

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) |       | 300     | 400      | 500      | 600      | 700      | 800      | 1000     | 1200     | 1400     |
|----------------------|------------------------------------|-----------------|-------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      |                                    | Vel. Pressure   |       | 0.006   | 0.010    | 0.016    | 0.022    | 0.031    | 0.040    | 0.062    | 0.090    | 0.122    |
|                      |                                    | Total Pressure  | 0°    | 0.016   | 0.029    | 0.046    | 0.066    | 0.090    | 0.117    | 0.183    | 0.263    | 0.358    |
|                      |                                    |                 | 22.5° | 0.018   | 0.033    | 0.051    | 0.074    | 0.100    | 0.131    | 0.204    | 0.294    | 0.401    |
|                      |                                    | 45°             | 0.028 | 0.049   | 0.077    | 0.111    | 0.152    | 0.198    | 0.309    | 0.445    | 0.606    |          |
| 6x6                  | 0.25                               | Airflow (CFM)   |       | 57      | 76       | 95       | 114      | 133      | 152      | 190      | 228      | 266      |
|                      |                                    | Throw (ft.)     | 0°    | 5-7-14  | 7-10-16  | 8-12-18  | 10-14-20 | 12-15-21 | 13-16-23 | 15-18-25 | 16-20-28 | 17-21-30 |
|                      |                                    |                 | 22.5° | 4-6-77  | 5-8-12   | 6-10-14  | 8-11-15  | 9-12-16  | 10-12-18 | 11-14-20 | 12-15-22 | 13-16-23 |
|                      |                                    |                 | 45°   | 2-3-6   | 3-4-7    | 4-6-8    | 4-6-9    | 5-7-10   | 6-7-10   | 7-8-11   | 7-9-12   | 8-10-13  |
| NC                   |                                    | -               | -     | -       | 15       | 20       | 24       | 31       | 36       | 41       |          |          |
| 8x6                  | 0.33                               | Airflow (CFM)   |       | 78      | 104      | 130      | 156      | 182      | 208      | 260      | 312      | 364      |
|                      |                                    | Throw (ft.)     | 0°    | 5-9-16  | 8-12-19  | 10-15-21 | 12-16-23 | 14-18-25 | 15-19-27 | 17-21-30 | 19-23-32 | 20-25-35 |
|                      |                                    |                 | 22.5° | 4-7-13  | 6-9-15   | 8-11-16  | 9-13-18  | 11-14-19 | 12-15-21 | 13-16-23 | 15-18-25 | 16-19-27 |
|                      |                                    |                 | 45°   | 4-7-13  | 3-5-8    | 4-7-9    | 5-7-10   | 6-8-11   | 7-8-12   | 8-9-13   | 8-10-15  | 9-11-16  |
| NC                   |                                    | -               | -     | 11      | 17       | 21       | 25       | 32       | 38       | 42       |          |          |
| 10x6                 | 0.42                               | Airflow (CFM)   |       | 102     | 136      | 170      | 204      | 238      | 272      | 340      | 408      | 476      |
|                      |                                    | Throw (ft.)     | 0°    | 6-10-19 | 9-13-21  | 11-17-24 | 13-19-26 | 16-20-28 | 18-21-30 | 20-24-34 | 21-26-37 | 23-28-40 |
|                      |                                    |                 | 22.5° | 5-8-14  | 7-10-17  | 9-13-19  | 10-14-20 | 12-16-22 | 14-17-23 | 15-19-26 | 17-20-29 | 18-22-31 |
|                      |                                    |                 | 45°   | 3-4-8   | 4-6-10   | 5-7-11   | 6-8-12   | 7-9-13   | 8-10-14  | 9-11-15  | 10-12-17 | 10-13-18 |
| NC                   |                                    | -               | -     | 12      | 18       | 23       | 27       | 33       | 39       | 43       |          |          |
| 8x8                  | 0.44                               | Airflow (CFM)   |       | 111     | 148      | 185      | 222      | 259      | 296      | 370      | 444      | 518      |
|                      |                                    | Throw (ft.)     | 0°    | 6-10-19 | 9-14-22  | 12-17-25 | 14-19-27 | 16-21-30 | 18-22-32 | 20-25-35 | 22-27-39 | 24-30-42 |
|                      |                                    |                 | 22.5° | 5-8-15  | 7-11-17  | 9-13-19  | 11-15-21 | 13-16-23 | 14-17-25 | 16-19-27 | 17-21-30 | 19-23-32 |
|                      |                                    |                 | 45°   | 3-5-9   | 4-6-10   | 5-8-11   | 6-9-12   | 7-9-13   | 8-10-14  | 9-11-16  | 10-12-17 | 11-13-19 |
| NC                   |                                    | -               | -     | 13      | 18       | 23       | 27       | 34       | 39       | 44       |          |          |
| 12x6                 | 0.50                               | Airflow (CFM)   |       | 123     | 164      | 205      | 246      | 287      | 328      | 410      | 492      | 574      |
|                      |                                    | Throw (ft.)     | 0°    | 7-11-20 | 10-15-24 | 12-18-26 | 15-20-29 | 17-22-31 | 19-24-33 | 21-26-37 | 24-29-41 | 25-31-44 |
|                      |                                    |                 | 22.5° | 5-8-16  | 8-11-18  | 9-14-20  | 11-16-22 | 13-17-24 | 15-18-26 | 17-20-29 | 18-22-32 | 20-24-34 |
|                      |                                    |                 | 45°   | 3-5-9   | 4-7-11   | 5-8-12   | 7-9-13   | 8-10-14  | 9-11-15  | 10-12-17 | 11-13-18 | 11-14-20 |
| NC                   |                                    | -               | -     | 13      | 19       | 23       | 27       | 34       | 40       | 44       |          |          |
| 14x6                 | 0.58                               | Airflow (CFM)   |       | 144     | 192      | 240      | 288      | 336      | 384      | 480      | 576      | 672      |
|                      |                                    | Throw (ft.)     | 0°    | 7-12-22 | 11-16-25 | 13-20-28 | 16-22-31 | 18-24-34 | 21-25-36 | 23-28-40 | 25-31-44 | 28-34-48 |
|                      |                                    |                 | 22.5° | 6-9-17  | 8-12-20  | 10-15-22 | 12-17-24 | 14-18-26 | 16-20-28 | 18-22-31 | 20-24-34 | 21-26-37 |
|                      |                                    |                 | 45°   | 3-5-10  | 5-7-11   | 6-9-13   | 7-10-14  | 8-11-15  | 9-11-16  | 10-13-18 | 11-14-20 | 12-15-21 |
| NC                   |                                    | -               | -     | 14      | 19       | 24       | 28       | 35       | 40       | 45       |          |          |
| 16x6<br>12x8         | 0.67                               | Airflow (CFM)   |       | 171     | 228      | 285      | 342      | 399      | 456      | 570      | 684      | 798      |
|                      |                                    | Throw (ft.)     | 0°    | 8-13-24 | 11-17-28 | 14-22-31 | 17-24-34 | 20-26-37 | 23-28-39 | 25-31-44 | 28-34-48 | 30-37-52 |
|                      |                                    |                 | 22.5° | 6-10-19 | 9-13-22  | 11-17-24 | 13-19-26 | 16-20-28 | 18-22-30 | 20-24-34 | 22-26-37 | 23-28-40 |
|                      |                                    |                 | 45°   | 4-6-11  | 5-8-12   | 6-10-14  | 8-11-15  | 9-12-17  | 10-12-18 | 11-14-20 | 12-15-22 | 13-17-23 |
| NC                   |                                    | -               | -     | 15      | 20       | 25       | 29       | 35       | 41       | 45       |          |          |



