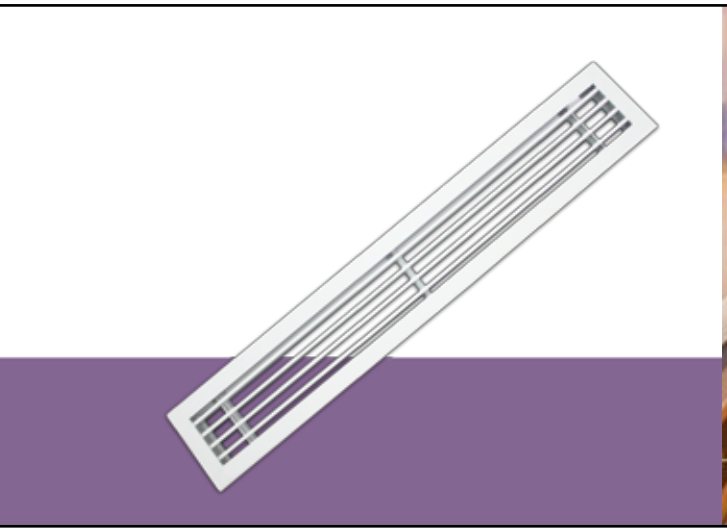
FlexDur Technology

LINEAR SERIES
LFB Fine Bar Grille



✤ LFB APPLICATION
LFB extruded aluminum linear bar diffusers meet architectural demands for a versatile supply and return air duct that blends with accents linear design concepts. Linear Bar Diffusers can be used on the supply or return positions of heating, cooling or ventilating system.

✤ LFB STANDARD CONSTRUCTION / FEATURES
- LFB Linear Bar diffusers are made of high grade aluminum extrusions for maximum strength and corrosion resistance.

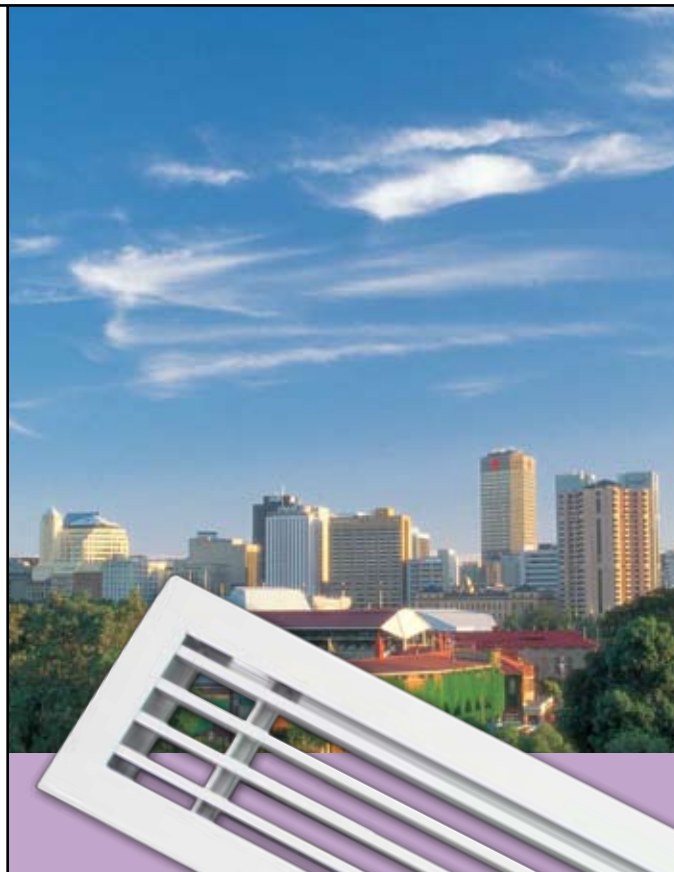
- Extruded aluminum bars are interlocked into flat bars to produce straight rigid core sections.

- Available in multiple angles of deflection 0°, 15° and 30° placed on 15mm pitch. Linear bar diffuser frames are made of extruded aluminum border.

- Ideal for sidewall, sill or ceiling installation.

- Standard single piece length is 8ft (2400mm), extendable is available in multiple sections. For continuous length, sections can be joined together by using alignment strips.

