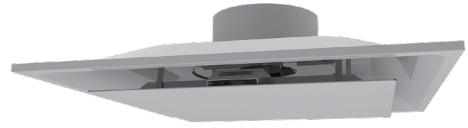
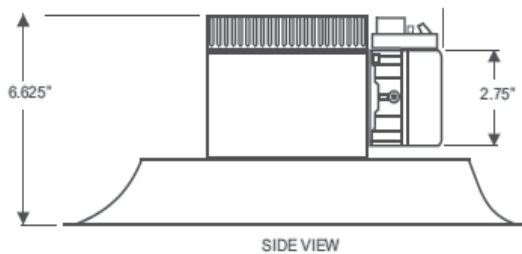


MODEL MSE-HC

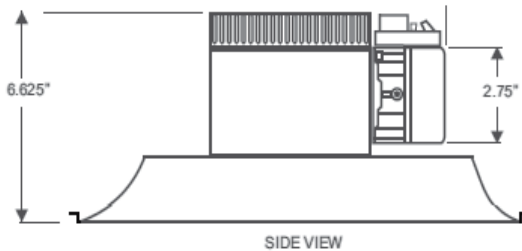
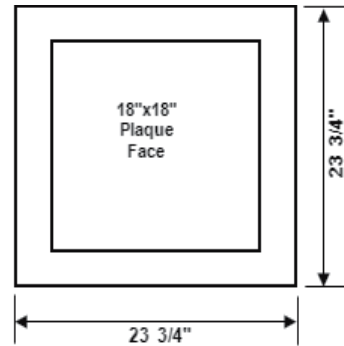
The MSE-HC diffuser effectively regulates the amount of supply air into the space and uses a wall-mounted thermostat to achieve true VAV control in the heating mode, as well as the cooling mode. Automatic changeover from heating to cooling is standard. The diffuser is designed to maintain Coanda effect (draft free) of discharge air along the ceiling, providing a sustained velocity throughout the volume range. Operating the diffuser from an individual wall-mounted thermostat enables users to choose their own desired comfort control from desk top level, rather than a stratified ceiling level.



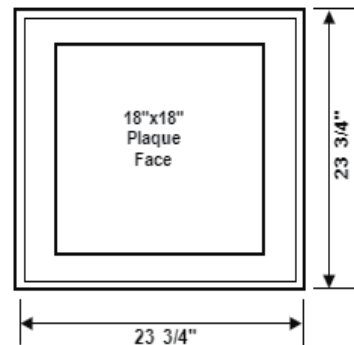
- Excellent choice for reception areas, offices, conference rooms and buildings with east/west exposure
- Economical solution to overcooling or overheating issues in a building that does not warrant a full-blown zoning or BAS system.
- Wall mounted thermostatic control
- Powerful, low voltage actuator
- True variable air volume in heating and cooling modes
- One 40VA transformer will power a single Master (MSE-HC-M) and up to 19 slave units (MSE-HCS)
- One 75 VA transformer will power a single Master (MSE-HC-M) and up to 36 slave units (MSE-HC-S)



MSE-HC-1 / 6 (Master / Slave)



MSE-HC-8 / -9 (Master / Slave)



SERIES MSE-HC — VAV SMART ZONE DIFFUSER SPECIFICATIONS

Air Diffusers shall be model:

MSE-HC VAV Smart Zone Diffuser

- Units shall be manufactured by METALAIRE and be of steel construction. Units shall be square with a formed backpan and a flat face panel. The face panel shall project no more than 1/4" below the ceiling grid or surface. The diffuser shall have the same appearance from the face regardless of the inlet size.
- The diffuser shall include an integral modulating disk that continually regulates the volume of supply air in response to the wall mounted thermostat. Diffusers dependent on integral air induction ceiling located sensors or set point adjustment methods other than from wall mounted thermostats shall not be acceptable.
- To ensure finite control of temperature by modulation, the electric 24Vac actuators shall be a drive-open, drive-closed motor on the electrically driven units. Actuators that incorporate an expanding material which only drives the unit open when subjected to heat-causing electrical current, requiring a spring return mechanism to force the diffuser to a closed position shall not be acceptable.
- The electronic modulating wall-mounted thermostatic control shall be either a 2 to 10Vdc or floating point. All field wiring, materials and labor shall be supplied and installed by others.

Performance Specification

The manufacturer shall provide published performance data. Data shall be tested in accordance to ANSI/ASHRAE Standard 70-2006.

Paint Specification

Process shall be anodic electro-deposition using an anodic acrylic paint. Units shall undergo pre-treatment including a pressurized spray stage using an alkaline cleaner and a de-ionized water rinse.

