

# WINGMAN SERIES

## SUBMITTAL DATA - DIRECTIONAL FANS

SUBMITTED BY: _____	DATE: _____
JOB TITLE: _____	CONTRACTOR: _____
ADDRESS: _____	PHONE #: _____
CITY: _____	ADDRESS: _____
STATE: _____ ZIP: _____	CITY: _____
	STATE: _____ ZIP: _____
ENGINEER: _____	
LOCAL REPRESENTATIVE: _____	

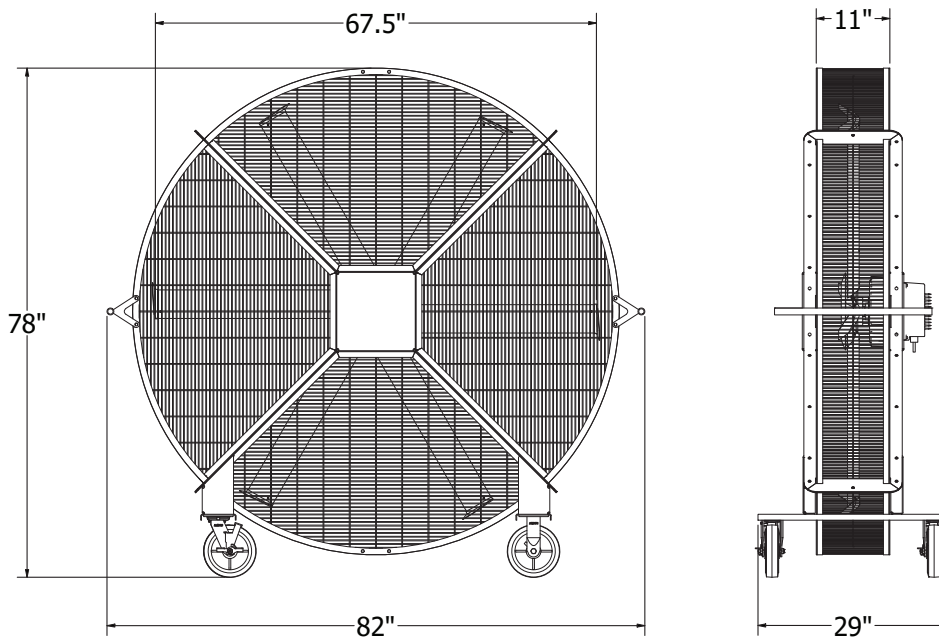
## AVAILABLE MODELS

QTY.	MODEL #	BLADE DIAMETER	WATTAGE	VOLTAGE	AMP DRAW	OPERATING TEMP	MIN/MAX SPEED <sup>1</sup>	MAX SPEED SOUND <sup>2</sup>	WEIGHT
	<b>WM-0618-612-1</b>	67.5" (1.71 m)	450 W	120V/1Ph	3.8A	-4°F to 122°F	58/230 RPM	54 dBA	315 lbs. (143 kg)

<sup>1</sup>Min/max speed RPM has been recorded using 120V power source.

<sup>2</sup>Fans are tested at maximum speed in a laboratory environment. Sound levels vary depending on reflecting surfaces, materials and environmental conditions.

## WINGMAN DIMENSIONS



## WINGMAN SPECIFICATIONS

### CAGE & FRAME

- Powder-coated steel with OSHA compliant finger-safe guards
- 8" non-marking casters, 2-fixed, 2-pivot with brakes

### CUSTOM-ENGINEERED BLADES

- Equipped with six extruded anodized, high performance E420 design aluminum blades. Contoured for maximum air movement, so environments become cooler faster.

