
VENTIVA
LINEA


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CONCEALED LINEAR DIFFUSERS

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Designed to combine aesthetics and performance in HVAC systems.

— Ceiling or wall installation, with the entire product concealed within the ceiling or wall structure and only the slot left visible.

— Suitable for both supply and extract air applications.

— Adjustable airflow deflection vanes allow the airflow direction to be changed without affecting the airflow rate.

— A wide product range to meet any airflow requirements.

— Suitable for installation in plasterboard and furniture/cabinet structures.

— Products can be manufactured in any length and width to meet individual project requirements.


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Product Benefits



Maximum architectural integration.

Continuous diffuser lines with active and inactive sections while maintaining a **seamless appearance**.

Distinctive, minimalist design.

High dimensional tolerance for seamless visual continuity.

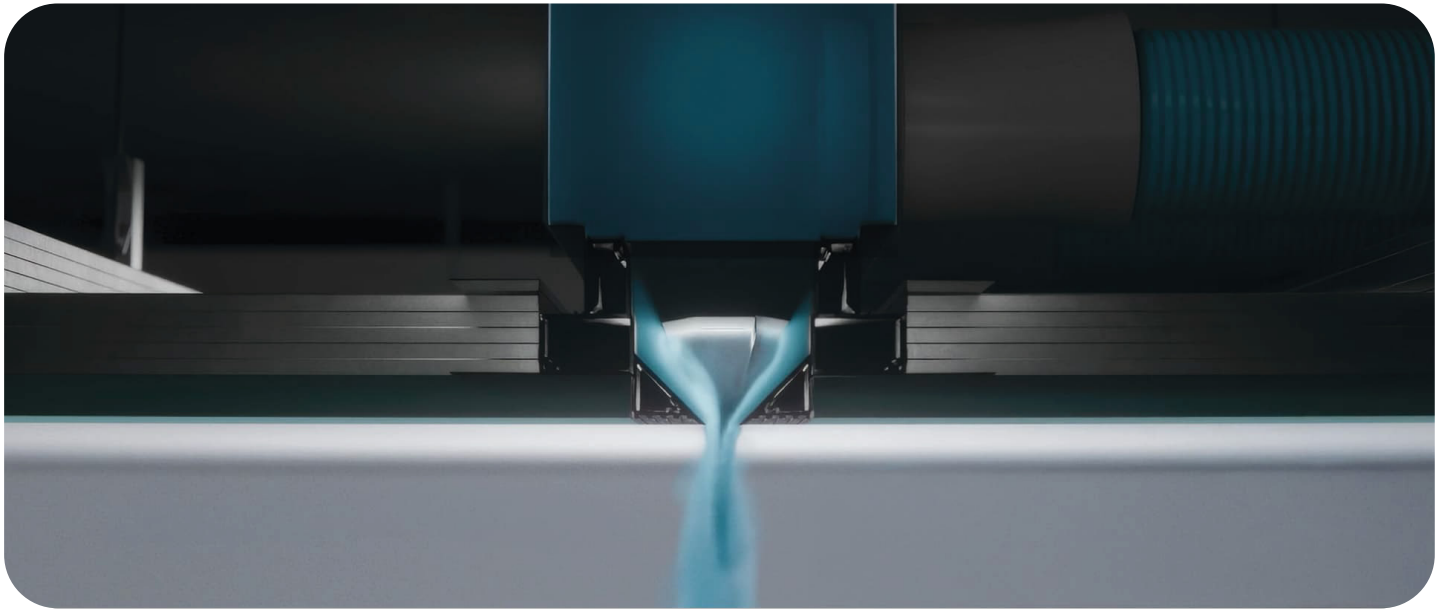
Simple, robust and reliable mounting system.

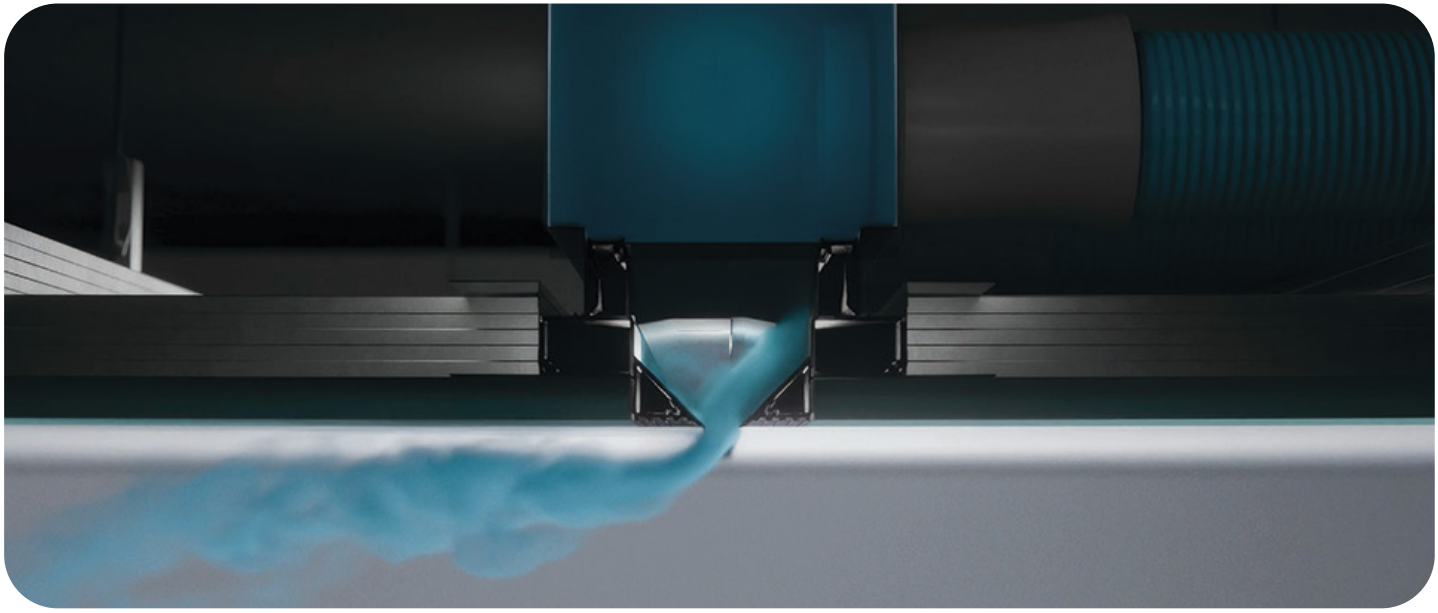
Continuous and even air distribution along the entire length of the diffuser.

