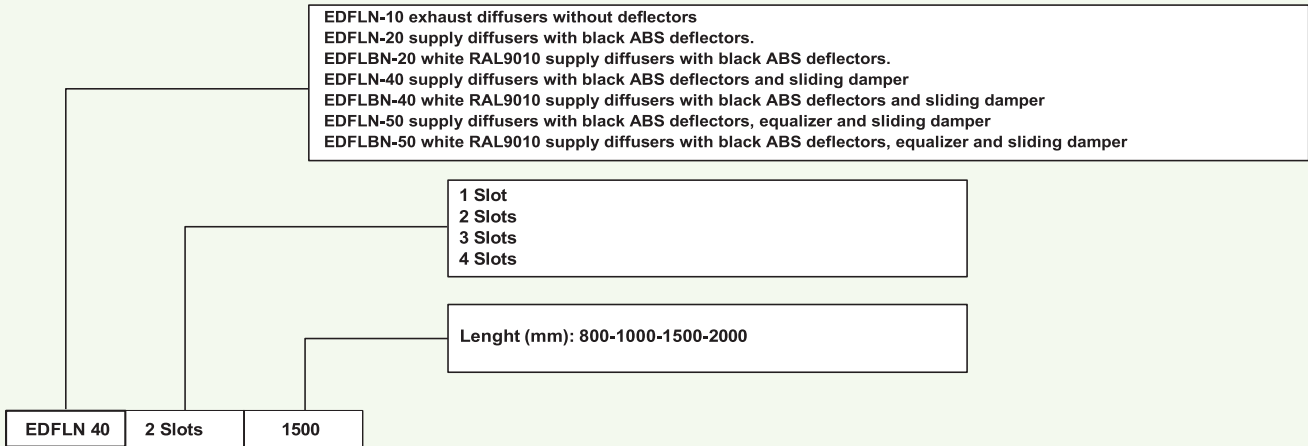
**EPI - EDFLN**

Insulated plenum box for EDFLN

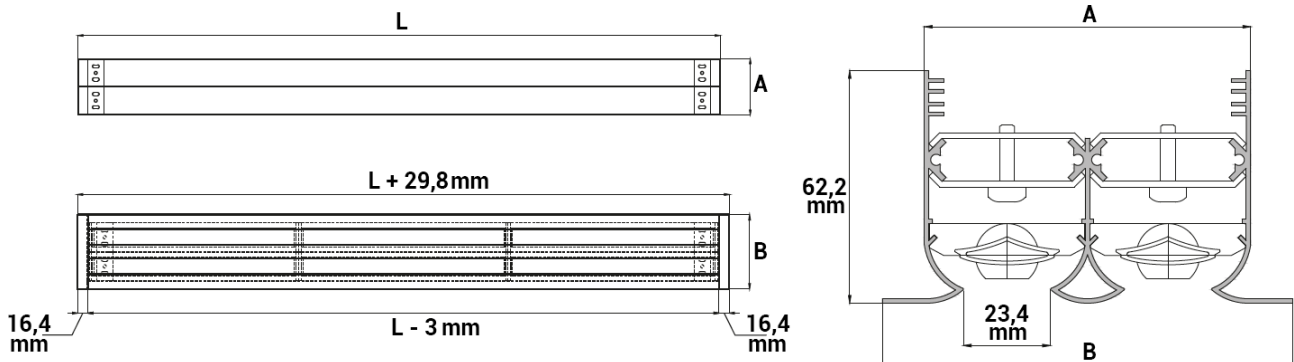
**EPZ - EDFLN**

Galvanised plenum box for EDFLN

## CODES



## DIFFUSER DIMENSIONS



Linear Slot Diffuser EDFLN				
Slots N.	L	A	B	Mounting Bridges N.
1 slot	800	44,4	67	2
2 slots		87,6	110,2	2
3 slots		130,8	153,4	2
4 slots		174	196,6	2
1 slot	1000	44,4	67	2
2 slots		87,6	110,2	2
3 slots		130,8	153,4	2
4 slots		174	196,6	2
1 slot	1500	44,4	67	3
2 slots		87,6	110,2	3
3 slots		130,8	153,4	3
4 slots		174	196,6	3
1 slot	2000	44,4	67	4
2 slots		87,6	110,2	4
3 slots		130,8	153,4	4
4 slots		174	196,6	4

