



ENGINEERING DATA

AV54R

| Size | Neck Velocity | | | 300 | | | 400 | | | 500 | | | 600 | | | 700 | | |
|------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| | Velocity Pressure | | | 0.006 | | | 0.010 | | | 0.016 | | | 0.022 | | | 0.031 | | |
| | Deflection | | | 0° | 22.5° | 45° | 0° | 22.5° | 45° | 0° | 22.5° | 45° | 0° | 22.5° | 45° | 0° | 22.5° | 45° |
| 6 | Duct Area = 0.196 | CFM | 60 | | | 80 | | | 100 | | | 120 | | | 140 | | | |
| | | Ps | 0.014 | 0.033 | 0.040 | 0.030 | 1.030 | 2.030 | 0.090 | 1.090 | 2.090 | 0.190 | 1.190 | 2.190 | 0.310 | 1.310 | 2.310 | |
| | | Throw | 13 | 13 | 10 | 20 | 16 | 13 | 25 | 20 | 15 | 32 | 26 | 20 | 40 | 35 | 25 | |
| | | NC | - | - | - | - | - | - | - | - | 22 | - | 20 | 20 | 21 | 23 | 26 | |
| 8 | Duct Area = 0.349 | CFM | 110 | | | 140 | | | 180 | | | 210 | | | 250 | | | |
| | | Ps | 0.014 | 0.029 | 0.030 | 0.026 | 0.049 | 0.056 | 0.037 | 0.065 | 0.156 | 0.048 | 0.082 | 0.097 | 0.075 | 0.125 | 0.150 | |
| | | Throw | 20 | 17 | 12 | 27 | 22 | 18 | 31 | 26 | 20 | 35 | 30 | 22 | 35 | 27 | 22 | |
| | | NC | - | - | - | - | 18 | 19 | - | 18 | 25 | 15 | 18 | 20 | 20 | 21 | 25 | |
| 10 | Duct Area = 0.545 | CFM | 170 | | | 220 | | | 280 | | | 330 | | | 390 | | | |
| | | Ps | 0.011 | 0.024 | 0.026 | 0.016 | 0.035 | 0.043 | 0.022 | 0.045 | 0.059 | 0.036 | 0.068 | 0.088 | 0.062 | 0.105 | 0.142 | |
| | | Throw | 25 | 21 | 17 | 33 | 26 | 21 | 59 | 52 | 35 | 55 | 45 | 32 | 61 | 45 | 40 | |
| | | NC | - | - | - | - | - | - | - | 15 | 19 | - | 20 | 21 | 20 | 22 | 25 | |
| 12 | Duct Area = 0.785 | CFM | 240 | | | 320 | | | 400 | | | 480 | | | 550 | | | |
| | | Ps | 0.010 | 0.019 | 0.017 | 0.015 | 0.031 | 0.037 | 0.012 | 0.025 | 0.032 | 0.075 | 0.090 | 0.140 | 0.085 | 0.102 | 0.120 | |
| | | Throw | 27 | 22 | 17 | 40 | 32 | 25 | 45 | 32 | 27 | 52 | 42 | 35 | 60 | 44 | 40 | |
| | | NC | - | - | - | - | - | - | - | - | 20 | - | - | 24 | - | 20 | 27 | |
| 14 | Duct Area = 1.069 | CFM | 330 | | | 430 | | | 540 | | | 650 | | | 750 | | | |
| | | Ps | 0.010 | 0.020 | 0.030 | 0.020 | 0.030 | 0.050 | 0.020 | 0.040 | 0.070 | 0.040 | 0.050 | 0.090 | 0.050 | 0.070 | 0.120 | |
| | | Throw | 30 | 25 | 20 | 40 | 32 | 25 | 55 | 45 | 30 | 65 | 52 | 37 | 75 | 57 | 45 | |
| | | NC | - | - | - | - | - | 15 | - | - | 21 | - | 15 | 23 | 15 | 21 | 21 | |
| 16 | Duct Area = 0.201 | CFM | 420 | | | 560 | | | 700 | | | 840 | | | 980 | | | |
| | | Ps | 0.010 | 0.030 | 0.050 | 0.020 | 0.040 | 0.070 | 0.040 | 0.070 | 0.120 | 0.050 | 0.060 | 0.130 | 0.060 | 0.080 | 0.140 | |
| | | Throw | 25 | 25 | 20 | 41 | 32 | 26 | 60 | 46 | 34 | 73 | 55 | 41 | 80 | 65 | 50 | |
| | | NC | - | - | - | - | - | 21 | - | - | 21 | - | 15 | 23 | - | 21 | 32 | |
| 20 | Duct Area = 0.202 | CFM | 660 | | | 880 | | | 1100 | | | 1310 | | | 1530 | | | |
| | | Ps | - | 0.010 | 0.030 | 0.010 | 0.030 | 0.050 | 0.020 | 0.050 | 0.080 | 0.020 | 0.070 | 0.110 | 0.030 | 0.090 | 0.140 | |
| | | Throw | 37 | 32 | 22 | 50 | 40 | 30 | 67 | 56 | 39 | 80 | 66 | 46 | 94 | 77 | 54 | |
| | | NC | - | 20 | - | - | - | - | - | - | 22 | - | - | 29 | - | 23 | 34 | |
| 24 | Duct Area = 0.203 | CFM | 950 | | | 1260 | | | 1580 | | | 1890 | | | 2200 | | | |
| | | Ps | - | 0.020 | 0.040 | - | 0.040 | 0.060 | 0.010 | 0.050 | 0.090 | 0.020 | 0.080 | 0.130 | 0.030 | 0.100 | 0.170 | |
| | | Throw | 42 | 38 | 26 | 59 | 50 | 34 | 77 | 63 | 43 | 94 | 76 | 52 | 107 | 86 | 60 | |
| | | NC | - | - | - | - | - | - | - | - | 25 | - | - | 31 | - | 21 | 32 | |