LFB-VB Model equipped with rear vertical blade spaced 22mm, provides more comfort and more control on airflow direction in each grille section. Rear Blades are individually adjustable. Linear bar grilles are supplied as standard powder coating RAL 9010 finish.



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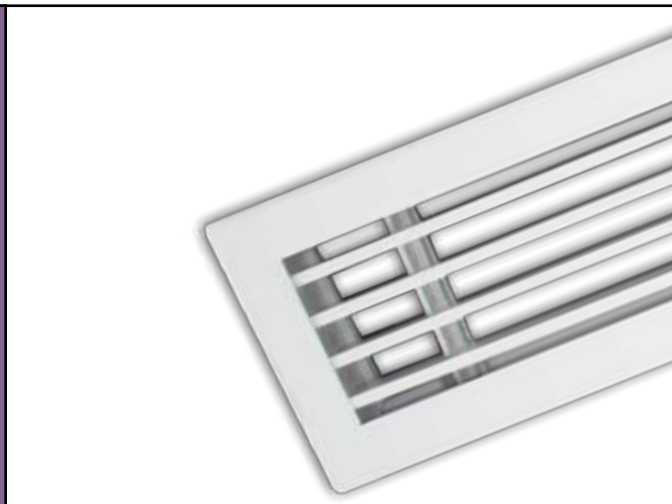
LFB OPTIONS

- Opposed blade dampers.
- Directional blades.
- Foam gasket.
- Various finish colors.
- 15° and 30° angle deflection blade.

FLB ORDER KEY INFORMATION

LFB - A - 0 + PBL

Accessories	Opposed Blade Damper (OBD), Plenum Box w/o regulation (PB), Plenum Box c/w Internal 5mm P.B. Fan regulation (PBL)
Degree	0°, 15° and 30°
Material	Aluminum (A)
Model	LFB - Fine Bar



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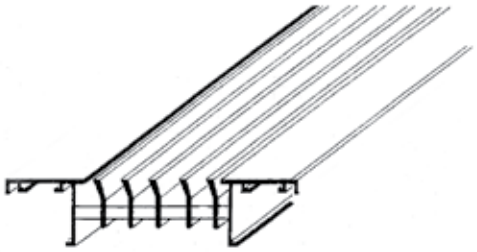
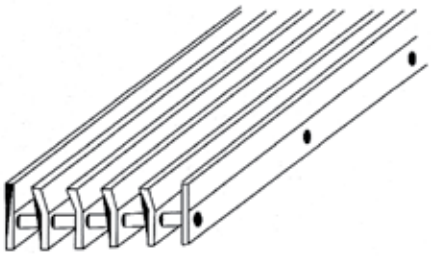
✤ LFB BORDER TYPE

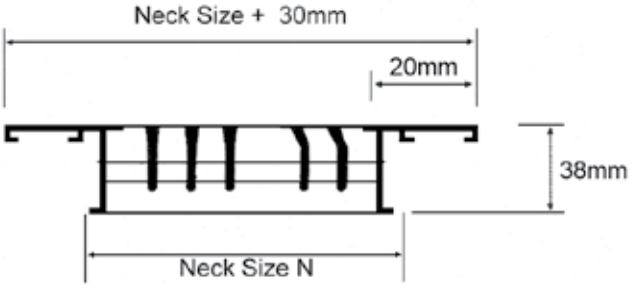


CORE WITH BORDER

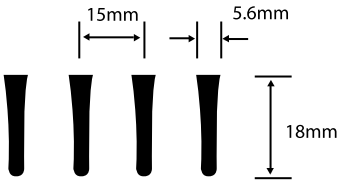


CORE FRAMELESS

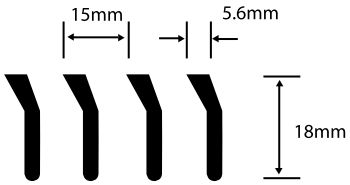
✤ LFB PHYSICAL DIMENSION



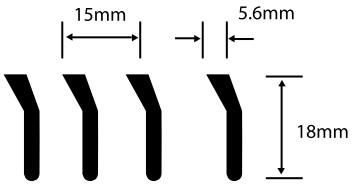
✤ LFB AVAILABLE CORE



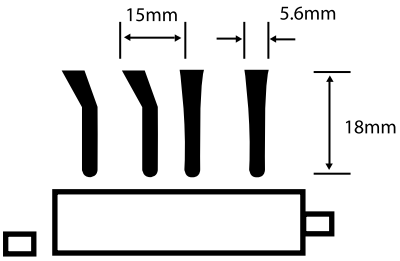
0° Deflection; 5.6mm Bar
Spaced on 15mm Centers.