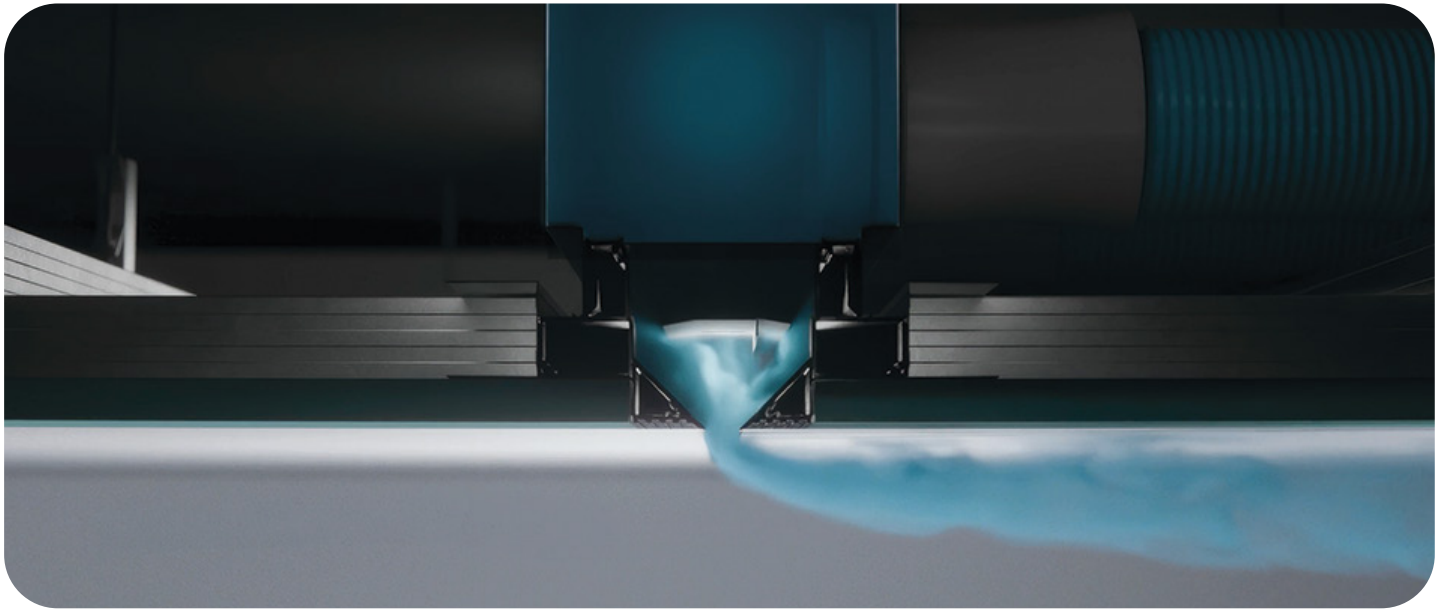
AIRFLOW DEFLECTION

Airflow deflection performance

Airflow deflection technology broadens the range of diffuser applications, improves indoor comfort and reduces draughts when the diffusers are used with ducted air-conditioning units. It also improves comfort in winter, when cooler air is supplied through the diffuser slots.



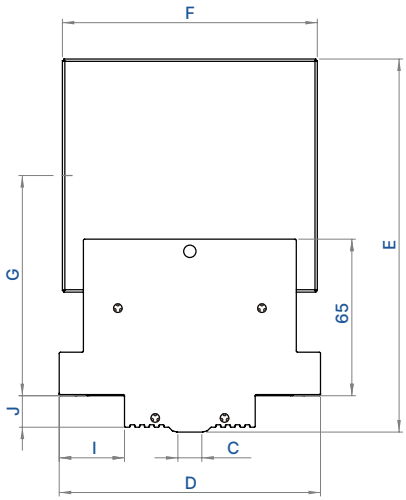


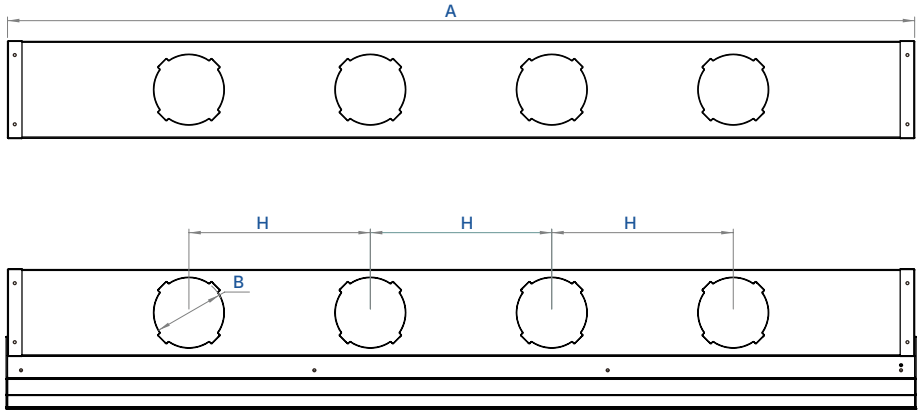


TECHNICAL DATA

Dimensions of standard *Linea* slot diffuser models with BOX connection adapters

1000 mm long model



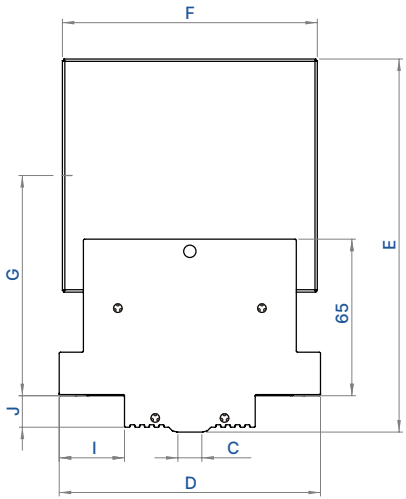


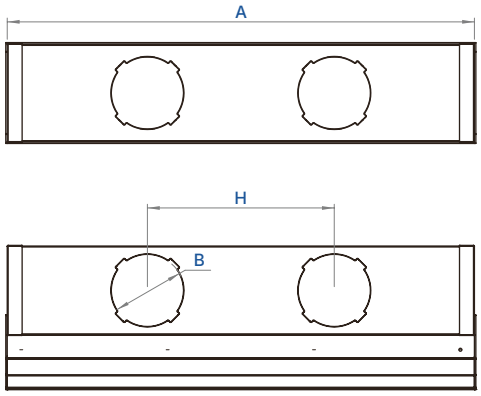
A	B	C	D	E	F	G	H	I	J	K (Number of connections)
1000	Ø 75-90	10	108	154	105	91	200	27	13	4 / 4
		20	118		105					
		30	128		115					
		40	-		-					
	Ø 125	10	108	213	155	120	200			
		20	118							
		30	128							
		40	138							
	Ø 160	10	-	248	-	138	200			
		20	-		-					
		30	128		190					
		40	138		190					