Notes:

1. The throw values are based on a 50 fpm terminal velocity.
2. Dash "-" indicates static pressure is less than 0.01 in. wc
3. Dash "-" indicates NC value less than 20.
4. NC level is based on 10dB room attenuation (Re: 10⁻¹² watts) with one diffuser operating

Specialty Products



ENGINEERING DATA

AV54R

| Size | Neck Velocity | | 800 | | | 1000 | | | 1200 | | | 1400 | | |
|------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Velocity Pressure | | 0.040 | | | 0.062 | | | 0.090 | | | 0.122 | | |
| | Deflection | | 0° | 22.5° | 45° | 0° | 22.5° | 45° | 0° | 22.5° | 45° | 0° | 22.5° | 45° |
| 6 | Duct Area = 0.196 | CFM | 160 | | | 200 | | | 240 | | | 280 | | |
| | | Ps | 0.750 | 1.750 | 2.750 | 0.820 | 1.820 | 2.820 | 1.100 | 2.100 | 3.100 | 1.100 | 2.100 | 3.100 |
| | | Throw | 43 | 37 | 28 | 55 | 45 | 35 | 60 | 55 | 45 | 80 | 70 | 55 |
| | | NC | 20 | 28 | 35 | 24 | 34 | 40 | 32 | 40 | 47 | 37 | 43 | |
| 8 | Duct Area = 0.349 | CFM | 280 | | | 350 | | | 420 | | | - | | |
| | | Ps | 0.110 | 0.175 | 0.220 | 0.153 | 0.230 | 0.290 | 0.255 | 0.420 | 0.470 | | | |
| | | Throw | 55 | 45 | 33 | 60 | 51 | 39 | 80 | 60 | 50 | | | |
| | | NC | 22 | 26 | 30 | 25 | 32 | 33 | 33 | 40 | 42 | | | |
| 10 | Duct Area = 0.545 | CFM | 440 | | | 550 | | | 660 | | | - | | |
| | | Ps | 0.048 | 0.130 | 0.230 | 0.150 | 0.155 | 0.255 | 0.185 | 0.285 | 0.420 | | | |
| | | Throw | 60 | 50 | 40 | 75 | 57 | 47 | 90 | 70 | 55 | | | |
| | | NC | 15 | 21 | 37 | 25 | 25 | 33 | 26 | 33 | 40 | | | |
| 12 | Duct Area = 0.785 | CFM | 630 | | | 790 | | | 950 | | | 1100 | | |
| | | Ps | 0.100 | 0.195 | 0.320 | 0.098 | 0.167 | 0.210 | 0.152 | 0.210 | 0.380 | 0.165 | 0.280 | 0.460 |
| | | Throw | 75 | 55 | 45 | 90 | 80 | 60 | 100 | 100 | 80 | 105 | 105 | 90 |
| | | NC | 18 | 22 | 30 | 22 | 32 | 41 | 31 | 38 | 46 | 35 | 45 | 50 |
| 14 | Duct Area = 1.069 | CFM | 860 | | | 1070 | | | 1290 | | | 1500 | | |
| | | Ps | 0.060 | 0.100 | 0.180 | 0.080 | 0.120 | 0.220 | 0.110 | 0.170 | 0.300 | 0.180 | 0.260 | 0.470 |
| | | Throw | 81 | 65 | 51 | 102 | 84 | 60 | 106 | 92 | 75 | 110 | 100 | 90 |
| | | NC | 16 | 29 | 34 | 24 | 30 | 41 | 29 | 34 | 33 | 37 | 45 | 48 |
| 16 | Duct Area = 0.201 | CFM | 1120 | | | 1400 | | | 1680 | | | 1960 | | |
| | | Ps | 0.050 | 0.080 | 0.160 | 0.080 | 0.130 | 0.170 | 0.110 | 0.210 | 0.350 | 0.170 | 0.270 | 0.400 |
| | | Throw | 90 | 82 | 65 | 105 | 100 | 80 | 120 | 110 | 100 | 100 | 82 | 60 |
| | | NC | 19 | 27 | 34 | 24 | 33 | 43 | 32 | 41 | 48 | 37 | 45 | 48 |
| 20 | Duct Area = 0.202 | CFM | 1750 | | | 2190 | | | 2620 | | | 3060 | | |
| | | Ps | 0.040 | 0.120 | 0.200 | 0.070 | 0.200 | 0.330 | 0.100 | 0.270 | 0.440 | 0.140 | 0.370 | 0.600 |
| | | Throw | 109 | 88 | 61 | 139 | 110 | 76 | 172 | 131 | 89 | 201 | 153 | 102 |
| | | NC | 19 | 27 | 39 | 26 | 35 | 47 | 32 | 40 | 52 | 38 | 47 | 59 |
| 24 | Duct Area = 0.203 | CFM | 2520 | | | 3150 | | | 3780 | | | 4400 | | |
| | | Ps | 0.030 | 0.130 | 0.220 | 0.060 | 0.200 | 0.340 | 0.090 | 0.290 | 0.500 | 0.110 | 0.380 | 0.640 |
| | | Throw | 119 | 97 | 68 | 146 | 118 | 85 | 186 | 142 | 107 | 215 | 180 | 127 |
| | | NC | 20 | 26 | 41 | 23 | 34 | 49 | 29 | 41 | 50 | 34 | 46 | 60 |

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