Fineline Diffusers

SERIES LD linear bar grilles are designed for supply and return air distribution in heating, cooling and ventilating applications which call for diffusers having long or continuous slender appearance, fixed air discharge angles of zero or 15 degrees, and installed in walls, floors, sills or ceilings.

near Diffuser

CONSTRUCTION is of extruded aluminium face, bars and frame of alloy 6063-T5, notched mullions, mechanically compressed together to form a powerfully bonded core, which is welded at mullion ends to the frame. 'F' models for floor use, have double mullions and $30 \times 30 \times 15 \times 3$ Solid 'Z' frames.

Madal	Bar								
Model	Width mm	Spacing mm	Deflection						
LD-600	3.25	6.35	0°						
LD-615	3.25	6.35	15°						
LD-1200	3.25	12.5	0°						
LD-1215	3.25	12.5	15°						
LDH-1200	5.6	12.5	0°						
LDHF-1200+	5.6	12.5	0°						
LDH-1215	5.6	12.5	15°						
LDHF-1215+	5.6	12.5	15°						
LDH-2500*	5.6	25	٥٥						
LDH-2515*	5.6	25	15°						

* Return/Exhaust Diffuser

+ Suitable for floor applications

WIDTH maximum for 'F' models is:

Continuous traffic: 200mm, Occasional traffic: 300mm. All models can be furnished with mitred 90° corners, or other angles where templates are furnished to the factory. Refer illustrations on this sheet for corner descriptions. The minimum length is 200mm. The maximum length for a single section is 2.8m.

Accessory Damper

Available with opposed blade dampers, screwdriver operated through the face. Specify OBD#1.



General Notes to be read in conjunction with performance tables on the following pages.

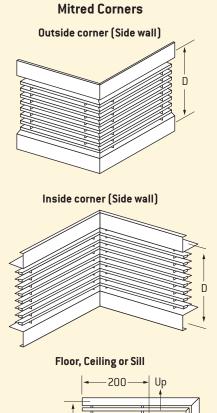
This data is reliable information for cooling, ventilating and heating applications.

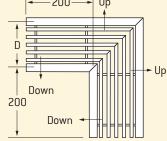
1. All pressures are Pa (N/m2).

2. Minimum throw values refer to a terminal velocity of 0.75 m/s and maximum to 0.25 m/s, for a 1200mm active section with a cooling temperature differential of 12°C.

The multiplier factors listed in the table below are applicable for other lengths.

	Terminal Velocity				
Active Length	0.75 m/s	0.25 m/s			
300mm	0.5	0.7			
3000mm Or Continuous	1.6	1.2			





Note: When specifying corners ensure to nominate the blade orientation (up or down) if using the 15° blade.

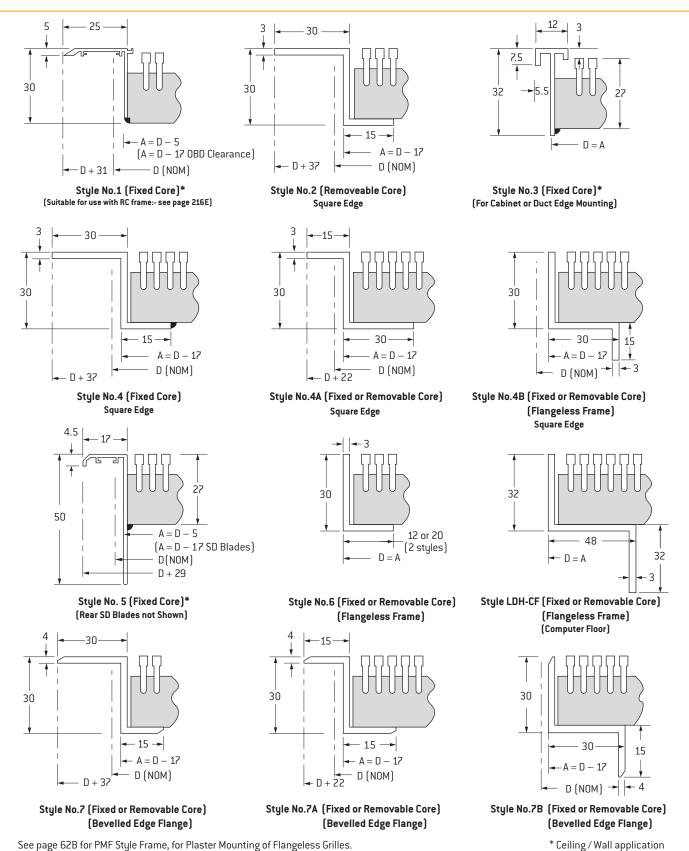
3. The NC values are based on a room absorption of 10dB, re 10⁻¹² watts and a 3000mm active section.

