

SMOKE GUARD® system

Model 400

M400 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 door opening

TEST RESULTS ACHIEVED: air leakage less than .33 cfm/sf opening or 9.24 cfm for 4' x 7' elevator door opening

air leakage

TEST STANDARD: NFPA 105

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

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

opening force

TEST STANDARD: 2003 IBC §1008.1.2; 2006 IBC §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 400 (M400) creates a code compliant smoke and draft control assembly when paired with common fire-rated elevator doors. The Smoke Guard 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. The M400 uses standard building power. The system may be connected to standby power.

Codes and Standards. The M400 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 to protect elevator openings and shaft from vertical smoke migration. The system will deploy when the smoke detector in front of the elevator opening goes into alarm (or on loss of power to the unit). The system is not designed to deploy on general 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 M400, 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.

If AC power is lost, the Smoke Guard system M400 operates on a fail safe basis, triggering screen deployment. A deployment delay is built into the system to avoid nuisance deploys on brief power outage. As power is restored, the screen will automatically rewind into the housing. This unit features a self-activating housing door closer.

Unit Dimensions. The M400 is available in custom screen sizes to fit door openings up to 60" wide (assuming a standard 2" elevator door frame). Consult smokeguard.com or your local distributor for detailed information on this product.

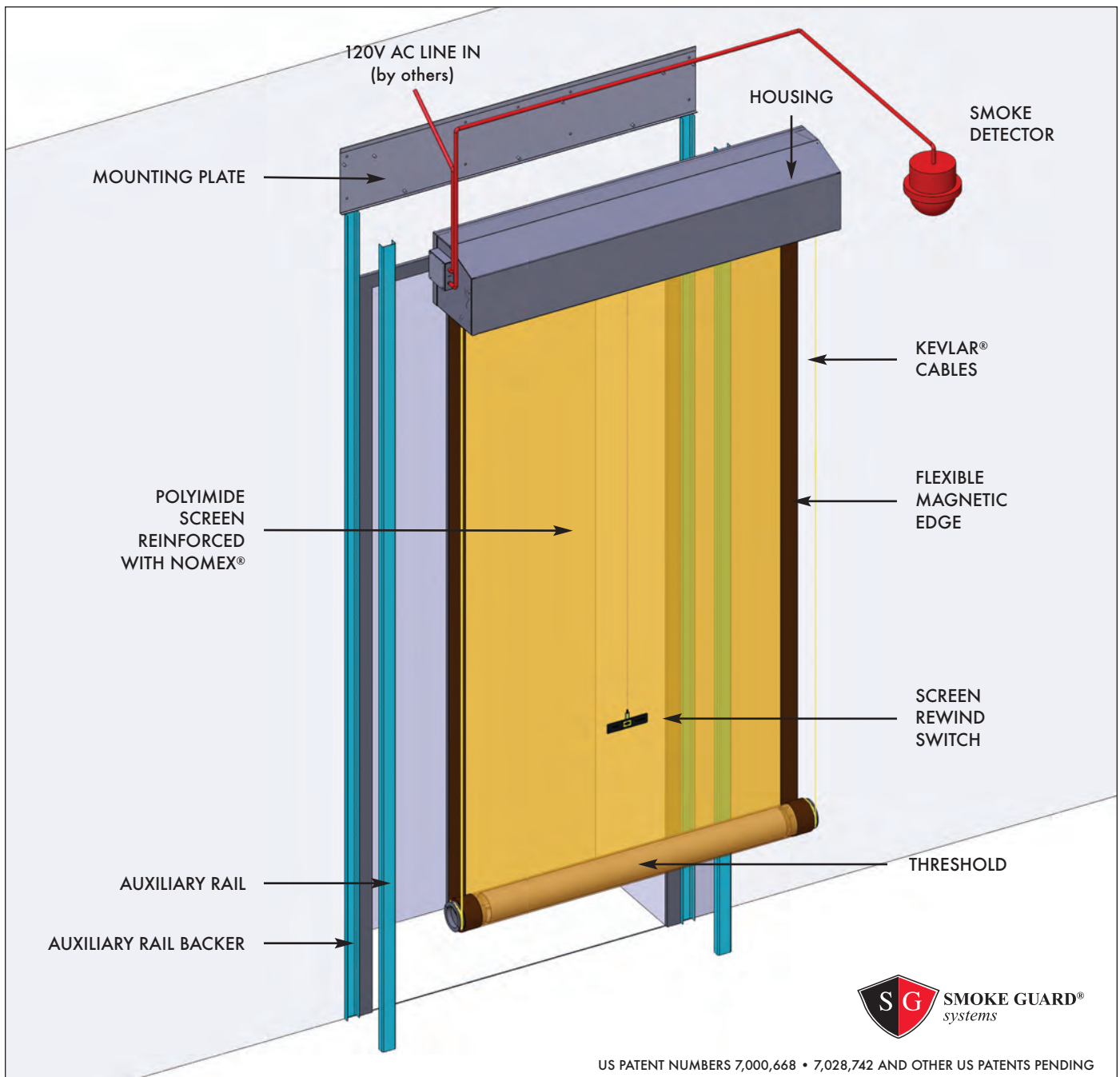
Installation. All Smoke Guard units are installed by factory recognized personnel. There is minimal preparation work. Installation requires a clear, plumb, unobstructed wall surface above the hoistway door, 120v AC power and a UL 268 conforming smoke detector.

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*
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Fail Safe Secure. The M400 operates on a fail safe basis. The loss of AC power will trigger screen deployment. There is a deployment delay on power failure built into the system to avoid nuisance deploys on brief power outage. Upon restoration of power the screen will automatically rewind into the housing. The unit also features a self-activating housing door closer.

Listed Releasing Device. The M400 features a releasing device tested in accordance with the UL 864 standard.

Rewind Switch. The Smoke Guard system rewind switch may be activated from both sides of the screen. This feature allows elevator occupants to exit from the elevator car using the interior (shaft side) of the switch. The screen will then re-deploy after egress, as long as the smoke detector continues to be activated, providing continued smoke protection for the elevator hoistway.



US PATENT NUMBERS 7,000,668 • 7,028,742 AND OTHER US PATENTS PENDING