



Series **LD, LD-SD, LDH, LDH-SD, LDHF, LDH - CF, LDH - 2500, MODULAR & PMF**

B

FRAMES	Frame Style Options	47B
LD	Linear Bar Grilles/Diffusers	46 - 48, 50, 52 & 56B
LD - SD	Linear Bar Grilles - Adjustable Rear Blades	49, 51, 53 & 57B
LDH	Linear Bar Grilles - Heavy Duty	54 & 58B
LDH - SD	Linear Bar Grilles - Heavy Duty - Adjustable Rear Blades	55 & 59B
LDHF	Linear Bar Grille - Heavy Duty - Floor	54 & 58B
LDH - CF	Computer Floor Grille	60B
LDH - 2500	Linear Bar Grilles - Return/Exhaust	61B
MODULAR	Floor Grilles	60B
PMF	Plaster Mounting Frame	62B
	Ordering Codes and Specification	63B

Twelve Frame Styles with Eight Standard Blade Configurations
Alternative Frame Widths
For Vertical or Horizontal Discharge
Trafficable floor grille, computer floor grille

All extruded aluminium construction
Blades mechanically compressed into notched mullion
Mitred corners in both planes



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.

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 x 30 x 15 x 3 Solid 'Z' frames.

Model	Bar		
	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	0°
LDH-2515*	5.6	25	15°

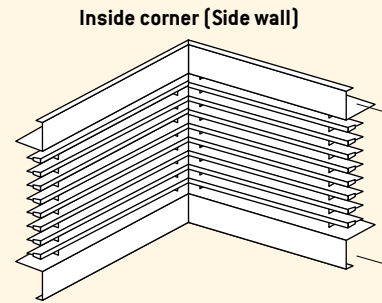
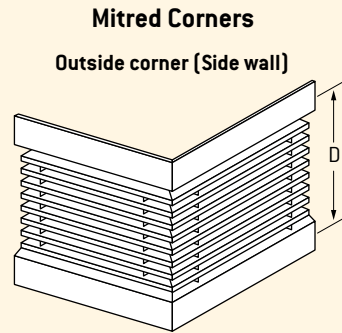
* Return/Exhaust Diffuser + Suitable for floor applications

WIDTH maximum for 'F' models is:

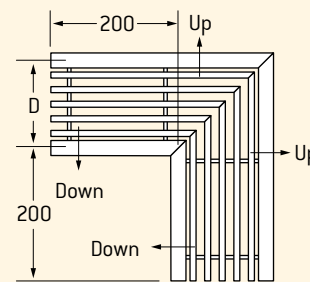
Continuous traffic: 200mm, Occasional traffic: 300mm. All models can be furnished with mitred 90° corners, or other angles where metal templates are furnished to the factory. Refer illustrations on this sheet for corner descriptions. The minimum length is 200mm. The maximum length for a single section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

Accessory Damper

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



Floor, Ceiling or Sill



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

Notes

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.

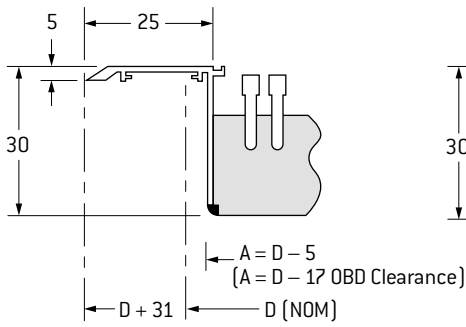
Active Length	Terminal Velocity	
	0.75 m/s	0.25 m/s
300mm	0.5	0.7
3000mm Or Continuous	1.6	1.2

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

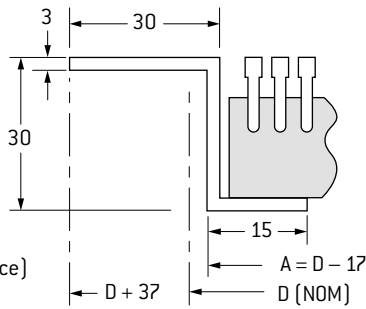
Use the following multipliers for other active lengths.

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

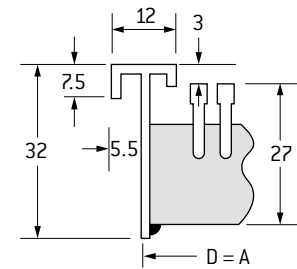
4. Return Intake - When used as a return intake the NC value given will be increased by 4 and the negative static pressure will be 0.8 times the total pressure shown.



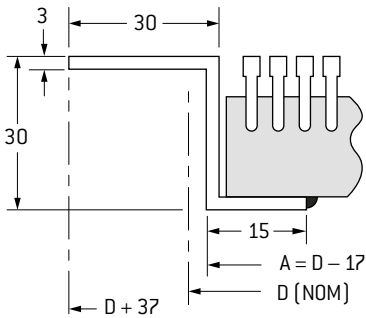
Style No.1 (Fixed Core)
(Suitable for use with RC frame:- see page 216E)



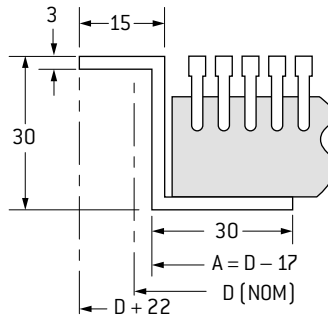
Style No.2 (Removeable Core)
Square Edge



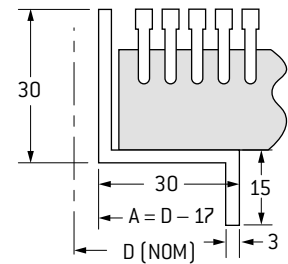
Style No.3 (Fixed Core)
(For Cabinet or Duct Edge Mounting)



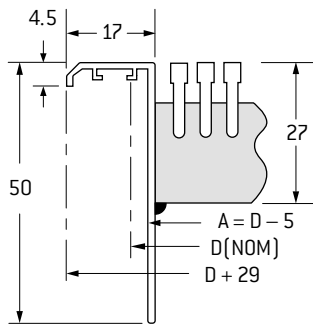
Style No.4 (Fixed Core)
Square Edge



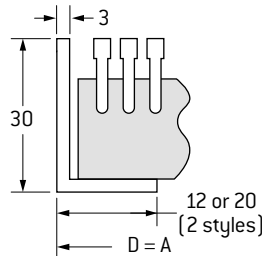
Style No.4A (Fixed or Removeable Core)
Square Edge



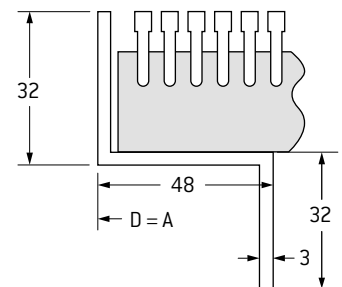
Style No.4B (Fixed or Removeable Core)
(Flangeless Frame)
Square Edge



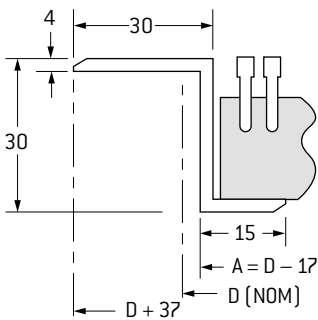
Style No.5 (Fixed Core)
(Rear SD Blades not Shown)



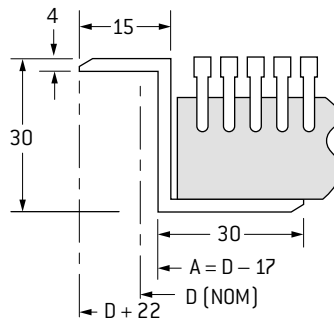
Style No.6 (Fixed or Removeable Core)
(Flangeless Frame)



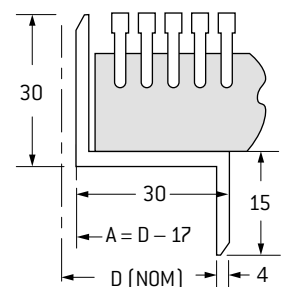
Style LDH-CF (Fixed or Removeable Core)
(Flangeless Frame)
(Computer Floor)



Style No.7 (Fixed or Removeable Core)
(Bevelled Edge Flange)



Style No.7A (Fixed or Removeable Core)
(Bevelled Edge Flange)



Style No.7B (Fixed or Removeable Core)
(Bevelled Edge Flange)

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

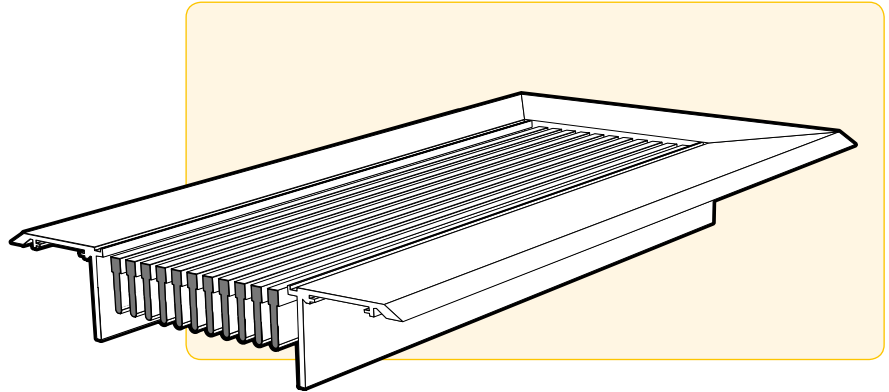
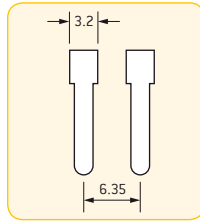
Dimensional Notes

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.



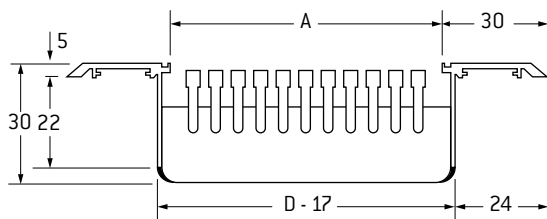
Model: LD-600

- 0° deflection
- 6.35mm spacing
- 3.2mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50.0	21.0	3
62.5	33.5	5
75.0	46.0	7
87.5	58.5	9
100.0	71.0	11
125.0	96.0	15
150.0	121.0	19



Outstanding performance, and versatility. For continuous line use on a large variety of applications. Use as supply or return. Equally efficient for heating, cooling, ventilating.

Features 3.2mm x 16mm fixed bar-type louvers on 6.35mm spacing parallel to long dimension of diffuser.

The LD600 is available with alternate frame types, refer to page 47B.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.

Size & Area m ² /m	Total Pressure	3	7	11	18	25	34	44	56	69
50mm	Flow m ³ /s/m	0.029	0.043	0.057	0.073	0.087	0.102	0.116	0.130	0.146
	NC	-	-	-	18	23	28	31	35	38
0.013	Throw, Sill or Floor	0.3-0.3	1.2-1.2	1.8-1.8	2.7-2.7	3.4-3.7	3.7-4.6	4.3-5.2	4.6-5.8	4.9-6.1
	Side Wall	0.9-2.1	1.5-3.4	2.1-4.6	2.7-5.8	3.4-6.7	3.7-7.6	4.3-8.2	4.6-8.8	4.9-9.8
62.5mm	Flow m ³ /s/m	0.040	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200
	NC	-	-	-	19	24	29	33	36	39
0.018	Throw, Sill or Floor	0.3-0.3	1.5-1.5	2.4-2.4	3.0-3.4	4.0-4.6	4.6-5.2	4.9-6.1	6.1-6.4	6.7-6.7
	Side Wall	1.2-2.4	1.8-3.7	2.4-4.9	3.0-6.1	4.0-7.3	4.6-8.2	4.9-9.2	6.1-10.4	6.7-11.6
75mm	Flow m ³ /s/m	0.051	0.078	0.102	0.129	0.155	0.180	0.206	0.231	0.257
	NC	-	-	-	20	25	30	34	37	40
0.024	Throw, Sill or Floor	0.6-0.6	1.8-1.8	2.7-3.0	3.7-4.0	4.6-5.2	5.5-6.1	6.1-6.7	7.0-7.0	7.6-7.6
	Side Wall	1.2-2.7	2.1-4.3	2.7-5.5	3.7-6.7	4.6-7.6	5.5-8.8	6.1-10.0	7.0-11.3	7.6-12.2
87.5mm	Flow m ³ /s/m	0.064	0.095	0.127	0.158	0.189	0.222	0.253	0.285	0.320
	NC	-	-	-	21	26	31	35	38	41
0.030	Throw, Sill or Floor	0.6-0.6	2.1-2.1	3.0-3.4	4.6-4.6	5.2-5.8	6.1-6.7	6.7-7.3	7.6-7.9	8.2-8.2
	Side Wall	1.5-3.0	2.4-4.6	3.0-6.1	4.6-7.3	5.2-8.2	6.1-9.5	6.7-10.7	7.6-11.9	8.2-12.8
100mm	Flow m ³ /s/m	0.076	0.113	0.152	0.189	0.223	0.265	0.302	0.340	0.378
	NC	-	-	16	22	28	32	36	39	42
0.035	Throw, Sill or Floor	0.9-0.9	2.4-2.4	3.7-4.0	4.6-4.9	5.8-6.1	6.4-7.0	7.3-7.6	7.9-8.2	9.2-9.2
	Side Wall	1.8-3.4	2.7-4.9	3.7-6.1	4.6-7.6	5.8-8.8	6.4-9.8	7.3-11.0	7.9-12.2	9.2-13.4
125mm	Flow m ³ /s/m	0.098	0.146	0.194	0.243	0.290	0.341	0.389	0.437	0.487
	NC	-	-	16	22	27	32	36	39	42
0.046	Throw, Sill or Floor	1.2-1.2	2.7-2.7	4.3-4.3	5.2-5.2	6.4-6.7	7.3-7.3	8.2-8.2	8.8-8.8	9.8-9.8
	Side Wall	2.1-3.7	3.4-5.5	4.3-6.7	5.2-7.9	6.4-9.5	7.3-10.7	8.2-11.9	9.2-13.1	10.0-14.3
150mm	Flow m ³ /s/m	0.120	0.180	0.240	0.300	0.361	0.422	0.480	0.541	0.601
	NC	-	-	18	24	29	34	37	41	44
0.058	Throw, Sill or Floor	1.5-1.5	3.0-3.0	4.6-4.6	5.5-5.5	7.0-7.0	7.6-7.6	8.8-8.8	9.5-9.5	10.4-10.4
	Side Wall	2.4-4.0	3.7-5.8	4.6-7.0	6.1-8.5	7.0-9.8	7.9-11.3	8.8-12.2	10.0-13.7	11.3-14.9