All dimensions are expressed in mm

## PERFORMANCES:

Slots N.	Effective Section m <sup>2</sup>	Airflow, Throw and Pressure Loss							
		m <sup>3</sup> /h	Pa	Lo(m)	Lv(m)	m <sup>3</sup> /h	Pa	Lo(m)	Lv(m)
1 slot	0,0099	m <sup>3</sup> /h	72	107	143	179	215	251	287
		Pa	4	9	15	24	35	47	61
		Lo(m)	2,6	4,0	5,3	6,6	7,9	9,2	10,5
		Lv(m)	1,8	2,8	3,7	4,6	5,5	6,5	7,4
2 slots	0,0199	m <sup>3</sup> /h	143	215	287	358	430	501	573
		Pa	5	10	18	29	41	56	74
		Lo(m)	3,8	5,6	7,5	9,4	11,3	13,2	15,1
		Lv(m)	2,6	4,0	5,3	6,6	7,9	9,2	10,5
3 slots	0,0298	m <sup>3</sup> /h	215	322	430	537	645	752	860
		Pa	6	14	26	40	58	79	103
		Lo(m)	4,4	6,7	8,9	11,1	13,3	15,6	17,8
		Lv(m)	3,1	4,7	6,2	7,8	9,3	10,9	12,4
4 slots	0,0398	m <sup>3</sup> /h	287	430	573	716	860	1003	1146
		Pa	10	23	41	64	92	125	163
		Lo(m)	5,0	7,6	10,1	12,6	15,1	17,6	20,2
		Lv(m)	3,5	5,3	7,1	8,8	10,6	12,4	14,1
Vk		m/s	2	3	4	5	6	7	8
Noise Level		dB(A)	25-30	30-35	35-40	40-45	42-48	45-50	50-55

Data referring to 1m long diffusers

Vk: Effective Air Speed (m/s)

m<sup>3</sup>/h: Air volume

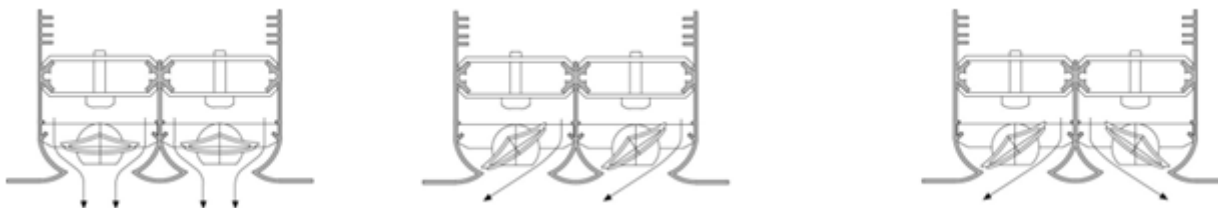
Pa: Pressure Drop

Lo(m): horizontal throw in meters calculated with installation flush with the ceiling and terminal velocity 0,25 m/s

Lv(m): vertical throw in meters calculated with installation flush with the ceiling and terminal velocity 0,25 m/s

dB(A): Noise Level

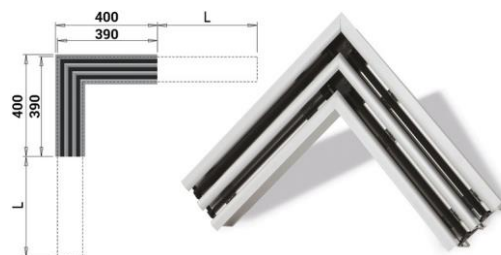
## AIR THROW:



## CORNER:

Aesthetic connecting element between the two lines of linear diffusers with an angle of 90 ° and length 400 mm per side.

All measurements are expressed in mm.



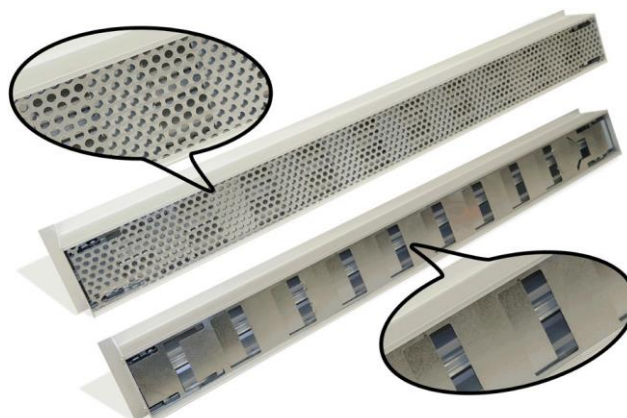
## CONTINUOUS LINE KIT:

Continues Line kit is a necessary accessory to create continuous lines of linear diffusers longer than 2 metres.