15° Deflection; 5.6mm Bar
Spaced on 15mm Centers.



30° Deflection; 5.6mm Bar
Spaced on 15mm Centers.

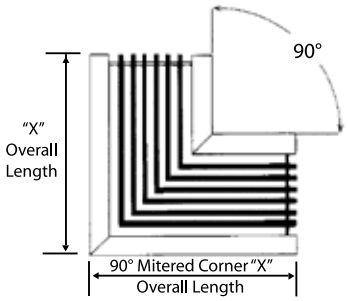


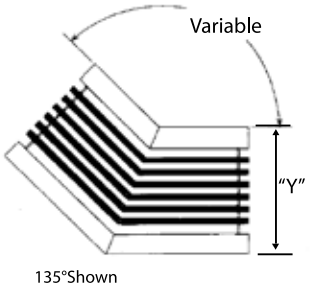
0°, 15° and 30° Deflection; 5.6mm Bar
Spaced on 15mm with Rear Blade.
(Model LPB.VB)

LFB WIDTHS DIMENSIONS

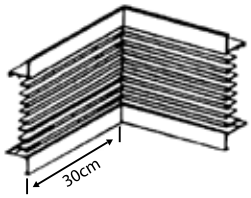
Norminal Width	No.of Blades	Sizes with 20mm Frame	
		Face Size (mm)	Neck Size (mm)
2"	2	74	45
2½"	3	89	60
3"	4	104	75
3½"	5	119	90
4"	6	134	105
5"	8	144	135
6"	10	194	165
7"	12	224	195
8"	14	254	225

LFB WIDTHS DIMENSIONS

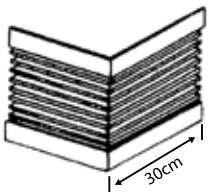




135°Shown



Inside Wall



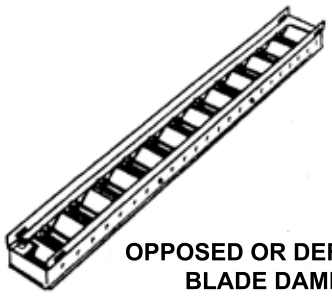
Outside Wall

LFB MITERED CORNER

Mitered corner section is available for ceiling, floor, sill or sidewall installations with standard angle of 90°. Mitered corners are available in 0°, 15° and 30° deflection. Corner section contains two feet of straight grille one foot (30cm) on each side.

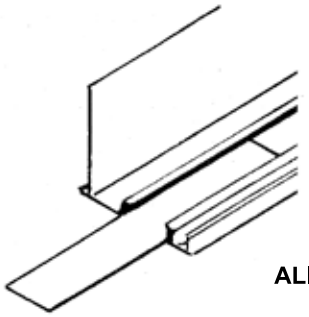
Mitered corners are available as "Horizontal Flat" for ceiling ,floor & sill or "Vertical" for sidewall installation. The corner section is normally inactive section of one piece and are not supplied with dampers. Special mitered corners for various angle sizes are available too.

LFB ACCESSORIES



OPPOSED OR DEFLFCTOR BLADE DAMPER

Opposed blade damper used for airflow regulation. Blade deflector used to deflect the air to one side of the grille.



ALIGNMENT STRIPS

Joiner strips are provided on all units over 2400mm (96") with no extra cost. Providing linear alignment of continuous linear bar diffuser, the joiner strip slides into the inside channel of the diffuser frame. Typical for all frame types.

