

Design #24



| Core Area Sq. Feet | Nominal Duct Size in Inches | Core Velocity | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|-----------------------|-----------------------------------|--------------------|-------|--------|---------|----------|----------|----------|----------|----------|-----------|----------|
| | | Velocity Pressure | 0.001 | 0.002 | 0.006 | 0.01 | 0.016 | 0.022 | 0.031 | 0.04 | 0.051 | 0.062 |
| | | TP: Total Pressure | 0.003 | 0.014 | 0.031 | 0.056 | 0.09 | 0.131 | 0.175 | 0.225 | 0.29 | 0.355 |
| 0.2 | 10x4 6x6 | CFM | 20 | 39 | 59 | 78 | 98 | 118 | 137 | 157 | 176 | 196 |
| | | NC | | | | 16 | 22 | 28 | 32 | 35 | 38 | 41 |
| | | 4-Way, 45° Fixed | | | 4-6-9 | 5-8-13 | 6-9-15 | 8-11-18 | 9-13-21 | 10-14-20 | 11-16-23 | 12-17-25 |
| | | 2-Way, 45° Fixed | | | 5-7-11 | 6-9-15 | 8-11-18 | 9-14-22 | 10-15-21 | 12-17-25 | 13-20-32 | 15-22-35 |
| | | 1-Way, Straight | | | 6-9-14 | 8-11-18 | 9-14-22 | 11-15-22 | 12-18-26 | 14-21-34 | 16-24-38 | 16-26-42 |
| 0.26 | 12x4 8x6 | CFM | 25 | 49 | 78 | 103 | 127 | 152 | 176 | 206 | 230 | 255 |
| | | NC | | | 10 | 17 | 23 | 29 | 33 | 36 | 39 | 42 |
| | | 4-Way, 45° Fixed | | 3-4-7 | 4-5-6 | 6-9-14 | 7-10-16 | 8-12-20 | 10-13-19 | 11-15-22 | 12-17-25 | 13-20-32 |
| | | 2-Way, 45° Fixed | | 3-5-8 | 5-6-8 | 7-9-12 | 8-12-20 | 10-14-20 | 11-16-23 | 13-19-31 | 14-21-34 | 16-24-38 |
| | | 1-Way, Straight | | 4-5-6 | 6-8-11 | 8-11-15 | 10-14-20 | 12-17-24 | 13-20-32 | 15-23-37 | 17-26-41 | 19-28-45 |
| 0.3 | 14x4 | CFM | 29 | 59 | 88 | 118 | 147 | 176 | 206 | 235 | 265 | 294 |
| | | NC | | | 10 | 18 | 23 | 29 | 33 | 37 | 40 | 43 |
| | | 4-Way, 45° Fixed | | 3-4-7 | 4-5-6 | 6-8-10 | 7-10-13 | 9-12-17 | 10-14-20 | 11-16-23 | 12-18-26 | 14-21-33 |
| | | 2-Way, 45° Fixed | | 3-5-8 | 5-7-9 | 7-10-13 | 9-12-17 | 10-14-20 | 12-17-24 | 13-20-32 | 16-24-38/ | 16-24-39 |
| | | 1-Way, Straight | | 4-5-6 | 6-8-11 | 8-11-16 | 10-15-21 | 12-17-25 | 14-21-34 | 16-24-38 | 18-27-43 | 20-29-47 |
| 0.35 | 16x4 12x5 10x6 8x8 | CFM | 34 | 69 | 103 | 137 | 172 | 206 | 240 | 274 | 309 | 343 |
