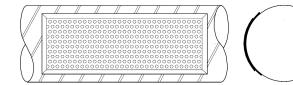


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Framed Perforated Grille, DDFGF

		Radial Spread	Face Velocity (fpm)	200	400	600	800	1000	1200	1400
		Angle ¹	(ιρ)							
		-(+)-	Static Pressure (inches wg)	0.02	0.06	0.14	0.24	0.37	0.53	0.71
Grille Size ⁴ (inches)	Grille Area (sq ft)	(degrees)	Throw Distance ² (feet)	10 -15	15 - 30	20 - 45	20 - 50	25 - 60	30 - 70	33 - 75
4 x 4	0.09	38 - 19 -13	cfm	18	36	54	72	90	108	126
7 / 7	0.03	30 - 19 -13	NC ³	15	15	20	25	35	40	50
4 x 6	0.13	38 - 19 -13	cfm	26	52	78	104	130	156	182
1 % 0	0.10	00 10 10	NC	15	20	25	25	35	45	55
4 x 8	0.18	38 - 19 -13	cfm	36	72	108	144	180	216	252
			NC	15	20	25	30	35	45	55
6 x 6	0.21	57 - 29 -19	cfm	42	84	126	168	210	252	294
			NC	15	20	25	30	35	45	55
4 x 10	0.23	38 - 19 -13	cfm	46	92	138	184	230	276	322
\vdash			NC .	15	20	25	30	35	45	55
4 x 12	0.28	38 - 19 -13	cfm	56	112	168	224	280	336	392
			NC ,	20	20	25	30	40	45	55
6 x 10	0.36	57 - 29 -19	cfm	72	144	216	288	360	432	504
			NC ,	20	25	25	30	40	45	55
8 x 8	0.39	76 - 38 - 25	cfm	78	156	234	312	390	468	546
			NC of res	20	25	25	30	40	45	55
6 x 12	0.44	57 - 29 -19	cfm NC	88 20	176 25	264 25	352 30	440 40	528 50	616 55
			cfm							
6 x 16	0.59	57 - 29 -19	NC	118 20	236 25	354 30	472 35	590 40	708 50	826 55
			cfm	120	240	360	480	600	720	840
8 x 12	0.60	76 - 38 - 25	NC	20	25	30	35	40	50	55
			cfm	148	296	444	592	740	888	1036
6 x 20	0.74	57 -29 - 19	NC	25	25	30	35	40	50	60
			cfm	162	324	486	648	810	972	1134
8 x 16	0.81	76 - 38 - 25	NC	25	25	30	35	40	50	60
10 10		445 55 65	cfm	184	368	486	648	810	972	1134
12 x 12	0.92	115 - 57 - 38	NC	25	25	30	35	45	50	60
0 1/ 04	1.00	70 00 05	cfm	244	488	732	976	1220	1464	1708
8 x 24	1.22	76 - 38 - 25	NC	25	30	30	35	45	50	60

Notes: 1. Radial spread angle given as a function of diameter of duct to which grille is attached. Spread angles shown are given in A-B-C format, where 'A' is spread angle for 12-inch, 'B' for 24-inch, and 'C' for 36-inch diameter duct. S = 360 (grille height) / πD.

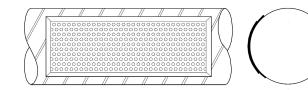
^{2.} Throw distance is given in x-y format, where 'x' is the throw distance for the terminal velocity of 150 fpm and 'y' is the throw distance for the terminal velocity of 50 fpm. Throw distance is measured along the discharge centerline, which is generally at an angle from 45 to 65 degrees from the duct centerline. Throw distances may actually be shorter than shown. (See *Engineering Report 159* for details.)

^{3.} NC is noise criteria for room with 10 dB absorbtion in each octave band. Actual NC varies according to room absorption, room size, and distance from the diffuser to the occupants.

^{4.} Grille sizes shown are nominal sizes of height and width. The height dimension assumes the arc length of duct to which it is attached.



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Framed Perforated Grille, DDFGF

