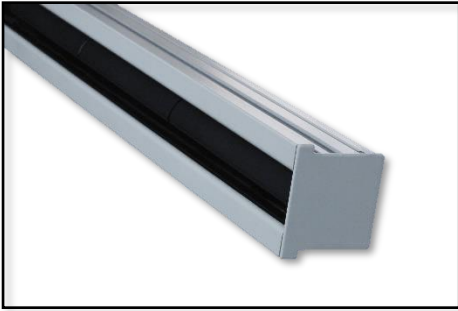


HIDDEN LINEAR DIFFUSER

BI



FEATURES

“BI” series high induction linear diffuser designed without frame for concealed installation in closed false ceilings. Made of monobloc extruded aluminum that ensures solidity and the creation of continuous diffusion lines with a design that guarantees functionality without neglecting aesthetics. The individually adjustable 100 mm deflector makes it possible to manage the flow direction along the diffusion line with maximum freedom, offering the opportunity to alternate the air distribution from vertical to horizontal, a feature that makes the **BI** diffuser suitable for any type of choice of both constant and variable flow systems. The ceiling installation allows you to take full advantage of the coanda effect, the versatility of which it is characterized makes it possible to install both on the ceiling and on the wall. Recommended for installation between 2.7 m and 4 m, with temperature differences between supplied air and ambient air of $\pm 10K$, in the case of wall installation, if you want to maintain the coanda effect, the distance between the ceiling and the diffuser must be less than 300mm .

Material: Extruded aluminum with nylon deflectors

Finishing: Natural anodized or painted with epoxy powders, white RAL 9016 30% gloss, Ral9005 or Ral 9016 deflectors.

Installation: flush with the ceiling, or with a clip for the ceiling that facilitates the smoothing of plasterboard, fixing to the plenum by means of a bridge with a central screw accessible through the slot.

Accessories: Equalizer or Sliding damper, aluminum profile for ceiling mounting with smoothing putty. Plenum box designed for mounting with threaded rod, cable or strap, insulated or not insulated. Damper set on the plenum.

Dimensions

BI1F	BI2F	BI3F

HIDDEN LINEAR DIFFUSER

BI1F

Fast Selection tables

Valori di dT:		+10k	Vertical Throw						-10k	Horizontal Throw					
Q	Dim	600 -1F	800 -1F	1000 -1F	1200 -1F	1500 -1F	1800 -1F	2000 -1F	600 -1F	800 -1F	1000 -1F	1200 -1F	1500 -1F	1800 -1F	2000 -1F
(m ³ /h)	Ak(m ²)	0,008	0,011	0,014	0,017	0,021	0,025	0,028	0,008	0,011	0,014	0,017	0,021	0,025	0,028
60	Vk (m/s)	2	1,5	1,2	1	0,8			2	1,5	1,2	1	0,8		
	X0,25 (m)	1,1	0,9	0,7	0,6	0,5			2,4	2	1,8	1,6	1,4		
	Ps(Pa)	7	<5	<5	<5	<5			8	5	<5	<5	<5		
	Lw(A)	26	20	<20	<20	<20			25	20	<20	<20	<20		
80	Vk (m/s)	2,6	2	1,5	1,3	1	0,9	0,8	2,6	2	1,5	1,3	1	0,9	0,8
	X0,25 (m)	1,6	1,2	1	0,8	0,7	0,6	0,5	3,2	2,8	2,4	1,9	1,9	1,6	1,5
	Ps(Pa)	13	7	5	<5	<5	<5	<5	15	8	5	<5	<5	<5	<5
	Lw(A)	34	27	23	<20	<20	<20	<20	32	27	24	<20	<20	<20	<20
100	Vk (m/s)	3,3	2,5	2	1,6	1,3	1,1	1	3,3	2,5	2	1,6	1,3	1,1	1
	X0,25 (m)	2	1,6	1,3	1	0,9	0,7	0,6	4	3,5	3	2,7	2,4	2,1	2
	Ps(Pa)	20	11	7	5	<5	<5	<5	23	13	8	6	<5	<5	<5
	Lw(A)	39	33	28	24	20	<20	<20	38	33	30	26	22	<20	<20
120	Vk (m/s)	4	3	2,4	2	1,6	1,3	1,2	4	3	2,4	2	1,6	1,3	1,2
	X0,25 (m)	2,5	1,9	1,5	1,3	1,1	0,9	0,8	5	4	3,7	3,3	2,9	2,5	2,4
	Ps(Pa)	29	16	10	7	5	<5	<5	34	19	12	8	5	<5	<5
	Lw(A)	44	38	33	29	24	20	<20	43	38	35	31	27	24	22
150	Vk (m/s)	5	3,7	3	2,5	2	1,6	1,5	5	3,7	3	2,5	2	1,6	1,5
	X0,25 (m)	3,2	2,4	2	1,7	1,3	1,1	1	6	5,3	4,6	4,1	3,6	3,2	3
	Ps(Pa)	45	25	16	11	7	5	<5	53	30	19	13	8	6	5
	Lw(A)	50	44	39	35	30	26	24	49	44	40	37	33	30	28
200	Vk (m/s)			4	3,3	2,6	2,2	2			4	3,3	2,6	2,2	2
	X0,25 (m)			2,7	2,2	1,8	1,5	1,4			6,2	5,5	4,8	4,3	4
	Ps(Pa)			29	20	13	9	8			34	23	15	10	8
	Lw(A)			46	42	38	34	31			48	44	40	37	36
250	Vk (m/s)			5	4,1	3,3	2,8	2,5				4,1	3,3	2,8	2,5
	X0,25 (m)			3,4	2,9	2,3	2	1,8				7	6	5,4	5
	Ps(Pa)			45	31	20	14	11				36	26	16	13
	Lw(A)			52	48	43	39	37				50	46	43	42

