OFFICINE VOLTA
L'INNOVAZIONE È NELL'ARIA

SINGLE SLOT LINEAR DIFFUSERS

DL.TL

CONSTRUCTION FEATURES

The linear single slot diffusers with retractable perimeter frame of the **DL.TL** series are generally installed in confined spaces with height between 2.7 and 4.0 m and indicated for systems operating with temperature differences ± 10 K between the ambient air and supply air. The most frequently used type of installation is flush with plasterboard, with ceiling installation (with vertical throw) or on the wall (with horizontal throw). In the wall case, if the distance between the upper edge of the diffuser and the ceiling is less than 200 mm, a throw with the Coanda effect is obtained; otherwise, a free throw is achieved. The retractable perimeter frame, designed to facilitate positioning on plasterboard, makes the **DL.TL** series highly appreciated by interior designers who find in it not only system functionality but also furnishing motifs. They can be used for both supply and return and in variable flow rates systems in the range 50…100%. They can be mounted one after the other to form continuous strips, in order to follow the ideal line of the perimeter of the room.

Versions:

- DL.TL.30: with 40 mm slot
- DL.TL.40: with 60 mm slot
- DL.TL.50: with 40 mm slot
- DL.TL.60: with 60 mm slot

FIXING

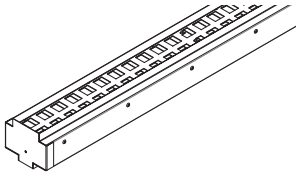
Concealed fixing on plasterboard thanks to the special profile of the diffuser.

MATERIALS

The DL.TL diffuser consists of a casing inside which an adjustable deflector is positioned.

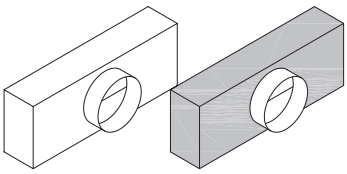
- Outer casing in galvanized sheet steel, painted in RAL 9005 (or 9016).
- Internal deflector in galvanized sheet steel, painted in RAL 9005 (or 9016).

ACCESSORIES



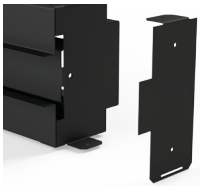
SER.DL.TL

Sliding regulation damper operable from the front of the diffuser.



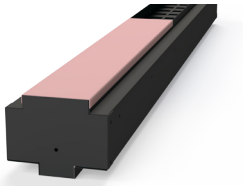
PL. and PL.ISO

Plenum box riveted to the diffuser, with or without external insulation, with lateral or rear circular connection.



TES.DL.TL

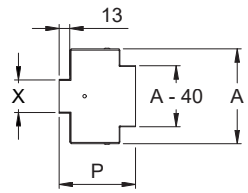
End cap for DL.TL linear diffuser
(required in single diffusers or in the beginning and in the end of continous diffusers lines)

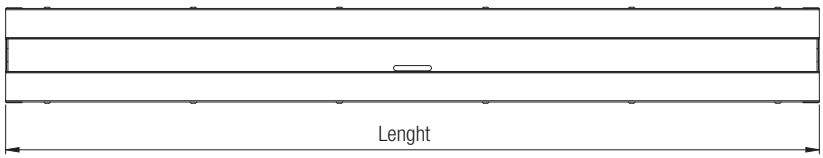


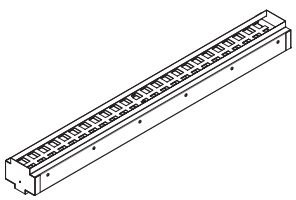
TEG.DL.TL

Closing plate for the air passage, suitable for making part of the diffuser inactive.

