

PART 1 GENERAL**1.01 SUMMARY**

- A. Model PT High Performance Tight-Coil Grilles shall be manufactured by Lawrence Roll-Up Doors, Inc.

1.02 SYSTEM DESCRIPTION

- A. Grilles shall be springless and designed for 500,000 cycles usage.
B. Grilles shall have an average operating speed of up to 24 inches per second to open and 12 inches per second to close.
C. Grilles shall be for use on openings up to 28 ft. wide and 14 ft. high and shall fit into 12" to 14" total headroom*.

1.03 WARRANTY

- A. Grilles shall be warranted against defects in workmanship and materials for two years on the grille and five years on the motor operator 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 TL9 pattern, assembled from horizontal 5/16" diameter aluminum rods uniformly spaced on 2" vertical centers, passing through flexibly interlocked 13/16" wide x 5/32" thick curved aluminum links spaced 8 3/4" apart. Curtain alignment shall be maintained by stainless steel spacer tubes placed between end links on every rod and aluminum spacer tubes placed between all other links on every 6th rod. Ends of rods shall be drilled and secured with cotter pins. TL9 pattern shall provide approximately 76% open area through the curtain.
- B. **Bottom bar** shall be a rectangular aluminum extrusion, 4 3/8" high x 1 5/8" wide, attached to bottom of curtain and internally reinforced to limit vertical and lateral deflection.
- C. **Guides** shall be 3/16" steel U-channels fitted with replaceable extruded UHMW wear strips, bolted to 1/4" steel wall angles [3/16" steel tube supports], with integrated mounting for light curtain. Guides shall be assembled with 3/8" bolts no more than 24" on center and attached to wall with 1/2" bolts no more than 24" on center [attached to floor and structure above]. [Neoprene isolation strips shall be provided between wall angles and wall, with neoprene washers on wall bolts, to reduce vibration and noise transmitted from the grille to the structure (available 2nd qtr. 2024).]
- D. **Barrel** shall be steel pipe, minimum 4 1/2" diameter, schedule 40. Pipe shall support curtain with a maximum deflection of 0.03" per ft. of width. Steel shafts, 1 1/2" diameter, shall be used to support each end of barrel.
- E. **Brackets** shall be 1/4" steel plates bolted to wall angles. Plates shall be sized to support curtain and barrel and provided with flanges for hood attachment. Brackets shall be fitted with self-aligning 4-bolt iron flange bearings.
- F. **Hood** [option on all grilles] shall be formed from 24 gauge galvanized steel [18 gauge (0.04") aluminum] sheet with top and bottom reinforcements to reduce deflection. Intermediate support(s) shall be provided when necessary.
- G. **Operation** of grilles shall be by a Model HGH inline gear drive motor operator, UL Listed, 2 HP minimum, 208/230-3ph [460v-3ph] (230v-1ph available on 2HP only), continuous duty motor, auxiliary chain hoist, integral speed governor to prevent curtain free-fall in event of operator component failure, adjustable soft start/stop variable speed controller, solenoid actuated brake, adjustable limit switches, delay on reverse, non-resettable cycle counter, adjustable reclose timer and auxiliary transformer to support secondary sensors and ancillary control devices, 3-button wall mount open-close-stop control, NEMA 1 enclosures. Drive chain shall be minimum #80 roller chain. 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. Control panel shall be mounted on the wall and connected to the motor operator via pre-assembled 18 ft. wiring harnesses. Average operating speeds shall be up to 24" per second to open and 12" per second to close, and shall slow prior to full open and full close.
- H. **Sensing devices** shall be provided to stop and reverse the grille when closing, and stop when opening, if an obstruction in the opening is detected. A monitored photo eye and light curtain shall be provided to stop and reverse a closing grille, and photo eyes near the top of the guides shall be provided to stop an opening grille, upon sensing an obstruction. [In lieu of a photo eye, a wireless monitored sensing edge, consisting of a rubber dual-chamber profile with integral isolated conductive elastomer switches, shall be attached to the bottom of the bottom bar to stop and reverse the grille upon contact with an obstruction.*] [Loop detectors [presence sensors] shall be installed to stop and reverse a closing grille upon sensing a vehicle in the opening.] Upon monitoring a sensing device fault condition, the grille will stay in or return to the open position and revert to a constant pressure close function to allow partial operability until the fault is corrected.

*NOTE: Sensing edge increases standard headroom by 1 1/2".

2.02 FINISHES

- A. Aluminum curtain shall be mill [clear] finish. Aluminum bottom bar [hood] shall be clear anodized. Steel guides and brackets 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].

NOTE: The link design that allows the grille to coil tightly makes it susceptible to finish wear resulting from repeated coiling and uncoiling upon itself. Depending on size, use, and environmental conditions, the wear may be substantial but is considered normal and will not adversely affect the designed cycle life of the grille.

PART 3 EXECUTION**3.01 INSTALLATION**

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

3.02 SCHEDULES

- A. Grilles shall be inspected and maintained at least every 3 months or 25,000 cycles by a Lawrence Roll-Up Doors, Inc. authorized dealer. A written record of inspections and maintenance shall be kept for the warranty period.