



SMOKE GUARD® system

Model 200/400

Elevator Smoke Curtain



 ICC Evaluation Service Report ESR-1136

System Description. The Smoke Guard system Model 200/400 (M200/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 required full-length ferrous metal rails as the system deploys creating a tight seal. The M200/M400 uses standard 120 VAC building power. The system may be connected to standby power.

Dimensions

- Housing lengths: 55" and 64"
- Housing height: 10.5"
- Housing depth: 10"
- Return depth: 1"

Standards

- UL 1784 "Air Leakage Tests of Door Assemblies" listed by Intertek
- UL 864 "Control Units for Fire Protective Signaling Systems" listed by Intertek

Code References

- 2009 IBC Section 708.14.1
- 2012 IBC Section 713.14.1
- 2015 IBC Section 3006.1
- 2018 IBC Section 3006.1
- 2021 IBC Section 3006.1
- NFPA 105 "Installation of Smoke Control Door Assemblies"

Codes and Standards. The M200/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.

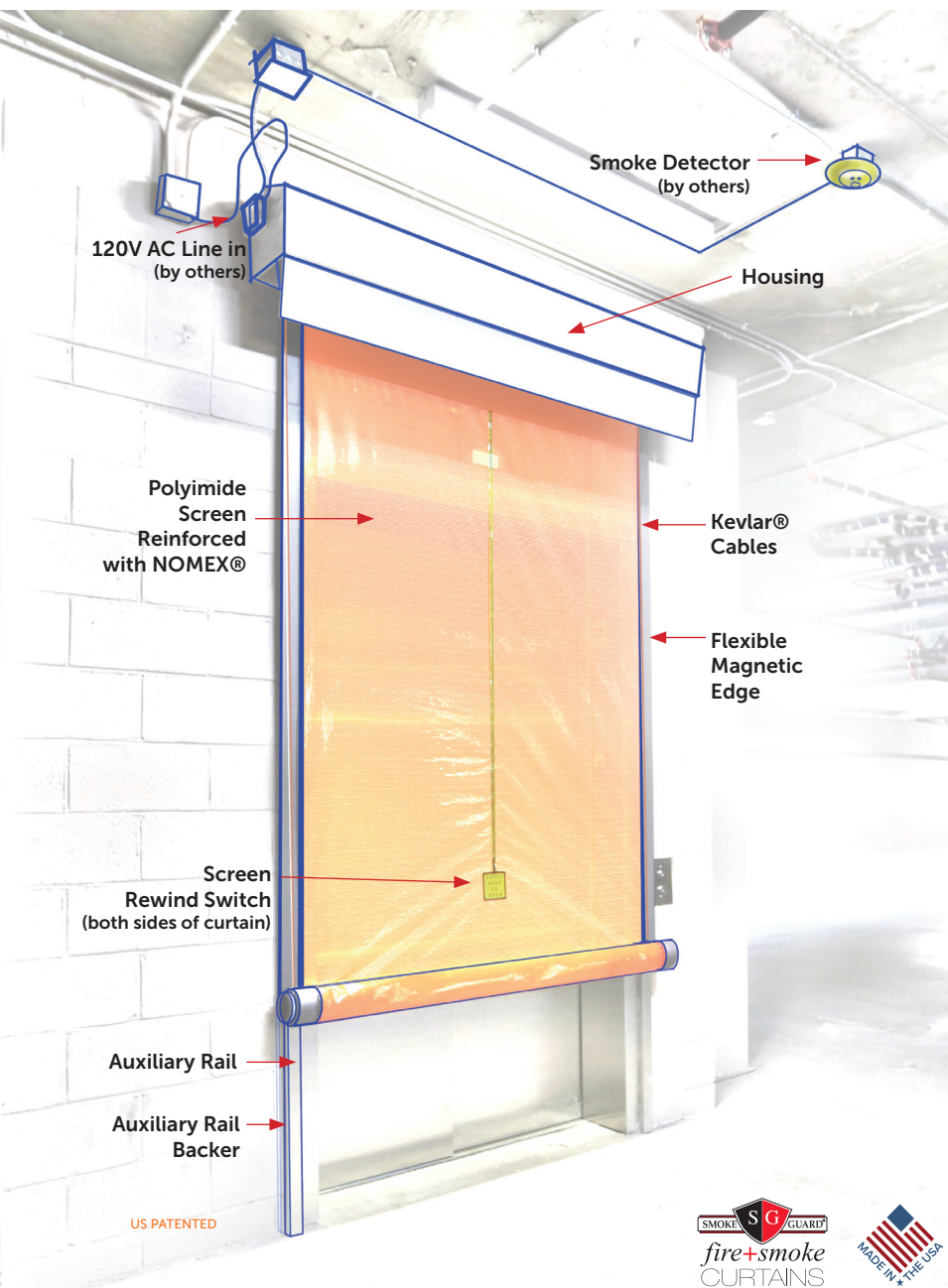


We believe life safety is a beautiful thing.



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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 the elevator lobby 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 M200/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 M200/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.

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

Smoke Guard and Your Project

- ☐ Check for clearance/obstructions issues on, above, and surrounding the elevator opening (sprinklers, call buttons, HVAC, etc.)
- ☐ Field verify elevator opening measurements prior to ordering systems
- ☐ Available 120 VAC circuit with 2 amp capacity per unit
- ☐ Fire alarm system has local auxiliary contacts available
- ☐ No auxiliary rails: elevator door frame is ferromagnetic

Fail Safe Secure. The M200/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.

Listed Releasing Device. The M200/M400 features a releasing device tested in accordance with the UL 864 standard by Intertek Laboratories.

Rewind Switch. The Smoke Guard system screen 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 redeploy after egress, as long as the smoke detector continues to be activated, providing continued smoke protection for the elevator hoistway. In the event of power outage, the vertical edge of the curtain can be pushed away from the rail to allow passage with a force less than 15 lbs. as referenced by the ICC.