

PART 1 GENERAL

1.01 SUMMARY

- A. Model HD Service 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.

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 T (2 5/8" x 3/4") flat slats, roll-formed from galvanized steel strip. 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. 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. Intermediate support(s) shall be provided when necessary.
- G. **Operation** of doors shall be as follows:
PUSH-UP operated on doors to 8'-0" wide, 8'-0" high with 22 gauge slats.
CHAIN HOIST operated with cast iron reduction gears on larger doors [option on push-up operated doors].
AWNING CRANK operated with removable handle on doors to 14'-0" wide, 10'-0" high, 120 sq. ft. with 22 or 20 gauge slats [option on all doors].
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 24'-0" wide, 16'-0" high, 350 sq. ft. with 20 gauge slats; over 20'-0" wide, 16'-0" high, 300 sq. ft. with 18 gauge slats.
- H. **Locking** shall be by slide locks coil side on bottom bar of push-up, chain hoist and awning crank 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 Type T flat slats (18 gauge maximum) Type F (2" x 9/16") flat slats on doors to 16'-0" wide (22 or 20 gauge) Vision lites of single or multiple 4" x 1 1/2" cut-outs (available with Type T slats) or 4" x 1" cut-outs (available with Type F slats) spaced 2" apart, covered with plexiglas Peep hole with grommated frame Fenestrated slats with single or multiple 4" x 1 1/2" cut-outs (available with Type T slats) or 4" x 1" cut-outs (available with Type F slats) spaced 2" apart, open for ventilation Ventilated slats perforated with 1/8" diameter holes on 3/16" staggered centers (available with Type T slats - 20 gauge) Louvered slats with single or multiple 3" long vents spaced 3" apart Intermediate grille section Malleable iron endlocks (available with Type T slats) Stainless steel slats (Type T - 22 or 20 gauge on doors to 30'-0" wide, Type F - 22 gauge on doors to 16'-0" wide) Aluminum slats (Type T - 16 gauge on doors to 30'-0" wide) 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	Vinyl guide weatherstrip Brush guide weatherstrip Stainless steel or aluminum channel or angle guides
Barrel	Internal tension wheel (inside the bracket) on doors to 10'-0" wide, 8'-0" high with 22 gauge slats
Hood & Covers	Heavier than standard gauge hood (20 gauge maximum) Vinyl baffle inside hood to reduce air flow between the hood and curtain when door is closed 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, bottom bar, guides and hood Clear or bronze anodized aluminum slats, bottom bar, guides and hood Powder coated slats, bottom bar, guides and hood