

# SMOKE GUARD® system

## Model 600

### M600 PHYSICAL PROPERTIES

#### *air leakage*

TEST STANDARD: UL 1784 and IBC 2003 §715.3.3; IBC 2006 §715.4.3.1

TEST PARAMETERS: max. allowable is 3 cfm/sf @ 0.1 inch wg @ 72° F and 400° F or 84 cfm for a 4' x 7' elevator opening

TEST RESULTS ACHIEVED: air leakage .6 cfm/sf opening or 16.8 cfm for a 4' x 7' elevator opening

#### *air leakage*

TEST STANDARD: NFPA 105

TEST PARAMETERS: max. allowable is 3 cfm/sf @ up to 0.3 inch wg @ 400° F or 84 cfm for a 4' x 7' elevator opening

TEST RESULTS ACHIEVED: air leakage 1.34 cfm/sf opening at 0.3 inch wg or 37.52 cfm for a 4' x 7' elevator opening

#### *opening force*

TEST STANDARD: 2000 IBC 1004.1.2; 2006 UBC 1008.1.2

TEST PARAMETERS: force < 30 lbs.

TEST RESULTS ACHIEVED: 15 lbs. applied at the edge of screen material

#### *flammability standards*

TEST STANDARD: ASTM E 84

TEST PARAMETERS:

flame spread < 25

smoke generation < 50

TEST RESULTS ACHIEVED: reinforced film exceeds Class A building building product standards

flame spread index = 0

smoke generated = 5

**System Description.** The Smoke Guard® system Model 600 (M600) creates a code compliant smoke and draft control assembly when paired with common fire-rated elevator doors. The Smoke Guard system screen consists of a reinforced, transparent, polyimide film. The film edge is connected to flexible magnetic strips which adhere to ferrous metal rails as the system deploys creating a tight seal.

Overwidth applications require metal cove bases be attached to the floor to fill the gap between the deployed roll and the floor. The Smoke Guard system includes a control system (listed by UL) consisting of a printed circuit board containing the control, alarm and diagnostic logic. The M600 uses standard building power. It also features a continuously charged DC battery backup system that can operate the system for up to seven days without the presence of AC for recharging.

**Codes and Standards.** The M600 works in conjunction with the already fire-rated elevator doors to exceed the NFPA and IBC requirements for a smoke and draft control assembly. This enables the elevator to open directly onto the corridor.

**System Operation.** The Smoke Guard system is designed specifically to protect elevator openings and the shaft from vertical smoke migration. The system will deploy only when the smoke detector in front of that particular elevator opening goes into alarm.

As the lobby smoke detector goes into alarm, the elevator will automatically return to the recall floor. If an elevator occupant were to encounter a deployed M600, a screen rewind switch located on both sides of the screen will allow for egress. If smoke is still actively being detected, the screen will then redeploy to seal the opening.

**Installation.** All Smoke Guard system units are installed by factory recognized personnel. There is minimal preparation work. Installation requires a clear, plumb, unobstructed wall surface above the hoistway door, 120v AC power and a UL 268 conforming smoke detector.

