

PERFORMANCE DATA

DR180 Wall or Pillar Unit

| Unit Size W x H [in] | Inlet Size [in] | Face Velocity [fpm] | Air Flow [cfm] | Total Pressure [in. w.g.] | Static Pressure [in. w.g.] | Noise Criteria [NC] | Proximity to Outlet [ft] | | | | |
|-------------------------|--------------------|---------------------------|-------------------|---------------------------------|----------------------------------|---------------------------|--------------------------|------------|---------------|-----------|---|
| | | | | | | | DR 20% | | Adjacent Zone | | |
| | | | | | | | ΔT = 5 °F | ΔT = 10 °F | ΔT = 5°F | ΔT = 10°F | |
| 18 x 24 | 6 | 20 | 85 | 0.02 | - | - | - | 1 | - | - | - |
| | | 30 | 128 | 0.05 | 0.02 | - | 1 | 2 | 1 | 1 | |
| | | 40 | 171 | 0.09 | 0.04 | 21 | 1 | 3 | 2 | 3 | |
| | | 50 | 213 | 0.13 | 0.06 | 28 | 2 | 5 | 3 | 4 | |
| 24 x 24 | 8 | 20 | 115 | 0.01 | - | - | - | 1 | - | - | - |
| | | 30 | 173 | 0.03 | 0.02 | - | 1 | 2 | 1 | 2 | |
| | | 40 | 230 | 0.05 | 0.03 | - | 1 | 3 | 2 | 3 | |
| | | 50 | 288 | 0.08 | 0.04 | 19 | 2 | 5 | 3 | 4 | |
| 30 x 24 | 8 | 20 | 145 | 0.02 | - | - | - | 1 | - | - | - |
| | | 30 | 217 | 0.04 | 0.02 | - | 1 | 2 | 1 | 2 | |
| | | 40 | 290 | 0.07 | 0.03 | - | 1 | 3 | 2 | 3 | |
| | | 50 | 362 | 0.12 | 0.05 | 18 | 2 | 5 | 3 | 4 | |
| 18 x 36 | 6 | 20 | 130 | 0.04 | 0.01 | - | 1 | 2 | 1 | 1 | |
| | | 30 | 196 | 0.09 | 0.02 | 22 | 2 | 4 | 2 | 3 | |
| | 10 x 4 | 40 | 261 | 0.09 | 0.04 | 26 | 3 | 6 | 3 | 5 | |
| | | 50 | 326 | 0.14 | 0.06 | 34 | 4 | 8 | 5 | 8 | |
| 24 x 36 | 8 | 20 | 176 | 0.02 | - | - | 1 | 2 | 1 | 1 | |
| | | 30 | 264 | 0.05 | 0.02 | - | 2 | 4 | 2 | 3 | |
