

SECTION 23 34 00 HVAC Fans

PART 1 GENERAL

1.1 SUMMARY

- A. The portable fan is the model scheduled with the capacities indicated. The fan shall be furnished with a power cord and variable speed control.

1.2 RELATED SECTIONS

- A. 23 00 00 Heating, Ventilating, and Air Conditioning (HVAC)
- B. 26 00 00 Electrical

1.3 REFERENCES

- A. National Fire Protection Association (NFPA)
- B. Underwriters Laboratories (UL)
- C. Canadian Standards Association (CSA)
- D. National Electrical Code (NEC)
- E. International Organization for Standardization (ISO)
- F. Occupational Safety and Health Administration (OSHA)
- G. European Community (CE)
- H. UK Conformity Assessed (UKCA)
- I. Nationally Recognized Testing Laboratory (NRTL)

1.4 SUBMITTALS

- A. Shop Drawings: Drawings detailing product dimensions and weight
- B. Product Data: Specification sheets on the portable fan, specifying electrical requirements, features and benefits, and controller information
- C. Revit Files: Files provided for architectural design
- D. Installation Guide: The manufacturer shall furnish a copy of all operating and maintenance instructions for the fan. All information is subject to change without notice.
- E. Schedule

1.5 QUALITY ASSURANCE

- A. Certifications
 - 1. The fan assembly, as a system, shall be Nationally Recognized Testing Laboratory (NRTL)-certified and built pursuant to the guidelines set forth by UL standard 507 and CSA standards 22.2 No. 60335 -1 and 22.2 No. 113.
 - 2. The fan assembly, as a system, shall be CE- and UKCA-compliant.
- B. Manufacturer Qualifications
 - 1. The fan and any accessories shall be supplied by Big Ass Fans, which has a minimum of twenty (20) years of product experience.
 - 2. ISO 9001 compliant

1.6 DELIVERY, STORAGE, AND HANDLING

- A. The product shall be delivered in original, undamaged packaging with identification labels intact. The fan shall be new, free from defects, and factory tested.
- B. The fan and its components shall be stored in a safe, dry location.

1.7 WARRANTY

- A. The manufacturer shall replace any products or components defective in material or workmanship for the customer free of charge (including transportation charges within the USA, FOB Lexington, KY), pursuant to the complete terms and conditions of the Big Ass Fans Warranty in accordance to the following schedule:

Main Fan Unit 5 years

- + All reasonable costs of repair or replacement will be paid or reimbursed provided customer obtains pre-approval.
- ++ The Warranty period for any manufacturer defects or flaws to surface finishes is limited to 1 year.
- +++ All products are considered for indoor use only unless specifically specified on the product label.
- ++++ The warranty period for optional ion technology parts and hardware, when incorporated into the fan system, is limited to the duration of the fan warranty period.
- ++++ See the complete warranty for more details.

PART 2 PRODUCT

2.1 MANUFACTURER

- A. Delta T LLC, dba Big Ass Fans, PO Box 11307, Lexington, Kentucky 40575.
Phone (877) 244-3267. Fax (859) 233-0139. Website: www.bigassfans.com.

2.2 DESCRIPTION

- A. Complete Unit
1. Regulatory Requirements: The entire fan assembly shall be NRTL-certified and built pursuant to the construction guidelines set forth by UL standard 507 and CSA standards 22.2 No. 60335-1 and 22.2 No. 113.
 2. The fan shall be equipped with a variable speed control, heavy-duty locking casters, and a fully integrated frame/cage assembly for mobile use.
 3. The fan's airfoil diameter shall be 84.6 in. (215 cm), and the total fan height with casters shall be 100.3 in. (255 cm).
 4. The fan motor and cage shall be of washdown construction for easy cleaning.
- B. Airfoil System
1. The fan shall be equipped with 6 aluminum airfoils.
 2. The outer end of each airfoil shall be equipped with a plastic tip to minimize wind noise.
- C. Motor Assembly
1. The fan motor shall be a permanent magnet brushless motor rated for continuous operation at maximum speed.
 2. The fan shall require electrical input of 110–125 VAC or 200–240 VAC, 50/60 Hz, 1 Φ .
- D. Frame and Cage
1. The fan shall be equipped with a pre-assembled support frame and wire mesh cage.
 2. The cage shall be OSHA-compliant and shall consist of 4 sections that are removable for cleaning and servicing.
 3. The fan angle shall be adjustable by means of a pivot joint on each end of the frame/cage assembly. A position locking mechanism shall be provided to secure the pivot joint. The locking mechanism shall automatically engage when the locking pin is released.
- E. Casters. The fan shall be equipped with 4 heavy-duty locking casters.
- F. Controller. The fan controller shall include a rotary dial for controlling the fan's speed and an LED indicator light to identify system faults.
- G. All-Terrain Option
1. As an option, the architect or owner may upgrade to the "all-terrain package," which includes a wider base, large tires, and a steering handle for easily maneuvering the fan over outdoor terrain.
 2. All components of the all-terrain package shall be made primarily of 3/16 in. (5 mm) steel.
 3. The all-terrain wheels shall consist of \emptyset 13 in. x 6 in. (\emptyset 33 cm x 15 cm) flat free tires for long life and ease of mobility over outdoor surfaces.
- H. Ion Technology (Optional)
1. The fan shall be equipped with Ion Technology and shall be able to generate ions and circulate them throughout the space.

2. The fan shall include four ion generators mounted inside the fan cage. The generators shall be located where the most air from the rotating fan will pass over the ion generating brushes.

PART 3 EXECUTION

3.1 PREPARATION

- A. The fan location shall meet the electrical requirements listed in the product installation guide.

3.2 INSTALLATION

- A. The fan shall be installed and operated according to the product installation guide.
- B. The fan shall be operated on a flat and level surface. During operation, the fan casters and fan angle adjustments shall be in locked positions.
- C. The fan cord shall not be run under carpeting or covered with rugs, runners, or similar coverings. The cord shall not be routed under furniture or appliances.
- D. The fan shall not be operated with a damaged cord or plug.
- E. The fan shall not be located where it will be continuously subjected to wind gusts or in close proximity to the output of HVAC systems or radiant heaters.

END OF SECTION