

# Model—HPD 435

## 102 mm DEEP HORIZONTAL DRAINABLE BLADE LOUVER



M.W. McGill & Associates Ltd. certifies that the Rain Defense Louver Model “HP 435” is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal applies to water penetration and air performance ratings only.



### WATER PENETRATION PERFORMANCE

- Free area velocity at point of beginning of water penetration is 1131.7 fpm (5.75 m/s)
- Max. recommended intake core velocity – 931 fpm (4.7 m/s)
- Intake pressure drop @ 4.7 m/s – 30.48pa

### AIRFLOW PERFORMANCE

- Free Area based on 48 in. by 48 in. test louver size 47.8%
- Discharge loss coefficient Classification—Class 2



### System Description:

McGill Rain high performance series; extruded aluminum construction; frame with channel profile; corner joints mitered and mechanically fastened, with continuous recessed caulking channel each side; intermediate mullions matching frame; gutters; rated for an air performance and water penetration maintained effectiveness rate tested in accordance with AMCA 500-L.

### Material & Finishes:

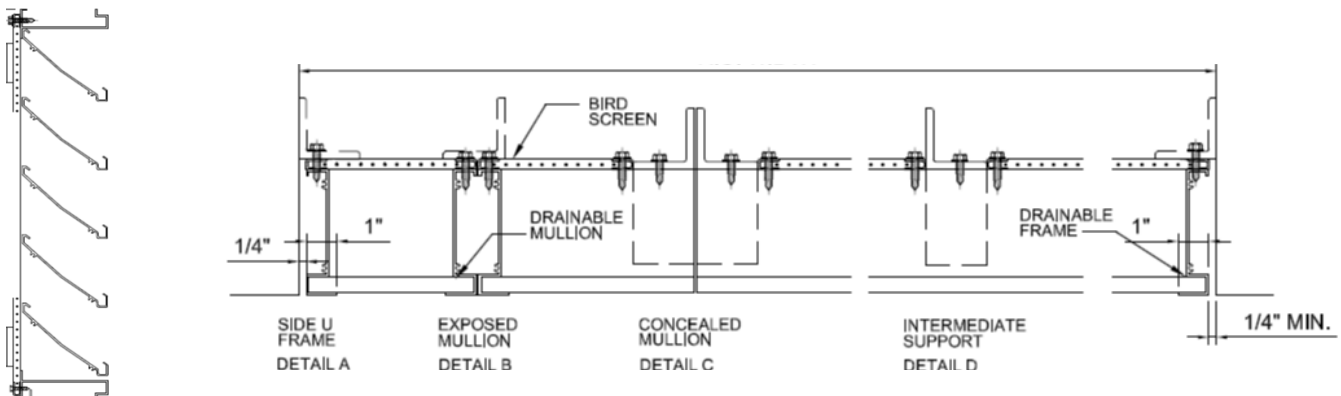
1. HPD-435 comprises
  - a. Blades: 4” deep Horizontal Drainable Blade
  - b. Frame depth: 4” inches (102 mm)
2. Metal Thickness: Frame 0.081 inch (2 mm); blades 0.081 inch (2 mm).
3. Finish: PE-SDF / PVDF / Anodize after fabrication
4. Color: As scheduled.
5. Mullions: Concealed or Exposed.
6. Screens: Bird mesh / Insect mesh
7. Screen location: Interior
8. Screening Material: Aluminium / Stainless Steel

### Louver Construction:

1. Wind Load Resistance: Design to resist +ve and –ve wind load of \_\_\_ psf (\_\_\_ kPa) without damage or permanent deformation.
2. Blades: One piece extrusions with reinforcing bosses, supported and lined up with heavy-gage extruded aluminum blade braces, positively interlocked to each blade and mechanically secured to structure by aluminum and stainless steel fastenings.
3. Exposed edges and ends of metal dressed smooth, free from sharp edges.
4. Exposed connections and joints constructed to exclude water.

