



# LINEAR JET FLO DIFFUSER

HIGH INDUCTION RATIO, LINEAR JET FLO DIFFUSER

TYPE CSV



- ✓ Supply
- ✓ Return



## Application

- The linear jet flo diffuser type CSV is suitable for application in chilled ceilings. With the CSV the supply air will be supplied into the room with small jets in three different directions. The small dimensions and the mutual different air pattern of these supply jets result in intensive mixing with the room air. This mixing takes place entirely above the comfortzone.

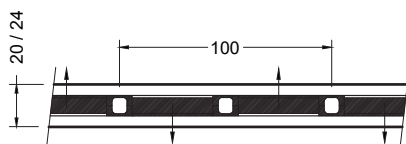
## Technical information

### Features:

- Alternating air pattern. By the special internal part a draught free pattern is possible without the use of the Coanda-effect.
- Indication of air volume:
  - 20 mm wide: ca. 15 l/s/m.
  - 24 mm wide: ca. 23 l/s/m.
- Suitable for climate ceiling.

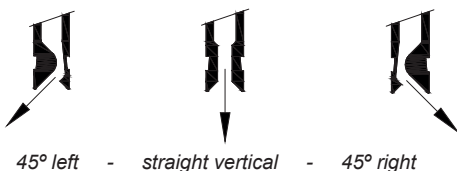
### Construction:

- Diffuser width: 20 and 24 mm.
- Internal parts: black synthetic material (polyamide, PA66; UV resistant).
- Frame: extruded aluminium, finish RAL9010.
- Plenum box: galvanized sheet steel.
- The plenum length will be selected based on air volume and can be equal or shorter than diffuser length.
- Other dimensions upon request.



Alternating air pattern per 100 mm

### Supply air angle:



45° left - straight vertical - 45° right

### Delivery:

- The plenum box and diffuser are supplied together.

### Mounting:

- Only suitable for mounting between metal ceiling panels.
- The plenum box is provided with fixing openings.
- For mounting next to a lightning-armature an excentric construction of plenum is possible.
- We recommend to drop the diffuser 1-2 mm below the ceiling. Herewith an optimum performance will be achieved without the Coanda-effect.
- Optionally the diffusers can be supplied with mounting hooks for C-type ceiling profiles.

## Current types

- CSV0004: Dummy, diffuser width (C) = 20 mm.
- CSV0104: Diffuser (C = 20 mm) with uninsulated plenum box.
- CSV0304: Diffuser (C = 20 mm) with insulated plenum box.
- CSV2004: Dummy, diffuser width (C) = 24 mm.
- CSV2104: Diffuser (C = 24 mm) with uninsulated plenum box.
- CSV2304: Diffuser (C = 24 mm) with insulated plenum box.

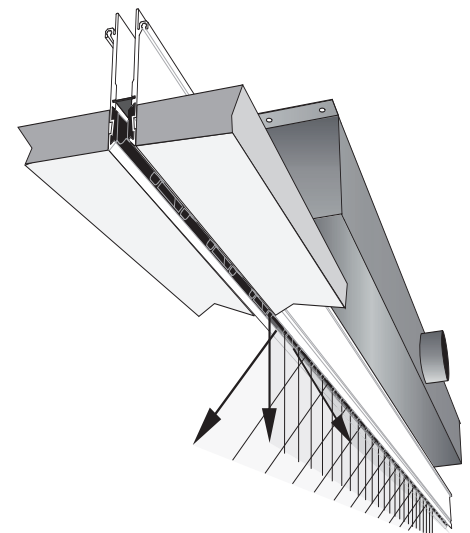
## Specify as

### Example:

Linear diffuser with 20 mm width, with associated uninsulated plenum box. The diffuser is provided with internal parts with an alternating supply air pattern with draught-free supply air without the Coanda-effect. The diffuser length is 1720 mm with a plenum length of 900 mm.

Finish: RAL 9010 (internal part black).  
Barcol-Air type: CSV0104-1720-0900.

