

ProTerra System's Tunnel Doors Swirl Incoming Air for Better Mixing with House Air

Better Air Mixing

- Cyclone-shaped air movement generates desirable airflow at bird level throughout the poultry house.
- No more dead zones at side- and end-walls, typical of curtain sidewall or double door houses.
- ProTerra® Tunnel Doors insulate approximately eight times better than a curtain during winter (when completely closed), saving energy.
- During tunnel-assist, cold air is directed away from birds until it has mixed with house air.



Air shoots upward and then swirls down and around from center of house for outstanding air mixing.



A pre-assembled door is available for steel truss buildings or knee-brace applications.

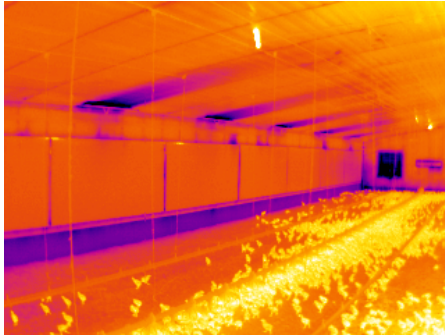
Up to five-foot door heights available to match typical tunnel house openings for retrofit or new construction. Door angle is adjustable for maximum efficiency in a wide range of climate conditions.

Design Innovation

- The laminated, composite door panel of 1.5-inch (38-mm) thick extruded foam insulation is sandwiched between thick, pebbled fiberglass-reinforced plastic.
- Structure of door provides greater rigidity and dent resistance.
- Wall-mounted, continuous "P"-shape seal is more forgiving of house imperfections for a tighter seal when door is closed and does not affect airflow when door is open.
- Complete door assembly is pest- and corrosion-resistant (composite door, stainless steel hinges and nylon/galvanized hardware).
- Modular panel design allows maximum door size flexibility to match house sidewall openings.

Tunnel Door Specifications

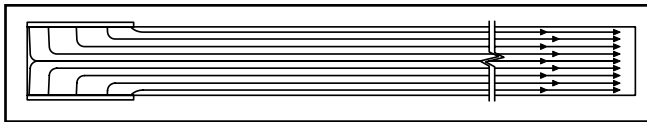
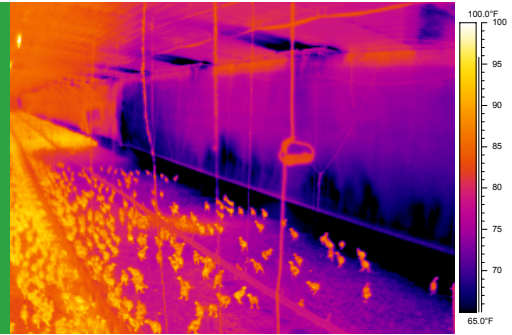
ProTerra® Tunnel Door Heat Image (University of Georgia)



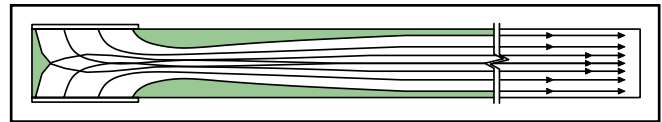
When closed, our tunnel door seals so well that there are few cold "blue" zones (photo at left).

A typical curtain sidewall house has large areas of uncomfortably cold "blue" zones along the wall and the floor.

Curtain Sidewall Heat Image (University of Georgia)

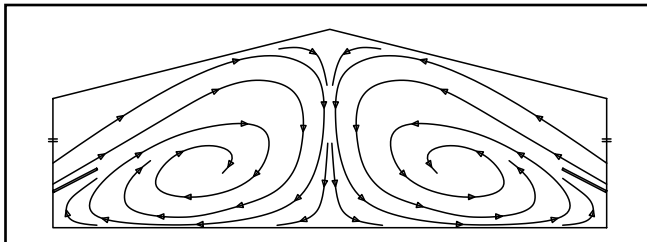


Tunnel Door Air Flow Diagram (top view)

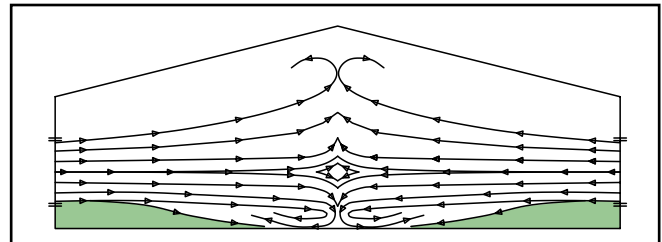


Curtain Sidewall Air Flow Diagram (top view)

Green shading indicates dead air space.



Tunnel Door Air Flow Diagram (side view)



Curtain Sidewall Air Flow Diagram (side view)

Green shading indicates dead air space.

	Four-Foot Tunnel Door (Rough Opening 47 Inches High)			Five-Foot Tunnel Door (Rough Opening 59 Inches High)		
	Door Alone	Door with 5 Ft. Pad	Door with 6 Ft. Pad	Door Alone	Door with 5 Ft. Pad	Door with 6 Ft. Pad
CFM per Linear Foot	1,960	1,875	1,960	2,460	1,875	2,250
Maximum Limited By	Door	Pad*	Door	Door	Pad*	Pad*

*CFM per Linear Foot for a Five-Foot Pad Alone Is 1,875; for a Six-Foot Pad Alone Is 2,250.



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