

# Utility, Centrifugal and Radial Blowers



Greenheck offers a complete line of heavy-duty centrifugal fans and radial blowers for any commercial and industrial application. Greenheck centrifugal products are used for everyday commercial applications such as providing supply, exhaust, and return air in hospitals, schools, and large office buildings or fume exhaust for laboratories and pharmaceuticals. These products are also well suited for industrial applications involving high-temperature process exhaust, filtration systems, corrosive air exhaust, and material handling.

## Utility Centrifugal Fans

The utility fans include both direct and belt-driven fans. They are self-contained units consisting of the fan, motor, and drive for a variety of commercial and light industrial applications.

### Models SFD/SFB

Model SFD (direct drive) and SFB (belt drive) feature quiet and efficient forward-curved wheels. These fans are suitable for ducted exhaust, supply, and return-air applications with clean air. The Vari-Green® EC motor is available on model SFD direct-drive fans. Capacities range from 400 to 25,000 cfm (680 to 42,475 m<sup>3</sup>/hr) and 3.25 in. wg (806 Pa). Third-party certified (Florida Product Approved and Miami-Dade County Qualified) for high wind and AMCA Licensed for Air Performance. IBC and OSHPD seismic certified. Select models with CE Mark.

*Catalog: Centrifugal Utility Fans — SFD, SFB, SWD and SWB*



### Model SWB/SWD

Model SWB (belt drive) and SWD fans with Vari-Green® EC motor feature a backward-inclined or airfoil centrifugal wheel. This fan is suitable for ducted exhaust, supply, and return-air applications. Typical applications include commercial kitchens, fume hoods, and emergency smoke control installations. Available in galvanized, aluminum, or painted construction. Capacities range from 70 to 11,400 cfm (119 to 19,369 m<sup>3</sup>/hr) and 2.5 in. wg (622 Pa). Third-party certified (Florida Product Approved and Miami-Dade County Qualified) for high wind and AMCA Licensed for Air Performance. IBC and OSHPD seismic certified. Select models with CE Mark.

*Catalog: Centrifugal Utility Fans — SFD, SFB, SWD and SWB*

*Catalog: Centrifugal Fans — SWD, USF and CSW*



## Model USF

USF tiered models (200, 300, and 400) offer multiple levels of construction for the best value to match the intended application and performance.

- **USF-200** – Constructed of galvanized steel with bolted frame and backward inclined centrifugal wheel makes this model an economical selection when clean air is being moved. Available in 11 sizes (6 in. - 22 in.).
- **USF-300** – Increased performance along with construction of painted steel with bolted frame and backward inclined centrifugal wheel. For use in applications where a special coating on the housing and the airstream is required. Available in 19 sizes (6 in. - 49 in.).
- **USF-400** – This model bridges the gap between traditional utility sets and industrial blowers with heavier duty construction and higher performance capabilities. Constructed with painted steel construction and a backward inclined centrifugal wheel. Available in 19 sizes (7 in. - 49 in.).

Performance capabilities range from 50 to 70,000 cfm (170 to 322,812 m<sup>3</sup>/hr) and 9 in. wg (2,240 Pa).

Arrangement available: 10

Catalog: *Centrifugal Fans — SWD, USF and CSW*



USF-200



USF-300



USF-400

## Commercial and Industrial Centrifugal Fans

Airfoil (AF) and backward-inclined (BI) centrifugal fans are designed for commercial and industrial applications for exhaust air, supply air, filtration, heating, air conditioning, and industrial process applications. Airfoil centrifugal wheels have the advantage of higher operating efficiencies. Greenheck's centrifugal fans come in two construction options. Greenheck's Permalock™ seam on housing sizes 7-49 for applications up to 8.5 in. wg (2,117 Pa) and heavy-gauge, edge-to-edge, welded housing construction for pressures up to 22 in. wg (5,474 Pa). All AF and BI model fans use air handling quality bearings, are tested with a complete three-plane vibration test prior to shipment and are AMCA Licensed for Sound and Air Performance.

### Single-Width – Model CSW

Model CSW operates in a broad range of fan applications, typically in ducted systems. Versatile construction options allow use in environments which require spark resistance, high temperature tolerance, or resistance to corrosive elements. OPTIONS: Spark-resistant construction, UL 705 Power Ventilators Listing, UL 762 Grease Listing, UL Power Ventilators for Smoke Control Systems Listing. Capacities range from 100 to 220,000 cfm (170 to 370,782 m<sup>3</sup>/hr) and 22 in. wg (5,474 Pa). AMCA Licensed for Sound and Air Performance.

Catalog: *Centrifugal Fans — SWD, USF and CSW*  
*CSW Single—Width Centrifugal Fan Performance Supplement*



### Double-Width – Models BIDW/AFDW

Models BIDW/AFDW operate in non-ducted inlet applications, primarily handling clean air below 200°F. Higher volume capacities allow for a more compact system design than with single-width fans. Air handling quality bearings with L<sub>10</sub> life in excess of 80,000 hours (equivalent to an average life of 400,000 hours). Each fan is three-plane vibration tested prior to shipment. OPTIONS: UL 705 Power Ventilators Listing. Capacities range from 1,000 to 380,000 cfm (1,699 to 645,624 m<sup>3</sup>/hr) and 14 in. wg (3,484 Pa). AMCA Licensed for Sound and Air Performance.

