BLUE GIANT EQUIPMENT CORPORATION

HVLS Ceiling Fans

PART 1 GENERAL

1.1 SECTION INCLUDES

A. High-volume, low speed (HVLS) ceiling fans.
B. Control stations

1.2 RELATED SECTIONS

A. Section 26 05 00 - Common Work Results for Electrical.

1.3 REFERENCES

A. American National Standards Institute / Air Movement and Control Association (ANSI/AMCA) Standard 230 - Laboratory Methods of Testing Air Circulating Fans for Rating.

B. National Fire Protection Association (NFPA) 13 - National Fire Code for Sprinklers.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage, handling requirements, and recommendations.
   3. Installation methods.
   4. Power and mounting requirements.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Blue Giant shall provide sole source for design, engineering, manufacturing and warranty claims handling.

B. Installer Qualifications: Trained by manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. In accordance with requirements of local authorities having jurisdiction, store and dispose of solvent-based materials, and materials used with solvent-

based materials.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 COORDINATION

A. The Swift III shall be capable of receiving a stop command from the fire panel, a VESDA, or any number of smoke, flame or heat detectors.

B. The fans shall be as follows:
   1. The fan shall meet the requirements of NFPA 13 (National Fire Code for Sprinklers) in regards to blocking obstructions below sprinkler heads.
   2. The fan shall meet the air velocity requirements of FM Global's 2.0 data sheet for ESFR sprinklers.
   3. If required by the local fire prevention authority, the fans shall be wired into the building's fire suppression system so that the fans shut off within 90 seconds of sprinkler activation. The fan shall have a Variable Frequency Drive (VFD) in the fan motor enclosure to facilitate this. The low voltage wire and relay needed to accomplish this shall be supplied by the Fire Alarm installer.
   4. Upon fire detection as described above, the fans shall come to a complete stop, as required by NFPA guidelines

1.9 WARRANTY

A. Blue Giant shall repair or replace warranted defective parts as follows:

   1. Lifetime warranty on fan blades, chassis and hub.

   2. Three-year limited warranty on motor.

   3. One-year limited warranty on controls.

B. At project closeout, provide to Owner or Owner's Representative an executed copy of Blue Giant's standard limited warranty against manufacturing defect, outlining its terms, conditions and exclusions from coverage.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Blue Giant Equipment Corp., which is located at:
410 Admiral BLVD, Mississauga, ON L5T 2N6
Toll Free Tel: 800-872-2583 Tel: 905-457-3900
Email: marketing@bluegiant.com
Web: www.BlueGiant.com

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 HVLS CEILING FANS

A. Product: Swift III as manufactured by Blue Giant.

1. Diameter:

a. 6 feet
b. 8 feet
c. 10 feet
d. 12 feet
e. 14 feet
f. 16 feet
g. 18 feet
h. 20 feet
i. 24 feet

2. Number of Blades: 3.

3. Airfoil Material: Extruded Anodized Aluminum Alloy.

4. Blade Finish: Anodized aluminum.

5. Motor Frame Finish and Color: Powder coat black.

6. Motor: 1.35 HP.

7. Electrical Requirements:

a. 230 VAC (198-264 VAC) @50-60Hz, 1 PH
b. 230 VAC (198-264 VAC) @50-60Hz, 3 PH
c. 460 VAC (320-480 VAC) @50-60Hz, 3 PH

8. Decibels: Less than 35 dBA depending on fan speed (measured 20 feet (6100 mm) below and 20 feet (6100 mm) from the fan's center).

9. Air Speed:

a. Fan Diameter 6 feet: up to 135 RPM
b. Fan Diameter 8 feet: up to 122 RPM
c. Fan Diameter 10 feet: up to 111 RPM
d. Fan Diameter 12 feet: up to 100 RPM
e. Fan Diameter 14 feet: up to 86 RPM
f. Fan Diameter 16 feet: up to 73 RPM
g. Fan Diameter 18 feet: up to 55 RPM
h. Fan Diameter 20 feet: up to 50 RPM
i. Fan Diameter 24 feet: up to 43 RPM

10. Mounting Heights: 10 feet to 30 feet (3050 mm to 9150 mm) from finished floor to bottom of blade.

11. Weight:

    a. Fan Diameter 6 feet: 230 lbs
    b. Fan Diameter 8 feet: up to 235 lbs
    c. Fan Diameter 10 feet: up to 240 lbs
    d. Fan Diameter 12 feet: up to 245 lbs
    e. Fan Diameter 14 feet: up to 250 lbs
    f. Fan Diameter 16 feet: up to 255 lbs
    g. Fan Diameter 18 feet: up to 260 lbs
    h. Fan Diameter 20 feet: up to 265 lbs
    i. Fan Diameter 24 feet: up to 280 lbs

12. UL Listed to 507 Standard.

2.3 HVLS FAN CONSTRUCTION

A. Construction: General.

1. Fan shall have formed aluminum blades that shall have contour and twist for maximum air movement. Each blade shall be connected to the hub of the fan by means of one (1) 5/16" x 2" and one (1) 5/16" x 1-3/4" threaded bolt that is tightened to 29 ft.-lbs. to provide a rotationally balanced blade and hub. The fan hub shall be minimum 1⁄4" precision press broken steel for high strength and rigidity. The hub shall incorporate three (3) safety retaining brackets no less than 1/8", made of 304 stainless steel that shall restrain the hub/airfoil assembly in case of gearbox output shaft failure.

2. Controls to consist of the following:

    a. Low voltage control station with variable speed control, on/off, and forward/reverse.
    b. Solid-State Frequency Drive (VFD) programmed to provide a soft-start for the fan, as well as infinite speed control. VFD to be contained in UL listed box meeting U.S. and Canadian Safety Standards, and be rated to NEMA4X.
    c. Analog remote mounted control

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until supporting structure and interior work have been properly completed.

B. Installation of miscellaneous or structural support, if required, electrical wire and wiring, conduit, fuses, and disconnect switches other than those included within the control box shall be specified in other sections.

C. Installer shall examine the substrate and conditions under which the Fan is to be installed and notify the Architect and Contractor in writing of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 INSTALLATION

A. Manufacturer's representative shall install the industrial fan in accordance with manufacturer's recommendations

3.3 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair, or replace damaged products before Substantial Completion.

END OF SECTION