Dimensions in millimetres (mm)

Dimensions of standard *Linea* slot diffuser models with BOX connection adapters

500 mm long model





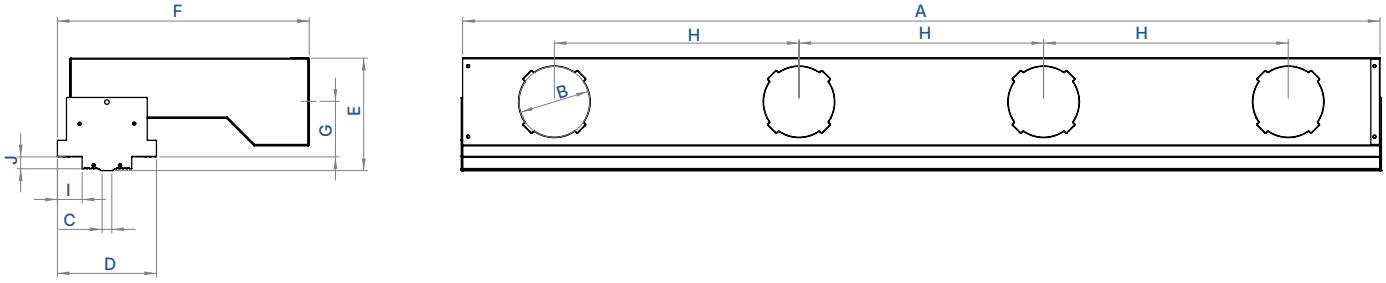
A	B	C	D	E	F	G	H	I	J	K (Number of connections)
500	Ø 75-90	10	108	154	105	91	200	27	13	2 / 2
		20	118		105					
		30	128		115					
		40	-		-					
	Ø 125	10	108	213	155	120	200			
		20	118							
		30	128							
		40	138							
	Ø 160	10	-	248	-	138	200			
		20	-		-					
		30	128		190					
		40	138		190					

Dimensions in millimetres (mm)

TECHNICAL DATA

Dimensions of standard *Linea* slot diffuser models with SLIMBOX connection adapters

1000 mm and 500 mm long models



A	B	C	D	E	F	G	H	I	J	K (Number of connections)
1000	Ø 75-90	10	108	123	275	61	267	27	13	2 / 2
		20	118		285					
		30	128		295					
		40	-		-					

A	B	C	D	E	F	G	H	I	J	K (Number of connections)
500	Ø 75-90	10	108	123	275	61	220	27	13	2 / 2
		20	118		285					
		30	128		295					
		40	-		-					

Dimensions in millimetres (mm)


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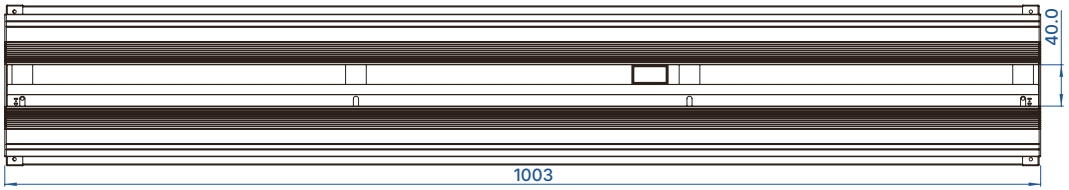
TECHNICAL DATA

BOX adapter dimensions and insulation

All BOX-series adapters are internally insulated with porous polyurethane foam featuring a vapour-tight coating. The standard insulation thickness is 15 mm. Upon request, all products can be insulated with anti-condensation material.

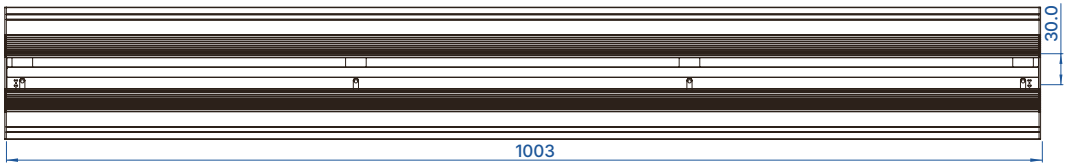
BOX 40

Adapter height
40 mm



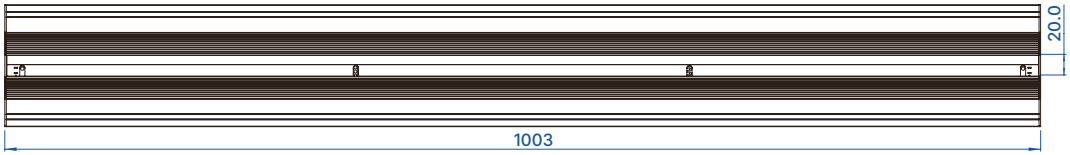
BOX 30

Adapter height
30 mm



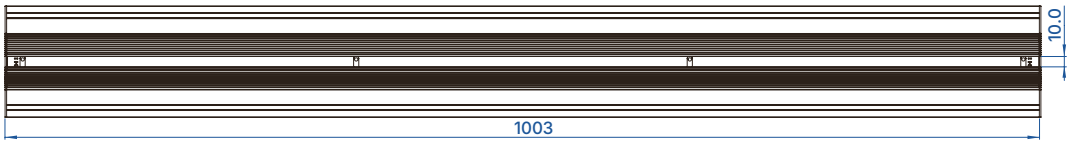
BOX 20

Adapter height
20 mm



BOX 10

Adapter height
10 mm





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TECHNICAL DATA

Linea Slot Diffuser Characteristics

Version 1.08

Model	Slot width, mm	Slot area S, m²	Data provided for a 1.0 m product														Jet length, m					
			at V = 1.0 m/s			at V = 1.5 m/s			at V = 2.0 m/s			at V = 2.5 m/s			at V = 3.0 m/s			at V = 1.0 m/s		at V = 2.0 m/s		at V = 3.0 m/s	
			Q, m³/h	ΔP, Pa	Lw, dB (A)	Q, m³/h	ΔP, Pa	Lw, dB (A)	Q, m³/h	ΔP, Pa	Lw, dB (A)	Q, m³/h	ΔP, Pa	Lw, dB (A)	Q, m³/h	ΔP, Pa	Lw, dB (A)	0.2 m/s	0.5 m/s	0.2 m/s	0.5 m/s	0.2 m/s	0.5 m/s
Linea10	10	0.01	36	1.10		54	2.40		72	4.20		90	6.40		108	9.30		1.30	0.21	2.65	0.97	3.82	1.85
Linea20	20	0.02	72	1.20	22	108	2.10	28	144	4.20	33	180	6.60	38	216	9.80	41	1.40	0.29	3.20	1.31	4.50	2.20
Linea30	30	0.03	108	0.80		162	2.60		216	5.00		270	7.70		324	11.50		1.50	0.36	3.75	1.65	5.15	2.55
Linea40	40	0.04	144	1.30		216	2.80		288	5.50		360	8.80		432	12.90		1.60	0.44	4.33	1.98	5.78	2.90