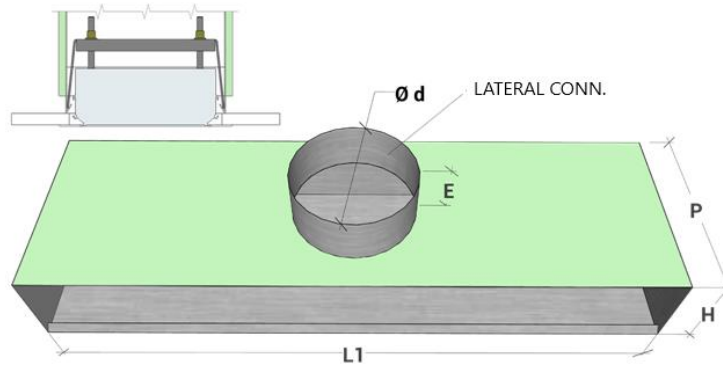
It consists of two junction plates that allow the alignment and connection of two components of the line.



## EQUALIZER AND SLIDING DAMPER



## PLENUM BOX DIMENSION AND INSTALLATION WITH MOUNTING BRIDGE:



Slots N.	L	Plenum Box Dimension					E
		L1	Conn. N.	Ø d	P	H	
1 slot	800	815	1	123	200	59	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
2 slots	800	815	1	148	240	102	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
3 slots	800	815	1	148	240	145	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				
4 slots	800	815	1	198	285	189	80
	1000	1015	1				
	1500	1515	2				
	2000	2015	2				

All dimensions are expression in mm

## INSTALLATION

Installation, adjustments and maintenance are simple to perform. Fixing to the plenum made by using lateral screws or a hidden central bridge.

The adjustment of the air flow distribution can be made with manual regulation of the deflectors which are equipped with a snap movement that allows them to keep position.

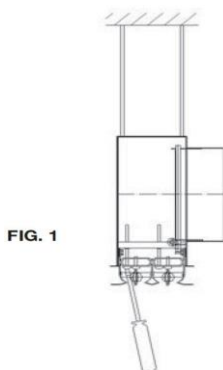
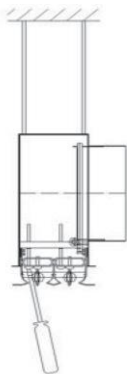


FIG. 1

### Fig. 1 Installation with bridge to the plenum box (plenum box fixed to the ceiling)

- hang the plenum box from the ceiling using special brackets or chains fixed to the plenum (whose external edge can be drilled);
- insert the flexible duct onto the connection sleeve, securing it with the appropriate hose clamp;
- rotate vertically the diffuser deflector near the fixing bridge as shown in picture;
- screw the screw to the plenum mounting bridge, inserting it into the appropriate brackets located inside the diffuser frame;
- make the preliminary adjust of the damper by acting on the pin with an Allen screw and tightening the hexagonal pin fixing screw;
- rotate the deflectors to the chosen position;

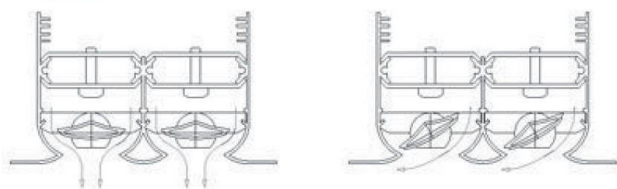
FIG. 2



**Fig. 2 Installation with lateral screws to the plenum box (plenum box fixed to the ceiling)**

- hang the plenum from the ceiling using special brackets or chains fixed to the plenum whose external edge can be drilled;
- insert the flexible conduit onto the connection sleeve, securing it with the appropriate hose clamp;
- rotate vertically the diffuser deflector near the fixing bridge as shown in picture;
- mount the diffuser using self-drilling side screws;
- make the preliminary adjust of the damper by acting on the pin with an Allen screw and tightening the hexagonal pin fixing screw;
- rotate the deflectors to the chosen position;

FIG. 3



Posizione  
deflettore  
max lancio  
verticale

Posizione  
deflettore  
max lancio  
orizzontale

**Fig. 3 Adjustment of the adjustable deflectors**

The adjustable deflectors can be regulated from a 0° angle, maximum vertical throw position (used in heating) to a maximum angle, maximum horizontal throw position (used in cooling).