DIMENSIONS



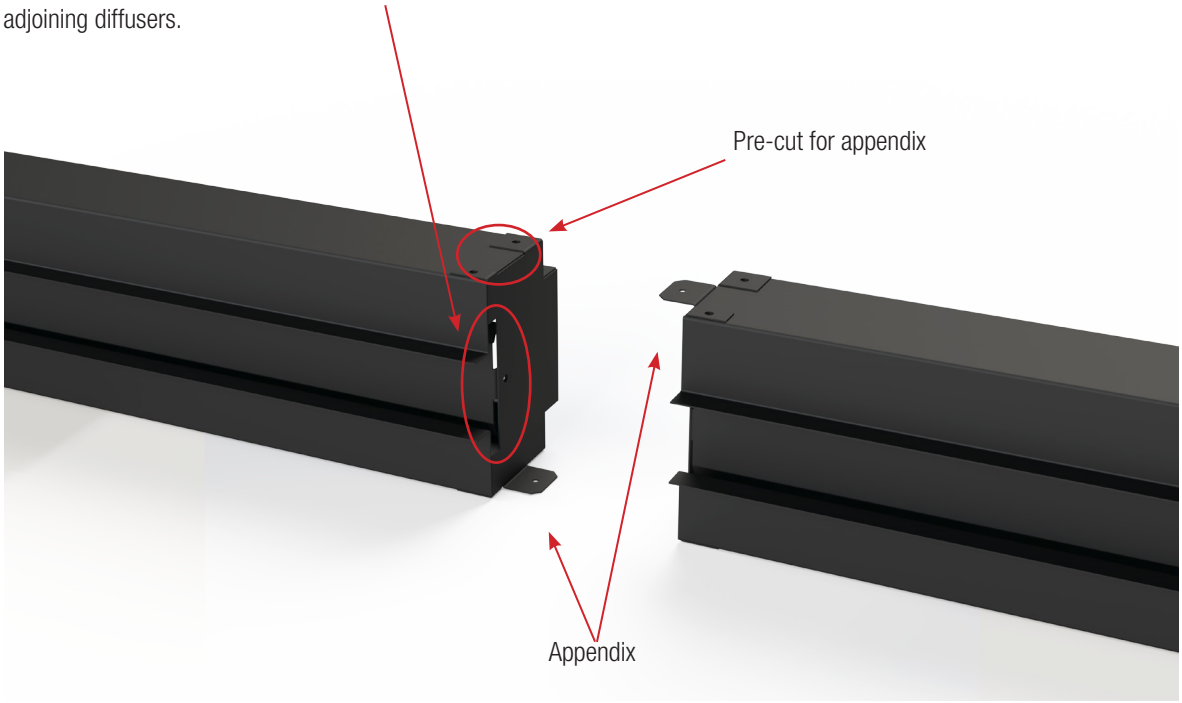




Model	X	Height (A)	Depth (P)	Lenght
	mm	*mm*	*mm*	*mm*
DL.TL.30	30	105	91	500, 750, 1000, 1250
DL.TL.40	40	115	91	500, 750, 1000, 1250
DL.TL.50	50	125	95	500, 750, 1000, 1250
DL.TL.60	60	135	105	500, 750, 1000, 1250