## Air pattern linear jet flo diffuser type CSV

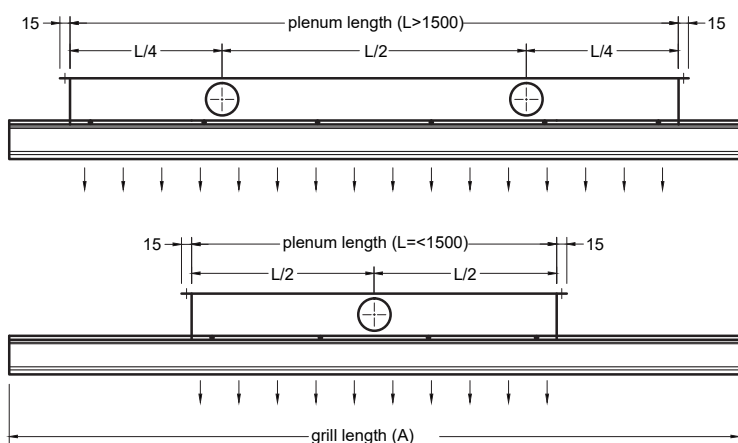


# Linear Jet Flo Diffuser

## High induction ratio, Linear Jet Flo Diffuser

TYPE CSV

Supply ✓  
Return ✓



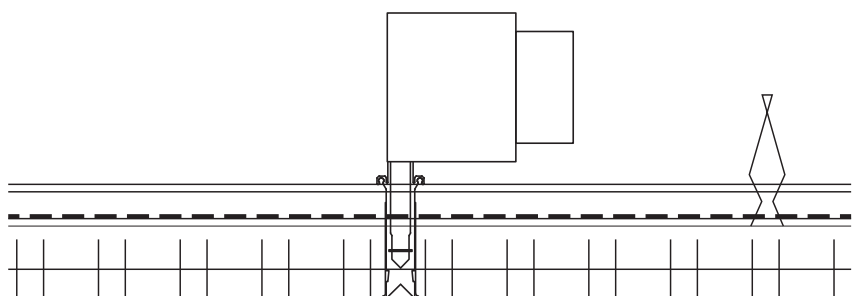
### Notes dimensions:

1. All dimensions are in millimetres.
2. Dimension A is the 'actual' diffuser length, the maximum diffuser length in one piece is 1800 mm.
3. The height of both diffuser and plenum (K) increases if the plenum length  $> 1000$  mm (see below table 'dimensions plenum box').
4. The sides of the plenum box will be provided with a blinding strip
5. Other dimensions and configurations upon request.

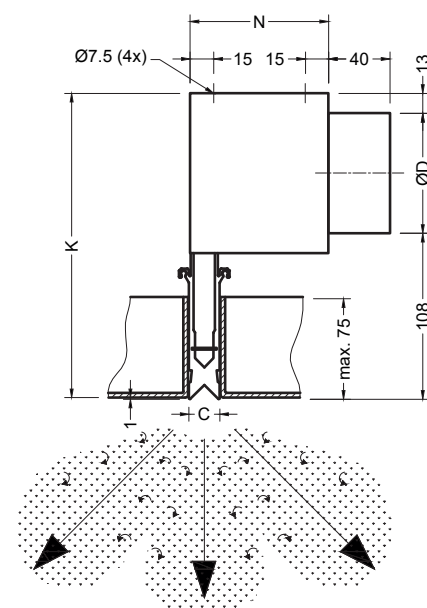
### Dimensions plenum box

	C = 20			C = 24		
	$L \leq 1000$ mm	$L > 1000$ mm en $L \leq 1500$ mm	$L > 1500$ mm en $\leq 1750$ mm	$L \leq 1000$ mm	$L > 1000$ mm en $L \leq 1500$ mm	$L > 1500$ mm en $\leq 1750$ mm
D	1 x 78	1 x 98	2 x 98	1 x 98	1 x 123	2 x 123
K	199	219	219	219	244	244
N	90	90	90	95	95	95

Mounting example linear jet flo diffuser positioned in a lamellen ceiling:



Example excentric plenum for mounting next to a lightning armature:



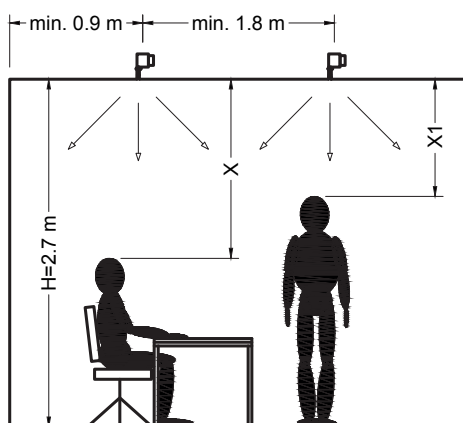
- ✓ Supply
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Supply selection table cooling  
(C = 24 mm,  $\Delta T = -7K$ , bij  $T_{ruimte} = 25^\circ C$ )

Plenum-box-length	m <sup>3</sup> /h	X=1.6 m	X <sup>1</sup> =1.0 m	$\Delta p_s$ (Pa)	LpA dB(A)
		cm/s	cm/s		
550	40	9	11	11	-
	50	9	12	17	-
	60	10	13	24	22
	70	11	14	33	26
	80	12	16	43	29
850	65	12	13	13	-
	75	13	14	17	20
	85	15	16	21	23
	90	16	17	24	24
	95	18	19	27	25
1150	90	12	14	14	-
	100	13	14	17	21
	110	14	15	20	23
	115	15	16	22	24
	120	17	17	24	25
1450	115	12	14	14	21
	125	14	16	17	22
	135	16	17	19	24
	140	17	18	21	25
	145	19	20	22	26
1750	140	13	15	15	22
	150	15	17	18	24
	165	17	18	21	26
	175	19	20	24	27

