

## **PART 1 GENERAL**

### **1.01 SUMMARY**

- A. Model AC Clear-Panel Rolling Closures shall be manufactured by Lawrence Roll-Up Doors, Inc.

### **1.02 SYSTEM DESCRIPTION**

- A. Closures shall be designed for 10,000 cycles usage.  
B. Closures shall be for use on openings up to 28'-0" wide, 14'-0" high, 300 sq. ft. for typical mall, storefront, and other retail and commercial applications.

### **1.03 WARRANTY**

- A. Closures shall be warranted against defects in workmanship and materials for one year 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 interlocking panels (4 1/16" x 7/16") fabricated from aluminum extrusions. Openings in panels (3 1/4" high x 31 3/4" max. width) shall be separated by extruded aluminum I-sections (4" wide, .090" thick) and filled with clear polycarbonate inserts (3/32" thick) retained by the panel frame and PVC glazing strips. Panel ends shall be secured by self-locking screws.
- 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 1 3/4" wide shall be provided.
- C. **Guides** shall be extruded aluminum channels, formed with return flanges to retain curtain, and fitted with polyester pile 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. 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 4 1/2" 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. 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 grease packed sealed bearing.
- F. **Hood** shall be formed from 24 gauge minimum galvanized steel sheet with top and bottom reinforcements to reduce deflection [option on all closures]. Intermediate support(s) shall be provided when necessary.
- G. **Operation** of closures shall be as follows:  
PUSH-UP operated on closures to 14'-0" wide, 10'-0" high, 120 sq. ft.  
CHAIN HOIST operated with cast iron reduction gears [option on all closures].  
AWNING CRANK operated with removable handle on closures to 20'-0" wide, 10'-0" high [option on all closures].  
MOTOR operated with UL Listed inline gear drive assembly, mounted horizontally in front of and parallel to closure coil, and not requiring additional clearance above top of coil [option on all closures].  
*NOTE: Wall-mounted egress handle to activate partial opening of a motor operated closure for emergency exit can be provided and may be required by local building codes.*
- 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.  
*NOTE: Motor operators provide self-locking gear reduction - if cylinder locks are required on motor operated closures, a motor operator with a lock sensing system is recommended to prevent opening closure with locks engaged.*

### **2.02 FINISHES**

- A. Aluminum curtain, bottom bar and guides shall be clear anodized [bronze anodized] [color anodized]. Steel brackets and wall angles shall be shop painted with a black 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. Closures shall be installed in accordance with Lawrence Roll-Up Doors, Inc. installation instructions.

<b>Mounting</b>	Between-jamb mounting (includes filler angles) Under lintel mounting Guides and brackets attached directly to steel tube supports (in lieu of wall angles) <i>NOTE: Tube supports are not to be considered structural building components</i>
<b>Bottom Bar</b>	4" wide bottom cover plate Sensing edge to stop or reverse closing of a motor operated closure upon contact with an obstruction Sloping or irregular shaped bottom bar for non-level sill (24" maximum slope)
<b>Barrel</b>	Long-life springs (20,000 cycles usage design) Internal tension wheel (inside the bracket) on closures to 14' wide, 10' high, 120 sq. ft.
<b>Hood &amp; Covers</b>	24 gauge galvanized steel hood ( <i>hood is not standard</i> ) Fascia to close area behind brackets when no wall is present End caps to enclose operating or tension brackets (recommended on closures mounted to the exterior of a building or when operating device is less than 8 feet above the floor) Motor cover (recommended on motor operators less than 8 feet above the floor or on the exterior of a building) Aluminum hood, fascia, end caps and motor cover
<b>Operation</b>	Emergency egress release to activate partial opening of motor operated closure for emergency exit (if closure is provided with locks, they must be unlocked prior to using egress release) <i>NOTE: Model MGRL, MGRL-H or MGH motor operator is required for emergency egress</i> Through-wall operations (operable from opposite side of wall to which closure is mounted)
<b>Locking</b>	Master keying or special brand cylinders
<b>Finishes</b>	Clear, bronze, black, or other color anodized aluminum curtain, bottom bar, guides and hood Powder coated bottom bar, guides and hood