Guide Product Weights

Model	Approximate Weight in Kg per metre x 150mm
LD 600	2.34



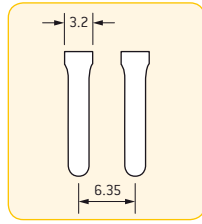
Model: **LD-600SD**

0° deflection - front blades

0° - 45° deflection - rear blades

6.35mm spacing

3.2mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50	30	3
75	55	7
100	80	11
125	105	15
150	130	19
200	180	28
250	230	36
300	280	44
350	330	48

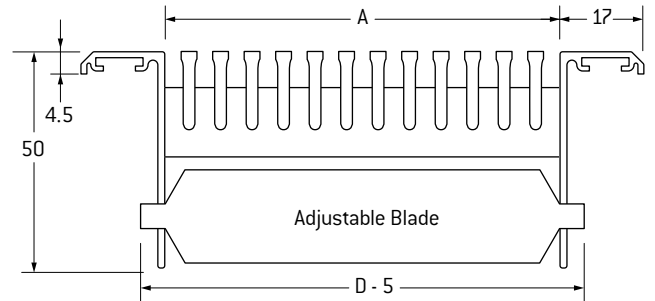
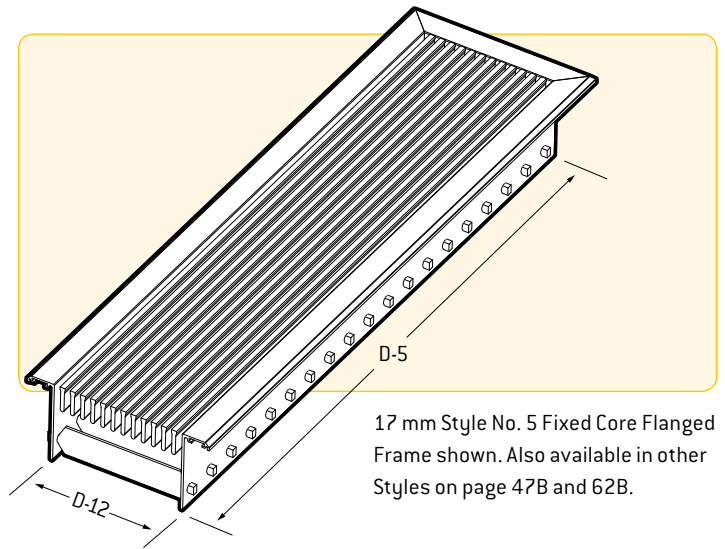
Ideal for apartment and hotel rooms this Linear Bar Grille has fixed blades at the front and adjustable blades behind allowing the supply air to be directed horizontally.

The narrow frame and fixed front blades (3.2mm x 16mm) on 6.35mm centres make this an attractive and versatile diffuser.

The LDS is available in any desired length and can also be supplied with alternative frame types including the PMF system.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.



Size	Total Pressure Pa	0°	3	7	11	18	25	34	44	56	69
		22.5°	4	8	13	22	30	40	51	66	83
		45°	5	11	18	29	41	55	70	86	103
50 mm	Flow m ³ /s/m	0.029	0.043	0.057	0.073	0.087	0.102	0.116	0.130	0.146	
	NC	-	-	-	18	23	28	31	35	38	
	Throw, m	0.9-2.1	1.5-3.4	2.1-4.6	2.7-5.8	3.4-6.7	3.7-7.6	4.3-8.2	4.6-8.8	4.9-9.8	
100 mm	Flow m ³ /s/m	0.076	0.113	0.152	0.189	0.223	0.265	0.302	0.340	0.378	
	NC	-	-	16	22	28	32	36	39	42	
	Throw, m	1.8-3.4	2.7-4.9	3.7-6.1	4.6-7.6	5.8-8.8	6.4-9.8	7.3-11.0	7.9-12.2	9.2-13.4	
150 mm	Flow m ³ /s/m	0.120	0.180	0.240	0.300	0.361	0.422	0.480	0.541	0.601	
	NC	-	-	18	24	29	34	37	41	44	
	Throw, m	2.4-4.0	3.7-5.8	4.6-7.0	6.1-8.5	7.0-9.8	7.9-11.3	8.8-12.2	10.0-13.7	11.3-14.9	
200 mm	Flow m ³ /s/m	0.152	0.226	0.304	0.378	0.446	0.530	0.604	0.680	0.756	
	NC	-	-	18	25	30	35	38	42	45	
	Throw, m	3.0-4.6	4.3-6.4	5.2-7.6	7.9-8.9	8.2-10.8	9.4-12.8	10.3-13.4	12.1-15.2	13.4-16.4	
250 mm	Flow m ³ /s/m	0.196	0.292	0.388	0.486	0.580	0.682	0.778	0.874	0.974	
	NC	-	18	22	27	32	35	39	43	46	
	Throw, m	3.6-5.2	4.9-7.0	5.8-8.2	9.4-10.9	9.7-11.8	10.9-14.3	11.8-14.6	14.2-16.7	15.5-17.9	
300 mm	Flow m ³ /s/m	0.240	0.360	0.480	0.600	0.722	0.844	0.960	1.082	1.202	
	NC	-	20	23	28	33	36	40	44	47	
	Throw, m	4.2-5.8	5.5-7.6	6.4-8.8	10.6-12.1	11.5-12.8	12.4-14.8	13.3-15.8	16.3-18.2	17.6-19.4	
350 mm	Flow m ³ /s/m	0.272	0.406	0.544	0.678	0.807	0.952	1.084	1.221	1.357	
	NC	18	21	24	28	34	37	42	45	48	
	Throw, m	4.8-6.4	6.1-8.2	7.0-9.4	11.8-13.3	12.8-13.8	13.9-15.6	14.8-17.0	18.4-19.7	19.7-20.9	

Guide Product Weights

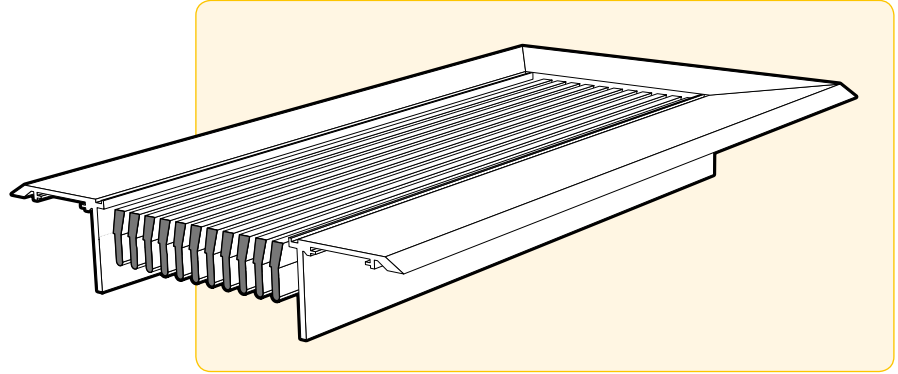
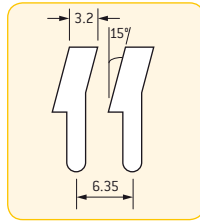
Model	Approximate Weight in Kg per metre x 150mm
LD 600SD	2.9

Note: 1. For deflection settings of 22.5 and 45 degrees, increase the stated sound levels by 1 and 7 NC respectively.
2. For deflection settings of 22.5 and 45 degrees, decrease the stated throws to 80% and 50% respectively. Refer page 190E.



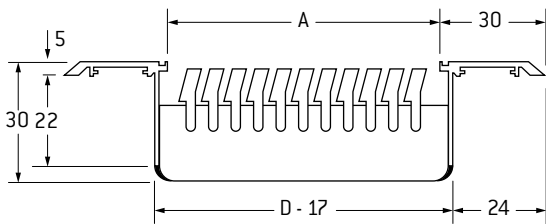
Model: LD-615

- 15° deflection
- 6.35mm spacing
- 3.2mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50.0	21.0	3
62.5	33.5	5
75.0	46.0	7
87.5	58.5	9
100.0	71.0	11
125.0	96.0	15
150.0	121.0	19



Same basic design as Model LD-600 except that Linear louvers are fixed at 15° deflection. Has same louver spacing on 6.35mm centres.

Pencil-proof. Furnished in all standard widths as shown below.

Available any desired width or length on special order only.

The LD615 is available with alternate frame types, refer to page 47B. When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.

Size & Area m ² /m	Total Pressure	4	7	13	20	28	38	50	63	78
50mm	Flow m ³ /s/m	0.031	0.045	0.060	0.076	0.091	0.107	0.121	0.136	0.152
	NC	-	-	20	26	31	36	40	43	46
0.014	Throw, Sill or Floor	0.3-0.3	1.2-1.2	1.8-1.8	2.1-2.1	3.4-3.7	3.7-4.6	4.3-5.5	4.6-5.8	4.9-6.1
	Side Wall	0.9-2.1	1.5-3.4	2.1-4.6	2.7-5.8	3.4-6.7	3.7-7.6	4.3-8.2	4.6-9.2	4.9-9.8
62.5mm	Flow m ³ /s/m	0.040	0.060	0.080	0.100	0.121	0.141	0.160	0.180	0.201
	NC	-	-	19	26	31	36	39	43	46
0.018	Throw, Sill or Floor	0.3-0.3	1.5-1.5	2.4-2.4	3.0-3.4	4.0-4.6	4.3-5.2	5.2-6.1	5.8-6.4	6.4-6.7
	Side Wall	1.2-2.4	1.8-3.7	2.4-4.9	3.0-6.1	4.0-7.3	4.3-7.9	5.2-9.2	5.8-10.0	6.4-11.0
75mm	Flow m ³ /s/m	0.050	0.076	0.102	0.127	0.152	0.163	0.203	0.229	0.254
	NC	-	-	20	26	31	36	40	43	46
0.022	Throw, Sill or Floor	0.6-0.6	1.8-1.8	2.7-2.7	3.7-4.0	4.6-4.9	5.2-5.8	6.1-6.7	6.4-7.0	7.0-7.3
	Side Wall	1.2-2.7	2.1-4.0	2.7-5.2	3.7-6.4	4.6-7.6	5.2-8.5	6.1-9.8	6.4-10.7	7.0-11.9
87.5mm	Flow m ³ /s/m	0.060	0.091	0.122	0.153	0.184	0.214	0.245	0.276	0.307
	NC	-	-	20	27	32	36	40	43	46
0.027	Throw, Sill or Floor	0.6-0.6	2.4-2.4	3.4-3.4	4.0-4.3	4.9-5.5	5.8-6.4	6.7-7.0	7.0-7.6	7.9-7.9
	Side Wall	1.5-2.7	2.4-4.3	3.4-5.8	4.0-6.7	4.9-7.9	5.8-9.2	6.7-10.4	7.0-11.3	7.9-12.5
100mm	Flow m ³ /s/m	0.073	0.109	0.146	0.181	0.217	0.254	0.290	0.341	0.363
	NC	-	-	21	27	33	37	41	44	47
0.032	Throw, Sill or Floor	0.9-0.9	2.7-2.7	3.7-3.7	4.6-4.6	5.5-6.1	4.6-6.7	7.0-7.6	7.6-7.9	8.5-8.5
	Side Wall	1.5-3.0	2.7-4.6	3.7-6.1	4.6-7.3	5.5-8.5	6.4-9.8	7.0-10.7	7.6-11.9	8.8-13.1
125mm	Flow m ³ /s/m	0.095	0.141	0.188	0.236	0.282	0.329	0.377	0.425	0.471
	NC	-	-	22	28	33	38	42	45	48
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	7.0-7.3	7.6-7.9	8.5-8.5	9.5-9.5
	Side Wall	2.1-3.7	3.0-5.2	4.3-6.7	4.9-7.6	6.1-9.2	7.1-10.4	7.6-11.3	8.5-12.5	9.5-13.7
150mm	Flow m ³ /s/m	0.115	0.172	0.231	0.288	0.346	0.403	0.462	0.519	0.577
	NC	-	-	22	29	34	39	42	46	49
0.050	Throw, Sill or Floor	1.2-1.2	3.0-3.0	4.3-4.3	5.5-5.5	6.7-6.7	7.6-7.6	8.5-8.5	9.2-9.2	9.8-9.8
	Side Wall	2.4-4.0	3.4-5.5	4.6-7.0	5.8-8.2	7.0-9.5	7.6-10.7	8.5-11.9	9.5-13.1	10.4-14.0