| | | 40 | 352 | 0.10 | 0.03 | 20 | 3 | 6 | 3 | 6 | |
| | | 50 | 440 | 0.15 | 0.05 | 27 | 4 | 8 | 5 | 9 | |
| 30 x 36 | 8 | 20 | 221 | 0.03 | - | - | 1 | 2 | 1 | 1 | |
| | | 30 | 332 | 0.04 | 0.01 | - | 2 | 4 | 2 | 3 | |
| | 10 | 40 | 443 | 0.07 | 0.03 | - | 3 | 6 | 3 | 6 | |
| | | 50 | 554 | 0.11 | 0.04 | 19 | 4 | 8 | 5 | 9 | |
| 18 x 48 | 6 | 20 | 175 | 0.06 | - | 20 | 1 | 3 | 1 | 2 | |
| | | 30 | 263 | 0.13 | 0.02 | 33 | 2 | 6 | 3 | 5 | |
| | 10 x 4 | 40 | 351 | 0.14 | 0.04 | 36 | 4 | 9 | 5 | 9 | |
| | | 50 | 439 | 0.21 | 0.06 | 44 | 6 | 12 | 9 | 14 | |
| 24 x 48 | 8 | 20 | 237 | 0.04 | - | - | 1 | 3 | 1 | 2 | |
| | | 30 | 355 | 0.08 | 0.02 | 19 | 2 | 6 | 3 | 5 | |
| | 9 | 40 | 473 | 0.10 | 0.03 | 25 | 4 | 9 | 5 | 9 | |
| | | 50 | 592 | 0.16 | 0.05 | 32 | 6 | 12 | 8 | 14 | |
| 30 x 48 | 10 | 20 | 298 | 0.03 | - | - | 1 | 3 | 1 | 3 | |
| | | 30 | 447 | 0.06 | 0.02 | - | 2 | 6 | 3 | 5 | |
| | 40 | 596 | 0.10 | 0.03 | 19 | 4 | 9 | 5 | 9 | | |
| | 12 | 50 | 745 | 0.09 | 0.04 | 21 | 6 | 12 | 8 | 15 | |
| 24 x 60 | 9 | 20 | 297 | 0.03 | - | - | 2 | 4 | 2 | 4 | |
| | | 30 | 446 | 0.08 | 0.01 | 23 | 4 | 8 | 5 | 8 | |
| | 16 x 5 | 40 | 595 | 0.10 | 0.03 | 28 | 6 | 12 | 8 | 14 | |
| | | 50 | 744 | 0.15 | 0.04 | 36 | 8 | 16 | 12 | 22 | |
| 30 x 60 | 12 | 20 | 374 | 0.02 | - | - | 2 | 4 | 1 | 4 | |
| | | 30 | 561 | 0.04 | 0.01 | - | 4 | 8 | 5 | 8 | |
| | | 40 | 749 | 0.08 | 0.02 | 19 | 6 | 12 | 8 | 14 | |
| | | 50 | 936 | 0.12 | 0.04 | 27 | 8 | 16 | 12 | 22 | |
| | 20 x 6 | 40 | 749 | 0.07 | 0.02 | 18 | 6 | 12 | 8 | 14 | |
| | | 50 | 936 | 0.11 | 0.04 | 26 | 8 | 16 | 12 | 22 | |

