

PART 1 GENERAL**1.01 SUMMARY**

- A. Gateway Grilles shall be manufactured by Lawrence Roll-Up Doors, Inc.

1.02 SYSTEM DESCRIPTION

- A. Grilles shall be designed with selectable functions to be either "Fail-Safe" to automatically open upon alarm or power loss, or "Fail-Secure" to remain closed during power loss but automatically open upon alarm or lighted exit button to provide controlled egress [secure emergency responder access] through the opening in an emergency.
- B. Battery power shall not be necessary to automatically open grilles. Opening force shall be provided by counterbalance spring(s) alone.
- C. Grilles shall be for use on openings up to 28'-0" wide, 16'-0" high for typical mall, storefront, other retail and commercial, or parking garage applications. Consult factory for availability of larger size grilles.
- D. Grilles shall be designed for 10,000 [20,000] [50,000] [100,000] cycles usage.

1.03 WARRANTY

- A. Grilles shall be warranted against defects in workmanship and materials for one year [two years] from date of shipment, provided designed cycle life is not exceeded. Factory finishes are excluded from warranty.

PART 2 PRODUCTS**2.01 MATERIALS**

- A. **Curtain** shall be a straight link SL9 [SL6] [SL4] pattern, assembled from horizontal 5/16" diameter aluminum rods on 2" vertical centers, passing through flexibly connected 3/4" wide vertical aluminum 3-hole links on 9" [6"] [4 1/2"] horizontal centers. Vertical links shall be alternating 1/8" thick single links and 1/16" thick double links assembled with grommets to form vertical chains. Curtain alignment shall be maintained by aluminum spacer tubes placed between all links on every 10th [6th] rod. Ends of rods shall be fitted with retainer rings [cotter pins].
- B. **Bottom bar** shall be a rectangular aluminum extrusion attached to bottom of curtain to limit vertical and lateral deflection. Bottom bar shall be self-leveling to accommodate slopes up to 1/2". A bottom cover plate 2" [4"] wide shall be provided.
- C. **Guides** shall be extruded aluminum channels, formed with return flanges to retain curtain, and fitted with polyester pile [HDPE] wear strips. Channels shall incorporate an integral system to allow for field adjustment of curtain stops and lock bar heights. Channels shall be bolted to 3/16" steel wall angles [tube supports] with 1/4" minimum bolts no more than 24" on center. Guides shall be attached to wall with 3/8" minimum bolts no more than 24" on center. Removable curtain stops shall be provided.
- D. **Barrel** shall be 6 5/8" diameter steel pipe, sized to contain counterbalance assembly and support curtain with a maximum deflection of 0.03" per ft. of width. Counterbalance assembly shall consist of torsion spring(s) and fittings mounted to a continuous cold finished steel shaft. Grease packed sealed bearings shall be used to support each end of counterbalance assembly. Spring tension shall be adjustable by adjusting wheel outside bracket.
- E. **Brackets** shall be 3/16" minimum steel plates bolted to wall angles [tube supports]. Plates shall be sized to support curtain and barrel (and provided with 1/8" flanges for hood attachment when hood is provided). Bracket on operator side shall be fitted with a grease packed sealed bearing.
- F. **Hood** shall be formed from 24 gauge galvanized steel [20 gauge (.032") aluminum] sheet with top and bottom reinforcements to reduce deflection [option on all grilles]. Intermediate support(s) shall be provided when necessary.
- G. **Operation** of grilles shall be by a Model EGH inline gear drive motor operator, UL Listed, 1/2 HP minimum, TENV motor (AC), auxiliary chain hoist, internal speed governor, solenoid actuated brake, adjustable limit switches, delay on reverse*, non-resettable cycle counter, adjustable reclose timer*, 3-button open-close-stop wall mount control station requiring constant pressure to close, NEMA 1 enclosures. Motor operator shall be mounted horizontally in front of and parallel to the grille coil and shall not require additional clearance above the top of the coil. Operator shall automatically open grille in an emergency to a minimum height of 80 inches. Brake shall engage momentarily to stop grille at full open position. After power is restored, and alarm is cleared, motor operator shall be ready to operate normally. Operator functionality shall be either 1, 2, 1 and 3, or 2 and 3 from the following:
1. Default "Fail-Safe" function shall allow grille to open automatically after an approximate 10 second delay upon a loss of power or upon alarm activation [or without delay upon activation of lighted wall mount exit button if power is present].
 2. Selectable "Fail-Secure" function shall allow grille to remain in the closed position upon a loss of power through an internal battery backup for approximately 8 hours [16 hours with supplemental R-BBU external battery pack]. Grille shall open upon activation of a lighted wall mount exit button, upon alarm activation, or upon activation of a secure control device on entry side of grille accessible to emergency responders. Grille shall open automatically if battery backup fully discharges.
 3. Optional "Auto-Reclose" function* shall close grille automatically after time delay when power is restored and alarm is cleared when a monitored A2530L-M sensing edge [SRPE reflective sensor] is provided and functioning to reverse grille when closing if an obstruction in the opening is detected.
- * When momentary pressure close is required, or control is not within line of sight of the grille, a monitored sensing edge on the bottom bar, or monitored reflective sensor on the guides 6" above the floor, is required to reverse the grille upon sensing an obstruction in the opening.
- H. **Locking** (optional on all grilles) shall be accomplished by "Auto-Latch" mechanisms at both ends of the curtain to resist forced opening of the closed curtain. When the fully closed curtain is manually lifted causing the mechanisms to engage, they shall limit curtain lift off the floor. Latching shall release automatically when the grille is opened with the motor operator.

2.02 FINISHES

- A. Aluminum curtain [hood] shall be mill finish [clear anodized] [bronze anodized]. Aluminum bottom bar and guides shall be clear [bronze] anodized. Steel brackets and wall angles shall be shop painted with a black color rust-inhibiting primer. [Galvanized steel hood shall have a baked-on primer and grey polyester top coat].

PART 3 EXECUTION**3.01 INSTALLATION**

- A. Grilles shall be installed in accordance with Lawrence Roll-Up Doors, Inc. installation instructions.
- B. Periodic inspection, testing & maintenance shall be performed as required by local codes for a life-safety product.