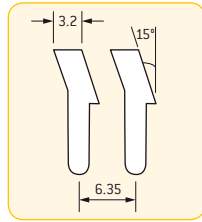
Guide Product Weights

Model	Approximate Weight in Kg per metre x 150mm
LD 615	2.09



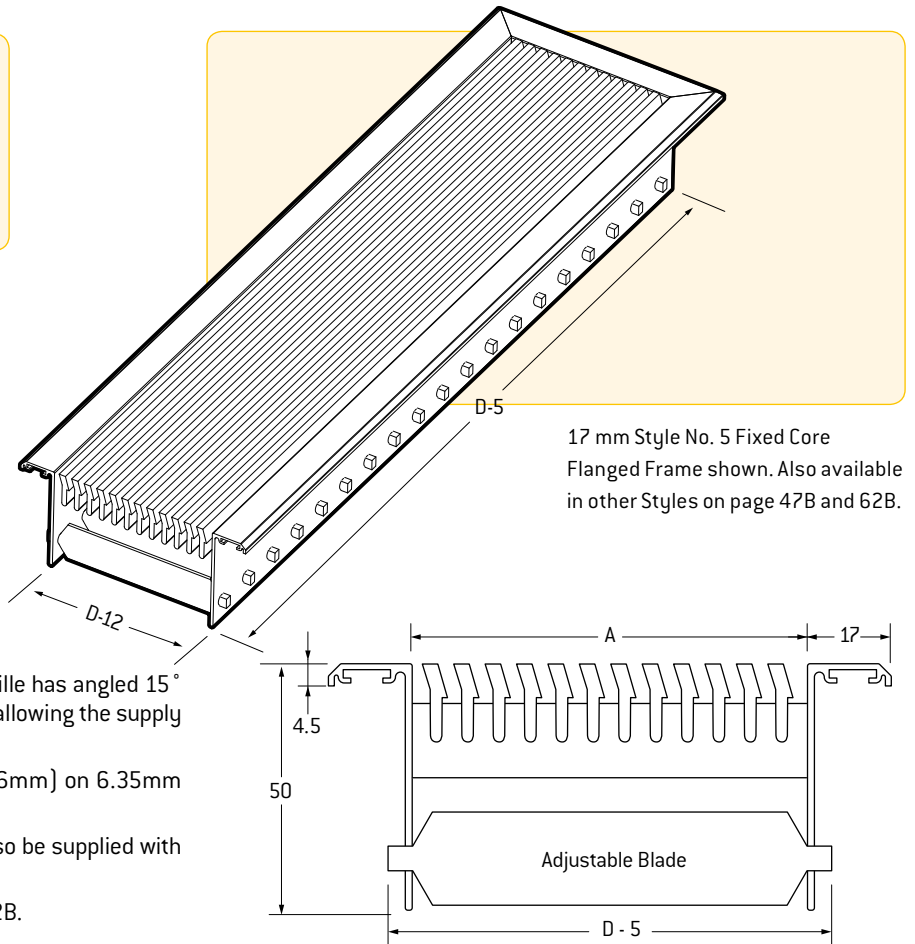
Model: **LD-615SD**

- 15° deflection - front blades
- 0° - 45° deflection - rear blades
- 6.35mm spacing
- 3.2mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50	30	3
75	55	7
100	80	11
125	105	15
150	130	19
200	180	28
250	230	36
300	280	44
350	330	48



Ideal for apartment and hotel rooms this Linear Bar Grille has angled 15° fixed blades at the front and adjustable blades behind allowing the supply air to be directed horizontally.

The narrow frame and fixed front blades (3.2mm x 16mm) on 6.35mm centres make this an attractive and versatile diffuser.

The LSD is available in any desired length and can also be supplied with alternative frame types including the PMF system.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.

Size	Total Pressure Pa	0°	4	7	13	20	28	38	50	63	78
		22.5°	4	7	13	20	28	40	53	66	82
		45°	4	8	14	23	33	49	65	81	97
50 mm	Flow m ³ /s/m	0.031	0.045	0.060	0.076	0.091	0.107	0.121	0.136	0.152	
	NC	-	-	20	26	31	36	40	43	46	
	Throw, m	0.9-2.1	1.5-3.4	2.1-4.6	2.7-5.8	3.4-6.7	3.7-7.6	4.3-8.2	4.6-9.2	4.9-9.8	
100 mm	Flow m ³ /s/m	0.073	0.109	0.146	0.181	0.217	0.254	0.290	0.341	0.363	
	NC	-	-	21	27	33	37	41	44	47	
	Throw, m	1.5-3.0	2.7-4.6	3.7-6.1	4.6-7.3	5.5-8.5	6.4-9.8	7.0-10.7	7.6-11.9	8.8-13.1	
150 mm	Flow m ³ /s/m	0.115	0.172	0.231	0.288	0.346	0.403	0.462	0.519	0.577	
	NC	-	-	22	29	34	39	42	46	49	
	Throw, m	2.4-4.0	3.4-5.5	4.6-7.0	5.8-8.2	7.0-9.5	7.6-10.7	8.5-11.9	9.5-13.1	10.4-14.0	
200 mm	Flow m ³ /s/m	0.146	0.218	0.292	0.362	0.434	0.508	0.580	0.682	0.726	
	NC	-	20	26	31	36	40	43	46	50	
	Throw, m	3.0-4.6	4.2-6.1	5.2-7.6	7.6-9.4	8.8-10.5	8.8-11.6	10.3-13.1	11.4-14.3	12.0-15.2	
250 mm	Flow m ³ /s/m	0.190	0.282	0.376	0.472	0.564	0.658	0.754	0.850	0.942	
	NC	-	21	27	33	37	41	44	47	51	
	Throw, m	3.6-5.2	5.0-6.7	5.8-8.2	8.4-10.6	10.6-11.5	10.9-12.5	12.1-14.3	13.3-15.5	13.6-16.4	
300 mm	Flow m ³ /s/m	0.230	0.344	0.462	0.576	0.692	0.806	0.924	1.038	1.154	
	NC	-	22	29	34	39	42	45	49	52	
	Throw, m	4.2-5.8	5.8-7.3	6.4-8.8	9.2-11.8	10.9-12.5	11.2-13.4	13.9-15.5	15.2-16.7	15.2-17.6	
350 mm	Flow m ³ /s/m	0.261	0.390	0.523	0.650	0.780	0.911	1.042	1.201	1.303	
	NC	22	25	30	35	40	43	46	50	53	
	Throw, m	4.8-6.4	6.6-7.9	7.0-9.4	9.8-13.0	11.2-13.5	12.4-14.3	15.7-16.7	17.1-17.9	16.8-18.8	

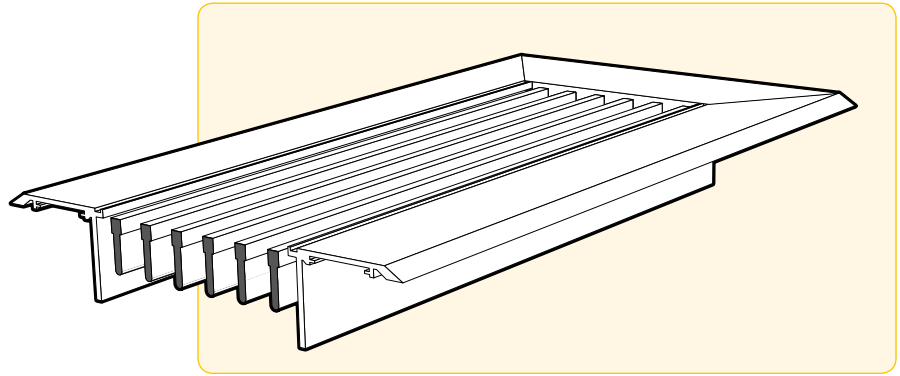
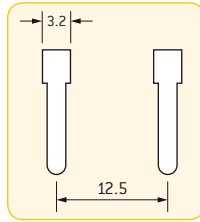
Guide Product Weights	
Model	Approximate Weight in Kg per metre x 150mm
LD 615SD	2.56

Note: 1. For deflection settings of 22.5 and 45 degrees, increase the stated sound levels by 1 and 7 NC respectively.
2. For deflection settings of 22.5 and 45 degrees, decrease the stated throws to 80% and 50% respectively. Refer to page 190E.



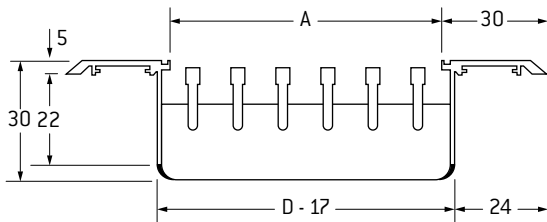
Model: LD-1200

0° deflection
12.5mm spacing
3.2mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
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 extruded design as LD-600 Linear Diffuser except that the 3.2mm x 16mm fixed bar-type louvers are spaced on 12.5mm centres.

Ideal for applications where greater capacity is needed and more free area is desired.

Use as supply or return. Equally efficient for heating, cooling, ventilating.

The LD 1200 is available with alternate frame types, refer to page 47B.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.

Size & Area m ² /m	Total Pressure	3	5	9	15	20	28	36	46	57
50mm	Flow m ³ /s/m	0.034	0.051	0.068	0.085	0.102	0.119	0.136	0.153	0.171
	NC	-	-	-	18	23	27	31	34	37
0.015	Throw, Sill or Floor	0.3-0.3	1.2-1.2	2.1-2.1	2.7-3.0	3.4-3.7	4.0-4.9	4.3-5.5	4.6-6.1	5.2-6.4
	Side Wall	0.9-2.1	1.5-3.7	2.1-4.9	2.7-6.1	3.4-7.0	4.0-7.9	4.3-8.5	4.6-9.2	5.2-10.0
62.5mm	Flow m ³ /s/m	0.047	0.068	0.091	0.115	0.138	0.161	0.183	0.206	0.229
	NC	-	-	-	17	22	26	30	33	36
0.020	Throw, Sill or Floor	0.3-0.3	1.5-1.5	2.7-2.7	3.4-3.7	4.0-4.6	4.6-5.2	5.2-6.4	6.1-7.0	7.0-7.6
	Side Wall	1.2-2.4	1.8-4.0	2.7-5.2	3.4-6.4	4.0-7.3	4.6-8.6	5.2-9.5	6.1-10.7	7.0-11.9
75mm	Flow m ³ /s/m	0.059	0.09	0.119	0.149	0.178	0.208	0.239	0.268	0.298
	NC	-	-	-	17	22	26	30	33	36
0.027	Throw, Sill or Floor	0.6-0.6	2.1-2.1	3.0-3.4	3.7-4.3	4.6-5.2	5.5-6.1	6.1-7.0	7.0-7.6	7.6-7.9
	Side Wall	1.5-3.0	2.1-5.2	3.0-5.8	3.7-7.0	4.6-7.9	5.5-9.2	6.1-10.4	7.0-11.6	7.6-12.5
87.5mm	Flow m ³ /s/m	0.071	0.107	0.144	0.180	0.215	0.251	0.289	0.342	0.360
	NC	-	-	-	17	22	26	30	33	36
0.034	Throw, Sill or Floor	0.9-0.9	2.4-2.4	3.7-3.7	4.6-4.9	5.5-6.1	6.1-7.0	7.0-7.6	7.6-8.2	8.8-8.8
	Side Wall	1.5-3.9	2.7-4.9	3.7-6.1	4.6-7.6	5.5-8.6	6.1-9.8	7.0-11.0	7.6-12.2	8.8-13.4
100mm	Flow m ³ /s/m	0.087	0.129	0.172	0.215	0.259	0.302	0.344	0.388	0.431
	NC	-	-	-	18	23	27	31	34	37
0.040	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	8.2-8.2	9.2-9.2
	Side Wall	1.8-3.4	3.0-5.2	4.0-6.4	4.9-7.6	6.1-9.2	6.7-10.4	7.3-11.3	8.5-12.8	9.5-13.7
125mm	Flow m ³ /s/m	0.112	0.166	0.222	0.277	0.333	0.388	0.443	0.499	0.555
	NC	-	-	-	18	23	27	31	34	37
0.053	Throw, Sill or Floor	1.2-1.2	3.0-3.0	4.3-4.3	5.5-5.5	6.7-7.0	7.3-7.3	8.2-8.5	9.2-9.5	9.8-9.8
	Side Wall	2.4-4.0	3.4-5.5	4.6-7.0	5.5-8.2	6.7-9.8	7.3-11.0	8.2-12.2	9.2-13.4	10.4-14.6
150mm	Flow m ³ /s/m	0.136	0.206	0.274	0.343	0.411	0.481	0.549	0.617	0.685
	NC	-	-	-	19	24	28	32	35	38
0.066	Throw, Sill or Floor	1.5-1.5	3.0-3.0	4.6-4.6	5.5-5.5	7.0-7.0	7.6-7.6	8.5-8.5	9.5-9.5	9.8-9.8
	Side Wall	2.7-4.6	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

