High Volume, Low Speed Fans
Models DC and DS
Direct Drive HVLS
Model DC and DS
HVLS Fan

Whether it is for comfort cooling, destratification, or architectural purposes, we have you covered! Greenheck strives to provide you with the highest performing fans on the market through our extensive research, testing and product offering.

Model DC
Model DC-5 is an aesthetic five-blade, direct drive design for use in commercial spaces with low to medium height ceilings. With its sleek design, the DC-5 combines comfortable air movement with a variety of unique color options. These fans are effortless to install with a total weight less than one hundred pounds, the lightest among comparable HVLS fans.

- Fan diameters between 8 and 14 ft.
- Up to 55,800 cfm
- UL/cUL 507
- AMCA Circulating Fan Performance

Applications:
- Office spaces
- Restaurants and bars
- Education facilities
- Supermarkets and grocery stores
- Retail stores
- Fitness centers

Model DS
Model DS-3 is an efficient and economical three-blade, direct drive HVLS fan designed for commercial or industrial spaces with medium to high ceilings. These economical fans are the ideal balance between cost and performance, making them a smart choice for budget-conscious building owners. Plus, with a lighter weight than comparable HVLS fans, the DS-3 is a breeze to install in any building.

- Fan diameters between 8 and 24 ft.
- Up to 176,900 cfm

Model DS-6 is a six-blade, direct drive HVLS fan designed for commercial or industrial spaces with medium to high ceilings. As the industry’s best performing HVLS fan, the DS-6 delivers unrivaled airflow at incredibly quiet sound levels. Along with reduced operating costs, the DS-6 is clearly the best value HVLS product on the market.

- Fan diameters between 8 and 24 ft.
- Up to 243,000 cfm
- UL/cUL 507
- AMCA Circulating Fan Performance

Applications:
- Airports
- Gymnasiums
- Agricultural facilities
- Manufacturing facilities
- Automotive facilities
- Distribution centers
- Stadiums and arenas
Standard Construction and Features

<table>
<thead>
<tr>
<th>Building Types</th>
<th>High End Residential and Commercial</th>
<th>Commercial and Industrial</th>
<th>Commercial and Industrial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max CFM Range</td>
<td>29,000 – 55,800</td>
<td>23,500 – 176,900</td>
<td>28,600 – 243,000</td>
</tr>
<tr>
<td>Max Coverage Area Range (ft²)</td>
<td>9,200 – 12,500</td>
<td>9,100 – 18,700</td>
<td>11,300 – 23,700</td>
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<tr>
<td>Fan Size (ft)</td>
<td>8 – 14</td>
<td>8 – 24</td>
<td>8 – 24</td>
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<tr>
<td>AMCA Certification</td>
<td>Circulating Fan Performance</td>
<td>Circulating Fan Performance</td>
<td>Circulating Fan Performance</td>
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<tr>
<td>UL/cUL 507 Listed for Electrical</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Universal Ceiling Mount</td>
<td>✓</td>
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<tr>
<td>Weight (lbs)</td>
<td>70 – 91</td>
<td>104 – 144</td>
<td>129 – 222</td>
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<tr>
<td>Direct Drive Motor (hp)</td>
<td>1/4</td>
<td>3/4</td>
<td>3/4 – 1½</td>
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<tr>
<td>Voltage &amp; Phase</td>
<td>115-230/1</td>
<td>208-277/1, 208-460/3</td>
<td>208-277/1, 208-460/3</td>
</tr>
<tr>
<td>Forward and Reverse Operation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Drop Length (ft.)</td>
<td>2</td>
<td>3½</td>
<td>3½</td>
</tr>
<tr>
<td>Airfoil Finish</td>
<td>Mill or Black</td>
<td>Mill</td>
<td>Mill</td>
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<tr>
<td>Accent Color</td>
<td>Black</td>
<td>Black or Blue</td>
<td>Black or Blue</td>
</tr>
<tr>
<td>100 ft. of CAT-5e Control Cable</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Fire Relay (For Fire Suppression System)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>10 Year Warranty</td>
<td>✓</td>
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</tr>
</tbody>
</table>

**Standard Construction Features**

**Airfoils** - Unique extruded aluminum airfoil shape is designed to maximize airflow and coverage area.

**Intelligent VFD and Motor** - Factory-mounted, wired and programmed variable frequency drive (VFD). Direct drive motor and VFD combination result in high efficiency, low sound and ultra light installation. Smart features include over-speed and impact detection along with temperature, voltage and current monitoring.