### MOTOR & CONTROLLER

- 1.35 HP Direct-Drive Permanent Magnet
- IP65 sealed motor
- Analog Variable Speed Control

### POWER SUPPLY

- 15' 110v pigtail included

### ENVIRONMENT

- Wash down construction
- IP65 for indoor or outdoor use

### COLORS

- Black, standard
- Custom colors available

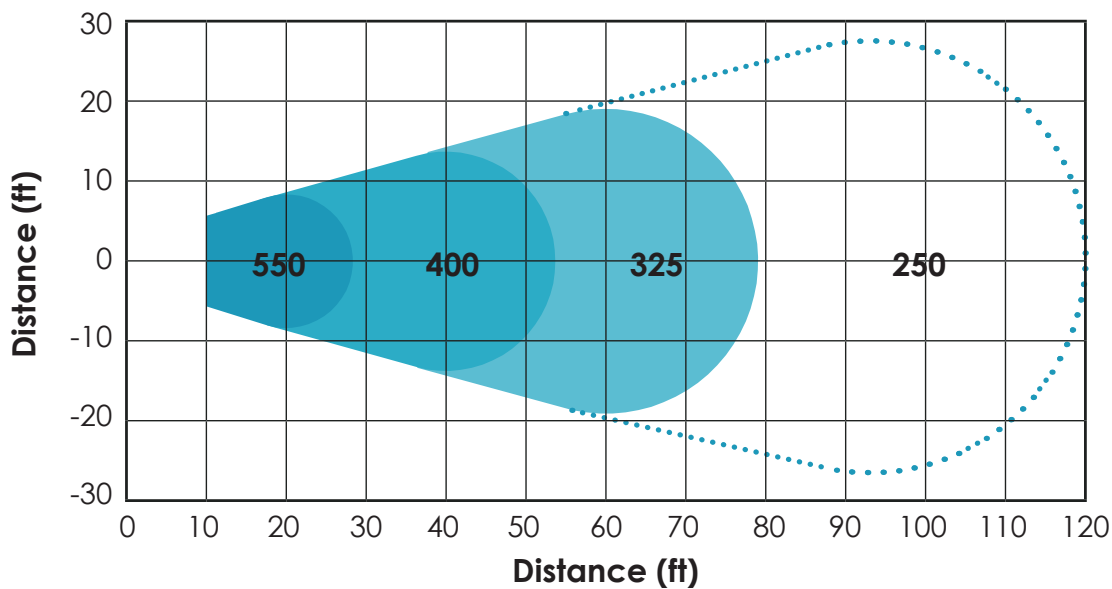
### STANDARD LIMITED WARRANTY

- 5 years -Blades, Chassis, Hub, Cage
- 5 years - Motor (parts)
- 1 year - Electronics (parts)

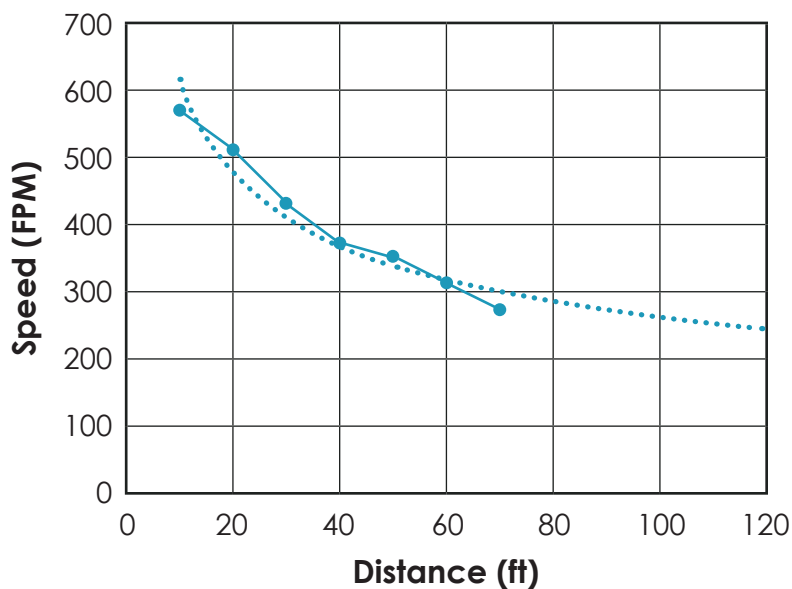
Ships assembled and ready to use.

## WINGMAN AIR FLOW

### AIRFLOW DISTANCE - VELOCITY (FPM) HEAT MAP



### AIR VELOCITY (FPM)



Airspeeds represent the Average velocity for each zone.