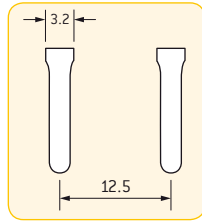
Guide Product Weights

Model	Approximate Weight in Kg per metre x 150mm
LD 1200	2.04



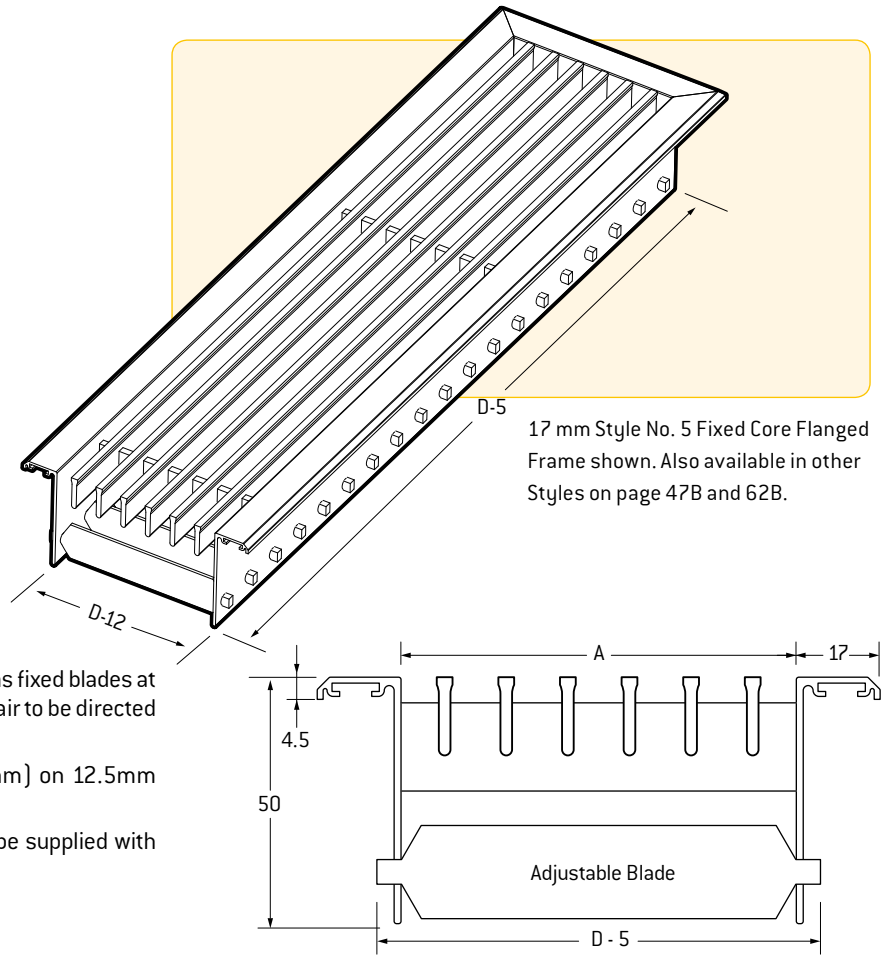
Model: **LD-1200SD**

- 0° deflection - front blades
- 0° - 45° deflection - rear blades
- 12.5mm spacing
- 3.2mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50	30	2
75	55	4
100	80	6
125	105	8
150	130	10
200	180	14
250	230	18
300	280	22
350	330	26



Ideal for apartment and hotel rooms this Linear Bar Grille has fixed blades at the front and adjustable blades behind allowing the supply air to be directed horizontally.

The narrow frame and fixed front blades (3.2mm x 16mm) on 12.5mm centres make this an attractive and versatile diffuser.

The LSD is available in any desired length and can also be supplied with alternative frame types including the PMF system.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.

Size	Total Pressure Pa	0°	3	5	9	15	20	28	36	46	57
		22.5°	4	6	11	17	24	33	41	53	64
		45°	6	9	15	25	32	46	58	74	86
50 mm	Flow m ³ /s/m	0.050	0.071	0.091	0.120	0.136	0.165	0.182	0.205	0.227	
	NC	<15	<15	<15	<15	15	19	23	27	30	
	Throw, m	1.5-3.7	2.2-5.1	2.9-6.4	4-7.9	4.3-8.5	5-9.7	5.6-10.5	6.3-11.5	7.1-12.5	
100 mm	Flow m ³ /s/m	0.107	0.129	0.176	0.218	0.255	0.298	0.337	0.392	0.423	
	NC	-	-	-	18	23	27	31	34	37	
	Throw, m	2.4-4.3	3.0-5.2	4.1-6.5	5.0-7.7	6.0-9.1	6.6-10.3	7.2-11.2	8.6-12.9	9.3-13.5	
150 mm	Flow m ³ /s/m	0.143	0.190	0.242	0.312	0.359	0.415	0.466	0.528	0.592	
	NC	-	-	-	18	23	26	31	34	37	
	Throw, m	2.8-4.8	3.7-5.8	4.5-6.7	5.6-8.1	6.4-9.2	7.4-10.5	8.2-11.6	9.0-12.3	10-13.4	
200 mm	Flow m ³ /s/m	0.213	0.261	0.336	0.428	0.480	0.536	0.647	0.784	0.846	
	NC	-	-	-	19	23	27	32	35	38	
	Throw, m	2.9-4.9	3.7-8.2	5.4-8.6	6.7-11.4	7.7-12.9	8.9-14.8	9.8-16.4	10.8-17.3	12-18.9	
250 mm	Flow m ³ /s/m	0.245	0.328	0.386	0.468	0.578	0.656	0.739	0.862	0.929	
	NC	-	-	-	19	23	27	32	35	38	
	Throw, m	2.8-5.3	4.5-8.3	5.2-8.5	5.8-10.3	7.2-12.7	8.1-14.4	9.2-16.3	10.7-19.0	11.5-20.5	
300 mm	Flow m ³ /s/m	0.251	0.352	0.490	0.632	0.718	0.830	0.932	1.056	1.184	
	NC	-	-	-	20	24	28	33	36	38	
	Throw, m	2.4-5.6	4.4-8.4	6.6-8.6	8.5-11.1	9.7-12.6	11.2-14.6	12.6-16.4	14.2-18.5	15.9-20.8	
350 mm	Flow m ³ /s/m	0.350	0.471	0.572	0.806	0.923	1.078	1.216	1.411	1.526	
	NC	-	-	-	20	24	28	33	36	38	
	Throw, m	2.9-6.7	5.9-8.6	6.9-10.0	9.7-14.1	11.1-16.2	13-18.9	14.6-21.3	17-24.8	18.4-26.8	

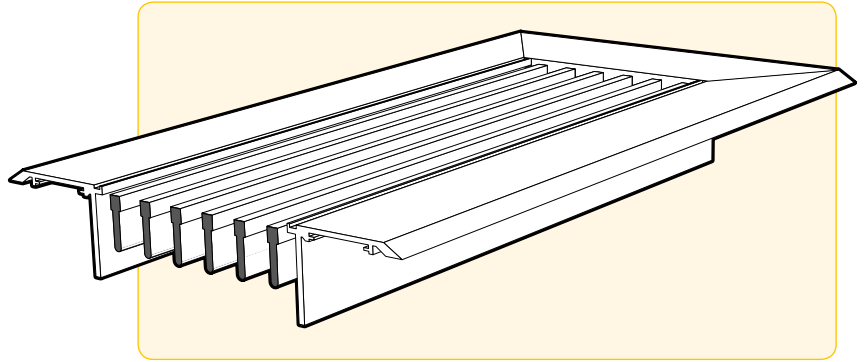
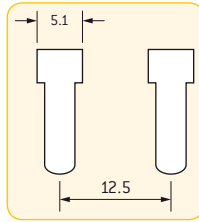
Guide Product Weights	
Model	Approximate Weight in Kg per metre x 150mm
LD 1200SD	2.51

- Note:**
- For deflection settings of 22.5 and 45 degrees, increase the stated sound levels by 1 and 7 NC respectively.
 - For deflection settings of 22.5 and 45 degrees, decrease the stated throws to 80% and 50% respectively. Refer to page 190E.



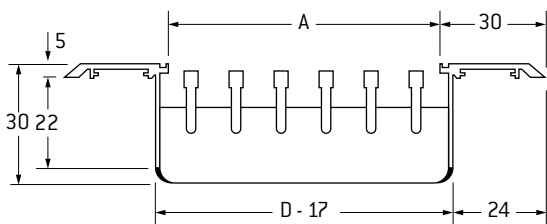
Model: LDH-1200/LDHF-1200

0° deflection
12.5mm spacing
5.1mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
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 5.1mm x 16mm as compared to 3.2mm 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 m ² /m	Total Pressure	3	6	10	16	23	31	40	51	63
50mm	Flow m ³ /s/m	0.028	0.042	0.056	0.070	0.084	0.098	0.111	0.126	0.140
	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
	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
62.5mm	Flow m ³ /s/m	0.040	0.062	0.082	0.102	0.122	0.143	0.164	0.184	0.205
	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
	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 m ³ /s/m	0.054	0.082	0.109	0.136	0.164	0.191	0.219	0.245	0.273
	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
	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
	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	Flow m ³ /s/m	0.082	0.124	0.164	0.206	0.248	0.288	0.330	0.370	0.403
	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	Flow m ³ /s/m	0.110	0.164	0.220	0.274	0.329	0.384	0.439	0.493	0.549
	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	Flow m ³ /s/m	0.138	0.206	0.276	0.344	0.412	0.481	0.550	0.629	0.689
	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
	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

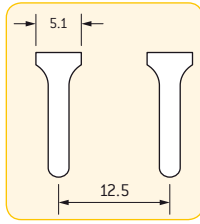
Model	Approximate Weight in Kg per metre x150mm
LDH-1200	2.6
LDHF-1200	3.4

Note: Refer page 47B, Frame Style 4, for LDHF Surround.



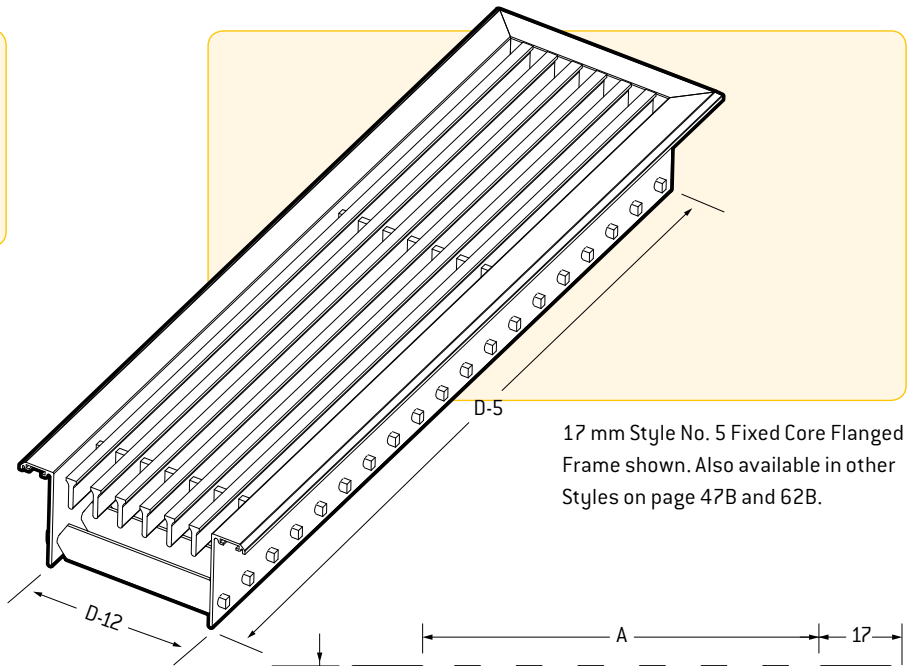
Model: **LDH-1200SD**

- 0° deflection - front blades
- 0° - 45° deflection - rear blades
- 12.5mm spacing
- 5.1mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50	30	2
75	55	4
100	80	6
125	105	8
150	130	10
200	180	14
250	230	18
300	280	22
350	330	26

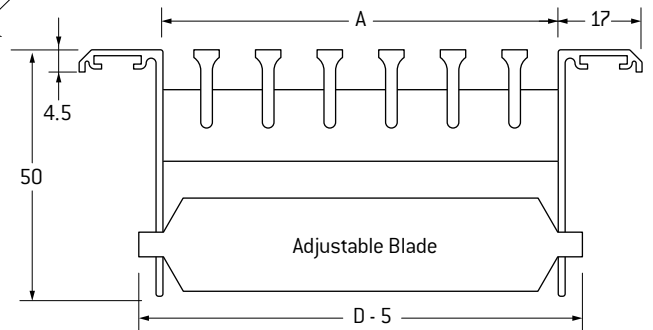


The same basic design as Model LD-1200SD Linear Bar Grille except that the standard fixed bar type louvers are heavier 5.1mm x 16mm as compared to 3.2mm x 16mm.