**Notes:**

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) | 300   | 400   | 500   | 600   | 700   | 800   | 1000  | 1200  | 1400  |       |
|----------------------|------------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |                                    | Vel. Pressure   | 0.006 | 0.010 | 0.016 | 0.022 | 0.031 | 0.040 | 0.062 | 0.090 | 0.122 |       |
|                      |                                    | Total Pressure  | 0°    | 0.016 | 0.029 | 0.046 | 0.066 | 0.090 | 0.117 | 0.183 | 0.263 | 0.358 |
|                      |                                    |                 | 22.5° | 0.018 | 0.033 | 0.051 | 0.074 | 0.100 | 0.131 | 0.204 | 0.294 | 0.401 |
|                      |                                    |                 | 45°   | 0.028 | 0.049 | 0.077 | 0.111 | 0.152 | 0.198 | 0.309 | 0.445 | 0.606 |

| 10x10 | 0.69 | Airflow (CFM) | 177   | 236     | 295      | 354      | 413      | 472      | 590      | 708      | 826      |          |
|-------|------|---------------|-------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|       |      | Throw (ft.)   | 0°    | 8-13-24 | 12-18-28 | 15-22-32 | 18-24-35 | 20-26-37 | 23-28-40 | 26-32-45 | 28-35-49 | 31-37-53 |
|       |      |               | 22.5° | 6-10-19 | 9-14-22  | 11-17-24 | 14-19-27 | 16-20-29 | 18-22-31 | 20-24-35 | 22-27-38 | 24-29-41 |
|       |      |               | 45°   | 4-6-11  | 5-8-13   | 7-10-14  | 8-11-16  | 9-12-17  | 10-13-18 | 12-14-20 | 13-16-22 | 14-17-24 |
|       | NC   | -             | -     | 15      | 20       | 25       | 29       | 35       | 41       | 46       |          |          |

| 18x6 | 0.75 | Airflow (CFM) | 189   | 252     | 315      | 378      | 441      | 504      | 630      | 756      | 882      |          |
|------|------|---------------|-------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|      |      | Throw (ft.)   | 0°    | 8-14-25 | 12-18-29 | 15-23-33 | 18-25-36 | 21-27-39 | 24-29-41 | 27-33-46 | 29-36-51 | 32-39-55 |
|      |      |               | 22.5° | 7-11-20 | 9-14-23  | 12-18-25 | 14-20-28 | 16-21-30 | 18-23-32 | 21-25-36 | 23-28-39 | 24-30-42 |
|      |      |               | 45°   | 4-6-11  | 5-8-13   | 7-10-15  | 8-11-16  | 9-12-17  | 11-13-19 | 12-15-21 | 13-16-23 | 14-17-25 |
|      | NC   | -             | -     | 15      | 20       | 25       | 29       | 36       | 41       | 46       |          |          |

| 20x6<br>12x10 | 0.83 | Airflow (CFM) | 216   | 288     | 360      | 432      | 504      | 576      | 720      | 864      | 1008     |          |
|---------------|------|---------------|-------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|               |      | Throw (ft.)   | 0°    | 9-15-27 | 13-19-31 | 16-24-35 | 19-27-38 | 23-29-41 | 25-31-44 | 28-35-49 | 31-38-54 | 24-41-58 |
|               |      |               | 22.5° | 7-11-21 | 10-15-24 | 12-19-27 | 15-21-30 | 17-23-32 | 20-24-34 | 22-27-38 | 24-30-42 | 26-32-45 |
|               |      |               | 45°   | 4-7-12  | 6-9-14   | 7-11-16  | 9-12-17  | 10-13-19 | 11-14-20 | 13-16-22 | 14-17-24 | 15-19-26 |
|               | NC   | -             | -     | 16      | 21       | 26       | 30       | 36       | 42       | 46       |          |          |

| 22x6 | 0.92 | Airflow (CFM) | 231   | 308     | 385      | 462      | 539      | 616      | 770      | 924      | 1078     |          |
|------|------|---------------|-------|---------|----------|----------|----------|----------|----------|----------|----------|----------|
|      |      | Throw (ft.)   | 0°    | 9-15-28 | 13-20-32 | 17-25-36 | 20-28-40 | 23-30-43 | 26-32-46 | 29-36-51 | 32-40-56 | 35-43-60 |
|      |      |               | 22.5° | 7-12-22 | 10-16-25 | 13-19-28 | 16-22-31 | 18-23-33 | 20-25-35 | 23-28-40 | 25-31-43 | 27-33-47 |
|      |      |               | 45°   | 4-7-13  | 6-9-15   | 8-11-16  | 9-13-18  | 11-14-19 | 12-15-21 | 13-16-23 | 15-18-25 | 16-19-27 |
|      | NC   | -             | -     | 16      | 21       | 26       | 30       | 37       | 42       | 47       |          |          |

| 24x6<br>18x8<br>12x12 | 1.00 | Airflow (CFM) | 264   | 352      | 440      | 528      | 616      | 704      | 880      | 1056     | 1232     |          |
|-----------------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                       |      | Throw (ft.)   | 0°    | 10-16-30 | 14-21-34 | 18-27-39 | 21-30-42 | 25-32-46 | 28-34-49 | 31-39-55 | 34-42-60 | 37-46-65 |
|                       |      |               | 22.5° | 8-12-23  | 11-17-27 | 14-21-30 | 17-23-33 | 19-25-35 | 22-27-38 | 24-30-42 | 27-33-46 | 29-35-50 |
|                       |      |               | 45°   | 4-7-13   | 6-10-16  | 8-12-17  | 10-13-19 | 11-15-21 | 13-16-22 | 14-17-25 | 16-19-27 | 17-21-29 |
|                       | NC   | -             | -     | 16       | 22       | 26       | 30       | 37       | 43       | 47       |          |          |

| 30x6<br>18x10 | 1.25 | Airflow (CFM) | 333   | 444      | 555      | 666      | 777      | 888      | 1110     | 1332     | 1554     |          |
|---------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|               |      | Throw (ft.)   | 0°    | 11-18-34 | 16-24-39 | 20-30-43 | 24-34-47 | 28-36-51 | 32-39-55 | 25-43-61 | 39-47-67 | 42-51-72 |
|               |      |               | 22.5° | 9-14-26  | 12-19-30 | 16-23-34 | 19-26-37 | 22-28-40 | 25-30-42 | 27-34-47 | 30-37-52 | 32-40-56 |
|               |      |               | 45°   | 5-8-15   | 7-11-17  | 9-14-19  | 11-15-21 | 13-16-23 | 14-17-25 | 16-19-28 | 17-21-30 | 19-23-33 |
|               | NC   | -             | -     | 17       | 23       | 27       | 31       | 38       | 44       | 48       |          |          |

| 14x14 | 1.36 | Airflow (CFM) | 366   | 488      | 610      | 732      | 854      | 976      | 1220     | 1464     | 1708     |          |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|       |      | Throw (ft.)   | 0°    | 12-19-35 | 17-25-41 | 21-31-45 | 25-35-50 | 29-38-54 | 33-41-57 | 37-45-64 | 41-50-70 | 44-54-76 |
|       |      |               | 22.5° | 9-15-27  | 13-20-31 | 16-24-35 | 20-27-39 | 23-29-42 | 26-31-45 | 29-35-50 | 31-39-55 | 34-42-59 |
|       |      |               | 45°   | 5-8-16   | 8-11-18  | 9-14-20  | 11-16-22 | 13-17-24 | 15-18-26 | 17-20-29 | 18-22-32 | 20-24-34 |
|       | NC   | -             | 11    | 18       | 23       | 28       | 32       | 39       | 44       | 49       |          |          |

### Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) | 300   | 400   | 500   | 600   | 700   | 800   | 1000  | 1200  | 1400  |
|----------------------|------------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |                                    | Vel. Pressure   | 0.006 | 0.010 | 0.016 | 0.022 | 0.031 | 0.040 | 0.062 | 0.090 | 0.122 |
|                      |                                    | Total Pressure  | 0°    | 0.016 | 0.029 | 0.046 | 0.066 | 0.090 | 0.117 | 0.183 | 0.263 |
| 22.5°                | 0.018                              |                 | 0.033 | 0.051 | 0.074 | 0.100 | 0.131 | 0.204 | 0.294 | 0.401 |       |
| 45°                  | 0.028                              |                 | 0.049 | 0.077 | 0.111 | 0.152 | 0.198 | 0.309 | 0.445 | 0.606 |       |

| 36x6<br>27x8<br>18x12 | 1.50 | Airflow (CFM) | 405   | 540      | 675      | 810      | 945      | 1080     | 1350     | 1620     | 1890     |          |
|-----------------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                       |      | Throw (ft.)   | 0°    | 12-20-37 | 18-26-43 | 22-33-48 | 26-37-52 | 31-40-57 | 25-43-60 | 39-48-68 | 43-52-74 | 46-57-80 |
|                       |      |               | 22.5° | 10-15-29 | 14-21-33 | 17-26-37 | 21-29-41 | 24-31-44 | 27-33-47 | 30-37-52 | 33-41-57 | 36-44-62 |
|                       |      |               | 45°   | 6-9-17   | 8-12-19  | 10-15-21 | 12-17-24 | 14-18-25 | 16-19-27 | 18-21-30 | 19-24-33 | 21-25-36 |
| NC                    |      | -             | 12    | 18       | 24       | 28       | 32       | 39       | 44       | 49       |          |          |