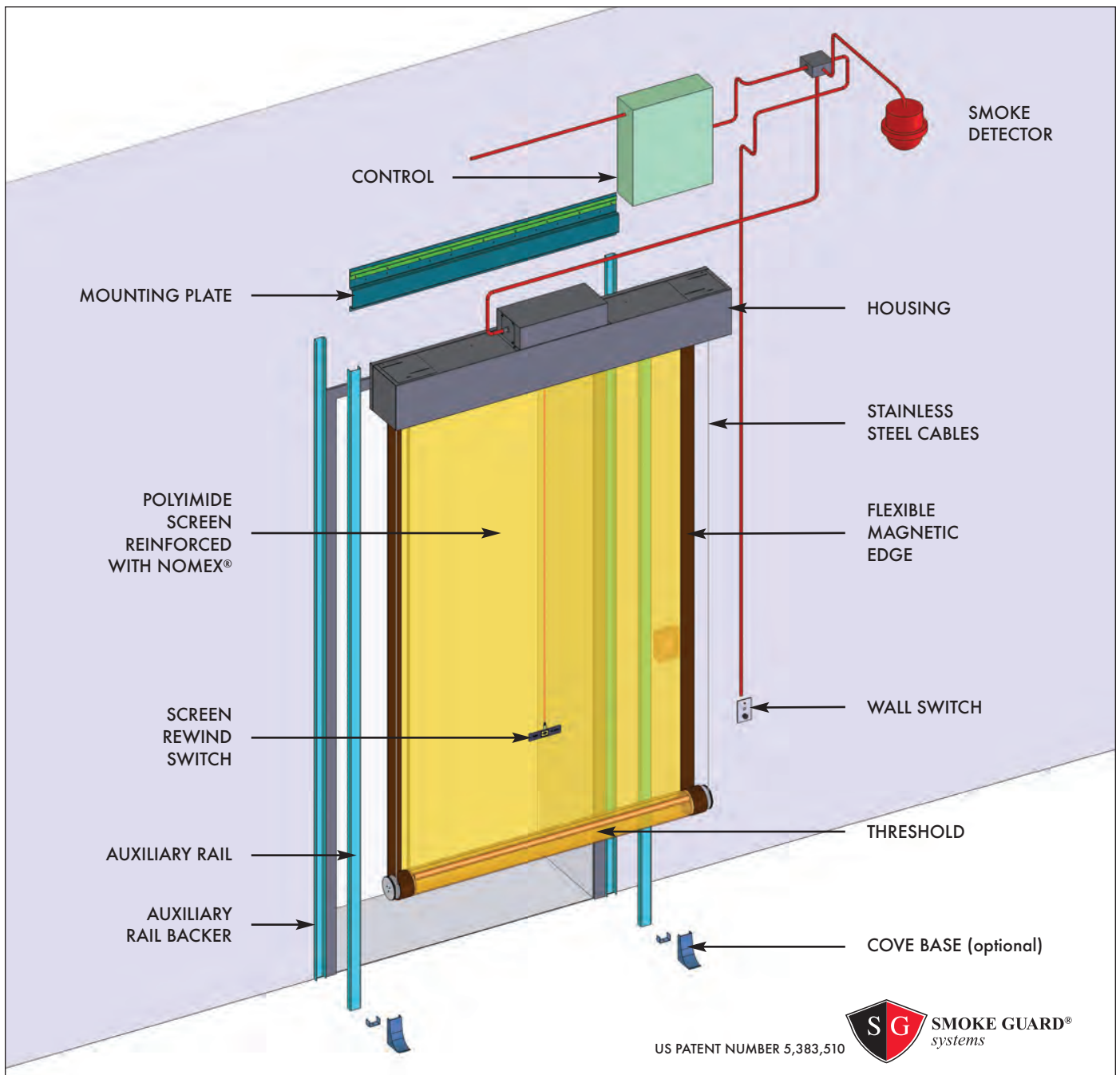
#### **Smoke Guard systems meet or exceed the requirements of:**

- UL 1784 "Air Leakage Tests of Door Assemblies"
- UL 864 "Control Units for Fire Protective Signaling Systems"
- ICC Evaluation Service Report ESR-1136
- 2000 International Building Code Section 714.2.3
- 2003 International Building Code 715.3.3
- 2006 International Building Code Section 715.4.3
- NFPA 105 "Installation of Smoke Control Door Assemblies"



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## SMOKE GUARD® system Model 600

**UL Listed Releasing Device.** The M600 features a UL approved releasing device contained within a separate locking enclosure with a hinged cover.

**System Monitoring.** The system controls monitor a number of functions such as the presence of AC power, the backup battery condition, the system's deploy status, and the continuity of all system circuits.

**Battery Backup.** The M600 operates on standard building AC power. It has a battery backup system that can power the unit for up to seven days.

**External Indicators.** External indicators will display if a fault is detected including; a partial curtain deployment and audible alarm at the wall switch as well as a blinking indicator light.

**Object Sensing.** If the curtain senses an object in its path the system will redeploy after the obstruction is removed.