

Large Format Circular Diffuser

Type LFCD



Mounted into ceiling tile



Mounted directly onto duct

Features

The LFCD Series diffusers are amongst the very few diffusers to be backed by comprehensive independent laboratory tests, and are specifically designed to ensure:

Even distribution of air - gives extremely good air movement and creates no draughts when correctly installed.

Quietness in operation - designed to eliminate mechanical vibration. The shifting mechanism and cone bracings are aerodynamically designed to keep vortex shedding points to a minimum avoiding 'organ pipe' effect.

Advanced design - special conical construction is designed to give improved air flow.

The inner cone unit fixes easily and rapidly to the outer supporting cone, giving positive location free from rotational or up and down rattle.

Mechanically strong.

All metal edges are beaded to give greater rigidity, easier handling and adjustment and neater appearance.

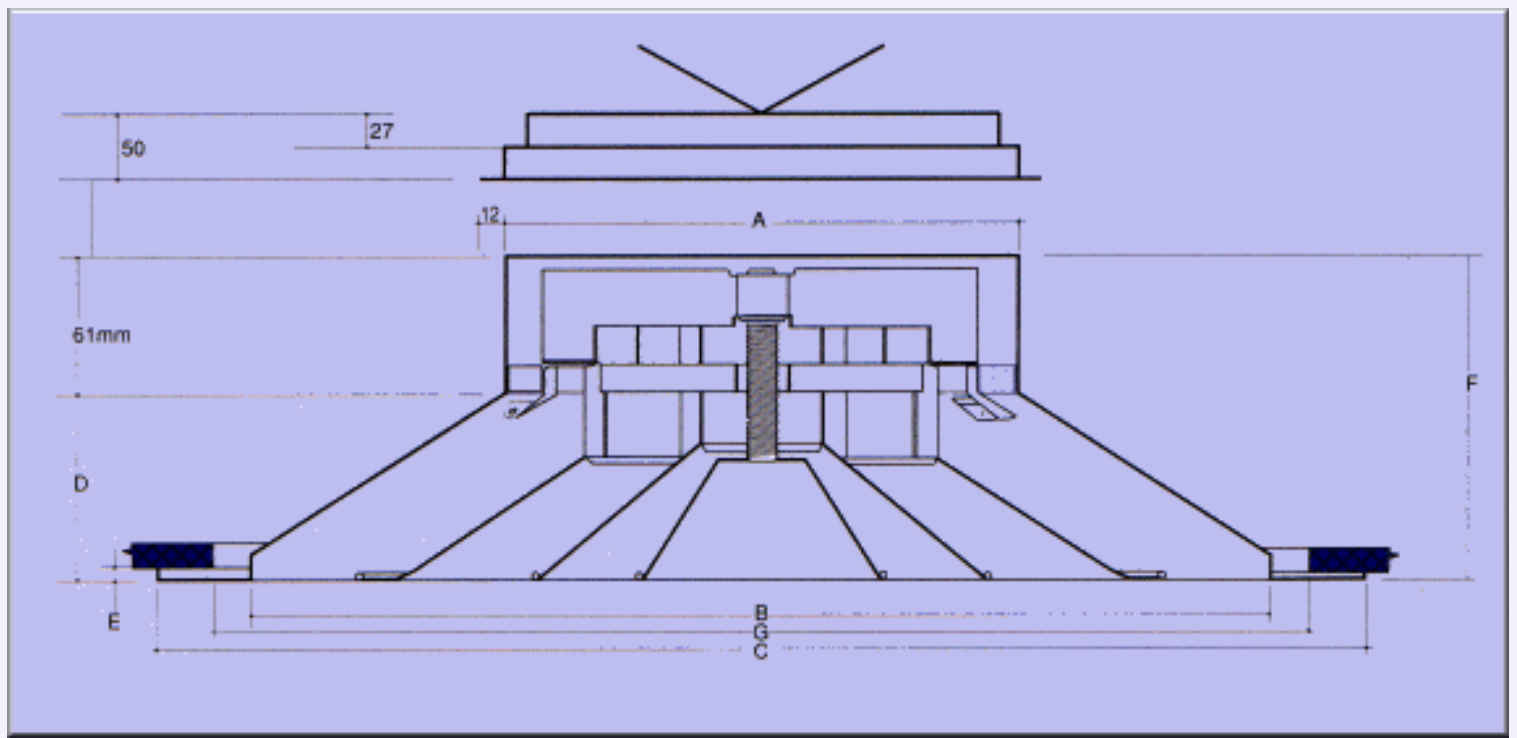
Adjustment is by screw action, preventing distortion of ceilings sometimes encountered with 'push-pull' adjustment diffusers.