Performance Notes:

- Sound and pressure drop tested in accordance with ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
- Air flow is in cubic feet per minute, cfm.
- Pressure is in inches of water, in. w.g.
- The NC values, sound pressure level, are based on a room absorption of 10 dB, re 10⁻¹² watts and one diffuser.
- ΔT is the difference between the room air temperature 3 ½ ft above the floor and the temperature of the supply air.
- Proximity to outlet is the minimum distance from an outlet to the occupant in order to achieve the listed DR value.
- Distances closer to the diffuser have a higher DR than the cataloged value.
- DR is the predicted percentage of people dissatisfied (PPD) due to draft. A value of less than 20 meets the requirements of ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy.
- Blanks "-" indicate that the DR is below the specified value at all distances from the diffuser face.
- DR catalog data is presented for an occupant density of 25 people/1000ft², which is the default occupancy density for classrooms (ages 5-8) given by ASHRAE 62.1-2004. For other occupant densities, please refer to the DV Room Designer Software.
- The Adjacent zone describes the distance from the face of the diffuser and measured 1 in. from the floor, at which the supply air velocity is 50 fpm.

PERFORMANCE DATA

DR180 U-shaped Wall or Pillar Unit

| Unit Size W x H [in] | Inlet Size [in] | Face Velocity [fpm] | Air Flow [cfm] | Total Pressure [in. w.g.] | Static Pressure [in. w.g.] | Noise Criteria [NC] | Proximity to Outlet [ft] | | | |
|-------------------------|--------------------|---------------------------|-------------------|---------------------------------|----------------------------------|---------------------------|------------------------------|-------------------------------|------------------------------|-------------------------------|
| | | | | | | | DR 20% | | Adjacent Zone | |
| | | | | | | | $\Delta T = 5^\circ\text{F}$ | $\Delta T = 10^\circ\text{F}$ | $\Delta T = 5^\circ\text{F}$ | $\Delta T = 10^\circ\text{F}$ |
| 18 x 36 | 12 | 20 | 217 | 0.01 | - | - | 1 | 2 | 1 | 2 |
| | | 30 | 326 | 0.02 | 0.01 | - | 2 | 2 | 2 | 3 |
| | | 40 | 434 | 0.04 | 0.03 | - | 2 | 3 | 3 | 4 |
| | | 50 | 543 | 0.07 | 0.04 | 21 | 2 | 4 | 4 | 5 |
| 24 x 36 | 16 | 20 | 292 | 0.01 | - | - | 1 | 2 | 1 | 2 |
| | | 30 | 437 | 0.02 | 0.01 | - | 2 | 2 | 2 | 3 |
| | | 40 | 583 | 0.03 | 0.02 | - | 2 | 3 | 3 | 3 |
| | | 50 | 729 | 0.05 | 0.03 | 17 | 2 | 4 | 4 | 4 |
| 30 x 36 | 20 | 20 | 366 | 0.01 | - | - | 1 | 2 | 1 | 2 |
| | | 30 | 549 | 0.01 | - | - | 2 | 2 | 2 | 2 |
| | | 40 | 732 | 0.02 | 0.01 | - | 2 | 3 | 3 | 3 |
| | | 50 | 915 | 0.03 | 0.02 | - | 2 | 4 | 3 | 4 |
| 36 x 36 | 24 | 20 | 441 | 0.00 | - | - | 1 | 2 | 1 | 2 |
| | | 30 | 661 | 0.01 | - | - | 2 | 2 | 2 | 2 |
| | | 40 | 881 | 0.02 | 0.01 | - | 2 | 3 | 3 | 3 |
| | | 50 | 1101 | 0.03 | 0.02 | - | 2 | 4 | 3 | 4 |
| 18 x 48 | 12 | 20 | 292 | 0.01 | - | - | 2 | 2 | 2 | 2 |
| | | 30 | 438 | 0.03 | 0.01 | - | 2 | 3 | 3 | 4 |
| | | 40 | 585 | 0.06 | 0.02 | 18 | 3 | 4 | 4 | 5 |
| | | 50 | 731 | 0.09 | 0.03 | 25 | 4 | 5 | 5 | 7 |
| 24 x 48 | 16 | 20 | 392 | 0.01 | - | - | 2 | 2 | 2 | 2 |
| | | 30 | 589 | 0.02 | 0.01 | - | 2 | 3 | 3 | 4 |
| | | 40 | 785 | 0.04 | 0.02 | - | 3 | 4 | 4 | 5 |
| | | 50 | 981 | 0.06 | 0.03 | 20 | 4 | 5 | 5 | 6 |
| 30 x 48 | 20 | 20 | 492 | 0.01 | - | - | 2 | 2 | 2 | 2 |
| | | 30 | 739 | 0.02 | 0.01 | - | 2 | 3 | 3 | 4 |
| | | 40 | 985 | 0.03 | 0.02 | - | 3 | 4 | 4 | 5 |
| | | 50 | 1231 | 0.05 | 0.03 | - | 4 | 5 | 5 | 6 |
| 18 x 60 | 12 | 20 | 367 | 0.01 | - | - | 2 | 3 | 3 | 3 |
| | | 30 | 551 | 0.03 | - | - | 3 | 4 | 4 | 5 |
| | | 40 | 735 | 0.06 | - | 20 | 4 | 5 | 6 | 7 |
| | | 50 | 918 | 0.09 | - | 27 | 5 | 7 | 8 | 9 |
| 24 x 60 | 16 | 20 | 493 | 0.01 | - | - | 2 | 3 | 3 | 3 |
| | | 30 | 740 | 0.03 | - | - | 3 | 4 | 4 | 5 |
| | | 40 | 986 | 0.05 | 0.02 | - | 4 | 5 | 6 | 7 |
| | | 50 | 1233 | 0.08 | 0.03 | 20 | 5 | 7 | 7 | 8 |

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