Vertical throw multiplication factor

ΔT	+10	+8	+4	1
KX	1	1,12	1,6	3,1

$$L_{\Delta T+8} = L_{\Delta T+10} * 1.12$$

Horizontal throw multiplication factor

ΔT	-10	-8	-4	0	+5	+10
KX	1	1,05	1,15	1,3	1,4	1,5

$$L_{\Delta T-8} = L_{\Delta T-10} * 1.05$$

Noise without absorption of the room in Lw (dBA)

HIDDEN LINEAR DIFFUSER

BI2F

Fast Selection tables

Valori di dT:		+10k	Vertical Throw						-10k	Horizontal Throw					
Q	Dim	600 - 2F	800 - 2F	1000 - 2F	1200 - 2F	1500 - 2F	1800 - 2F	2000 - 2F	600 - 2F	800 - 2F	1000 - 2F	1200 - 2F	1500 - 2F	1800 - 2F	2000 - 2F
(m ³ /h)	Ak(m ²)	0,017	0,022	0,028	0,034	0,042	0,050	0,056	0,017	0,022	0,028	0,034	0,042	0,050	0,056
100	Vk (m/s)	1,6	1,2	1					1,6	1,2	1	0,8			
	X0,25 (m)	1,1	0,9	0,7					3,4	2,4	1,7	1,3			
	Ps(Pa)	4	<5	<5					10	6	<5	<5			
	Lw(A)	24	<20	<20					30	24	21	<20			
120	Vk (m/s)	2	1,5	1,2	1	0,8			2	1,5	1,2	1	0,8		
	X0,25 (m)	1,3	1	0,8	0,7	0,5			4,7	3,3	2,4	1,9	1,4		
	Ps(Pa)	6	<5	<5	<5	<5			15	8	5	<5	<5		
	Lw(A)	29	23	<20	<20	<20			34	29	25	22	<20		
150	Vk (m/s)	2,5	1,9	1,5	1,2	1	0,8	0,7	2,5	1,9	1,5	1,2	1	0,8	0,7
	X0,25 (m)	1,7	1,3	1	0,8	0,7	0,6	0,5	6,6	4,8	3,6	2,8	2	1,6	1,3
	Ps(Pa)	9	5	<5	<5	<5	<5	<5	23	13	8	6	<5	<5	<5
	Lw(A)	35	29	24	20	<20	<20	<20	40	35	31	28	24	21	<20
200	Vk (m/s)	3,3	2,5	2	1,6	1,3	1,1	1		2,5	2	1,6	1,3	1,1	1
	X0,25 (m)	2,2	1,7	1,4	1,2	1	0,8	0,7		7,5	5,9	4,7	3,5	2,7	2,3
	Ps(Pa)	17	9	6	<5	<5	<5	<5		23	15	10	7	5	<5
	Lw(A)	42	36	31	27	22	<20	<20		42	39	36	31	28	27
250	Vk (m/s)	4,1	3,1	2,5	2	1,6	1,4	1,2			2,5	2	1,6	1,4	1,2
	X0,25 (m)	2,8	2,1	1,8	1,5	1,2	1	0,9			8,3	6,7	5,1	4	3,4
	Ps(Pa)	26	15	9	7	<5	<5	<5			23	16	10	7	6
	Lw(A)	48	42	37	33	28	24	22			44	41	37	34	32
300	Vk (m/s)	5	3,7	3	2,5	2	1,6	1,5			3	2,5	2	1,6	1,5
	X0,25 (m)	3,3	2,6	2,1	1,8	1,5	1,2	1,1			10,8	9	6,9	5,5	4,7
	Ps(Pa)	38	21	14	9	6	<5	<5			33	23	15	10	8
	Lw(A)	53	47	42	38	33	29	27			49	46	42	39	37
350	Vk (m/s)		4,3	3,5	2,9	2,3	1,9	1,7				2,9	2,3	1,9	1,7
	X0,25 (m)		3,1	2,5	2	1,7	1,5	1,3				11	8,8	7	6,1
	Ps(Pa)		29	18	13	8	6	5				31	20	14	11
	Lw(A)		51	46	42	37	33	31				50	46	43	41
400	Vk (m/s)			4	3,3	2,6	2,2	2				3,3	2,6	2,2	2
	X0,25 (m)			2,8	2,4	2	1,65	1,5				13	10,8	8,7	7,7
	Ps(Pa)			24	17	11	7	6				41	26	18	15
	Lw(A)			49	45	40	37	34				54	49	46	45

vertical throw multiplication factor

horizontal throw multiplication factor

ΔT	+10	+8	+4	1
KX	1	1,12	1,6	3

ΔT	-10	-8	-4	0	+5	+10
KX	1	1,1	1,25	1,4	1,6	1,8

$$L_{\Delta T+8} = L_{\Delta T+10} * 1.12$$

$$L_{\Delta T-8} = L_{\Delta T-10} * 1.1$$

Noise without absorption of the room in Lw (dBA)

