Model IL Insulated Fire Doors
STANDARD SPECIFICATIONS

FM Approved
CSFM Listing No. 3515-1587:100

PART 1 GENERAL

1.01 SUMMARY

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

1.02 SYSTEM DESCRIPTION

A. Doors shall be approved for use on openings up to 44'-0" wide and 24'-0" high.
B. Doors shall be designed for 20,000 [50,000] [100,000] cycles usage.
C. Doors shall be fire rated for up to 11/2 hours on non-masonry and 3 [4] hours on masonry wall construction.
D. 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 QUALITY ASSURANCE

A. Doors shall be FM Approved and listed by the California State Fire Marshal. Doors shall be provided with a FM label or oversize door label as dictated by door size and mounting conditions. [Air leakage rated smoke door assemblies shall be provided with a supplemental S-Label.]

1.04 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 33 (2 1/2" x 7/8") flat slats, roll-formed from galvanized steel strip. Slats shall be 22 [20] [18] gauge on doors to 24'-0" wide, 20 [18] gauge on doors over 24'-0" wide. Slats shall be insulated with mineral wool and covered by backslats roll-formed from 24 [22] gauge galvanized steel strip and fully interlocking with slats. Mineral wool insulation shall have a flame spread / smoke development index of 0. Malleable iron endlocks shall be riveted to ends of alternate slats.
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. Provision shall be made for thermal expansion at assembly bolts.
C. **Guides** shall be 11 gauge minimum steel U-channels on doors to 24'-0" wide and 1/4" minimum steel angles on wider doors, sized to retain curtain, bolted to 3/16" minimum steel wall angles, sized to support door. Guides shall be assembled and attached to wall with 3/8" minimum bolts no more than 24" on center. Provision shall be made for thermal expansion at assembly and wall bolts. 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, and shall be provided with a flame baffle. Intermediate support(s) shall be provided on doors over 13'-6" wide.
G. **Operation** of doors shall be:
   - "Easy-Reset" ["Auto-Reset"] chain hoist with internal release and governor, hand chain to open door and pull cable to close, on doors to 20'-0" wide, 16'-0" high, 250 sq. ft. with 22 gauge slats or 225 sq. ft. with 20 gauge slats.
   - "Easy-Reset" Model FGH ["Auto Reset" Model FS] motor operator, UL Listed inline gear drive assembly with internal release and governor, 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 chain operated 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.
H. **Automatic closing** of doors shall be thermally activated by 165 deg. F. fusible links. Average closing speed shall be approximately 9" to 12" per second, but no less than 6" nor more than 24" per second per the requirements of NFPA-80. "Easy-Reset" operators shall be designed to automatically close door without a loss of spring tension, and reset by reconnecting fusible link cable and reopening door ["Auto-Reset" operators shall be designed to automatically close door upon power loss or alarm without a loss of spring tension, and reset by restoring power or clearing alarm and reopening door].
I. **Locking** shall be by slide locks coil side on bottom bar of chain operated doors.
NOTE: Motor operators provide self-locking gear reduction - if slide locks are required on motor operated doors, use "Easy-Reset" Model FGRL ["Auto-Reset" Model FSML] 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. 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 and NFPA-80.

3.02 FIELD QUALITY CONTROL

A. Doors shall be tested for proper operation and full closure at time of installation. A written record shall be maintained.

3.03 SCHEDULES

A. Doors shall be maintained, inspected and tested in accordance with NFPA-80.

Brackets [ ] denote an available option.
Lawrence Roll-Up Doors, Inc. reserves the right to change specifications without notice or obligation.