Return selection table (C = 24 mm)

Plenum-box-length	m <sup>3</sup> /h	$\Delta p_s$ (Pa)	LpA dB(A)
550	60	40	-
	70	55	23
	80	73	26
	90	93	29
	100	116	32
850	80	31	-
	90	40	21
	100	50	23
	110	61	26
	120	73	28
	130	86	30
1150	110	33	-
	120	40	22
	130	47	24
	140	55	26
	150	64	28
	160	73	29
1450	130	30	-
	140	35	21
	150	40	23
	160	46	25
	170	52	26
	180	59	28
1750	150	29	-
	160	33	21
	170	38	23
	180	43	24
	190	48	26
	200	53	27



Insertion loss insulated plenumbox

L plenum	550	850	1150	1450	1750
dB(A)	-2	-3	-3	-3	-4

Correction  $\Delta T$

$\Delta T$ (K)	air velocity factor
7	-
10	1.08
12	1.15
14	1.25

Correction room height

H (m)	air velocity factor
2.7	-
3.0	0.8

Notes:

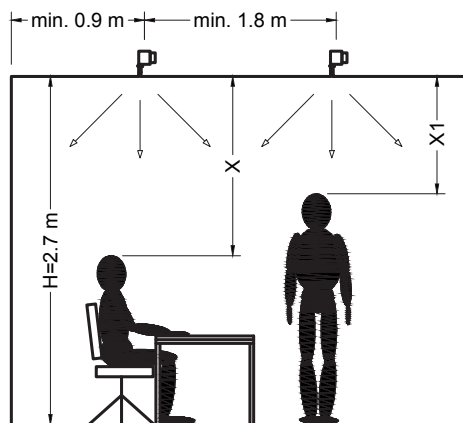
1. The air velocities are measured conform ISO-7726, the results has been reviewed to ISO-7730.
2. Sound pressure levels are based on a room absorption of 10 dB.
3. The insertion loss of an insulated plenum box can be found in the table to the left.

Supply selection table cooling  
(C = 20 mm, ΔT = -7K, bij T<sub>ruimte</sub> = 25° C)

Plenum-box-length	m³/h	X=1.6 m	X¹=1.0 m	Δp <sub>s</sub> (Pa)	LpA dB(A)
		cm/s	cm/s		
550	30	8	11	8	-
	40	9	12	13	-
	50	10	13	21	22
	60	12	15	29	27
850	50	13	14	9	-
	60	15	16	13	-
	70	17	18	18	22
1150	80	19	20	23	25
	60	11	13	8	-
	70	14	15	10	-
1450	80	17	18	13	-
	90	20	22	17	22
	80	12	15	9	-
	90	15	17	11	-
1750	100	18	19	13	-
	110	21	22	16	22
	100	12	15	10	-
1750	110	16	18	12	-
	120	18	19	14	21
	130	21	22	16	23

Return selection table (C = 20 mm)

Plenum-box-length	m³/h	Δp <sub>s</sub> (Pa)	LpA dB(A)
550	30	10	-
	40	17	-
	50	27	-
	60	39	22
850	70	52	26
	50	12	-
	60	17	-
	70	23	-
850	80	30	21
	90	39	24
	100	48	26
	70	13	-
1150	80	17	-
	90	22	-
	100	27	21
	110	32	23
	120	39	25
1450	130	45	27
	90	14	-
	100	17	-
	110	21	-
	120	25	21
	130	29	23
	140	34	24
	150	39	26
1750	160	44	28
	170	49	29
	130	21	20
	140	25	22
	150	28	23
	160	32	25
	170	36	26
	180	41	27
1750	190	45	29
	200	50	30
	210	55	31



Insertion loss insulated plenumbox

L plenum	550	850	1150	1450	1750
dB(A)	-2	-3	-3	-3	-4

Correction ΔT

ΔT (K)	air velocity factor
7	-
10	1.08
12	1.15
14	1.25

Correction room height

H (m)	air velocity factor
2.7	-
3.0	0.8

Notes:

1. The air velocities are measured conform ISO-7726, the results has been reviewed to ISO-7730.
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Cantekoogweg 10-12 - 1442 LG Purmerend, The Netherlands

**T** +31 (0)299 689 300 | **E** [export@barcol-air.nl](mailto:export@barcol-air.nl)

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