12 x 18			T			-					
Grille Size ¹ (Inches wg)					200	400	600	800	1000	1200	1400
Throw Distance 10 - 15 15 - 30 20 - 45 20 - 50 25 - 60 30 - 70 33 - 78			-(0.02	0.06	0.14	0.24	0.37	0.53	0.71
12 x 24	Size ⁴	Area	(degrees)		10 -15	15 - 30	20 - 45	20 - 50	25 - 60	30 - 70	33 - 75
NC 376 752 1128 1504 1880 2256 2632 18 x 18 2.13 172 - 86 - 57 NC 15 30 35 40 45 55 65 65 65 12 x 30 35 40 45 55 65 65 65 12 x 30 35 40 45 55 65 65 65 12 x 30 35 40 45 55 65 65 65 12 x 30 35 40 45 55 65 65 12 x 30 35 35 40 45 55 65 65 12 x 30 35 35 40 45 55 65 65 12 x 30 35 35 40 40 50 55 65 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50 55 65 12 x 30 35 35 40 40 50	12 x 18	1 49	115 - 57 - 38	cfm	280	560	840	1120	1400	1680	1960
12 x 24	12 × 10	1.40	110 07 00	NC ³	25	30	35	35	45	55	60
NC 25 30 35 40 45 55 65 18 x 18 2.13 172 - 86 - 57 cfm 426 852 1278 1704 2130 2556 2982 12 x 30 2.36 115 - 57 - 38 cfm 472 944 1416 1888 2360 2832 3304 12 x 36 2.84 115 - 57 - 38 cfm 568 1136 1704 2272 2840 3408 3976 18 x 24 2.86 172 - 86 - 57 cfm 568 1136 1704 2272 2840 3408 3976 18 x 30 3.59 172 - 86 - 57 cfm 572 1144 1716 2288 2860 3432 4004 18 x 30 3.59 172 - 86 - 57 cfm 572 1144 1716 2288 2860 3432 4004 18 x 30 3.59 172 - 86 - 57 cfm 718 1436 2154 2872 3590 4308	12 x 24	1 88	115 - 57 - 38	cfm	376	752	1128	1504	1880	2256	2632
12 x 30	12 X 2 1	1.00	110 07 00	NC	25	30	35	40	45	55	65
NC	18 x 18	2 13	172 - 86 - 57	cfm	426	852	1278	1704	2130	2556	2982
12 x 36	10 % 10	2.10	172 00 07	NC	15	30	35	40	45	55	65
12 x 36 2.84 115 - 57 - 38 cfm 568 1136 1704 2272 2840 3408 3976 18 x 24 2.86 172 - 86 - 57 cfm 572 1144 1716 2288 2860 3432 4004 18 x 30 3.59 172 - 86 - 57 cfm 718 1436 2154 2872 3590 4308 5026 24 x 24 3.84 229 - 115 - 76 cfm 718 1436 2154 2872 3590 4308 5026 18 x 36 4.31 172 - 86 - 57 cfm 768 1536 2304 3072 3840 4608 5376 18 x 36 4.31 172 - 86 - 57 cfm 768 1536 2304 3072 3840 4608 5376 24 x 36 5.79 229 - 115 - 76 cfm 862 1724 2586 3448 4310 5172 6034 18 x 54 6.50 172 - 86 - 57 cfm 1158 231	12 x 30	2 36	115 - 57 - 38	cfm	472	944	1416	1888	2360	2832	3304
18 x 24 2.86 172 - 86 - 57 cfm 572 1144 1716 2288 2860 3432 4004 18 x 30 3.59 172 - 86 - 57 cfm 718 1436 2154 2872 3590 4308 5026 24 x 24 3.84 229 - 115 - 76 cfm 768 1536 2304 3072 3840 4608 5376 18 x 36 4.31 172 - 86 - 57 cfm 862 1724 2586 3448 4310 5172 6034 18 x 54 6.50 172 - 86 - 57 cfm 1158 2316 3474 4632 5790 6948 8106 18 x 54 6.50 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 18 x 60 7.23 172 - 86 - 57 cfm 1446 2892 4338 5784 7230 8676 10122 18 x 60 7.23 172 - 86 - 57 cfm 1550 3100 4650 6200 7750 9300 10850 24 x 48 7.75 229 - 115 - 76 cfm 1942 3884 5826 7768 9710 11652 13594 30 x 48 9.73 286 - 143 - 95 cfm 1946 3892 5838 7784 9730 11676 13622 30 x 60 12.19 286 - 143 - 95 cfm 1946 3892 5838 7784 9730 11676 13622 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	12 X 00	2.00	110 07 00	NC	25	30	35	40	45	55	65
18 x 24 2.86 172 - 86 - 57 cfm 572 1144 1716 2288 2860 3432 4004 18 x 30 3.59 172 - 86 - 57 cfm 718 1436 2154 2872 3590 4308 5026 24 x 24 3.84 229 - 115 - 76 cfm 768 1536 2304 3072 3840 4608 5376 18 x 36 4.31 172 - 86 - 57 cfm 768 1536 2304 3072 3840 4608 5376 24 x 36 5.79 229 - 115 - 76 cfm 862 1724 2586 3448 4310 5172 6034 18 x 54 6.50 172 - 86 - 57 cfm 1158 2316 3474 4632 5790 6948 8106 18 x 54 6.50 172 - 86 - 57 cfm 1158 2316 3474 4632 5790 6948 8106 18 x 60 7.23 172 - 86 - 57 cfm 1300 2	12 v 36	2.84	115 - 57 - 38	cfm	568	1136	1704	2272	2840	3408	3976
18 x 24 2.86 172 - 86 - 57 NC 30 30 35 40 45 55 65 18 x 30 3.59 172 - 86 - 57 cfm 718 1436 2154 2872 3590 4308 5026 24 x 24 3.84 229 - 115 - 76 cfm 768 1536 2304 3072 3840 4608 5376 18 x 36 4.31 172 - 86 - 57 cfm 862 1724 2586 3448 4310 5172 6034 24 x 36 5.79 229 - 115 - 76 cfm 1158 2316 3474 4632 5790 6948 8106 18 x 54 6.50 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 18 x 60 7.23 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 24 x 48 7.75 229 - 115 - 76 cfm 1446 2892	12 X 00	2.04	110 07 00	NC	30	30	35	40	50	55	65
18 x 30 3.59 172 - 86 - 57 cfm 718 1436 2154 2872 3590 4308 5026 24 x 24 3.84 229 - 115 - 76 cfm 768 1536 2304 3072 3840 4608 5376 18 x 36 4.31 172 - 86 - 57 cfm 862 1724 2586 3448 4310 5172 6034 24 x 36 5.79 229 - 115 - 76 cfm 1158 2316 3474 4632 5790 6948 8106 18 x 54 6.50 172 - 86 - 57 cfm 1158 2316 3474 4632 5790 6948 8106 18 x 60 7.23 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 18 x 60 7.23 172 - 86 - 57 cfm 1446 2892 4338 5784 7230 8676 10122 24 x 48 7.75 229 - 115 - 76 cfm 1550 <	18 v 2/	2.86	172 - 86 - 57	cfm	572	1144	1716	2288	2860	3432	4004
18 x 30 3.59 172 - 86 - 57 NC 30 35 35 40 50 55 65 24 x 24 3.84 229 - 115 - 76 cfm 768 1536 2304 3072 3840 4608 5376 18 x 36 4.31 172 - 86 - 57 cfm 862 1724 2586 3448 4310 5172 6034 24 x 36 5.79 229 - 115 - 76 cfm 1158 2316 3474 4632 5790 6948 8106 18 x 54 6.50 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 18 x 60 7.23 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 24 x 48 7.75 229 - 115 - 76 cfm 1446 2892 4338 5784 7230 8676 10122 24 x 60 9.71 229 - 57 - 38 cfm 1550 3100	10 7 24	2.00	172 - 00 - 57	NC	30	30	35	40	45	55	65
NC 30 35 35 40 50 55 65 24 x 24 3.84 229 - 115 - 76	18 v 30	3 50	172 - 86 - 57	cfm	718	1436	2154	2872	3590	4308	5026
18 x 36	10 x 30	0.00	172 - 00 - 57	NC	30	35	35	40	50	55	65
NC 30 35 35 40 50 55 65 18 x 36	24 v 24	3.84	220 - 115 - 76	cfm	768	1536	2304	3072	3840	4608	5376
18 x 36	27 X 27	J.0 4	223 - 113 - 70	NC	30	35	35	40	50	55	65
NC 30 35 40 40 50 55 65 24 x 36 5.79 229 - 115 - 76 cfm 1158 2316 3474 4632 5790 6948 8106 NC 30 35 40 45 50 60 65 18 x 54 6.50 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 NC 35 35 40 45 50 60 65 18 x 60 7.23 172 - 86 - 57 cfm 1446 2892 4338 5784 7230 8676 10122 NC 35 35 40 45 50 60 65 24 x 48 7.75 229 - 115 - 76 cfm 1550 3100 4650 6200 7750 9300 10850 NC 35 35 40 45 50 60 >65 24 x 60 9.71 229 - 57 - 38 cfm 1942 3884 5826 7768 9710 11652 13594 NC 35 35 40 45 50 60 >65 30 x 48 9.73 286 - 143 - 95 cfm 1946 3892 5838 7784 9730 11676 13622 NC 35 40 40 45 50 60 >65 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	18 v 36	/ 31	172 - 86 - 57	cfm	862	1724	2586	3448	4310	5172	6034
24 x 36 5.79 229 - 115 - 76 NC 30 35 40 45 50 60 65 18 x 54 6.50 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 18 x 60 7.23 172 - 86 - 57 cfm 1446 2892 4338 5784 7230 8676 10122 24 x 48 7.75 229 - 115 - 76 cfm 1550 3100 4650 6200 7750 9300 10850 24 x 60 9.71 229 - 57 - 38 cfm 1942 3884 5826 7768 9710 11652 13594 30 x 48 9.73 286 - 143 - 95 cfm 1946 3892 5838 7784 9730 11676 13622 NC 35 40 40 45 50 60 >65 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	10 x 30	4.01	172 - 00 - 37	NC	30	35	40	40	50	55	65
NC 30 35 40 45 50 60 65 18 x 54 6.50 172 - 86 - 57 cfm 1300 2600 3900 5200 6500 7800 9100 18 x 60 7.23 172 - 86 - 57 cfm 1446 2892 4338 5784 7230 8676 10122 24 x 48 7.75 229 - 115 - 76 cfm 1550 3100 4650 6200 7750 9300 10850 24 x 60 9.71 229 - 57 - 38 cfm 1942 3884 5826 7768 9710 11652 13594 NC 35 35 40 45 50 60 >65 30 x 48 9.73 286 - 143 - 95 cfm 1946 3892 5838 7784 9730 11676 13622 NC 35 40 40 45 50 60 >65 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	24 v 36	5 70	220 - 115 - 76	cfm	1158	2316	3474	4632	5790	6948	8106
18 x 54 6.50 1/2 - 86 - 57 NC 35 35 40 45 50 60 65 18 x 60 7.23 172 - 86 - 57 cfm 1446 2892 4338 5784 7230 8676 10122 NC 35 35 40 45 50 60 >65 24 x 48 7.75 229 - 115 - 76 cfm 1550 3100 4650 6200 7750 9300 10850 NC 35 35 40 45 50 60 >65 24 x 60 9.71 229 - 57 - 38 cfm 1942 3884 5826 7768 9710 11652 13594 NC 35 35 40 45 50 60 >65 30 x 48 9.73 286 - 143 - 95 cfm 1946 3892 5838 7784 9730 11676 13622 NC 35 40 40 45 50 60 >65 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	24 X 00	3.73	223 - 113 - 70	NC	30	35	40	45	50	60	65
NC 35 35 40 45 50 60 65 18 x 60 7.23	18 v 5/	6.50	172 - 86 - 57	cfm	1300	2600	3900	5200	6500	7800	9100
18 x 60 7.23 172 -86 - 57 NC 35 35 40 45 50 60 >65 24 x 48 7.75 229 - 115 - 76 cfm 1550 3100 4650 6200 7750 9300 10850 NC 35 35 40 45 50 60 >65 NC 35 35 40 45 50 60 >65 24 x 60 9.71 229 - 57 - 38 cfm 1942 3884 5826 7768 9710 11652 13594 NC 35 35 40 45 50 60 >65 NC 35 35 40 40 45 50 60 >65 NC 35 40 40 40 40 45 50 60 >65 NC 35 40 40 40 40 45 50 60 >60 NC 35 40 40 40 40 45 50 60 >60 NC 35 40 40 40 40 40 40 40 40 80 NC 35 40 40 40 40 40 40 40 40 40 80 NC 35 40 40 40 40 40 40 40 40 40 40 40 40 40	10 X 34	0.50	172 - 00 - 37	NC	35	35	40	45	50	60	65
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	18 v 60	7 23	172 -86 - 57	cfm	1446	2892	4338	5784	7230	8676	10122
24 x 48 7.75 229 - 115 - 76 NC 35 35 40 45 50 60 > 65 24 x 60 9.71 229 - 57 - 38 cfm 1942 3884 5826 7768 9710 11652 13594 NC 35 35 40 45 50 60 > 65 NC 35 35 40 45 50 60 > 65 NC 35 35 40 45 50 60 > 65 NC 35 35 40 45 50 60 > 65 NC 35 40 40 45 50 60 > 65 NC 35 40 40 45 50 60 > 65 NC 35 40 40 45 50 60 > 65 NC 35 40 40 45 50 60 > 65	10 x 00	1.20	172 -00 - 37	NC	35	35	40	45	50	60	>65
NC 35 35 40 45 50 60 >65 24 x 60 9.71 229 - 57 - 38 cfm 1942 3884 5826 7768 9710 11652 13594 NC 35 35 40 45 50 60 >65 30 x 48 9.73 286 - 143 - 95 cfm 1946 3892 5838 7784 9730 11676 13622 NC 35 40 40 45 50 60 >65 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	24 v 18	7 75	229 - 115 - 76	cfm	1550	3100	4650	6200	7750	9300	10850
24 x 60 9.71 229 - 57 - 38 NC 35 35 40 45 50 60 > 65 30 x 48 9.73 286 - 143 - 95 Cfm 1946 3892 5838 7784 9730 11676 13622 NC 35 40 40 45 50 60 > 65 NC 35 40 40 45 50 60 > 65 2438 4876 7314 9752 12190 14628 17066	47 A 40	1.13	223 - 113 - 70	NC	35	35	40	45	50	60	>65
NC 35 35 40 45 50 60 >65 30 x 48 9.73 286 - 143 - 95	24 v 60	9 71	229 - 57 - 38	cfm	1942	3884	5826	7768	9710	11652	13594
30 x 48 9.73 286 - 143 - 95 NC 35 40 40 45 50 60 >65 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	27 X 00	0.71	220 01 - 00	NC	35	35	40	45	50	60	>65
NC 35 40 40 45 50 60 >65 30 x 60 12.19 286 - 143 - 95 cfm 2438 4876 7314 9752 12190 14628 17066	30 v 48	9.73	286 - 1/3 - 95	cfm	1946	3892	5838	7784	9730	11676	13622
30 X 60 12.19 286 - 143 - 95	00 X 1 0	9.70	200 - 140 - 30	NC	35	40	40	45	50	60	>65
00 A 00 12.10 200 170 30 NO 05 40 40 45 55 00 05	30 x 60	12 19	286 - 143 - 95	cfm	2438	4876	7314	9752	12190	14628	17066
	30 X 00	12.13	200 - 140 - 30	NC	35	40	40	45	55	60	>65

