

Performance Data

Models: 50F, 50F-NT, 50R-SS and 50FF

Performance based on nominal sizes shown in bold.

| Nominal Duct Size (in.) | Nominal Duct Area sq. ft | Core Area sq. ft | Core Velocity Velocity Pressure 1x1x1 Neg. Ps ½x½x½ Neg. Ps | NC 20 | | | NC 30 | | | NC 40 | | |
|-------------------------|--------------------------|------------------|--|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | 300 | 400 | 500 | 600 | 700 | 800 | 1000 | 1200 | 1400 |
| | | | | 0.006 0.013 0.013 | 0.01 0.024 0.024 | 0.016 0.037 0.037 | 0.022 0.054 0.053 | 0.031 0.073 0.073 | 0.04 0.096 0.095 | 0.062 0.15 0.148 | 0.09 0.216 0.213 | 0.122 0.294 0.29 |
| 6x6 | 0.25 | 0.19 | Airflow, cfm NC | 57 - | 76 - | 95 - | 114 10 | 133 17 | 152 22 | 190 31 | 228 39 | 266 45 |
| 8x6 | 0.33 | 0.26 | Airflow, cfm NC | 78 - | 104 - | 130 - | 156 10 | 182 17 | 208 22 | 260 31 | 312 39 | 364 45 |
| 10x6 | 0.42 | 0.34 | Airflow, cfm NC | 102 - | 136 - | 170 - | 204 11 | 238 17 | 272 23 | 340 32 | 408 39 | 476 46 |
| 8x8 | 0.44 | 0.37 | Airflow, cfm NC | 111 - | 148 - | 185 - | 222 11 | 259 17 | 296 23 | 370 32 | 444 39 | 518 46 |
| 12x6 | 0.50 | 0.41 | Airflow, cfm NC | 123 - | 164 - | 205 - | 246 11 | 287 18 | 328 23 | 410 32 | 492 40 | 574 46 |
| 14x6 | 0.58 | 0.48 | Airflow, cfm NC | 144 - | 192 - | 240 - | 288 11 | 336 18 | 384 23 | 480 32 | 576 40 | 672 46 |
| 16x6 | 0.67 | 0.57 | Airflow, cfm | 171 | 228 | 285 | 342 | 399 | 456 | 570 | 684 | 798 |
| 12x8 | | | NC | - | - | - | 12 | 18 | 23 | 32 | 40 | 46 |
| 10x10 | 0.69 | 0.59 | Airflow, cfm NC | 177 - | 236 - | 295 - | 354 12 | 413 18 | 472 23 | 590 33 | 708 40 | 826 46 |
| 18x6 | 0.75 | 0.63 | Airflow, cfm NC | 189 - | 252 - | 315 - | 378 12 | 441 18 | 504 24 | 630 33 | 756 40 | 882 46 |
| 20x6 | 0.83 | 0.72 | Airflow, cfm | 216 | 288 | 360 | 432 | 504 | 576 | 720 | 864 | 1008 |
| 12x10 | | | NC | - | - | - | 12 | 18 | 24 | 33 | 40 | 46 |
| 22x6 | 0.92 | 0.77 | Airflow, cfm NC | 231 - | 308 - | 385 - | 462 12 | 539 18 | 616 24 | 770 33 | 924 40 | 1078 47 |
| 24x6 | 1.00 | 0.88 | Airflow, cfm | 264 | 352 | 440 | 528 | 616 | 704 | 880 | 1056 | 1232 |
| 12x12 | | | NC | - | - | - | 12 | 18 | 24 | 33 | 40 | 47 |
| 30x6 | 1.25 | 1.11 | Airflow, cfm | 333 | 444 | 555 | 666 | 777 | 888 | 1110 | 1332 | 1554 |
| 18x10 | | | NC | - | - | - | 13 | 19 | 24 | 34 | 41 | 47 |
| 14x14 | 1.36 | 1.22 | Airflow, cfm NC | 366 - | 488 - | 610 - | 732 13 | 854 19 | 976 24 | 1220 34 | 1464 41 | 1708 47 |