S — product slot area for a 1.0 m product

Q — airflow rate, m³/h

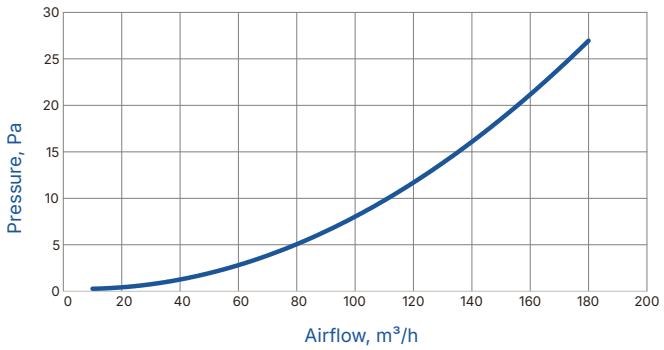
ΔP — pressure drop through the product

Lw dB(A) — sound pressure

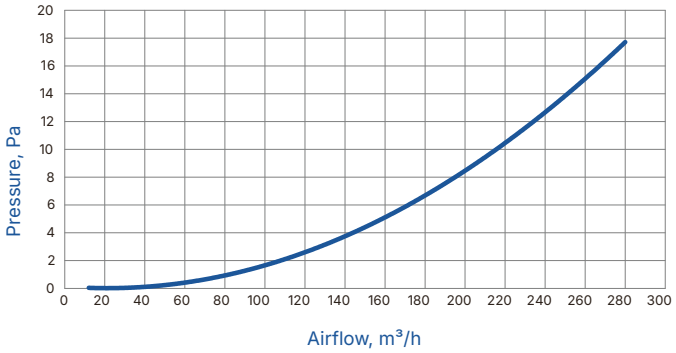
Air throw is measured from the diffuser to the cross-section where the air velocity drops to 0.2 or 0.5 m/s.

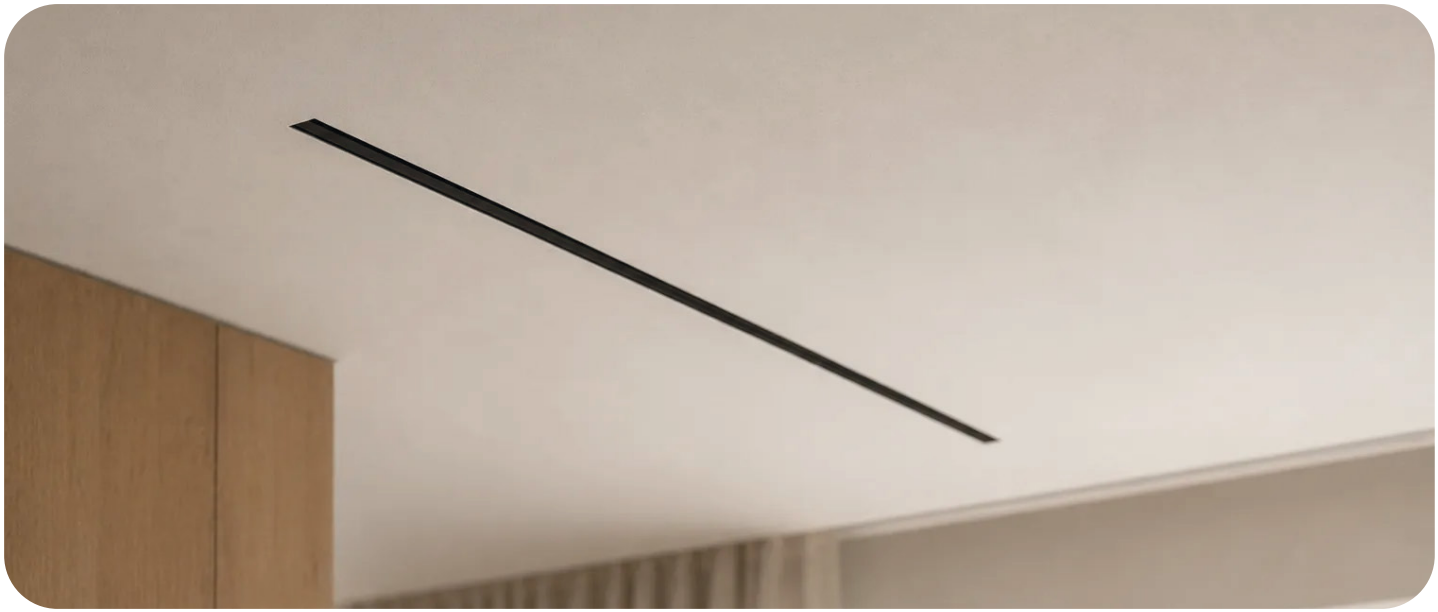
* Data are provided for products without deflection vanes and BOX adapters, for air supply.

