

POWERFOIL® D

We've raised the bar on direct-drive technology with our quietest, most efficient industrial fan ever. The groundbreaking Powerfoil D delivers airflow that radically changes the way people feel and work within your space. Rated IP66 for maximum protection in demanding environments, it takes on hot, gritty conditions with ease and has the specs to excel in any facility where comfort and quiet are valued.



KEY FEATURES

- ▶ **Six airfoils** with winglets and safety restraints
- ▶ **Built-in accelerometer**, safety cables, and Grade 8 hardware
- ▶ **Building automation integration** with 0-10 VDC, Modbus, and BACnet capability
- ▶ **Permanent-magnet motor** and VFD reduce noise, EMI, and energy usage
- ▶ **IP66-rated protection** against dust, water, and vapors for indoor or outdoor use
- ▶ **Best-in-class heat tolerance** with max temperature rating of 131 °F (55 °C)

DIAMETER

8-24 FEET
(2.4-7.3 METERS)

MOTOR

NEODYMIUM MAGNET
DIRECT-DRIVE

MOUNTING

I-BEAMS, BAR JOISTS,
SOLID BEAMS, AND PURLINS

WARRANTY

UP TO
10 YEARS
MECHANICAL

UP TO
10 YEARS
ELECTRICAL



BIG ASS FANS®

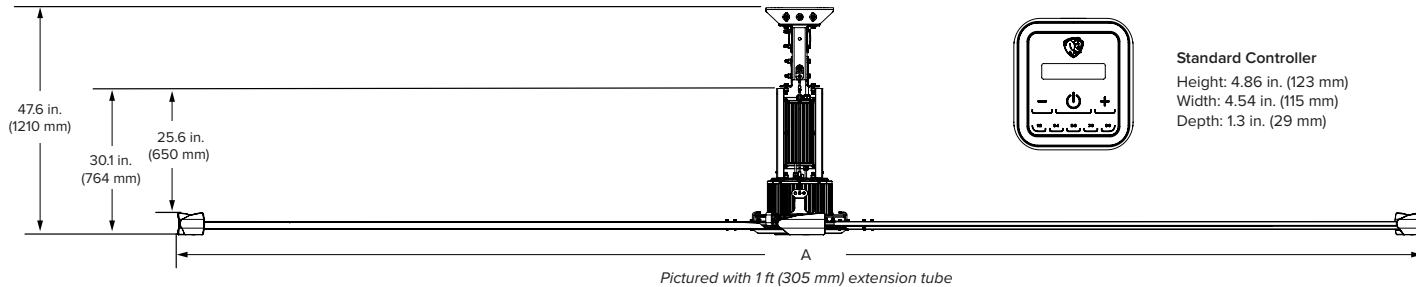
EXCEPTIONALLY
ENGINEERED

DISCOVER MORE ABOUT
POWERFOIL D

Email us at BigAssFans@haldemaninc.com to learn more.

