United Steel Products

**USP**

**Rolling Steel Fire Door Model 700**

USP Rolling Steel Fire Doors are designed to automatically close in case of fire and stop it from spreading from one area to another for a maximum of 3 hours. Doors up to 159 sq. ft. in area and up to 13'6" in width or 12'0" in height are manufactured with UL Classified Class A, B, or C labels. Doors over these dimensions but less than 43'6" wide and 26'0" high are supplied with UL Classified oversize certificates. Although UL Classified and self-closing, they can still be used as coiling service doors.

Furnish **Rolling Service Doors**, series 700 as manufactured by "USP" complete with curtain, hood, guides, counterbalance and options as specified.

**Highlights**
- UL Classified, 3, 1 1/2 and 3/4 hour labels
- Smoke protection available
- Automatic closing during fire
- Available to fit openings 43'6" wide x 26' high
- Maximum reliability
- Viscous Governor Technology
- 165˚ Fusible Link

**Operation**
- manual lift
- removable crank or chain hoist using gear reduction
- external industrial motors
- CGO - Chain hoist and crank with automatic testing
- FDC-1000 Automatic Resetting Fire Door Motor Operator
- FGH - Easy Reset FireDoor Motor Operator

**Curtain** consists of interlocking slats cold rolled formed from hot dipped galvanized steel or optional baked on grey polyester enamel coating or 304 stainless steel with a #4 finish curved profile (SC3) or flat profile (SF3). Each end of alternate slats are to be assembled with end locks to maintain slat alignment and to act as a wearing surface inside the door guides. Slats are designed to withstand windloads of 20 psf. Windlocks are furnished for greater windloads and upon request (consult factory). Slat thickness shall be calculated with U.S. gauging with a minimum of 20ga. for doors up to 20' wide and 18ga. for wider spans. Steel slats are to be hot dipped galvanized as per A.S.T.M. A653. Each curtain shall receive a bottom bar to maintain slat alignment and posture.

**Bottom Bar** shall consist of two steel shop primed angles a minimum 1/8" thick.

**Spring Counterbalance** is to be housed in a steel pipe of the appropriate diameter and wall thickness as to support curtain. Deflection shall be limited to a maximum of .03’ per ft. of door width. Springs are to consist of helical torsion type designed to meet a 25% safety load factor. Safety factor allows for safe operation, ease of use, and longer spring life. Springs are to be grease packed and anchored, using a cast iron anchor, to a cold rolled steel inner shaft. Spring tension shall be fully adjustable from outside of end bracket plate. To insure smooth operation end bracket plates shall contain sealed ball bearings to minimize wear of pipe shaft.

**Drop Mechanism** consists of a viscous speed governor, which controls the door’s rate of descent in emergency mode. The viscous governor is self adjusting and provides a smoother and quieter rate of descent within the NFPA 80 specification of 6” to 24” per second. The automatic drop mechanism may be activated by a fire alarm, smoke or heat detector, or a melting fuse link @ 165º (74ºC)

**End Bracket** plates shall consist of steel plate no less than 1/4” thick. Bracket plates are to house pipe shaft and counterbalance assembly. Shaft is attached to plate by sealed ball bearings fitted onto plate.

**Guides** shall consist of a minimum of 3” structural steel angles a minimum of 3/16” thick. The guide depth shall be of a length adequate to provide for proper slat penetration.

**Hoods** shall consist of a minimum of #24 gauge hot dipped galvanized steel. Hoods are designed to protect and house counterbalance assembly. To prevent hood sag, intermediate supports shall be furnished as required.

**Locking** for manual and chain operated doors to be slide bolts mounted on bottom bar with provisions for padlocks. Gearing within motors to be self locking.

**Finish** all non-galvanized surfaces shall receive a shop coat of rust inhibiting primer. Field painting not included in this section.