Notes: 1. Radial spread angle given as a function of diameter of duct to which grille is attached. Spread angles shown are given in A-B-C format, where 'A' is spread angle for 12-inch, 'B' for 24-inch, and 'C' for 36-inch diameter duct. S = 360 (grille height) / πD.

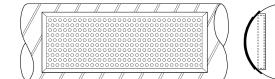
^{2.} Throw distance is given in x-y format, where 'x' is the throw distance for the terminal velocity of 150 fpm and 'y' is the throw distance for the terminal velocity of 50 fpm. Throw distance is measured along the discharge centerline, which is generally at an angle from 45 to 65 degrees from the duct centerline. Throw distances may actually be shorter than shown. (See *Engineering Report 159* for details.)

^{3.} NC is noise criteria for room with 10 dB absorbtion in each octave band. Actual NC varies according to room absorption, room size, and distance from the diffuser to the occupants.

^{4.} Grille sizes shown are nominal sizes of height and width. The height dimension assumes the arc length of duct to which it is attached.



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Framed Perforated Grille with Opposed Blade Damper, DDFGOBD

		Radial Spread Angle ¹	Face Velocity (fpm)	200	400	600	800	1000	1200	1400
		-(+)-	Static Pressure (inches wg)	0.02	0.06	0.14	0.24	0.37	0.53	0.71
Grille Size ⁴ (inches)	Grille Area (sq ft)	(degrees)	Throw Distance ² (feet)	10 -15	15 - 30	20 - 45	20 - 50	25 - 60	30 - 70	33 - 75
4 x 4 (8)	0.09	38 - 19 -13	cfm	18	36	54	72	90	108	126
			NC ³	15	15	20	25	35	40	50
4 x 6 (8)	0.13	38 - 19 -13	cfm	26	52	78	104	130	156	182
			NC .	15	20	25	25	35	45	55
4 x 8 (8)	0.18	38 - 19 -13	cfm	36	72	108	144	180	216	252
			NC ,	15	20	25	30	35	45	55
6 x 6 (10)	0.21	57 - 29 -19	cfm	42	84	126	168	210	252	294
. ,			NC	15	20	25	30	35	45	55
4 x 10 (8)	0.23	38 - 19 -13	cfm	46	92 20	138	184 30	230 35	276	322
			NC	15		25			45	55
4 x 12 (8)	0.28	38 - 19 -13	cfm	56 20	112 20	168 25	224 30	280 40	336 45	392 55
6 x 10			NC cfm			_				
(10)	0.36	57 - 29 -19	NC	72 20	144 25	216 25	288 30	360 40	432 45	504 55
` ′			cfm							
8 x 8 (12)	0.39	76 - 38 - 25	NC	78 20	156 25	234 25	312 30	390 40	468 45	546 55
6 x 12			cfm	88	176	264	352	440	528	616
(10)	0.44	57 - 29 -19	NC	20	25	25	302	440	528	55
6 x 16			cfm	118	236	354	472	590	708	826
(10)	0.59	57 - 29 -19	NC	20	25	30	35	40	50	55
8 x 12			cfm	120	240	360	480	600	720	840
(12)	0.60	76 - 38 - 25	NC	20	25	300	35	40	50	55
6 x 20			cfm	148	296	444	592	740	888	1036
(10)	0.74	57 -29 - 19	NC	25	25	30	35	40	50	60
8 x 16	2.24	70 00 05	cfm	162	324	486	648	810	972	1134
(12)	0.81	76 - 38 - 25	NC	25	25	30	35	40	50	60
12 x 12	0.00	445 57 00	cfm	184	368	486	648	810	972	1134
(18)	0.92	115 - 57 - 38	NC	25	25	30	35	45	50	60
8 x 24	1.00	76 00 05	cfm	244	488	732	976	1220	1464	1708
(12)	1.22	76 - 38 - 25	NC	25	30	30	35	45	50	60

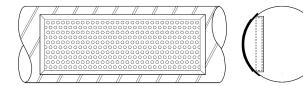
Notes: 1. Radial spread angle given as a function of diameter of duct to which grille is attached. Spread angles shown are given in A-B-C format, where 'A' is spread angle for 12-inch, 'B' for 24-inch, and 'C' for 36-inch diameter duct. S = 360 (grille height) / πD.

^{2.} Throw distance is given in x-y format, where 'x' is the throw distance for the terminal velocity of 150 fpm and 'y' is the throw distance for the terminal velocity of 50 fpm. Throw distance is measured along the discharge centerline, which is approximately 90 degrees or perpendicular to the duct centerline. Throw distances may actually be shorter than shown.

^{3.} NC is noise criteria for room with 10 dB absorbtion in each octave band. Actual NC varies according to room absorption, room size, and distance from the diffuser to the occupants.

^{4.} Grille sizes shown are nominal sizes of height and width. The height dimension assumes the arc length of duct to which it is attached. The number shown in parenthese is the minimum applicable duct diameter for that grille size.

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Framed Perforated Grille with Opposed Blade Damper, DDFGOBD

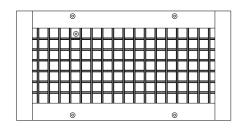
		Radial Spread Angle ¹	Face Velocity (fpm)	200	400	600	800	1000	1200	1400
		-(Static Pressure (inches wg)	0.02	0.06	0.14	0.24	0.37	0.53	0.71
Grille Size ⁴ (inches)	Grille Area (sq ft)	(degrees)	Throw Distance ² (feet)	10 -15	15 - 30	20 - 45	20 - 50	25 - 60	30 - 70	33 - 75
12 x 18 (18)	1.49	115 - 57 - 38	cfm NC ³	280 25	560 30	840 35	1120 35	1400 45	1680 55	1960 60
12 x 24			cfm	376	752	1128	1504	1880	2256	2632
(18)	1.88	115 - 57 - 38	NC	25	30	35	40	45	55	65
18 x18	0.40	470 00 57	cfm	426	852	1278	1704	2130	2556	2982
(24)	2.13	172 - 86 - 57	NC	15	30	35	40	45	55	65
12 x 30	2.36	115 - 57 - 38	cfm	472	944	1416	1888	2360	2832	3304
(18)	2.30	110 - 57 - 30	NC	25	30	35	40	45	55	65
12 x 36	2.84	115 - 57 - 38	cfm	568	1136	1704	2272	2840	3408	3976
(18)	2.04	110 07 00	NC	30	30	35	40	50	55	65
18 x 24	2.86	172 - 86 - 57	cfm	572	1144	1716	2288	2860	3432	4004
(24)			NC	30	30	35	40	45	55	65
18 x 30	3.59	172 - 86 - 57	cfm	718	1436	2154	2872	3590	4308	5026
(24)			NC .	30	35	35	40	50	55	65
24 x 24 (32)	3.84	229 - 115 - 76	cfm	768	1536	2304 35	3072	3840	4608	5376
. ,			NC ofm	30	35		40	50	55	65
18 x 36 (24)	4.31	172 - 86 - 57	cfm NC	862 30	1724 35	2586 40	3448 40	4310 50	5172 55	6034 65
24 x 36			cfm	1158	2316	3474	4632	5790	6948	8106
(32)	5.79	229 - 115 - 76	NC	30	35	40	45	50	60	65
18 x 54	0.50	170 00 57	cfm	1300	2600	3900	5200	6500	7800	9100
(24)	6.50	172 - 86 - 57	NC	35	35	40	45	50	60	65
18 x 60	7.23	172 -86 - 57	cfm	1446	2892	4338	5784	7230	8676	10122
(24)	7.23	172 -00 - 57	NC	35	35	40	45	50	60	>65
24 x 48	7.75	229 - 115 - 76	cfm	1550	3100	4650	6200	7750	9300	10850
(32)	7.70	220 110 70	NC	35	35	40	45	50	60	>65
24 x 60	9.71	229 - 57 - 38	cfm	1942	3884	5826	7768	9710	11652	13594
(32)			NC	35	35	40	45	50	60	>65
30 x 48 (40)	9.73	286 - 143 - 95	cfm	1946	3892	5838	7784	9730	11676	13622
` ′			NC . for	35	40	40	45	50	60	>65
30 x 60 (40)	12.19	286 - 143 - 95	cfm NC	2438 35	4876 40	7314 40	9752 45	12190 55	14628 60	17066 >65
(10)			NC	ავ	40	40	40	ວວ	60	>05