**Fire Relay** - Keep your buildings and products safe. Low voltage relay can be wired into a building’s fire suppression system for automatic fan shutdown when sprinklers are activated.

**Guy Wire Kit** - Braided steel guy wires prevent lateral fan movement for safe installations.

*Model DC: 15-foot guy wires included for drop lengths greater than or equal to four feet.
Model DS: 20-foot guy wires included with all drop lengths.*

**Certifications**

Greenheck Fan Corporation certifies that the models DC and DS shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.
Optional Accessories and Controls

**Mounting Kits** - Designed to mount to a variety of building structures. Kit options available for I-beam, steel truss, Unistrut®, wood beam, and Z-purlin construction.

**LED Light - Model DS only** - Light option with 150W, 19,500 lumen output rating, and 120° beam angle. Requires separate 115V power (by others).

**Extended Drop Lengths** - By using extended drop lengths, the fan can accommodate every space, even sloped ceilings. Various drop lengths are available.

- *Model DC: 3 to 10 foot*
- *Model DS: 4 to 10 foot*

**Extended Length CAT-5e Control Cable** - Allow flexibility with the installation and placement of control options by selecting pre-assembled 150 ft. or 200 ft. CAT-5e cables. Or, customize individual cable lengths with 1,000 ft. bulk spools of CAT-5e cable and 20 RJ45 end connectors.

**Disconnect Switch** - Toggle type and heavy duty disconnect switches; both with fused protection options are available for positive electrical shut-off and safety in servicing fans.

**Extended Warranty** - Protect your investment with an 11, 12, 13, or 14 year extended warranty.

**HVLS Keypad Control** - Keypad control with LCD display can operate 3, 5, or 10 fans of the same model and size as a group, with all fans running at the same speed and direction. The keypad control provides full status monitoring capability and fault-logging, making this an excellent standalone control solution. Available with surface-mounted or recessed enclosures.

**HVLS Touchscreen Control** - Touchscreen control with LCD display. Group or independently control up to 10 fans with any combination of models and sizes, allowing maximum flexibility and convenience. Supports fan scheduling, password protection and advanced fan diagnostics for ease in troubleshooting. Available with surface-mounted or recessed enclosures.

**HVLS Touchscreen Control with BACnet®** - Ability to communicate with a building management system (BMS) through BACnet MS/TP. Allows a BMS to control or monitor the status of the entire HVLS fan system through a single access point, simplifying integration in the field. Available with surface-mounted or recessed enclosures.

**Temperature and Humidity Sensors** - Package includes two sensors for mounting on the ceiling and at occupant height. Sensors modulate the fans for optimal speed and rotation to improve occupant comfort based on temperature and humidity inside the building.

**Finish Options** - Available for the winglets, downtube, hub plate, airfoils, and universal ceiling mount. Unlimited custom color match or select from 13 standard paint colors (Hi-Pro Polyester). Airfoil finishes available include: anodized (not shown), Hi-Pro Polyester or woodgrain.

*Color is for reference only and is not to be used for final color matching. Anodized finishes not shown.*
It is important to understand how the size and aerodynamics of the fan affect the velocity of air movement and the benefits of increased air in the building area. Selection guides such as the one shown below help identify the best HVLS fan for your application based on fan size and aerodynamics. This selection guide uses the widely respected and accepted ANSI/ASHRAE 55 Standard to illustrate the perceived cooling effect that happens with the addition of HVLS fans.

Feet From Center of Fan

Testing conditions are based on a fan operating at full speed mounted 20 feet above the floor with air velocity measured at a height of 4 feet.

Air Velocity Selection Guide

Air Velocity ft./min.  Cooling Effect °F

DC-5-8
DC-5-10
DC-5-12
DC-5-14
DS-3-8
DS-3-10
DS-3-12
DS-3-14
DS-3-16
DS-3-18
DS-3-20
DS-3-24
DS-6-8
DS-6-10
DS-6-12
DS-6-14
DS-6-16
DS-6-18
DS-6-20
DS-6-24