ALIGNMENT BETWEEN ADJUSTING LINEAR DIFFUSERS

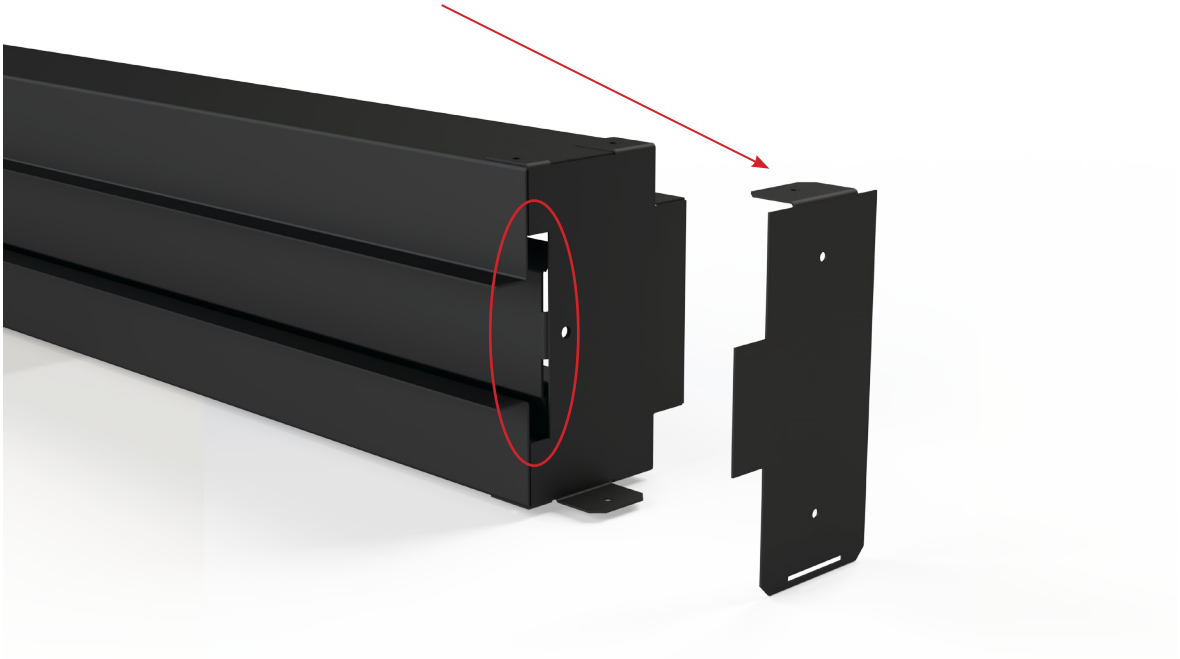
The heads of the diffuser have a pre-cut which, once installation is complete, guarantees aesthetic continuity between the adjoining diffusers.



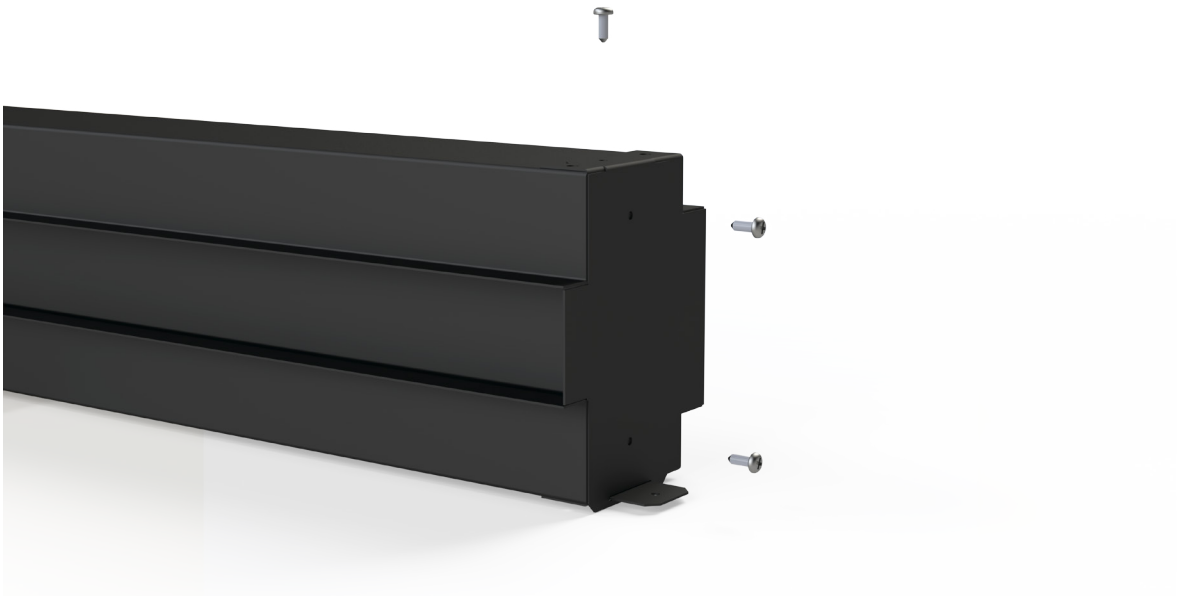
The particular construction of the heads allows a quick and precise alignment between two contiguous diffusers, thanks to the presence of special appendices and relative pre-cuts, guaranteeing the possibility of creating continuous lines able to follow the perimeter of the room.