HIDDEN LINEAR DIFFUSER

BI3F

Fast Selection tables

Valori di dT:		+10k	Vertical Throw						-10k	Horizontal Throw					
Q	Dim	600 -3F	800 -3F	1000 -3F	1200 -3F	1500 -3F	1800 -3F	2000 -3F	600 -3F	800 -3F	1000 -3F	1200 -3F	1500 -3F	1800 -3F	2000 -3F
(m ³ /h)	Ak(m ²)	0,025	0,034	0,042	0,050	0,063	0,076	0,084	0,025	0,034	0,042	0,050	0,063	0,076	0,084
200	Vk (m/s)	2,2	1,6	1,3	1,1	0,9			2,2	1,6	1,3	1,1	0,9		
	X0,25 (m)	1,5	1,2	0,9	0,8	0,6			8,1	5,6	4,6	3,9	3,2		
	Ps(Pa)	7	<5	<5	<5	<5			8	5	<5	<5	<5		
	Lw(A)	33	27	22	<20	<20			30	26	23	<20	20		
250	Vk (m/s)	2,8	2	1,6	1,4	1,1	0,9		2,8	2	1,6	1,4	1,1	0,9	0,8
	X0,25 (m)	2	1,5	1,2	1,1	0,8	0,6		15	8,1	6,1	5,2	4,2	3,6	3,1
	Ps(Pa)	11	6	<5	<5	<5	<5		13	7	5	<5	<5	<5	<5
	Lw(A)	39	33	28	24	<20	<20		36	31	28	24	20	<20	<20
300	Vk (m/s)	3,3	2,5	2	1,6	1,3	1,1	1		2,5	2	1,6	1,3	1,1	1
	X0,25 (m)	2,3	1,8	1,5	1,3	1	0,9	0,7		12,4	8,2	6,6	5,3	4,5	4,1
	Ps(Pa)	16	9	6	<5	<5	<2	<5		11	7	5	<5	<5	<5
	Lw(A)	44	37	32	28	24	20	<20		36	33	29	25	22	21
350	Vk (m/s)	3,9	2,9	2,3	1,9	1,5	1,3	1,2			2,3	1,9	1,5	1,3	1,2
	X0,25 (m)	2,7	2,1	1,7	1,4	1,2	1	0,9			11,4	8,5	6,6	5,5	5
	Ps(Pa)	22	12	8	6	<5	<5	<5			9	6	<5	<5	<5
	Lw(A)	48	41	36	32	28	24	21			37	33	29	26	25
400	Vk (m/s)	4,4	3,3	2,6	2,2	1,8	1,5	1,3			2,6	2,2	1,8	1,5	1,3
	X0,25 (m)	3,1	2,4	2	1,7	1,4	1,1	1			16,4	11	8	6,6	6
	Ps(Pa)	29	16	10	7	5	<5	<5			12	8	5	<5	<5
	Lw(A)	51	45	40	36	31	27	25			41	36	32	30	29
450	Vk (m/s)		3,7	3	2,5	2	1,6	1,5				2,5	2	1,6	1,5
	X0,25 (m)		2,8	2,2	1,9	1,6	1,3	1,2				14,7	9,7	7,7	7
	Ps(Pa)		21	13	9	6	<5	<5				11	7	5	<5
	Lw(A)		48	43	39	34	30	28				39	36	33	32
500	Vk (m/s)		4,1	3,3	2,7	2,2	1,8	1,6				2,7	2,2	1,8	1,6
	X0,25 (m)		3	2,5	2,1	1,7	1,4	1,3				20	12	9,1	8,1
	Ps(Pa)		25	16	11	7	5	<5				13	8	6	5
	Lw(A)		51	46	42	37	33	31				42	38	36	34