### Warranty:

OSA-McGill louvers warranted for 2 years against defective material and workmanship, and 10 Years for Finishes.



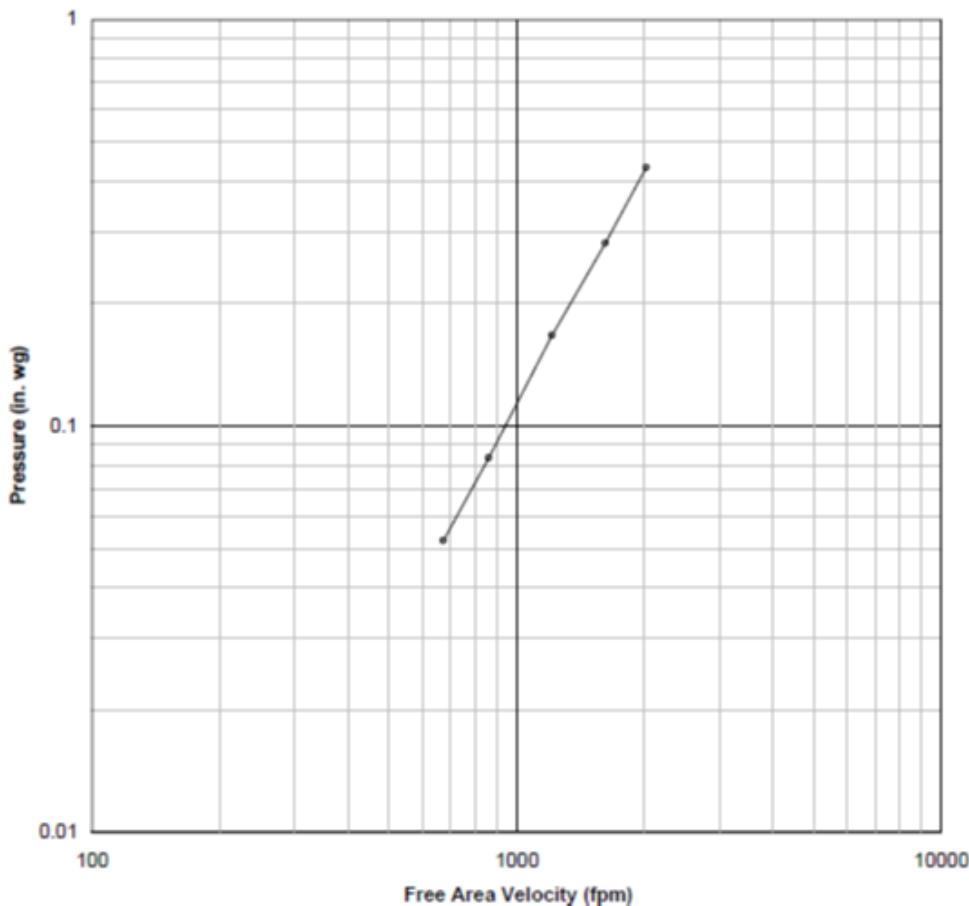
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**FREE AREA TABLE (in m<sup>2</sup>)**

