



# SERIES 7000 Guardian™ Fire Doors



## A MODERN PERSPECTIVE

Guardian™ Fire Doors promote achievable standards for drop test compliance by making the job safe, understandable and simple for everyone. Simple test fire doors are our standard for chain hoist and motor operated doors.

**A Feasible Investment:** Selected most often for practical drop test compliance and assuring positive crisis response, Guardian™ Fire Doors deliver reliable, predictable and repeatable results.

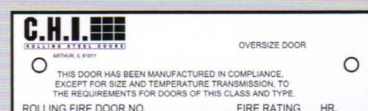
**An Exceptional Choice:** The National Fire Protection Association and other model codes recommend frequent drop testing of fire doors to assure a continuous state of operational readiness. C.H.I. strongly promotes these recommendations with the Guardian's™ advanced design features:

- Safe, simple, inexpensive and repeatable drop testing is now made possible in any facility with a flip of a handle.
- No ladders, tools or equipment are required to drop test and reset Guardian™ Simple Test Fire Doors.
- Drop speed is governed by a quiet, centrifugal brake to between 6" to 12" per second.
- Gear reduced chain hoist operation is standard, efficient and economical.
- Manual push-up operation and fail-safe motor operation is optional.
- 165 degree fusible links are provided as standard detection/release devices.
- U.L. Labels are provided from 3/4-hour to 4-hour for labeled and for oversized doors.
- Guides mount to approved masonry, steel and sheetrock construction.
- Upward-expanding guides may be welded to approved steel construction.
- Fail-safe time delayed releases, smoke detectors and audible and visual warning systems are optional.
- Installation time is reduced significantly due to the elimination of complicated release and governor assemblies.
- Curved or flat slat profiles are offered in pre-painted or powder-coated options.

### GUARDIAN™ FIRE DOORS CARRY STANDARD LISTING OR OVERSIZE U.L. LABELS.



C.H.I. Listing Label



C.H.I. Oversize Label



# SPECIFICATIONS

## PART 1 - GENERAL

**1.01 WORK INCLUDED:** Rolling steel fire doors to be C.H.I. Guardian™ Series 7000, and comply with Underwriter's Laboratories requirements for 4, 3, 1-1/2, and 3/4-hour exterior or interior locations.

### 1.02 RELATED SECTIONS:

- a. Section 04200 Concrete Block
- b. Section 05500 Metal Fabrications
- c. Section 06100 Wall Construction
- d. Section 08300 Access Doors
- e. Section 09900 Painting
- f. Section 16000 Electrical

### 1.03 SUBMITTALS:

- a. Furnish all submittals according to guidelines of Division 1 Submittal Procedures.
- b. Shop Drawings: Furnish shop drawings for architectural approval including elevations and details showing dimensions, finishes, profiles and sections for each door.
- c. Product Literature: Submit manufacturer's brochures and literature describing product to be used.
- d. Provide manufacturer's installation instructions.

### 1.04 DELIVERY, STORAGE AND HANDLING:

- a. Refer to Division 1 Material Storage and Handling Requirements.
- b. Deliver and store all materials in manufacturer provided packaging and protect from damage in a safe and dry location.

### 1.05 WINDLOAD:

- a. Provide doors designed to withstand minimum 20 pounds per square foot of windload.
- b. Provide higher windload options.
- c. Limit slat deflection to an amount that prevents curtain from buckling or being blown out of guides.

**1.06 WARRANTY:** Provide manufacturer's standard five-year warranty from date of plant shipment against defects in materials and workmanship. Manufacturer's brochures and literature describing product to be used.

## PART 2 - PRODUCTS

**2.01 GENERAL:** Items and components described in the following paragraphs reflect current products manufactured by C.H.I. Overhead

Doors, Inc. P.O. Box 260, Arthur, Illinois, 61911, and may be changed without notice by the manufacturer without penalty or liability.