vertical throw multiplication factor

horizontal throw multiplication factor

ΔT	+10	+8	+4	0
KX	1	1,1	1,5	3

$$L_{\Delta T+8} = L_{\Delta T+10} * 1.1$$

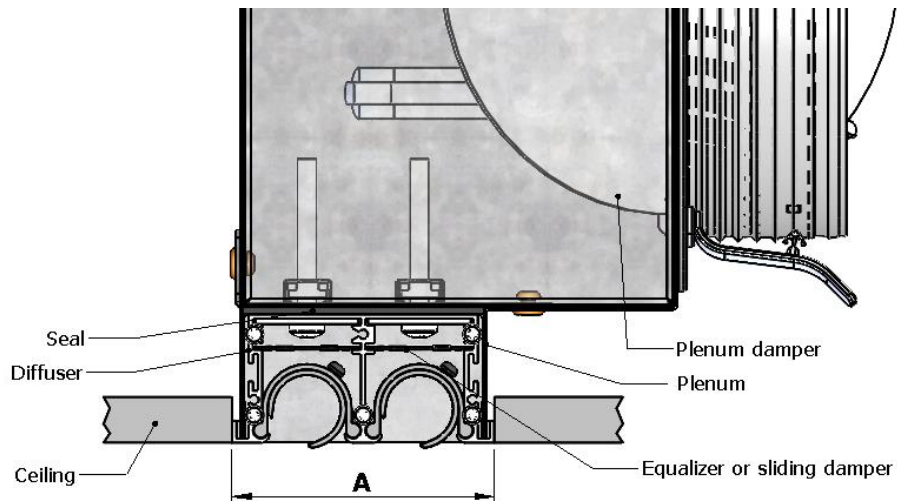
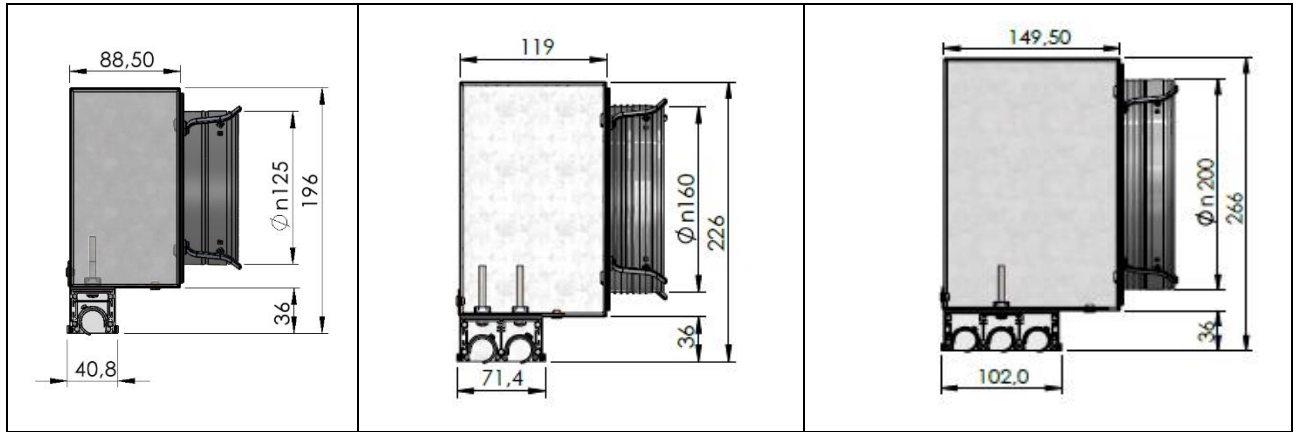
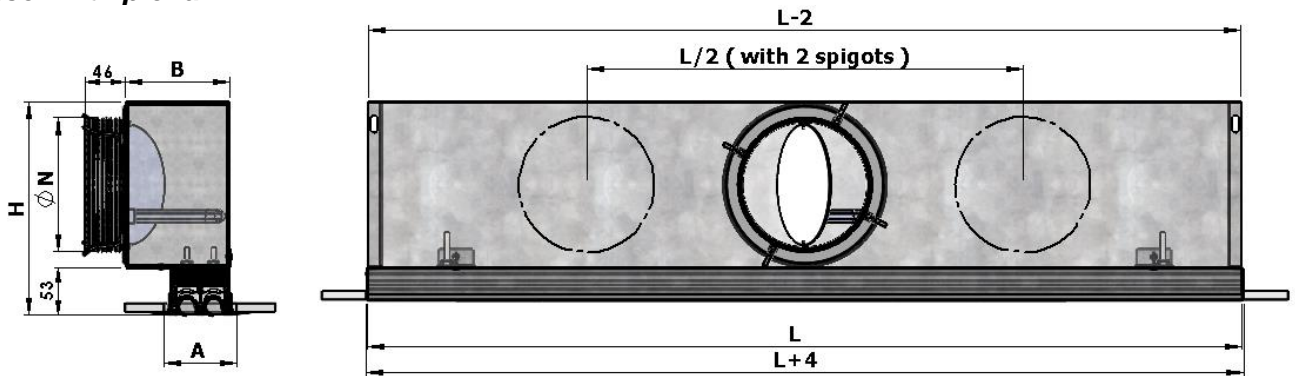
ΔT	-10	-8	-4	0	+5	+10
KX	1	1,1	1,25	1,4	1,6	1,8

$$L_{\Delta T-8} = L_{\Delta T-10} * 1.1$$

Noise without absorption of the room in Lw (dBA)