Linea 1000/10 supply without deflector

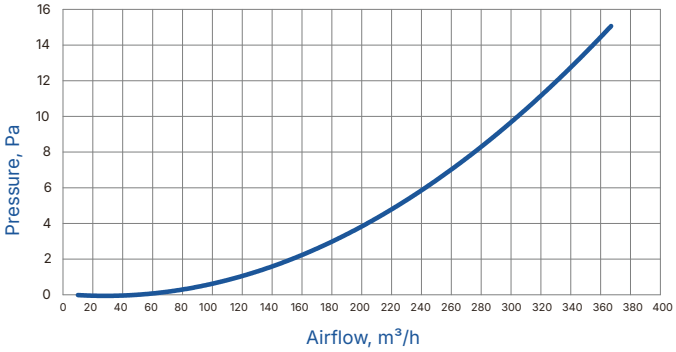


Linea 1000/20 supply without deflector

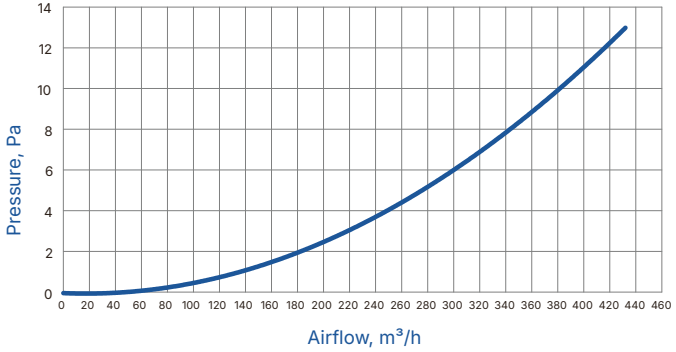




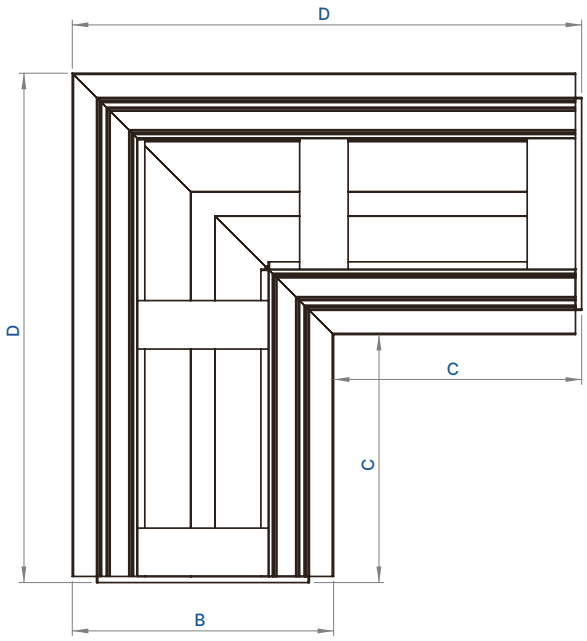
Linea 1000/30 supply without deflector

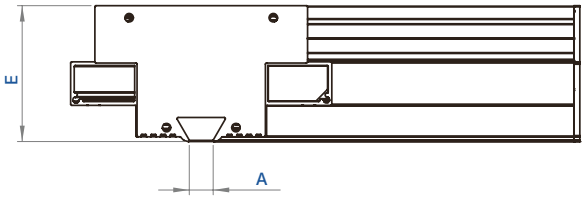


Linea 1000/40 supply without deflector



Linea Corner – inactive element for connecting diffusers at 90° corners



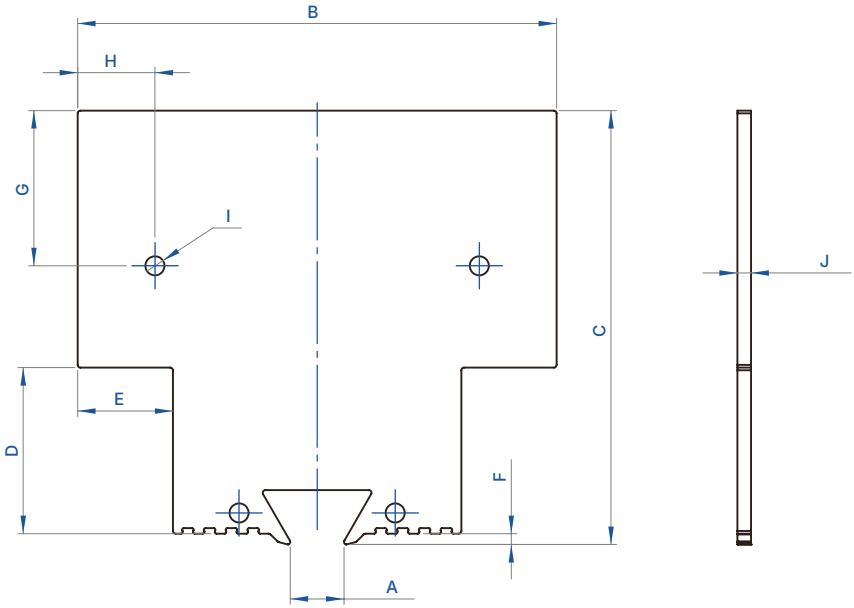


A	B	C	D
10	108	102.5	210.5
20	118		220.5
30	128		230.5
40	138		250.5

Dimensions in millimetres (mm)


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Linea Connect – connection kit for individual diffusers



The kit consists of:

Two connecting elements

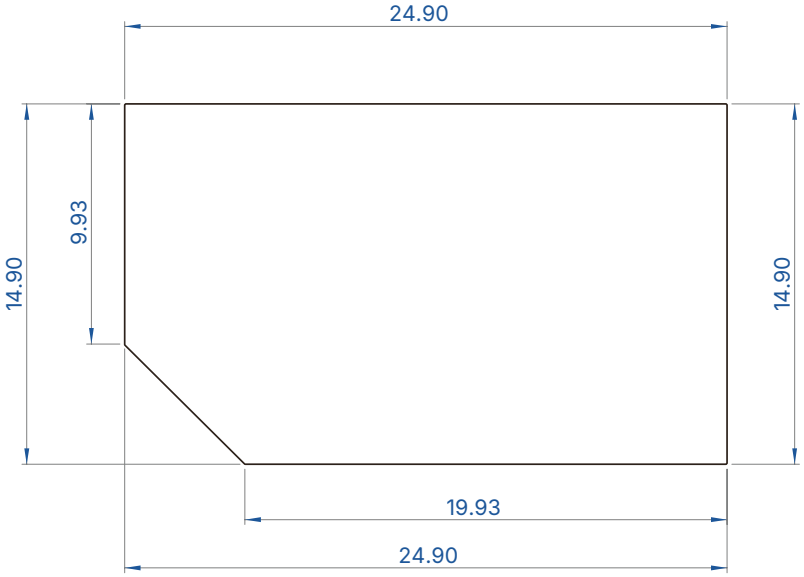
Decorative airflow separation plate

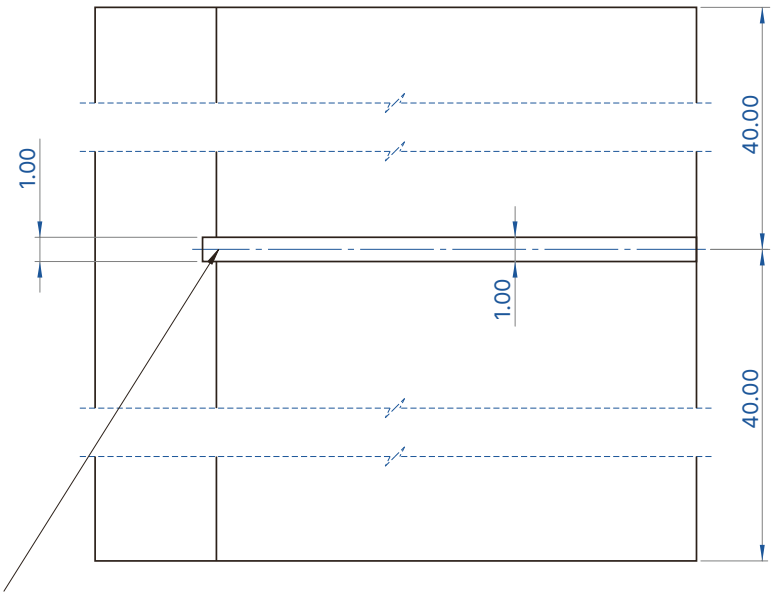
Fastening elements

	A	B	C	D	E	F	G	H	I	J
Ø 75-90	10	88	80	30.5	17.5	2	28.5	14.5	Ø 3.5	2.5
	20	98								
	30	108								
	40	118								
Ø 125	10	88								
	20	98								
	30	108								
	40	118								
Ø 160	10	88								
	20	98								
	30	108								
	40	118								