| | | NC | | | 11 | 18 | 24 | 30 | 34 | 38 | 40 | 43 |
| | | 4-Way, 45° Fixed | | 3-4-7 | 5-7-11 | 6-9-15 | 8-11-18 | 9-13-21 | 10-15-21 | 12-17-24 | 13-19-31 | 14-21-34 |
| | | 2-Way, 45° Fixed | | 4-6-9 | 5-8-13 | 7-10-13 | 9-13-21 | 10-15-21 | 12-17-25 | 14-21-33 | 15-23-37 | 17-26-41 |
| | | 1-Way, Straight | | 4-5-6 | 7-9-12 | 9-12-17 | 10-15-21 | 12-18-26 | 15-22-35 | 17-25-40 | 18-27-44 | 20-31-49 |
| 0.4 | 18x4 12x6 | CFM | 39 | 78 | 118 | 157 | 196 | 235 | 274 | 314 | 353 | 392 |
| | | NC | | | 12 | 19 | 26 | 31 | 35 | 38 | 41 | 44 |
| | | 4-Way, 45° Fixed | | 3-5-8 | 5-6-7 | 6-8-11 | 8-11-15 | 9-13-18 | 11-15-22 | 12-17-25 | 13-20-32 | 15-22-35 |
| | | 2-Way, 45° Fixed | | 4-6-9 | 6-8-10 | 8-10-14 | 9-13-18 | 11-15-22 | 12-18-26 | 14-21-34 | 16-24-38 | 18-26-42 |
| | | 1-Way, Straight | | 5-6-7 | 7-9-12 | 9-13-18 | 11-15-22 | 13-19-31 | 15-22-36 | 17-26-41 | 19-29-46 | 21-32-51 |
| 0.45 | 20x4 14x6 10x8 | CFM | 44 | 88 | 132 | 176 | 221 | 265 | 309 | 353 | 397 | 441 |
| | | NC | | | 12 | 19 | 27 | 31 | 35 | 39 | 42 | 45 |
| | | 4-Way, 45° Fixed | | 3-5-8 | 5-6-8 | 6-9-15 | 8-12-19 | 10-13-19 | 11-15-22 | 12-18-26 | 14-21-33 | 15-23-37 |
| | | 2-Way, 45° Fixed | | 4-6-9 | 6-8-10 | 8-12-19 | 10-13-19 | 11-16-23 | 13-19-31 | 15-22-35 | 16-24-39 | 18-27-44 |
| | | 1-Way, Straight | | 5-7-11 | 7-11-17 | 9-14-22 | 11-16-23 | 13-20-32 | 15-23-37 | 18-26-42 | 20-29-47 | 22-33-53 |
| 0.55 | 24x4 16x6 12x8 | CFM | 54 | 108 | 162 | 216 | 270 | 323 | 377 | 431 | 485 | 539 |
| | | NC | | | 13 | 20 | 27 | 32 | 36 | 40 | 42 | 45 |
| | | 4-Way, 45° Fixed | 2-3-4 | 3-5-8 | 5-7-12 | 7-10-16 | 8-12-20 | 10-14-20 | 12-17-24 | 13-19-31 | 15-22-35 | 16-24-39 |
| | | 2-Way, 45° Fixed | 2-3-5 | 6-6-10 | 6-9-15 | 8-12-20 | 10-14-20 | 12-17-25 | 14-21-33 | 15-23-37 | 17-26-41 | 19-29-46 |
| | | 1-Way, Straight | 2-4-6 | 5-7-12 | 8-11-18 | 10-13-19 | 12-17-25 | 14-21-34 | 16-24-39 | 18-27-44 | 21-31-50 | 23-35-56 |
| 0.62 | 18x6 10x10 | CFM | 59 | 123 | 181 | 245 | 304 | 363 | 426 | 485 | 549 | 608 |