| 36x6 | 1.50 | 1.35 | Airflow, cfm | 405 | 540 | 675 | 810 | 945 | 1080 | 1350 | 1620 | 1890 |
| 18x12 | | | NC | - | - | - | 13 | 19 | 24 | 34 | 41 | 47 |
| 22x10 | 1.53 | 1.37 | Airflow, cfm NC | 411 - | 548 - | 685 - | 822 13 | 959 19 | 1096 25 | 1370 34 | 1644 41 | 1918 47 |
| 30x8 | 1.67 | 1.49 | Airflow, cfm | 447 | 596 | 745 | 894 | 1043 | 1192 | 1490 | 1788 | 2086 |
| 24x10 | | | NC | - | - | - | 13 | 19 | 25 | 34 | 41 | 47 |
| 42x6 | 1.75 | 1.59 | Airflow, cfm | 477 | 636 | 795 | 954 | 1113 | 1272 | 1590 | 1908 | 2226 |
| 18x14 | | | NC | - | - | - | 13 | 19 | 25 | 34 | 41 | 47 |
| 16x16 | 1.78 | 1.62 | Airflow, cfm NC | 486 - | 648 - | 810 - | 972 13 | 1134 19 | 1296 25 | 1620 34 | 1944 41 | 2268 48 |
| 24x12 | 2.00 | 1.82 | Airflow, cfm | 546 | 728 | 910 | 1092 | 1274 | 1456 | 1820 | 2184 | 2548 |
| 18x16 | | | NC | - | - | - | 13 | 19 | 25 | 34 | 41 | 48 |
| 18x18 | 2.25 | 2.07 | Airflow, cfm NC | 621 - | 828 - | 1035 - | 1242 13 | 1449 19 | 1656 25 | 2070 34 | 2484 41 | 2898 48 |
| 24x14 | 2.33 | 2.14 | Airflow, cfm NC | 642 - | 856 - | 1070 - | 1284 13 | 1498 20 | 1712 25 | 2140 34 | 2568 42 | 2996 48 |
| 30x12 | 2.50 | 2.29 | Airflow, cfm NC | 687 - | 916 - | 1145 - | 1374 13 | 1603 20 | 1832 25 | 2290 34 | 2748 42 | 3206 48 |
| 24x16 | 2.67 | 2.46 | Airflow, cfm NC | 738 - | 984 - | 1230 - | 1476 13 | 1722 20 | 1968 25 | 2460 34 | 2952 42 | 3444 48 |
| 20x20 | 2.78 | 2.57 | Airflow, cfm NC | 771 - | 1028 - | 1285 - | 1542 13 | 1799 20 | 2056 25 | 2570 34 | 3084 42 | 3598 48 |
| 36x12 | 3.00 | 2.75 | Airflow, cfm NC | 825 - | 1100 - | 1375 - | 1650 14 | 1925 20 | 2200 25 | 2750 34 | 3300 42 | 3850 48 |
| 30x16 | 3.33 | 3.11 | Airflow, cfm | 933 | 1244 | 1555 | 1866 | 2177 | 2488 | 3110 | 3732 | 4354 |
| 24x20 | | | NC | - | - | - | - | 14 | 20 | 25 | 35 | 42 |
| 22x22 | 3.36 | 3.14 | Airflow, cfm NC | 942 - | 1256 - | 1570 - | 1884 14 | 2198 20 | 2512 25 | 3140 35 | 3768 42 | 4396 48 |
| 42x12 | 3.50 | 3.22 | Airflow, cfm | 966 | 1288 | 1610 | 1932 | 2254 | 2576 | 3220 | 3864 | 4508 |
| 36x14 | | | NC | - | - | - | - | 14 | 20 | 26 | 35 | 42 |
| 24x22 | 3.67 | 3.43 | Airflow, cfm NC | 1029 - | 1372 - | 1715 - | 2058 14 | 2401 20 | 2744 26 | 3430 35 | 4116 42 | 4802 48 |
| 30x18 | 3.75 | 3.50 | Airflow, cfm NC | 1050 - | 1400 - | 1750 - | 2100 14 | 2450 20 | 2800 26 | 3500 35 | 4200 42 | 4900 48 |

Performance Data

• Static pressures are negative, in inches of water, measured per ANSI/ASHRAE Standard 70-91.

• NC based on room absorption of 10dB, re 10⁻¹² watts, measured per ANSI/ASHRAE Standard 70-91.



Performance Data (continued)

Models: 50F, 50F-NT, 50R-SS and 50FF

Performance based on nominal sizes shown in bold.

| Nominal Duct Size (in.) | Nominal Duct Area sq. ft | Core Area sq. ft | Core Velocity Velocity Pressure 1x1x1 Neg. Ps ½x½x½ Neg. Ps | NC 20 | | | NC 30 | | | NC 40 | | |
|-------------------------|--------------------------|------------------|--|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | 300 | 400 | 500 | 600 | 700 | 800 | 1000 | 1200 | 1400 |
| | | | | 0.006 0.013 0.013 | 0.01 0.024 0.024 | 0.016 0.037 0.037 | 0.022 0.054 0.053 | 0.031 0.073 0.073 | 0.04 0.096 0.095 | 0.062 0.15 0.148 | 0.09 0.216 0.213 | 0.122 0.294 0.29 |
| 48x12 24x24 | 4.00 | 3.75 | Airflow, cfm NC | 1125 - | 1500 - | 1875 - | 2250 14 | 2625 20 | 3000 26 | 3750 35 | 4500 42 | 5250 49 |
| 36x18 | 4.50 | 4.22 | Airflow, cfm NC | 1266 - | 1688 - | 2110 - | 2532 14 | 2954 20 | 3376 26 | 4220 35 | 5064 42 | 5908 49 |
| 36x20 30x24 | 5.00 | 4.71 | Airflow, cfm NC | 1413 - | 1884 - | 2355 - | 2826 14 | 3297 21 | 3768 26 | 4710 35 | 5652 43 | 6594 49 |
| 42x18 | 5.25 | 4.94 | Airflow, cfm NC | 1482 - | 1976 - | 2470 - | 2964 14 | 3458 21 | 3952 26 | 4940 35 | 5928 43 | 6916 49 |
| 28x28 | 5.44 | 5.16 | Airflow, cfm NC | 1548 - | 2064 - | 2580 - | 3096 14 | 3612 21 | 4128 26 | 5160 35 | 6192 43 | 7224 49 |
| 42x20 30x28 | 5.83 | 5.51 | Airflow, cfm NC | 1653 - | 2204 - | 2755 - | 3306 14 | 3857 21 | 4408 26 | 5510 35 | 6612 43 | 7714 49 |
| 48x18 36x24 | 6.00 | 5.66 | Airflow, cfm NC | 1698 - | 2264 - | 2830 - | 3396 14 | 3962 21 | 4528 26 | 5660 35 | 6792 43 | 7924 49 |
| 30x30 | 6.25 | 5.94 | Airflow, cfm NC | 1782 - | 2376 - | 2970 - | 3564 15 | 4158 21 | 4752 26 | 5940 35 | 7128 43 | 8316 49 |
| 42x24 36x28 | 7.00 | 6.66 | Airflow, cfm NC | 1998 - | 2664 - | 3330 - | 3996 15 | 4662 21 | 5328 26 | 6660 36 | 7992 43 | 9324 49 |
| 46x22 | 7.03 | 6.68 | Airflow, cfm NC | 2004 - | 2672 - | 3340 - | 4008 15 | 4676 21 | 5344 26 | 6680 36 | 8016 43 | 9352 49 |
| 32x32 | 7.11 | 6.78 | Airflow, cfm NC | 2034 - | 2712 - | 3390 - | 4068 15 | 4746 21 | 5424 27 | 6780 36 | 8136 43 | 9492 49 |
| 36x30 | 7.50 | 7.16 | Airflow, cfm NC | 2148 - | 2864 - | 3580 - | 4296 15 | 5012 21 | 5728 27 | 7160 36 | 8592 43 | 10024 49 |
| 48x24 36x32 | 8.00 | 7.63 | Airflow, cfm NC | 2289 - | 3052 - | 3815 - | 4578 15 | 5341 21 | 6104 27 | 7630 36 | 9156 43 | 10682 49 |