MSE-HC MODEL NUMBER SPECIFICATION

THERMAL PLAQUE DIFFUSER —
HEATING AND COOLING — ELECTRONICALLY CONTROLLED

| Model | | Neck Size | Module | Available Finishes | |
|----------|--------------------------|-----------|---------|-----------------------|-----------------------|
| MSE-HC-6 | T-bar Lay-in | 6 | 12 x 12 | Standard | |
| MSE-HC-8 | Tegular Lay-in | 8 | | 01 | White |
| MSE-HC-9 | Donn Finline / Bolt Slot | 6 | 24 x 24 | Available Accessories | |
| | | 8 | | BAF-1 | 3-Way (One Baffle) |
| | | 10 | | BAF-2 | 2-Way (Two Baffles) |
| | | 12 | | BAF-3 | 1-Way (Three Baffles) |
| | | 14 | | | |

SERIES MSE-HC PERFORMANCE DATA

MODEL MSE-HC

| Model | fpm vn | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 | 1400 |
|---|--------|-------|--------|--------|---------|---------|---------|----------|----------|----------|----------|
| Inlet Size | Pv | .006 | .010 | .016 | .022 | .031 | .040 | .051 | .062 | .090 | .122 |
| MSE-HC-M MSE-HC-S 6 | CFM | 60 | 80 | 100 | 120 | 40 | 160 | 180 | 200 | 240 | 280 |
| | Pt | .009 | .011 | .017 | .025 | .034 | .044 | .057 | .070 | .100 | .135 |
| | Throw | 1-1-2 | 1-1-4 | 1-2-4 | 1-3-5 | 2-3-6 | 2-4-7 | 3-4-8 | 3-4-9 | 4-5-11 | 4-6-11 |
| | NC | <15 | <15 | <15 | <15 | <15 | <15 | 17 | 21 | 28 | 34 |
| MSE-HC-M MSE-HC-S 8 | CFM | 105 | 140 | 175 | 210 | 245 | 280 | 315 | 350 | 420 | 490 |
| | Pt | .011 | .018 | .028 | .040 | .055 | .072 | .091 | .112 | .162 | .220 |
| | Throw | 1-2-4 | 2-3-6 | 2-4-7 | 3-4-9 | 3-5-10 | 4-6-11 | 4-6-12 | 5-7-13 | 6-9-14 | 7-10-15 |
| | NC | <15 | <15 | <15 | <15 | <15 | 17 | 21 | 25 | 32 | 38 |
| MSE-HC-M MSE-HC-S 10 | CFM | 165 | 220 | 275 | 330 | 385 | 440 | 495 | 550 | 660 | 770 |
| | Pt | .017 | .029 | .043 | .060 | .082 | .108 | .136 | .168 | .243 | .331 |
| | Throw | 2-3-7 | 3-4-8 | 3-5-10 | 4-6-12 | 5-7-13 | 5-8-14 | 6-9-15 | 7-10-16 | 8-12-18 | 10-13-19 |
| | NC | <15 | <15 | <15 | <15 | 15 | 20 | 24 | 28 | 35 | 41 |
| MSE-HC-M MSE-HC-S 12 | CFM | 2040 | 310 | 390 | 470 | 550 | 630 | 710 | 790 | 940 | 1100 |
| | Pt | .023 | .037 | .059 | .085 | .115 | .151 | .191 | .237 | .338 | .461 |
| | Throw | 2-4-7 | 4-5-11 | 5-7-14 | 5-8-15 | 6-9-16 | 7-11-17 | 8-12-18 | 9-14-19 | 11-15-21 | 13-16-23 |
| | NC | <15 | <15 | <15 | <15 | 18 | 23 | 27 | 31 | 38 | 43 |
| MSE-HC-M MSE-HC-S 14 | CFM | 320 | 430 | 530 | 540 | 750 | 860 | 960 | 1070 | 1280 | 1500 |
| | Pt | .031 | .050 | .078 | .114 | .155 | .202 | .256 | .316 | .453 | .619 |
| | Throw | 3-4-8 | 4-7-13 | 6-8-16 | 7-10-17 | 8-12-19 | 9-13-20 | 10-15-21 | 11-16-23 | 13-17-25 | 15-19-27 |
| | NC | <15 | <15 | <15 | <15 | 20 | 25 | 29 | 33 | 40 | 45 |

PERFORMANCE NOTES FOR SERIES MSE-HC

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

fpm Velocity of air stream in Feet per Minute

Pv Velocity pressure (inches of water column)

Pt Total pressure (inches of water column)

Throw Horizontal distances in feet to the terminal vel of 150, 100 and 50fpm with supply air temp 20°F below room air temp

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands