

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 to 30'-0" wide, 16'-0" high shall be designed for 50,000 cycles usage (20,000 cycles minimum on larger doors).
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 Type 3i (2 1/2" x 13/16") flat slats, roll-formed from galvanized steel strip. Slats shall be insulated with expanded polystyrene (EPS) foam and covered with backslats roll-formed from 24 gauge galvanized steel strip, pressure-fit and bonded to the slats. Slats shall be 22 gauge minimum on doors to 16'-0" wide, 20 gauge minimum on doors over 16'-0" wide. Endlocks shall be riveted to ends of alternate slats. Windlocks shall be riveted to ends of slats when required to meet design windload.
- B. **Bottom bar** shall be formed by two 2" x 2" x 1/8" minimum steel angles bolted together and attached to bottom of curtain. Vinyl weatherstrip shall be provided on bottom of bottom bar.
- C. **Guides** shall be formed 3/16" steel channels sized to retain curtain. Channels shall be bolted to 3/16" minimum structural steel wall angles, sized to support door. When windlocks are provided on curtain, channels shall be formed with windlock retainers. 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 minimum 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 as follows:
CHAIN HOIST operated with cast iron reduction gears.
MOTOR operated with UL Listed inline gear drive assembly, mounted horizontally in front of and parallel to door coil, and not requiring additional clearance above top of coil [option on all doors].
NOTE: For ease of operation, motor operator is recommended on doors over 20'-0" wide, 16'-0" high, 250 sq. ft. with 20 gauge slat; 16'-0" wide, 16'-0" high, 200 sq. ft. with 18 gauge slats.
- H. **Locking** shall be by slide locks coil side on bottom bar of chain hoist operated doors.
NOTE: Motor operators provide self-locking gear reduction – if slide locks are required on motor operated doors, a motor operator with internal lock sensor, or guide mounted electrical interlocks, are required to prevent opening door with locks engaged.

2.02 FINISHES

- A. Galvanized steel slats and hood shall have a baked-on primer and polyester top coat (tan color opposite coil side with off-white color coil side (colors may be reversed), or grey color both sides). 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.

Usage	Designs for 100,000 cycles usage (or 50,000 cycles where 20,000 is standard)
Windload	Designs to withstand specified windloads exceeding 20 PSF
Mounting	Between-jamb mounting (includes filler angles) Under lintel mounting (includes fascia) 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>
Curtain	Heavier than standard gauge slats (18 gauge maximum) and backslats (22 gauge) Vision lites of single or multiple 4" x 1 1/2" cut-outs spaced 2" apart, covered with 3/4" solid acrylic between slat and backslat Malleable iron endlocks Stainless steel slats (22 or 20 gauge) and backslats (22 gauge) on doors to 30'-0" wide Aluminum slats (16 gauge) and backslats (20 gauge) on doors to 30'-0" wide Extruded PVC backslats on doors to 30'-0" wide, 24'-0" high, 425 sq. ft. <i>NOTE: The longevity of PVC backslats may be reduced when exposed directly to ultraviolet light, such as when a door is installed on the exterior of a building, or when exposed to temperatures less than 30 deg. F. or more than 150 deg. F.</i> Wicket door, 3'-0" x 7'-0" door with standard Grade 2 lever lockset and steel frame, for pedestrian access through the curtain (available with a variety of other lockset and deadbolt types)
Bottom Bar	Sensing edge to reverse closing of a motor operated door upon contact with an obstruction Sloping or irregular shaped bottom bar for non-level sill (24" maximum slope) Stainless steel or aluminum angles
Guides	Brush guide weatherstrip in lieu of vinyl guide weatherstrip Stainless steel or aluminum channel or angle guides
Hood & Covers	Heavier than standard gauge hood (20 gauge maximum) Brush header seal (field installed) Fascia to close area behind brackets when no wall is present End caps to enclose operating or tension brackets (recommended on doors 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) Stainless steel or aluminum hood, fascia, end caps and motor cover
Operation	Through-wall operations (operable from opposite side of wall to which door is mounted)
Locking	Guide mounted pin lock with American 2000 lock Mortise cylinder or thumb turn activated double throw bolt (in tubular aluminum bottom bar) Master keying or special brand cylinders
Finishes	Galvanized steel bottom bar, guides and brackets Brushed finish stainless steel slats, backslats, bottom bar, guides and hood Clear or bronze anodized aluminum slats, backslats, bottom bar, guides and hood Powder coated slats, backslats, bottom bar, guides and hood <i>NOTE: Optional PVC backslats are available with tan color only.</i>