

## Standard Construction

|                                    |                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mounting</b>                    | Continuous aluminum angle along the head and sill                                                                                                                                                                                                                                                                                                         |
| <b>Frame</b>                       | Heavy gauge extruded 6063-T5 aluminum, 5.5 in. (140 mm) x jamb 0.188 in. (5 mm) and head/sill 0.081 (2 mm) nominal wall thickness                                                                                                                                                                                                                         |
| <b>Blades</b>                      | Front: Inverted drainable style design, heavy gauge extruded 6005-T5 aluminum, 0.081 in. (2 mm) nominal wall thickness, positioned on approximately 1.9 in. (48 mm) centers<br>Back: Vertical rain resistant design, heavy gauge extruded 6005-T5 aluminum, 0.050 in. (1 mm) nominal wall thickness, positioned on approximately 0.88 in. (22 mm) centers |
| <b>Louver Depth</b>                | 5.5 in. (140 mm)                                                                                                                                                                                                                                                                                                                                          |
| <b>Construction</b>                | Mechanically fastened                                                                                                                                                                                                                                                                                                                                     |
| <b>Finish</b>                      | Mill                                                                                                                                                                                                                                                                                                                                                      |
| <b>Minimum Size</b>                | 12 in. W x 12 in. H (305 mm W x 305 mm H)                                                                                                                                                                                                                                                                                                                 |
| <b>Maximum Single Section Size</b> | 60 in. W x 96 in. H (1524 mm W x 2438 mm H)                                                                                                                                                                                                                                                                                                               |
| <b>Wind Load</b>                   | +/- 100 PSF (4.8 kPa)                                                                                                                                                                                                                                                                                                                                     |

## Performance Ratings



Greenheck Fan Corporation certifies that the EHV-550D channel frame and flange/sleeve frame louvers shown herein are 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, Air Performance, and Wind-Driven Rain ratings.

Louvers were tested in accordance with AMCA Standard 500-L.



HIGH VELOCITY RAIN  
RESISTANT WITH BLADES  
FULLY OPEN AND  
IMPACT RESISTANT LOUVER  
**Enhanced Protection Level E**  
See www.AMCA.org for all certified or listed products

This label does not signify  
AMCA airflow performance  
certification.

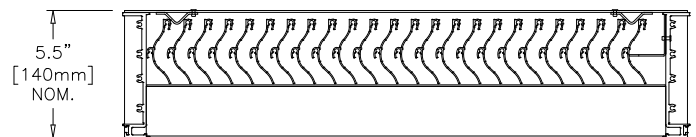
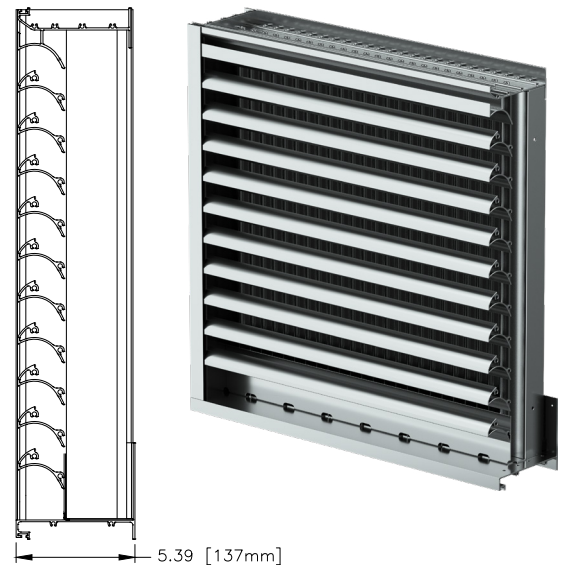
Greenheck Fan Corporation certifies that the EHV-550D louver shown herein is approved to bear the AMCA Listing Label. The ratings shown are based

on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant louvers rated for Enhanced Protection with a minimum blade span of less than 12 in. (305 mm) and a maximum unsupported blade span of 58 to 59.37 in. (1473 to 1508 mm) and to High Velocity Wind-Driven Rain Resistant Louvers tested in the fully open position that permits airflow through the louver.