| 22x10 | 1.53 | Airflow (CFM) | 411   | 548      | 685      | 822      | 959      | 1096     | 1370     | 1644     | 1918     |          |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|       |      | Throw (ft.)   | 0°    | 12-20-37 | 18-27-43 | 22-33-48 | 27-37-53 | 31-40-57 | 35-43-61 | 39-48-68 | 43-53-75 | 46-57-81 |
|       |      |               | 22.5° | 10-16-29 | 14-21-33 | 17-26-37 | 21-29-41 | 24-31-44 | 27-33-47 | 30-37-53 | 33-41-58 | 36-44-62 |
|       |      |               | 45°   | 6-9-17   | 8-12-19  | 10-15-22 | 12-17-24 | 14-18-26 | 16-19-27 | 18-22-31 | 19-24-34 | 21-26-36 |
| NC    |      | -             | 12    | 18       | 24       | 28       | 32       | 39       | 44       | 49       |          |          |

| 30x8<br>24x10 | 1.67 | Airflow (CFM) | 447   | 596      | 745      | 894      | 1043     | 1192     | 1490     | 1788     | 2086     |          |
|---------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|               |      | Throw (ft.)   | 0°    | 13-21-39 | 19-28-45 | 23-35-50 | 28-39-55 | 32-42-59 | 37-45-63 | 41-50-71 | 45-55-78 | 48-59-84 |
|               |      |               | 22.5° | 10-16-30 | 14-22-35 | 18-27-39 | 22-30-43 | 25-33-46 | 28-35-49 | 32-39-55 | 35-43-60 | 38-46-65 |
|               |      |               | 45°   | 6-9-17   | 8-13-20  | 10-16-23 | 13-17-25 | 15-19-27 | 16-20-29 | 18-23-32 | 20-25-35 | 22-27-38 |
| NC            |      | -             | 12    | 19       | 24       | 29       | 33       | 39       | 45       | 49       |          |          |

| 42x6<br>18x14 | 1.75 | Airflow (CFM) | 477   | 636      | 795      | 954      | 1113     | 1272     | 1590     | 1908     | 2256     |          |
|---------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|               |      | Throw (ft.)   | 0°    | 13-22-40 | 19-29-46 | 24-36-52 | 29-40-57 | 34-43-61 | 38-46-66 | 42-52-73 | 46-57-80 | 50-61-87 |
|               |      |               | 22.5° | 10-17-31 | 15-22-36 | 19-28-40 | 22-31-44 | 26-34-48 | 29-36-51 | 33-40-57 | 36-44-62 | 39-48-67 |
|               |      |               | 45°   | 6-10-18  | 9-13-21  | 11-16-23 | 13-18-26 | 15-20-28 | 17-21-30 | 19-23-33 | 21-26-36 | 23-28-39 |
| NC            |      | -             | 12    | 19       | 24       | 29       | 33       | 40       | 45       | 50       |          |          |

| 16x16 | 1.78 | Airflow (CFM) | 486   | 648      | 810      | 972      | 1134     | 1296     | 1620     | 1944     | 2268     |          |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|       |      | Throw (ft.)   | 0°    | 14-22-41 | 19-29-47 | 24-36-52 | 29-41-57 | 34-44-62 | 38-47-66 | 43-52-74 | 47-57-81 | 51-62-88 |
|       |      |               | 22.5° | 11-17-31 | 15-22-36 | 19-28-41 | 23-31-44 | 26-34-48 | 30-36-51 | 33-41-57 | 36-44-63 | 39-48-68 |
|       |      |               | 45°   | 6-10-18  | 9-13-21  | 11-16-24 | 13-18-26 | 15-20-28 | 17-21-30 | 19-24-33 | 21-26-36 | 23-28-39 |
| NC    |      | -             | 12    | 19       | 24       | 29       | 33       | 40       | 45       | 50       |          |          |

| 48x6<br>36x8<br>24x12<br>18x16 | 2.00 | Airflow (CFM) | 546   | 728      | 910      | 1092     | 1274     | 1456     | 1820     | 2184     | 2548     |          |
|--------------------------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                                |      | Throw (ft.)   | 0°    | 14-23-43 | 20-31-50 | 26-38-55 | 31-43-61 | 36-46-66 | 41-50-70 | 45-55-78 | 50-61-86 | 54-66-93 |
|                                |      |               | 22.5° | 11-18-33 | 16-24-38 | 20-30-43 | 24-33-47 | 28-36-51 | 31-38-54 | 35-43-61 | 38-47-67 | 42-51-72 |
|                                |      |               | 45°   | 6-10-19  | 9-14-22  | 12-17-25 | 14-19-27 | 16-21-30 | 18-22-32 | 20-25-35 | 22-27-39 | 24-30-42 |
| NC                             |      | -             | 13    | 19       | 25       | 30       | 34       | 40       | 46       | 50       |          |          |

| 18x18 | 2.25 | Airflow (CFM) | 621   | 828      | 1035     | 1242     | 1449     | 1656     | 2070     | 2484     | 2898     |          |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|       |      | Throw (ft.)   | 0°    | 15-25-46 | 22-33-53 | 27-41-59 | 33-46-65 | 38-49-70 | 43-53-75 | 48-59-84 | 53-65-92 | 57-70-99 |
|       |      |               | 22.5° | 12-19-36 | 17-25-41 | 21-32-46 | 25-36-50 | 30-38-54 | 33-41-58 | 37-46-65 | 41-50-71 | 44-54-77 |
|       |      |               | 45°   | 7-11-21  | 10-15-24 | 12-18-27 | 15-21-29 | 17-22-31 | 19-24-34 | 22-27-38 | 24-29-41 | 26-31-45 |
| NC    |      | -             | 13    | 20       | 25       | 30       | 34       | 41       | 46       | 51       |          |          |



**Notes:**

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) | 300   | 400   | 500   | 600   | 700   | 800   | 1000  | 1200  | 1400  |       |
|----------------------|------------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |                                    | Vel. Pressure   | 0.006 | 0.010 | 0.016 | 0.022 | 0.031 | 0.040 | 0.062 | 0.090 | 0.122 |       |
|                      |                                    | Total Pressure  | 0°    | 0.016 | 0.029 | 0.046 | 0.066 | 0.090 | 0.117 | 0.183 | 0.263 | 0.358 |
|                      |                                    |                 | 22.5° | 0.018 | 0.033 | 0.051 | 0.074 | 0.100 | 0.131 | 0.204 | 0.294 | 0.401 |
|                      |                                    |                 | 45°   | 0.028 | 0.049 | 0.077 | 0.111 | 0.152 | 0.198 | 0.309 | 0.445 | 0.606 |

| 42x8<br>24x14 | 2.33 | Airflow (CFM) | 642   | 856      | 1070     | 1284     | 1498     | 1712     | 2140     | 2568     | 2996     |           |
|---------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|               |      | Throw (ft.)   | 0°    | 16-25-47 | 22-33-54 | 28-42-60 | 33-47-66 | 39-50-71 | 44-54-76 | 49-60-85 | 54-66-93 | 58-71-101 |
|               |      |               | 22.5° | 12-19-36 | 17-26-42 | 22-32-47 | 26-36-51 | 30-39-55 | 32-42-59 | 38-47-66 | 45-51-72 | 45-55-78  |
|               |      |               | 45°   | 7-11-21  | 10-15-24 | 13-19-27 | 15-21-30 | 18-23-32 | 20-24-34 | 22-27-38 | 24-30-42 | 26-32-45  |
|               |      | NC            | -     | 13       | 20       | 26       | 30       | 34       | 41       | 46       | 51       |           |

| 36x10<br>30x12 | 2.50 | Airflow (CFM) | 687   | 916      | 1145     | 1374     | 1603     | 1832     | 2290     | 2748     | 3206     |           |
|----------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
|                |      | Throw (ft.)   | 0°    | 16-26-48 | 23-34-56 | 29-43-62 | 34-48-68 | 40-52-74 | 45-56-79 | 51-62-88 | 56-68-96 | 60-74-104 |
|                |      |               | 22.5° | 12-20-37 | 18-27-43 | 22-33-48 | 27-37-53 | 31-40-57 | 35-43-61 | 39-48-68 | 43-53-75 | 47-57-81  |
|                |      |               | 45°   | 7-12-22  | 10-16-25 | 13-19-28 | 16-22-31 | 18-23-33 | 20-25-35 | 23-28-40 | 25-31-43 | 27-33-47  |
|                |      | NC            | -     | 14       | 20       | 26       | 30       | 34       | 41       | 47       | 51       |           |

