



# POWERED AIRE INC.

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## **SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL CHD (CSI formatted specifications available at [www.poweredaire.com](http://www.poweredaire.com))**

All aire curtains furnished are complete factory assembled units as manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of a casing, motors, centrifugal fans, protective inlet screen, and discharge nozzle. Aire curtains will be equipped with a bottom access panel along with front and top access panels for motor and fan assembly. Aire curtain unit to provide uniform velocity across the entire length of the discharge area. The units will be bottom air intake. Units are universally manufactured for top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. All weight bearing structural support will be made of formed 14-gauge galvanized steel. Outer casing shall be constructed of 18-gauge steel. Intake screen will be painted steel. Casing will be equipped with 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 115/208/230/480/575 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 air foil vane. The vane shall facilitate deflection of air stream  $\pm 20$  degrees. Unit shall have multiple speed motor(s) to control air volume down from maximum speed.

### **Electric Heat Option**

Unit(s) shall be provided with a factory mounted electric heating element (capacities as shown on data sheet). The heater shall consist of a factory wired heating coil, with automatic reset thermal overloads. Heating elements shall be mounted inside the plenum, on the discharge side of the blowers (where heat can't affect motor life). Protective screening will not be required on discharge nozzle. A remote mounted heat on/off switch and thermostat available, please specify.

### **Steam / Hot Water Coil**

For steam or hot water heated aire curtains see Hot Water / Steam Heated section of catalog.

Aire Curtain unit shall be ETL or UL listed. Unheated units shall have a 24 month warranty on all parts. Heated units shall have an 18 month warranty on all parts.

## Control Options for Model CHD

### Unheated

#### \* Recommended

**\*Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch.

**\*Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

**\*High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

### Electrically Heated Options

#### \* Recommended

**\*Built-in Time Delay Relay** -- Provides a delay for shutting off the air curtain after the door is shut. This is useful for doors that see a lot of foot traffic, so the unit is not constantly turning on and off during the day. To be used in conjunction with a door switch

**\*Door Switch/Magnetic** -- A non-mechanical door switch that turns the air curtain on when the door is opened.

**\*High/Off/Low Selector Switch (Remote Mounted)** -- Switches between the high and low speeds or turns the air curtain off.

**\*Heat On/Off Selector Switch (Remote Mounted)** -- Turns the electric heat on and off while the fans are running, or when used in conjunction with a thermostat can disable the heat.

**\*Thermostat (Remote Mounted)** -- Turns the electric heat in the unit on and off while the fans are running based on the room temperature.

**\*Single Point Power Connection** -- For units that would typically require more than one power source due to high amp draws according to the National Electric Code, branch fusing can be added so that the unit can be run from a single power source.

### Other Options

**Cruise Control Programmable Switch** -- Digital logic controller with an LCD display that takes the place of several individual control components including a Built-in Time Delay Relay, On/Off/Auto Switch, Heat On/Off Switch, High/Low Switch.

**Disconnect-Fused** -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected and includes fuses for circuit protection (single point power connection may be required)..

**Disconnect-Non Fused** -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected (single point power connection may be required)..

**Door Switch/Roller-Plunger** -- A mechanical door switch that turns the air curtain on when the door is opened.

**Hand/Off/Auto Selector Switch (Remote Mounted)** -- Switches between the unit running constantly in the hand position, off, and auto, which only runs when the door switch is activated.

**Motion Detector** -- Turns the air curtain on when the sensors detect motion so that the air curtain turns on before the door is opened.

**On/Off Selector Switch (Remote Mounted)** -- Switches the air curtain on and off.

**Programmable Digital Thermostat** -- A thermostat that is programmable with a digital display (7-day, 1/2 hour increments, specify up to 4 time periods per day)