Notes: 1. Radial spread angle given as a function of diameter of duct to which grille is attached. Spread angles shown are given in A-B-C format, where 'A' is spread angle for 12-inch, 'B' for 24-inch, and 'C' for 36-inch diameter duct. S = 360 (grille height) / πD .

- 2. Throw distance is given in x-y format, where 'x' is the throw distance for the terminal velocity of 150 fpm and 'y' is the throw distance for the terminal velocity of 50 fpm. Throw distance is measured along the discharge centerline, which is approximately 90 degrees or perpendicular to the duct centerline. Throw distances may actually be shorter than shown.
- 3. NC is noise criteria for room with 10 dB absorbtion in each octave band. Actual NC varies according to room absorption, room size, and distance from the diffuser to the occupants.
- 4. Grille sizes shown are nominal sizes of height and width. The height dimension assumes the arc length of duct to which it is attached. The number shown in parenthese is the minimum applicable duct diameter for that grille size.

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Single Deflection Register, DDFRSDS⁵ Double Deflection Register, DDFRDDS⁵





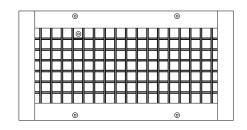
Average disc	harge velocity (fpm)	300	400	500	600	700	800	900	1000	1100	1200
	CFM	70	90	115	140	160	185	205	230	255	275
12 x 4 ⁶	Static Pressure ¹	0.008	0.015	0.023	0.033	0.045	0.059	0.075	0.093	0.112	0.134
Ak= 0.23 ⁴	Horizontal Throw ²	5-3	7-4	9-4	10-5	12-6	14-7	16-8	17-9	19-9	21-10
	Noise Criteria ³	-	-	-	-	-	-	-	<20	20	25
	CFM	100	130	165	200	230	265	295	330	365	395
12 x 6 ⁶	Static Pressure ¹	0.008	0.015	0.023	0.033	0.045	0.059	0.075	0.093	0.112	0.133
Ak= 0.33 ⁴	Horizontal Throw ²	6-3	8-4	10-5	12-6	14-7	16-8	18-9	20-10	21-11	23-12
	Noise Criteria ³	-	1	-	1	-	1	1	<20	20	25
	CFM	155	210	260	310	365	415	470	520	570	625
14 x 8 ⁶	Static Pressure ¹	0.008	0.014	0.023	0.032	0.044	0.058	0.073	0.090	0.109	0.130
18 x 6 ⁶ Ak= 0.52 ⁴	Horizontal Throw ²	7-4	10-5	12-6	14-7	17-8	19-10	22-11	24-12	27-13	29-14
	Noise Criteria ³	-	1	-	1	-	1	<20	20	25	30
	CFM	175	235	295	355	415	470	530	590	650	710
16 x 8 ⁶	Static Pressure ¹	0.008	0.014	0.022	0.032	0.044	0.057	0.072	0.089	0.108	0.128
20 x 6 ⁶ Ak= 0.59 ⁴	Horizontal Throw ²	8-4	10-5	13-6	15-8	18-9	20-10	23-11	26-13	28-14	31-15
	Noise Criteria ³	-	1	-	1	-	<20	20	25	25	30
	CFM	200	270	335	400	470	535	605	670	735	805
24 x 6 ⁶ 18 x 8 ⁶	Static Pressure ¹	0.008	0.014	0.022	0.032	0.044	0.057	0.072	0.089	0.107	0.128
Ak= 0.67 ⁴	Horizontal Throw ²	8-4	11-5	14-7	17-8	19-10	22-11	25-12	28-14	30-15	33-16
	Noise Criteria ³	-	1	-	1	<20	20	25	30	30	35
	CFM	220	295	370	445	520	590	665	740	815	890
20 x 8 ⁶	Static Pressure ¹	0.008	0.014	0.022	0.032	0.043	0.057	0.072	0.089	0.107	0.128
16 x 10 ⁶ Ak= 0.74 ⁴	Horizontal Throw ²	9-4	11-6	14-7	17-8	20-10	23-11	26-13	28-14	31-15	34-17
	Noise Criteria ³	-	1	-	<20	20	20	25	25	30	35
	CFM	245	330	410	490	575	655	740	820	900	985
18 x 10 ⁶	Static Pressure ¹	0.008	0.014	0.022	0.031	0.042	0.055	0.070	0.087	0.105	0.124
Ak= 0.82 ⁴	Horizontal Throw ²	9-4	12-6	15-7	18-9	21-10	24-12	27-13	30-15	32-16	35-17
	Noise Criteria ³	-	-	-	<20	20	25	30	30	35	40
	CFM	280	370	465	560	650	745	835	930	1025	1115
20 x 10 ⁶ 24 x 8 ⁶	Static Pressure ¹	0.008	0.014	0.022	0.031	0.042	0.055	0.070	0.086	0.100	0.123
24 x 8° Ak= 0.93 ⁴	Horizontal Throw ²	10-5	13-6	16-8	19-9	22-11	25-12	29-14	32-16	35-17	38-19
	Noise Criteria ³	-	ı	<20	20	25	30	35	40	40	45

Performance Data

McGill AirFlow LLC

An enterpise of United McGill Corporation — Founded in 1951

Single Deflection Register, DDFRSDS⁵ Double Deflection Register, DDFRDDS⁵





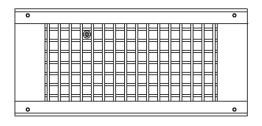
Average discharge velocity (fpm)		300	400	500	600	700	800	900	1000	1100	1200
	CFM	335	445	555	665	775	890	1000	1110	1220	1330
24 x 10 ⁶	Static Pressure ¹	0.008	0.014	0.022	0.032	0.043	0.055	0.071	0.086	0.104	0.123
20 x 12 ⁶ Ak= 1.11 ⁴	Horizontal Throw ²	10-5	14-7	17-8	21-10	24-12	28-14	31-15	34-17	38-19	41-20
	Noise Criteria ³	-	<20	20	25	30	30	35	40	45	45
	CFM	405	540	675	810	945	1080	1215	1350	1485	1620
24 x 12 ⁶	Static Pressure ¹	0.008	0.014	0.022	0.031	0.043	0.054	0.071	0.086	0.104	0.122
Ak= 1.35 ⁴	Horizontal Throw ²	11-6	15-7	19-9	23-11	27-13	30-15	34-17	38-19	42-21	46-22
	Noise Criteria ³	-	<20	20	25	30	35	35	40	45	>45
	CFM	500	670	835	1000	1170	1335	1505	1670	1835	1620
30 x 12 ⁶	StaticPressure ¹	0.008	0.014	0.022	0.031	0.043	0.054	0.071	0.086	0.104	0.122
Ak= 1.67 ⁴	Horizontal Throw ²	13-6	17-8	21-10	25-12	29-14	33-16	38-19	42-21	46-23	50-25
	Noise Criteria ³	-	20	25	30	35	40	40	45	>45	>45

Notes: 1. Static Pressure in inches water column

- 2. Throw data are in feet at terminal velocities of 75 and 150 fpm, respectively.
- 3. Noise Criteria (NC) based on a 10 dB room absorption evaluated at 125 Hz through 4000 Hz octave bands.
- 4. Ak = Effective area in square feet
- 5. Units come standard with air scoop.
- 6. Width x Height is the nominal hole size in the duct. Width is the longer dimension.