ACCESSORY FOR HEADS

To use the diffuser as the initial and/or final element of a continuous line or as a single element, it will be necessary to use an accessory that allows the closure of the pre-cut, guaranteeing the aeraulic seal and facilitating smoothing the plasterboard on the “short sides”: the end cap.

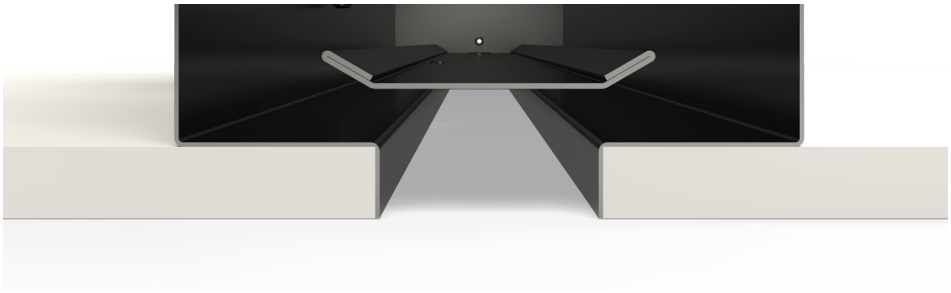


The closing cap is installed using self-drilling screws (not included in the supply).



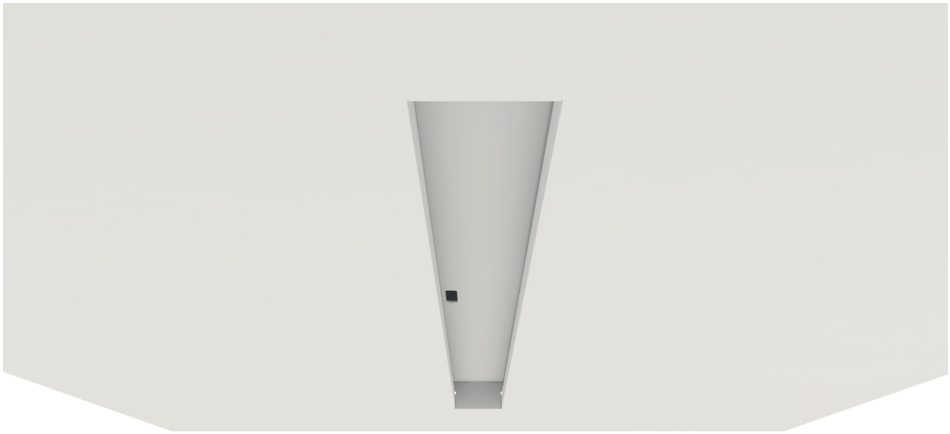
FIXING

Positioning on plasterboard



Final result - Black

Final result - White



TECHNICAL DATA

Quick selection table

Model	L	Qmin		Qmax		L_{WA}min	L_{WA}max	Δpmin	Δpmax
	mm	l/s	m3/h	l/s	m3/h	dB(A)	dB(A)	Pa	Pa
DL.TL.30	1000	27,8	100	97,2	350	<20	46	10	65
DL.TL.40	1000	35	130	125	450	<20	46	10	68
DL.TL.50	1000	55,6	200	152,8	550	<20	47	10	70
DL.TL.60	1000	53	190	194	700	<20	47	10	72

Q air flow rate per diffuser per linear metre

L_{WA} A-weighted power sound level, correction in compliance with UNI EN ISO 3741

Δp static pressure drop

Free passage area

A_{eff} in m^2 per L = 1000mm

Model	Lancio		
	Horizontal	Oblique	Verticalv
DL.TL.30	0,015	-	0,020
DL.TL.40	0,024	-	0,024
DL.TL.50	0,028	-	0,032
DL.TL.60	0,039	-	0,039

THE THROW IS ONLY HORIZONTAL FROM THE WALL OR VERTICAL FROM THE CEILING.