Dimensions in millimetres (mm)

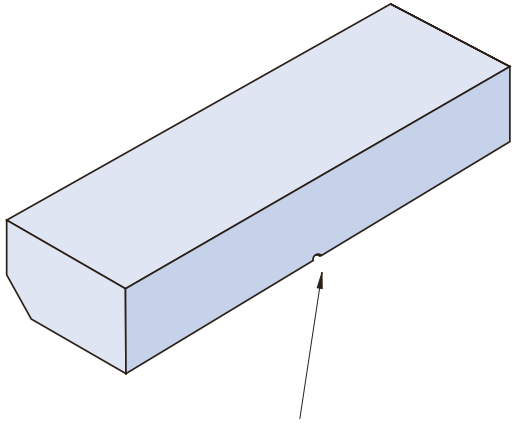
LINEA CONNECT





A groove is milled along the centre for marking.
Depth < 0.5 mm

0.5 × 45° bevels are formed along the edges

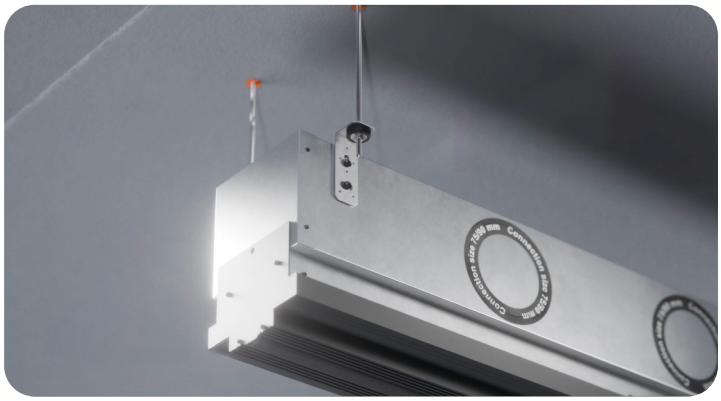


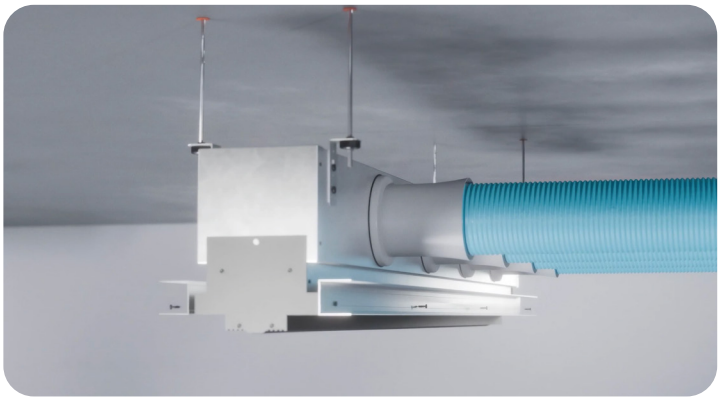
A groove is milled along the centre for marking.
Depth < 0.5 mm

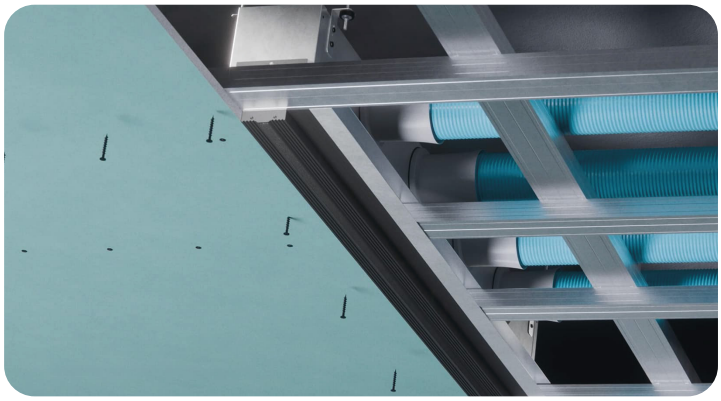
Linea Connect allows products with the same slot width but different dimensions to be joined to form a continuous line. This enables ventilation, air-conditioning, humidification and heating components to be integrated into one continuous line.

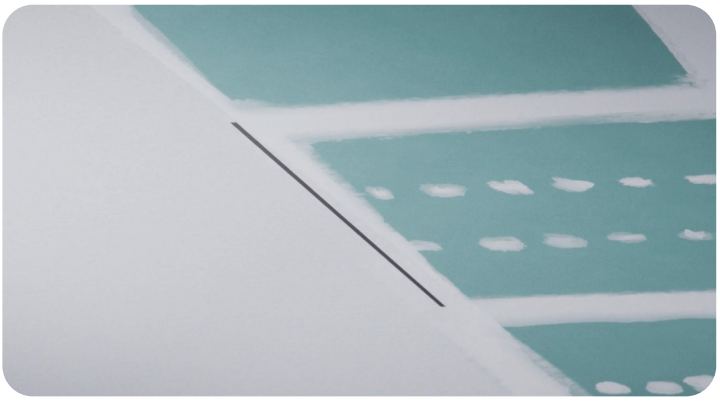
Product installation principle

The Linea diffuser is securely fixed to the ceiling structure, aligned and connected to the ductwork. Gypsum board panels are then attached directly to the diffuser profile to create a seamless surface, with joints reinforced and finished before painting. After installation, the protective cover is removed and the airflow direction is adjusted using the deflector.