HIDDEN LINEAR DIFFUSER

Diffuser with plenum

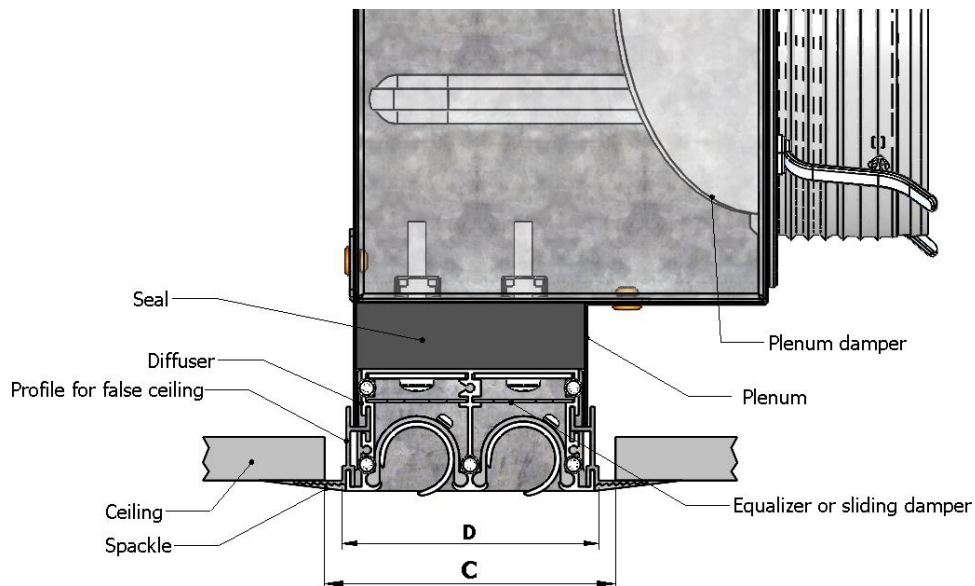
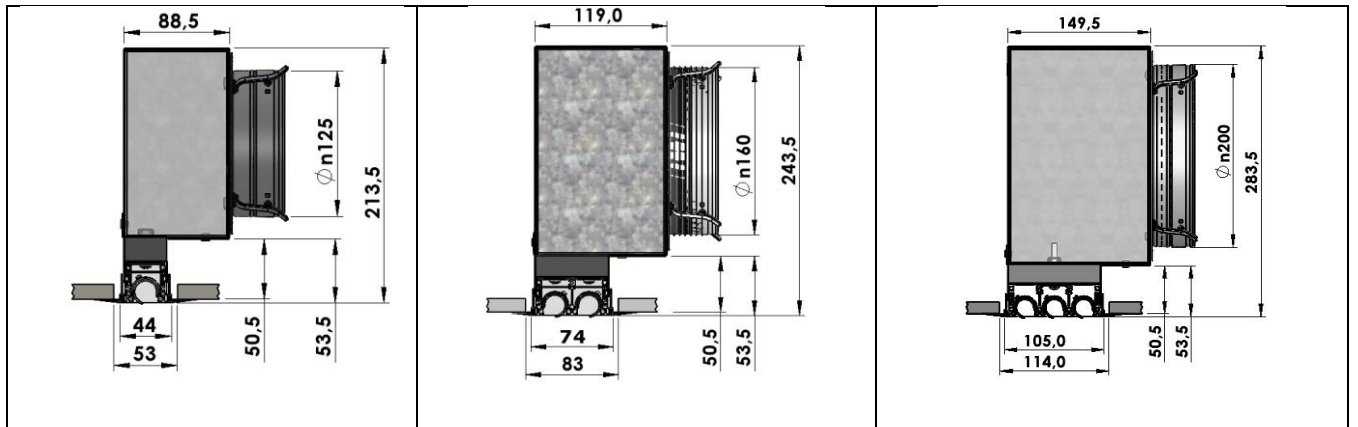
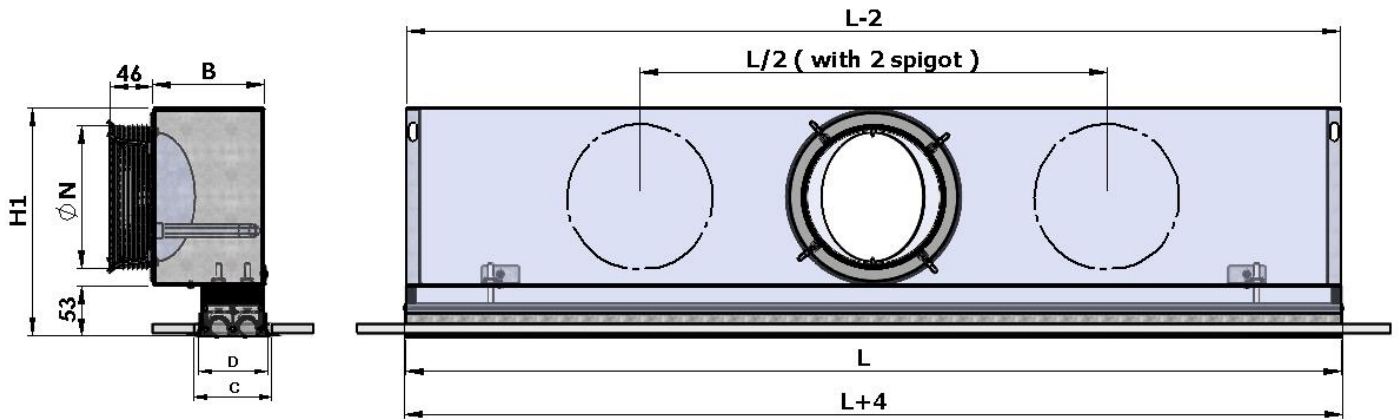


MODEL	A	B	H	ØN	L	L+4
1 Slot	40,8	88,5	196	125	Diffuser length	Diffuser length + endplate + screws
2 Slot	71,4	119,0	226	160	Diffuser length	Diffuser length + endplate + screws
3 Slot	102,0	149,5	266	200	Diffuser length	Diffuser length + endplate + screws