The LDS is available in any desired length and can also be supplied with alternative frame types including the PMF system.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.



Size	Total Pressure Pa	0°	3	6	10	16	23	31	40	51	63
		22.5°	5	8	14	21	30	36	59	75	99
		45°	5	9	15	23	33	45	72	91	117
50 mm	Flow m ³ /s/m	0.028	0.042	0.056	0.070	0.084	0.098	0.111	0.126	0.140	
	NC	-	-	-	18	23	28	32	35	38	
	Throw, m	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	
100 mm	Flow m ³ /s/m	0.082	0.124	0.164	0.206	0.248	0.288	0.330	0.370	0.403	
	NC	-	-	17	23	28	33	37	40	43	
	Throw, m	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	
150 mm	Flow m ³ /s/m	0.138	0.206	0.276	0.344	0.412	0.481	0.55	0.629	0.689	
	NC	-	-	19	25	30	35	39	42	45	
	Throw, m	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	
200 mm	Flow m ³ /s/m	0.164	0.248	0.328	0.412	0.496	0.576	0.660	0.740	0.806	
	NC	-	-	20	26	31	35	40	43	46	
	Throw, m	3.3-4.9	5.2-7.3	5.5-7.9	7.3-10.0	8.5-11.6	10.3-13.1	11.2-13.9	12.8-15.8	14.0-16.7	
250 mm	Flow m ³ /s/m	0.221	0.338	0.445	0.552	0.669	0.774	0.882	0.998	1.092	
	NC	-	-	20	26	31	35	40	43	46	
	Throw, m	3.9-5.5	6.4-7.7	6.6-8.5	7.1-11.2	9.7-12.8	12.1-14.3	13.2-15.3	15.2-17.6	16.4-18.1	
300 mm	Flow m ³ /s/m	0.276	0.412	0.552	0.688	0.824	0.962	1.100	1.258	1.378	
	NC	-	19	22	26	32	36	40	43	47	
	Throw, m	4.5-6.1	7.6-8.5	8.2-9.1	9.7-12.4	10.9-14.0	13.9-15.5	15.2-16.7	17.6-19.4	18.8-20.7	
350 mm	Flow m ³ /s/m	0.302	0.454	0.604	0.756	0.908	1.058	1.210	1.370	1.496	
	NC	-	19	22	27	32	36	41	43	47	
	Throw, m	5.1-6.7	8.8-9.3	9.3-9.7	10.9-13.6	12.1-15.2	15.7-16.7	17.2-18.1	20.0-21.2	21.2-22.5	

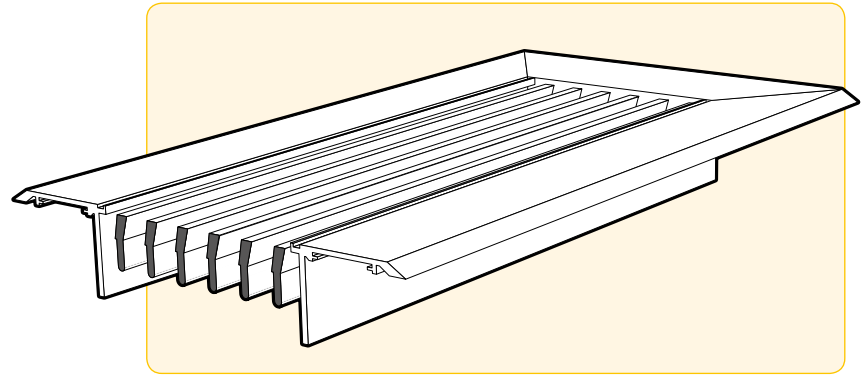
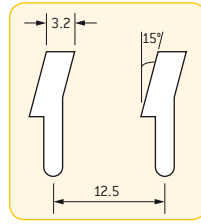
Guide Product Weights	
Model	Approximate Weight in Kg per metre x 150mm
LDH-1200SD	3.2

- Note:** 1. For deflection settings of 22.5 and 45 degrees, increase the stated sound levels by 1 and 7 NC respectively.
 2. For deflection settings of 22.5 and 45 degrees, decrease the stated throws to 80% and 50% respectively. Refer to page 190E.



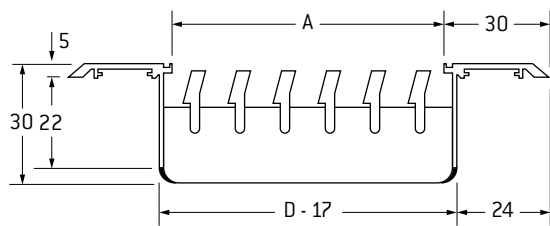
Model: LD-1215

15° deflection
12.5mm spacing
3.2mm louver



Dimensions

D	A	Number
Listed Size	Opening	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 extruded design as LD-615 Linear Diffuser except that the 3.2mm x 16mm fixed bar-type louvers are spaced on 12.5mm centres.

The wider spaced louvers make this diffuser ideal on applications where greater capacity is needed and more free area is desired.

Use as supply or return. Equally efficient for heating, cooling, ventilating. The LD 1215 is available with alternate frame types, refer to page 47B. When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.

Size & Area m ² /m	Total Pressure	3	5	9	15	20	28	36	46	57
50mm	Flow m ³ /s/m	0.034	0.053	0.070	0.087	0.104	0.121	0.140	0.157	0.174
	NC	-	-	19	25	30	35	39	43	46
0.015	Throw, Sill or Floor	0.3-0.3	1.2-1.2	2.1-2.1	2.7-3.0	3.4-4.0	3.7-4.9	4.3-5.5	4.6-6.1	5.5-6.4
	Side Wall	0.9-2.1	1.5-3.7	2.1-4.9	2.7-6.1	3.4-7.0	3.7-7.6	4.3-8.2	4.6-9.0	5.5-10.4
62.5mm	Flow m ³ /s/m	0.047	0.070	0.093	0.116	0.140	0.163	0.186	0.209	0.233
	NC	-	-	18	24	29	34	38	42	45
0.021	Throw, Sill or Floor	0.3-0.3	1.5-1.5	2.4-2.7	3.4-3.7	4.0-4.6	4.6-5.5	5.2-6.4	6.1-6.7	6.7-7.0
	Side Wall	1.2-2.4	1.8-4.0	2.4-5.2	3.4-6.4	4.0-7.6	4.6-8.2	5.2-9.5	6.1-10.7	6.7-11.6
75mm	Flow m ³ /s/m	0.057	0.087	0.115	0.144	0.174	0.202	0.231	0.259	0.288
	NC	-	-	17	23	28	33	37	41	44
0.025	Throw, Sill or Floor	0.6-0.6	1.8-1.8	3.0-3.0	3.7-4.0	4.6-5.2	5.5-6.1	6.1-7.0	7.0-7.3	7.6-7.6
	Side Wall	1.2-2.7	2.1-4.3	3.0-5.5	3.7-6.7	4.6-7.9	5.5-9.2	6.1-10.1	7.0-11.3	7.6-12.2
87.5mm	Flow m ³ /s/m	0.070	0.105	0.140	0.175	0.210	0.245	0.281	0.315	0.350
	NC	-	-	17	23	28	33	37	41	44
0.030	Throw, Sill or Floor	0.6-0.6	2.1-2.1	3.7-3.7	4.3-4.6	5.2-5.8	6.1-6.7	6.7-7.3	7.6-7.9	8.2-8.2
	Side Wall	1.5-3.1	2.4-4.6	3.7-6.1	4.3-7.0	5.2-8.2	6.1-9.5	6.7-10.7	7.6-11.9	8.2-12.8
100mm	Flow m ³ /s/m	0.082	0.126	0.164	0.206	0.248	0.288	0.329	0.370	0.412
	NC	-	-	18	24	29	34	38	42	45
0.036	Throw, Sill or Floor	0.9-0.9	2.4-2.7	4.0-4.0	4.6-4.9	5.8-6.1	6.7-7.0	7.3-7.6	7.9-8.2	9.2-9.2
	Side Wall	1.8-3.4	2.7-4.9	4.0-6.4	4.6-7.3	5.8-8.8	6.7-10.1	7.3-11.0	7.9-12.2	9.2-13.4
125mm	Flow m ³ /s/m	0.107	0.161	0.214	0.268	0.322	0.375	0.429	0.484	0.536
	NC	-	10	18	24	29	34	38	42	45
0.047	Throw, Sill or Floor	1.2-1.2	2.7-2.7	4.3-4.3	5.2-5.2	6.1-6.7	7.3-7.3	8.0-8.2	8.8-8.8	9.8-9.8
	Side Wall	2.4-4.0	3.4-5.5	4.6-7.0	5.2-7.9	6.1-9.5	7.3-10.7	8.0-11.6	8.8-12.8	9.8-14.0
150mm	Flow m ³ /s/m	0.132	0.197	0.264	0.329	0.394	0.459	0.525	0.592	0.657
	NC	-	-	18	24	29	34	38	42	45
0.058	Throw, Sill or Floor	1.5-1.5	3.0-3.0	4.6-4.6	5.5-5.5	7.0-7.0	7.6-7.6	8.5-8.5	9.2-9.2	10.4-10.4
	Side Wall	2.7-4.3	4.0-6.1	4.9-7.3	6.1-8.5	7.1-9.8	7.6-11.0	8.5-11.9	9.5-13.1	10.7-14.3

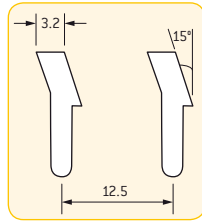
Guide Product Weights

Model	Approximate Weight in Kg per metre x 150mm
LD1215	1.8



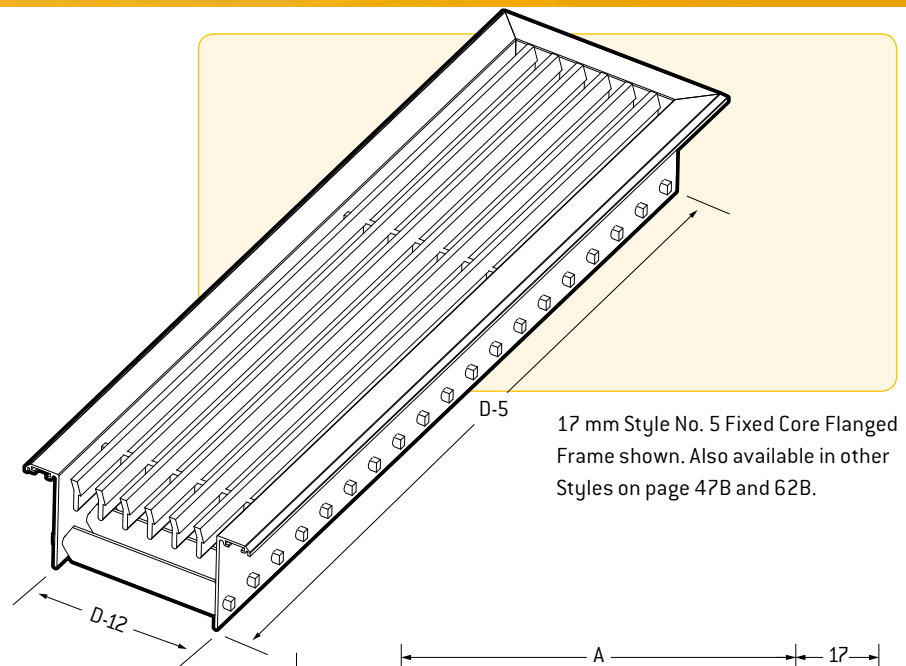
Model: LD-1215SD

- 15° deflection - front blades
- 0° - 45° deflection - rear blades
- 12.5mm spacing
- 3.2mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50	30	2
75	55	4
100	80	6
125	105	8
150	130	10
200	180	14
250	230	18
300	280	22
350	330	26



17 mm Style No. 5 Fixed Core Flanged Frame shown. Also available in other Styles on page 47B and 62B.

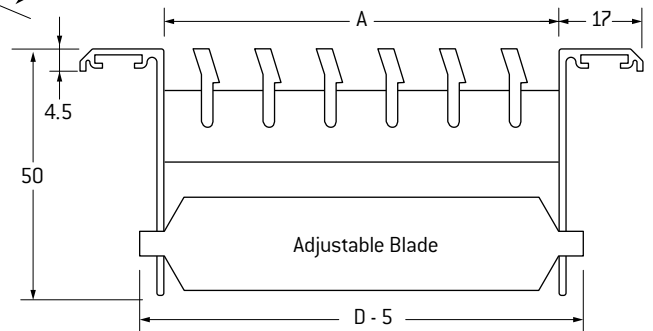
Ideal for apartment and hotel rooms this Linear Bar Grille has angled 15° fixed blades at the front and adjustable blades behind allowing the supply air to be directed horizontally.

