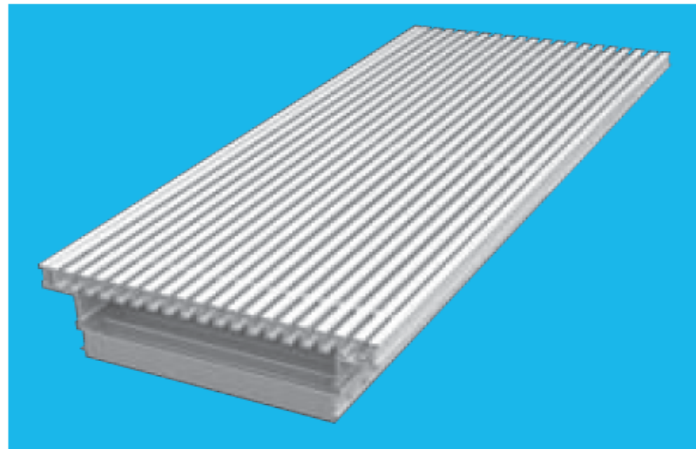


# HEAVY DUTY LINEAR FLOOR GRILLE

## MODEL: FL-L



### Description:

COSMOS Heavy duty Linear Floor Grille has been designed for commercial and industrial applications where heavy foot traffic is experienced. This type is for linear applications. Such floor grilles are suitable for most type of floor system.

For Supply or Extract air, linear heavy duty floor grilles has a sturdy (strongly and solidly built) 0 and 15 degree deflections blades with rear reinforced mullions. The frame is available flanged or for recessed installation.

### COSMOS Linear floor grille models

- FL-L-00** Flangeless 0° deflection linear floor grille.
- FL-L-15** Flangeless 15° deflection linear floor grille.
- FL-L-00-F** Flanged 0° deflection linear floor grille.
- FL-L-15-F** Flanged 15° deflection linear floor grille.
- FL-L-00-D** Flanged 0° deflection linear floor grille with volume control damper.
- FL-F-15-D** Flanged 15° deflection linear floor grille with volume control damper.

## **Construction:**

The flanged frame and blades are manufactured from heavy gauge extruded aluminium.

The fixed blades are 6mm thick from front side (face side) and 1.2mm thick at rear side. All blades are fixed at 12.5mm centre.

## **Dimensions:**

COSMOS Heavy duty linear floor grille models can be ordered from minimum width or height of 50mm and maximum length of 2500mm.

Continuous length will have hair line butt joints.

## **Features:**

0 & 15 degree strongly and solidly built deflection blades.

Removable core option.

Hair line butt joints for continuous application.

Border alignment facility on linear version.

Suitable for most flooring system.

## **Advantages:**

Integrated design features – enabling tile and linear grille combination for aesthetic continuity.

Convenient damper adjustment.

Improved additional strength design.

Easy drop in installation.

## Finish:

RAL 9016, powder coated finish as a standard.

Other coating option is available on request.

## Selection Example:

Supply air quantity 0.855 CMS. Room width is 6m.

Throw distance 8.5m.

And noise level less than NC30

Linear supply product should finish 10-20% short of the room width to avoid excessive turbulence where the floor meets the wall, therefore in this case, an effective length would be 4.5m.

$0.855 \text{ CMS} / 4.5\text{m (grille length)} = 0.19 \text{ CMS/m}$ .

Enter tables at nearest volume i.e. 0.19 CMS and you will find that at 100mm width the corresponding throw is 7.5m long. As the grille length is more than 2.6m multiply throw by correction factor 1.15 and add 5 NC. See table below,

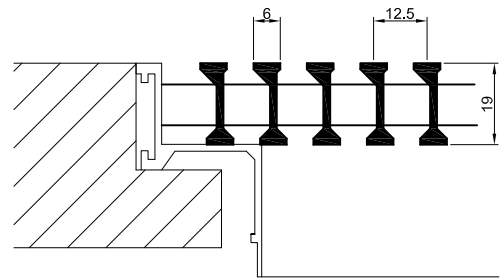
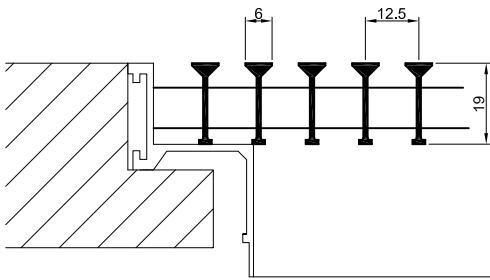
i.e.  $7.5\text{m} \times 1.15 = 8.6\text{m}$  and  $24+5 = 29 \text{ NC}$ .

