

PERFORMANCE DATA:

FIXED BLADE RETURN GRILLES AND REGISTERS • 5100, 6100 AND 6700 SERIES

MODELS: 5155H, 6155H, 6755H, 5155V, 6155V, 6755V, 51FB55, 61FB55, 67FB55

Listed Duct Size (inches)	Alternate Sizes (inches)	Core Area (sq. ft.)	Ak Factor	Core Velocity Velocity Pressure Neg. Static Pressure	100	200	300	400	500	600	700	800	900	1000
					.001 .005	.002 .018	.006 .041	.010 .073	.016 .114	.022 .164	.031 .223	.040 .292	.050 .369	.062 .456
6 x 6	8 x 4 10 x 4	0.20	0.23	CFM Noise Criteria	20 -	40 -	60 -	80 -	100 16	120 21	140 26	160 30	180 34	200 38
8 x 6	10 x 5 12 x 4	0.28	0.30	CFM Noise Criteria	28 -	56 -	84 -	112 -	140 17	168 22	196 27	224 31	252 35	280 39
10 x 6	12 x 5 16 x 4	0.35	0.37	CFM Noise Criteria	35 -	70 -	105 -	140 -	175 18	210 23	245 28	280 32	315 36	350 40
8 x 8	14 x 5	0.38	0.40	CFM Noise Criteria	38 -	76 -	114 -	152 -	190 19	228 24	266 29	304 33	342 37	380 41
12 x 6	18 x 4	0.42	0.45	CFM Noise Criteria	42 -	84 -	126 -	168 15	210 20	252 25	294 29	336 34	378 38	420 42
12 x 8	16 x 6 24 x 4	0.58	0.59	CFM Noise Criteria	58 -	116 -	174 -	232 16	290 21	348 26	406 30	464 35	522 39	580 43
10 x 10	14 x 7 26 x 4	0.61	0.62	CFM Noise Criteria	61 -	122 -	183 -	244 16	305 21	366 26	427 31	488 36	549 39	610 43
18 x 6	14 x 8 30 x 4 28 x 4	0.65	0.67	CFM Noise Criteria	65 -	130 -	195 -	260 17	325 22	390 27	455 32	520 36	585 40	650 43
12 x 10	16 x 8 20 x 6 24 x 5	0.74	0.74	CFM Noise Criteria	74 -	148 -	222 -	296 17	370 22	444 27	518 32	592 37	666 41	740 44
12 x 12	14 x 10 24 x 6 18 x 8 38 x 4	0.90	0.89	CFM Noise Criteria	90 -	180 -	270 -	360 18	450 23	540 28	630 33	720 38	810 41	900 44
14 x 14	16 x 12 24 x 8 20 x 10 34 x 6	1.24	1.22	CFM Noise Criteria	124 -	248 -	372 -	496 18	620 23	744 28	868 33	992 38	1116 42	1240 45
18 x 12	16 x 14 28 x 8 22 x 10 38 x 6	1.37	1.34	CFM Noise Criteria	137 -	274 -	411 15	548 20	685 25	822 30	959 35	1096 40	1233 43	1370 46
24 x 10	20 x 12 30 x 8	1.52	1.49	CFM Noise Criteria	152 -	304 -	456 15	608 20	760 25	912 30	1064 35	1216 41	1368 44	1520 47
16 x 16	18 x 14 30 x 8 22 x 12	1.64	1.58	CFM Noise Criteria	164 -	328 -	492 16	656 21	820 26	984 31	1148 36	1312 41	1476 44	1640 47
24 x 12	18 x 16 30 x 10 20 x 14 36 x 8	1.85	1.78	CFM Noise Criteria	185 -	370 -	555 16	740 21	925 26	1110 31	1295 36	1480 41	1665 44	1850 48
18 x 18	20 x 16 28 x 12 24 x 14 32 x 10	2.10	2.01	CFM Noise Criteria	210 -	420 -	630 16	840 21	1050 26	1260 32	1470 37	1680 42	1890 45	2100 48
30 x 12	20 x 18 26 x 14 22 x 16 36 x 10	2.32	2.23	CFM Noise Criteria	232 -	464 -	696 16	928 22	1160 27	1392 32	1624 37	1856 42	2088 45	2320 49
20 x 20	24 x 18 30 x 14 26 x 16 36 x 12	2.61	2.48	CFM Noise Criteria	261 -	522 -	783 16	1044 22	1305 27	1566 33	1827 38	2088 43	2349 46	2610 49
22 x 22	24 x 20 30 x 16 26 x 18 36 x 14	3.17	3.00	CFM Noise Criteria	317 -	634 -	951 17	1268 23	1585 28	1902 34	2219 38	2536 43	2853 46	3170 50
30 x 18	24 x 22 40 x 14 34 x 16	3.54	3.34	CFM Noise Criteria	354 -	708 -	1062 17	1416 23	1770 28	2124 34	2478 39	2832 44	3186 47	3540 51
24 x 24	26 x 22 32 x 18 28 x 20 36 x 16	3.79	3.56	CFM Noise Criteria	379 -	758 -	1137 17	1516 23	1895 28	2274 34	2653 39	3032 44	3411 47	3790 51
36 x 18	32 x 20 46 x 14 40 x 16	4.27	4.01	CFM Noise Criteria	427 -	854 -	1281 18	1708 25	2135 29	2562 36	2989 41	3416 46	3843 49	4270 53
26 x 26	28 x 24 48 x 14	4.47	4.19	CFM Noise Criteria	447 -	894 -	1341 18	1788 25	2235 30	2682 36	3129 41	3576 46	4023 49	4470 53
30 x 24	28 x 26 36 x 20 32 x 22 40 x 18	4.77	4.46	CFM Noise Criteria	477 -	954 -	1431 19	1908 26	2385 31	2862 37	3339 42	3816 46	4293 50	4770 54
28 x 28	30 x 26 40 x 20 36 x 22	5.20	4.85	CFM Noise Criteria	520 -	1040 -	1560 19	2080 26	2600 31	3120 37	3640 42	4160 47	4680 50	5200 54
36 x 24	30 x 28 44 x 20 40 x 22	5.74	5.35	CFM Noise Criteria	574 -	1148 -	1722 19	2296 26	2870 32	3444 38	4018 42	4592 47	5166 51	5740 55
30 x 30	34 x 26 48 x 20 38 x 24	5.99	5.57	CFM Noise Criteria	599 -	1198 -	1797 19	2396 26	2995 32	3594 38	4193 43	4792 47	5391 51	5990 55