Catalog: *Centrifugal Fans — Models BIDW and AFDW*  
*Double-Width Centrifugal Fan Performance Supplement*



## Fiberglass Reinforced Plastic (FRP) Fans

FRP fans are designed for exhausting corrosive air in a variety of applications. Typical applications include wastewater treatment odor control, pollution control scrubbers, and other highly corrosive airstreams. Each FRP fan is constructed using hand lay-up or chop spray manufacturing techniques and every FRP component complies with ASTM specifications C582 and 4167 for fiberglass laminates and pressure blowers. All FRP fans use air handling quality bearings and are AMCA Spark A resistant.

### Model BCSW-FRP

Model BCSW-FRP uses a backward-curved centrifugal wheel and comes in both direct and belt drive models. The BCSW-FRP is constructed to exceed the industry standard for vibration with 0.078 in./sec velocity for the belt drive. For light duty, clean air to partial particulate/dusty conditions, corrosive airstreams. Capacities range from 300 to 150,000 cfm (510 to 254,851 m<sup>3</sup>/hr) and 14 in. wg (3,484 Pa). AMCA Licensed for Air Performance.

Catalog: *Fiberglass Centrifugal Fans – BCSW-FRP*



## Fabricated Pressure Blowers

Fabricated pressure blowers are suitable for air exhaust or supply applications. Typical applications include cabinet or room pressurization, blow-off systems for moisture removal, combustion air for burners, parts cooling, and fume exhaust.

### Model FPB

Model FPB fabricated pressure blowers utilize radial aluminum blade wheels to provide peak performance for systems that require low flow and high pressures. FPB pressure blowers are designed with a totally rotatable steel housing with a baked polyester coating. Capacities range from 200 to 2,500 cfm (340 to 4,248 m<sup>3</sup>/hr) and 10 in. wg (2,480 Pa).

Catalog: *Pressure Blowers – FPB*



## Industrial Process Fans

The industrial process fans menu includes fan types engineered and built for reliable operation in harsh environments where high temperatures, high static pressures, and material handling requirements are encountered.

### Open Radial Material Handling Wheel - Model IPO

Model IPO can be utilized for most industrial requirements. Applications include: exhausting abrasive dust such as grinding and buffing wheel exhaust, conveying granular materials, such as sawdust, wood chips, fume exhaust, and high temperature air handling.

### Wool Type Material Handling Wheel - Model IPW

Model IPW is designed for handling long, fibrous, stringy material. Applications include: conveying long wood shavings, yarns, and paper trimmings. It can also be used for similar applications as the open wheel, but has higher efficiencies.

### Industrial Air Handling Wheel - Model IPA

Model IPA is designed for clean air exhaust to slight material handling. Applications include: smoke and heat exhaust, corrosives, heavy fumes, and light dust loading. The air handling wheel is the most efficient in the industrial process fan series.



Capacities for standard construction up to 60,000 (101,941 m<sup>3</sup>/hr) and 22 in. wg (5,456 Pa).  
 Capacities for heavy-duty construction up to 84,000 (142,717 m<sup>3</sup>/hr) and 32 in. wg (7,936 Pa).  
 AMCA Licensed for Air Performance.

Catalog: *Industrial Process Fans – IPO, IPW, IPA*

## Plug Fans

Plug fans are designed and built to provide reliable service in industrial applications where the fan operates unhooused within a pressurized plenum.

### Model PLG

Model PLG unhooused plug fans feature compact unit sizes and a high efficiency backward-inclined wheel which makes them ideal selections for HVAC installations, spray booths, air curtains and high temperature applications including ovens, dryers, and kilns. Capacities up to 70,000 cfm (118,931 m<sup>3</sup>/hr) and 8 in. wg (1,984 Pa), and maximum temperature of 800°F (426°C).

Catalog: *Plug Fans — PLG*



## Plenum Fans

Plenum fans are designed for air handling applications where the fan operates unhooused within a pressurized plenum. Plenum fans are designed to be compact in size, have the flexibility to supply multiple air take offs and are economically priced. Quiet and efficient operation is achieved through a 12-bladed, airfoil wheel that helps reduce low frequency tones.

### Model APM – Light to Medium Duty Plenum Fan

Model APM plenum fans are designed for light and medium duty applications. This model has a galvanized framework at a more cost-effective price point. Units are available in belt and direct drive with a simplified selection of accessories. Capacities range from 1,000 to 37,000 cfm (1,699 to 62,863 m<sup>3</sup>/hr) and 5 in. wg (1,240 Pa).

Catalog: *Plenum Fans — APM and APH*



### Model APH – Medium to Heavy Duty Plenum Fan

Designed and engineered for medium and heavier duty applications with a fully welded and painted steel configuration. This plenum is available in both belt and direct drive and offers numerous accessories to complement your project. Capacities range from 700 to 210,000 cfm (1,189 to 356,792 m<sup>3</sup>/hr) and 12 in. wg (2,976 Pa).

Catalog: *Plenum Fans — APM and APH*



### Model HPA

Model HPA hooused plenum fans provide high efficiency while maintaining a compact size and low sound power levels. Utilizing a galvanized framework with integral isolation, the HPA uses a high efficiency, low sound 12-blade wheel with a sound attenuating housing to further reduce sound power levels. HPA fans can be easily stacked together in parallel as a fan array offering 100% redundancy. Hooused HPA fans are available in 10 sizes (15-36). Capacities range from 700 to 50,000 cfm (1189 to 84,950 m<sup>3</sup>/hr) and 10 in. wg (2,491 Pa).

Catalog: *Plenum Fans — HPA*