Possibile shapes for plenum

Standard shaped plenum	Inlet Ø	H	F	C	E
	mm	mm	mm	mm	mm
DL.TL.30	125	160* - **175****	65	15	50
DL.TL.40	150	185* - **200****	75	15	50
DL.TL.50	180	215* - **230****	85	15	50
DL.TL.60	200	235* - **250****	95	15	50

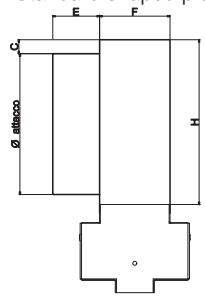
Plenum lenght	n.° of inlets
≤ 1000	1
> 1000	2

* plenum with standard inlet

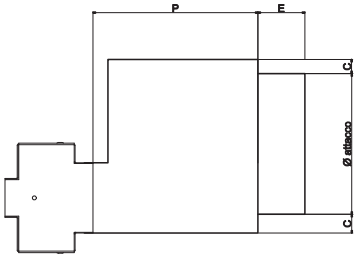
**** plenum with inlet with built-in damper**

Plenum SAG.A/SAG.B	Ø inlet	P	C	E
	mm	mm	mm	mm
DL.TL.30	125	150	15	50
DL.TL.40	150	170	15	50
DL.TL.50	180	200	15	50
DL.TL.60	200	200	15	50

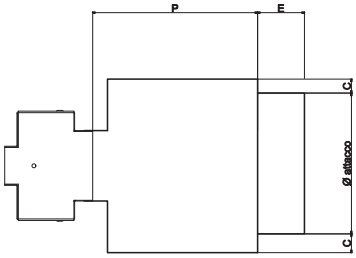
Standard shaped plenum



A-shaped plenum

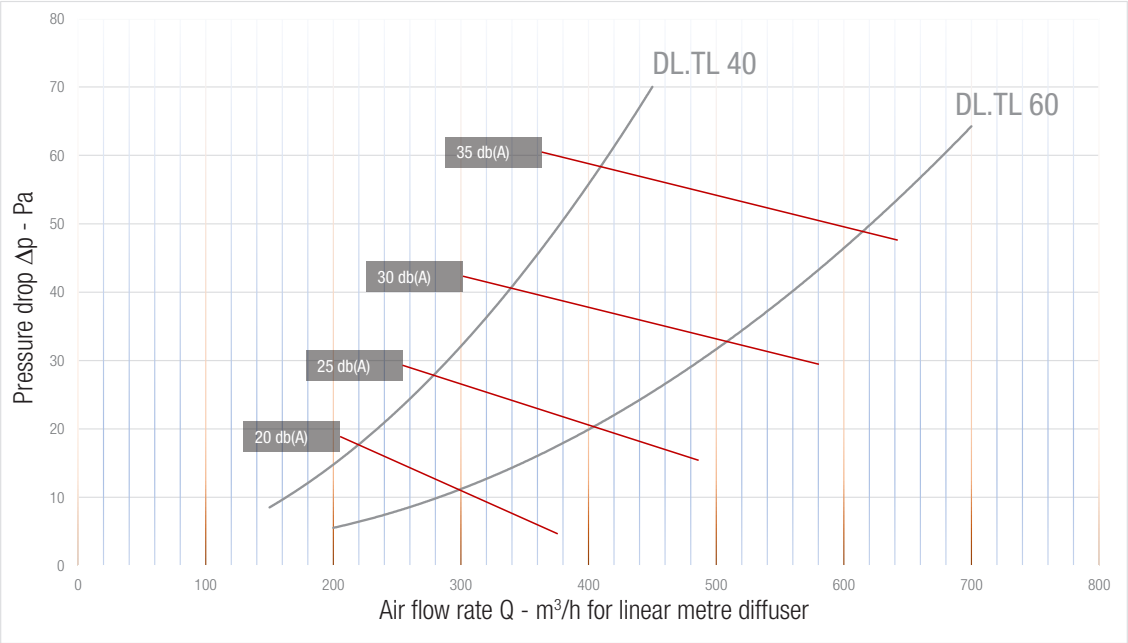


B-shaped plenum



C = 15 mm. P = Inlet Ø + 20 mm (150 mm minimum depth)

AERAULIC DATA - Pressure drop - Power sound level



Data are referred to diffusers with standard plenum boxes.