|                   |      | Width (meter) |      |      |      |      |      |      |      |      |      |      |      |      |
|-------------------|------|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
|                   |      | 0.3           | 0.41 | 0.51 | 0.61 | 0.71 | 0.81 | 0.91 | 1.02 | 1.12 | 1.22 | 1.32 | 1.42 | 1.52 |
| Height<br>(meter) | 0.3  | 0.04          | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.19 | 0.20 | 0.22 |
|                   | 0.46 | 0.07          | 0.09 | 0.11 | 0.13 | 0.16 | 0.18 | 0.20 | 0.22 | 0.25 | 0.27 | 0.29 | 0.31 | 0.33 |
|                   | 0.61 | 0.09          | 0.12 | 0.15 | 0.18 | 0.21 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.38 | 0.41 | 0.44 |
|                   | 0.76 | 0.11          | 0.15 | 0.19 | 0.22 | 0.26 | 0.29 | 0.33 | 0.37 | 0.41 | 0.44 | 0.48 | 0.52 | 0.55 |
|                   | 0.91 | 0.13          | 0.18 | 0.22 | 0.27 | 0.31 | 0.35 | 0.40 | 0.44 | 0.49 | 0.53 | 0.57 | 0.62 | 0.66 |
|                   | 1.07 | 0.15          | 0.21 | 0.26 | 0.31 | 0.36 | 0.41 | 0.47 | 0.52 | 0.57 | 0.62 | 0.68 | 0.73 | 0.78 |
|                   | 1.22 | 0.17          | 0.24 | 0.30 | 0.36 | 0.41 | 0.47 | 0.53 | 0.59 | 0.65 | 0.71 | 0.77 | 0.83 | 0.89 |
|                   | 1.37 | 0.20          | 0.27 | 0.33 | 0.40 | 0.46 | 0.53 | 0.60 | 0.67 | 0.73 | 0.80 | 0.86 | 0.93 | 1.00 |
|                   | 1.52 | 0.22          | 0.30 | 0.37 | 0.44 | 0.52 | 0.59 | 0.66 | 0.74 | 0.81 | 0.89 | 0.96 | 1.03 | 1.10 |
|                   | 1.68 | 0.24          | 0.33 | 0.41 | 0.49 | 0.57 | 0.65 | 0.73 | 0.82 | 0.90 | 0.98 | 1.06 | 1.14 | 1.22 |
|                   | 1.83 | 0.26          | 0.36 | 0.45 | 0.53 | 0.62 | 0.71 | 0.80 | 0.89 | 0.98 | 1.07 | 1.15 | 1.24 | 1.33 |
|                   | 1.98 | 0.28          | 0.39 | 0.48 | 0.58 | 0.67 | 0.77 | 0.86 | 0.97 | 1.06 | 1.15 | 1.25 | 1.34 | 1.44 |
|                   | 2.13 | 0.31          | 0.42 | 0.52 | 0.62 | 0.72 | 0.82 | 0.93 | 1.04 | 1.14 | 1.24 | 1.34 | 1.45 | 1.55 |
|                   | 2.29 | 0.33          | 0.45 | 0.56 | 0.67 | 0.78 | 0.89 | 1.00 | 1.12 | 1.23 | 1.34 | 1.44 | 1.55 | 1.66 |
|                   | 2.44 | 0.35          | 0.48 | 0.59 | 0.71 | 0.83 | 0.94 | 1.06 | 1.19 | 1.31 | 1.42 | 1.54 | 1.66 | 1.77 |
|                   | 2.59 | 0.37          | 0.51 | 0.63 | 0.76 | 0.88 | 1.00 | 1.13 | 1.26 | 1.39 | 1.51 | 1.63 | 1.76 | 1.88 |
| 2.74              | 0.39 | 0.54          | 0.67 | 0.80 | 0.93 | 1.06 | 1.19 | 1.34 | 1.47 | 1.60 | 1.73 | 1.86 | 1.99 |      |
| 2.9               | 0.42 | 0.57          | 0.71 | 0.85 | 0.98 | 1.12 | 1.26 | 1.41 | 1.55 | 1.69 | 1.83 | 1.97 | 2.11 |      |
| 3.05              | 0.44 | 0.60          | 0.74 | 0.89 | 1.04 | 1.18 | 1.33 | 1.49 | 1.63 | 1.78 | 1.92 | 2.07 | 2.22 |      |



**Test Data**

Tested in accordance with ANSI/AMCA 500-L, Figure 5.5; Test sample size is 1220 mm x 1220 mm (48 in. x 48 in.); Air performance data are based on intake performance

Data corrected to Standard Air Density

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