For lengths > 1500 mm nr 2 spigots

HIDDEN LINEAR DIFFUSER

Diffuser with profile for false ceiling

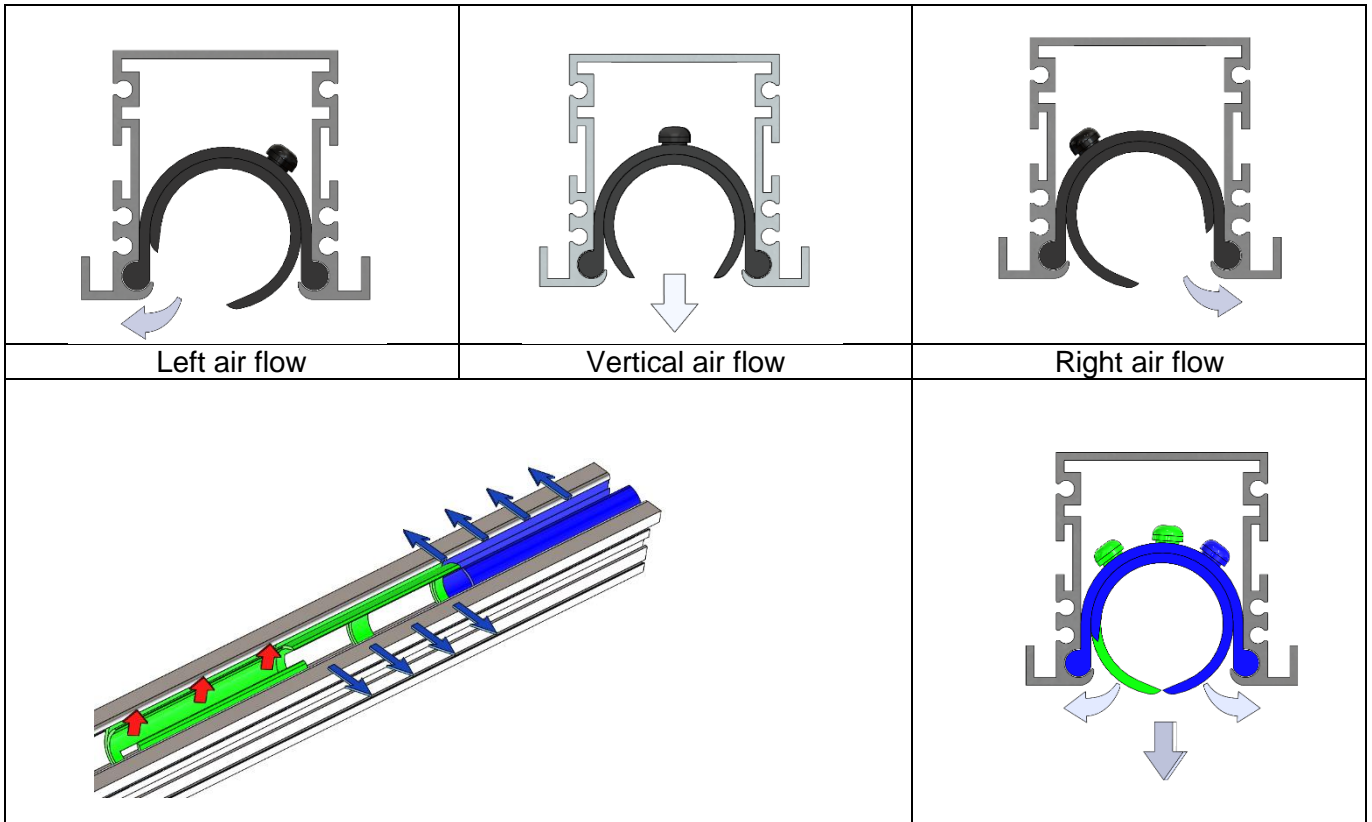


MODEL	B	C	D	H1	ØN	L	L+4
1 Slot	88,5	53	44	213,5	125	Diffuser length	Diffuser length + endplate + screws
2 Slot	119	83	74	243,5	160	Diffuser length	Diffuser length + endplate + screws
3 Slot	149,5	114	105	283,5	200	Diffuser length	Diffuser length + endplate + screws

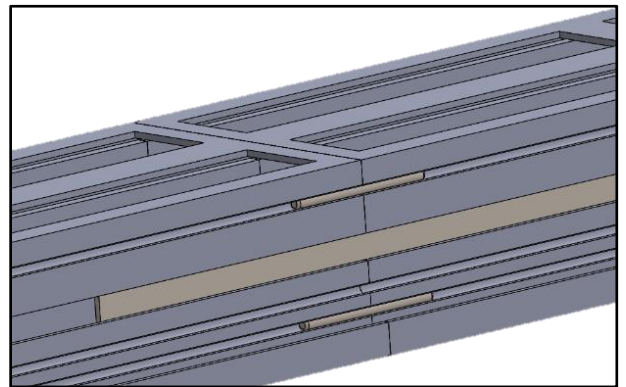
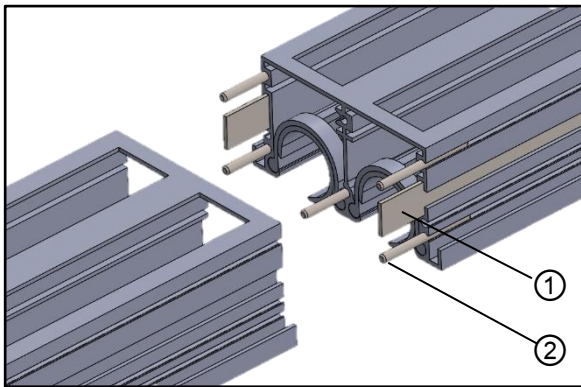
For lengths > 1500 mm nr 2 spigots