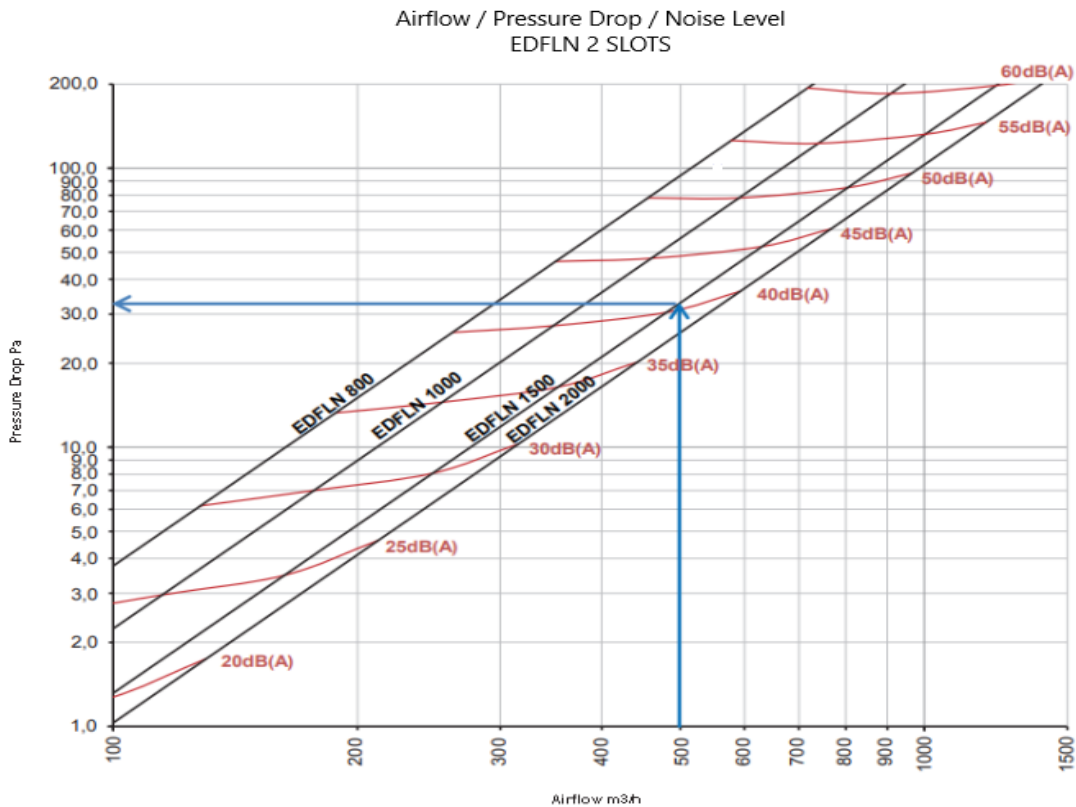
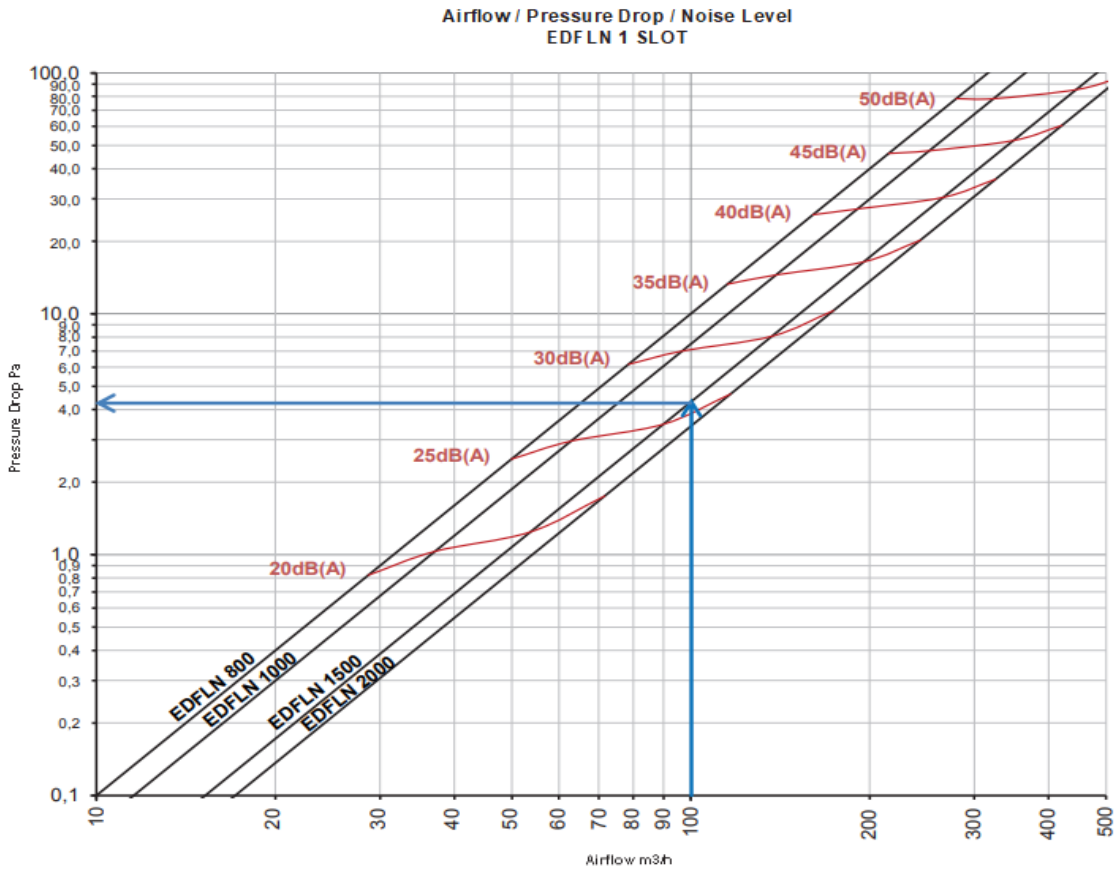
The deflectors are equipped with a snap positioning device to ensure precision and always correct positioning even with high flow rates and speeds.