| | | NC | | | 13 | 21 | 28 | 33 | 37 | 40 | 43 | 46 |
| | | 4-Way, 45° Fixed | 2-3-4 | 4-6-9 | 5-8-13 | 7-11-17 | 9-13-21 | 10-15-21 | 12-17-24 | 13-20-32 | 15-22-36 | 17-25-40 |
| | | 2-Way, 45° Fixed | 2-3-5 | 4-6-10 | 6-9-15 | 8-12-20 | 10-16-25 | 12-17-25 | 14-21-34 | 16-24-38 | 18-27-43 | 20-29-47 |
| | | 1-Way, Straight | 2-3-6 | 5-7-12 | 8-11-18 | 10-14-20 | 12-19-30 | 15-22-35 | 17-26-41 | 19-29-46 | 21-32-51 | 24-36-57 |
| 0.7 | 30x4 20x6 14x8 12x10 | CFM | 69 | 137 | 206 | 274 | 343 | 412 | 480 | 549 | 617 | 686 |
| | | NC | 0 | 0 | 14 | 21 | 28 | 33 | 37 | 41 | 43 | 46 |
| | | 4-Way, 45° Fixed | 2-3-5 | 4-6-9 | 5-8-13 | 7-11-17 | 9-13-21 | 10-15-21 | 12-17-25 | 14-21-33 | 15-23-37 | 17-26-41 |
| | | 2-Way, 45° Fixed | 2-4-6 | 5-7-11 | 7-10-16 | 9-13-20 | 10-15-21 | 12-18-26 | 15-22-35 | 17-25-40 | 18-27-44 | 20-31-49 |
| | | 1-Way, Straight | 3-4-7 | 5-8-13 | 8-12-19 | 10-15-21 | 12-19-30 | 15-22-36 | 18-26-42 | 20-29-47 | 22-33-53 | 25-37-59 |
| 0.81 | 36x4 24x6 16x8 14x10 | CFM | 78 | 157 | 240 | 319 | 397 | 475 | 554 | 637 | 715 | 794 |
| | | NC | | | 15 | 22 | 29 | 34 | 38 | 41 | 44 | 47 |
| | | 4-Way, 45° Fixed | 2-3-5 | 4-6-9 | 6-9-14 | 8-11-18 | 9-14-22 | 11-15-22 | 12-18-26 | 14-21-34 | 16-24-38 | 18-27-43 |
| | | 2-Way, 45° Fixed | 2-4-6 | 5-7-11 | 7-10-16 | 9-14-22 | 11-15-22 | 13-19-31 | 15-22-36 | 17-26-41 | 19-29-46 | 21-32-51 |
| | | 1-Way, Straight | 3-4-7 | 5-8-13 | 8-12-20 | 11-15-22 | 13-20-32 | 16-24-38 | 18-27-44 | 20-31-49 | 23-34-55 | 26-39-62 |
| 0.87 | 18x8 12x12 | CFM | 83 | 172 | 255 | 343 | 426 | 510 | 598 | 681 | 769 | 853 |
| | | NC | | | 15 | 22 | 29 | 34 | 38 | 41 | 44 | 47 |
| | | 4-Way, 45° Fixed | 2-3-5 | 4-6-9 | 6-9-14 | 8-12-19 | 10-13-19 | 11-16-23 | 13-19-31 | 15-22-35 | 16-24-39 | 18-27-43 |
| | | 2-Way, 45° Fixed | 2-4-6 | 5-7-11 | 7-11-17 | 9-14-22 | 11-16-23 | 13-20-32 | 15-23-37 | 18-26-42 | 20-39-47 | 22-32-52 |
| | | 1-Way, Straight | 3-4-7 | 6-9-14 | 8-12-20 | 11-15-22 | 13-20-32 | 16-24-39 | 19-28-45 | 21-31-50 | 23-35-56 | 26-39-63 |