HIDDEN LINEAR DIFFUSER

Air flow direction management



DIFFUSION LINEAR RUNS

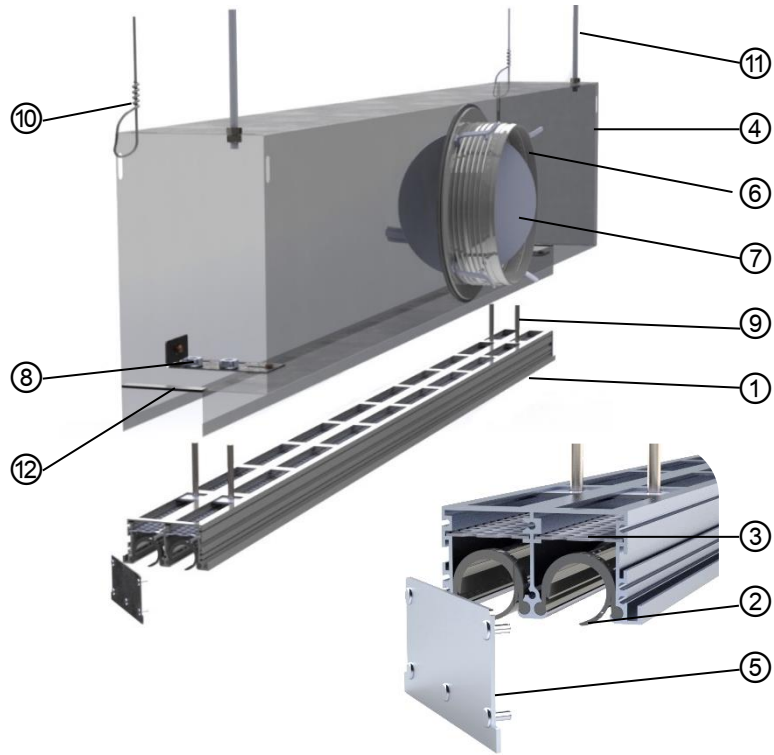


- 1 Alignment plate
- 2 Elastic pins

KITK8.GIUNZ-BI Linear Kit including alignment plates and elastic pins for B11F / 2F / 3F

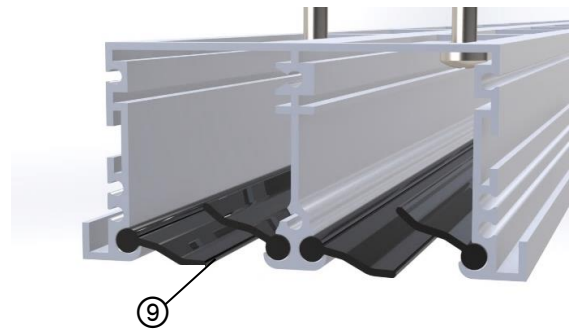
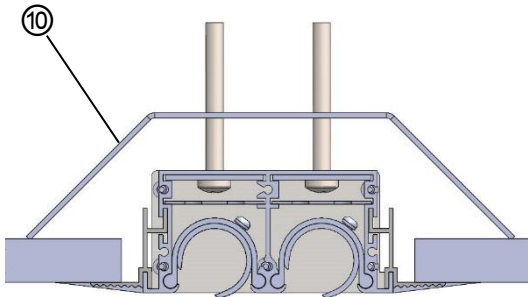
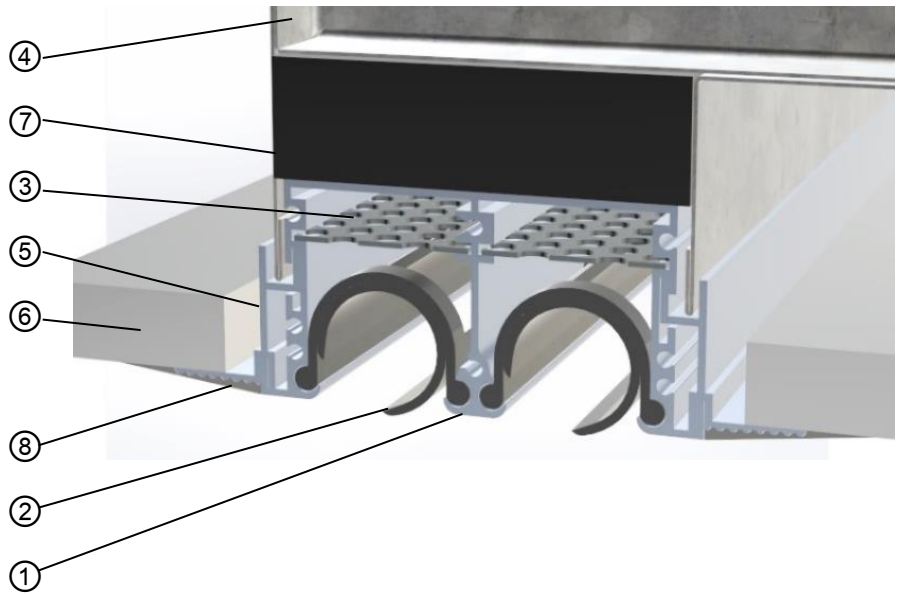
HIDDEN LINEAR DIFFUSER

- 1 Diffuser
- 2 Deflector
- 3 Equaliser or sliding damper
- 4 Plenum
- 5 Endplate
- 6 Spigot
- 7 Plenum damper
- 8 Plenum bracket
- 9 Screw for fixing diffuser to plenum
- 10 Pendant for fixing plenum to roof
- 11 Threaded rod for fixing plenum to roof
- 12 Gasket



Closed ceiling configuration

- 1 Diffuser
- 2 Deflector
- 3 Equaliser or sliding damper
- 4 Plenum
- 5 Profile for mounting on false ceiling
- 6 Ceiling
- 7 Gasket
- 8 Spackle
- 9 Aluminium deflector
- 10 Bracket for ceiling mounting without plenum



HIDDEN LINEAR DIFFUSER

DIFFUSER ORDER CODE

BI	1F	0800	P3	T2	-	NN	E	K7	-	XX	.	31
1	2	3	4	5		6	7	8		9		10

① Diffuser model

BI (Hidden linear diffuser)

② Number of slots

1F 1 Slot
2F 2 Slots
3F 3 Slots

③ Diffuser length

Length in mm (always 4 numbers)
Minimum length 500 mm
Maximum length 2000 mm
Other lengths: ask to sales office

④ Slot width

P3 20.5 mm (standard version monoblock)

⑤ Number of headers

T0 No endplate
T1 1 Endplate
T2 2 Endplates

⑥ Deflectors

NN Black Nylon deflector
NB White Nylon deflector
D0 No deflector
D6 Black anod. aluminium deflector
D8 Anod. aluminium deflector
D9 Ral. deflector.