POWERFOIL® D

THE INDUSTRIAL FAN THAT'S THE STRONG, SILENT TYPE



Technical Specifications

Diameter (A)	Weight ¹	Max Speed	Input Power and Required Breaker	Airfoil Clearances ²	Max Operating Temperature
8 ft (2.4 m)	212 lb (96 kg)	200 RPM	200–277 VAC, 50/60 Hz, 1Φ, 10 A 200–277 VAC, 50/60 Hz, 3Φ, 10 A 380–480 VAC, 50/60 Hz, 3Φ, 10 A	2 ft (0.6 m) on sides 4 ft (1.2 m) below ceiling	131°F (55°C)
10 ft (3 m)	220 lb (100 kg)	145 RPM	200–277 VAC, 50/60 Hz, 3Φ, 10 A 380–480 VAC, 50/60 Hz, 3Φ, 10 A		
12 ft (3.6 m)	227 lb (103 kg)	145 RPM	200–277 VAC, 50/60 Hz, 1Φ, 10 A 200–277 VAC, 50/60 Hz, 3Φ, 10 A	2 ft (0.6 m) on sides 5 ft (1.5 m) below ceiling	
14 ft (4.3 m)	235 lb (107 kg)	120 RPM	380–480 VAC, 50/60 Hz, 3Φ, 10 A		
16 ft (4.9 m)	242 lb (110 kg)	108 RPM	200–277 VAC, 50/60 Hz, 1Φ, 15 A 200–277 VAC, 50/60 Hz, 3Φ, 15 A 380–480 VAC, 50/60 Hz, 3Φ, 10 A	2 ft (0.6 m) on sides 6 ft (1.8 m) below ceiling	
18 ft (5.5 m)	273 lb (124 kg)	94 RPM	200–277 VAC, 50/60 Hz, 1Φ, 15 A		
20 ft (6.1 m)	280 lb (127 kg)	84 RPM	200–277 VAC, 50/60 Hz, 3Φ, 15 A 380–480 VAC, 50/60 Hz, 3Φ, 10 A	2 ft (0.6 m) on sides 7 ft (2.1 m) below ceiling	
24 ft (7.3 m)	295 lb (134 kg)	64 RPM			

Construction Features

Airfoils	Motor and Drive	Certifications	Mounting	Multi-Point Safety ³	Colors
Six patented Powerfoil airfoils (mill finish) Powerfoil winglets eliminate wind noise (safety yellow)	Neodymium magnet motor provides virtually silent operation and optimum efficiency Rated IP66	UL Standard 507 and CSA Standard 22.2 No. 113 	Standard upper mount installs to I-beams and bar joists Optional kits allow for mounting to solid beams and purlins	Double safety cable system, airfoil retainers, hub safety clips, Grade 8 hardware, fire relay, guy wires, and airfoil restraint system	Standard colors are silver and yellow. Individualize your fan with one of our classic color upgrades, or work with our design consultants to create a shade that's all your own.

Controls

Standard Controller	Integrations	BAFCon Upgrade ⁴
Made from durable UV-resistant materials Rated IP55 Intuitive touchscreen interface On/Off and variable speed control Password protection Powered by fan drive	Building automation systems (Modbus-RTU protocol) 0–10 V control Fire suppression systems	Integrated SmartSense technology automatically adjusts fan speed based on seasonal conditions 24-bit color LCD display with resistive touchscreen protected in sleek metal and ABS housing Powered by fan drive

Standard Controller



¹ Weight does not include mount or extension tube.

² Measure the distance from the tip of the winglet to the ceiling or major obstruction.

³ Airfoil restraint system comes standard on 20–24 ft (6–7.3 m) fans and is an option for smaller diameter fans. The fire relay must be wired during install if required by local code. Guy wires are included with fans that have extension tubes 4 ft (1.2 m) or longer.

⁴ Optional upgrade available; ships separately.

Lead times may vary.
See full warranty for coverage information.



Haldeman Inc.
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A structural engineer should approve the mounting structure prior to installation. The mounting structure must be able to withstand the torque forces generated by the fan. The largest fan generates up to 300 ft-lb (406.7 N·m) of torque during operation. We recommend using guy wires if the fan's extension tube is 4 ft (1.2 m) or longer, if the fan is exposed to high winds or similar conditions, if the fan is installed outdoors, or if the fan is close to any building fixtures.

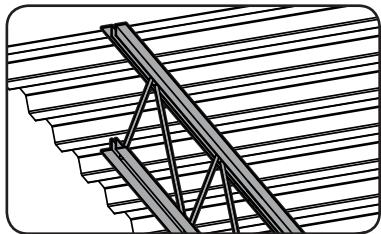
Avant l'installation, la structure d'ancrage doit être approuvée par un ingénieur en bâtiment. La structure d'ancrage doit pouvoir supporter les efforts de couple exercés par le ventilateur. En fonctionnement, le plus grand ventilateur exerce un couple allant jusqu'à 406,7 N·m (300 pi-lb). Il est recommandé d'utiliser des haubans lorsque la longueur de la tige de prolongation est supérieure ou égale à 1,2 m (4 pi), lorsque le ventilateur est exposé à de forts courants d'air ou à des conditions similaires, lorsqu'il est installé en extérieur ou lorsqu'il se trouve à proximité d'installations fixes.

