

AIRFOIL



GRILLES
DUCT
FITTINGS

making it happen sooner...



Fixed Core Linear Bar Grille



Removable Core Linear Bar Grille



Linear Bar Grille with Single Deflection Blades



Hinged Core Linear Bar Grille with Filter

LINEAR BAR GRILLES (LBG)

With its elegant design and robust construction, Airfoil's Linear Bar Grille with fixed core will look beautiful and perform brilliantly when mounted on a side wall for both supply and return air functions. Made from solid extruded aluminium the Linear Bar Grille comes in standard white.

Linear Bar Grille with Fixed Core Options

- Blade type 0 degree and 15 degree blow deflections
- Flange size: 25mm standard with 20mm or 12mm optional
- Blade spacing: 11.5mm standard, optional 7mm, 17.5mm and 25mm
- Custom-made to any size dimensions
- Natural anodised or specific Dulux powdercoat colours and finishes available on request

LBG15 Fixed core linear bar grille with 15° kick blades.

LBG00 Fixed core linear bar grille with 0° kick blades.

Specification: Product code + size.

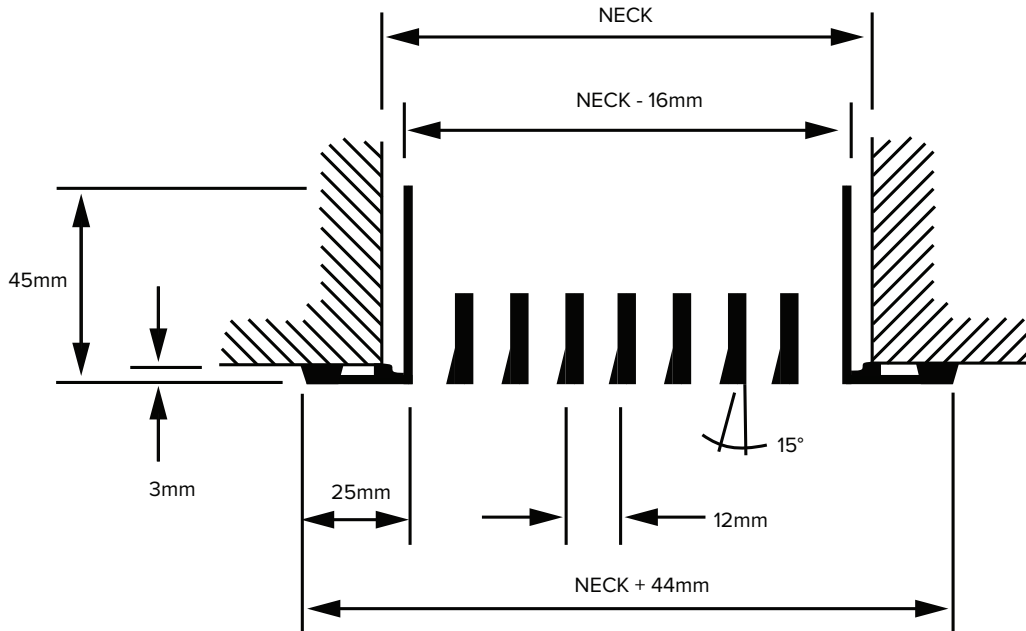
Example: **LBG15 400x200** Hinged core bar grille with 15° kick blades with filter 400mm x 200mm

Important Note: Dimensions will be assumed nominal neck size unless otherwise specified.



STANDARD LINEAR BAR GRILLE 15°

Cross sectional diagram



Performance Data

Neck Size	Total Pressure (pa)	3	5	9	14	20	27	36	45
50mm	Lit/sec/metre	34	52	69	86	100	130	150	170
	Throw min/max (m)	1.2-2.4	2.1-4.3	3-5.8	3.9-7.2	4.8-8.4	5.4-9.1	6.3-9.8	6.6-10.8
	NR	-	14	22	28	33	38	42	46
75mm	Lit/sec/metre	57	86	110	140	170	200	230	250
	Throw min/max (m)	1.8-3.1	3.0-5.0	4.5-6.5	5.4-7.9	6.6-9.4	8.1-10.8	9.0-12	10.5-13.4
	NR	-	-	20	26	31	36	40	44
100mm	Lit/sec/metre	86	120	160	200	240	280	320	360
	Throw min/max (m)	2.7-3.8	3.9-5.8	5.7-7.7	6.6-8.6	8.4-10.6	9.9-12.0	10.5-13.4	11.7-14.4
	NR	-	13	21	27	32	37	41	45
150mm	Lit/sec/metre	130	200	260	330	400	460	520	600
	Throw min/max (m)	4.3-5.2	6.4-7.3	7.8-8.8	9.8-10.2	11.4-11.8	12.2-13.2	13.2-14.3	15.2-15.7
	NR	-	13	21	27	32	37	41	45

Sound values are based on a room absorption of 8 dB, re 10^{-12} watts for an active length of 3.0 metres. Throw distances indicated are terminal velocities of 0.75 and 0.25 metres per second for an active length of 3 metres. The following corrections for length should be made.