⑦ Damper or Equaliser

0 No Equaliser or Damper
E Equaliser on diffuser
S Sliding damper on diffuser

⑧ Fixing kit

K7 Diffuser complete with 2-piece side profile (for installation on plasterboard ceiling with skimming) in unfinished aluminium.

⑨ Execution variant

xx Non-standard execution (xx number indicating the variation, defined when ordering)

⑩ Diffuser finishing

A1 Natural anodising
31 Ral 9016 30% gloss
99 Ral on demand to define when ordering

Code: BI1F0800P3T2-NNEK7.31

(1 slot diffuser 800 mm long, 20.5 pitch with 2 Endplates; nylon deflectors; equaliser; K7 kit; std execution; ral9016 30% gloss)

KITK6-BIxFxxxx Bracket for plasterboard ceiling without plenum

(es. **KITK6-BI1F0000/1600** for **L ≤ 1600**)

(es. **KITK6-BI1F1610/2500** for **L > 1600**)

KITK8.GIUNZ-BI Linear Kit including alignment plates and elastic pins for BI1F / 2F / 3F

HIDDEN LINEAR DIFFUSER

PLENUM ORDER CODE

P	BI	1F	0800	P3	.	I0	S	E	-	00
1	2	3	4	5		6	7	8		9

① Plenum

P (Plenum identifier)
(complete with diffuser mounting brackets)

② Kind of diffuser

BI Linear diffuser

③ Slots number

1F 1 Slot
2F 2 Slots
3F 3 Slots

④ Plenum Length

Length in mm (always 4 numbers)
Minimum length 500 mm
Length max 2000 mm
Other lengths: ask to sales office
The length to be indicated is the same as the length of the diffuser.

⑤ Diffuser pitch

P3 Diffuser width 20.5

⑥ Insulation

I0 External insulation
IN Internal insulation
0 Not insulated

⑦ Damper on plenum

0 No damper
S With damper

⑧ Equaliser on plenum

0 No equaliser
E With equaliser

⑨ Execution variant

00 Standard execution.

xx To be defined when ordering non-standard executions

Code: PBI1F0800P3.I0S0-00

(Plenum for 1 slot BI diffuser 800 mm long, 20.5 pitch, external insulated with standard execution damper)

HIDDEN LINEAR DIFFUSER

CORNER DIFFUSER ORDER CODE

BI	G	1F	0200	P3	T0	-	DC	K6	-	xx	.	31
1	2	3	4	5	6		7	8		9		9

① Kind of diffuser

BI Linear diffuser

② Corner

G To identify the Corner

③ Slots number

1F 1 Slot
2F 2 Slots
3F 3 Slots

④ Internal dimension of the joint

Length in mm (always 4 numbers)
Standard length 200mm

⑤ Diffuser pitch

P3 Diffuser width 20.5

⑥ Number of headers

T0 No endplate
T1 1 endplate
T2 2 endplates

⑦ Slots blanking plate

D0 No blanking plate
DC Blanking plate Ral9005 (standard finishing)
(for Ral ≠ std, Ral DC = Ral BI)

⑧ Fixing kit

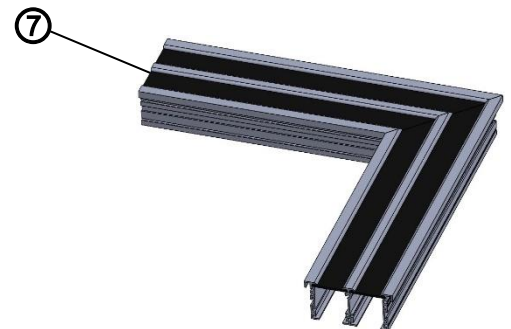
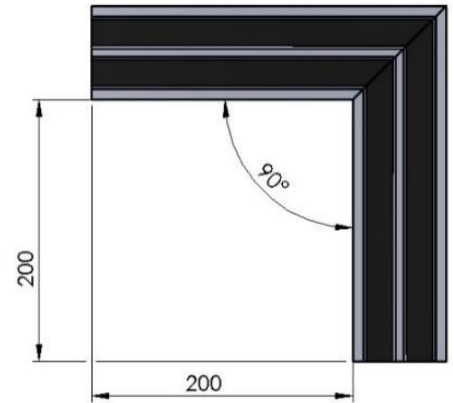
K7 Diffuser complete with 2-piece side profile (for installation onplasterboard ceiling with skimming) in unfinished aluminium.

⑨ Not std execution

xx To be defined when ordering

⑩ Diffuser finishing

A1 Natural anodising
31 Ral 9016 30% gloss
99 Ral on demand to define when ordering



Code: BIG1F0200P3T0-DCK7.31

(90° corner; std dimensions; 20.5 pitch; no endplates; blanking plate RAL 9005; 1 slot BI diffuser)