Antes de realizar la instalación, un ingeniero estructural debe aprobar la estructura de montaje. La estructura de montaje debe ser capaz de soportar las fuerzas de torsión que genera el ventilador. El ventilador más grande genera un par de torsión de hasta 300 ft-lb (406.7 N·m) durante su operación. Se recomienda utilizar cables de sujeción si el tubo de extensión del ventilador tiene una longitud de 4 ft (1.2 m) o más, si el ventilador está expuesto a fuertes vientos o condiciones similares, si se lo instala al aire libre o si está cerca de algún elemento del edificio.

Bar Joists

Poutrelles

Vigas de celosía

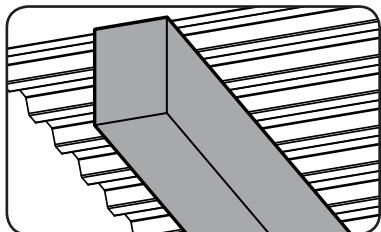


- The installer must supply angle irons and suitable 1/2-13 Grade 8 mounting hardware.
 - Do not install the fan from a single purlin, truss, or bar joist.
 - Angle iron spans should not exceed 12 ft (3.7 m).
 - The angle irons must be fastened to the roof structure at each end.
 - Do not use beam clamps on angle irons.
- L'installateur doit fournir des cornières métalliques et des boulons de qualité 8 de 1/2-13 adaptés.*
- Le ventilateur ne doit pas être fixé à une seule panne, ferme ou poutrelle.*
 - La portée des cornières métalliques ne doit pas excéder 3,7 m (12 pi).*
 - Les cornières métalliques doivent être fixées à la charpente à chacune de leurs extrémités.*
 - N'utilisez jamais de attache-poutres sur des cornières métalliques.*
- El instalador debe proveer perfiles angulares y accesorios de montaje adecuados de 1/2 in.-13 Grado 8.*
- No instale el ventilador en una correa simple, en un armazón ni en una viga de celosía.*
 - La longitud de los perfiles angulares no debe exceder los 12 ft (3.7 m).*
 - Ambos extremos de los perfiles angulares se deben asegurar a la estructura del techo.*
 - Nunca use abrazaderas para viga en los perfiles angulares.*

Solid Beam

Poutre pleine

Viga maciza



See the instructions included with the solid beam (L-bracket) mounting kit.

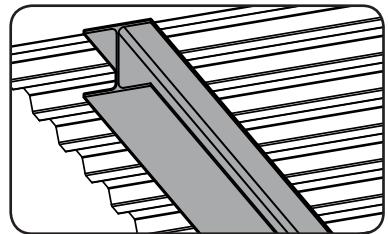
Reportez-vous aux instructions fournies avec le kit pour montage sur poutre pleine (équerres).

Consulte las instrucciones incluidas con el kit de instalación en viga maciza (soportes en L).