**Installation** to be by USP or by an authorized dealer.

**Options / Accessories**
- Baked on grey polyester enamel slats • Stainless steel slats •
- Poly-cote® polyester powder coating, 200 select colors •
- FDC-1000 Automatic Resetting Fire Door Motor Operator with Battery Backup •
- Easy Reset Chain Hoists, Cranks, Motor Operators •
- LM Series Fire/Smoke Control System • Smoke Detector •
- Sounder • Strobe Light • Voice Warning •
- Flame Stop Baffle • UL Classified Seals •

New York City MEA No. 3805-M

SC3
SF3
LiftMaster® release devices control the closure of a rolling fire door or a fire shutter in an emergency situation. Release devices work in conjunction with the fire door or fire shutter to provide an effective fire and smoke control system by preventing spread beyond the area of origin. The device's basic function is to provide a time-delayed release of fire door or shutter upon receiving a signal from a smoke detector or central alarm station (or other remote switching device) or upon loss of power. Release devices are also an integral part of the fusible link assembly, releasing the door or shutter when the fusible link separates. All models are UL, C-UL and CSFM listed and are compliant with the NFPA 80 requirement for a fail-safe door holder / releasing device.

**FDC1000 Automatic Resetting Fire Door Motor Systems**

The Fire Door Controller, FDC1000 & FDCL1000, are both integrated fire door operators and control systems. The FDC1000 is designed for fire doors, while the FDCL1000 is designed for smaller fire shutter systems. They are designed to interface with “normally closed” (NC) or “normally open” (NO) dry contact alarm systems to control the operation of a fire door or shutter. Wiring for sensing device to reverse and auxiliary devices to open and close are provided. The Fire Door Controller, FDC1000, is configurable as a standard Commercial Door Operator or a Fire Door controller selectable via a dip switch. In an FDCL1000, the control station is selectable between “Fire Door Mode Type I” and “Fire Door Mode Type II” by means of a dip switch. When “Fire Door Mode Type I” is selected the control station is the standard B2 wiring, momentary contact to open, close and stop. When “Fire Door Mode Type II” is selected the control station is a revised C2 wiring, momentary contact to open & stop and constant pressure to close with no open override. In addition, when “Fire Door Mode Type II” is selected, the door will Gravity Close (governed descent) on alarm. Both units feature fail-safe battery back-up systems which allow the door to function as a fire door when the batteries are charged and close the door before the batteries are completely drained. This system closes the fire door or shutter without releasing spring tension or disengaging the operator, allowing for fire door testing without expensive resetting of the equipment.

**LM-21 Series Fire Door Control Systems**

LiftMaster® release devices control the closure of a rolling fire door or a fire shutter in an emergency situation. Release devices work in conjunction with the fire door or fire shutter to provide an effective fire and smoke control system by preventing spread beyond the area of origin. The device's basic function is to provide a time-delayed release of fire door or shutter upon receiving a signal from a smoke detector or central alarm station (or other remote switching device) or upon loss of power. Release devices are also an integral part of the fusible link assembly, releasing the door or shutter when the fusible link separates. All models are UL, C-UL and CSFM listed and are compliant with the NFPA 80 requirement for a fail-safe door holder / releasing device.

**Clearance Details**

<table>
<thead>
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<th>Width</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Guide</th>
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</thead>
<tbody>
<tr>
<td>to 13'6&quot;</td>
<td>6.5&quot;</td>
<td>8.5&quot;</td>
<td>7.0&quot;</td>
<td>9.0&quot;</td>
<td>3.0&quot;</td>
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<tr>
<td>13'6&quot; to 18'0&quot;</td>
<td>7.0&quot;</td>
<td>9.0&quot;</td>
<td>7.5&quot;</td>
<td>9.5&quot;</td>
<td>3.5&quot;</td>
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<tr>
<td>18'0&quot; to 22'0&quot;</td>
<td>8.0&quot;</td>
<td>9.5&quot;</td>
<td>8.5&quot;</td>
<td>10.0&quot;</td>
<td>4.0&quot;</td>
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</tbody>
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Note: For doors with windlocks add 1" to coil dimension “G”. Doors wider than 22'4" consult factory.

**Guide Details**

<table>
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<th>Height</th>
<th>G</th>
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<tbody>
<tr>
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<tr>
<td>9'4&quot; to 11'4&quot;</td>
<td>17&quot;</td>
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<td>11'4&quot; to 13'4&quot;</td>
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<td>16'4&quot; to 19'4&quot;</td>
<td>22&quot;</td>
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<tr>
<td>19'4&quot; to 22'4&quot;</td>
<td>24&quot;</td>
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For wider spans consult with the factory.

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