| 34x34 | 8.03 | 7.68 | Airflow, cfm NC | 2304 - | 3072 - | 3840 - | 4608 15 | 5376 21 | 6144 27 | 7680 36 | 9216 43 | 10752 49 |
| 36x34 | 8.50 | 8.14 | Airflow, cfm NC | 2442 - | 3256 - | 4070 - | 4884 15 | 5698 21 | 6512 27 | 8140 36 | 9768 43 | 11396 50 |
| 42x30 | 8.75 | 8.38 | Airflow, cfm NC | 2514 - | 3352 - | 4190 - | 5028 15 | 5866 21 | 6704 27 | 8380 36 | 10056 43 | 11732 50 |
| 36x36 | 9.00 | 8.63 | Airflow, cfm NC | 2589 - | 3452 - | 4315 - | 5178 15 | 6041 21 | 6904 27 | 8630 36 | 10356 43 | 12082 50 |
| 42x34 48x30 | 10.00 | 9.60 | Airflow, cfm NC | 2880 - | 3840 - | 4800 - | 5760 15 | 6720 21 | 7680 27 | 9600 36 | 11520 43 | 13440 50 |
| 38x38 | 10.03 | 9.64 | Airflow, cfm NC | 2892 - | 3856 - | 4820 - | 5784 15 | 6748 21 | 7712 27 | 9640 36 | 11568 43 | 13496 50 |
| 42x36 | 10.50 | 10.10 | Airflow, cfm NC | 3030 - | 4040 - | 5050 - | 6060 15 | 7070 22 | 8080 27 | 10100 36 | 12120 44 | 14140 50 |
| 46x34 | 10.86 | 10.45 | Airflow, cfm NC | 3135 - | 4180 - | 5225 - | 6270 15 | 7315 22 | 8360 27 | 10450 36 | 12540 44 | 14630 50 |
| 42x38 | 11.08 | 10.67 | Airflow, cfm NC | 3201 - | 4268 - | 5335 - | 6402 15 | 7469 22 | 8536 27 | 10670 36 | 12804 44 | 14938 50 |
| 40x40 | 11.11 | 10.70 | Airflow, cfm NC | 3210 - | 4280 - | 5350 - | 6420 15 | 7490 22 | 8560 27 | 10700 36 | 12840 44 | 14980 50 |
| 48x36 | 12.00 | 11.57 | Airflow, cfm NC | 3471 - | 4628 - | 5785 - | 6942 15 | 8099 22 | 9256 27 | 11570 36 | 13884 44 | 16198 50 |
| 42x42 | 12.25 | 11.82 | Airflow, cfm NC | 3546 - | 4728 - | 5910 - | 7092 15 | 8274 22 | 9456 27 | 11820 36 | 14184 44 | 16548 50 |
| 44x44 | 13.44 | 12.99 | Airflow, cfm NC | 3897 - | 5196 - | 6495 - | 7794 16 | 9093 22 | 10392 27 | 12990 36 | 15588 44 | 18186 50 |
| 48x42 | 14.00 | 13.54 | Airflow, cfm NC | 4062 - | 5416 - | 6770 - | 8124 16 | 9478 22 | 10832 27 | 13540 37 | 16248 44 | 18956 50 |
| 46x46 | 14.69 | 14.22 | Airflow, cfm NC | 4266 - | 5688 - | 7110 - | 8532 16 | 9954 22 | 11376 27 | 14220 37 | 17064 44 | 19908 50 |
| 48x46 | 15.33 | 14.85 | Airflow, cfm NC | 4455 - | 5940 - | 7425 - | 8910 16 | 10395 22 | 11880 27 | 14850 37 | 17820 44 | 20790 50 |
| 48x48 | 16.00 | 15.50 | Airflow, cfm NC | 4650 - | 6200 - | 7750 - | 9300 16 | 10850 22 | 12400 28 | 15500 37 | 18600 44 | 21700 50 |

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Performance Data



- Static pressures are negative, in inches of water, measured per ANSI/ASHRAE Standard 70-91.
- NC based on room absorption of 10dB, re 10⁻¹² watts, measured per ANSI/ASHRAE Standard 70-91.