I-Beam

Poutre en I

Viga doble T

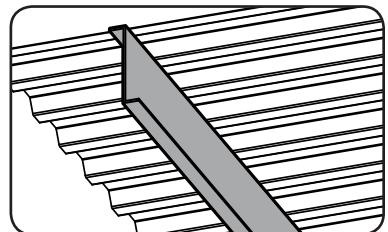


- We do not recommend mounting the fan to a fabricated I-beam.
 - The I-beam must be part of the existing building structure.
 - Install spacers if the flange thickness exceeds 3/8 in. (10 mm).
 - For an angled I-beam or pitched roof, the beam flange width must be 5 to 9-7/8 in. (127 to 251 mm).
- Nous vous déconseillons de fixer le ventilateur à une poutre en I soudée.*
- La poutre en I doit faire partie intégrante de la charpente existante.*
 - Ajoutez des entretoises si l'aila mesure plus de 10 mm (3/8 po) d'épaisseur.*
 - Pour les poutres en I ou les toitures inclinées, la largeur de l'aila doit mesurer 127 mm à 251 mm (5 po à 9-7/8 po).*
- No recomendamos instalar el ventilador en una viga doble T armada.*
- La viga doble T debe ser parte de la estructura existente del edificio.*
 - Instale espaciadores si el espesor del ala de la viga es superior a 3/8 in. (10 mm).*
 - En el caso de una viga doble T o de un techo inclinado, el ancho del ala de la viga debe ser de 5 in. a 9-7/8 in. (127 a 251 mm).*

Z-Purlins

Pannes en Z

Vigas Z



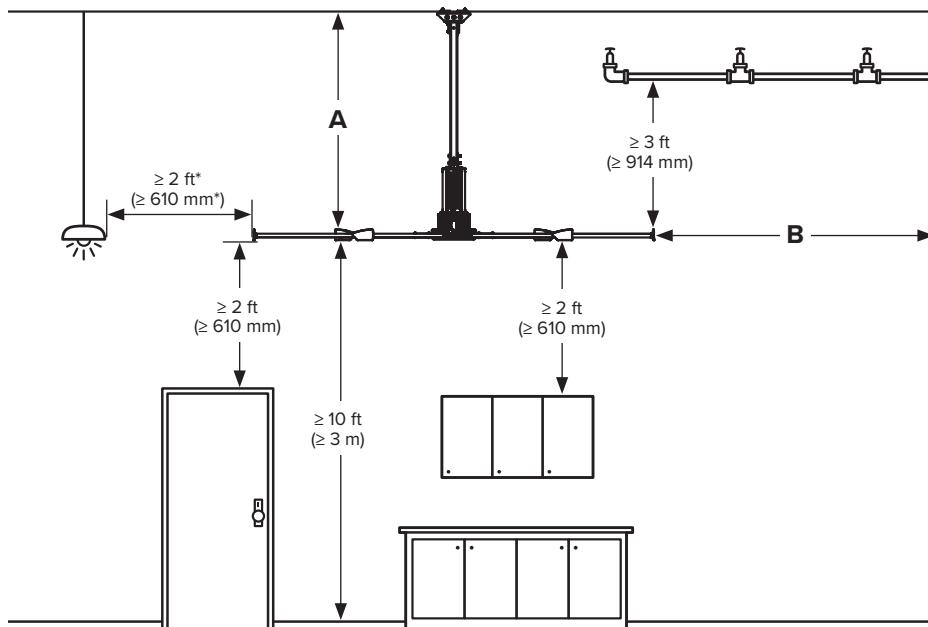
The installer must supply angle irons. See the instructions included with the Z-purlin installation kit.

L'installateur doit fournir des cornières métalliques. Reportez-vous aux instructions fournies avec le kit de montage pour pannes en Z.

El instalador debe proveer perfiles angulares. Consulte las instrucciones incluidas con el kit de instalación del adaptador para viga Z.



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For the minimum clearance to combustibles, see the manufacturer's requirements.

Respectez les distances minimales recommandées par les fabricants de matériaux combustibles.

Consulte los requisitos del fabricante del calefactor sobre las distancias mínimas a los combustibles.

*When possible, lights should be level with the fan's airfoils. We recommend turning lights off if located above the fan's rotating airfoils.

Dans la mesure du possible, les luminaires doivent se trouver au même niveau que les pales du ventilateur. Nous vous recommandons d'éteindre les luminaires qui se trouvent au-dessus des pales du ventilateur lorsque celles-ci sont en rotation.