GRILLES AND REGISTERS

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For performance data notes, see F46.

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					.001 .005	.002 .018	.006 .041	.010 .073	.016 .114	.022 .164	.031 .223	.040 .292	.050 .369	.062 .456
32 x 32	36 x 30 38 x 28	6.84	6.34	CFM	684	1368	2052	2736	3420	4104	4788	5472	6156	6840
				Noise Criteria	-	15	20	27	33	39	43	48	52	56
48 x 24	34 x 34 36 x 32	7.69	7.13	CFM	769	1538	2307	3076	3845	4614	5383	6152	6921	7690
				Noise Criteria	-	16	21	27	33	39	44	48	52	56
36 x 36	38 x 34 42 x 30	8.69	8.02	CFM	869	1738	2607	3476	4345	5214	6083	6952	7821	8690
				Noise Criteria	-	17	21	28	33	40	45	49	53	57
38 x 38	42 x 34 44 x 34	9.70	8.94	CFM	970	1940	2910	3880	4850	5820	6790	7760	8730	9700
				Noise Criteria	-	18	22	28	34	40	45	49	53	57
40 x 40	42 x 36 46 x 34	10.77	9.90	CFM	1077	2154	3231	4308	5385	6462	7539	8616	9693	10770
				Noise Criteria	-	18	23	29	35	41	47	50	55	59
42 x 42	44 x 40 46 x 38	11.89	10.92	CFM	1189	2378	3567	4756	5945	7134	8323	9512	10701	11890
				Noise Criteria	-	19	24	30	36	42	47	51	55	59
44 x 44	46 x 42	13.07	11.98	CFM	1307	2614	3921	5228	6535	7842	9149	10456	11763	13070
				Noise Criteria	-	19	24	30	36	42	47	51	55	59
46 x 46		14.30	13.10	CFM	1430	2860	4290	5720	7150	8580	10010	11440	12870	14300
				Noise Criteria	15	20	25	31	37	43	48	52	56	60
48 x 48		15.59	14.26	CFM	1559	3118	4677	6236	7795	9354	10913	12472	14031	15590
				Noise Criteria	15	20	25	31	37	43	48	52	56	60

Performance Notes:

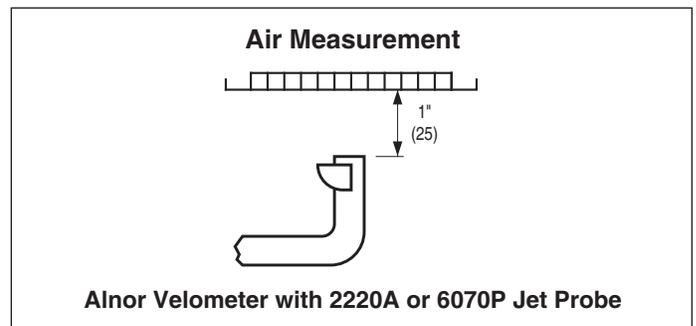
- All pressures are in inches w.g..
- Core Velocity is in feet per minute.
- Performance data is for grille with opposed blade damper. Apply the following correction factors for grille without damper.

Negative Static Pressure Listed Value x 0.91.

Noise Criteria Listed value - 4.

4. Noise Criteria (NC) values are based upon 10dB room absorption, re 10⁻¹² watts. Dash (-) in space indicates a Noise Criteria of less than 15.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 - 2023.



Airflow Measurements:

- Balancing factors are applicable with or without dampers, providing uniform airflow exists into grille or register.
- Take velocity readings at a number of locations on the inlet face (a minimum of 4), while positioning probe as shown above, one inch out from the face.
- Total the various velocity readings and divide by the number of readings taken to arrive at an average inlet velocity (V_k in FPM).
- Calculate the airflow (CFM) by multiplying the average velocity by the appropriate Ak factor.
Airflow (CFM) = Average velocity (V_k) x Ak.