



# POWERED AIRE INC.

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## **SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TDG DIRECT GAS FIRED**

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, and discharge nozzle. Aire curtains will be equipped with access panels for motor and fan assembly. Individual motor and fan assembly can be removed without lowering the unit or lowering the bottom half of the unit. The aire curtain unit provides a specific CFM and a uniform velocity across the entire length of the discharge area through the use of a plenum.

All weight bearing structural support will be made of formed 14-gauge stainless steel and galvanized steel. Casing will be equipped with stainless steel access panels for inspection, cleaning and removal of motor blower assembly. Internal components shall be welded and bolted construction.

Motors at 3/4 H.P. 1630 rpm each shall be heavy duty type equipped with permanently lubricated, shielded ball bearings of equal size at each end and double extended shafts requiring no outboard bearings. Primary motor voltage shall be 115/208/230 volts 50/60 Hz single phase.

Galvanized fans shall be forward curved centrifugal type, double inlet design, with zinc plated hubs. Tangential type blowers and coupling connection shall not be permitted.

Discharge nozzle shall be high efficiency discharge plenum, designed so that the air leaves on a 6 degree plane. Aire curtain creates a positive air seal with directional airfoil vane. The vane shall facilitate deflection of air stream  $\pm 20$  degrees.

### **Direct Gas Heat**

Unit(s) shall be provided with a factory mounted direct gas heater. Heater will be equipped with a temperature sensor that controls the heater output by way of modulating gas valves. An air flow switch along with a motor contactor will ensure that the burner will not fire without the fans spinning. In the case of a flame failure, the flame safety relay energizes the alarm lockout relay shutting down the entire system. The system will only restart if the flame safety relay is manually reset. Unit(s) can be equipped with optional proof of closure on the main and auxiliary gas valves, as well as optional high and low gas pressure switches.

### **Controls**

Direct gas fired panels will be mounted to the unit and will contain a 24 volt control transformer, flame safety relay, temperature sensors, air flow sensors, and modulating gas valve controls.

Units shall have an 18 month warranty on all parts.

**April, 2005**