**De ser posible, las luces deben estar a nivel con las aspas aerodinámicas del ventilador. Se recomienda apagar las luces si están ubicadas por encima de las aspas aerodinámicas en movimiento.*

Fan Diameter Diamètre du ventilateur Diámetro del ventilador	Distance from Ceiling (A)* Distance ventilateur-plafond (A)* Distancia del techo (A)*	Distance from Wall (B)** Distance ventilateur-mur (B)** Distancia de la pared (B)**	Weight*** Poids*** Peso***
8 ft (2.4 m)	$\geq 4\text{ ft} (\geq 1.2\text{ m})$	$\geq 4\text{ ft} (\geq 1.2\text{ m})$	212.4 lb (96.3 kg)
10 ft (3.0 m)	$\geq 4\text{ ft} (\geq 1.2\text{ m})$	$\geq 5\text{ ft} (\geq 1.5\text{ m})$	219.8 lb (99.7 kg)
12 ft (3.7 m)	$\geq 5\text{ ft} (\geq 1.5\text{ m})$	$\geq 6\text{ ft} (\geq 1.8\text{ m})$	227.3 lb (103.1 kg)
14 ft (4.3 m)	$\geq 5\text{ ft} (\geq 1.5\text{ m})$	$\geq 7\text{ ft} (\geq 2.1\text{ m})$	234.8 lb (106.5 kg)
16 ft (4.9 m)	$\geq 6\text{ ft} (\geq 1.8\text{ m})$	$\geq 8\text{ ft} (\geq 2.4\text{ m})$	242.3 lb (109.9 kg)
18 ft (5.5 m)	$\geq 6\text{ ft} (\geq 1.8\text{ m})$	$\geq 9\text{ ft} (\geq 2.7\text{ m})$	272.7 lb (123.7 kg)
20 ft (6.1 m)	$\geq 7\text{ ft} (\geq 2.1\text{ m})$	$\geq 10\text{ ft} (\geq 3.0\text{ m})$	280.2 lb (127.1 kg)
24 ft (7.3 m)	$\geq 7\text{ ft} (\geq 2.1\text{ m})$	$\geq 12\text{ ft} (\geq 3.7\text{ m})$	294.9 lb (133.8 kg)

*The distance from the ceiling should be measured from the top of the winglets to the ceiling.

*Cette distance se mesure entre le haut des winglets et le plafond.

*La distancia al techo se debe medir desde la parte superior de las aletas hasta el techo.

**The distance from the wall should be measured from the outer edge of the winglets to the wall.

**La distance du mur doit être mesurée du bord extérieur des winglets au mur.

**La distancia de la pared se debe medir desde el borde exterior de las aletas hasta la pared.

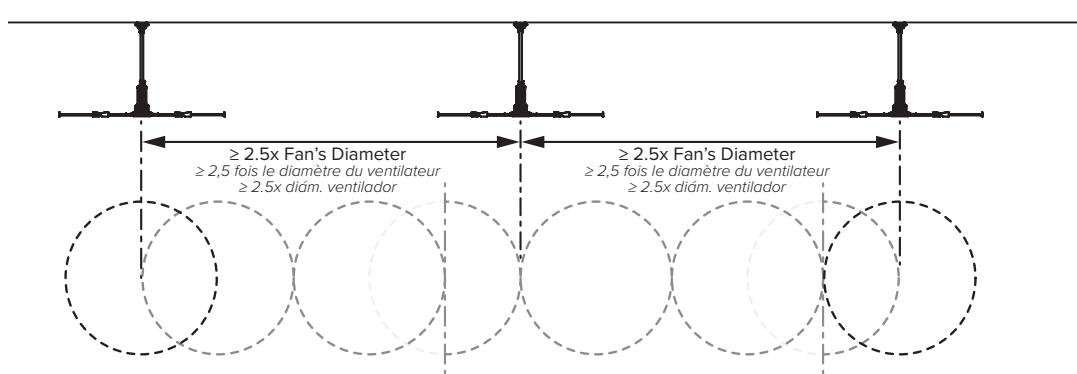
***Weight does not include mount or extension tube.