All moving parts and dissimilar metal where in contact are cadmium plated to prevent wear and possible seizing up.

The inner cone unit is easily removable and replaceable for maintenance and cleaning. Excellent stove enamelled paint finish of high durability, free from ripples or blemishes, helps to reduce resistance to air flow and gives a very easy-to-clean surface.



Deliveries of standard sizes and finishes can be made ex-stock at very competitive prices. Circular air diffusers give a superior performance and finish at less cost than many inferior products.

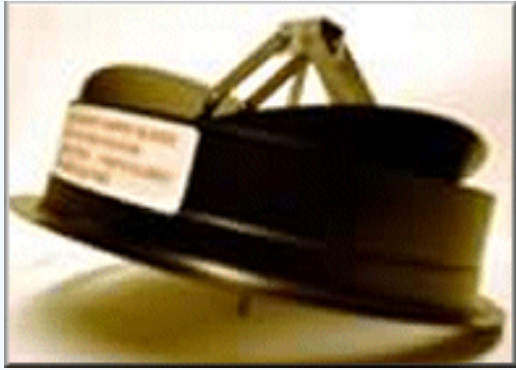


Size in Inches	A	B	C	D	E	F	G
6	152	305	340	51	5	110	320
8	203	407	457	64	5	127	430
10	254	508	569	86	5	145	530
12	305	610	680	95	6	155	640
15	381	762	851	121	6	172	800
18	457	914	1041	146	20	248	950
21	534	1080	1148	178	20	280	1100
24	610	1080	1170	220	20	280	1100
30	760	1280	1420	270	20	280	1300

Damper Fitting Notes

Ensure flaps are raised before fitting.
 Fit damper to duct, then fit diffuser to damper.

(Maximum damper size 24" Dia.)



Selection Data

Circular Diffuser - Type MD Performance Data

	Neck Velocity m/s	2.0	2.5	3.0	3.5	4.0	4.5
Diffuser Size	Velocity Pressure mm w.g.	0.240	0.384	0.583	0.753	0.983	1.25
4" (102mm)	Flow Rate m cub./hr.	58.8	73.5	88.2	102.9	117.6	132.4
	Static Pressure w.g.	0.76	1.19	1.71	2.33	3.04	3.85
	N.C.	16	19	24	28	31	35
	R.A.D. of Diff. m	0.3-0.8	0.3-0.7	0.4-0.8	0.5-1.0	0.5-1.1	0.5-1.3
6" (152mm)	Flow Rate m cub./hr.	130.3	162.9	195.4	228.1	260.8	293.2
	Static Pressure w.g.	0.63	1.09	1.56	2.12	2.77	3.50
	N.C.	15	20	25	29	32	36
	R.A.D. of Diff. m	0.4-0.8	0.5-1.0	0.6-1.2	0.7-1.5	0.8-1.7	0.2-1.9
8" (203mm)	Flow Rate m cub./hr.	233.3	291.6	349.9	408.2	466.8	524.9
	Static Pressure w.g.	0.54	0.99	1.43	1.95	2.54	3.22
	N.C.	16	20	28	30	33	37
	R.A.D. of Diff. m	0.5-1.1	0.3-1.4	0.8-1.7	0.9-1.9	1.1-2.2	1.2-2.5
10" (254mm)	Flow Rate m cub./hr.	385.0	456.3	547.6	638.8	730.1	821.3
	Static Pressure w.g.	0.60	0.93	1.34	1.82	2.38	3.02
	N.C.	17	21	27	32	35	39
	R.A.D. of Diff. m	0.7-1.4	0.8-1.7	1.0-2.1	1.2-2.4	1.4-2.8	1.5-3.1