An enterpise of United McGill Corporation — Founded in 1951

Universal, Single Deflection Register, DDFRUSDS⁵ Universal, Double Deflection Register, DDFRUDDS⁵





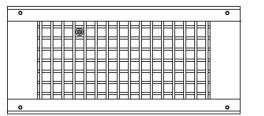
		ı		I							
Average disc	charge velocity (fpm)	300	400	500	600	700	800	900	1000	1100	1200
	CFM	49	65	81	98	114	130	146	163	179	195
12 x 4 ⁶	Static Pressure ¹	0.010	0.020	0.020	0.030	0.050	0.060	0.080	0.090	0.110	0.140
16 x 3 ⁶ Ak= 0.16 ⁴	Horizontal Throw ²	5-2	6-3	8-4	10-5	11-6	13-6	15-7	16-8	18-9	19-10
	Noise Criteria ³	-	-	-	<20	21	25	28	32	33	37
	CFM	65	86	108	129	151	172	194	215	237	258
10 x 6 ⁶ 20 x 3 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.050	0.060	0.080	0.090	0.110	0.13
$Ak = 0.22^4$	Horizontal Throw ²	6-3	8-4	10-5	11-6	13-8	15-7	17-8	19-9	20-10	22-1
	Noise Criteria ³	-	-	-	<20	22	26	29	33	36	38
12 x 6 ⁶	CFM	81	108	135	162	189	216	243	270	297	324
24 x 3 ⁶	Total Pressure ¹	0.010	0.010	0.020	0.030	0.050	0.060	0.080	0.090	0.110	0.13
18 x 4 ⁶ Ak= 0.27 ⁴	Horizontal Throw ²	6-3	8-4	10-5	11-6	15-7	17-8	19-9	21-10	23-11	25-1
AK- 0.27	Noise Criteria ³	-	-	-	<20	23	27	31	34	37	39
	CFM	98	131	164	196	229	262	295	327	360	393
14 x 6 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.050	0.060	0.070	0.090	0.110	0.13
$Ak = 0.33^4$	Horizontal Throw ²	7-3	9-5	11-6	14-7	16-8	18-9	21-10	23-11	25-13	27-1
	Noise Criteria ³	-	-	-	<20	24	27	31	34	37	40
	CFM	116	155	193	232	271	309	348	387	425	464
16 x 6 ⁶ 24 x 4 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.050	0.060	0.070	0.090	0.110	0.13
$24 \times 4^{\circ}$ Ak= 0.39^{4}	Horizontal Throw ²	7-4	10-5	12-6	15-7	17-9	20-10	22-11	25-12	27-14	30-1
	Noise Criteria ³	-	-	-	<20	24	28	32	35	38	40
	CFM	141	188	234	281	328	375	422	469	516	563
14 x 8 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.13
$Ak = 0.47^4$	Horizontal Throw ²	8-4	11-6	14-7	16-8	19-10	22-11	25-12	27-14	30-15	33-1
	Noise Criteria ³	-	-	<20	20	25	29	32	36	39	41
	CFM	153	204	256	307	358	409	460	511	562	613
20 x 6 ⁶ 30 x 4 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.13
Ak= 0.51 ⁴	Horizontal Throw ²	9-4	11-6	14-7	17-9	20-10	23-11	26-13	29-14	31-16	34-1
	Noise Criteria ³	-	-	<20	21	25	29	32	36	39	41
10 × 06	CFM	193	257	321	385	449	513	578	642	706	770
18 x 8 ⁶ 24 x 6 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.11
36 x 4 ⁶	Horizontal Throw ²	10-5	13-6	16-8	19-10	22-11	26-13	29-14	32-16	35-18	38-1
Ak= 0.64 ⁴	Noise Criteria ³	-	-	<20	22	26	30	35	37	40	43

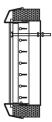
Performance Data

McGill AirFlow LLG

An enterpise of United McGill Corporation — Founded in 1951

Universal, Single Deflection Register, DDFRUSDS⁵ Universal, Double Deflection Register, DDFRUDDS⁵



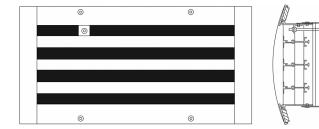


Average disc	harge velocity (fpm)	300	400	500	600	700	800	900	1000	1100	1200
	CFM	220	293	366	439	512	586	659	732	805	878
16 x 10 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.03	0.04	0.060	0.070	0.090	0.110	0.130
20 x 8 ⁶ Ak= .73 ⁴	Horizontal Throw ²	10-5	14-7	17-9	21-10	24-12	27-14	31-15	34-17	38-19	41-21
	Noise Criteria ³	-	-	<20	23	27	31	35	38	41	44
	CFM	254	339	424	509	594	678	763	1018	1485	1620
30 x 6 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.130
Ak= .85 ⁴	Horizontal Throw ²	11-6	15-7	18-9	22-11	26-13	29-15	33-17	37-19	41-20	44-22
	Noise Criteria ³	-	ı	<20	23	27	31	35	38	41	44
	CFM	319	426	532	639	745	852	958	1065	1171	1278
36 x 6 ⁶ 18 x 12 ⁶	Static Pressure ¹	0.010	0.010	0.020	0.030	0.040	0.060	0.070	0.090	0.110	0.120
Ak= 1.06 ⁴	Horizontal Throw ²	12-6	17-8	21-10	25-12	29-14	33-17	37-19	41-21	45-23	50-25
	Noise Criteria ³	-	-	<20	24	28	32	36	39	42	44
24 x 10 ⁶	CFM	364	486	607	729	850	972	1093	1215	1336	1456
24 x 10° 20 x 12 ⁶	Static Pressure	0.010	0.010	0.020	0.030	0.040	0.050	0.070	0.090	0.100	0.120
30 x 8 ⁶ Ak= 1.21 ⁴	Horizontal Throw	13-7	18-9	22-11	26-13	31-15	35-18	40-20	44-22	48-24	53-26
AK- 1.21	Noise Criteria	-	-	<20	24	29	33	36	39	42	45
	CFM	605	806	1008	1209	1411	1612	1814	2016	2217	2419
30 x 12 ⁶ 36 x 10 ⁶	Static Pressure	0.010	0.010	0.020	0.030	0.040	0.050	0.060	0.080	0.090	0.110
Ak= 2.02 ⁴	Horizontal Throw	17-9	23-11	28-14	37-17	40-20	45-23	51-26	57-26	62-31	68-34
	Noise Criteria	-	-	20	26	30	34	38	41	44	47

Notes: 1. Static Pressure in inches water column

- 2. Throw data are in feet at terminal velocities of 75 and 150 fpm, respectively.
- 3. Noise Criteria (NC) based on a 10 dB room absorption evaluated at 125 Hz through 4000 Hz octave bands.
- 4. Ak = Effective area in square feet
- 5. Units come standard with air scoop.
- 6. Width x Height is the nominal hole size in the duct. Width is the longer dimension.

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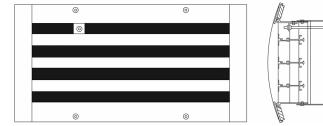


Linear Slot Register, DDFRLS⁷

(1/2-, 3/4-, and 1-inch-wide slots)