Grille length (m)	Multiply throw by the factor	Adjust NC
0.9 – 1.5	1	0
1.6 – 2.5	1.1	+ 2
2.6 +	1.15	+ 5

Dimensional data

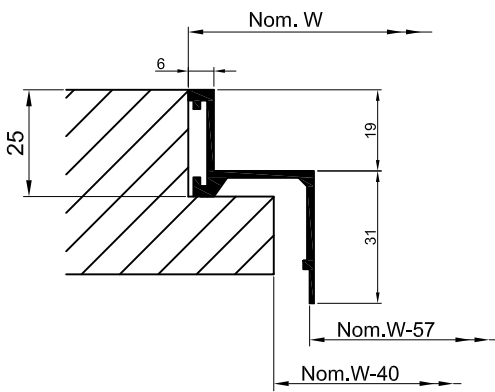
LINEAR FLOOR GRILLE

Bar deflection

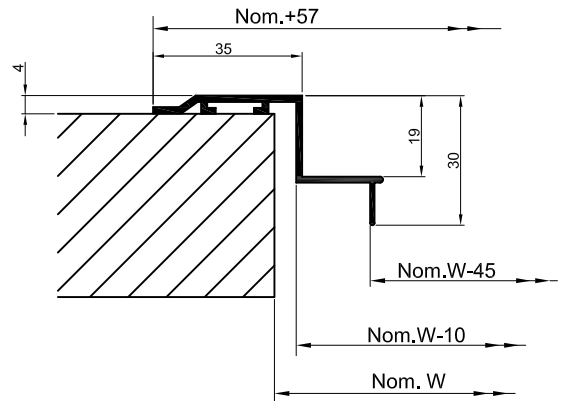


Typical corner details

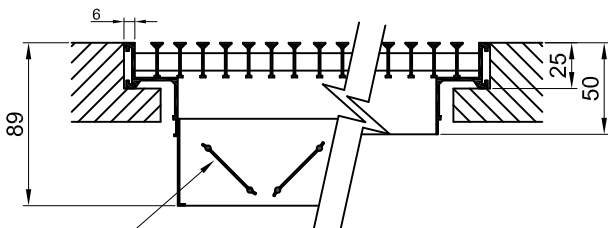
6 mm Flange



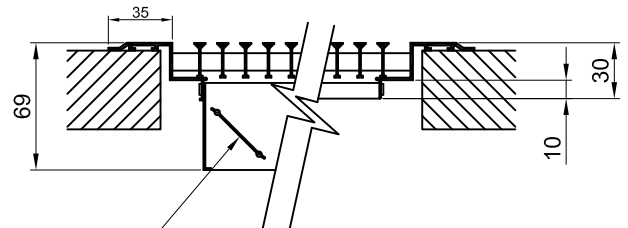
35 mm Flange



With Opposed blade damper as accessory



Opposed blade damper



Opposed blade damper

**Performance Data:**

**Model: FL-L**

Air Flow Rate (L/s/m)	Nominal Duct Height or Weight (mm)	Pressure (Pa)	Velocity (m/s)	Throw (m)	Noise NC (dB)
40	50	3	1.25	1.1 - 1.2	–
50	50	4	1.50	1.7 - 3.1	15
60	50	8	2.00	2.3 - 4.3	15
75	50	12	2.50	2.9 - 5.2	23
	75	4	1.40	2.5 - 4.0	–
90	50	15	3.00	3.3 - 6.0	25
	75	5	1.65	2.7 - 4.6	18
	100	2	1.15	2.1 - 3.7	14
110	50	20	3.50	4.0 - 6.9	27
	75	8	2.00	3.2 - 5.6	19
	100	4	1.35	2.6 - 4.6	15
125	50	20	3.50	4.0 - 6.9	27
	75	8	2.00	3.2 - 5.6	19
	100	4	1.35	2.6 - 4.6	15
140	75	12	2.50	3.6 - 7.1	25
	100	6	1.75	3.1 - 5.8	20
	125	4	1.30	2.7 - 4.8	16
160	75	14	2.80	4.7 - 8.0	28
	100	6	1.90	3.6 - 6.6	22
	125	4	1.50	3.1 - 5.6	19
190	75	20	3.50	5.5 - 8.6	31
	100	10	2.40	4.5 - 7.5	24
	125	6	1.80	3.6 - 6.5	21
	150	4	1.50	3.4 - 5.7	15
230	75	28	4.20	6.7 - 11	35
	100	15	3.00	5.9 - 9.2	26
	125	9	2.20	5.4 - 7.8	23
	150	6	1.80	4.8 - 7.0	17
270	100	20	3.35	6.8 - 10	28
	125	12	2.50	6.3 - 8.8	25
	150	8	2.00	5.6 - 8.1	20
	200	4	1.50	4.8 - 7.2	14
310	100	22	3.80	8.2 - 13	32
	125	15	3.00	6.8 - 12	28
	150	10	2.35	6.1 - 10.2	24
	200	5	1.70	5.3 - 9.1	18
350	125	19	3.30	7.3 - 11.2	32
	150	13	2.65	6.4 - 10.3	27
	200	6	1.90	5.7 - 9.1	21
	250	4	1.50	4.2 - 7.8	18
390	125	22	3.65	7.9 - 11.5	37
	150	15	2.95	7.5 - 10.8	29
	200	8	2.10	6.5 - 10.2	25
	250	5	1.65	5.9 - 9.0	21
430	150	19	3.25	8.0 - 11.2	33
	200	10	2.35	7.3 - 11	28
	250	6	1.85	6.2 - 9.8	25
	300	4	1.50	5.7 - 8.6	19
470	150	20	3.50	9.2 - 12	38
	200	12	2.50	8.0 - 11.2	33
	250	8	2.00	7.1 - 10.3	28
	300	5	1.65	6.3 - 9.1	21
540	200	15	3.00	9.5 - 14.5	38
	250	10	2.30	8.7 - 12.5	32
	300	6	1.90	7.3 - 11.2	24