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LFB 15MM BAR SPACING-0° DEFLECTION PERFORMANCE DATA

Nom. Width	Area Factor	CFM/FT	25	38	50	63	76	89	101	114	127	152	176	203
1½"	.048	Static	0.051	0.114	0.202	0.316	0.460							
		Throw (ft)	17-10-7	19-12-8	22-14-10	24-17-12	26-19-14							
		NC	16	21	26	31	38							
2"	.075	Static		0.036	0.064	0.100	0.147	0.200	0.256	0.323	0.400			
		Throw (ft)		16-9-5	20-13-8	22-15-10	24-17-12	25-19-14	27-21-16	28-23-18	30-24-19			
		NC		<15	<15	20	25	30	33	36	40			
2½"	.103	Static			0.031	0.048	0.070	0.095	0.124	0.157	0.196	0.280		
		Throw (ft)			19-21-8	20-14-9	21-16-11	23-17-13	24-18-14	26-20-26	28-22-17	31-24-19		
		NC			<15	17	20	24	28	31	35	40		
3"	.130	Static				0.027	0.039	0.053	0.070	0.087	0.109	0.156	0.210	0.285
		Throw (ft)				18-14-9	19-15-11	21-15-12	22-16-13	24-18-14	26-20-16	29-22-17	32-25-18	34-27-20
		NC				<15	16	20	23	26	29	35	39	43
3½"	.155	Static					0.026	0.035	0.047	0.059	0.073	0.104	0.142	0.185
		Throw (ft)					19-14-9	21-15-10	22-15-11	24-17-12	26-19-14	28-21-16	30-24-18	33-27-19
		NC					15	17	20	23	27	33	37	41
4"	.183	Static					0.18	0.025	0.032	0.041	0.050	0.072	0.100	0.130
		Throw (ft)					19-13-7	20-14-9	22-15-10	23-16-12	25-18-14	27-21-16	29-23-17	32-26-18
		NC					<15	15	18	21	25	31	35	39
5"	.238	Static						0.015	0.020	0.025	0.031	0.045	0.062	0.081
		Throw (ft)						19-13-8	21-14-9	22-15-11	24-17-13	26-20-15	29-22-16	32-25-17
		NC						<15	16	19	22	27	33	38
6"	.293	Static							0.014	0.017	0.021	0.031	0.042	0.055
		Throw (ft)							20-13-8	22-14-10	23-16-12	25-19-14	28-22-15	31-25-16
		NC							<15	15	18	24	30	36
8"	.403	Static									0.011	0.015	0.022	0.029
		Throw (ft)									20-13-9	23-17-12	26-21-14	30-24-13
		NC									<15	17	23	26

Notes:
- Static Pressure is in Inch of Water, Air volume is in CFM.
- NC values were determined by subtracting 10 dB from the sound power level for room absorption.
- Throw data is presented for terminal velocities of 50, 100 and 150 ft./min.

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✤ LFB 15MM BAR SPACING-15° DEFLECTION PERFORMANCE DATA

Nom. Width	Area Factor	CFM/FT	25	38	50	63	76	89	101	114	127	152	176	203	240
1½"	.040	Static	0.050	0.112	0.198	0.310	0.450	0.610							
		Throw(ft)	17-10-7	19-12-8	21-14-10	23-16-12	25-19-14	28-22-17							
		NC	<15	20	21	27	33	41							
2"	.068	Static		16-10-7	0.064	0.098	0.140	0.192	0.313	0.394	0.486				
		Throw(ft)		<15	19-13-9	21-15-11	23-17-13	25-19-15	27-21-16	29-23-18	31-24-20				
		NC			<15	21	27	32	35	38	42				
2½"	.095	Static			0.031	0.048	0.070	0.095	0.124	0.157	0.194	0.279			
		Throw(ft)			16-10-7	18-12-8	20-13-10	22-16-12	24-18-13	26-20-15	29-22-17	31-24-20			
		NC			<15	18	22	27	29	33	37	42			
3"	.123	Static				0.028	0.041	0.056	0.073	0.091	0.115	0.164	0.222		
		Throw(ft)				16-9-6	18-10-7	20-13-9	22-15-10	24-17-12	27-20-15	29-22-17	31-24-20		
		NC				<15	17	22	24	28	32	38	42		
3½"	.150	Static				0.019	0.027	0.037	0.048	0.061	0.075	0.108	0.148	0.192	
		Throw(ft)				16-9-7	18-11-8	21-14-10	22-15-11	24-17-12	26-19-15	29-21-17	32-24-20	35-27-21	
		NC				<15	16	20	21	26	30	36	40	44	
4"	.175	Static					0.018	0.026	0.032	0.044	0.052	0.078	0.106	0.138	
		Throw(ft)					18-13-9	20-15-10	21-16-11	23-17-13	26-19-15	29-21-17	32-24-19	35-28-21	
		NC					15	19	22	25	29	35	39	42	
5"	.230	Static						0.016	0.021	0.026	0.032	0.046	0.063	0.082	
		Throw(ft)						19-14-10	20-15-10	22-16-12	25-18-14	28-20-16	31-23-18	34-27-20	
		NC						18	21	24	28	34	38	41	
6"	.288	Static							0.014	0.018	0.023	0.032	0.044	0.058	0.081
		Throw(ft)							19-15-10	21-16-11	23-17-13	27-19-14	30-23-17	34-27-20	37-30-22
		NC							19	22	27	33	36	10	43
8"	.401	Static								0.01	0.013	0.019	0.025	0.033	0.047
		Throw(ft)								19-15-9	21-15-11	25-17-12	27-20-14	30-23-17	34-27-20
		NC								15	18	22	26	31	35