### Performance of 48 in. x 48 in. (1219 mm x 1219 mm) Louver

|                                                            |                            |
|------------------------------------------------------------|----------------------------|
| <b>Free Area</b>                                           |                            |
| Area                                                       | 8.02 sq. ft. (0.745 sq. m) |
| Percent                                                    | 50.1%                      |
| <b>Performance at Beginning Point of Water Penetration</b> |                            |
| Free Area Velocity                                         | 1083 fpm (5.502 m/s)       |
| Max Intake Volume                                          | 8686 cfm (4.100 m³/s)      |
| <b>Performance at 6,000 CFM (2.832 m³/s) Intake</b>        |                            |
| Pressure Drop                                              | 0.210 in. wg (0.052 kPa)   |

Florida Product Approval No.: FL30297  
Miami-Dade, FL NOA No.: 23-1101.03, EXP. 8/15/2029



## Options and Accessories

- [Bird Screen](#)
- [Blank-Off Panels](#)
- [Extended Sill](#)
- [Filter Rack/Filter](#)
- [Glazing Frame](#)
- [Insect Screen](#)
- [Security Bars](#)
- [Variety of Architectural Finishes](#)

## Product Details

[EHV-550D Standard Details](#)

[Miami-Dade County, FL Notice of Acceptance](#)

Structural reinforcing members may be required to adequately support and install multiple louver sections within a large opening. Structural reinforcing members along with any associated installation hardware is not provided by Greenheck unless indicated otherwise by Greenheck. Options and accessories including, but not limited to, screens, filter racks, louver doors, and blank off panels are not subject to structural analysis unless indicated otherwise by Greenheck.

## Free Area Chart

Free Area Chart shows free area in square feet and square meters.

| Louver Height Inches (Meters) | Louver Width Inches (Meters) |      |      |      |      |      |      |      |      |
|-------------------------------|------------------------------|------|------|------|------|------|------|------|------|
|                               | 12                           | 18   | 24   | 30   | 36   | 42   | 48   | 54   | 60   |
| 0.30                          | 0.02                         | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.12 | 0.13 |
| 0.46                          | 0.04                         | 0.07 | 0.10 | 0.12 | 0.15 | 0.18 | 0.20 | 0.23 | 0.26 |
| 0.61                          | 0.07                         | 0.11 | 0.15 | 0.19 | 0.23 | 0.27 | 0.31 | 0.35 | 0.39 |
| 0.76                          | 0.09                         | 0.14 | 0.20 | 0.26 | 0.31 | 0.37 | 0.42 | 0.48 | 0.53 |
| 0.91                          | 0.11                         | 0.18 | 0.25 | 0.32 | 0.39 | 0.46 | 0.53 | 0.60 | 0.67 |
| 1.07                          | 0.14                         | 0.22 | 0.30 | 0.39 | 0.47 | 0.56 | 0.64 | 0.73 | 0.81 |
| 1.22                          | 0.16                         | 0.26 | 0.35 | 0.45 | 0.55 | 0.65 | 0.75 | 0.84 | 0.94 |
| 1.37                          | 0.18                         | 0.29 | 0.40 | 0.51 | 0.62 | 0.74 | 0.85 | 0.96 | 1.07 |
| 1.52                          | 0.20                         | 0.33 | 0.45 | 0.58 | 0.70 | 0.82 | 0.95 | 1.07 | 1.20 |
| 1.68                          | 0.23                         | 0.37 | 0.50 | 0.64 | 0.78 | 0.92 | 1.06 | 1.20 | 1.34 |
| 1.83                          | 0.25                         | 0.40 | 0.56 | 0.71 | 0.86 | 1.02 | 1.17 | 1.32 | 1.48 |
| 1.98                          | 0.27                         | 0.44 | 0.61 | 0.78 | 0.94 | 1.11 | 1.28 | 1.45 | 1.61 |
| 2.13                          | 0.30                         | 0.48 | 0.66 | 0.84 | 1.02 | 1.21 | 1.39 | 1.57 | 1.75 |
| 2.29                          | 0.32                         | 0.51 | 0.71 | 0.90 | 1.10 | 1.30 | 1.49 | 1.69 | 1.88 |
| 2.44                          | 0.34                         | 0.55 | 0.76 | 0.97 | 1.17 | 1.38 | 1.59 | 1.80 | 2.01 |

## Document Links

[EHV-550D Specification](#)
[EHV-550D Environmental Product Declaration](#)
[Louver Finishes & Colors](#)
[Louver Product Selection Guide](#)
[Louver Products Catalog](#)
[Louver Warranty Statement](#)