		Airflow Rate ²	7	10	13	17	20	23	27	30	33	37
	4 01 1	Static Pressure ²	0.002	0.003	0.006	0.009	0.016	0.018	0.024	0.030	0.037	0.045
	1 Slot	Horizontal Throw ^{2,4,5}	7-4-2	11-6-4	15-7-5	19-9-6	22-11-7	26-13-9	30-15-10	33-17-11	37-19-12	41-20-14
		Noise Criteria ^{3,6}	<15	<15	<15	<15	<15	<15	19	21	23	25
		Airflow Rate ²	10	17	23	30	37	43	50	57	63	70
	2 Slot	Static Pressure ²	0.001	0.002	0.004	0.007	0.011	0.015	0.020	0.026	0.032	0.039
ots	2 3101	Horizontal Throw ^{2,4,5}	6-3-2	9-5-3	13-6-4	17-8-6	20-10-7	24-12-8	28-14-9	31-16-10	35-18-12	39-19-13
h Sic		Noise Criteria ^{3,6}	<15	<15	<15	<15	<15	<15	19	23	27	31
1/2-inch Slots		Airflow Rate ²	13	23	33	43	53	63	73	83	93	103
1/;	3 Slot	Static Pressure ²	0.001	0.002	0.004	0.006	0.009	0.012	0.017	0.021	0.027	0.033
	3 3101	Horizontal Throw ^{2,4,5}	5-3-2	10-5-3	14-7-5	18-9-6	22-11-7	26-13-9	30-15-10	34-17-11	38-19-13	42-21-14
		Noise Criteria ^{3,6}	<15	<15	<15	<15	<15	18	21	25	30	33
		Airflow Rate ²	17	30	43	57	70	83	97	110	123	137
	4 Slot	Static Pressure ²	0.001	0.002	0.003	0.005	0.008	0.012	0.016	0.020	0.025	0.031
	4 0101	Horizontal Throw ^{2,4,5}	6-3-2	10-5-3	15-8-5	20-10-7	24-12-8	29-14-10	31-17-11	38-19-13	43-21-14	47-24-16
		Noise Criteria ^{3,6}	<15	<15	<15	<15	18	20	22	27	32	34
						1				1		
		Airflow Rate ²	10	15	20	25	30	35	40	45	50	55
	1-Slot	Airflow Rate ² Static Pressure ²	0.002	15 0.004	0.007	25 0.011	30 0.015	35 0.020	40 0.027	45 0.034	50 0.042	55 0.050
	1-Slot											0.050
	1-Slot	Static Pressure ²	0.002	0.004	0.007	0.011	0.015	0.020	0.027	0.034	0.042	0.050
	1-Slot	Static Pressure ² Horizontal Throw ^{2,4,5}	0.002 6-3-2	0.004 9-5-3	0.007	0.011 15-8-5	0.015 18-9-6	0.020	0.027	0.034 28-14-9	0.042 31-15-10	0.050 34-17-11
		Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6}	0.002 6-3-2 <15	0.004 9-5-3 <15	0.007 12-6-4 <15	0.011 15-8-5 <15	0.015 18-9-6 19	0.020 22-11-7 21	0.027 25-12-8 25	0.034 28-14-9 30	0.042 31-15-10 34	0.050 34-17-11 39
ots	1-Slot 2-Slot	Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ²	0.002 6-3-2 <15 15	0.004 9-5-3 <15 25	0.007 12-6-4 <15 35	0.011 15-8-5 <15 45	0.015 18-9-6 19 55	0.020 22-11-7 21 65	0.027 25-12-8 25 75	0.034 28-14-9 30 85	0.042 31-15-10 34 95	0.050 34-17-11 39 105 0.044
th Slots		Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ²	0.002 6-3-2 <15 15 0.001	0.004 9-5-3 <15 25 0.003	0.007 12-6-4 <15 35 0.005	0.011 15-8-5 <15 45 0.008	0.015 18-9-6 19 55 0.012	0.020 22-11-7 21 65 0.017	0.027 25-12-8 25 75 0.022	0.034 28-14-9 30 85 0.029	0.042 31-15-10 34 95 0.036	0.050 34-17-11 39 105 0.044
4-inch Slots		Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ² Horizontal Throw ^{2,4,5}	0.002 6-3-2 <15 15 0.001 5-2-2	0.004 9-5-3 <15 25 0.003 8-4-3	0.007 12-6-4 <15 35 0.005 11-5-4	0.011 15-8-5 <15 45 0.008 14-7-6	0.015 18-9-6 19 55 0.012 17-8-6	0.020 22-11-7 21 65 0.017 20-10-7	0.027 25-12-8 25 75 0.022 23-12-8	0.034 28-14-9 30 85 0.029 26-13-9	0.042 31-15-10 34 95 0.036 29-15-10	0.050 34-17-11 39 105 0.044 32-16-11
3/4-inch Slots	2-Slot	Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6}	0.002 6-3-2 <15 15 0.001 5-2-2 <15	0.004 9-5-3 <15 25 0.003 8-4-3 <15	0.007 12-6-4 <15 35 0.005 11-5-4 <15	0.011 15-8-5 <15 45 0.008 14-7-6 <15	0.015 18-9-6 19 55 0.012 17-8-6	0.020 22-11-7 21 65 0.017 20-10-7	0.027 25-12-8 25 75 0.022 23-12-8 32	0.034 28-14-9 30 85 0.029 26-13-9 35	0.042 31-15-10 34 95 0.036 29-15-10	0.050 34-17-11 39 105 0.044 32-16-11 41
		Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ²	0.002 6-3-2 <15 15 0.001 5-2-2 <15	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35	0.007 12-6-4 <15 35 0.005 11-5-4 <15	0.011 15-8-5 <15 45 0.008 14-7-6 <15	0.015 18-9-6 19 55 0.012 17-8-6 19	0.020 22-11-7 21 65 0.017 20-10-7 26 95	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019	0.034 28-14-9 30 85 0.029 26-13-9 35 125	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030	0.050 34-17-11 39 105 0.044 32-16-11 41
	2-Slot	Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Total Pressure ²	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037
	2-Slot	Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Total Pressure ² Horizontal Throw ^{2,4,5}	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001 5-2-2	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002 8-4-3	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004 11-6-4	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010 18-9-6	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014 22-11-7	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019 25-12-8	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024 28-14-9	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030 32-16-11	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037 38-18-12
	2-Slot 3-Slot	Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Total Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6}	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001 5-2-2 <15	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002 8-4-3 <15	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004 11-6-4 <15	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007 15-7-5	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010 18-9-6 23	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014 22-11-7 28	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019 25-12-8 33	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024 28-14-9	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030 32-16-11 40	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037 38-18-12 43
	2-Slot	Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} Airflow Rate ² Static Total Pressure ² Horizontal Throw ^{2,4,5} Noise Criteria ^{3,6} AirFlow Rate ²	0.002 6-3-2 <15 15 0.001 5-2-2 <15 20 0.001 5-2-2 <15 25	0.004 9-5-3 <15 25 0.003 8-4-3 <15 35 0.002 8-4-3 <15 45	0.007 12-6-4 <15 35 0.005 11-5-4 <15 50 0.004 11-6-4 <15 65	0.011 15-8-5 <15 45 0.008 14-7-6 <15 65 0.007 15-7-5 18 85	0.015 18-9-6 19 55 0.012 17-8-6 19 80 0.010 18-9-6 23 105	0.020 22-11-7 21 65 0.017 20-10-7 26 95 0.014 22-11-7 28 125	0.027 25-12-8 25 75 0.022 23-12-8 32 110 0.019 25-12-8 33 145	0.034 28-14-9 30 85 0.029 26-13-9 35 125 0.024 28-14-9 37	0.042 31-15-10 34 95 0.036 29-15-10 38 140 0.030 32-16-11 40 185 0.028	0.050 34-17-11 39 105 0.044 32-16-11 41 155 0.037 38-18-12 43 205

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Linear Slot Register, DDFRLS⁷

(1/2-, 3/4-, and 1-inch-wide slots)

		Airdless Date2	13	20	27	33	40	47	53	60	67	73
		Airflow Rate ²	13	20	21	33	40	47	55	00	07	/3
	1 Slot	Static Pressure ²	0.002	0.005	0.009	0.014	0.020	0.027	0.036	0.045	0.056	0.067
	1 3101	Horizontal Throw ^{2,4,5}	5-2-2	7-4-2	10-5-3	12-6-4	15-7-5	17-9-6	20-10-7	22-11-7	25-12-8	27-14-9
		Noise Criteria ^{3,6}	<15	<15	<15	20	25	31	37	41	43	45
		Airflow Rate ²	20	33	47	60	79	87	100	113	127	140
	2 Slot	Static Pressure ²	0.001	0.003	0.007	0.011	0.016	0.023	0.030	0.038	0.048	0.059
છ	2 3101	Horizontal Throw ^{2,4,5}	4-2-1	6-3-2	9-4-3	11-6-4	14-7-5	16-8-5	19-9-6	21-10-7	23-12-8	26-13-9
Slots		Noise Criteria ^{3,6}	<15	<15	<15	23	32	35	40	44	48	51
1-inch		Airflow Rate ²	27	47	67	87	107	127	147	167	187	207
-	3 Slot	Static Pressure ²	0.001	0.003	0.005	0.009	0.013	0.019	0.025	0.032	0.040	0.049
	3 3101	Horizontal Throw ^{2,4,5}	4-2-1	6-3-2	9-5-3	12-6-4	15-7-5	17-9-6	20-10-7	23-11-8	38-19-13	28-14-9
		Noise Criteria ^{3,6}	<15	<15	<15	23	32	35	40	44	48	51
		Airflow Rate ²	33	60	87	113	140	167	193	220	247	273
	4 01=4	Static Pressure ²	0.001	0.002	0.005	0.008	0.012	0.017	0.023	0.030	0.038	0.046
	4 Slot	Horizontal Throw ^{2,4,5}	4-2-1	7-3-2	10-5-3	13-7-4	16-8-5	19-10-8	22-11-7	25-13-8	29-14-10	32-16-11
		Noise Criteria ^{3,6}	<15	16	22	27	31	37	42	46	50	54

Notes: 1. Tests conducted in accordance with ANSI/ASHRAE 7-1991 at isothermal conditions.