Use the following multipliers for other active lengths.

NC CORRECTION FOR LENGTH											
Active Length. mm	300	600	1000	1200	1800	2400	3000	4500	6000	7500	9000
	-10	-7	-5	-4	-2	-1	0	+2	+3	+4	+5

4. Return Intake - When used as a return intake the NC value given will be increased by 4 and the negative static pressure will be 0.8 times the total pressure shown.

Frame Styles –



See page 62B for PMF Style Frame, for Plaster Mounting of Flangeless Grilles.

Dimensional Notes

1. Where single piece units are required, maximum length is 2.8 metres. Unless otherwise specified these are furnished with mitred corners. 2. Where continuous lengths greater than 2.8 metres are required, modules will be selected as two end sections (one mitred corner end per section) and the required number of equal length intermediate sections with alignment strips.

3. Actual length 'A' is 'D'-17, unless shown to the contrary.

4. Other styles may be available, contact your local Holyoake branch.

LDH – Selection Data

Model: LDH-1200/LDHF-1200 ---

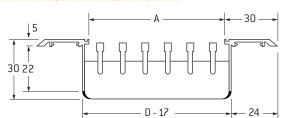
5.1

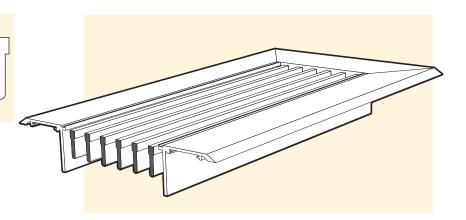
12.5

0° deflection 12.5mm spacing 5.1mm louver

Dimensions

D Listed Size	A Opening	Number of Bars		
		-		
50.0	21.0	2		
62.5	33.5	3		
75.0	46.0	4		
87.5	58.5	5		
100.0	71.0	6		
125.0	96.0	8		
150.0	121.0	10		





The same basic design as Model LD-1200 Linear Diffusers except that the Standard fixed, bar-type louvers are heavier 5.1 mm x 16mm as compared to 3.2 mm x 16mm.

Floor Application

Where required for floor use, specify LDHF-1200 to signify heavier construction.

LDHF-1200 grilles have double mullions and frame style 4 solid surround.

Continuous traffic maximum width 200mm.

Occasional traffic maximum width 300mm.

