SMOKE GUARD® *system*

Model 400

Elevator Smoke Curtain

M400 & M400B

ICC Evaluation Service Report ESR-1136

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 DuraNet™ screen assembly consists of a reinforced translucent material connected to flexible magnetic strips. These magnets adhere to the existing ferrous elevator door frame as the system deploys creating a tight seal. **M400** units use standard 120 VAC building power and may be connected to standby power.

Codes and Standards. The **M400** systems work in conjunction with 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.

Dimensions

- Max Opening Width: 60"
- Housing Lengths: 55", 64", and 73"
- Housing height: 10 1/2"
- Housing depth: 9" + return depth
- Return depth: 1/2", 3/4", 1", and 1 1/2"
- Screen drop height: 10' & 12'

Standards

- UL 1784 "Standard for Air Leakage Tests of Door Assemblies and Other Opening Protectives" without an artificial bottom seal, listed by Intertek
- UL 864 "Standard for Control Units and Accessories for Fire Alarm Systems", listed by Intertek

Complies with:

- ICC-ES Report AC77
- 2012 IBC Section 713.14.1
- 2015 IBC Section 3006.2
- 2018 IBC Section 3006.2
- 2021 IBC Section 3006.2
- 2024 IBC Section 3006.2
- NFPA 105 "Standard for Smoke Door Assemblies and Other Opening Protectives"
- ASME A 17.1/CSA B44

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Designed, Assembled, and Tested in the USA

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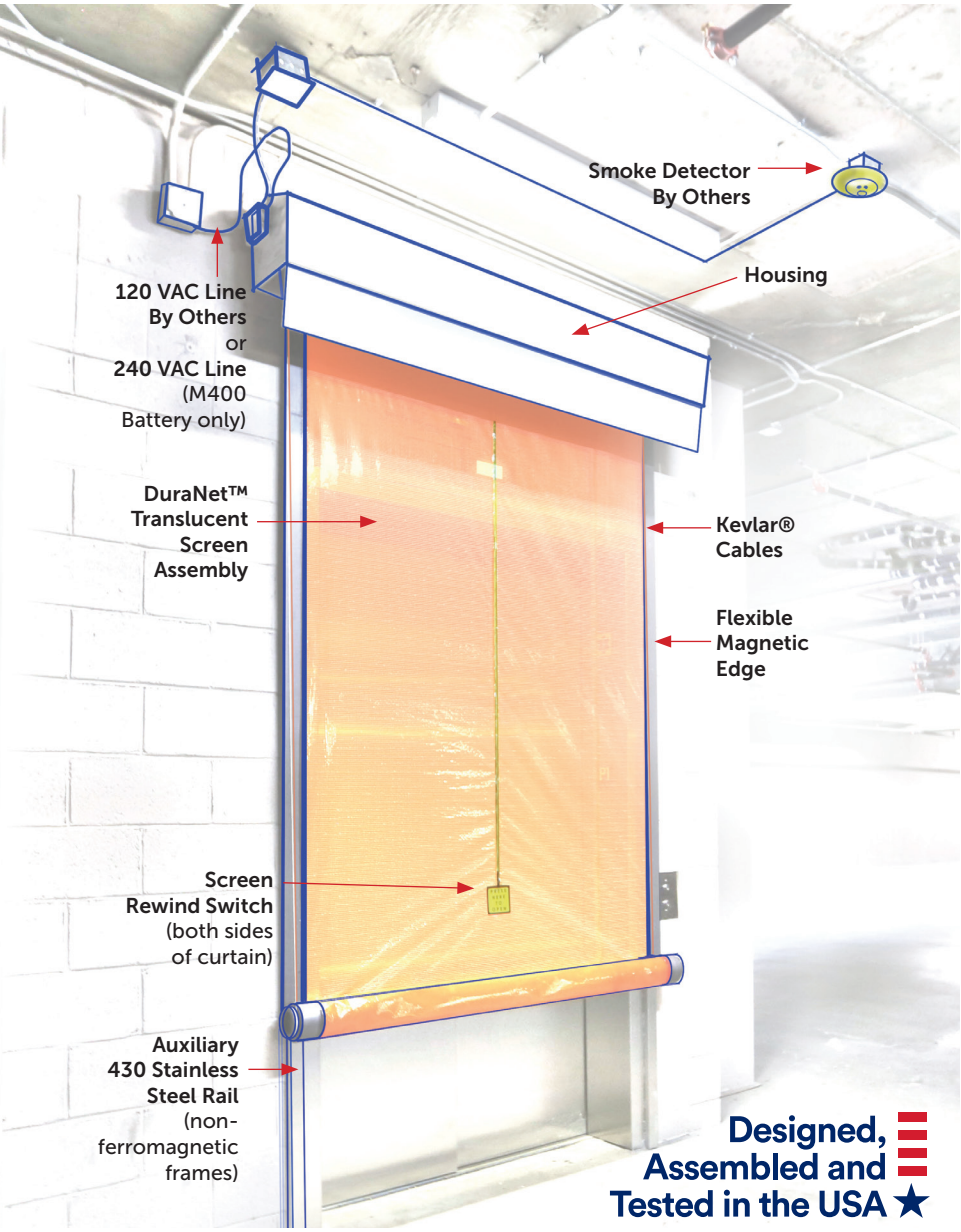

System Operation. Smoke Guard elevator systems are designed to protect elevator openings and shaft from vertical smoke migration. The system will deploy when the smoke detector, or other signaling device, in the elevator lobby goes into alarm (or on loss of power to the unit). As the lobby smoke detector 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. As power is restored, the screen will automatically rewind into the housing.

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

Fail Safe Secure. **M400** systems operate on a fail safe basis, on loss of AC power the screen will deploy.

Battery Backup. **M400** units may be specified with an internal, FCC compliant, battery backup system which allows full operation for a minimum of 8 hours. Contact Smoke Guard for additional power specifications for this enhanced feature.

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 120/240 VAC circuit with 2 amp capacity per unit***
- ☐ ***Fire alarm system has local auxiliary contacts available***
- ☐ ***No auxiliary rails if elevator door frame is ferromagnetic***

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. 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 required by the IBC.

Listed Releasing Device. The **M400** features a releasing device tested in accordance with the UL 864 standard by Intertek Laboratories. The battery backup system also has the option for full interface to the fire service interface system (FSCS) as an option for dedicated smoke control.

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