

HELIOS MAXIMUM FLOW SELECTION

| Inlet Size | Neck Velocity Velocity Pressure | 400 0.010 | 500 0.016 | 600 0.022 | 700 0.031 | 800 0.040 | 900 0.050 | 1000 0.062 |
|------------|------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| 6" | Static pressure | 0.022 | 0.034 | 0.049 | 0.066 | 0.086 | 0.11 | 0.134 |
| | Total Pressure | 0.032 | 0.50 | 0.071 | 0.097 | 0.126 | 0.16 | 0.196 |
| | cfm | 79 | 98 | 118 | 137 | 157 | 177 | 196 |
| | NC | - | - | 13 | 18 | 22 | 26 | 29 |
| | Throw, ft | 1-1-4 | 1-2-5 | 1-3-7 | 2-4-7 | 2-4-8 | 3-5-8 | 3-5-9 |
| 8" | Static pressure | 0.024 | 0.038 | 0.054 | 0.074 | 0.097 | 0.122 | 0.151 |
| | Total Pressure | 0.034 | 0.054 | 0.076 | 0.105 | 0.137 | 0.172 | 0.213 |
| | cfm | 140 | 175 | 209 | 244 | 279 | 314 | 349 |
| | NC | - | 15 | 20 | 24 | 28 | 31 | 34 |
| | Throw, ft | 1-3-6 | 2-4-8 | 3-5-9 | 4-5-11 | 4-6-11 | 5-7-12 | 5-8-13 |
| 10" | Static pressure | 0.038 | 0.059 | 0.085 | 0.116 | 0.152 | 0.192 | 0.237 |
| | Total Pressure | 0.048 | 0.075 | 0.107 | 0.147 | 0.192 | 0.242 | 0.299 |
| | cfm | 218 | 273 | 327 | 382 | 436 | 491 | 545 |
| | NC | 17 | 23 | 28 | 32 | 36 | 39 | 42 |
| | Throw, ft | 4-6-11 | 5-7-13 | 6-9-14 | 7-10-15 | 8-11-16 | 9-12-17 | 10-13-18 |
| 12" | Static pressure | 0.062 | 0.097 | 0.14 | 0.191 | 0.249 | 0.315 | 0.389 |
| | Total Pressure | 0.072 | 0.113 | 0.162 | 0.222 | 0.289 | 0.365 | 0.451 |
| | cfm | 314 | 393 | 471 | 550 | 628 | 707 | 785 |
| | NC | 18 | 25 | 31 | 36 | 40 | 43 | 47 |
| | Throw, ft | 5-7-13 | 6-9-14 | 7-11-16 | 9-12-17 | 10-13-18 | 11-14-19 | 12-14-20 |

Notes:

- Throw values given are for terminal velocities of 150, 100 and 50 fpm, respectively at 20° F Cooling. See Engineering Guidelines section for additional information.
- Velocity pressures are calculated based on inlet duct velocities
- Noise Criteria (NC) is based on room sound attenuation of 10dB (per AHRI 885 Standard). NC values less than 15 are shown as "-".
- Data was obtained by tests conducted in accordance with standard ANSI/ASHRAE 70

HELIOS AHRI DATA

AHRI Directory of Certified Performance

| AHRI Rating Data | | Inlet Size | | 6" Inlet | 8" Inlet | 10" Inlet | 12" Inlet | | |
|--|--|--|---|---------------------------------|----------|-----------|-----------|------|----|
| Standard Ratings Sound Power Level, dB | 3. Airflow, cfm | | | 147 | 262 | 409 | 589 | | |
| | 4. Min. Operating Pressure, in H ₂ O | | | 0.076 | 0.085 | 0.134 | 0.219 | | |
| | 5. Max. Inlet Static Pressure @ 400 fpm Neck Velocity, in H ₂ O | | | 0.181 | 0.305 | 0.365 | 0.425 | | |
| | 6. Rated with Pressure Relief, yes/no | | | n | n | n | n | | |
| | Discharge | Standard Airflow Fully open damper 750 fpm Neck Velocity | Minimum Differential Static Pressure, in H ₂ O | Hz Octave Band Center Frequency | 125 | 42 | 48 | 54 | 61 |
| | | | | | 250 | 37 | 43 | 50 | 56 |
| | | | | | 500 | 36 | 42 | 49 | 53 |
| | | | | | 1000 | 30 | 36 | 44 | 48 |
| | | | | | 2000 | 24 | 30 | 37 | 42 |
| | | | | | 4000 | + | 19 | 27 | 36 |
| | Discharge | Standard Airflow Throttled Damper 400 fpm Neck Velocity | Max. Inlet Static Pressure, in H ₂ O | Hz Octave Band Center Frequency | 125 | 40 | 46 | 53 | 60 |
| | | | | | 250 | 37 | 43 | 51 | 68 |
| | | | | | 500 | 37 | 42 | 48 | 58 |
| | | | | | 1000 | 32 | 39 | 45 | 53 |
| 2000 | | | | | 27 | 37 | 44 | 50 | |
| 4000 | | | | | + | 30 | 37 | 44 | |
| Note: Sound Power levels below values shown in this table shall be listed as below significance. | | | | | | | | | |
| Hz Octave Band | | | 125 | 250 | 500 | 1000 | 2000 | 4000 | |
| Sound Power Level, dB | | | 36 | 29 | 26 | 22 | 19 | 17 | |

Performance data is presented for the Helios diffuser with the internal VAV damper in full open position

| NC | 6" Inlet | 8" Inlet | 10" Inlet | 12" Inlet |
|-----------|----------|----------|-----------|-----------|
| 750 fpm | 20 | 26 | 34 | 38 |
| 400 fpm** | 21 | 28 | 35 | 48 |

** Damper throttled to achieve max inlet static pressure