The narrow frame and fixed front blades (3.2mm x 16mm) on 12.5mm centres make this an attractive and versatile diffuser.

The LDS is available in any desired length and can also be supplied with alternative frame types including the PMF system.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.



Size	Total Pressure Pa	0°	3	5	9	15	20	28	36	46	57
		22.5°	5	8	12	18	25	36	45	57	71
		45°	8	12	20	29	40	56	69	87	107
50 mm	Flow m ³ /s/m	0.034	0.053	0.070	0.087	0.104	0.121	0.140	0.157	0.174	0.174
	NC	-	-	19	25	30	35	39	43	46	46
	Throw, m	0.9-2.1	1.5-3.7	2.1-4.9	2.7-6.1	3.4-7.0	3.7-7.6	4.3-8.2	4.6-9.0	5.5-10.4	5.5-10.4
100 mm	Flow m ³ /s/m	0.082	0.126	0.164	0.206	0.248	0.288	0.329	0.370	0.412	0.412
	NC	-	-	18	24	29	34	38	42	45	45
	Throw, m	1.8-3.4	2.7-4.9	4.0-6.4	4.6-7.3	5.8-8.8	6.7-10.1	7.3-11.0	7.9-12.2	9.2-13.4	9.2-13.4
150 mm	Flow m ³ /s/m	0.132	0.197	0.264	0.329	0.394	0.459	0.525	0.592	0.657	0.657
	NC	-	-	18	24	29	34	38	42	45	45
	Throw, m	2.7-4.3	4.0-6.1	4.9-7.3	6.1-8.5	7.1-9.8	7.6-11.0	8.5-11.9	9.5-13.1	10.7-14.3	10.7-14.3
200 mm	Flow m ³ /s/m	0.164	0.252	0.328	0.412	0.496	0.576	0.658	0.740	0.824	0.824
	NC	-	-	19	25	30	36	39	43	46	46
	Throw, m	3.3-4.9	5.2-7.3	5.5-7.9	7.9-9.7	8.2-10.4	9.1-11.6	9.5-12.5	10.9-13.7	12.5-14.9	12.5-14.9
250 mm	Flow m ³ /s/m	0.214	0.323	0.428	0.535	0.642	0.747	0.854	0.962	1.069	1.069
	NC	-	-	20	26	31	37	39	43	46	46
	Throw, m	3.9-5.5	6.1-7.8	6.4-8.5	8.8-10.9	9.7-11.8	10.5-12.2	11-13.1	12.3-14.3	14.3-15.5	14.3-15.5
300 mm	Flow m ³ /s/m	0.264	0.394	0.528	0.658	0.788	0.918	1.050	1.184	1.314	1.314
	NC	-	19	22	27	32	38	40	43	47	47
	Throw, m	4.5-6.1	6.7-9.1	7.6-9.7	9.4-11.5	10.6-12.1	11.5-12.8	12.2-13.7	13.7-14.9	14.8-16.1	14.8-16.1
350 mm	Flow m ³ /s/m	0.360	0.559	0.720	0.907	1.094	1.296	1.449	1.628	1.815	1.815
	NC	-	19	22	27	33	39	41	44	47	47
	Throw, m	5.1-6.7	7.3-9.7	8.8-10.9	9.7-11.8	11.1-12.2	11.9-13.4	12.5-14.3	14.1-15.5	15.2-17.9	15.2-17.9

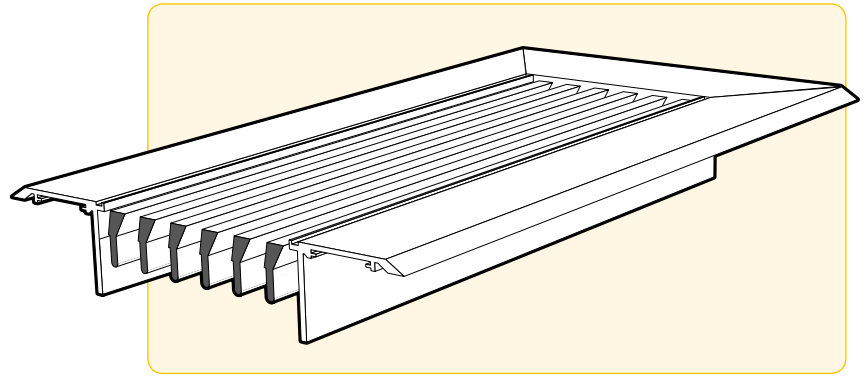
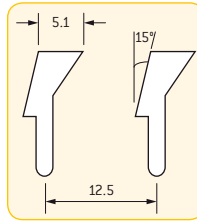
Guide Product Weights	
Model	Approximate Weight in Kg per metre x 150mm
LD1215SD	2.21

- Note:** 1. For deflection settings of 22.5 and 45 degrees, increase the stated sound levels by 1 and 7 NC respectively.
2. For deflection settings of 22.5 and 45 degrees, decrease the stated throws to 80% and 50% respectively. Refer to page 190E.



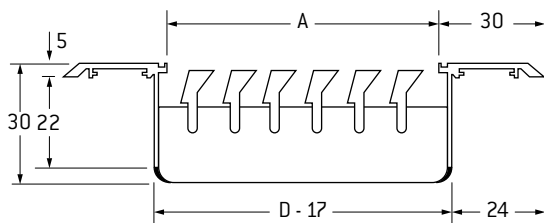
Model: LDH-1215/LDHF-1215

15° deflection
12.5mm spacing
5.1mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
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



Same basic design as Model LDH-1200 except that louvers are fixed at 15° deflection. Louvers are spaced on 12.5 centres. Furnished in all standard widths as shown below.

Floor Application

Where required for floor use, specify LDHF-1215 to signify heavier construction.

LDHF-1215 grilles have double mullions and frame style 4 solid surround.

Continuous traffic maximum width 200mm.

Occasional traffic maximum width 300mm.

Size & Area m ² /m	Total Pressure	3	7	12	19	27	37	48	61	75
50mm	Flow m ³ /s/m	0.029	0.045	0.059	0.074	0.090	0.104	0.119	0.133	0.149
	NC	-	-	19	26	31	36	40	43	46
0.015	Throw, Sill or Floor	0.3-0.3	1.2-1.2	2.1-2.1	2.7-3.0	3.4-4.0	3.7-4.6	4.3-5.5	4.9-6.1	5.2-6.7
	m Side Wall	0.9-2.1	1.5-3.7	2.1-4.9	2.7-6.1	3.4-7.0	3.7-7.6	4.3-8.5	4.9-9.5	5.2-10.0
62.5mm	Flow m ³ /s/m	0.042	0.062	0.084	0.104	0.124	0.146	0.166	0.186	0.208
	NC	-	-	19	26	31	36	40	43	46
0.020	Throw, Sill or Floor	0.3-0.3	1.5-1.5	2.7-2.7	3.4-3.7	4.0-4.6	4.6-5.5	5.2-6.4	6.1-6.7	6.7-7.0
	m Side Wall	1.2-2.4	1.8-4.0	2.7-5.2	3.4-6.4	4.0-7.3	4.6-8.2	5.2-9.5	6.1-10.4	6.7-11.6
75mm	Flow m ³ /s/m	0.053	0.085	0.107	0.133	0.160	0.186	0.214	0.240	0.267
	NC	-	-	19	26	31	36	40	43	46
0.026	Throw, Sill or Floor	0.6-0.6	1.8-1.8	3.0-3.4	3.7-4.3	4.6-5.5	5.5-6.1	6.1-7.0	7.0-7.6	7.6-7.6
	m Side Wall	1.2-2.7	2.1-4.3	3.0-5.5	3.7-6.7	4.6-7.9	5.5-9.2	6.1-10.1	7.0-11.3	7.6-12.2
87.5mm	Flow m ³ /s/m	0.065	0.098	0.130	0.163	0.195	0.228	0.260	0.293	0.326
	NC	-	-	20	27	32	37	41	44	47
0.032	Throw, Sill or Floor	0.6-0.6	2.4-2.4	3.4-3.7	4.6-4.6	5.2-5.8	6.4-6.7	6.7-7.6	7.6-7.9	8.5-8.8
	m Side Wall	1.5-3.0	2.4-4.6	3.4-6.1	4.6-7.3	5.2-8.5	6.4-10.0	6.7-10.7	7.6-11.9	8.5-13.1
100mm	Flow m ³ /s/m	0.079	0.118	0.158	0.197	0.236	0.276	0.315	0.353	0.394
	NC	-	-	21	28	33	38	42	45	48
0.038	Throw, Sill or Floor	0.9-0.9	2.7-2.7	4.0-4.0	4.9-5.2	5.8-6.4	6.7-7.0	7.3-7.9	8.2-8.2	9.2-9.2
	m Side Wall	1.8-3.4	3.0-5.2	4.0-6.4	4.9-7.6	5.8-8.8	6.7-10.1	7.3-11.3	8.2-12.5	9.2-13.4
125mm	Flow m ³ /s/m	0.104	0.155	0.208	0.259	0.310	0.363	0.414	0.467	0.518
	NC	-	-	21	28	33	38	42	45	48
0.050	Throw, Sill or Floor	1.2-1.2	3.0-3.0	4.3-4.3	5.5-5.5	6.4-6.7	7.3-7.6	7.9-8.5	9.2-9.2	9.8-9.8
	m Side Wall	2.4-4.0	3.4-5.5	4.3-7.0	5.5-8.2	6.4-9.5	7.3-10.7	7.9-11.9	9.2-13.1	9.8-14.0
150mm	Flow m ³ /s/m	0.130	0.195	0.260	0.326	0.391	0.456	0.521	0.586	0.651
	NC	-	-	23	30	35	40	44	47	50
0.064	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	8.5-8.8	9.5-9.5	10.7-10.7
	m Side Wall	2.7-4.6	4.0-6.1	5.2-7.6	6.1-8.8	7.0-10.0	7.9-11.3	8.5-12.2	9.2-13.4	10.7-14.3

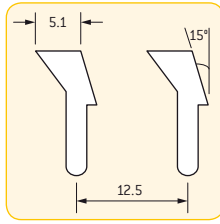
Guide Product Weights

Model	Approximate Weight in Kg per metre x 150mm
LDH-1215	2.3
LDHF-1215	3.0



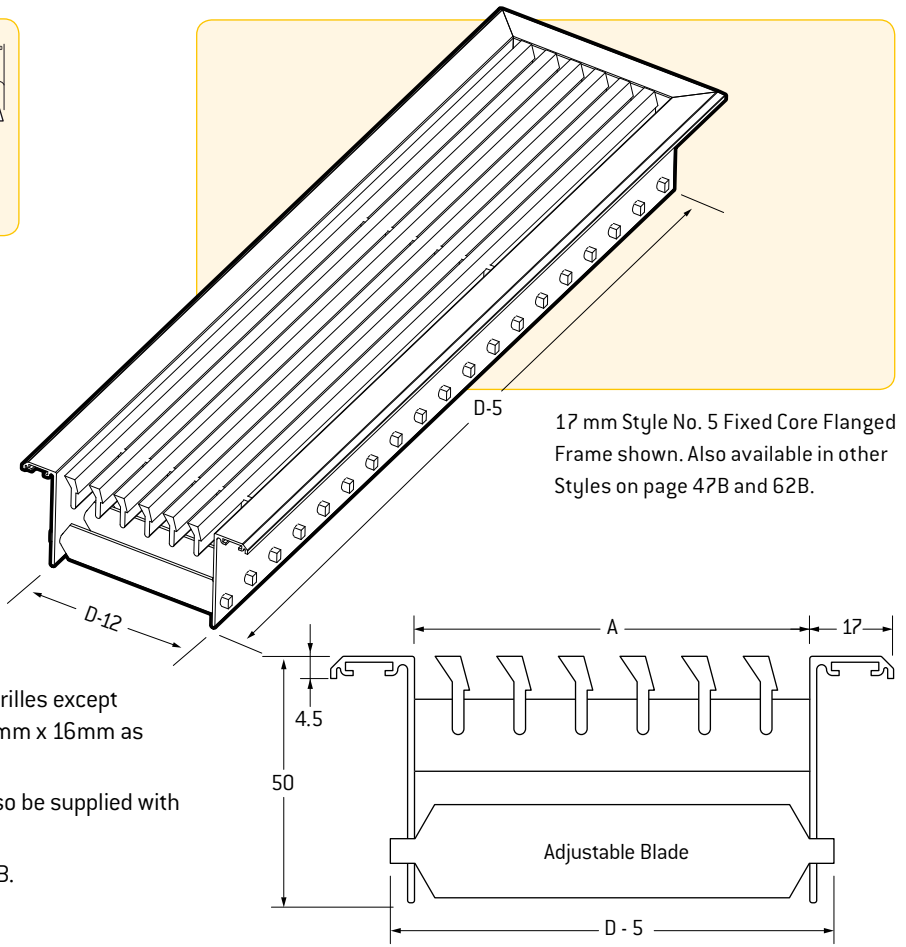
Model: LDH-1215SD

- 15° deflection - front blades
- 0° - 45° deflection - rear blades
- 12.5mm spacing
- 5.1mm louver



Dimensions

D	A	Number of Bars
Listed Size	Opening	
50	30	2
75	55	4
100	80	6
125	105	8
150	130	10
200	180	14
250	230	18
300	280	22
350	330	26



The same basic design as Model LD-1215SD Linear Bar Grilles except that the standard fixed bar type louvers are heavier 5.1mm x 16mm as compared to 3.2mm x 16mm.

