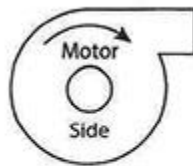
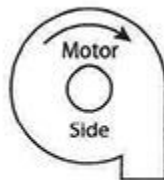


Types of Blowers

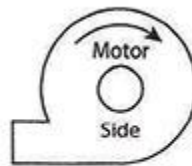
Air blowers generally use centrifugal force to propel air forward. Inside a centrifugal air blower is a wheel with small blades on the circumference and a casing to direct the flow of air into the center of the wheel and out toward the edge.



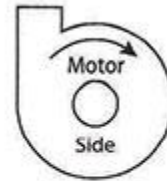
Clockwise Top
Horizontal
Discharge



Clockwise
Down-Blast
Discharge



Clockwise Bottom
Horizontal
Discharge



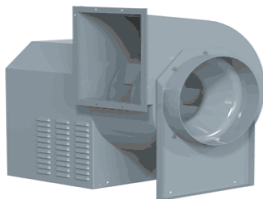
Clockwise
Up-Blast
Discharge

The design of the blades will affect how the air is propelled and how efficient the air blower is. Blade designs in air blowers are classified as forward-curved, backward-inclined, backward-curved, radial and airfoil.



Forward-Curved Air Blowers

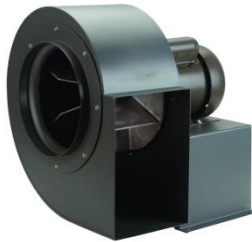
- Forward-curved blowers are drive devices with blades that are curved in the direction of rotation. The blower accelerates air to a high velocity while rotating at a low speed. Forward-curved blower wheels spin at relatively low speeds and produce high volumes of air at low static pressures. This type of blower is incapable of operating at the speeds necessary to create high static pressures because of its lightweight construction. Still, forward-curved blowers are the most common type of air blower because they propel the most air volume in relation to blower size and speed.



Backward-Inclined and Backward-Curved Air Blowers

- A backward-inclined blower, operating at roughly twice the speed of a forward-curved air blower, has flat blades that slant away from the direction of travel. This type of blower is highly efficient (low horsepower requirement) and has a rugged construction suitable for high static pressure applications. This type of air blower is best used in locations where the air is either clean or mildly contaminated. Similar to this style is a backward-curved air blower. The blades of a

backward-curved blower are a single thickness throughout and curve away from the direction of travel. These blades are sturdier than backward-inclined blades and can be used in corrosive and erosive environments.



Radial Air Blowers

- Radial blowers are designed for industrial use in small exhaust systems. These air blowers are capable of handling air that contains bits of dirt, grit, lint and other foreign particles while still maintaining a high-pressure supply of air for conveying and cooling. This type of blower is generally designed to be self-cleaning. Radial air blowers have the lowest efficiency levels because the blades have no curve or lean and are perpendicular to the wheel's rotation.



Airfoil Air Blowers

- Airfoil blowers have the most efficient design of all air blowers. Their blades have an airfoil shape that is wide at the center and curves down to narrow edges. Airfoil blowers are extremely efficient because they require lower horsepower levels to operate. This type of blower is used in clean air situations.



Double Centrifugal

- Blower Like the single blowers, these units are easily installed and operate in any mounting orientation, but double blowers provide greater airflow than single unit. Single and double centrifugal blowers are the backbone of forced convection air cooling.



Furnace Blower

- The Blower moves the heat generated by the furnace through the ductwork. The furnace blowers are direct-drive. You can get it either single speed or variable speed. In single speed blower it is either off or on; so when the temperature drops your thermostat setting the blower kicks onto full capacity with no option for adjustment. While

variable speed blower motors adjust in speeds as needed; therefore, only running at full capacity when needed.



Belt-Drive Commercial & Industrial Blowers

- They generally consist of an intermediary link between a driving motor and a driven fan through a drive belt. The motor and the fan have pulleys that can be adjusted in pitch to change the desired fan speeds. The belt-driven blower has extreme flexibility in their fan operating speed because the RPM can easily be changed by simply adjusting the belts, sheaves and pulleys.



Transflow Blower

Transflow Blowers are also known as Tangential Blowers or Crossflow blowers. The Transflow blower is usually long in relation to the diameter, so the flow approximately remains two-dimensional away from the ends. Unlike radial fans, the main flow moves transversely across the impeller.

Transflow Blowers are typically used where a uniform broad flow of air is required. The compact design of these tangential blowers allows them to be installed where space is at a premium. Its relatively low air speeds provide a favorable noise level. The low power consumption of Cross Flow Blowers makes them favorable

Note: Information was obtain from multiple sources and has been checked for suitability. However, a successful solution depends on individual accuracy, skill, and caution. For this reason, Electric Trading Company does not guarantee the result of procedure compliance or assume responsibility for personal injury or property damage to persons following these procedures or product descriptions.