

3F, 4F / 45° DEFLECTION

PERFORMANCE BASED ON NOMINAL SIZES SHOWN IN BOLD

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Nominal Duct Size (in.)	Nominal Duct Area (ft ²)	Core Area (ft ²)	Core Velocity Velocity Pressure 3F Neg. Static Pressure 4F Neg. Static Pressure	NC-20				NC-30			NC-40	
				100 0.001 0.004 0.003	200 0.002 0.018 0.012	300 0.06 0.040 0.028	400 0.010 0.072 0.050	500 0.016 0.112 0.078	600 0.022 0.162 0.112	700 0.031 0.220 0.153	800 0.040 0.288 0.200	900 0.050 0.364 0.253
6x6	0.25	0.19	Airflow, cfm NC	19 -	38 -	57 12	76 19	95 24	114 29	133 32	152 36	171 39
8x6	0.33	0.26	Airflow, cfm NC	26 -	52 -	78 13	104 26	130 26	156 30	182 34	208 37	234 40
10x6	0.42	0.34	Airflow, cfm NC	34 -	68 -	102 14	136 21	170 27	204 31	238 35	272 38	306 41
8x8	0.44	0.37	Airflow, cfm NC	37 -	74 -	111 15	148 22	185 27	222 32	259 35	296 39	333 41
12x6	0.50	0.41	Airflow, cfm NC	41 -	82 -	123 15	164 22	205 28	246 32	287 36	328 39	369 42
14x6	0.58	0.48	Airflow, cfm NC	48 -	96 -	144 16	192 23	240 28	288 33	336 36	384 40	432 43
16x6			Airflow, cfm NC	57 -	114 -	171 16	228 24	285 29	342 33	399 37	456 40	513 43
12x8	0.67	0.57	Airflow, cfm NC	59 -	118 -	177 17	236 24	295 29	354 34	413 37	472 41	531 44
18x6	0.75	0.63	Airflow, cfm NC	63 -	126 -	189 17	252 24	315 29	378 34	441 38	504 41	567 44
20x6			Airflow, cfm NC	72 -	144 -	216 17	288 25	360 30	432 34	504 38	576 42	648 44
12x10	0.83	0.72	Airflow, cfm NC	77 -	154 -	231 18	308 25	385 30	462 35	539 39	616 42	693 45
24x6			Airflow, cfm NC	88 -	176 -	264 18	352 25	440 31	528 35	616 39	704 42	792 45
12x12	1.00	0.88	Airflow, cfm NC	111 -	222 -	333 19	444 26	555 32	666 36	777 40	888 43	999 46
30x6			Airflow, cfm NC	122 -	244 -	366 20	488 27	610 32	732 37	854 41	976 44	1098 47
14x14	1.36	1.22	Airflow, cfm NC	135 -	270 -	405 20	540 27	675 33	810 37	945 41	1080 44	1215 47
36x6			Airflow, cfm NC	137 -	274 -	411 20	548 27	685 33	822 37	959 41	1096 44	1233 47
18x12	1.50	1.35	Airflow, cfm NC	149 -	298 11	447 21	596 28	745 33	894 38	1043 41	1192 45	1341 48
22x10	1.53	1.37	Airflow, cfm NC	159 -	318 11	477 21	636 28	795 33	954 38	1113 42	1272 45	1431 48
16x16	1.78	1.62	Airflow, cfm NC	162 -	324 11	486 21	648 28	810 34	972 38	1134 42	1296 45	1458 48
24x12	2.00	1.82	Airflow, cfm NC	182 -	364 12	546 22	728 29	910 34	1092 38	1274 42	1456 46	1638 48
18x18	2.25	2.07	Airflow, cfm NC	207 -	414 12	621 22	828 29	1035 35	1242 39	1449 43	1656 46	1863 49
24x14	2.33	2.14	Airflow, cfm NC	214 -	428 12	642 22	856 29	1070 35	1284 39	1498 43	1712 46	1926 49
30x12	2.50	2.29	Airflow, cfm NC	229 -	458 13	687 23	916 30	1145 35	1374 39	1603 43	1832 47	2061 49
24x16	2.67	2.46	Airflow, cfm NC	246 -	492 13	738 23	984 30	1230 35	1476 40	1722 44	1968 47	2214 50
20x20	2.78	2.57	Airflow, cfm NC	257 -	514 13	771 23	1028 30	1285 36	1542 40	1799 44	2056 47	2313 50
36x12	3.00	2.75	Airflow, cfm NC	275 -	550 13	825 23	1100 30	1375 36	1650 40	1925 44	2200 47	2475 50
30x16			Airflow, cfm NC	311 -	622 14	933 24	1244 31	1555 36	1866 41	2177 45	2488 48	2799 51
24x20	3.33	3.11	Airflow, cfm NC	314 -	628 14	942 24	1256 31	1570 36	1884 41	2198 45	2512 48	2826 51
42x12			Airflow, cfm NC	322 -	644 14	966 24	1288 31	1610 37	1932 41	2254 45	2576 48	2898 51
36x14	3.50	3.22	Airflow, cfm NC	343 -	686 14	1029 24	1372 31	1715 37	2058 41	2401 45	2744 48	3087 51
24x22	3.67	3.43	Airflow, cfm NC	350 -	700 14	1050 24	1400 31	1750 37	2100 41	2450 45	2800 48	3150 51
30x18	3.75	3.5	Airflow, cfm NC									