## Core Area Chart

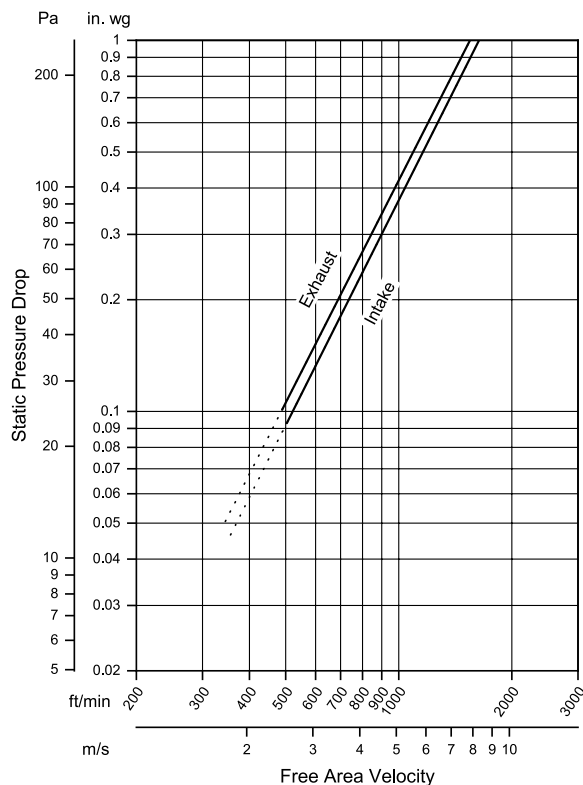
Core Area Chart shows core area in square feet and square meters.