12" (305mm)	Flow Rate m cub./hr.	526.3	557.9	789.5	921.1	1052.6	1184.2
	Static Pressure w.g.	0.57	0.89	1.29	1.75	2.29	2.90
	N.C.	17	22	28	33	36	41
	R.A.D. of Diff. m	0.8-1.7	1.0-2.1	1.2-2.5	1.4-2.9	1.5-3.3	1.8-3.7
14" (356mm)	Flow Rate m cub./hr.	716.4	893.5	1074.5	1253.7	1432.8	1611.9
	Static Pressure w.g.	0.56	0.88	1.25	1.71	2.24	2.84
	N.C.	17	23	29	34	38	42
	R.A.D. of Diff. m	0.9-1.9	1.2-2.4	1.4-2.9	1.7-3.4	1.9-3.9	2.2-4.4
15" (381mm)	Flow Rate m cub./hr.	820.8	1026.0	1231.2	1436.4	1641.6	1846.8
	Static Pressure w.g.	0.56	0.86	1.25	1.70	2.22	2.81
	N.C.	18	23	30	36	39	43
	R.A.D. of Diff. m	1.0-2.1	1.3-2.6	1.5-3.1	1.8-3.6	2.1-4.2	2.3-4.7
16" (406mm)	Flow Rate m cub./hr.	932.4	1155.5	1338.5	1836.7	1884.8	2097.9
	Static Pressure w.g.	0.55	0.96	1.24	1.69	2.21	2.79
	N.C.	18	23	30	35	39	43
	R.A.D. of Diff. m	1.1-2.2	1.4-2.8	1.6-3.3	1.9-3.9	2.2-4.4	2.5-5.0
18" (457mm)	Flow Rate m cub./hr.	1180.8	1476.0	1771.2	2066.4	2361.6	2656.8
	Static Pressure w.g.	0.55	0.86	1.24	1.69	2.20	2.77
	N.C.	20	24	31	33	40	44
	R.A.D. of Diff. m	1.2-2.6	1.5-3.1	1.8-3.7	2.2-4.4	2.5-3.0	2.8-5.6

21" (533mm)	Flow Rate m cub./hr.	1606.3	2007.9	2409.5	2811.1	3212.6	3614.2
	Static Pressure w.g.	0.34	0.36	1.22	1.67	2.19	2.75
	N.C.	20	24	30	37	40	45
	R.A.D. of Diff. m	1.4-2.9	1.8-3.6	2.2-4.4	2.5-5.1	2.9-5.8	3.2-6.6
24" (610mm)	Flow Rate m cub./hr.	2103.8	2629.8	3156.8	3681.7	4207.7	4733.6
	Static Pressure w.g.	0.54	0.85	1.21	1.65	2.17	2.73
	N.C.	19	23	29	35	39	44
	R.A.D. of Diff. m	1.6-3.3	2.1-4.2	2.5-3.0	2.9-5.8	3.3-6.7	3.7-7.5

	Neck Velocity m/s	5.0	5.5	6.0	6.5	7.0	7.5
Diffuser Size	Velocity Pressure mm w.g.	1.54	1.860	2.21	2.65	3.01	3.46
4" (102mm)	Flow Rate m cub./hr.	147.1	161.7	178.4	191.2	205.9	220.6
	Static Pressure w.g.	4.75	5.75	6.94	8.03	9.31	10.69
	N.C.	38	40	41	43	45	48
	R.A.D. of Diff. m	0.7-1.4	0.7-1.5	0.8-1.7	0.9-1.8	0.9-1.9	1.0-2.1
6" (152mm)	Flow Rate m cub./hr.	323.8	358.4	391.0	423.6	456.1	468.7
	Static Pressure w.g.	4.33	5.23	6.23	7.31	8.48	9.73
	N.C.	39	42	44	46	48	50
	R.A.D. of Diff. m	1.0-2.1	1.1-2.3	1.2-2.5	1.3-2.7	1.4-2.9	1.5-3.1