The LDHSD is available in any desired length and can also be supplied with alternative frame types including the PMF system.

When used with the PMF System, see notes on page 62B.

Not suitable for floor applications.

Size	Total Pressure Pa	0°	3	7	12	19	27	37	48	61	75
		22.5°	4	9	17	25	36	47	62	77	90
		45°	4	11	19	30	44	57	74	93	106
50 mm	Flow m ³ /s/m	0.029	0.045	0.059	0.074	0.090	0.104	0.119	0.133	0.149	
	NC	-	-	19	26	31	36	40	43	46	
	Throw, m	0.9-2.1	1.5-3.7	2.1-4.9	2.7-6.1	3.4-7.0	3.7-7.6	4.3-8.5	4.9-9.5	5.2-10.0	
100 mm	Flow m ³ /s/m	0.079	0.118	0.158	0.197	0.236	0.276	0.315	0.353	0.394	
	NC	-	-	21	28	33	38	42	45	48	
	Throw, m	1.8-3.4	3.0-5.2	4.0-6.4	4.9-7.6	5.8-8.8	6.7-10.1	7.3-11.3	8.2-12.5	9.2-13.4	
150 mm	Flow m ³ /s/m	0.130	0.195	0.260	0.326	0.391	0.456	0.521	0.586	0.651	
	NC	-	-	23	30	35	40	44	47	50	
	Throw, m	2.7-4.6	4.0-6.1	5.2-7.6	6.1-8.8	7.0-10.0	7.9-11.3	8.5-12.2	9.2-13.4	10.7-14.3	
200 mm	Flow m ³ /s/m	0.158	0.236	0.316	0.394	0.472	0.552	0.630	0.706	0.788	
	NC	-	-	23	30	35	40	44	47	50	
	Throw, m	3.3-5.8	5.2-7.3	7.0-8.8	7.3-10.0	8.2-11.0	9.1-12.5	9.7-12.8	10.2-14.0	12.5-14.9	
250 mm	Flow m ³ /s/m	0.210	0.314	0.418	0.524	0.628	0.732	0.836	0.940	1.046	
	NC	-	-	24	31	36	41	45	48	51	
	Throw, m	3.9-7.0	6.4-8.5	7.8-10.0	8.5-11.2	9.4-12.0	10.3-13.7	10.9-13.4	11.2-14.6	14.3-15.5	
300 mm	Flow m ³ /s/m	0.260	0.390	0.520	0.652	0.782	0.912	1.042	1.172	1.302	
	NC	-	20	25	32	37	42	46	48	51	
	Throw, m	4.5-8.2	7.6-9.7	8.6-11.2	9.7-12.4	10.6-13.0	11.5-14.9	12.1-14.0	12.2-15.2	13.6-16.1	
350 mm	Flow m ³ /s/m	0.288	0.432	0.576	0.720	0.864	1.008	1.152	1.292	1.440	
	NC	-	20	25	32	37	42	46	48	51	
	Throw, m	5.1-9.4	8.8-10.9	9.4-12.4	10.9-13.6	11.8-14.0	12.7-16.1	13.3-16.3	13.8-16.5	14.5-16.7	

Guide Product Weights	
Model	Approximate Weight in Kg per metre x 150mm
LD1215SD	2.9

- Note:** 1. For deflection settings of 22.5 and 45 degrees, increase the stated sound levels by 1 and 7 NC respectively.
 2. For deflection settings of 22.5 and 45 degrees, decrease the stated throws to 80% and 50% respectively. Refer to page 190E.



Modular Floor Grilles

Modular Floor Grilles are available with parallel or cruciform mullions, using 115 x 115mm square LD or LDH – removeable core elements.

Sizing Parameters

D = Nominal Duct Size

A = Actual Neck Size

N = Number of Core Elements

$$D = N \times 120 + 20$$

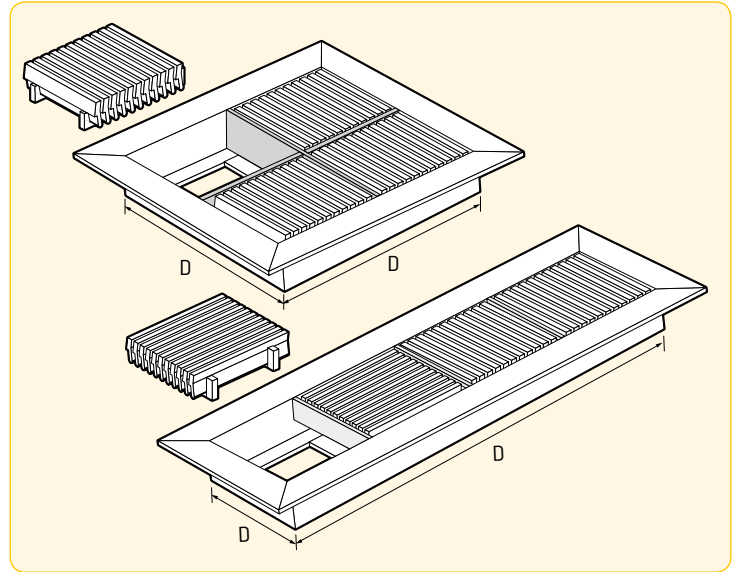
$$A = N \times 120 + 3$$

e.g. $2 \times 120 = 240 + 20 = 260$ Nominal Duct

$2 \times 120 = 240 + 3 = 243$ Actual Neck

Cores may be 0 degrees or offset 15 degrees to achieve a range of discharge patterns.

Construction is of Style 2 or 7 outer Frame with core and mullion as applicable.



Model: LDH-CF Computer Floor Grille

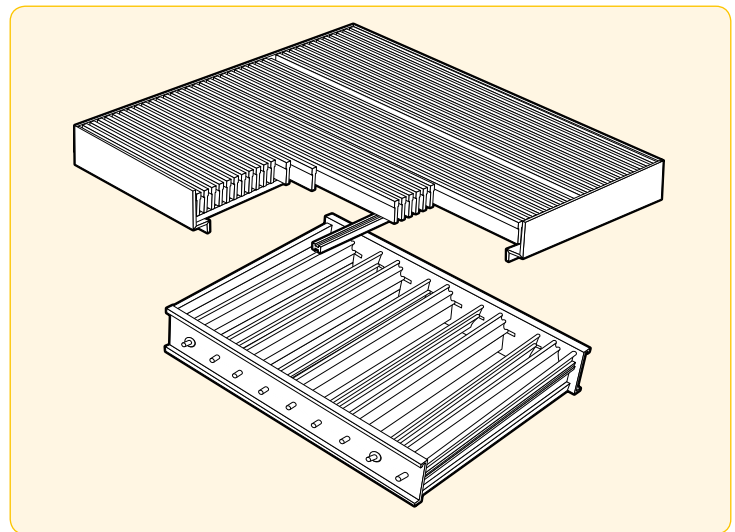
Heavy extruded aluminium construction with double mullion support bars notched at each blade intersection. The assembly is compressed mechanically to form a powerful bond between blades and mullions.

Vertical throw units have been independently tested to 500kg concentrated load on an area of 645mm² (1 square inch) at the centre. Deflection under load is 0.66mm and there is no permanent deflection.

Units are also available with 15° air divergence left, centre 0° and 15° right, in equal sections, to provide a wider spread of discharge air, and a reduction of approximately 20% of rated throw.

Grilles are manufactured in standard 600 x 600 modules, 32 mm thick and are designed to replace any standard floor tile. They are compatible with most computer floor systems.

For Special Size, Thickness and Discharge applications, refer to your local Holyoake Branch.



MODULE 600 x 600: 0° DEFLECTION

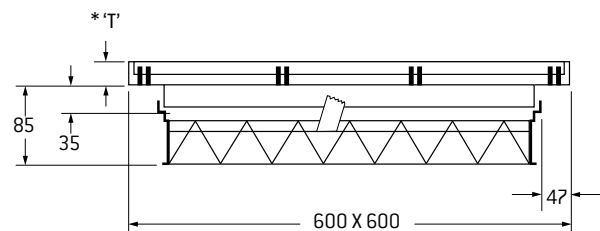
m ³ /s	0.174	0.340	0.505	0.672	0.838	1.004
N. C.	-	11	20	28	34	39
Throw M	1.0	1.5	3.0	4.5	6.0	7.0
Total Pressure Pa	1	2	5	10	16	22

Accessories

Volume control damper OBD #2 (adjustable through louver face).

Guide Product Weights

Model	Approximate Weight in Kg
Modular Floor Grilles	Based on configuration and accessories
LDH-CF	Based on configuration and accessories

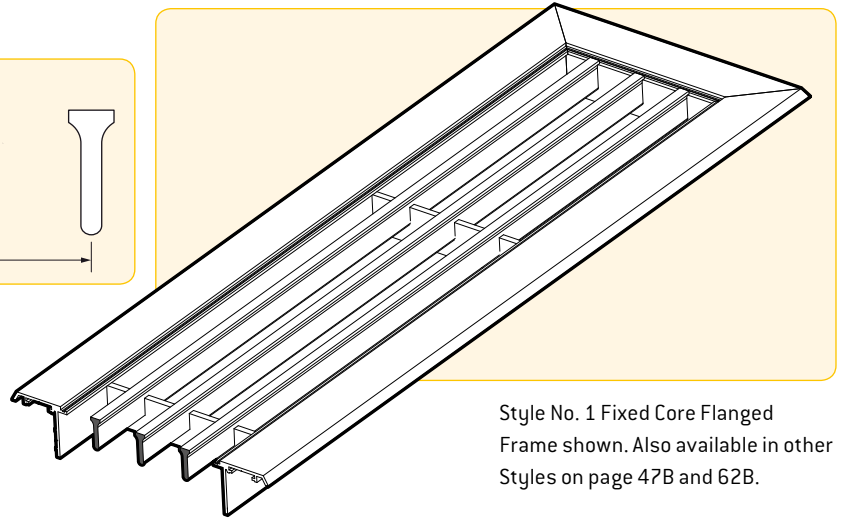
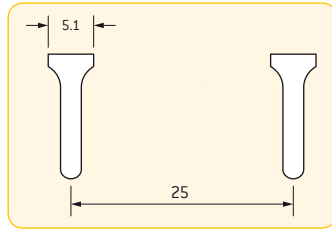


* Dimension 'T' [Tile thickness] must be specified at time of order, between limits of 50 and 25mm. Where 'T' is less than 32mm, continuous support is required along all four sides to maintain the concentrated load bearing strength.



Model: **LDH-2500 Return/Exhaust Grille**

0° deflection
25mm spacing
5.1mm louver



Style No. 1 Fixed Core Flanged Frame shown. Also available in other Styles on page 47B and 62B.

Dimensions

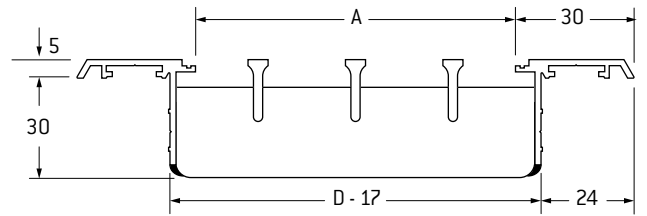
D	A	Number of Bars
Listed Size	Opening	
150	120	4
200	170	6
250	220	8
300	270	10
400	370	14
500	470	18
600	570	22
700	670	26
800	770	30

The LDH-2500 Linear Return/Exhaust Diffuser has heavy bar type louvers spaced at 25mm centres. It is available in any desired length and can also be supplied with alternative frame types including the PMF system and RC Frame. When used with the PMF system see notes on page 62B.

Model LDH-2515 is also available - same construction as the LDH-2500 but with angled 15° fixed blades.