Recommended Max. Coverage Area
## Air Performance

### Model DC-5

<table>
<thead>
<tr>
<th>Fan Diameter (ft.)</th>
<th>Fan RPM</th>
<th>CFM</th>
<th>Total Sound Pressure (dBA)</th>
<th>Max. Coverage Area (sq. ft.)</th>
<th>Max. Coverage Radius (ft.)</th>
<th>Min. Fan Spacing (ft.)</th>
<th>*Integrated Efficiency (CFM/W)</th>
<th>Base Fan Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>184</td>
<td>29,000</td>
<td>49</td>
<td>9,200</td>
<td>54</td>
<td>24</td>
<td>139</td>
<td>70</td>
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<tr>
<td>10</td>
<td>140</td>
<td>41,200</td>
<td>55</td>
<td>11,300</td>
<td>60</td>
<td>30</td>
<td>207</td>
<td>77</td>
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<tr>
<td>12</td>
<td>103</td>
<td>50,000</td>
<td>48</td>
<td>12,000</td>
<td>62</td>
<td>36</td>
<td>277</td>
<td>84</td>
</tr>
<tr>
<td>14</td>
<td>76</td>
<td>55,800</td>
<td>45</td>
<td>12,500</td>
<td>64</td>
<td>42</td>
<td>343</td>
<td>91</td>
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</tbody>
</table>

*Based on 115/60/1 testing per ANSI/AMCA Standard 230 and 10 CFR 430

### Model DS-3

<table>
<thead>
<tr>
<th>Fan Diameter (ft.)</th>
<th>Fan RPM</th>
<th>CFM</th>
<th>Total Sound Pressure (dBA)</th>
<th>Max. Coverage Area (sq. ft.)</th>
<th>Max. Coverage Radius (ft.)</th>
<th>Min. Fan Spacing (ft.)</th>
<th>*Integrated Efficiency (CFM/W)</th>
<th>Base Fan Weight (lbs.)</th>
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<tbody>
<tr>
<td>8</td>
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<td>44</td>
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<td>24</td>
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<tr>
<td>10</td>
<td>141</td>
<td>43,500</td>
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<td>11,600</td>
<td>61</td>
<td>30</td>
<td>162</td>
<td>109</td>
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<tr>
<td>12</td>
<td>134</td>
<td>68,900</td>
<td>48</td>
<td>12,400</td>
<td>63</td>
<td>36</td>
<td>175</td>
<td>115</td>
</tr>
<tr>
<td>14</td>
<td>120</td>
<td>87,900</td>
<td>50</td>
<td>13,200</td>
<td>65</td>
<td>42</td>
<td>181</td>
<td>121</td>
</tr>
<tr>
<td>16</td>
<td>101</td>
<td>106,300</td>
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<td>14,200</td>
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<td>48</td>
<td>226</td>
<td>126</td>
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<tr>
<td>18</td>
<td>87</td>
<td>127,900</td>
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<td>15,800</td>
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*Based on 208/60/3 testing per ANSI/AMCA Standard 230 and 10 CFR 430

### Model DS-6

<table>
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<tr>
<th>Fan Diameter (ft.)</th>
<th>Fan RPM</th>
<th>CFM</th>
<th>Total Sound Pressure (dBA)</th>
<th>Max. Coverage Area (sq. ft.)</th>
<th>Max. Coverage Radius (ft.)</th>
<th>Min. Fan Spacing (ft.)</th>
<th>*Integrated Efficiency (CFM/W)</th>
<th>Base Fan Weight (lbs.)</th>
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<tbody>
<tr>
<td>8</td>
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<td>28,600</td>
<td>45</td>
<td>11,300</td>
<td>60</td>
<td>24</td>
<td>133</td>
<td>129</td>
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<tr>
<td>10</td>
<td>136</td>
<td>46,700</td>
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<td>13,600</td>
<td>66</td>
<td>30</td>
<td>128</td>
<td>138</td>
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<td>12</td>
<td>119</td>
<td>71,900</td>
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<td>14,500</td>
<td>68</td>
<td>36</td>
<td>148</td>
<td>147</td>
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<tr>
<td>14</td>
<td>97</td>
<td>92,300</td>
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<td>18,100</td>
<td>76</td>
<td>54</td>
<td>262</td>
<td>174</td>
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<td>20</td>
<td>78</td>
<td>196,200</td>
<td>52</td>
<td>21,600</td>
<td>83</td>
<td>60</td>
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<td>24</td>
<td>61</td>
<td>243,000</td>
<td>50</td>
<td>23,700</td>
<td>87</td>
<td>72</td>
<td>249</td>
<td>222</td>
</tr>
</tbody>
</table>

*Based on 208/60/3 testing per ANSI/AMCA Standard 230 and 10 CFR 430

Greenheck Fan Corporation certifies that the models DC and DS shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

The AMCA Certified Ratings Seals applies to air performance ratings only. The AMCA Certified Ratings Seal applies at free delivery only. Performance ratings do not include the effects of appurtenances (accessories).
Specifications

Model DS

Ceiling mounted circulation or destratification fans shall be of the large diameter direct drive (high volume, low speed) type.