8" (203mm)	Flow Rate m cub./hr.	583.2	641.5	699.6	758.2	816.5	874.8
	Static Pressure w.g.	3.97	4.81	5.32	6.72	7.70	6.94
	N.C.	41	44	45	46	50	52
	R.A.D. of Diff. m	1.4-2.8	1.5-3.0	1.6-3.3	1.8-3.6	1.9-3.9	2.1-4.2
10" (254mm)	Flow Rate m cub./hr.	912.8	1003.9	1095.1	1186.4	1277.5	1388.9
	Static Pressure w.g.	3.73	4.51	5.36	6.30	7.30	6.36
	N.C.	43	45	48	50	53	54
	R.A.D. of Diff. m	1.7-3.5	1.9-3.6	2.5-4.2	2.2-4.5	2.4-4.2	2.6-5.2
12" (305mm)	Flow Rate m cub./hr.	1318.9	1457.4	1579.0	1710.5	1842.1	1973.7
	Static Pressure w.g.	3.58	4.33	5.15	6.04	7.01	8.04
	N.C.	44	47	50	52	54	56
	R.A.D. of Diff. m	2.1-4.2	2.3-4.6	2.5-5.0	2.7-6.4	2.9-5.8	3.1-6.2
14" (356mm)	Flow Rate m cub./hr.	1791.0	1970.1	2149.2	2328.3	2507.4	2696.5
	Static Pressure w.g.	3.50	4.24	5.04	5.92	6.86	7.88
	N.C.	46	49	51	53	56	58
	R.A.D. of Diff. m	2.4-4.8	2.0-5.3	2.9-5.6	3.1-6.3	3.4-5.8	3.6-7.3
15" (381mm)	Flow Rate m cub./hr.	2062.0	2257.2	2452.4	2667.8	2872.8	3070.0
	Static Pressure w.g.	3.48	4.20	5.00	5.87	6.81	7.82
	N.C.	47	49	53	54	57	58
	R.A.D. of Diff. m	2.5-3.2	2.8-5.7	3.1-8.2	3.4-6.8	3.6-7.3	3.9-7.8

16" (406mm)	Flow Rate m cub./hr.	2331.0	2564.1	2797.2	3030.3	3263.4	3496.5
	Static Pressure w.g.	3.45	4.17	4.97	5.83	6.78	7.78
	N.C.	48	50	52	55	57	59
	R.A.D. of Diff. m	2.7-5.9	3.0-5.1	3.3-6.7	3.6-7.2	3.9-7.8	4.1-6.3
18" (457mm)	Flow Rate m cub./hr.	2952.0	3247.2	3542.4	3837.6	4132.8	4429.0
	Static Pressure w.g.	3.43	4.14	4.94	5.80	6.72	7.71
	N.C.	48	51	53	56	58	60
	R.A.D. of Diff. m	3.1-6.2	3.4-6.8	3.7-7.5	4.0-8.1	4.3-8.7	4.7-8.4
21" (533mm)	Flow Rate m cub./hr.	4015.8	4417.4	4818.9	5220.5	5622.1	6023.7
	Static Pressure w.g.	3.40	4.11	4.90	5.75	6.66	7.66
	N.C.	49	52	54	56	59	61
	R.A.D. of Diff. m	3.6-7.3	4.0-8.0	4.3-8.7	4.7-9.5	5.2-10.2	5.4-10.9
24" (610mm)	Flow Rate m cub./hr.	5299.6	5785.6	6311.5	5837.5	7362.4	7839.0
	Static Pressure w.g.	3.38	4.08	4.86	5.71	6.62	7.61
	N.C.	50	52	55	57	60	62
	R.A.D. of Diff. m	4.1-8.3	4.6-9.2	5.0-10.0	5.4-10.8	5.8-11.5	6.2-12.5

	Neck Velocity m/s	8.0	8.5	9.0	9.5	10.0
Diffuser Size	Velocity Pressure mm w.g.	3.93	4.44	4.98	5.68	6.15