Heavy Duty Application

Where heavy duty application is required, specify LDHF-2500 to signify heavier construction. These grilles have double mullions and frame style 4 solid surround. **Not suitable for floor applications.**



Core Area m ²	Nominal Size (mm)	Core Velocity (m/s)	2.18	2.73	3.27	3.92	4.41	5.01	5.61	6.10	6.76	8.01	
			Vel Pressure (Pa)	3	4	6	9	12	15	19	22	27	39
			Neg SP (Pa)	8	12	16	23	29	37	45	54	65	88
				NC 20						NC 30			
0.013	150 x 150	m ³ /s	0.040	0.050	0.060	0.072	0.081	0.092	0.103	0.112	0.124	0.147	
		NC	-	-	-	-	15	18	22	24	26	31	
0.025	200 x 200	m ³ /s	0.071	0.094	0.113	0.141	0.157	0.179	0.204	0.212	0.234	0.278	
		NC	-	-	-	15	18	22	24	26	31	33	
0.041	250 x 250	m ³ /s	0.112	0.153	0.165	0.211	0.232	0.265	0.305	0.313	0.343	0.410	
		NC	-	-	-	18	22	24	26	31	33	36	
0.060	300 x 300	m ³ /s	0.133	0.182	0.218	0.280	0.308	0.352	0.406	0.413	0.453	0.541	
		NC	-	-	-	20	21	25	31	32	34	39	
0.111	400 x 400	m ³ /s	0.311	0.412	0.495	0.618	0.688	0.784	0.894	0.929	1.020	1.220	
		NC	-	-	18	21	25	31	32	34	36	40	
0.177	500 x 500	m ³ /s	0.481	0.657	0.709	0.907	0.997	1.140	1.310	1.340	1.470	1.760	
		NC	-	15	20	24	30	32	33	35	38	42	
0.259	600 x 600	m ³ /s	0.565	0.774	0.927	1.190	1.309	1.496	1.726	1.755	1.925	2.299	
		NC	-	18	22	26	31	33	35	37	39	44	
0.355	700 x 700	m ³ /s	0.888	1.187	1.426	1.795	1.991	2.272	2.599	2.683	2.956	3.517	
		NC	-	18	22	26	31	33	35	37	39	44	
0.467	800 x 800	m ³ /s	1.244	1.647	1.980	2.470	2.751	3.136	3.574	3.714	4.100	4.871	
		NC	-	19	23	27	32	34	35	38	40	45	
0.596	900 x 900	m ³ /s	1.584	2.138	2.408	3.048	3.369	3.845	4.408	4.547	4.998	5.959	
		NC	-	21	24	30	32	33	35	38	42	46	
0.736	1000 x 1000	m ³ /s	1.925	2.630	2.836	3.627	3.988	4.555	5.242	5.380	5.895	7.047	
		NC	20	23	27	32	34	35	38	43	45	48	

Guide Product Weights

Model	Approximate Weight in Kg per metre x 150mm
LDH-2500	2.3



The Holyoake Flangeless Grille Series - PMF, has been developed to keep pace with contemporary interior designs.

The Series PMF is versatile and can be used with all LD Series Linear Bar Grilles.

Designed for sidewall applications* the Grille Series – PMF offers a new approach to interior air supply/return.

For supply and return applications, the Holyoake Series PMF Flangeless Frame Grilles are the least intrusive sidewall supply or return air product on the market.

Construction

Constructed from extruded aluminium to precise Holyoake quality standards, the Holyoake PMF Plaster Mounting Frame makes flangeless grille installation easy and provides a superior finish.

Installation

The PMF plaster mounting frame negates the need for any costly additional aperture framing or nogging and is fitted into the wall or bulkhead cavity prior to the wall lining being applied.

The PMF mounting frame can be fitted using rivets, nails, or adhesive, although drive or Tek screws are the most efficient method.

A series of grooves in the mounting frame are provided to prevent screw run-off.

Once the wall lining is in place, the applicator can stop and finish the wall opening up to the PMF frame edge and prepare the surface for paint finishes.

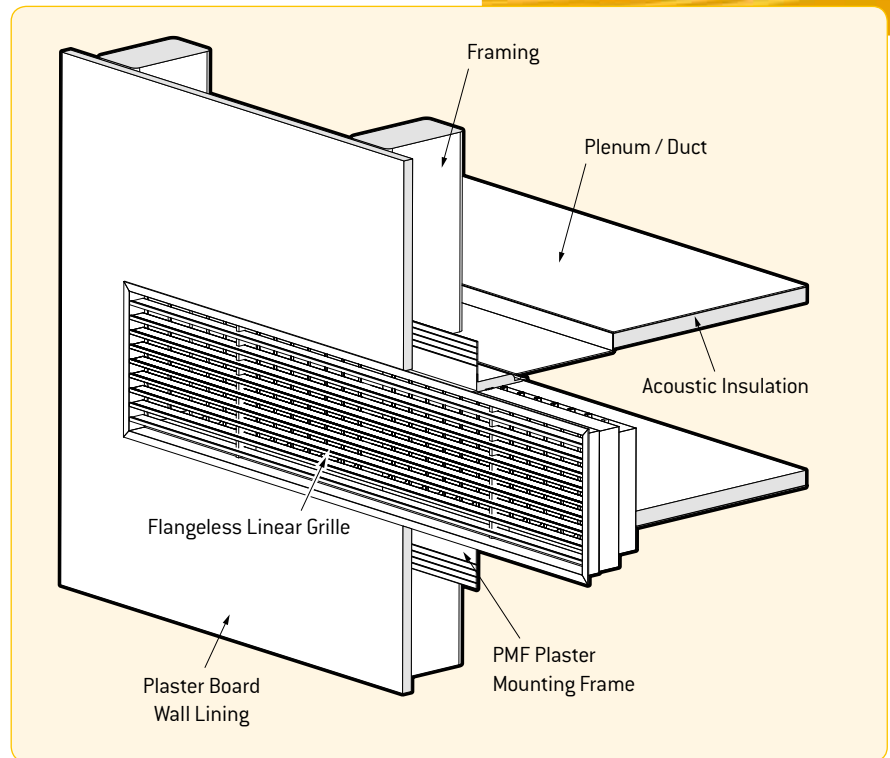
The Series - PMF Flangeless Grille need only be fitted to the complete and finished wall by pushing the grille into the mounting frame firmly, the retaining clip will grip the serrations in the frame and pull the grille up neatly to the wall surface.

* Also suitable for ceiling or floor mounting, with appropriate construction.

Notes

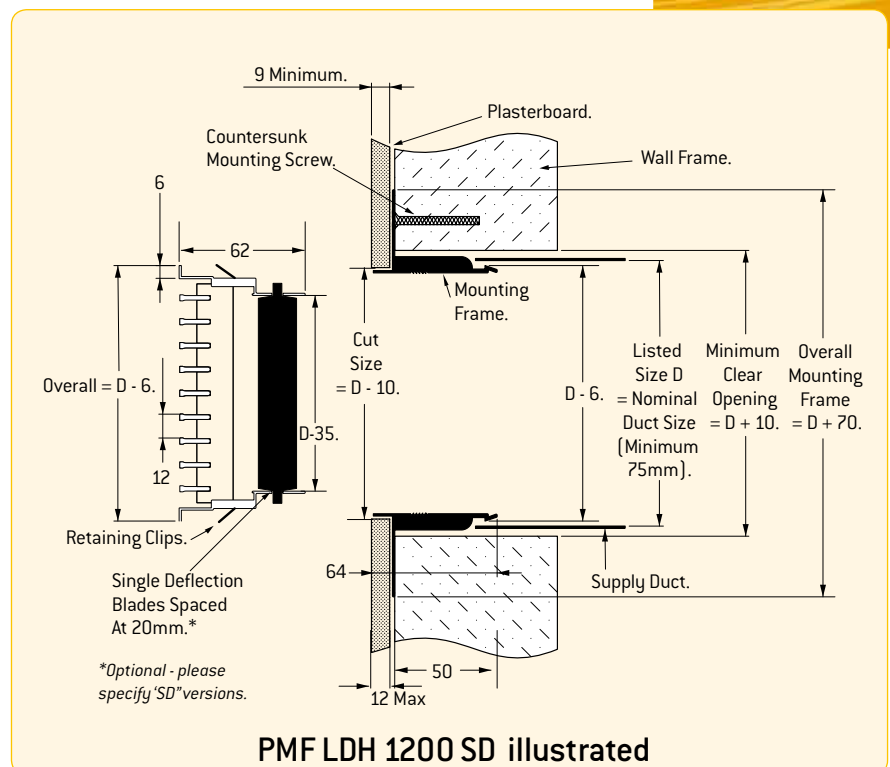
1. For ceiling mounting seismic restraints will be required, but not supplied.
2. For floor applications use LDHF versions with double mullions.

Flangeless Grille Series



- Attractive Appearance
- Designed for Side Wall Applications*
- Versatile
- Multiple LD Core Types

Dimensions

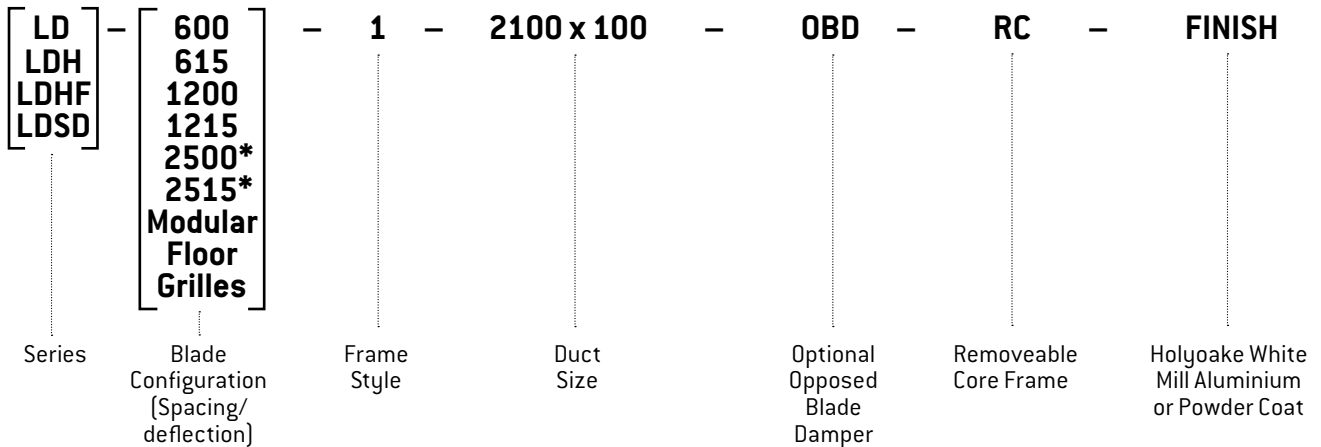


Guide Product Weights

Model	Approximate Weight in Kg per metre
PMF Frame	1.134



Diffuser Description Code Examples and Suggested Specifications



* Return/Exhaust Grilles, not suitable for floor applications.

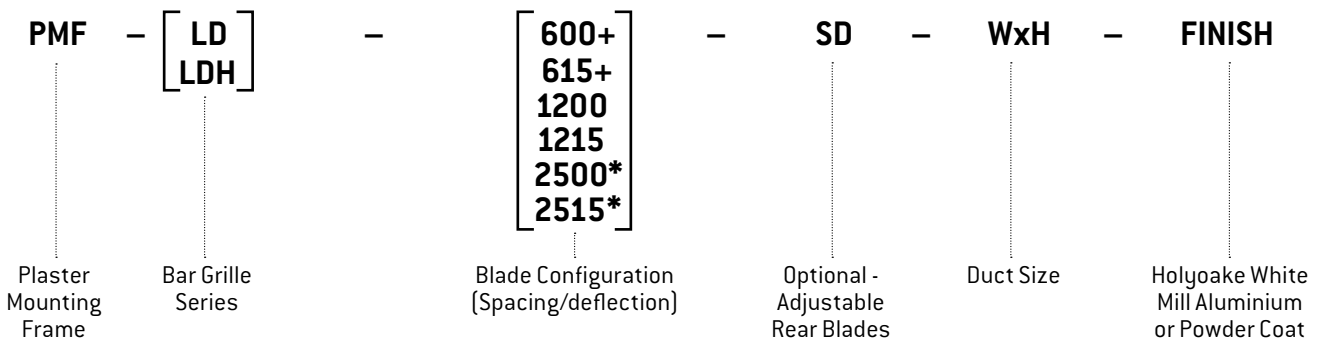
The Holyoake LD Range of linear diffusers shall be of extruded aluminium construction. Blades shall be mechanically expanded into machine notched mullions spaced at no greater than 300mm centres. Diffusers shall be fitted with accessory dampers and have optional frame styles and finish where indicated.

All shall be as manufactured by Holyoake.



Holyoake LDH-CF Computer Floor supply grilles shall be of extruded aluminium, welded construction, with blades mechanically expanded into double, machine notched mullions spaced at no greater than 200mm centres. They shall be designed to withstand a concentrated load of 500 kg over an area of 645mm² (1 square inch) at the centre, with no permanent distortion and maximum deflection under load of 0.66mm. Accessory volume control dampers, adjustable through the face, shall be furnished where indicated.

The whole assembly shall be as manufactured by Holyoake.



* Return/Exhaust Grilles, not suitable for floor applications. +See Notes on Page 62B.

Holyoake Series PMF – Plaster Mounting Frame shall be of extruded aluminium construction.

PMF Grilles shall have a flange width no greater than 6mm.

The Plaster Mounting Frame shall be fixed into a wall opening and plaster stopped before fitting of the Flangeless Grille. The Grille shall have blades machine notched into mullions spaced at no greater than 300mm and may have a second row of adjustable 'SD' blades if specified.

All shall be as manufactured by Holyoake.

Note

When LD Variants are ceiling mounted, seismic restraints are required, but not supplied.

Series LD – Linear Diffusers



HOLYOAKE
AIR MANAGEMENT SOLUTIONS



Linear Diffusers