| Louver Height Inches (Meters) | Louver Width Inches (Meters) |              |              |              |              |              |              |              |              |
|-------------------------------|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                               | 12                           | 18           | 24           | 30           | 36           | 42           | 48           | 54           | 60           |
| 0.30                          | 0.30                         | 0.46         | 0.61         | 0.76         | 0.91         | 1.07         | 1.22         | 1.37         | 1.52         |
| <b>12</b>                     | <b>0.62</b>                  | <b>1.01</b>  | <b>1.39</b>  | <b>1.78</b>  | <b>2.16</b>  | <b>2.55</b>  | <b>2.93</b>  | <b>3.32</b>  | <b>3.70</b>  |
| 0.30                          | 0.06                         | 0.09         | 0.13         | 0.17         | 0.20         | 0.24         | 0.27         | 0.31         | 0.34         |
| <b>18</b>                     | <b>1.03</b>                  | <b>1.67</b>  | <b>2.30</b>  | <b>2.93</b>  | <b>3.57</b>  | <b>4.20</b>  | <b>4.84</b>  | <b>5.47</b>  | <b>6.11</b>  |
| 0.46                          | 0.10                         | 0.16         | 0.21         | 0.27         | 0.33         | 0.39         | 0.45         | 0.51         | 0.57         |
| <b>24</b>                     | <b>1.44</b>                  | <b>2.32</b>  | <b>3.21</b>  | <b>4.09</b>  | <b>4.97</b>  | <b>5.86</b>  | <b>6.74</b>  | <b>7.63</b>  | <b>8.51</b>  |
| 0.61                          | 0.13                         | 0.22         | 0.30         | 0.38         | 0.46         | 0.54         | 0.63         | 0.71         | 0.79         |
| <b>30</b>                     | <b>1.84</b>                  | <b>2.98</b>  | <b>4.11</b>  | <b>5.25</b>  | <b>6.38</b>  | <b>7.52</b>  | <b>8.65</b>  | <b>9.78</b>  | <b>10.92</b> |
| 0.76                          | 0.17                         | 0.28         | 0.38         | 0.49         | 0.59         | 0.70         | 0.80         | 0.91         | 1.01         |
| <b>36</b>                     | <b>2.25</b>                  | <b>3.63</b>  | <b>5.02</b>  | <b>6.40</b>  | <b>7.79</b>  | <b>9.17</b>  | <b>10.56</b> | <b>11.94</b> | <b>13.32</b> |
| 0.91                          | 0.21                         | 0.34         | 0.47         | 0.59         | 0.72         | 0.85         | 0.98         | 1.11         | 1.24         |
| <b>42</b>                     | <b>2.66</b>                  | <b>4.29</b>  | <b>5.92</b>  | <b>7.56</b>  | <b>9.19</b>  | <b>10.83</b> | <b>12.46</b> | <b>14.10</b> | <b>15.73</b> |
| 1.07                          | 0.25                         | 0.40         | 0.55         | 0.70         | 0.85         | 1.01         | 1.16         | 1.31         | 1.46         |
| <b>48</b>                     | <b>3.06</b>                  | <b>4.95</b>  | <b>6.83</b>  | <b>8.72</b>  | <b>10.60</b> | <b>12.48</b> | <b>14.37</b> | <b>16.25</b> | <b>18.14</b> |
| 1.22                          | 0.28                         | 0.46         | 0.63         | 0.81         | 0.98         | 1.16         | 1.34         | 1.51         | 1.69         |
| <b>54</b>                     | <b>3.47</b>                  | <b>5.60</b>  | <b>7.74</b>  | <b>9.87</b>  | <b>12.01</b> | <b>14.14</b> | <b>16.27</b> | <b>18.41</b> | <b>20.54</b> |
| 1.37                          | 0.32                         | 0.52         | 0.72         | 0.92         | 1.12         | 1.31         | 1.51         | 1.71         | 1.91         |
| <b>60</b>                     | <b>3.87</b>                  | <b>6.26</b>  | <b>8.64</b>  | <b>11.03</b> | <b>13.41</b> | <b>15.80</b> | <b>18.18</b> | <b>20.57</b> | <b>22.95</b> |
| 1.52                          | 0.36                         | 0.58         | 0.80         | 1.02         | 1.25         | 1.47         | 1.69         | 1.91         | 2.13         |
| <b>66</b>                     | <b>4.28</b>                  | <b>6.92</b>  | <b>9.55</b>  | <b>12.18</b> | <b>14.82</b> | <b>17.45</b> | <b>20.09</b> | <b>22.72</b> | <b>25.36</b> |
| 1.68                          | 0.40                         | 0.64         | 0.89         | 1.13         | 1.38         | 1.62         | 1.87         | 2.11         | 2.36         |
| <b>72</b>                     | <b>4.69</b>                  | <b>7.57</b>  | <b>10.46</b> | <b>13.34</b> | <b>16.22</b> | <b>19.11</b> | <b>21.99</b> | <b>24.88</b> | <b>27.76</b> |
| 1.83                          | 0.44                         | 0.70         | 0.97         | 1.24         | 1.51         | 1.78         | 2.04         | 2.31         | 2.58         |
| <b>78</b>                     | <b>5.09</b>                  | <b>8.23</b>  | <b>11.36</b> | <b>14.50</b> | <b>17.63</b> | <b>20.77</b> | <b>23.90</b> | <b>27.03</b> | <b>30.17</b> |
| 1.98                          | 0.47                         | 0.76         | 1.06         | 1.35         | 1.64         | 1.93         | 2.22         | 2.51         | 2.80         |
| <b>84</b>                     | <b>5.50</b>                  | <b>8.88</b>  | <b>12.27</b> | <b>15.65</b> | <b>19.04</b> | <b>22.42</b> | <b>25.81</b> | <b>29.19</b> | <b>32.57</b> |
| 2.13                          | 0.51                         | 0.82         | 1.14         | 1.45         | 1.77         | 2.08         | 2.40         | 2.71         | 3.03         |
| <b>90</b>                     | <b>5.91</b>                  | <b>9.54</b>  | <b>13.17</b> | <b>16.81</b> | <b>20.44</b> | <b>24.08</b> | <b>27.71</b> | <b>31.35</b> | <b>34.98</b> |
| 2.29                          | 0.55                         | 0.89         | 1.22         | 1.56         | 1.90         | 2.24         | 2.57         | 2.91         | 3.25         |
| <b>96</b>                     | <b>6.31</b>                  | <b>10.20</b> | <b>14.08</b> | <b>17.97</b> | <b>21.85</b> | <b>25.73</b> | <b>29.62</b> | <b>33.50</b> | <b>37.39</b> |
| 2.44                          | 0.59                         | 0.95         | 1.31         | 1.67         | 2.03         | 2.39         | 2.75         | 3.11         | 3.47         |

## Airflow Resistance

Standard Air - 0.075 lb/ft<sup>3</sup> (1.2 kg/m<sup>3</sup>)

Test size 48 in. x 48 in. (1219 mm x 1219 mm)

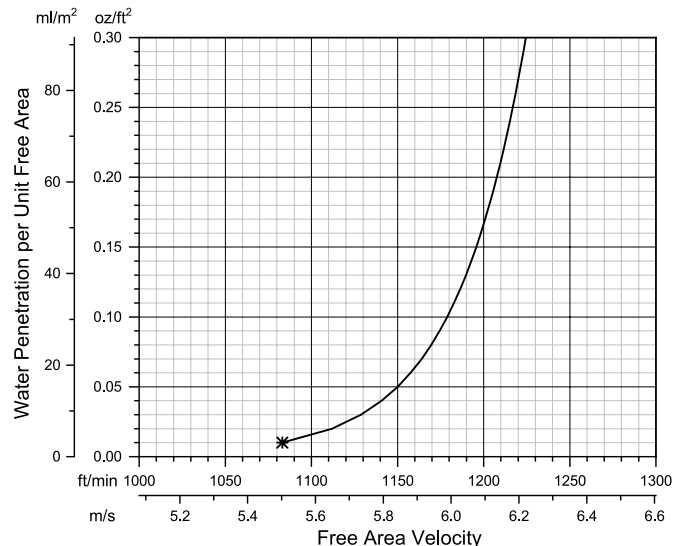


Model EHV-550D resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5-6.5)