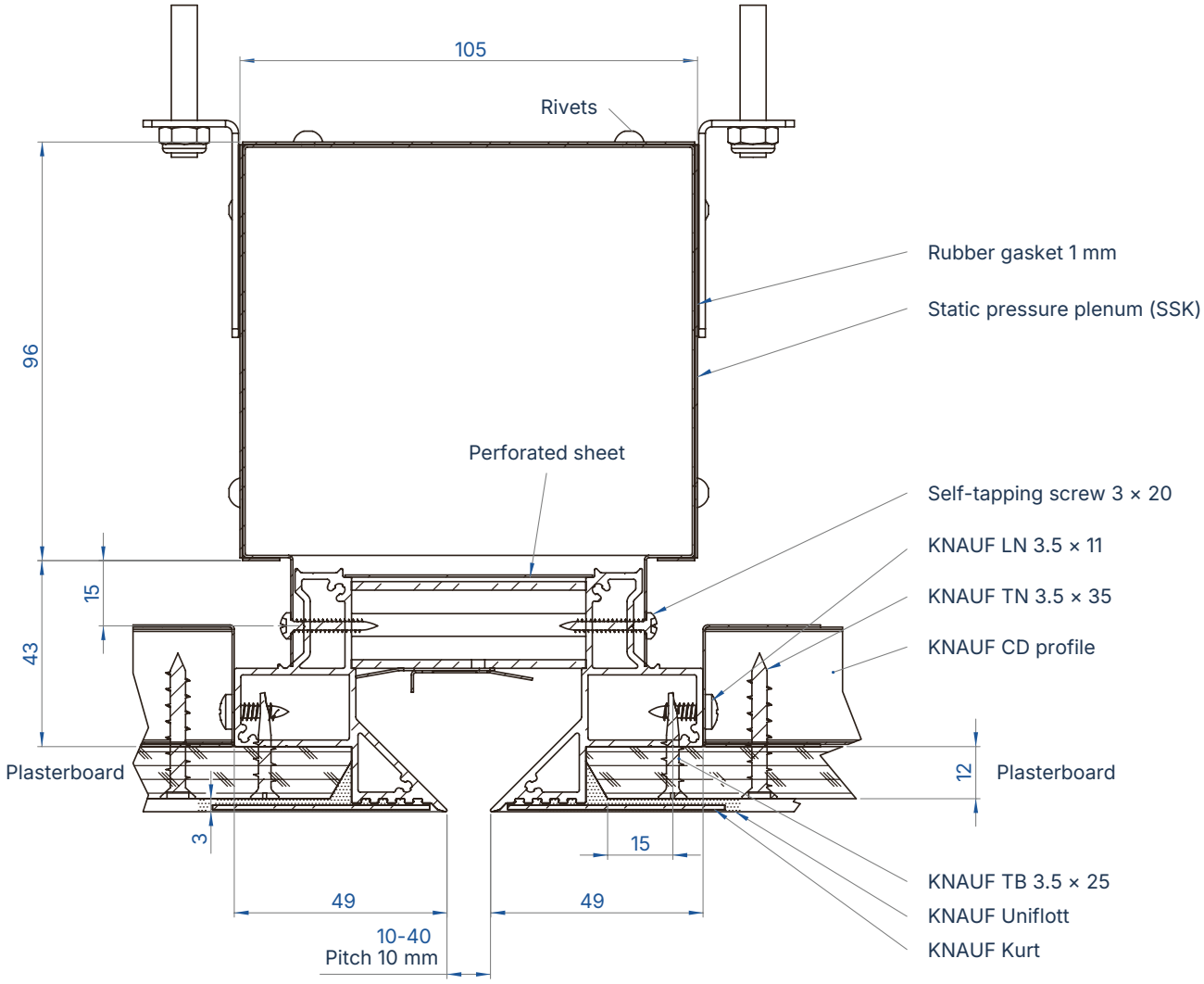






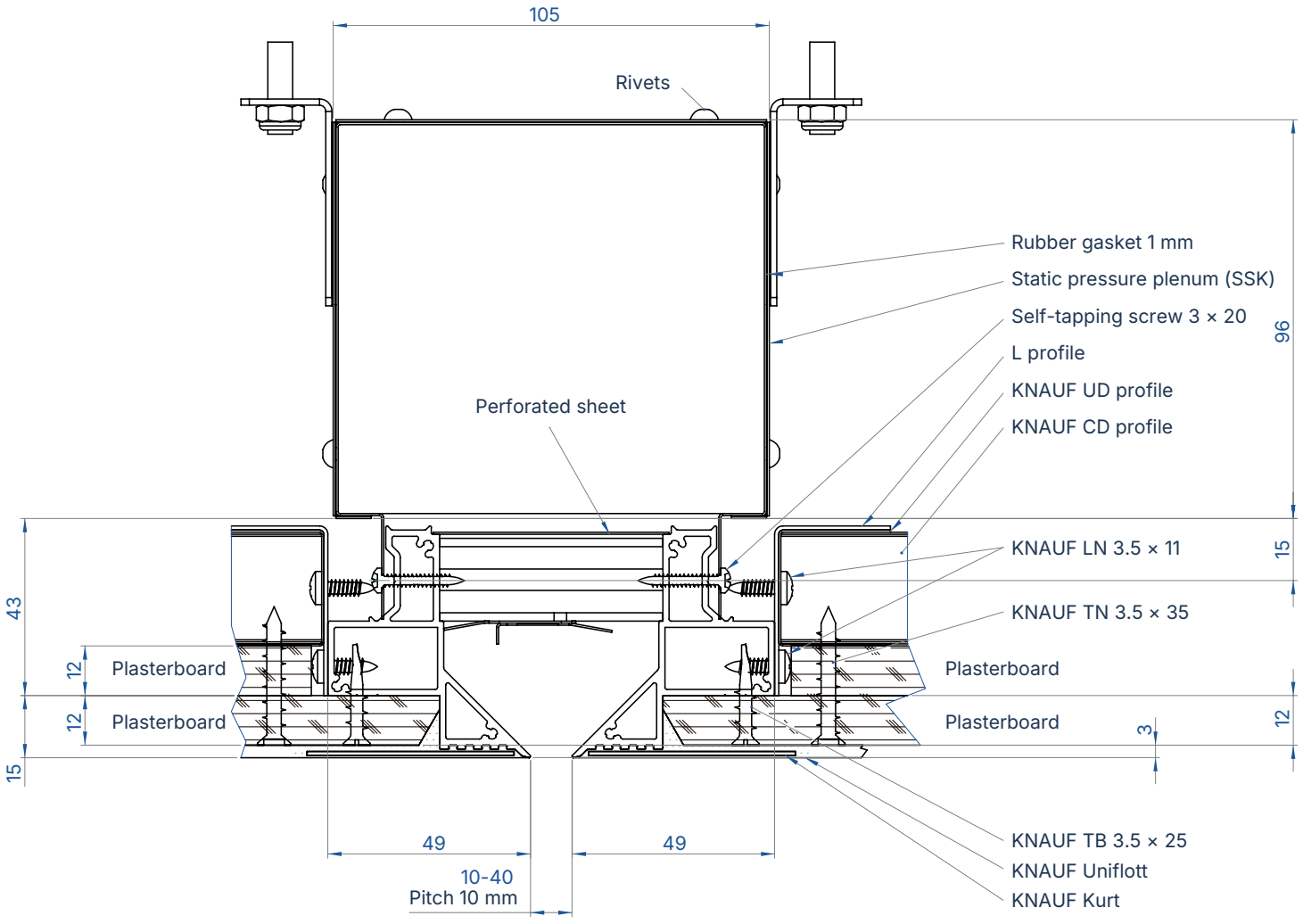
Linea slot diffuser installation diagrams