| 48x8<br>24x16 | 2.67 | Airflow (CFM) | 738   | 984      | 1230     | 1476     | 1722     | 1968     | 2460     | 2952     | 3444      |           |
|---------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
|               |      | Throw (ft.)   | 0°    | 17-27-50 | 24-36-58 | 30-45-64 | 36-50-71 | 42-54-76 | 47-58-82 | 53-64-91 | 58-71-100 | 62-76-108 |
|               |      |               | 22.5° | 13-21-39 | 18-28-45 | 23-35-50 | 28-39-55 | 32-42-59 | 36-45-63 | 41-50-71 | 45-55-77  | 48-59-84  |
|               |      |               | 45°   | 8-12-22  | 11-16-26 | 13-20-29 | 16-22-32 | 19-24-34 | 21-26-37 | 24-29-41 | 26-32-45  | 28-34-49  |
|               |      | NC            | -     | 14       | 21       | 26       | 31       | 35       | 41       | 47       | 51        |           |

| 20x20 | 2.78 | Airflow (CFM) | 771   | 1028     | 1285     | 1542     | 1799     | 2056     | 2570     | 3084     | 3598      |           |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
|       |      | Throw (ft.)   | 0°    | 17-27-51 | 24-37-59 | 30-46-66 | 37-51-75 | 43-55-78 | 48-59-83 | 54-66-93 | 59-72-102 | 64-78-110 |
|       |      |               | 22.5° | 13-21-40 | 19-28-46 | 24-35-51 | 28-40-56 | 33-43-60 | 37-46-65 | 42-51-72 | 46-56-79  | 49-60-85  |
|       |      |               | 45°   | 8-12-23  | 11-16-27 | 14-21-30 | 16-23-32 | 19-25-35 | 22-27-38 | 24-30-42 | 27-32-46  | 29-35-50  |
|       |      | NC            | -     | 14       | 21       | 26       | 31       | 35       | 42       | 47       | 52        |           |

| 36x12<br>24x18 | 3.00 | Airflow (CFM) | 825   | 1100     | 1375     | 1650     | 1925     | 2200     | 2750     | 3300     | 3850      |           |
|----------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
|                |      | Throw (ft.)   | 0°    | 18-28-53 | 25-38-61 | 31-47-68 | 38-53-75 | 44-57-81 | 50-61-86 | 56-68-96 | 61-75-106 | 68-81-114 |
|                |      |               | 22.5° | 14-22-41 | 20-29-47 | 24-37-53 | 29-41-58 | 34-44-63 | 39-47-67 | 43-53-75 | 47-58-82  | 51-63-88  |
|                |      |               | 45°   | 8-13-24  | 11-17-27 | 14-21-31 | 17-24-34 | 20-26-36 | 22-27-39 | 25-31-43 | 27-34-48  | 30-36-51  |
|                |      | NC            | -     | 15       | 21       | 27       | 31       | 35       | 42       | 47       | 52        |           |

| 48x10<br>30x16<br>24x20 | 3.33 | Airflow (CFM) | 933   | 1244     | 1555     | 1866     | 2177     | 2488     | 3110     | 3732      | 4354      |           |
|-------------------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
|                         |      | Throw (ft.)   | 0°    | 19-30-56 | 27-40-65 | 33-50-72 | 40-56-79 | 47-61-86 | 53-65-92 | 59-72-103 | 65-79-112 | 70-86-121 |
|                         |      |               | 22.5° | 15-23-44 | 21-31-50 | 26-39-56 | 31-44-62 | 36-47-66 | 41-50-71 | 46-56-79  | 50-62-87  | 54-66-94  |
|                         |      |               | 45°   | 8-14-25  | 12-18-29 | 15-23-33 | 18-25-36 | 21-27-39 | 24-29-41 | 27-33-46  | 29-36-51  | 32-39-55  |
|                         |      | NC            | -     | 15       | 22       | 27       | 32       | 36       | 42       | 48        | 52        |           |

| 22x22 | 3.36 | Airflow (CFM) | 942   | 1256     | 1570     | 1884     | 2198     | 2512     | 3140     | 3768      | 4396      |           |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
|       |      | Throw (ft.)   | 0°    | 19-30-56 | 27-40-65 | 34-50-73 | 40-56-80 | 47-61-86 | 53-65-92 | 59-73-103 | 65-80-113 | 70-86-122 |
|       |      |               | 22.5° | 15-23-44 | 21-31-50 | 26-39-56 | 31-44-62 | 37-47-67 | 41-50-71 | 46-56-80  | 50-62-87  | 55-67-94  |
|       |      |               | 45°   | 8-14-25  | 12-18-29 | 15-23-33 | 18-25-36 | 21-27-39 | 24-29-41 | 27-33-46  | 29-36-51  | 32-39-55  |
|       |      | NC            | -     | 15       | 22       | 27       | 32       | 36       | 42       | 48        | 53        |           |

### Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) | 300   | 400   | 500   | 600   | 700   | 800   | 1000  | 1200  | 1400  |       |
|----------------------|------------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |                                    | Vel. Pressure   | 0.006 | 0.010 | 0.016 | 0.022 | 0.031 | 0.040 | 0.062 | 0.090 | 0.122 |       |
|                      |                                    | Total Pressure  | 0°    | 0.016 | 0.029 | 0.046 | 0.066 | 0.090 | 0.117 | 0.183 | 0.263 | 0.358 |
|                      |                                    |                 | 22.5° | 0.018 | 0.033 | 0.051 | 0.074 | 0.100 | 0.131 | 0.204 | 0.294 | 0.401 |
|                      |                                    |                 | 45°   | 0.028 | 0.049 | 0.077 | 0.111 | 0.152 | 0.198 | 0.309 | 0.445 | 0.606 |

| 42x12<br>36x14 | 3.50 | Airflow (CFM) | 966   | 1288     | 1610     | 1932     | 2254     | 2576     | 3220     | 3864      | 4508      |           |
|----------------|------|---------------|-------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
|                |      | Throw (ft.)   | 0°    | 19-31-57 | 27-41-66 | 34-51-74 | 41-57-81 | 48-62-87 | 54-66-93 | 60-74-104 | 66-81-114 | 71-87-123 |
|                |      |               | 22.5° | 15-24-44 | 21-32-51 | 26-40-57 | 32-44-63 | 37-48-68 | 42-51-72 | 47-57-81  | 51-63-89  | 55-68-96  |
|                |      |               | 45°   | 9-14-26  | 12-18-30 | 15-23-33 | 18-26-36 | 21-28-39 | 24-30-42 | 27-33-47  | 30-36-51  | 32-39-56  |
|                | NC   | -             | 15    | 22       | 27       | 32       | 36       | 43       | 48       | 53        |           |           |

| 24x22 | 3.67 | Airflow (CFM) | 1029  | 1372     | 1715     | 2058     | 2401     | 2744     | 3430     | 4116      | 4802      |           |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
|       |      | Throw (ft.)   | 0°    | 20-32-59 | 28-42-68 | 35-53-76 | 42-59-83 | 49-64-90 | 56-68-96 | 62-76-108 | 68-83-118 | 74-90-127 |
|       |      |               | 22.5° | 15-25-46 | 22-33-53 | 27-41-59 | 33-46-65 | 38-49-70 | 43-53-75 | 48-59-83  | 53-65-91  | 57-70-99  |
|       |      |               | 45°   | 9-14-27  | 13-19-31 | 16-24-34 | 19-27-38 | 22-29-41 | 25-31-43 | 28-34-48  | 31-38-53  | 33-41-57  |
|       | NC   | -             | 15    | 22       | 28       | 32       | 36       | 43       | 48       | 53        |           |           |

| 30x18 | 3.75 | Airflow (CFM) | 1050  | 1400     | 1750     | 2100     | 2450     | 2800     | 3500     | 4200      | 4900      |           |
|-------|------|---------------|-------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
|       |      | Throw (ft.)   | 0°    | 20-32-60 | 28-34-69 | 36-53-77 | 43-60-84 | 50-64-91 | 56-69-97 | 63-77-109 | 69-84-119 | 74-91-129 |
|       |      |               | 22.5° | 15-25-46 | 22-33-53 | 28-41-60 | 33-46-65 | 39-50-71 | 44-53-75 | 49-60-84  | 53-65-92  | 58-71-100 |
|       |      |               | 45°   | 9-14-27  | 13-19-31 | 16-24-35 | 19-27-38 | 22-29-41 | 25-31-44 | 28-35-49  | 31-38-54  | 33-41-58  |
|       | NC   | -             | 16    | 22       | 28       | 32       | 36       | 43       | 48       | 53        |           |           |