**2.02 CURTAIN:** Interlocking curtain slats of roll-formed 22, 20 or 18-gauge steel. Lateral slat movement and curtain wear controlled by galvanized, malleable cast iron endlocks fastened to every other slat. Windlocks added as dictated by windload requirements. Flat Slats (FS): cover 2-1/2 inches by 3/4 inch deep. Curved Slats (CS): cover 2-5/8 inches by 7/8 inch deep.

**2.03 BOTTOM BAR:** Bottom bar fabricated from steel angle. (Tubular bottom seal optional.)

**2.04 GUIDES:** Guides fabricated from three minimum 3/16 inch structural steel angles, bolted together to form guide channel and wall mounting angle.

**2.05 HEADPLATES:** Headplates for mounting the curtain, hood, and barrel assemblies fabricated from minimum 1/4 inch steel plate. Drive axle provided with precision, greaseable, sealed ball bearings in cast iron housing.

**2.06 BARREL:** Barrel constructed from minimum 4-1/2 inch O.D. steel pipe. Deflection under full load not to exceed 0.03 inches per foot of span. Barrel provided with threaded rings or lugs welded to barrel assembly for curtain attachment.

**2.07 SPRINGS:** Spring, (tension) assembly supported within barrel by precision bearings. Curtain weight counterbalanced by oil-tempered, helically wound torsion springs, grease packed and mounted to steel torsion shaft with cast spring plugs. Spring assembly designed for 20,000 cycle life standard. (Higher cycles optional.)

**2.08 HOOD:** Half-hex hood formed of minimum 24-gauge steel sheet, shaped to fit within headplates. Intermediate hood support(s) furnished as required.

**2.09 LOCKING:** Chain hoist operated doors provided with chain keeper having provisions for padlocking. Plated slide locks optional.

**2.10 OPERATION:** Gear reduced chain hoist operation standard. Motor operation or manual push-up operation is optional. Manual push-up operation does not include simple test feature.

**2.11 AUTOMATIC CLOSURE:** 165-degree fusible links provided as standard. Closing speed regulated by centrifugal or viscous governor. Drop speed to be between 6" and 24" per second per NFPA-80.

**2.12 OPERATION:** Manual push-up, (without simple test feature), chain hoist or electric motor.

**2.13 DROP TESTING:** Floor level release and reset handle. Drop test activated by raising release handle. Reset assembly by securing the release handle to original starting position. No ladders or tools shall be needed to drop test or reset door. Manual push-up door drop tested by partial tension release and requires reset by a qualified door technician.

**2.14 FINISHES:** Curtain slats and hood hot-dipped galvanized, per ASTM A-653, G-90, with baked epoxy primer and polyester finish coat in solid gray, gray and white or tan and white. Guides and headplates shop painted black. Powder-coating optional. Bottom bars to be shop painted or galvanized.

## PART 3 - EXECUTION

### 3.01 EXAMINATION:

- a. Examine site and notify architect of non-specified conditions or construction.
- b. Advise procedures and corrections necessary to accommodate installation.

**3.02 INSTALLATION:** C.H.I. rolling steel doors shall be installed and adjusted according to C.H.I. assembly instructions by trained door systems technicians.