Single-layer plasterboard structure

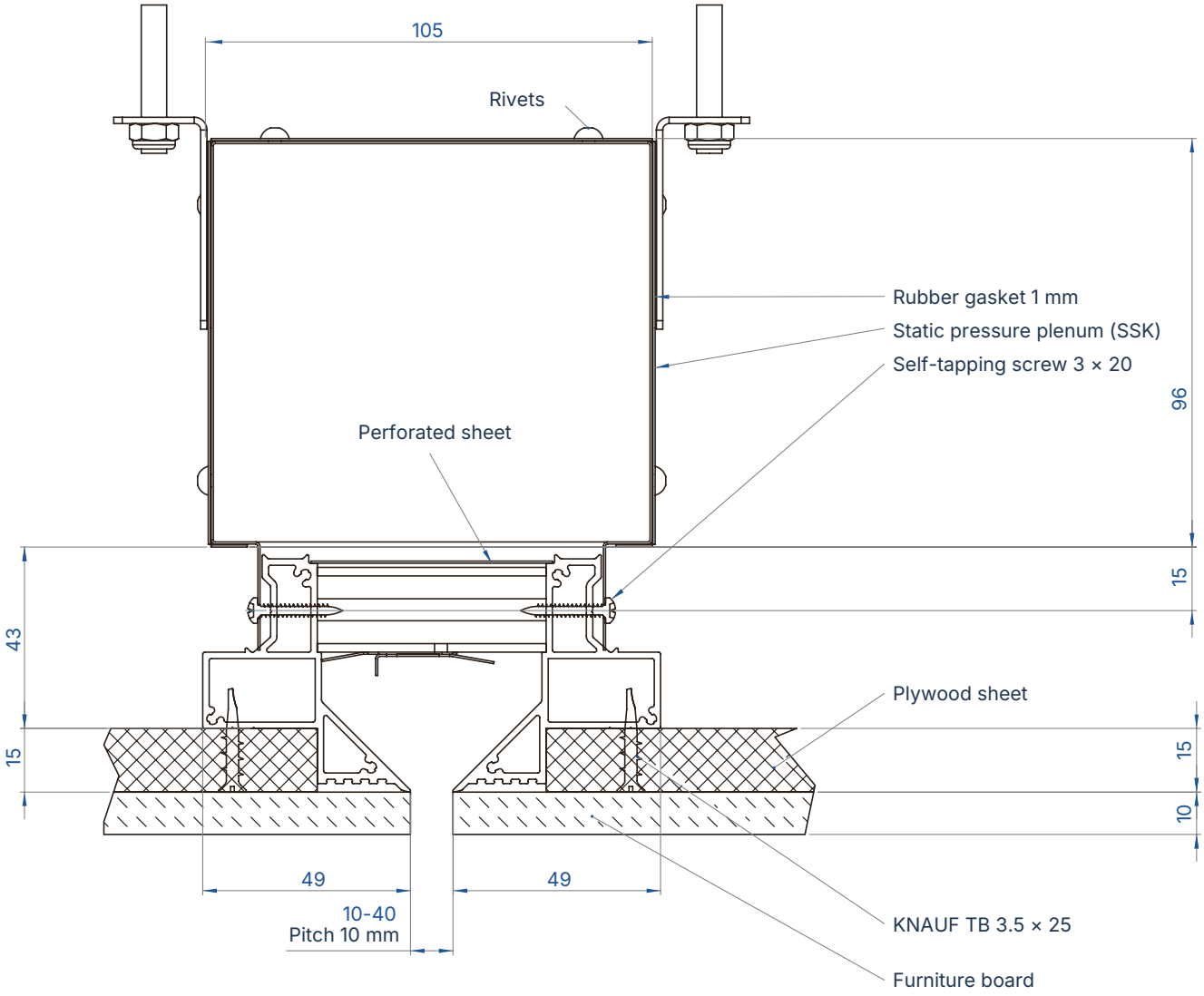


Linea slot diffuser installation diagrams

Double-layer plasterboard structure



Installation example in a furniture panel



Installation of the *Linea* diffuser according to KNAUF technology



The joint between the diffuser body and the plasterboard panel is filled using Uniflott joint filler for plasterboard and gypsum fibreboard joints. Joint filling should only be carried out once it has been confirmed that the boards will not be subject to significant deformation caused by temperature or humidity fluctuations. Concrete flooring, levelling screeds and other moisture-generating work must be completed before the plasterboard panels are installed and joint filling begins.

— The cut SFK edge of the plasterboard must be formed using a special edge plane, e.g. *Kantenhobel*.
— Bevelled SFK edges must be primed with *Tiefengrund* primer.
— SFK joints must be filled with gypsum joint compound and reinforcing tape.
— Fill the joint with Uniflott compound and lightly embed reinforcing tape, e.g. *KNAUF Kurt*, into the compound using a filling knife. Apply the next layer only after the previous layer has hardened and dried.

INSTALLATION

Surface preparation level Q2

— The surface at the joint is additionally covered with *Uniflott* filler compound, with a width of approximately 30 cm.

— If necessary, sand after drying.

After preparing the surface according to level Q2, tool marks always remain. In addition, it is impossible to achieve a result where there are no shadows under glancing light.*

Surface preparation level Q3

— The plasterboard–diffuser joints are filled over a wide feathered area, e.g. using a 400 mm filling knife, forming an even transition towards the centre of the plasterboard panels.

— Then the entire surface of the plasterboard panels is covered with a layer of Super *Finish* or *Fill & Finish Light* filler to fill the pores.

After preparing the surface according to level Q3, it is possible to avoid visible tool marks. However, even when the third surface preparation level is selected, it is not possible to completely avoid visible marks and shadows under side lighting, although their intensity is lower than with the standard Q2 level.

INSTALLATION

Surface preparation level Q4

— The plasterboard–diffuser joints are filled with a wide overlap, e.g. using a 400 mm filling knife, forming an even transition towards the centre of the plasterboard panels.

— Then the entire surface is covered with a suitable filler; the levelling layer thickness must reach 1–2 mm.

— The best result is achieved by applying a filler specially intended for this purpose, e.g. *Q-Spray* or *Readyfix Roll & Spray*, using an airless spray application technique or applying with a roller.

— If necessary, the surface is covered with a second, thinner layer.

After preparing the surface according to level Q4, surface treatment marks and joint marks are reduced to a minimum. However, due to varying lighting, it is impossible to completely avoid shadows or minimal local marks appearing on the surface, therefore their perception and assessment may be subjective, for example when natural light falls on the surface. Future lighting conditions should be determined in advance and simulated during the filling work.

* More information about surface preparation can be found in the publication **Knauf Q1–Q4 Surface Preparation Methodology.**



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