***Le poids n'inclut ni la fixation, ni la tige de prolongation.

***El peso no incluye la montura ni el tubo de extensión.

Multiple Fans

Plusieurs ventilateurs
Múltiples ventiladores



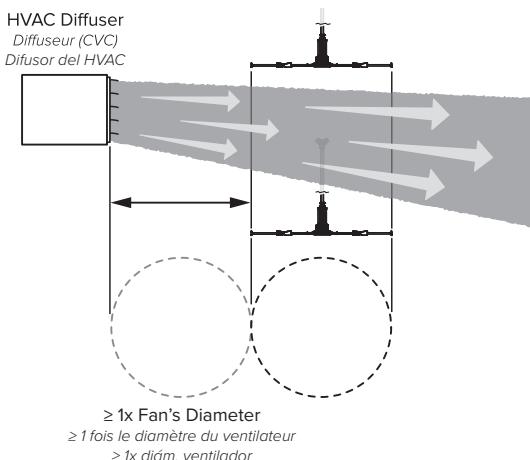


CLEARANCES DÉGAGEMENTS | ESPACIOS LIBRE

Above or Below HVAC Diffuser

Au-dessus ou en dessous d'une bouche de CVC

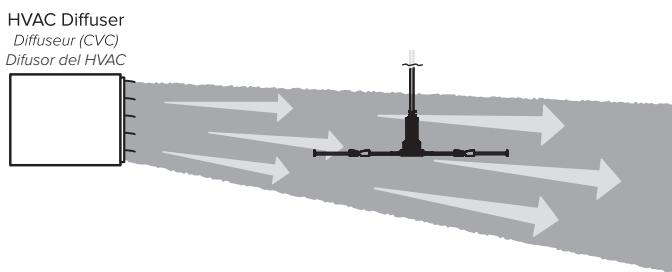
Más alto que o debajo de un difusor de un sistema de HVAC



Same Level as HVAC Diffuser

À la hauteur d'une bouche de CVC

A la misma altura que un difusor de un sistema de HVAC



Contact Customer Service for assistance.

Veuillez contacter le service à la clientèle pour obtenir des conseils.

Comuníquese con el Servicio de Atención al Cliente para solicitar asistencia.

BIG ASS FANS OVERHEAD FANS WARRANTY

The Warranty Period commences 15 days following shipment of the product, or on the date the product is installed (not to exceed 60 days after shipment is received), whichever date is later. To obtain warranty service, you will be required to provide documentation verifying the date the product was received and installed. The following Warranty applies to all orders closed in the United States and the District of Columbia, and the 10 Canadian Provinces and Territories after December 31, 2018, and applies to all orders closed in Australia, Singapore, and Malaysia after July 1, 2019.

WHAT IS THE PERIOD OF COVERAGE?

PRODUCT	MECHANICAL ¹	ELECTRICAL ²	LABOR
Powerfoil®D	10 years	5 years (no factory install) ⁴ 10 years (factory install) ⁵	1 year

1. "Mechanical" is defined as mechanical components of the fan, including the gearbox, fan hub, motor frame, mounting, airfoils, and winglets.

2. "Electrical" is defined as electrical and electronic components of the fan, including the motor, motor drive, variable frequency drive, and any standard controller or accessories, including ion technology when incorporated into the fan system.

4. The No Factory Install Warranty Period defined above for "Electrical" applies to proper installations by any other state-qualified or licensed electrical contractor.

5. The Factory Install Warranty Period defined above for "Electrical" requires installation to be purchased from Big Ass Fans and performed by a factory-approved, Big Ass Fans Certified Installer.



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