## TENDER SPECIFICATION

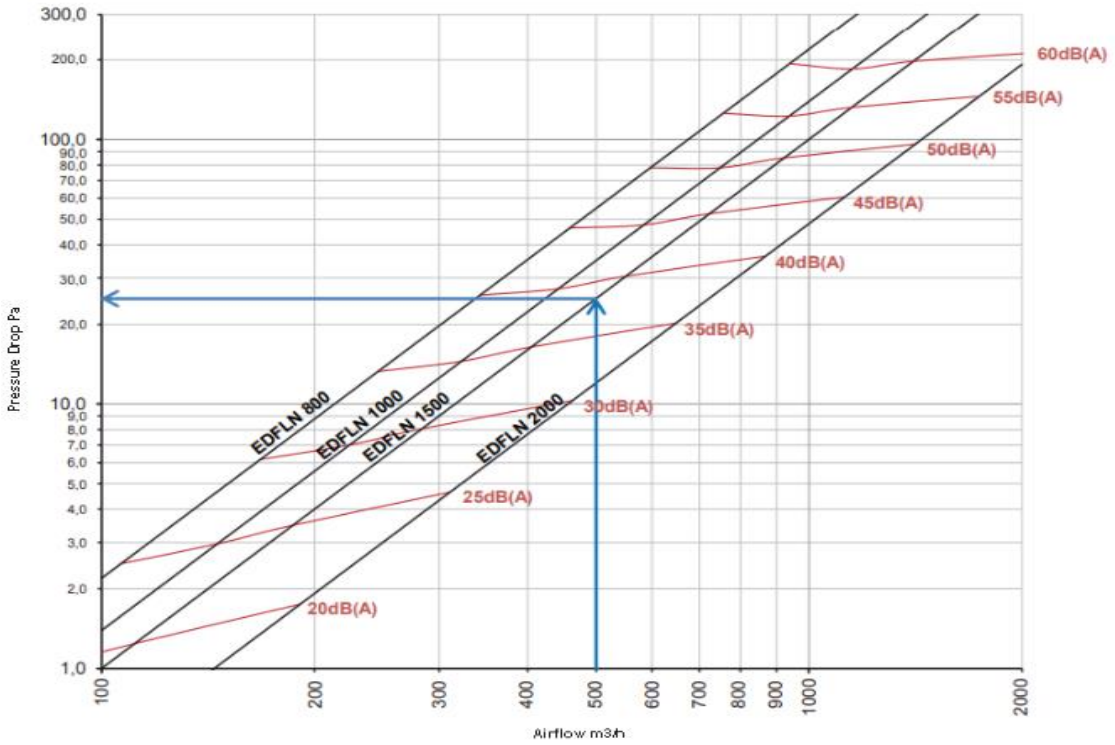
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# SELECTION

Graphs show the pressure drop of the diffuser based on the air flow with relative indication of the acoustic power level without room attenuation



Airflow / Pressure Drop / Noise Level  
EDFLN 3 SLOTS



Airflow / Pressure Drop / Noise Level  
EDFLN 4 SLOTS

