# Tate Access Floors, Inc.

**PowerAire® Quad Specification**

**SECTION 09 69 00**

**ACCESS FLOORING ACCESSORIES**

* 1. **Accessories Airflow Controls:**

**In-floor Fan Assist Devices:**

* + 1. **PowerAire® Quad:** High volume EC variable speed fans for use in raised floor roll formed stringer system. 20 gauge steel construction with four electrical commutated fans that vary speed based on temperature feedback from three temperature probes installed at the equipment rack.
       1. **Finish & Material:** Device shall be manufactured and factory finished with cast aluminum housed fans and black painted sheet metal housing.
       2. **Airflow Performance:** Device shall have the following airflow performance when installed beneath **[DirectAire Al] [DirectAire]** panel and shall meet the following specifications: The method used to determine airflow shall be in conformance with CISCA A/F, Section 10, “Air Leakage Test”, with a minimum 12" high finished floor height, and shall be recorded as the difference between two measured airflow rates: firstly with a bare panel floor installation and secondly with the aforementioned airflow panel and damper installed within the test apparatus.

# [2160 CFM (1020 L/s) or greater at 100% open and 720 CFM (350 L/s) or less at 0% open when tested at 0.10” of static pressure when installed on an DirectAire® Al in a typical raised floor environment.]

* + - * 1. **[2205 CFM (1040 L/s) or greater at 100% open and 600 CFM (280 L/s) or less at 0% open when tested at 0.10” of static pressure when installed on a DirectAire® in a typical raised floor environment.]**
      1. **Design Features:** Damper shall include the following features:
         1. Shall have fail safe operation with minimum airflow provided.
         2. Shall have fan speeds adjustable from 0-100%.
         3. Shall have user selectable set point control.
         4. Shall have user selectable minimum and maximum fan speed control.
         5. Shall have “keep-alive” detection system
         6. Shall have active fan speed monitoring system with alarm
         7. Shall accept universal 120-240V AC power input.
         8. Shall have optional redundant power supply option
         9. Shall have the following optional control methods:

PowerAire® Quad: up to 4 Temperature Probes, Rack-level, Multiple-sensor, high speed PID loop control.

* + - * 1. Shall be adjustable without the removal of the airflow panel when used in conjunction with aforementioned panel.
        2. Shall operate with a high speed continuous PID loop.
        3. Shall draw less than 252 W during peak operation.

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