2. Engineering Units: Airflow Rate = cfm per linear foot

Static Pressure = inches water column

Throw = feet at 50, 100, and 150 fpm terminal velocity

- 3. Noise Criteria (NC) is based on a 10 dB room absorption evaluated at 125 through 4000 Hz octave bands.
- 4. Throw data are based on a horizontal discharge in one direction only. For 2-way discharge pattern, the throw is determined from the published engineering data based on the number of slots and cfm per linear foot discharge in each direction.
- 5. Throw data are for 4-foot active diffuser lengths. For other active lengths, throw may be determined by applying the following multiplication factors:

Diffuser Length (feet)	Multiplication Factor
1	0.50
2	0.85
3	0.95
4	1.00

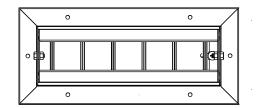
Noise Criteria are for 4-foot active diffuser lengths. For other lengths, add or deduct the following values to or from the reported NC level:

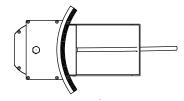
Diffuser Length (feet)	NC Correction
1	-2
2	-2
3	-1
4	0

- 7. The air scoop is standard equipment on units with 1-inch-wide slots and is not available on units with 1/2- or 3/4-inch-wide slots.
- 8. Width x height is the nominal hole size in the duct. Width is the longer dimension.

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Drum Register, DDFRDS

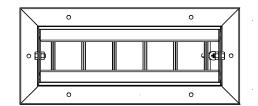


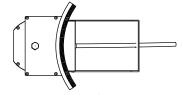


Average di	scharge velocity (fpm)	500	720	1000	1500	2000	2500
	CFM	72	107	143	215	286	358
12 x 4 ⁶	Total Pressure ¹						0.523
Ak= 0.14 ⁴	Horizontal Throw ²			5-10-22	1500 215 0.189 8-17-31 21 342 0.219 13-26-40 23 437 0.204 17-32-46 24 549 0.208 22-36-50 25 660 0.208 24-40-55 28 772 0.215 26-42-60 27 883 0.215 28-46-65 28 1106 0.216 31-50-72 29		11-28-41
l	Noise Criteria	<15	<15	<15		29	39
	CFM	114	171	228	342	456	570
18 x 4 ⁶	Total Pressure ¹	0.024	0.055	0.098	0.219	0.391	0.611
Ak= 0.23 ⁴	Horizontal Throw ²	4-8-16	5-12-25	8-18-32	13-26-40	18-32-46	22-36-52
i t	Noise Criteria ³	<15	<15	<15	215 0.189 8-17-31 21 342 0.219 13-26-40 23 437 0.204 17-32-46 24 549 0.208 22-36-50 25 660 0.208 24-40-55 28 772 0.215 26-42-60 27 883 0.215 28-46-65 28 1106 0.216 31-50-72	33	41
	CFM	146	218	291	437	286 0.334 11-22-36 29 456 0.391 18-32-46 33 583 0.365 22-37-53 34 731 0.379 25-41-59 35 880 0.379 28-46-64 38 1029 0.381 30-49-70 37 1178 0.384 32-53-74 38 1475 0.385	728
24 x 4 ⁶	Total Pressure ¹	0.023	0.051	0.091	0.204	0.365	0.570
Ak= 0.29 ⁴	Horizontal Throw ²	5-10-23	8-16-30	11-23-37	215 0.189 8-17-31 21 342 0.219 13-26-40 23 437 0.204 17-32-46 24 549 0.208 22-36-50 25 660 0.208 24-40-55 28 772 0.215 26-42-60 27 883 0.215 28-46-65 28 1106 0.216 31-50-72	22-37-53	25-41-65
İ	Noise Criteria ³	72 107 143 215 0.021 0.047 0.084 0.189 0 3-5-10 4-8-16 5-10-22 8-17-31 11 <15	34	42			
	CFM	183	274	366	549	731	914
30 x 4 ⁶	Total Pressure ¹	0.024	0.052	0.095	0.208	0.379	0.590
Ak= 0.37 ⁴	Horizontal Throw ²	7-14-29	10-21-35	14-29-41	22-36-50	25-41-59	28-47-65
	Noise Criteria ³	<15	<15	<15	25	35	43
ĺ	CFM	220	330	440	660	880	1100
36 x 4 ⁶	Total Pressure ¹	0.024	0.052	0.095	0.208	0.379	0.590
Ak= 0.44 ⁴	Horizontal Throw ²	8-17-32	12-24-39	17-32-46	215 0.189 8-17-31 21 342 0.219 13-26-40 23 437 0.204 17-32-46 24 549 0.208 22-36-50 25 660 0.208 24-40-55 28 772 0.215 26-42-60 27 883 0.215 28-46-65 28 1106 0.216 31-50-72	28-46-64	31-50-72
	Noise Criteria ³	>15	>15	<15		38	47
	CFM	257	386	514	215 0.189 8-17-31 21 342 0.219 13-26-40 18 23 437 0.204 17-32-46 24 549 0.208 22-36-50 25 660 0.208 24-40-55 28 772 0.215 26-42-60 30 27 883 0.215 28-46-65 32 28 1106 0.216 31-50-72 20	1029	1286
42 x 4 ⁶	Total Pressure ¹	0.024	0.054	0.095		0.381	0.593
Ak= 0.51 ⁴	Horizontal Throw ²	10-20-35	15-27-42	20-35-49		30-49-70	33-55-78
	Noise Criteria ³	<15	<15	<15		37	46
	CFM	294	442	589	883	1178	1472
48 x 4 ⁶	Total Pressure ¹	0.024	0.054	0.096	0.215	0.384	0.593
Ak= 0.59 ⁴	Horizontal Throw ²	12-23-37	17-30-45	22-37-53	28-46-65	32-53-74	36-59-83
	Noise Criteria ³	<15	<15	<15	8-17-31 1: 21 342 0.219 13-26-40 18 23 437 0.204 17-32-46 22 24 549 0.208 22-36-50 28 25 660 0.208 24-40-55 28 28 772 0.215 26-42-60 30 27 883 0.215 28-46-65 33 28 1106 0.216 31-50-72 26	38	47
	CFM	369	553	738	1106	1475	1844
60 x 4 ⁶	Total Pressure ¹	0.024	0.054	0.097	0.216	0.385	0.603
Ak= 0.74 ⁴	Horizontal Throw ²	14-29-42	19-35-50	25-42-59	0.219 13-26-40 23 437 0.204 17-32-46 24 549 0.208 22-36-50 25 660 0.208 24-40-55 28 772 0.215 26-42-60 27 883 0.215 28-46-65 28 1106 0.216 31-50-72	26-59-83	40-66-92
	Noise Criteria ³	<15	<15	>15	29	38	48

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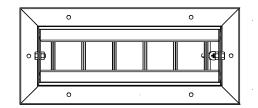


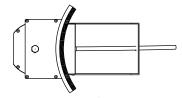


Average dis	scharge velocity (fpm)	500	720	1000	1500	2000	2500
	CFM	135	203	270	338	405	540
12 x 6 ⁶	Total Pressure ¹	0.028	0.044	0.112	0.176	0.253	0.450
Ak= 0.274	Horizontal Throw ²	5-10-20	8-16-31	10-2036	338 0.176 12-25-39 24 513 0.189 3 19-34-48 26 689 0.192 0 24-40-56 28 864 0.195 3 27-44-63 29 1040 0.199 3 30-49-69 30 1216 0.201 7 32-53-75 31 1391 0.202 2 35-57-80 32 1744 0.204	15-31-43	21-36-50
	Noise Criteria	<15	<15	16		30	41
	CFM	205	308	410	513	615	820
18 x 6 ⁶	Total Pressure ¹	0.030	0.067	0.119	0.189	0.267	0.476
Ak= 0.41 ⁴	Horizontal Throw ²	8-16-31	12-24-38	15-31-43	338 0.176 12-25-39 24 513 0.189 19-34-48 26 689 0.192 24-40-56 28 864 0.195 27-44-63 29 1040 0.199 30-49-69 30 1216 0.201 32-53-75 31 1391 0.202 35-57-80 32 1744	23-38-54	27-43-62
	Noise Criteria ³	<15	<15	18		32	42
	CFM	276	413	551	689	405 0.253 9 15-31-43 30 615 0.267 8 23-38-54 32 827 0.276 6 27-44-62 34 1037 0.281 3 30-49-70 35 1248 0.285 9 33-54-77 36 1460 0.287 5 36-59-83 37 1670 0.290 0 39-62-89 38 2093 0.293	1102
24 x 6 ⁶	Total Pressure ¹	0.030	0.69	0.123	0.192	0.276	0.492
Ak= 0.55 ⁴	Horizontal Throw ²	11-21-36	15-31-44	21-36-50	338 0.176 12-25-39 24 513 0.189 19-34-48 26 689 0.192 24-40-56 28 864 0.195 27-44-63 29 1040 0.199 30-49-69 30 1216 0.201 32-53-75 31 1391 0.202 35-57-80 32 1744 0.204 39-64-89	27-44-62	31-50-72
	Noise Criteria ³	<15	<15	20		34	44
	CFM	346	518	691	864	1037	1382
30 x 6 ⁶	Total Pressure ¹	0.031	0.070	0.126	0.195	0.281	0.504
Ak= 0.69 ⁴	Horizontal Throw ²	13-26-41	20-35-49	24-40-56	27-44-63	30-49-70	35-56-80
	Noise Criteria ³	<15	<15	21	29	35	45
	CFM	416	624	832	1040	1248	1664
36 x 6 ⁶	Total Pressure ¹	0.032	0.071	0.128	0.199	0.285	0.510
Ak= 0.83 ⁴	Horizontal Throw ²	16-31-44	23-38-54	27-44-62	112 0.176 2036 12-25-39 16 24 10 513 119 0.189 31-43 19-34-48 18 26 51 689 123 0.192 36-50 24-40-56 20 28 91 864 126 0.195 40-56 27-44-63 21 29 32 1040 128 0.199 14-62 30-49-69 22 30 73 1216 129 0.201 18-67 32-53-75 23 31 113 1391 129 0.202 52-72 35-57-80 23 32 396 1744 131 0.204 58-80 39-64-89	33-54-77	38-62-88
	Noise Criteria ³	<15	<15	22		36	46
	CFM	487	730	973	1216	1460	1948
42 x 6 ⁶	Total Pressure ¹	0.032	0.072	0.129	0.201	0.287	0.512
Ak= 0.97 ⁴	Horizontal Throw ²	19-34-48	25-41-59	29-48-67	32-53-75	36-59-83	41-67-95
	Noise Criteria ³	<15	<15	23	0.176 12-25-39 24 513 0.189 19-34-48 26 689 0.192 24-40-56 28 864 0.195 27-44-63 29 1040 0.199 30-49-69 30 1216 0.201 32-53-75 31 1391 0.202 35-57-80 32 1744 0.204 39-64-89	37	47
	CFM	557	835	1113	1391	1670	2226
48 x 6 ⁶	Total Pressure ¹	0.032	0.072	0.129	0.202	0.290	0.514
Ak= 0.1.11 ⁴	Horizontal Throw ²	22-36-52	27-44-62	31-52-72	35-57-80	39-62-89	44-72-102
	Noise Criteria ³	<15	<15	23	0.202 35-57-80	38	48
	CFM	698	1046	1396	1744	2093	2790
60 x 6 ⁶	Total Pressure ¹	0.033	0.073	0.131	0.204	0.293	0.522
Ak= 0.1.40 ⁴	Horizontal Throw ²	24-41-58	31-49-70	35-58-80	39-64-89	43-70-98	49-80-114
	Noise Criteria ³	<15	<15	24	0.204	39	49