Notes:

- Static Pressure is in Inch of Water, Air volume is in CFM.
- NC values were determined by subtracting 10 dB from the sound power level for room absorption.
- Throw data is presented for terminal velocities of 50, 100 and 150 ft./min.

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LFB 15MM BAR SPACING-30° DEFLECTION PERFORMANCE DATA

Nom. Width	Area Factor	CFM/FT	25	38	50	63	76	89	101	114	127	152	176	203
1½"	.032	Static	0.052	0.118	0.212	0.325	0.48	0.625	0.731					
		Throw(ft)	16-9-6	18-10-7	20-12-9	22-16-12	25-19-14	28-21-15	32-26-20		.			
		NC	<15	16	20	26	30	36	44					
2"	0.06	Static		0.055	0.072	0.11	0.158	0.225	0.395	0.486				
		Throw(ft)		16-9-6	7-10-7	20-12-9	21-13-11	23-16-12	25-18-13	26-20-15				
		NC		<15	20	25	29	34	38	43				
2½"	0.087	Static			0.033	0.051	0.074	0.099	0.135	0.167	0.209			
		Throw(ft)			15-9-6	16-10-7	18-12-9	20-14-11	22-16-12	24-18-13	26-20-15			
		NC			15	19	23	29	32	36	42			
3"	0.116	Static				0.03	0.044	0.059	0.078	0.098	0.121	0.172		
		Throw(ft)				15-8-6	17-10-7	20-13-10	22-14-11	24-17-13	27-19-15	29-20-17		
		NC				16	19	24	27	32	39	43		
3½"	0.143	Static				0.021	0.029	0.039	0.05	0.064	0.078	0.114		
		Throw(ft)				15-9-7	17-11-8	20-13-11	22-15-12	24-17-13	26-19-15	29-19-16		
		NC				15	18	22	26	32	38	42		
4"	0.167	Static					0.018	0.024	0.028	0.032	0.051	0.078	0.106	
		Throw(ft)					17-13-9	18-14-10	20-15-12	21-16-13	23-18-14	26-20-15	28-22-17	
		NC					17	21	24	31	36	41	44	
5"	0.222	Static						0.018	0.022	0.029	0.035	0.051	0.069	0.097
		Throw(ft)						17-13-9	18-14-10	20-15-11	22-15-12	24-17-13	26-20-15	29-22-17
		NC						19	23	28	34	38	41	26
6"	0.282	Static							0.016	0.02	0.026	0.034	0.049	0.062
		Throw(ft)							20-15-10	22-16-12	26-19-14	30-22-15	32-24-18	36-29-22
		NC							21	26	32	36	40	45

Notes:
- Static Pressure is in Inch of Water, Air volume is in CFM.
- NC values were determined by susbtracting 10 dB from the sound power level for room absorption.
- Throw Data is presented for air terminal at 50, 100 and 150 ft./min.

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