SMOKE GUARD® system

Model 2500
Vertical Fire + Smoke Curtains

System Description. The Smoke Guard System Model 2500 is offered in both smoke-rated and fire-rated configurations. (M2500|smoke and M2500|fire). These code-compliant assemblies are designed to protect openings as part of a smoke control system. The M2500 consists of a smoke only or fire-rated textile curtain assembly mounted within a steel housing. The curtain is captured vertically on both sides by curtain loops secured by guide rods. The guide rods are anchored by side guides to the walls of an opening. A bottom bar seals the curtain at the opening threshold, an optional safety edge may be added to this assembly. Standard housing and side guide finish is galvanized, RAL colors available.

Codes and Standards. M2500 fulfills IBC requirements to provide an opening protective, where these assemblies are permitted as passive barriers used in conjunction with smoke control systems. This smoke-rated curtain system can serve as an opening protective for counter top, openings in corridor, and certain applications in atrium construction.

Dimensions
- Drop lengths ≤12': housings are 10.25" high by 9" deep
- Drop lengths >12': housings are 11.75" high by 10.5" deep

Standards
- UL 10B "Fire Tests of Door Assemblies" (20 min. without hose stream) listed by Intertek (fire-rated assemblies)
- UL10C "Positive Pressure Fire Tests of Door Assemblies" (20 min. without hose stream) listed by Intertek (fire-rated assemblies)
- UL10D "Fire Tests for Fire Protective Curtains" (2 hr.) listed by Intertek (fire-rated assemblies)
- UL 864 “Control Units for Fire Protective Signaling Systems” listed by Intertek (both smoke and fire-rated assemblies)
- UL 1784 “Air Leakage Tests of Door Assemblies” listed by Intertek (both smoke and fire-rated assemblies)
- NFPA 105 “Installation of Smoke Control Door Assemblies”
- NFPA 252 “Standard Methods of Fire Tests of Door Assemblies (20 minute)

Code References
- 2006/2009/2012 IBC Section 909
- 2009 IBC Section 711.5.2
- 2012/2015/2018 IBC Section 710.5.2
System Operation. The system is deployed upon a signal from the local smoke detection system or from a smoke control panel, normally open dry contact initiates deployment. System power requirement is 120-volt AC. The unit is also equipped with a 24-volt DC battery back-up system that is maintained by the electronic controls. When required the system can be connected to building standby power. The controls include a universal power supply that can be adapted to foreign electrical current requirements.

Installation. The system is typically mounted above the ceiling. It anchors to the ceiling above or on to a header assembly supported from the deck above. It may also be mounted to a wall. The side guides are secured to the walls on either side of the opening and may be embedded for smooth finish walls. All Smoke Guard system units are to be installed by factory recognized installation personnel. Preparation work required by others is outlined in the product specification. Installation requires clear, plumb, unobstructed wall surfaces for mounting side guides, housing, and AC power.

Smoke Guard and Your Project

- Check for clearance/obstructions issues on, above, and surrounding the opening (sprinklers, HVAC, etc.)
- Field verify opening measurements prior to ordering systems
- Single motor units require a 120 VAC with a 10 amp circuit per unit
- Install the system control in visual proximity of the unit for servicing ease
- Provide a level and plumb smoke or fire-rated mounting surface to attach to per building code requirements.

Fail Safe Features. This system is a gravity fail safe system. The M2500 features a fault report to indicate that the system requires a corrective action and the state of curtain deployment.

Listed Releasing Device. The M2500 control has been tested in accordance with the UL 864 standard and listed by Intertek Laboratories. It also has a full interface to the fire service interface system (FSCS) as an option for dedicated smoke control.

Egress. The M2500 comes standard with door activation switches that can be mounted on opposite sides of the opening. If the system remains in alarm, and the door activation switch is engaged, the system will retract to allow passage and then redeploy after a brief pause. When the alarm clears, the curtain automatically retracts to the ready position. The M2500 also offers a flexible split screen egress door option for use as a secondary means of egress.