Size & Area m²/m	Total I	Pressure	3	6	10	16	23	31	40	51	63
	Flow	m³/s/m	0.028	0.042	0.056	0.070	0.084	0.098	0.111	0.126	0.140
50mm		NC	-	-	-	18	23	28	32	35	38
0.015	Throw,	Sill or Floor	0.3-0.3	1.2-1.2	2.1-2.1	2.7-3.0	3.0-4.0	4.0-4.9	4.3-5.5	4.6-6.1	5.2-6.4
0.015	m	Side Wall	0.9-2.1	1.5-3.7	2.1-4.9	2.7-6.1	3.0-7.0	3.9-7.9	4.3-8.5	4.6-9.2	5.2-10.0
60 F	Flow	m³/s/m	0.040	0.062	0.082	0.102	0.122	0.143	0.164	0.184	0.205
62.5mm		NC	-	-	-	20	25	30	34	37	40
0.021	Throw,	Sill or Floor	0.6-0.6	1.8-1.8	2.4-2.7	3.4-4.0	4.0-4.9	4.6-5.8	5.5-6.7	6.4-7.0	6.7-7.3
U.ULI	m	Side Wall	1.2-2.7	1.8-3.7	2.4-5.2	3.4-6.7	4.0-7.6	4.6-8.5	5.5-9.8	6.4-11.0	6.7-11.9
75mm	Flow	m³/s/m	0.054	0.082	0.109	0.136	0.164	0.191	0.219	0.245	0.273
rəmm		NC	-	-	-	21	26	31	35	38	41
0.029	Throw,	Sill or Floor	0.6-0.6	2.1-2.1	3.0-3.4	3.7-4.6	4.6-5.5	5.5-6.4	6.1-7.3	7.3-7.6	7.9-8.2
0.010	m	Side Wall	1.5-3.0	2.1-4.6	3.0-5.8	3.7-7.0	4.6-8.2	5.5-9.5	6.1-10.4	7.3-11.9	7.9-12.8
87.5mm	Flow m ³ /s/m		0.068	0.102	0.136	0.171	0.205	0.239	0.273	0.307	0.341
01.511111		NC	-	-	16	22	27	32	36	39	42
0.035	Throw,	Sill or Floor	0.9-0.9	2.4-2.4	3.7-3.7	4.6-4.9	5.5-6.1	6.1-6.7	7.0-7.6	7.6-8.2	8.8-8.8
	m	Side Wall	1.5-3.0	2.7-4.9	3.7-6.1	4.6-7.6	5.5-8.5	6.1-9.8	7.0-11.0	7.6-12.2	8.8-13.4
100mm		m³/s/m	0.082	0.124	0.164	0.206	0.248	0.288	0.330	0.370	0.403
100000		NC	-	-	17	23	28	33	37	40	43
0.041	Throw,	Sill or Floor	0.9-0.9	2.7-2.7	4.0-4.0	4.9-5.2	6.1-6.4	6.7-7.3	7.3-7.9	8.5-8.5	9.5-9.5
	m	Side Wall	1.8-3.4	3.0-5.2	4.0-6.4	4.9-7.9	6.1-9.2	6.7-10.4	7.3-11.3	8.5-12.8	9.5-14.0
125mm		m³/s/m	0.110	0.164	0.220	0.274	0.329	0.384	0.439	0.493	0.549
12,511111		NC	-	-	18	24	29	34	38	41	44
0.055	Throw,	Sill or Floor	1.2-1.2	3.0-3.0	4.6-4.6	5.5-5.5	6.7-7.0	7.6-7.6	8.2-8.5	9.2-9.2	10.4-10.4
	m	Side Wall	2.4-4.0	3.4-5.5	4.6-7.0	5.5-8.2	6.7-9.8	7.6-11.3	8.2-12.2	9.2-13.4	10.4-14.6
150mm		m³/s/m	0.138	0.206	0.276	0.344	0.412	0.481	0.550	0.629	0.689
12011111		NC	-	-	19	25	30	35	39	42	45
0.069	Throw,	Sill or Floor	1.5-1.5	3.0-3.0	4.6-4.6	5.8-5.8	7.0-7.0	7.6-7.6	8.8-8.8	9.5-9.5	11.0-11.0
0.000	m	Side Wall	2.7-4.3	4.0-6.1	4.9 -7 .3	6.1-8.8	7.3-10.4	8.5-11.9	9.2-12.5	10.4-14.0	11.6-15.3

Guide Product Weights					
Model	Approximate Weight in Kg per metre x 150mm				
LDH-1200	2.6				
LDHF-1200	3.4				

Note: Refer page 51B, Frame Style 4, for LDHF Surround.

LD, LDH, LDHF, LDSD & PMF

Diffuser Description Code Examples and Suggested Specifications