NC-50

- Static pressures are negative, in inches of water, measured per ANSI/ASHRAE Standard 70-2006
- NC based on room absorption of 10 dB, re 10⁻¹² watts, measured per ANSI/ASHRAE Standard 70-2006

3F, 4F / 45° DEFLECTION (continued)
PERFORMANCE BASED ON NOMINAL SIZES SHOWN IN BOLD

Nominal Duct Size (in.)	Nominal Duct Area (ft ²)	Core Area (ft ²)	Core Velocity Velocity Pressure 3F Neg. Static Pressure 4F Neg. Static Pressure	NC-20		NC-30		NC-40			NC-50		
				100	200	300	400	500	600	700	800	900	
				0.001 0.004 0.003	0.002 0.018 0.012	0.06 0.010 0.028	0.072 0.050	0.112 0.078	0.162 0.112	0.220 0.153	0.288 0.200	0.364 0.253	
48x12 24x24	4.00	3.75	Airflow, cfm NC	375 -	750 15	1125 25	1500 32	1875 37	2250 42	2625 45	3000 49	3375 52	
36x18	4.50	4.22	Airflow, cfm NC	422 -	844 15	1266 25	1688 32	2110 38	2532 42	2954 46	3376 49	3798 52	
36x20 30x24	5.00	4.71	Airflow, cfm NC	471 -	942 16	1413 26	1884 33	2355 38	2826 43	3297 46	3768 50	4239 53	
42x18	5.25	4.94	Airflow, cfm NC	494 -	988 16	1482 26	1976 33	2470 38	2964 43	3458 47	3952 50	4446 53	
28x28	5.44	5.16	Airflow, cfm NC	516 -	1032 16	1548 26	2064 33	2580 39	3096 43	3612 47	4128 50	4644 53	
42x20 30x28	5.83	5.51	Airflow, cfm NC	551 -	1102 16	1653 26	2204 33	2755 39	3306 43	3857 47	4408 50	4959 53	
48x18 36x24	6.00	5.66	Airflow, cfm NC	566 -	1132 17	1698 26	2264 33	2830 39	3396 43	3962 47	4528 50	5094 53	
30x30	6.25	5.94	Airflow, cfm NC	594 -	1188 17	1782 27	2376 34	2970 39	3564 44	4158 47	4752 51	5346 54	
42x24 36x28	7.00	6.66	Airflow, cfm NC	666 -	1332 17	1998 27	2664 34	3330 40	3996 44	4662 48	5328 51	5994 54	
46x22	7.03	6.68	Airflow, cfm NC	668 -	1336 17	2004 27	2672 34	3340 40	4008 44	4676 48	5344 51	6012 54	
32x32	7.11	6.78	Airflow, cfm NC	678 -	1356 17	2034 27	2712 34	3390 40	4068 44	4746 48	5424 51	6102 54	
36x30	7.50	7.16	Airflow, cfm NC	716 -	1432 18	2148 27	2864 35	3580 40	4296 44	5012 48	5728 51	6444 54	
48x24 36x32	8.00	7.63	Airflow, cfm NC	763 -	1526 18	2289 28	3052 35	3815 40	4578 45	5341 48	6104 52	6867 55	