4" (102mm)	Flow Rate m cub./hr.	235.3	250.0	364.7	279.4	294.1
	Static Pressure w.g.	12.16	13.73	15.39	17.15	19.00
	N.C.	49	51	52	53	55
	R.A.D. of Diff. m	1.1-2.2	1.2-2.4	1.2-2.5	1.3-2.6	1.4-2.8
6" (152mm)	Flow Rate m cub./hr.	521.2	553.9	598.4	619.0	651.6
	Static Pressure w.g.	11.07	12.50	14.01	15.81	17.30
	N.C.	52	54	55	56	56
	R.A.D. of Diff. m	1.6-3.3	1.7-3.5	1.8-3.7	1.9-3.9	2.0-4.1
8" (203mm)	Flow Rate m cub./hr.	933.1	991.4	1048.8	1108.1	1186.4
	Static Pressure w.g.	10.19	11.49	12.88	14.35	15.90
	N.C.	54	56	57	58	60
	R.A.D. of Diff. m	2.2-4.4	2.3-4.7	2.5-5.0	2.6-5.2	2.7-5.5
10" (254mm)	Flow Rate m cub./hr.	1460.3	1581.6	1642.7	1733.9	1825.2
	Static Pressure w.g.	9.54	10.77	12.07	13.45	14.90
	N.C.	56	58	58	60	62
	R.A.D. of Diff. m	2.7-5.5	2.8-5.2	3.1-6.2	3.3-6.6	3.5-6.9
12" (305mm)	Flow Rate m cub./hr.	2105.3	2236.9	2368.4	2500.0	2631.8
	Static Pressure w.g.	9.15	10.33	11.58	12.90	14.30
	N.C.	58	60	81	67	64
	R.A.D. of Diff. m	3.9-6.7	3.6-7.1	3.7-7.5	3.9-7.9	4.1-8.3

14" (356mm)	Flow Rate m cub./hr.	2855.6	3044.3	3223.8	3402.9	3582.0
	Static Pressure w.g.	8.96	10.12	11.34	12.64	14.00
	N.C.	50	51	62	84	55
	R.A.D. of Diff. m	3.9-7.8	4.1-8.3	4.3-8.7	4.8-9.2	4.8-9.7
15" (381mm)	Flow Rate m cub./hr.	3283.2	3488.4	3693.6	3898.8	4104.0
	Static Pressure w.g.	8.90	10.04	11.26	12.54	13.90
	N.C.	60	62	63	65	68
	R.A.D. of Diff. m	4.1-8.3	4.4-8.9	4.7-9.4	4.9-9.8	5.2-10.4
16" (406mm)	Flow Rate m cub./hr.	3729.6	3962.7	4195.8	4428.9	4852.0
	Static Pressure w.g.	8.83	9.97	11.18	12.45	13.80
	N.C.	61	62	64	65	67
	R.A.D. of Diff. m	4.5-8.9	4.7-9.4	5.0-10.0	5.2-10.5	5.5-11.1
18" (457mm)	Flow Rate m cub./hr.	4723.2	5018.4	5313.8	5608.8	5904.0
	Static Pressure w.g.	8.78	9.90	12.11	12.37	13.71
	N.C.	62	63	65	60	67
	R.A.D. of Diff. m	5.0-10.0	5.3-10.6	5.6-11.2	5.9-11.8	8.2-12.5
21" (533mm)	Flow Rate m cub./hr.	6425.3	6826.9	7223.4	7630.0	8031.6
	Static Pressure w.g.	8.70	9.82	11.02	12.27	13.60
	N.C.	63	64	69	67	68
	R.A.D. of Diff. m	5.3-11.6	6.2-12.4	6.5-13.1	6.9-13.8	7.3-14.8

24" (610mm)	Flow Rate m cub./hr.	3415.4	8941.3	9467.3	9593.2	10519.2
	Static Pressure w.g.	8.64	9.78	10.95	12.19	13.50
	N.C.	64	65	67	68	69
	R.A.D. of Diff. m	6.8-13.3	7.1-14.2	7.5-15.0	7.9-15.8	8.3-16.8