Fan construction shall include a universal ceiling mount that is designed for fast and secure connection to a variety of ceiling substrates via heavy-duty mounting hardware kits (specified upon order). Universal ceiling mount shall be constructed of heavy gauge steel and shall include a single-axis pivot to accommodate any ceiling angle. Fans shall also include a heavy gauge steel downtube to provide a structural connection between the universal ceiling mount and fan motor. Downtube shall include a factory-programmed variable frequency drive. All components of the universal ceiling mount and downtube shall be powder-coated for corrosion resistance and aesthetic appearance.

Motors shall be of the high torque, low speed direct drive type, carefully matched to the fan load and furnished at the specified voltage and phase. Motors shall include plug-and-play connectors for power and control wiring to the variable frequency drive. Motors shall also be provided with a factory-installed, heavy gauge steel hub with precision-cut steel struts for ease of airfoil installation.

Airfoils shall be constructed of 6005A-T6 extruded aluminum with a unique aerodynamic profile that has been optimized for maximum airflow and efficiency. Airfoils shall be provided with a mill finish as standard, with additional finishes available in a variety of types and colors (specified upon order). Airfoils shall also be provided with precision-cut, powder-coated aluminum winglets as standard.

Fan shall be provided with a multi-point, redundant safety system comprised of a heavy-duty safety retention cable, hub retention system, and airfoil retaining ring as standard.

Fan shall bear a manufacturer's nameplate containing the model number and individual serial number for future identification.

Fan shall be Model DS as manufactured by Greenheck Fan Corporation of Schofield, Wisconsin, USA.

Model DC

Ceiling mounted circulation or destratification fans shall be of the large diameter direct drive (high volume, low speed) type.

Fan construction shall include a universal ceiling mount that is designed for fast and secure connection to a variety of ceiling substrates via heavy-duty mounting hardware kits (specified upon order). Universal ceiling mount shall be constructed of heavy gauge steel and shall include a single-axis pivot to accommodate any ceiling angle. Fans shall also include a heavy gauge steel downtube to provide a structural connection between the universal ceiling mount and fan motor. Downtube shall include a factory-programmed variable frequency drive. All components of the universal ceiling mount and downtube shall be powder-coated for corrosion resistance and aesthetic appearance.

Motors shall be of the high torque, low speed direct drive type, carefully matched to the fan load and furnished at the specified voltage and phase. Motors shall include plug-and-play connectors for power and control wiring to the variable frequency drive. Motors shall also be provided with a factory-installed, heavy gauge steel hub with precision-cut steel struts for ease of airfoil installation.

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Fan shall be provided with a multi-point, redundant safety system comprised of a heavy-duty safety retention cable, hub retention system, and airfoil retaining ring as standard.

Fan shall bear a manufacturer's nameplate containing the model number and individual serial number for future identification.

Fan shall be Model DC as manufactured by Greenheck Fan Corporation of Schofield, Wisconsin, USA.
Quick Delivery and Quick Build Program

Model DS is available for shipment to your jobsite in less than 24 hours from our strategically located warehouses or available on our 10-day Quick Build program.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Best Available Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-3</td>
<td>16, 24</td>
<td>In Stock</td>
</tr>
<tr>
<td>DS-6</td>
<td>16, 24</td>
<td>In Stock</td>
</tr>
<tr>
<td>DS-3</td>
<td>8 through 24</td>
<td>10 Days</td>
</tr>
<tr>
<td>DS-6</td>
<td>8 through 24</td>
<td>10 Days</td>
</tr>
</tbody>
</table>

Computer Aided Product Selection

All Greenheck products are supported by the industry’s best product literature, electronic media and two product selection tools – CAPS®, our Computer Aided Product Selection software program and eCAPS®, our online selection tool. These programs will guide you from initial design through detailed submittals.

And, of course, you can always count on the personal service and expertise of our national and international representative organization. To locate your nearest Greenheck representative call 715-359-6171 or visit our website at www.greenheck.com

Building Value in Air

Greenheck delivers value to mechanical engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of top quality, innovative air-related equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time. And building owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Product warranties can be found online at Greenheck.com, either on the specific product page or in the literature section of the website at Greenheck.com/Resources/Library/Literature.

GREENHECK
Building Value in Air.