| 48x12<br>36x16<br>24x24 | 4.00 | Airflow (CFM) | 1125  | 1500     | 1875     | 2250     | 2625     | 3000     | 3750      | 4500      | 5250      |           |
|-------------------------|------|---------------|-------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|
|                         |      | Throw (ft.)   | 0°    | 21-33-62 | 29-44-71 | 37-55-80 | 44-62-87 | 51-67-94 | 58-71-101 | 65-80-113 | 71-87-123 | 77-94-133 |
|                         |      |               | 22.5° | 16-26-48 | 23-34-55 | 29-43-62 | 34-48-68 | 40-52-73 | 45-55-78  | 50-62-87  | 55-68-96  | 60-73-103 |
|                         |      |               | 45°   | 9-15-28  | 13-20-32 | 17-25-36 | 20-28-39 | 23-30-42 | 26-32-45  | 29-36-51  | 32-39-55  | 35-42-60  |
|                         | NC   | -             | 16    | 22       | 28       | 33       | 37       | 43       | 49        | 53        |           |           |

| 36x18 | 4.50 | Airflow (CFM) | 1266  | 1688     | 2110     | 2532     | 2954     | 3376      | 4220      | 5064      | 5908      |            |
|-------|------|---------------|-------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|------------|
|       |      | Throw (ft.)   | 0°    | 22-35-65 | 31-47-76 | 39-59-84 | 47-65-93 | 55-71-100 | 62-76-107 | 69-84-119 | 76-93-131 | 82-100-141 |
|       |      |               | 22.5° | 17-27-51 | 24-36-59 | 30-45-65 | 36-51-72 | 42-55-77  | 48-59-83  | 53-65-93  | 59-72-101 | 63-77-110  |
|       |      |               | 45°   | 10-16-29 | 14-21-34 | 18-26-38 | 21-29-42 | 25-32-45  | 28-34-48  | 31-38-54  | 34-42-59  | 37-45-64   |
|       | NC   | -             | 16    | 23       | 28       | 33       | 37       | 44        | 49        | 54        |           |            |

| 36x20<br>31x24 | 5.00 | Airflow (CFM) | 1413  | 1884     | 2355     | 2826     | 3297     | 3768      | 4710      | 5652      | 6594      |            |
|----------------|------|---------------|-------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|------------|
|                |      | Throw (ft.)   | 0°    | 23-37-69 | 33-49-80 | 41-62-89 | 49-69-98 | 58-75-106 | 65-80-113 | 73-89-126 | 80-98-138 | 86-106-149 |
|                |      |               | 22.5° | 18-29-54 | 26-38-62 | 32-48-69 | 38-54-76 | 45-58-82  | 50-62-87  | 56-69-98  | 67-76-107 | 67-82-116  |
|                |      |               | 45°   | 10-17-31 | 15-22-36 | 19-28-40 | 22-31-44 | 26-34-48  | 29-36-51  | 33-40-57  | 36-44-62  | 39-48-67   |
|                | NC   | -             | 17    | 23       | 29       | 33       | 37       | 44        | 50        | 54        |           |            |

| 42x18 | 5.25 | Airflow (CFM) | 1482  | 1976     | 2470     | 2964     | 3458      | 3952      | 4940      | 5928      | 6916       |            |
|-------|------|---------------|-------|----------|----------|----------|-----------|-----------|-----------|-----------|------------|------------|
|       |      | Throw (ft.)   | 0°    | 24-38-71 | 34-51-82 | 42-63-91 | 51-71-100 | 59-76-108 | 67-82-116 | 75-91-129 | 82-100-142 | 88-108-153 |
|       |      |               | 22.5° | 18-29-55 | 26-39-63 | 33-49-71 | 39-55-71  | 46-59-84  | 52-63-90  | 58-71-100 | 63-78-110  | 68-84-118  |
|       |      |               | 45°   | 11-17-32 | 15-23-37 | 19-28-41 | 19-28-41  | 27-34-49  | 30-37-52  | 34-41-58  | 37-45-64   | 40-49-69   |
|       | NC   | -             | 17    | 24       | 24       | 34       | 38        | 44        | 50        | 54        |            |            |



**Notes:**

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) |       | 300      | 400      | 500       | 600       | 700       | 800       | 1000       | 1200       | 1400        |
|----------------------|------------------------------------|-----------------|-------|----------|----------|-----------|-----------|-----------|-----------|------------|------------|-------------|
|                      |                                    | Vel. Pressure   |       | 0.006    | 0.010    | 0.016     | 0.022     | 0.031     | 0.040     | 0.062      | 0.090      | 0.122       |
|                      |                                    | Total Pressure  | 0°    | 0.016    | 0.029    | 0.046     | 0.066     | 0.090     | 0.117     | 0.183      | 0.263      | 0.358       |
| 22.5°                | 0.018                              |                 | 0.033 | 0.051    | 0.074    | 0.100     | 0.131     | 0.204     | 0.294     | 0.401      |            |             |
| 45°                  | 0.028                              |                 | 0.049 | 0.077    | 0.111    | 0.152     | 0.198     | 0.309     | 0.445     | 0.606      |            |             |
| 28x28                | 5.44                               | Airflow (CFM)   |       | 1548     | 2064     | 2580      | 3096      | 3612      | 4128      | 5160       | 6192       | 7224        |
|                      |                                    | Throw (ft.)     | 0°    | 24-39-72 | 35-52-84 | 43-65-93  | 52-72-102 | 60-78-110 | 68-84-118 | 76-93-132  | 84-102-145 | 90-110-156  |
|                      |                                    |                 | 22.5° | 19-30-56 | 27-40-65 | 33-50-72  | 40-56-79  | 47-61-86  | 53-65-92  | 59-72-102  | 65-79-112  | 70-86-121   |
|                      |                                    |                 | 45°   | 11-17-33 | 16-23-38 | 19-29-42  | 23-33-46  | 27-35-50  | 31-38-53  | 34-42-59   | 38-46-65   | 41-50-70    |
| NC                   |                                    | -               | 17    | 24       | 29       | 34        | 38        | 45        | 50        | 55         |            |             |
| 42x20<br>30x28       | 5.83                               | Airflow (CFM)   |       | 1653     | 2204     | 2755      | 3306      | 3857      | 4408      | 5510       | 6612       | 7714        |
|                      |                                    | Throw (ft.)     | 0°    | 25-40-75 | 36-54-86 | 45-67-96  | 54-75-106 | 62-81-114 | 70-86-122 | 79-96-136  | 86-106-149 | 93-114-161  |
|                      |                                    |                 | 22.5° | 19-31-58 | 28-41-67 | 35-52-75  | 41-58-82  | 48-63-88  | 55-67-95  | 61-75-106  | 67-82-116  | 72-88-125   |
|                      |                                    |                 | 45°   | 11-18-34 | 16-24-39 | 20-30-43  | 24-34-48  | 28-36-51  | 32-39-55  | 35-43-61   | 39-48-67   | 42-51-73    |
| NC                   |                                    | -               | 17    | 24       | 30       | 34        | 38        | 45        | 50        | 55         |            |             |
| 48x18<br>36x24       | 6.00                               | Airflow (CFM)   |       | 1698     | 2264     | 2830      | 3396      | 3962      | 4528      | 5660       | 6792       | 7924        |
|                      |                                    | Throw (ft.)     | 0°    | 25-41-76 | 36-54-87 | 45-68-98  | 54-76-107 | 63-82-116 | 71-87-124 | 80-98-138  | 87-107-152 | 94-116-164  |
|                      |                                    |                 | 22.5° | 20-32-59 | 28-42-68 | 35-53-76  | 42-59-83  | 49-63-90  | 55-68-96  | 62-76-107  | 68-83-117  | 73-90-127   |
|                      |                                    |                 | 45°   | 11-18-34 | 16-24-39 | 20-31-44  | 24-34-48  | 28-37-52  | 32-39-56  | 36-44-62   | 39-48-68   | 43-52-74    |
| NC                   |                                    | -               | 18    | 24       | 30       | 34        | 38        | 45        | 50        | 55         |            |             |
| 30x30                | 6.25                               | Airflow (CFM)   |       | 1782     | 2376     | 2970      | 3564      | 4158      | 4752      | 5940       | 7128       | 8316        |
|                      |                                    | Throw (ft.)     | 0°    | 26-42-78 | 37-56-90 | 46-69-100 | 56-78-110 | 65-84-119 | 73-90-127 | 82-100-142 | 90-110-155 | 97-119-168  |
|                      |                                    |                 | 22.5° | 20-32-60 | 29-43-69 | 36-54-78  | 43-60-85  | 50-65-92  | 57-69-98  | 63-78-110  | 69-85-120  | 75-92-130   |
|                      |                                    |                 | 45°   | 12-19-35 | 17-25-40 | 21-31-45  | 25-35-49  | 29-38-53  | 33-40-57  | 37-45-64   | 40-49-70   | 44-53-75    |
| NC                   |                                    | -               | 18    | 24       | 30       | 34        | 38        | 45        | 51        | 55         |            |             |
| 42x24<br>36x28       | 7.00                               | Airflow (CFM)   |       | 1998     | 2664     | 3330      | 3996      | 4662      | 5328      | 6660       | 7992       | 9324        |
|                      |                                    | Throw (ft.)     | 0°    | 28-44-82 | 39-59-95 | 49-74-106 | 59-82-116 | 69-89-126 | 77-95-134 | 87-106-150 | 95-116-164 | 102-126-178 |
|                      |                                    |                 | 22.5° | 21-34-64 | 30-46-74 | 38-57-82  | 46-64-90  | 53-69-97  | 60-74-104 | 67-82-116  | 74-90-127  | 79-97-138   |
|                      |                                    |                 | 45°   | 12-20-37 | 18-26-43 | 22-33-48  | 26-37-52  | 31-40-56  | 35-43-60  | 39-48-68   | 43-52-74   | 46-56-80    |
| NC                   |                                    | -               | 18    | 25       | 30       | 35        | 39        | 46        | 51        | 56         |            |             |
| 46x22                | 7.03                               | Airflow (CFM)   |       | 2004     | 2672     | 3340      | 4008      | 4676      | 5344      | 6680       | 8016       | 9352        |
|                      |                                    | Throw (ft.)     | 0°    | 28-44-82 | 39-59-95 | 49-74-106 | 59-82-116 | 69-89-126 | 78-95-134 | 87-106-150 | 95-116-165 | 103-126-178 |
|                      |                                    |                 | 22.5° | 21-34-64 | 30-46-74 | 38-57-82  | 46-64-90  | 53-69-97  | 60-74-104 | 67-82-116  | 74-90-128  | 80-97-138   |
|                      |                                    |                 | 45°   | 12-20-37 | 18-27-43 | 22-33-48  | 27-37-52  | 31-40-57  | 35-43-60  | 39-48-68   | 43-52-74   | 46-57-80    |
| NC                   |                                    | -               | 18    | 25       | 30       | 35        | 36        | 46        | 51        | 56         |            |             |
| 32x32                | 7.11                               | Airflow (CFM)   |       | 2034     | 2712     | 3390      | 4068      | 4746      | 5424      | 6780       | 8136       | 9492        |
|                      |                                    | Throw (ft.)     | 0°    | 28-45-83 | 40-59-96 | 49-74-107 | 59-83-117 | 69-90-127 | 78-96-135 | 87-107-151 | 96-117-166 | 103-127-179 |
|                      |                                    |                 | 22.5° | 22-34-64 | 31-46-74 | 38-57-83  | 46-64-91  | 54-69-98  | 61-74-105 | 68-83-117  | 74-91-129  | 80-98-139   |
|                      |                                    |                 | 45°   | 12-20-37 | 18-27-43 | 22-33-48  | 27-37-53  | 31-40-57  | 35-43-61  | 39-48-68   | 43-53-75   | 47-57-81    |
| NC                   |                                    | -               | 18    | 25       | 30       | 35        | 39        | 46        | 51        | 56         |            |             |

### Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) | 300   | 400   | 500   | 600   | 700   | 800   | 1000  | 1200  | 1400  |       |
|----------------------|------------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |                                    | Vel. Pressure   | 0.006 | 0.010 | 0.016 | 0.022 | 0.031 | 0.040 | 0.062 | 0.090 | 0.122 |       |
|                      |                                    | Total Pressure  | 0°    | 0.016 | 0.029 | 0.046 | 0.066 | 0.090 | 0.117 | 0.183 | 0.263 | 0.358 |
|                      |                                    |                 | 22.5° | 0.018 | 0.033 | 0.051 | 0.074 | 0.100 | 0.131 | 0.204 | 0.294 | 0.401 |
|                      |                                    |                 | 45°   | 0.028 | 0.049 | 0.077 | 0.111 | 0.152 | 0.198 | 0.309 | 0.445 | 0.606 |

  

| 36x30 | 7.50 | Airflow (CFM) | 2148  | 2864     | 3580     | 4296      | 5012      | 5728      | 7160      | 8592       | 10024      |             |
|-------|------|---------------|-------|----------|----------|-----------|-----------|-----------|-----------|------------|------------|-------------|
|       |      | Throw (ft.)   | 0°    | 29-46-85 | 41-61-98 | 51-76-110 | 61-85-121 | 71-92-130 | 80-98-139 | 90-110-156 | 98-121-170 | 106-130-184 |
|       |      |               | 22.5° | 22-35-66 | 32-47-76 | 39-59-85  | 47-66-93  | 55-71-101 | 62-76-108 | 70-85-121  | 76-93-132  | 82-101-143  |
|       |      |               | 45°   | 13-21-38 | 18-27-44 | 23-34-50  | 27-38-54  | 32-41-59  | 36-44-63  | 40-50-70   | 44-54-77   | 48-59-83    |
|       |      | NC            | -     | 19       | 25       | 31        | 35        | 39        | 46        | 51         | 56         |             |

  

| 48x24<br>36x32 | 8.00 | Airflow (CFM) | 2289  | 3052     | 3815      | 4578      | 5341      | 6104      | 7630       | 9156       | 10682       |             |
|----------------|------|---------------|-------|----------|-----------|-----------|-----------|-----------|------------|------------|-------------|-------------|
|                |      | Throw (ft.)   | 0°    | 29-47-88 | 42-63-102 | 52-79-114 | 63-88-124 | 73-95-134 | 83-102-144 | 93-114-161 | 102-124-176 | 110-134-147 |
|                |      |               | 22.5° | 23-37-68 | 33-49-79  | 41-61-88  | 49-68-96  | 57-74-104 | 64-79-111  | 72-88-124  | 79-96-136   | 85-104-147  |
|                |      |               | 45°   | 13-21-40 | 19-28-46  | 24-35-51  | 28-40-56  | 33-43-60  | 37-46-65   | 42-51-72   | 46-56-79    | 49-60-86    |
|                |      | NC            | -     | 19       | 25        | 31        | 35        | 39        | 46         | 52         | 56          |             |

  

| 34x34 | 8.03 | Airflow (CFM) | 2304  | 3072     | 3840      | 4608      | 5376      | 6144      | 7680       | 9216       | 10752       |             |
|-------|------|---------------|-------|----------|-----------|-----------|-----------|-----------|------------|------------|-------------|-------------|
|       |      | Throw (ft.)   | 0°    | 30-47-88 | 42-63-102 | 53-79-114 | 63-88-125 | 74-95-135 | 83-102-144 | 93-114-161 | 102-125-176 | 110-135-191 |
|       |      |               | 22.5° | 23-37-68 | 33-49-79  | 41-61-88  | 49-68-97  | 57-74-104 | 64-79-112  | 72-88-125  | 79-97-137   | 85-104-148  |
|       |      |               | 45°   | 13-21-40 | 19-28-46  | 24-36-51  | 28-40-56  | 33-43-61  | 37-46-65   | 42-51-73   | 46-56-79    | 50-61-86    |
|       |      | NC            | -     | 19       | 25        | 31        | 36        | 40        | 46         | 52         | 56          |             |

  

| 36x34 | 8.50 | Airflow (CFM) | 2442  | 3256     | 4070      | 4884      | 5698      | 6512      | 8140       | 9768       | 11396       |             |
|-------|------|---------------|-------|----------|-----------|-----------|-----------|-----------|------------|------------|-------------|-------------|
|       |      | Throw (ft.)   | 0°    | 30-49-91 | 43-65-105 | 54-81-117 | 65-91-128 | 76-98-139 | 86-105-148 | 96-117-166 | 105-128-182 | 113-139-196 |
|       |      |               | 22.5° | 24-38-70 | 34-50-81  | 42-63-91  | 50-70-100 | 59-76-108 | 66-81-115  | 74-91-129  | 81-100-141  | 88-108-152  |
|       |      |               | 45°   | 14-22-41 | 20-29-47  | 24-37-53  | 29-41-58  | 34-44-62  | 39-47-67   | 43-53-75   | 47-58-82    | 51-62-88    |
|       |      | NC            | -     | 19       | 26        | 31        | 36        | 40        | 46         | 52         | 56          |             |

  

| 42x30 | 8.75 | Airflow (CFM) | 2514  | 3352     | 4190      | 5028      | 5866      | 6704       | 8380       | 10056      | 11732       |             |
|-------|------|---------------|-------|----------|-----------|-----------|-----------|------------|------------|------------|-------------|-------------|
|       |      | Throw (ft.)   | 0°    | 31-49-92 | 44-66-106 | 55-82-119 | 66-92-130 | 77-100-141 | 87-106-151 | 97-119-168 | 106-130-184 | 115-141-199 |
|       |      |               | 22.5° | 24-38-71 | 34-51-82  | 43-64-92  | 51-71-101 | 60-77-109  | 67-82-117  | 75-92-130  | 82-101-143  | 89-109-154  |
|       |      |               | 45°   | 14-22-41 | 20-30-48  | 25-37-54  | 30-41-59  | 35-45-63   | 39-48-68   | 44-54-76   | 48-59-83    | 52-63-90    |
|       |      | NC            | 11    | 19       | 26        | 31        | 36        | 40         | 47         | 52         | 57          |             |