| Core Area Sq. Feet | Nominal Duct Size in Inches | Core Velocity | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|-----------------------|--|--------------------|-------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | Velocity Pressure | 0.001 | 0.002 | 0.006 | 0.01 | 0.016 | 0.022 | 0.031 | 0.04 | 0.051 | 0.062 |
| | | TP: Total Pressure | 0.003 | 0.014 | 0.031 | 0.056 | 0.09 | 0.131 | 0.175 | 0.225 | 0.29 | 0.355 |
| 1.02 | 30x6 20x8 16x10 14x12 | CFM | 98 | 201 | 299 | 402 | 500 | 598 | 701 | 799 | 902 | 1000 |
| | | NC | | | 16 | 23 | 30 | 35 | 39 | 42 | 45 | 48 |
| | | 4-Way, 45° Fixed | 2-3-5 | 4-6-10 | 6-9-15 | 8-12-19 | 10-14-20 | 12-17-24 | 13-20-32 | 15-22-36 | 17-26-41 | 19-28-45 |
| | | 2-Way, 45° Fixed | 2-4-6 | 5-7-12 | 7-11-17 | 10-13-19 | 12-17-24 | 14-21-33 | 16-24-29 | 18-27-43 | 20-31-49 | 23-34-55 |
| | | 1-Way, Straight | 3-4-7 | 6-9-14 | 9-13-21 | 11-17-27 | 14-21-34 | 17-25-40 | 19-29-46 | 22-32-52 | 25-37-59 | 27-41-65 |
| 1.15 | 24x8 18x10 16x12 | CFM | 113 | 225 | 338 | 451 | 564 | 676 | 789 | 902 | 1019 | 1127 |
| | | NC | | | 16 | 24 | 31 | 35 | 39 | 43 | 46 | 49 |
| | | 4-Way, 45° Fixed | 2-3-5 | 4-6-10 | 6-9-15 | 8-12-20 | 10-15-21 | 12-17-25 | 14-21-33 | 16-24-38 | 18-26-42 | 19-29-46 |
| | | 2-Way, 45° Fixed | 2-4-6 | 5-7-12 | 8-11-18 | 10-13-19 | 12-17-25 | 14-21-34 | 17-25-40 | 19-28-45 | 21-31-50 | 23-35-56 |
| | | 1-Way, Straight | 3-5-8 | 6-9-15 | 9-14-22 | 12-17-24 | 15-22-35 | 17-26-41 | 20-29-47 | 22-34-54 | 25-37-60 | 28-42-68 |
| 1.25 | 36x6 20x10 14x14 | CFM | 123 | 245 | 368 | 490 | 613 | 735 | 858 | 980 | 1098 | 1225 |
| | | NC | | | 16 | 24 | 31 | 36 | 40 | 43 | 46 | 49 |
| | | 4-Way, 45° Fixed | 2-3-5 | 4-5-6 | 6-8-11 | 8-12-20 | 10-15-21 | 12-17-25 | 14-21-34 | 16-24-38 | 18-27-43 | 20-29-47 |
| | | 2-Way, 45° Fixed | 2-4-6 | 5-6-8 | 8-10-14 | 10-14-20 | 12-18-26 | 15-22-35 | 17-26-41 | 19-29-46 | 21-32-51 | 24-26-57 |
| | | 1-Way, Straight | 3-5-8 | 6-8-11 | 9-13-18 | 12-17-25 | 15-22-35 | 18-26-42 | 20-30-48 | 23-34-55 | 26-39-62 | 29-43-69 |
| 1.35 | 16x14 18x12 | CFM | 132 | 265 | 397 | 529 | 662 | 794 | 926 | 1058 | 1196 | 1323 |
| | | NC | | | 17 | 24 | 31 | 36 | 40 | 43 | 46 | 49 |
| | | 4-Way, 45° Fixed | 2-4-6 | 4-5-6 | 7-10-16 | 9-13-21 | 10-15-21 | 12-18-26 | 15-22-35 | 16-24-39 | 18-27-43 | 20-30-48 |
