



POWERED AIRE INC.

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SUGGESTED AIRE CURTAIN SPECIFICATIONS MODEL TSD

(CSI formatted specifications available at www.poweredaire.com)

Aire curtains are to be furnished as factory assembled units manufactured by Powered Aire Inc. Greenville, PA. Each unit consists of casing, motors, centrifugal fans, protective inlet screen 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. Aire Curtain unit to provide uniform velocity across the entire length of the discharge area. Units are universally manufactured for wall mount or top mount.

Units to be constructed with sufficient rigidity to span the length of the opening without intermediate support. Additional mounting holes to be provided on larger units for buildings where structural support is not adequate for supporting the aire curtain from ends only. All weight bearing structural support will be made of formed 11-gauge stainless steel and galvanized steel. Outer casing shall be constructed of 16-gauge stainless steel. Intake screen will be 20 gauge perforated type stainless 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.

Units shall be equipped with dynamically balanced curved double inlet double width galvanized blower wheels with brazed hubs and matched blower housings. Fan scrolls or formed fiberglass air diverters shall not be acceptable.

Motors will be 3 horse power Total Enclosed Air Over (TEAO) 1160 RPM 50/60 cycle equipped with sealed ball bearings of equal size at each end and double extended shafts. To prevent a misalignment from occurring, no outboard bearings or flexible couplings will be acceptable. Aire curtain discharge to distribute outlet air evenly at and between blowers for the entire length of aire curtain through the use of a plenum.

Discharge nozzle shall be adjustable to ± 20 degrees with no dampers or grills to add turbulence and create a pressure drop or a sound pressure increase.

The unit design shall allow for addition of heating sections or filters without altering the base unit.

Unit performance rating shall be tested in accordance with AMCA air curtain test procedure #220 and shall be licensed to bear the AMCA Certified Ratings Seal. The AMCA Certified Ratings Seal applies to airflow rate, average outlet velocity, outlet velocity uniformity, velocity projection and power rating at free delivery only.

Electric Heat Option

For electric heating option consult factory.

Steam / Hot Water Coil

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

Direct and Indirect Gas Heat

For direct or indirect gas heated aire curtains see Gas Heated section of catalog.

Controls

Standard control panel shall be Nema 12 enclosure with magnetic motor starter, overload relays, 115 volt control transformer and terminal provisions for field wiring of a remote hand off automatic selector switch and a door switch.

Consult factory for optional top air intake.

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

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Control Options for Model TSD

Unheated * Recommended

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

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

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, and Heat On/Off 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.

Disconnect-Non Fused -- A switch that will disconnect all power from the unit so that the unit can be serviced or inspected.

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

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 (Panel 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)

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.