

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 for 10,000 [50,000] [100,000] cycles usage.
- B. Grilles shall be designed to automatically open upon a loss of power, or upon activation by alarm [lighted exit button] to provide controlled egress [secure emergency responder access] through the opening in an emergency.
- 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.

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" minimum structural steel wall angles [tube supports]. Guides shall be assembled with 1/4" minimum bolts no more than 24" on center and 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" minimum 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 minimum galvanized steel [18 gauge 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, 3/4 HP minimum, TENV motor, 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, 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 with either a "Fail-Safe" or "Fail-Secure" function. After power is restored, and alarm is cleared, motor operator shall be ready to operate normally. (*Choose either 1, 2, 1 and 3, or 2 and 3 from the following*):
1. Standard "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. Optional "Fail-Secure" function shall allow grille to remain in the closed position upon a loss of power though an integrated battery back-up system for approximately 10 hours [30 hours]. 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. Prior to a complete loss of battery power, grille will open automatically.
 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 [FRPE reflective photo eye] [FOPE optical photo eye] is provided and functioning to reverse grille when closing if an obstruction in the opening is detected.
- *A monitored sensing edge [photo eyes] is required to reverse grille when closing if an obstruction in the opening is detected.*
- H. **Locking** shall be provided by gear reduction of motor operator [self-latching mechanisms at both ends of the curtain. When the fully closed curtain is manually lifted and the mechanisms engage, they shall limit curtain lift off the floor. Mechanisms shall not be functional when curtain is opened with the motor operator].

2.02 FINISHES

- A. Aluminum curtain [hood] shall be mill finish [clear anodized] [bronze anodized] [color anodized]. Aluminum bottom bar and guides shall be clear [bronze] [color] anodized. Steel brackets and wall angles shall be shop painted with a black [silver] color rust-inhibiting primer. [Galvanized steel hood shall be bare [pre-finished with baked-on primer and polyester top coat (off-white, tan or grey color)].

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.