| | | 2-Way, 45° Fixed | 3-4-7 | 5-7-9 | 8-12-19 | 10-15-21 | 12-18-26 | 15-22-36 | 18-26-42 | 20-29-47 | 22-33-53 | 25-37-59 |
| | | 1-Way, Straight | 3-5-8 | 6-8-11 | 10-13-19 | 12-17-25 | 15-22-36 | 18-27-43 | 21-31-50 | 23-35-56 | 26-39-63 | 29-44-70 |
| 1.53 | 30x8 24x10 20x12 18x14 16x16 | CFM | 152 | 299 | 451 | 598 | 750 | 902 | 1049 | 1196 | 1352 | 1499 |
| | | NC | | | 17 | 26 | 32 | 37 | 41 | 44 | 47 | 50 |
| | | 4-Way, 45° Fixed | 2-4-6 | 5-6-7 | 7-10-16 | 9-13-21 | 11-15-22 | 13-19-31 | 15-22-36 | 17-25-40 | 19-28-45 | 21-31-50 |
| | | 2-Way, 45° Fixed | 3-4-7 | 5-7-9 | 8-12-19 | 10-15-21 | 13-20-32 | 15-23-37 | 18-27-43 | 20-30-48 | 23-34-55 | 25-37-60 |
| | | 1-Way, Straight | 3-5-8 | 7-9-12 | 10-13-19 | 12-18-26 | 15-23-37 | 18-27-44 | 21-32-51 | 24-26-58 | 27-41-65 | 30-46-73 |
| 1.82 | 36x8 30x10 24x12 20x14 18x16 | CFM | 178 | 358 | 534 | 715 | 892 | 1068 | 1245 | 1431 | 1607 | 1784 |
| | | NC | | | 18 | 27 | 33 | 37 | 41 | 45 | 48 | 51 |
| | | 4-Way, 45° Fixed | 2-4-6 | 5-6-7 | 7-11-17 | 9-14-22 | 11-16-23 | 13-20-32 | 15-23-37 | 18-26-42 | 20-29-47 | 22-33-53 |
| | | 2-Way, 45° Fixed | 3-4-7 | 6-8-10 | 8-12-20 | 11-16-23 | 14-21-33 | 16-24-29 | 19-28-45 | 21-31-50 | 24-36-57 | 26-39-63 |
| | | 1-Way, Straight | 3-5-8 | 7-9-12 | 10-14-20 | 13-20-32 | 16-24-39 | 19-29-46 | 22-34-54 | 25-37-60 | 29-42-68 | 32-48-76 |
| 2.1 | 24x14 30x16 18x18 | CFM | 206 | 412 | 617 | 823 | 1029 | 1235 | 1441 | 1646 | 1852 | 2058 |
| | | NC | 0 | 0 | 19 | 27 | 33 | 38 | 42 | 45 | 48 | 51 |
| | | 4-Way, 45° Fixed | 2-4-6 | 5-6-8 | 8-11-18 | 10-13-19 | 12-17-24 | 14-21-34 | 16-24-39 | 18-27-44 | 20-31-49 | 23-34-55 |
| | | 2-Way, 45° Fixed | 3-4-7 | 6-8-10 | 9-13-21 | 12-17-24 | 14-21-34 | 17-25-40 | 19-29-46 | 22-32-52 | 25-37-59 | 28-41-66 |
| | | 1-Way, Straight | 4-6-9 | 7-10-13 | 10-15-21 | 14-21-33 | 17-25-40 | 20-30-48 | 23-34-55 | 26-39-62 | 29-44-70 | 33-50-80 |
| 2.35 | 36x10 30x12 24x16 20x18 | CFM | 230 | 461 | 691 | 921 | 1156 | 1382 | 1607 | 1842 | 2078 | 2303 |
| | | NC | | | 19 | 28 | 34 | 38 | 42 | 46 | 49 | 52 |
| | | 4-Way, 45° Fixed | 2-4-6 | 5-6-8 | 8-11-18 | 10-14-20 | 12-17-25 | 15-22-35 | 17-25-40 | 19-28-45 | 21-31-50 | 24-36-57 |
| | | 2-Way, 45° Fixed | 3-5-8 | 6-8-11 | 9-14-22 | 12-17-24 | 15-22-35 | 18-26-42 | 20-30-48 | 22-34-54 | 25-38-61 | 28-42-68 |