  

| 36x36 | 9.00 | Airflow (CFM) | 2589  | 3452     | 4315      | 5178      | 6041      | 6904       | 8630       | 10356      | 12082       |             |
|-------|------|---------------|-------|----------|-----------|-----------|-----------|------------|------------|------------|-------------|-------------|
|       |      | Throw (ft.)   | 0°    | 31-50-94 | 45-67-108 | 56-84-121 | 67-94-132 | 78-101-143 | 88-108-153 | 99-121-171 | 108-132-187 | 117-143-202 |
|       |      |               | 22.5° | 24-39-72 | 35-52     | 43-65-94  | 52-72-103 | 61-78-111  | 68-84-118  | 76-94-132  | 84-103-145  | 90-111-157  |
|       |      |               | 45°   | 14-23-42 | 84        | 25-38-54  | 30-42-60  | 35-45-64   | 40-49-69   | 44-54-77   | 49-60-84    | 53-64-91    |
|       |      | NC            | 11    | 20-30-49 | 26        | 31        | 36        | 40         | 47         | 52         | 57          |             |

  

| 42x34<br>48x30 | 9.92 | Airflow (CFM) | 2880  | 3840     | 4800      | 5760      | 6720      | 7680       | 9600       | 11520       | 13440       |             |
|----------------|------|---------------|-------|----------|-----------|-----------|-----------|------------|------------|-------------|-------------|-------------|
|                |      | Throw (ft.)   | 0°    | 33-53-99 | 47-71-114 | 59-88-127 | 71-99-140 | 82-107-151 | 93-114-161 | 104-127-180 | 114-140-197 | 123-151-213 |
|                |      |               | 22.5° | 26-41-76 | 36-55-88  | 46-68-99  | 55-76-108 | 64-83-117  | 72-88-125  | 81-99-140   | 88-108-153  | 95-117-165  |
|                |      |               | 45°   | 15-24-44 | 21-32-51  | 26-40-57  | 32-44-63  | 37-48-68   | 42-51-73   | 47-57-81    | 51-63-89    | 55-68-96    |
|                |      | NC            | 11    | 20       | 26        | 32        | 36        | 40         | 47         | 53          | 57          |             |



**Notes:**

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) | 300   | 400   | 500   | 600   | 700   | 800   | 1000  | 1200  | 1400  |       |
|----------------------|------------------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                      |                                    | Vel. Pressure   | 0.006 | 0.010 | 0.016 | 0.022 | 0.031 | 0.040 | 0.062 | 0.090 | 0.122 |       |
|                      |                                    | Total Pressure  | 0°    | 0.016 | 0.029 | 0.046 | 0.066 | 0.090 | 0.117 | 0.183 | 0.263 | 0.358 |
|                      |                                    |                 | 22.5° | 0.018 | 0.033 | 0.051 | 0.074 | 0.100 | 0.131 | 0.204 | 0.294 | 0.401 |
|                      |                                    |                 | 45°   | 0.028 | 0.049 | 0.077 | 0.111 | 0.152 | 0.198 | 0.309 | 0.445 | 0.606 |

| 38x38 | 10.03 | Airflow (CFM) | 2892  | 3856     | 4820      | 5784      | 6748      | 7712       | 9640       | 11568       | 13496       |             |
|-------|-------|---------------|-------|----------|-----------|-----------|-----------|------------|------------|-------------|-------------|-------------|
|       |       | Throw (ft.)   | 0°    | 33-53-99 | 47-71-114 | 59-88-128 | 71-99-140 | 83-107-151 | 93-114-161 | 104-128-181 | 114-140-198 | 123-151-214 |
|       |       |               | 22.5° | 26-41-77 | 37-55-88  | 46-69-99  | 55-77-108 | 64-83-117  | 72-88-125  | 81-99-140   | 88-108-153  | 96-117-166  |
|       |       |               | 45°   | 15-24-44 | 21-32-51  | 27-40-57  | 32-44-63  | 37-48-68   | 42-51-73   | 47-57-81    | 51-63-89    | 55-68-96    |
|       | NC    | 11            | 20    | 26       | 32        | 36        | 40        | 47         | 53         | 57          |             |             |

| 42x36 | 10.50 | Airflow (CFM) | 3030  | 4040      | 5050      | 6060      | 7070       | 8080       | 10100      | 12120       | 14140       |             |
|-------|-------|---------------|-------|-----------|-----------|-----------|------------|------------|------------|-------------|-------------|-------------|
|       |       | Throw (ft.)   | 0°    | 34-54-101 | 48-72-117 | 60-91-131 | 72-101-143 | 85-109-155 | 95-117-165 | 107-131-185 | 117-143-202 | 126-155-219 |
|       |       |               | 22.5° | 26-42-78  | 37-56-91  | 47-70-101 | 56-78-111  | 65-85-120  | 74-91-128  | 83-101-143  | 91-111-157  | 98-120-169  |
|       |       |               | 45°   | 15-24-46  | 22-33-53  | 27-41-59  | 33-46-64   | 38-49-70   | 43-53-74   | 48-59-83    | 53-64-91    | 57-70-98    |
|       | NC    | 11            | 20    | 27        | 32        | 37        | 41         | 47         | 53         | 57          |             |             |

| 46x34 | 10.86 | Airflow (CFM) | 3135  | 4180      | 5225      | 6270      | 7315       | 8360       | 10450      | 12540       | 14630       |             |
|-------|-------|---------------|-------|-----------|-----------|-----------|------------|------------|------------|-------------|-------------|-------------|
|       |       | Throw (ft.)   | 0°    | 34-55-103 | 49-74-119 | 61-92-133 | 74-103-146 | 86-111-157 | 97-119-168 | 109-133-188 | 119-146-206 | 128-157-222 |
|       |       |               | 22.5° | 27-43-80  | 38-57-92  | 48-71-103 | 57-80-113  | 67-86-122  | 75-92-130  | 84-103-146  | 92-113-160  | 99-122-172  |
|       |       |               | 45°   | 16-25-46  | 22-33-53  | 28-41-60  | 33-46-66   | 39-50-71   | 44-53-76   | 49-60-85    | 53-66-93    | 58-71-100   |
|       | NC    | 11            | 20    | 27        | 32        | 37        | 41         | 47         | 53         | 58          |             |             |

| 42x38 | 11.08 | Airflow (CFM) | 3201  | 4268      | 5335      | 6402      | 7469       | 8536       | 10670      | 12804       | 14938       |             |
|-------|-------|---------------|-------|-----------|-----------|-----------|------------|------------|------------|-------------|-------------|-------------|
|       |       | Throw (ft.)   | 0°    | 35-56-104 | 50-74-120 | 62-93-134 | 74-104-147 | 86-117-165 | 98-120-170 | 110-134-190 | 120-147-208 | 130-159-225 |
|       |       |               | 22.5° | 27-43-81  | 38-58-93  | 48-72-104 | 58-81-114  | 67-87-123  | 76-93-132  | 85-104-147  | 93-114-161  | 101-123-174 |
|       |       |               | 45°   | 16-25-47  | 22-34-54  | 28-42-60  | 34-47-66   | 39-51-71   | 44-54-76   | 49-60-85    | 54-66-94    | 58-71-101   |
|       | NC    | 12            | 20    | 27        | 32        | 37        | 41         | 48         | 53         | 58          |             |             |

| 40x40 | 11.11 | Airflow (CFM) | 3210  | 4280      | 5350      | 6420      | 7490       | 8560       | 10700      | 12840       | 14980       |             |
|-------|-------|---------------|-------|-----------|-----------|-----------|------------|------------|------------|-------------|-------------|-------------|
|       |       | Throw (ft.)   | 0°    | 35-56-104 | 50-75-120 | 62-93-134 | 75-104-147 | 87-113-159 | 98-120-170 | 110-134-190 | 120-147-208 | 130-159-225 |
|       |       |               | 22.5° | 27-43-81  | 39-58-93  | 48-72-104 | 58-81-114  | 67-87-123  | 76-93-132  | 85-104-147  | 93-114-161  | 101-123-174 |
|       |       |               | 45°   | 16-25-47  | 22-34-54  | 28-42-61  | 34-47-66   | 39-51-72   | 44-54-77   | 49-61-86    | 54-66-94    | 58-72-101   |
|       | NC    | 12            | 20    | 27        | 32        | 37        | 44         | 48         | 53         | 58          |             |             |