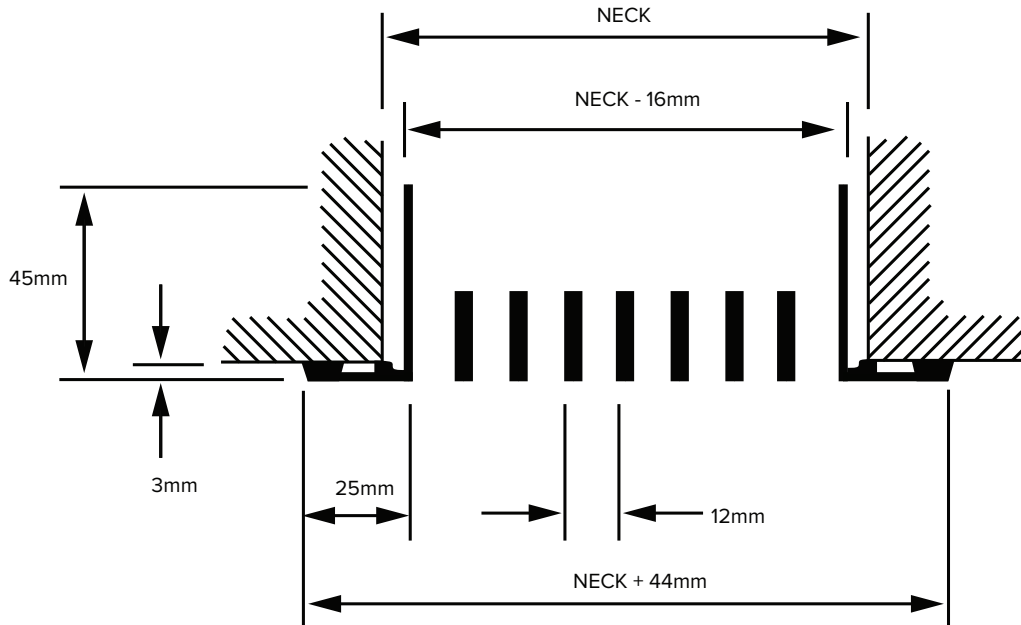
Active length in metres	0.3	0.6	1.2	2	3	4	6
NR	subtract 9	subtract 7	subtract 4	subtract 1	table value	add 1	add 3
Throw at term vel. .075	multiply throw by 0.3		multiply throw by 0.7		table values		
Throw at term vel. .025	multiply throw by 0.6		multiply throw by 0.8		table values		

When used as a RETURN GRILLE the following corrections should be made.

- NR value increases by 4.
- Negative Static Pressure = Total Pressure (shown in the table) x 0.8

STANDARD LINEAR BAR GRILLE 0°

Cross sectional diagram



Performance Data

Neck Size	Total Pressure (pa)	3	5	9	14	20	27	36	45
50mm	Lit/sec/metre	34	51	68	85	100	110	130	150
	Throw min/max (m)	1.2-2.4	2.1-4.3	3-5.8	3.9-7.2	4.8-8.4	5.7-9.4	6.3-10.1	6.6-10.8
	NR	-	14	15	21	26	30	34	37
75mm	Lit/sec/metre	58	89	110	140	170	200	230	270
	Throw min/max (m)	2.1-3.6	3.0-5.0	4.5-6.7	5.4-8.4	6.6-9.4	8.1-10.8	9.0-12.2	10.5-13.7
	NR	-	-	14	20	25	29	33	36
100mm	Lit/sec/metre	86	120	170	210	250	300	340	380
	Throw min/max (m)	2.7-3.8	4.5-6.0	5.7-7.7	7.2-9.1	9.0-10.8	9.9-12.2	10.8-13.4	12.6-15.4
	NR	-	-	15	21	26	30	34	37
150mm	Lit/sec/metre	130	210	270	340	410	480	550	620
	Throw min/max (m)	4.3-5.5	6.4-7.3	7.8-8.8	9.8-10.6	11.7-12.5	13.6-14.3	14.7-15	16.6-16.8
	NR	-	-	21	22	27	31	35	38

Sound values are based on a room absorption of 8 dB, re 10^{-12} watts for an active length of 3.0 metres.
 Throw distances indicated are terminal velocities of 0.75 and 0.25 metres per second for an active length of 3 metres. The following corrections for length should be made.

Active length in metres	0.3	0.6	1.2	2	3	4	6
NR	subtract 9	subtract 7	subtract 4	subtract 1	table value	add 1	add 3
Throw at term vel. .075	multiply throw by 0.3		multiply throw by 0.7		table values		
Throw at term vel. .025	multiply throw by 0.6		multiply throw by 0.8		table values		

When used as a RETURN GRILLE the following corrections should be made.

1. NR value increases by 4.
2. Negative Static Pressure = Total Pressure (shown in the table) x 0.8