| | | 1-Way, Straight | 4-6-9 | 7-10-13 | 11-15-22 | 14-21-33 | 18-26-42 | 20-31-49 | 24-36-57 | 27-40-64 | 30-45-72 | 34-51-82 |
| 2.68 | 36x12 30x14 24x18 20x20 | CFM | 265 | 524 | 789 | 1049 | 1313 | 1578 | 1842 | 2097 | 2362 | 2626 |
| | | NC | | | 20 | 28 | 34 | 39 | 43 | 46 | 49 | 52 |
| | | 4-Way, 45° Fixed | 3-4-7 | 5-7-9 | 8-12-19 | 10-15-21 | 12-18-26 | 15-22-36 | 18-26-42 | 20-29-47 | 22-32-52 | 25-37-59 |
| | | 2-Way, 45° Fixed | 3-5-8 | 6-8-11 | 9-14-22 | 12-17-25 | 15-22-36 | 20-30-48 | 20-31-49 | 23-35-56 | 26-39-62 | 29-44-70 |
| | | 1-Way, Straight | 4-6-9 | 8-10-14 | 11-16-23 | 15-22-35 | 18-27-43 | 21-32-51 | 25-37-59 | 28-41-66 | 31-47-75 | 35-53-85 |
| 3.15 | 36x16 30x18 24x24 | CFM | 309 | 617 | 926 | 1235 | 1548 | 1852 | 2156 | 2470 | 2783 | 3087 |
| | | NC | | 10 | 20 | 29 | 35 | 40 | 44 | 47 | 50 | 53 |
| | | 4-Way, 45° Fixed | 3-4-7 | 5-7-9 | 8-12-19 | 11-15-22 | 13-19-31 | 15-23-37 | 18-27-43 | 20-31-49 | 23-34-55 | 26-39-62 |
| | | 2-Way, 45° Fixed | 3-5-8 | 7-9-12 | 10-14-20 | 12-18-26 | 16-24-38 | 19-28-45 | 21-32-51 | 24-36-58 | 27-41-65 | 30-46-73 |
| | | 1-Way, Straight | 4-5-6 | 8-11-15 | 12-17-24 | 15-22-36 | 19-28-45 | 22-3-53 | 26-39-62 | 29-43-69 | 33-49-79 | 37-56-89 |
| 3.65 | 36x18 30x20 | CFM | 358 | 715 | 1078 | 1431 | 1784 | 2146 | 2509 | 2862 | 3214 | 3577 |
| | | NC | | 11 | 21 | 30 | 36 | 40 | 44 | 48 | 51 | 54 |
| | | 4-Way, 45° Fixed | 3-4-7 | 5-7-9 | 8-12-19 | 11-15-22 | 13-19-31 | 15-23-37 | 18-27-43 | 21-31-50 | 24-36-57 | 27-40-64 |
| | | 2-Way, 45° Fixed | 3-5-8 | 7-9-12 | 10-14-20 | 12-18-26 | 16-24-38 | 19-28-45 | 21-32-51 | 25-37-60 | 28-42-68 | 32-48-76 |
| | | 1-Way, Straight | 4-5-6 | 8-11-15 | 12-17-24 | 15-22-36 | 19-28-45 | 22-33-53 | 26-39-62 | 30-45-72 | 34-51-83 | 38-57-92 |

CFM: Cubic Feet per Minute

FPM: Feet per Minute

TP: Total Pressure, inches w.g.

T: Throw in feet

NC: Noise Criteria

*All pressures are in inches of water.

* Blank areas denote NC values less than 10 and CFM values less than 50.

*Throw values are measured in feet for terminal velocities of 150/100/50 FPM.

*Throw values are based on fixed louvers set at 45 degrees.

* Throw may be increased or decreased by as much as 20% by changing angle of louver.