| 48x36 | 12.00 | Airflow (CFM) | 3471  | 4628      | 5785      | 6942      | 8099       | 9256       | 11570       | 13884       | 16198       |             |
|-------|-------|---------------|-------|-----------|-----------|-----------|------------|------------|-------------|-------------|-------------|-------------|
|       |       | Throw (ft.)   | 0°    | 36-58-108 | 52-78-125 | 65-97-140 | 78-108-153 | 90-117-165 | 102-125-177 | 114-140-198 | 125-153-217 | 135-165-234 |
|       |       |               | 22.5° | 28-45-84  | 40-60-97  | 50-75-108 | 60-84-119  | 70-91-128  | 79-97-137   | 88-108-153  | 97-119-168  | 105-128-181 |
|       |       |               | 45°   | 16-26-49  | 23-35-56  | 29-44-63  | 35-49-69   | 41-53-74   | 46-56-80    | 51-63-89    | 56-69-97    | 61-74-105   |
|       | NC    | 12            | 21    | 27        | 33        | 37        | 41         | 48         | 53          | 58          |             |             |

| 42x42 | 12.25 | Airflow (CFM) | 3546  | 4728      | 5910      | 7092      | 8274       | 9456       | 11820       | 14184       | 16548       |             |
|-------|-------|---------------|-------|-----------|-----------|-----------|------------|------------|-------------|-------------|-------------|-------------|
|       |       | Throw (ft.)   | 0°    | 37-59-109 | 52-78-126 | 65-98-141 | 78-109-155 | 91-118-167 | 103-126-179 | 115-141-200 | 126-155-219 | 137-167-236 |
|       |       |               | 22.5° | 24-46-85  | 40-61-126 | 51-76-110 | 61-85-120  | 71-92-130  | 80-98-139   | 89-110-155  | 98-120-170  | 106-130-183 |
|       |       |               | 45°   | 16-26-49  | 24-35-57  | 29-44-64  | 35-49-70   | 41-53-75   | 46-57-80    | 52-64-90    | 57-70-99    | 61-75-106   |
|       | NC    | 12            | 27    | 27        | 33        | 37        | 41         | 48         | 53          | 58          |             |             |

### Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.

# ENGINEERING DATA

## T50SS, T60SS, T54SS, T64SS

| Nom. Duct Size (in.) | Nom. Duct Area (ft. <sup>2</sup> ) | Core Vel. (FPM) | 300   | 400       | 500       | 600        | 700        | 800         | 1000        | 1200        | 1400        |             |
|----------------------|------------------------------------|-----------------|-------|-----------|-----------|------------|------------|-------------|-------------|-------------|-------------|-------------|
|                      |                                    | Vel. Pressure   | 0.006 | 0.010     | 0.016     | 0.022      | 0.031      | 0.040       | 0.062       | 0.090       | 0.122       |             |
|                      |                                    | Total Pressure  | 0°    | 0.016     | 0.029     | 0.046      | 0.066      | 0.090       | 0.117       | 0.183       | 0.263       | 0.358       |
| 22.5°                | 0.018                              |                 | 0.033 | 0.051     | 0.074     | 0.100      | 0.131      | 0.204       | 0.294       | 0.401       |             |             |
| 45°                  | 0.028                              |                 | 0.049 | 0.077     | 0.111     | 0.152      | 0.198      | 0.309       | 0.445       | 0.606       |             |             |
| 44x44                | 13.44                              | Airflow (CFM)   | 3897  | 5196      | 6495      | 7794       | 9093       | 10392       | 12990       | 15588       | 18186       |             |
|                      |                                    | Throw (ft.)     | 0°    | 38-62-115 | 55-82-133 | 68-103-148 | 82-115-162 | 96-124-175  | 108-133-187 | 121-148-210 | 133-162-230 | 143-175-248 |
|                      |                                    |                 | 22.5° | 30-48-89  | 42-64-103 | 53-80-115  | 64-89-126  | 74-96-136   | 84-103-145  | 94-115-162  | 103-126-178 | 111-136-192 |
|                      |                                    |                 | 45°   | 17-28-52  | 25-37-60  | 31-46-67   | 37-52-73   | 43-55-79    | 49-60-84    | 54-67-94    | 60-73-103   | 64-79-112   |
| NC                   |                                    | 12              | 21    | 28        | 33        | 38         | 42         | 48          | 54          | 58          |             |             |
| 48x42                | 14.00                              | Airflow (CFM)   | 4062  | 5416      | 6770      | 8124       | 9478       | 10832       | 13540       | 16248       | 18956       |             |
|                      |                                    | Throw (ft.)     | 0°    | 36-63-117 | 58-84-135 | 70-105-151 | 84-117-166 | 98-127-179  | 110-135-191 | 124-151-214 | 135-166-234 | 146-179-253 |
|                      |                                    |                 | 22.5° | 30-49-91  | 43-65-105 | 54-81-117  | 65-91-128  | 76-98-139   | 86-105-148  | 96-117-166  | 105-128-182 | 113-139-196 |
|                      |                                    |                 | 45°   | 18-28-53  | 25-38-61  | 31-47-68   | 38-53-75   | 44-57-81    | 50-61-86    | 56-68-96    | 61-75-105   | 68-81-114   |
| NC                   |                                    | 13              | 21    | 28        | 33        | 38         | 42         | 49          | 54          | 59          |             |             |
| 46x46                | 14.69                              | Airflow (CFM)   | 4266  | 5699      | 7110      | 8532       | 9954       | 11376       | 14220       | 17064       | 19908       |             |
|                      |                                    | Throw (ft.)     | 0°    | 40-64-120 | 57-86-139 | 72-107-155 | 86-120-170 | 100-130-183 | 113-139-196 | 127-155-219 | 139-170-240 | 150-183-259 |
|                      |                                    |                 | 22.5° | 31-50-93  | 44-67-107 | 56-83-120  | 67-93-132  | 78-101-142  | 88-107-152  | 98-120-170  | 107-132-186 | 116-142-201 |
|                      |                                    |                 | 45°   | 18-29-54  | 26-39-62  | 32-48-70   | 39-54-76   | 45-58-83    | 51-62-88    | 57-70-99    | 62-76-108   | 67-83-117   |
| NC                   |                                    | 13              | 21    | 28        | 33        | 38         | 42         | 49          | 54          | 59          |             |             |
| 48x46                | 15.33                              | Airflow (CFM)   | 4455  | 5940      | 7425      | 8910       | 10395      | 11880       | 14850       | 17820       | 20790       |             |
|                      |                                    | Throw (ft.)     | 0°    | 41-66-123 | 59-88-142 | 73-110-158 | 88-123-174 | 102-133-187 | 116-142-200 | 129-158-224 | 142-174-245 | 153-187-265 |
|                      |                                    |                 | 22.5° | 32-51-95  | 45-68-110 | 57-85-123  | 68-95-134  | 79-103-145  | 90-110-155  | 100-123-174 | 110-134-190 | 119-145-205 |
|                      |                                    |                 | 45°   | 18-30-55  | 26-40-64  | 33-49-71   | 40-55-78   | 46-60-84    | 52-64-90    | 58-71-101   | 64-78-110   | 69-84-119   |
| NC                   |                                    | 13              | 22    | 28        | 34        | 38         | 42         | 49          | 54          | 59          |             |             |
| 48x48                | 16.00                              | Airflow (CFM)   | 4650  | 6200      | 7750      | 9300       | 10850      | 12400       | 15500       | 18600       | 21700       |             |
|                      |                                    | Throw (ft.)     | 0°    | 42-67-125 | 60-90-145 | 75-112-162 | 90-125-177 | 105-135-192 | 118-145-202 | 132-162-229 | 145-177-251 | 156-192-271 |
|                      |                                    |                 | 22.5° | 33-52-97  | 46-70-112 | 58-87-125  | 70-97-137  | 81-105-148  | 92-112-159  | 102-125-177 | 112-137-194 | 121-148-210 |
|                      |                                    |                 | 45°   | 19-30-56  | 27-40-65  | 34-50-73   | 40-56-80   | 47-61-86    | 53-65-92    | 59-73-103   | 65-80-113   | 70-86-122   |
| NC                   |                                    | 13              | 22    | 28        | 34        | 38         | 42         | 49          | 55          | 59          |             |             |



**Notes:**

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Performance data includes damper in the full open position.
4. 0°, 22.5° and 45° represent blade deflection angles.
5. Units: Face Velocity = fpm; Total Pressure = in. wc; Ak = ft.<sup>2</sup>
6. NC is based upon 10dB room absorption (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000 Hz octave bands.
7. Dash "-" indicates NC value less than 10.