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Average di	scharge velocity (fpm)	500	720	1000	1500	2000	2500
	CFM	200	300	400	500	600	800
12 x 8 ⁶	Total Pressure ¹	0.034	0.075	0.135	0.210	0.303	0.538
Ak= 0.40 ⁴	Horizontal Throw ²	8-16-30	12-23-37	15-30-43	18-33-48	22-37-53	26-43-61
	Noise Criteria	<15	<15	21	29	36	46
	CFM	304	456	608	760	36 912 0.322 28-46-65 37 1224 0.332 32-54-76 39 1536 0.335 37-60-85 40 1850 0.340 40-66-92 41 2162 0.345 43-71-101	1216
18 x8 ⁶	Total Pressure ¹	0.036	0.081	0.143	0.223	0.322	0.572
Ak= 0.61 ⁴	Horizontal Throw ²	12-23-37	17-32-46	23-37-53	25-41-59	28-46-65	32-53-76
	Noise Criteria ³	<15	<15	23	500 0.210 18-33-48 29 760 0.223	37	47
	CFM	408	612	816	1020	600 0.303 48 22-37-53 36 912 0.322 59 28-46-65 37 1224 0.332 58 32-54-76 39 1536 0.335 77 37-60-85 40 1850 0.340 40-66-92 41 2162 0.345 91 43-71-101 42 2474 0.347 98 47-76-108 43 3099 0.350	1632
24 x 8 ⁶	Total Pressure ¹	0.037	0.083	0.147	0.230	0.332	0.585
Ak= 0.82 ⁴	Horizontal Throw ²	15-31-43	23-38-54	27-43-61	29-48-68	32-54-76	38-61-88
	Noise Criteria ³	<15	15	25	500 0.210 18-33-48 29 760 0.223 25-41-59 31 1020 0.230 29-48-68 33 1280 0.234 33-54-77 34 1541 0.237 36-60-84 35 1801 0.239 39-64-91 35 2061 0.241 42-69-98 4 36 2583 0.244 47-77-109 5	39	48
	CFM	512	768	1024	1280	1536	2048
30 x 8 ⁶	Total Pressure ¹	0.037	0.084	0.149	0.234	0.335	0.595
Ak= 1.02 ⁴	Horizontal Throw ²	2-35-49	26-42-60	30-49-70	33-54-77	37-60-85	42-70-98
	Noise Criteria ³	<15	16	26	34	40	49
	CFM	617	925	1233	1541	1850	2466
36 x 8 ⁶	Total Pressure ¹	0.038	0.085	0.151	0.237	0.340	0.604
Ak= 1.23 ⁴	Horizontal Throw ²	23-38-54	29-47-66	33-54-76	0.210 18-33-48 2 29 760 0.223 2 25-41-59 2 31 1020 0.230 29-48-68 33 1280 0.234 33-54-77 34 1541 0.237 36-60-84 4 35 1801 0.239 39-64-91 43 35 2061 0.241 42-69-98 47 36 2583 0.244 47-77-109 52	40-66-92	47-76-107
	Noise Criteria ³	<15	17	27		41	50
	CFM	721	1081	1441	1541 0.237 36-60-84 35 1801 0.239 39-64-91	2162	2882
42 x 8 ⁶	Total Pressure ¹	0.038	0.086	0.153		0.345	0.613
Ak= 1.44 ⁴	Horizontal Throw ²	25-41-58	31-50-71	35-58-82	39-64-91	43-71-101	50-82-116
	Noise Criteria ³	<15	18	28	0.210 18-33-48 29 760 0.223 25-41-59 31 1020 0.230 29-48-68 33 1280 0.234 33-54-77 34 1541 0.237 36-60-84 35 1801 0.239 39-64-91 35 2061 0.241 42-69-98 36 2583 0.244 47-77-109	42	52
	CFM	825	1237	1649	2061	2474	3298
48 x 8 ⁶	Total Pressure ¹	0.039	0.087	0.155	0.241	0.347	0.619
Ak= 1.65 ⁴	Horizontal Throw ²	27-44-62	33-54-76	38-62-88	42-69-98	47-76-108	55-88-124
	Noise Criteria ³	<15	19	29	25-41-59 28-4 31 3 1020 12 0.230 0.3 29-48-68 32-5 33 3 1280 15 0.234 0.3 33-54-77 37-6 34 4 1541 18 0.237 0.3 36-60-84 40-6 35 4 1801 21 0.239 0.3 39-64-91 43-71 35 4 2061 24 0.241 0.3 42-69-98 47-76 36 4 2583 30 0.244 0.3 47-77-109 52-85	43	53
	CFM	1033	1550	2066	2583	3099	4132
60 x 8 ⁶	Total Pressure ¹	0.039	0.088	0.156	0.244	0.350	0.622
Ak= 2.07 ⁴	Horizontal Throw ²	30-49-70	37-60-85	42-70-98	0.223 0.33 25-41-59 28-46 31 37 1020 122 0.230 0.33 29-48-68 32-54 33 39 1280 153 0.234 0.33 33-54-77 37-60 34 40 1541 185 0.237 0.34 36-60-84 40-66 35 41 1801 216 0.239 0.34 39-64-91 43-71 35 42 2061 247 0.241 0.34 42-69-98 47-76 36 43 2583 309 0.244 0.38 47-77-109 52-85	52-85-120	60-98-139
	Noise Criteria ³	<15	20	30		44	54

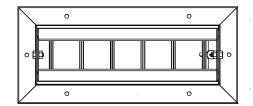
United McGill® products

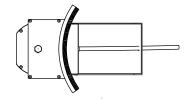
Performance Data

McGill AirFlow LLC

An enterprise of United McGill Corporation - Founded in 1951

Drum Register, DDFRDS





Performance Adjustment Factors for Various Deflection Angles

Deflection Angle	0 Degress	15 Degrees	30 Degrees	45 Degrees
Total Pressure (times)	1.0	1.2	1.8	2.4
Horizontal Throw (times)	1.0	0.8	0.7	0.5
Noise Criteria (add)	+0	+3	+7	+12

Notes: 1. Total Pressure in inches water column

- 2. Throw data are in feet at terminal velocities of 200, 100, and 50 fpm, respectively.
- 3. Noise Criteria (NC) based on a 10 dB room absorption evaluated at 125 Hz through 4000 Hz octave bands.
- 4. Ak = Effective area in square feet
- 5. Units come standard with air scoop
- 6. Width x Height is the nominal hole size in the duct. Width is the longer dimension.
- 7. Discharge velocity is in fpm.