

PART 1 GENERAL**1.01 SUMMARY**

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

1.02 SYSTEM DESCRIPTION

- A. Grilles shall be for use in parking structures or other typically larger size openings and higher usage applications.
B. Grilles shall be designed for 20,000 [50,000] [100,000] cycles usage.

1.03 WARRANTY

- A. Grilles shall be warranted against defects in workmanship and materials for 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 assembled from horizontal rods passing through vertical links flexibly connected with grommets. Curtain alignment shall be maintained by spacer tubes. Ends of rods with spacer tubes shall be drilled and fitted with cotter pins. Ends of other rods shall be fitted with retaining rings. Curtain pattern shall be:
- SL9 [SL6] [SL4] straight link pattern. Rods shall be 5/16" aluminum on 2" vertical centers with aluminum spacer tubes on every 6th rod and between end links on hinge rods. Links shall be 3-hole, alternating 1/8" thick single links and 1/16" thick double links, on 9" [6"] [4 1/2"] horizontal centers. SL9 pattern shall provide approximately 84% open area through curtain.
 - CL9 [CL6] [CL4] compact straight link pattern. Rods shall be 5/16" aluminum on 2" vertical centers with aluminum spacer tubes on every 6th rod and between end links on every rods. Links shall be 2-hole, alternating 1/8" thick single links, on 9" [6"] [4 1/2"] horizontal centers. CL9 pattern shall provide approximately 83% open area through curtain.
 - HL9 [HL6] [HL4] heavy straight link pattern. Rods shall be 5/16" aluminum on 1 1/2" vertical centers with aluminum spacer tubes on every 6th rod and between end links on every rod. Aluminum links shall be 2-hole, alternating 3/16" thick single links, on 9" [6"] [4 1/2"] horizontal centers. HL9 pattern shall provide approximately 76% open area through curtain. (optional on all grilles)
 - HL9-SS [HL4-SS] heavy straight link pattern. Rods shall be 5/16" aluminum on 1 1/2" vertical centers with stainless steel spacer tubes on every rod. Stainless steel links shall be 2-hole, alternating 3/16" thick single links, on 9" [4 1/2"] horizontal centers. HL9-SS pattern shall provide approximately 76% open area through curtain. (optional on all grilles)
- B. **Bottom bar** shall be a rectangular aluminum extrusion, 4 5/8" high x 1 3/4" wide, 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 HDPE wear strips. Channels shall incorporate an integral system to allow for field adjustment of removable curtain stops and lock bar heights. Channels shall be bolted to 3/16" minimum steel wall angles [tube supports] with 1/4" bolts no more than 24" on center. Guides shall be attached to wall with 3/8" minimum bolts no more than 24" on center.
- 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. Precision 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 provided). Bracket on operator side shall be fitted with a precision grease packed sealed bearing.
- F. **Hood** shall be formed from 24 gauge galvanized steel [stainless steel] [20 gauge (.032") aluminum] sheet with top and bottom reinforcements to reduce deflection. Intermediate support(s) shall be provided when necessary. (optional on all grilles)
- G. **Operation** of grilles shall be:
- Push up on grilles to 12'-0" wide, 10'-0" high with aluminum curtains.
 - Chain hoist with cast iron reduction gears on larger grilles (optional on push-up operated grilles).
 - Awning crank with removable handle (optional on all grilles to 20'-0" wide, 10'-0" high with aluminum curtains)
 - Model MGH or SGH (as required by grille size and usage) inline gear drive motor operator, UL Listed, 1/2 HP minimum, mounted horizontally in front of and parallel to door coil and not requiring additional clearance above top of coil, with wall mount 3-button open-close-stop control station requiring constant pressure to close, NEMA 1 [4] [4X] [7/9] enclosures (optional on all grilles).
NOTE: 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 guide, is required to reverse the grille upon sensing an obstruction in the opening.
NOTE: Wall-mounted egress handle to activate partial opening of a motor operated grille for emergency exit can be provided and may be required by local building codes – MGRL or MGH motor operator is required.
- H. **Locking** shall be by a double throw-bolt enclosed in bottom bar that engages steel lock bars into bottom of each guide. Locking shall be activated by a single lever and secured by a guarded mortise thumb turn [mortise cylinder] coil side and mortise cylinder [mortise thumb turn] opposite coil side. (optional on all grilles)
NOTE: Motor operators provide self-locking gear reduction - if slide locks are required on motor operated grilles, use Model MGRL motor operator with internal lock sensor where size allows, or guide mounted electrical interlocks, to prevent opening grille with locks engaged.

2.02 FINISHES

- A. Aluminum curtain shall be mill finish [clear anodized] [bronze anodized]. Aluminum bottom bar and guides [hood] shall be clear [bronze] anodized. Steel brackets and wall angles [tube supports] shall be shop painted with a black color rust-inhibiting primer. [Stainless steel curtain shall be 2B finish.] [Galvanized steel hood shall have a baked-on primer and grey polyester top coat]. [Stainless steel hood shall have a brushed finish.]

PART 3 EXECUTION**3.01 INSTALLATION**

- A. Grilles shall be installed in accordance with Lawrence Roll-Up Doors, Inc. installation instructions.

Brackets [] denote an available option.

Lawrence Roll-Up Doors, Inc. reserves the right to change specifications without notice or obligation.

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