

PART 1 GENERAL

1.01 SUMMARY

- A. Model HI Insulated Doors shall be manufactured by Lawrence Roll-Up Doors, Inc.

1.02 SYSTEM DESCRIPTION

- A. Doors shall be designed for 20,000 [50,000] [100,000] cycles usage.
B. Doors shall be designed to withstand a 20 PSF windload.
C. Doors shall provide a thermal resistance of R5.

NOTE: Thermal resistance (R) through center of slat is calculated per ASHRAE standards assuming 15mph wind outside and still air conditions inside. Calculated value may vary from tested or actual values.

1.03 WARRANTY

- A. Doors 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 interlocking flat slats, roll-formed from galvanized steel strip. Slats shall be Type 3i (2 1/2" x 13/16"), 22 [20] [18] gauge on doors to 16'-0" wide, 20 [18] gauge on doors over 16'-0" wide. Slats shall be insulated with expanded polystyrene (EPS) foam and covered with backslats roll-formed from 24 [22] gauge galvanized steel strip, pressure-fit and bonded to the slats. Malleable iron endlocks shall be riveted to ends of alternate slats. Malleable iron windlocks shall be riveted to ends of slats when required to meet design windload.
- B. **Bottom bar** shall be a T-shape aluminum extrusion (4" wide base, 3/16" thick) on doors to 20'-0" wide or formed by two steel angles (2" x 2" x 1/8" minimum) bolted together on doors over 20'-0" wide, attached to bottom of curtain. Vinyl weatherstrip shall be provided on bottom of bottom bar.
- C. **Guides** shall be 3/16" steel U-channels sized to retain curtain, bolted to 3/16" minimum steel wall angles, sized to support door. When windlocks are provided on curtain, U-channels shall have wind bars. Guides shall be assembled and attached to wall with 3/8" minimum bolts no more than 24" on center. Vinyl weatherstrip shall be attached to guides. 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. Precision ground 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. Bracket on operator side shall be fitted with a precision ground grease packed sealed bearing.
- F. **Hood** shall be formed from 24 gauge galvanized steel sheet with top and bottom reinforcements to reduce deflection. Vinyl baffle shall be attached to inside of hood. Intermediate support(s) shall be provided when necessary.
- G. **Operation** of doors shall be:
- Chain hoist with cast iron reduction gears.
 - Model MGH or SGH (as required by door size and usage) inline gear drive motor operator, UL Listed, 1/2 HP minimum, assembly, 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 doors).
- NOTE: When momentary pressure close is required, or control is not within line of sight of the door, a monitored sensing edge on the bottom bar, or monitored reflective sensor on the guide, is required to reverse the door upon sensing an obstruction in the opening.*
- NOTE: For ease of operation, motor operator is recommended on doors over 20'-0" wide, 16'-0" high, 250 sq. ft. with 20 gauge slats; 16'-0" wide, 16'-0" high, 200 sq. ft. with 18 gauge slats. Reduce recommended size limits by 10% for doors with 22 gauge backslats.*
- H. **Locking** shall be by slide locks coil side on bottom bar of chain hoist operated doors.
- I. *NOTE: Motor operators provide self-locking gear reduction - if slide locks are required on motor operated doors, use Model MGRL motor operator with internal lock sensor where size allows, or guide mounted electrical interlocks, to prevent opening door with locks engaged.*

2.02 FINISHES

- A. Galvanized steel slats, backslats and hood shall have a baked-on primer and grey polyester top coat. Extruded aluminum bottom bar shall be mill finish. Steel bottom bar, guides and brackets shall be shop painted with a black color rust-inhibiting primer.

PART 3 EXECUTION

3.01 INSTALLATION

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