## Water Penetration

Standard Air - 0.075 lb/ft<sup>3</sup> (1.2 kg/m<sup>3</sup>)

Test size 48 in. x 48 in. (1219 mm x 1219 mm) Test duration of 15 min.



The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. (3 g) of water (penetration) per sq. ft. (m<sup>2</sup>) of louver free area. **\*The beginning point of water penetration for Model EHV-550D is 1083 fpm (5.502 m/s) free area velocity.** These performance ratings do not guarantee a louver to be weatherproof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers.

## Wind-Driven Rain Performance

| 3 in./hr. (75 mm/hr.) Rainfall Rate & 29 mph (13 m/s) Wind Velocity |                                              |                                   |                                  | 8 in./hr. (203 mm/hr.) Rainfall Rate & 50 mph (22.4 m/s) Wind Velocity |                                              |                                   |                                  |
|---------------------------------------------------------------------|----------------------------------------------|-----------------------------------|----------------------------------|------------------------------------------------------------------------|----------------------------------------------|-----------------------------------|----------------------------------|
| Ventilation Air Core Velocity fpm (m/s)                             | Ventilation Air Free Area Velocity fpm (m/s) | Water Penetration Effectiveness % | Water Penetration Classification | Ventilation Air Core Velocity fpm (m/s)                                | Ventilation Air Free Area Velocity fpm (m/s) | Water Penetration Effectiveness % | Water Penetration Classification |
| 0 (0.0)                                                             | 0 (0.0)                                      | 100                               | A                                | 0 (0.0)                                                                | 0 (0.0)                                      |                                   | A                                |
| 98 (0.5)                                                            | 177 (0.9)                                    | 100                               | A                                | 98 (0.5)                                                               | 177 (0.9)                                    |                                   | A                                |
| 197 (1.0)                                                           | 356 (1.8)                                    | 100                               | A                                | 197 (1.0)                                                              | 356 (1.8)                                    |                                   | A                                |
| 295 (1.5)                                                           | 533 (2.7)                                    | 100                               | A                                | 295 (1.5)                                                              | 533 (2.7)                                    |                                   | A                                |
| 394 (2.0)                                                           | 712 (3.6)                                    | 100                               | A                                | 394 (2.0)                                                              | 712 (3.6)                                    |                                   | A                                |
| 492 (2.5)                                                           | 889 (4.5)                                    | 100                               | A                                | 492 (2.5)                                                              | 889 (4.5)                                    |                                   | A                                |
| 591 (3.0)                                                           | 1068 (5.4)                                   | 100                               | A                                | 591 (3.0)                                                              | 1068 (5.4)                                   |                                   | A                                |
| 689 (3.5)                                                           | 1245 (6.3)                                   | 100                               | A                                | 689 (3.5)                                                              | 1245 (6.3)                                   |                                   | A                                |
| 787 (4.0)                                                           | 1422 (7.2)                                   | 100                               | A                                | 782 (4.0)                                                              | 1413 (7.2)                                   | 99.7                              | A                                |
| 886 (4.5)                                                           | 1600 (8.1)                                   | 100                               | A                                | 883 (4.5)                                                              | 1595 (8.1)                                   | 99.6                              | A                                |
| 980 (5.0)                                                           | 1770 (9.0)                                   | 100                               | A                                | 980 (5.0)                                                              | 1770 (9.0)                                   | 99.5                              | A                                |

| Wind-Driven Rain Penetration Classes |               |
|--------------------------------------|---------------|
| Class                                | Effectiveness |
| A                                    | 1 to 0.99     |
| B                                    | 0.989 to 0.95 |
| C                                    | 0.949 to 0.80 |
| D                                    | Below 0.80    |

Water penetration classification ratings are based on the amount of simulated rain that penetrates the louver during a specific rainfall rate, wind velocity, and intake velocity. Ratings are based on a 39.4 in. x 39.4 in. (1 m x 1 m) core size.