34x34	8.03	7.68	Airflow, cfm NC	768 -	1536 18	2304 28	3072 35	3840 40	4608 45	5376 49	6144 52	6912 55	
36x34	8.50	8.14	Airflow, cfm NC	814 -	1628 18	2442 28	3256 35	4070 41	4884 45	5698 49	6512 52	7326 55	
42x30	8.75	8.38	Airflow, cfm NC	838 -	1676 18	2514 28	3352 35	4190 41	5028 45	5866 49	6704 52	7542 55	
36x36	9.00	8.63	Airflow, cfm NC	863 -	1726 18	2589 28	3452 35	4315 41	5178 45	6041 49	6904 52	7767 55	
42x34 48x30	10.00	9.6	Airflow, cfm NC	960 -	1920 19	2880 29	3840 36	4800 41	5760 46	6720 49	7680 53	8640 56	
38x38	10.03	9.64	Airflow, cfm NC	964 -	1928 19	2892 29	3856 36	4820 41	5784 46	6748 50	7712 53	8676 56	
42x36	10.50	10.1	Airflow, cfm NC	1010 -	2020 19	3030 29	4040 36	5050 41	6060 46	7070 50	8080 53	9090 56	
46x34	10.86	10.45	Airflow, cfm NC	1045 -	2090 19	3135 29	4180 36	5225 42	6270 46	7315 50	8360 53	9405 56	
42x38	11.08	10.67	Airflow, cfm NC	1067 -	2134 19	3201 29	4268 36	5335 42	6402 46	7469 50	8536 53	9603 56	
40x40	11.11	10.7	Airflow, cfm NC	1070 -	2140 19	3210 29	4280 36	5350 42	6420 46	7490 50	8560 53	9630 56	
48x36	12.00	11.57	Airflow, cfm NC	1157 -	2314 20	3471 30	4628 37	5785 42	6942 47	8099 50	9256 54	10413 56	
42x42	12.25	11.82	Airflow, cfm NC	1182 -	2364 20	3546 30	4728 37	5910 42	7092 47	8274 50	9456 54	10638 57	
44x44	13.44	12.99	Airflow, cfm NC	1299 -	2598 20	3897 30	5196 37	6495 43	7794 47	9093 51	10392 54	11691 57	
48x42	14.00	13.54	Airflow, cfm NC	1354 -	2708 20	4062 30	5416 37	6770 43	8124 47	9478 51	10832 54	12186 57	
46x46	14.69	14.22	Airflow, cfm NC	1422 -	2844 21	4266 30	5688 37	7110 43	8532 47	9954 51	11376 54	12798 57	
48x46	15.33	14.85	Airflow, cfm NC	1485 -	2970 21	4455 31	5940 38	7425 43	8910 48	10395 51	11880 55	13365 58	
48x48	16.00	15.50	Airflow, cfm NC	1550 -	3100 21	4650 31	6200 38	7750 43	9300 48	10850 52	12400 55	13950 58	

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• NC based on room absorption of 10 dB, re 10⁻¹² watts, measured per ANSI/ASHRAE Standard 70-2006