Tested at 36" above floor.

FPM = Feet per Minute.

Dashed line represents extrapolated data.

Actual airflow may vary based on environmental conditions

## DIRECTIONAL FANS

- A. Basis-of-design product: Subject to compliance with requirements, provide WD Industries, dba SkyBlade Fan Company; Wingman Series directional fans.
- B. Complete Unit: The fan shall be designed to move an effective amount of air for cooling and Destratification in large industrial/commercial applications over an extended life. The fan and components shall be designed specifically for directional fans to ensure lower noise operation. The sound levels from the fan operating at maximum speed shall not exceed <55 dBA (measured 20' or 6.1 m in front of the fan and 20' or 6.1 m horizontally from the center of the fan).
- C. Blades: The fan shall be equipped with six (6) high volume, low speed blades of precision 6005-T5 extruded anodized aluminum alloy. Each blade shall be of the high performance E420 (Short Take-Off and Landing) design. The blades shall be connected by means of two (2) locking bolts per blade.
- D. Wingtips: The fan shall be equipped with six (6) wingtips designed to redirect outward airflow into directional airflow, thereby enhancing the efficiency and effectiveness of the fan. The wingtips shall be molded of Nylon 66. The wingtips shall be attached at the tip of each blade by means of a single screw. The standard color of the winglets shall be black.
- E. Motor: The fan motor shall be an ECM (Electronically Commutated Motor), Permanent magnet Synchronous AC, direct drive, 115V 1 Ph. The motor shall be totally enclosed with an IP65 NEMA classification. The motor shall be manufactured with Class F insulation with bearings that are lubed for life.
- F. Hub: The fan hub shall be minimum 1/4" precision steel for high strength and rigidity. The hub shall be secured to the output shaft of the motor by means of a precision cut stainless steel cylinder & interlocking bushing system. Both hub and steel bushing shall be precision machined to achieve a factory balanced and solid rotating assembly.
- G. Frame: The frame is to be made of 1/8" steel and feature a welded cage with a max opening diameter of 1/2". Nylock shall be employed to prevent bolts from loosening or split washers where this is not possible.
- H. Mobility: The fan shall come equipped with 4 non-marking, thermo-rubber casters and have dimensions of 8" diameter and 2" width. The casters shall mount to 1/8" steel. 2 of the casters shall be swiveling and the other 2 rigid. 2 straight bar handles shall be provided on each side of the fan with grips on the ends for ergonomics.
- I. Electronics: The fan shall come equipped with 1 potentiometer to control speed. The fan shall come supplied with 15' of power cord, hardwired to the enclosure. The controller shall be fully pre-assembled and be IP65 rated.
- J. VFD Enclosure: The fan controller shall be constructed using a Variable Frequency Drive (VFD) that is pre-assembled and factory programmed to communicate a 60 second ramp up/down to the fan, to minimize the starting and braking torques and for smooth and efficient operation. The VFD enclosure shall be pre-assembled and internally wired for ease of installation. The controller shall be onboard with IP65 rating.
- K. Warranty: The Manufacturer shall replace any products or components defective in material or workmanship, free of charge to the customer (including transportation charges within the USA, F.O.B. Warren, MI), pursuant to the complete terms and conditions of the SkyBlade Fan Company Non-Prorated Warranty in accordance to the following schedule:
- Blades, Chassis, Hub, and Cage - 5 years (parts)\*
  - Motor - 5 years (parts)\*
  - Controller - 1 year (parts)\*

\*If factory supplied installation methods are shown not to be valid, SkyBlade Fan Company has right to void warranty.

Further Information on the terms and conditions of the standard & purchased warranties can be found in Warranty Card.

SkyBlade is not liable for any voltage disturbances with explicit reference to electronic magnetic interference (EMI). Voltage disturbance refers to transient overvoltage, voltage unbalance, voltage swells, rapid voltage change, flicker, superimposed signals, harmonic voltages, supply voltage variations, voltage dips and frequency/time deviation.



**SKYBLADE FAN COMPANY**

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