






TOTAL FAN VALUE

An overview of a fan's full scope of features and user benefits.



POWERFOIL® D

Advanced direct-drive technology and purpose-built design combine to make Powerfoil D the best fan in its class. Durably engineered with premium materials and rated IP66 to withstand harsh industrial conditions, it excels in hot, dusty spaces that typically prove too challenging for other gearless overhead fans. Its versatile design, virtually silent motor, and range of optional features also make it an attractive comfort solution for commercial and public spaces. For facilities looking to reduce energy costs, Powerfoil D's class-leading efficiency gives it the lowest annual energy cost of any Big Ass industrial overhead fan, while a 10-year warranty and extensive safety features ensure years of worry-free comfort.

		Points
 Performance	Airflow and efficiency metrics quantify how the fan will impact comfort and energy costs in the space.	23 / ₂₅
 Quality	The fan's materials and manufacturing process determine its durability and longevity.	25 / ₂₅
 Safety	Strong redundant safety features and verified product testing are essential for secure, consistent operation.	25 / ₂₅
 Customer Experience	Product specification, customization, and customer support make or break the ownership experience.	25 / ₂₅
 Total Fan Value	Use this score to compare models and make sure the fan meets the requirements for the space.	98 / ₁₀₀

POWERFOIL D

PERFORMANCE

Airflow Performance

Powerfoil D's purpose-built direct-drive motor and patented six-blade airfoil system create airflow fit for large open spaces, moving nearly 230,000 cubic feet of air per minute (109 cubic meters per second). The airfoils' aerodynamic design and cuffed winglets reduce wind turbulence and noise, keeping airflow consistent throughout the coverage area.



Airflow Coverage Area

A single 24-foot (7.3-meter) Powerfoil D can effectively deliver air speeds of at least 85 feet per minute (0.43 meters per second) to occupant levels over an area of more than 27,400 square feet (2,545 square meters). The fan's range of diameters and variety of mounting options, combined with Big Ass Fans' proprietary application design tools and expertise, ensure ideal airflow coverage for virtually any space.



Annual Energy Use

With efficiency that far surpasses typical industrial overhead fans, Powerfoil D's 0.5-1.5 horsepower motor delivers class-leading CFM/watt, circulating airflow over a wide area and reducing the need for A/C. In winter, the fan equalizes temperatures from floor to ceiling, making heaters more efficient. This improvement in efficiency can reduce HVAC costs by up to 30%, which more than offsets the fan's modest DOE-estimated annual operational cost of US\$233—about \$0.64 per 12 hours of daily operation.



Controls

Both Powerfoil D's standard digital touchscreen controller and the more advanced BAFCon option allow users to turn fans on and off, adjust speed, set password protection, and run fan diagnostics from an easy-to-use interface. Easy to install, the controls include a wall bracket and durable housing and require a single RJ45 connection.



Sound Level

Our quietest industrial overhead fan, Powerfoil D measures quieter than most ambient processes in industrial applications, which typically measure 40-60 dBA. When run at low speeds for destratification, the fan's operational sound is imperceptible at occupant level.



PERFORMANCE

23 / 25

POWERFOIL D

QUALITY

Durability



Like all Big Ass industrial overhead fans, Powerfoil D features airfoil and hub systems made from extruded aluminum, which offers greater flexibility and protection from impacts than cast aluminum. The fan's purpose-built direct-drive motor and 19-inch (483-millimeter) hub—the industry's largest—ensure smooth, balanced operation with minimal heat output. Powerfoil D's wide range of protection for voltage sag/swell make it an excellent choice for industrial facilities that experience fluctuations in power quality.

Warranty



Powerfoil D features a non-prorated 10-year mechanical and 5-year electrical warranty (10-year electrical with Big Ass Fans' factory-certified installation), putting it among the best in its class. Big Ass Fans' warranties are noteworthy for their straightforward terms, avoiding abundant fine print and exclusions and adding to customer confidence.

Performance Certifications



Powerfoil D has undergone extensive third-party testing by the U.S. Department of Energy and passed the Certified Ratings Program at AMCA International—the world's leading authority on airflow product testing—to guarantee accurate performance claims and adhere to industry regulations and standards.