### 3.03 CLEANING AND PRESENTATION:

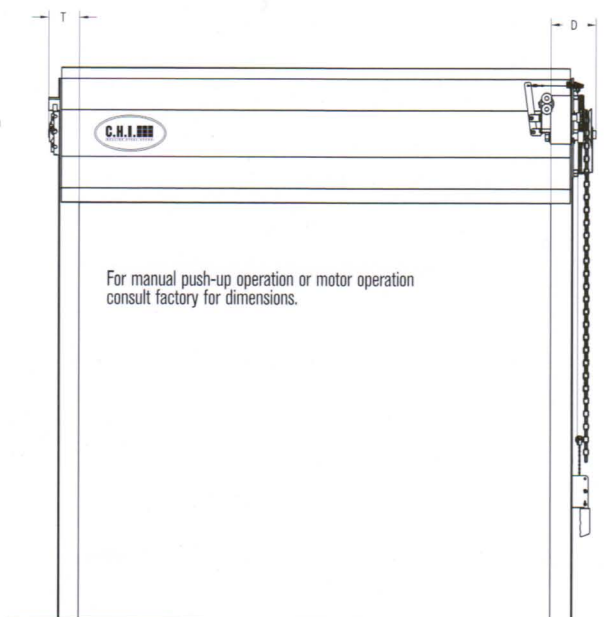
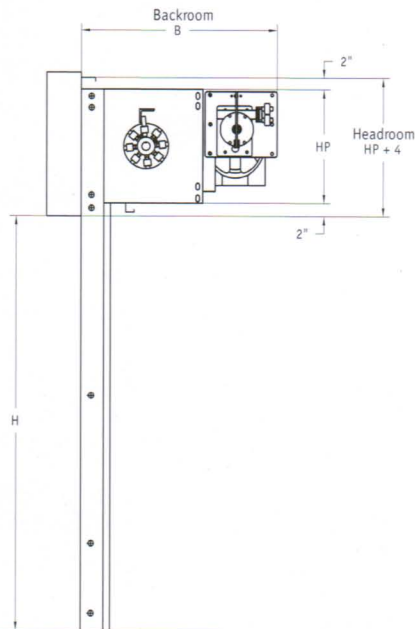
- a. Clean all finished surfaces after installation for a factory original appearance.
- b. Replace any damaged components before final inspection.
- c. Remove all packaging and debris from installation area at the completion of installation.

### 3.04 DROP TESTING:

- a. Upon installation, door shall be drop tested before appropriate witnesses to attest to successful drop operation and reset.
- b. Complete the Rolling Fire Door Inspection and Drop Test form that accompanies each door.
- c. Present operation and maintenance instructions to owner after demonstration, drop test and reset is witnessed.

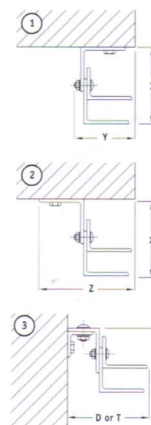
**3.05 SCHEDULED TESTING:** NFPA-80 and model code groups mandate annual inspection and drop testing of fire doors to check for proper operation and full closure.

## GUARDIAN™ CHAINHOISTER HEADER CLEARANCES & DIMENSIONS (INCHES)



## DETAILS CLEARANCES & DIMENSIONS

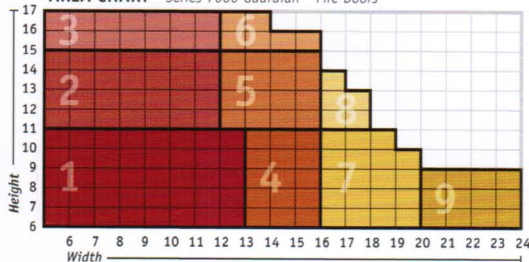
1. Steel
2. Wood or Masonry
3. Wood, Masonry or Steel



**NOTE:** Grifco Governor requires 12" of backroom.

\*When using Area Charts, if size falls on a zone division line, go up to the next zone.

**AREA CHART\*** Series 7000 Guardian™ Fire Doors



**3 and 4-HOUR FIRE DOORS**

zone	H	B	T	D	X	Y	Z
1	15"	28"	6-1/2"	7-1/2"	3-7/8"	4-3/8"	6-1/2"
2	17"	30"	6-1/2"	7-1/2"	3-7/8"	4-3/8"	6-1/2"
3	19"	32"	6-1/2"	7-1/2"	5"	4-3/8"	6-1/2"
4	15"	28"	7"	8"	4-1/4"	4-3/4"	7"
5	17"	30"	7"	8"	4-1/4"	4-3/4"	7"
6	19"	32"	7"	8"	5"	4-3/4"	7"
7	15"	28"	7-1/2"	8-1/2"	5"	5-1/4"	7-1/2"
8	17"	30"	7-1/2"	8-1/2"	5"	5-1/4"	7-1/2"
9	19"	32"	7-1/2"	8-1/2"	5"	5-1/4"	7-1/2"

Consult factory if headroom is critical or for sizes not listed.