Required Maintenance



Powerfoil D's permanent-magnet, brushless DC motor creates less friction and heat than traditional motors, for cooler, longer-lasting performance. As with all our overhead fans, Big Ass Fans offers a preventive maintenance program to ensure your Powerfoil D maintains peak performance and efficiency.

Motor and Drive Protection



The only industrial overhead fan that comes standard with an IP66 rating, Powerfoil D is fully protected from dust, vapors, and sprays of water, and its digital touchscreen controller is rated an industry-leading IP55.



QUALITY

25/25

POWERFOIL D

SAFETY

Static Safety Features

Powerfoil D includes a heavy-duty mounting system rated to withstand 40,000 pounds-force (18,144 kilograms-force) and uses a two-axis design to ensure a naturally plumb hang with no need for rebalancing. Extremely durable Grade 8 hardware secures attachment points, and every weld has redundant means of safety, so no single weld is critical to the fan's security. Dual galvanized steel aircraft cables tested to support the full weight of the fan provide additional backup safety.



Dynamic Safety Features

Powerfoil D leads the industry with the most thorough system of safety features of any overhead fan on the market. The fan's dynamic features keep all fan parts secured to the assembly in the event of an impact, ensuring maximum operational safety. Each airfoil sports interlocking retainers and a full-length airfoil restraint system, while the 19-inch (483-millimeter) spar hub system features two flexible plates with an aluminum spacer, ¼-inch (6.35-millimeter) steel retainers, and pin and collar rivet fasteners to more evenly distribute force load and reduce fatigue at attachment points. As with all Big Ass overhead fans, Powerfoil D integrates with fire suppression systems.



Safety Certifications

Powerfoil D's best-in-class safety is proven through rigorous testing. The fan holds an international CB Test Certificate for passing CB Scheme safety certification and is ETL-listed to UL507 and CSA Standard 22.2 No. 113. At Big Ass Fans' research lab, the fan has undergone successful impact testing, mount tensile testing to 28,000 pounds-force (12,700 kilograms-force), and stress testing of hub and airfoil systems, the results of which far surpass competitor testing in scope and performance.



Facility Integration

Like other Big Ass overhead fans, Powerfoil D integrates with most third-party building automation systems, offering fan control, grouping, and fire relay integration using Modbus-RTU protocol and 0-10 VDC. With Powerfoil D's premium BAFCon controller, built-in BACnet capability makes integration even easier with plug-and-play operation and no additional equipment required.



Patented and Proprietary Features

With multiple patents pending as well as a purpose-built motor and drive designed exclusively by Big Ass Fans, Powerfoil D offers the industry's most advanced direct-drive fan technology and has been engineered to excel in demanding industrial spaces.



SAFETY

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POWERFOIL D

CUSTOMER EXPERIENCE

Product Specification

Using proprietary airflow data from our research lab, Big Ass Fans' SpecLab® software plots fans in a 3D model of customers' facilities and simulates the airflow they provide. This unique tool ensures that customers receive an accurate specification for the Big Ass fans best suited for their space.



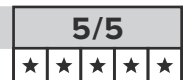
Ease of Installation

With a versatile mount and VFD that's pre-wired for quick, hassle-free installation, Powerfoil D excels in virtually any application. For facility managers who need expert assistance and minimal downtime, Big Ass Fans offers the industry's most reliable and extensive team of factory-certified installers, as well as support for customer-performed installation.



Customer Support

Big Ass Fans' customer support team is composed of experienced problem solvers who complete ongoing training with product managers and applications engineers. Big Ass Fans' Net Promoter Score—a measure of customer satisfaction—consistently ranks as the highest in the HVLS industry.



Customization

With diameters from 8 to 24 feet (2.4 to 7.3 meters), mounting options for different ceiling structures, and multi-phase VAC options, Powerfoil D is adaptable for use in a wide variety of facilities, including outdoor spaces. For customers looking to improve or maintain their space's visual aesthetic, Big Ass Fans offers full- and partial-fan color customization.



Optional Accessories

True to its class-leading design, Powerfoil D offers a variety of additional features to suit customers: an LED kit with a max output of more than 20,000 lumens, energy-saving occupancy sensor, and premium BAFCon and Dewtect® automated controls.



CUSTOMER
EXPERIENCE

25
/25