

## 400 Series – Windload Certified Rolling Steel Door

### **Part 1 - GENERAL**

#### **1.1 DESCRIPTION**

**A. Type:** Standard Windload Certified Rolling Steel Doors to be manufactured by Asta America.

**B. Operation:** standard chain hoist operation, roller chains and sprockets. Hand chain galvanized machine link to pull 35 lbs. or less. Electric motor operation optional.

**C. Mounting:** to be interior face mounted on a prepared opening or exterior.

#### **1.2 RELATED WORK**

A. Opening preparation, access panels, finish or field painting are in the scope of the work of other sections or trades.

### **Part 2 - PRODUCT**

#### **2.01 CURTAIN**

**A. Slats:** Galvanized steel cold roll formed in continuous lengths. Galvanized according to A.S.T.M. A653-G30 and finished with baked polyester topcoat (finish colors listed below). 24GA, 22GA, 20GA, & 18GA available for 400WL & 400IM. 20GA & 18GA available for 400HD & 400MD.

1. Flat slat 2-5/8" x 5/8"
2. Curved slat 2-5/8" x 7/8" (400WL Only FBC 8888)

#### **B. Windlocks:**

1. 400WL & 400IM: each end of alternate slats to be fitted with malleable iron windlocks to maintain slat alignment.
2. 400HD & 400MD: each end of every slat to be fitted with malleable iron windlocks to maintain slat alignment.

**C. Windload:** 400WL & 400IM design pressures based on ANSI/DASMA 108/115 testing of a 24' wide x 10' high test door to +28.8/-30.5 psf and 16' wide x 10' high test door to +55/-60 psf design pressure. 400HD & 400MD design pressures based on TAS 201/202/203 testing of a 20' wide x 10' high test door to +60/-65 psf design pressure.

1. 400WL - Windload Certified Up To 24' wide x 30' (+28.8/-30.5 psf) and 32' wide x 30' high (+18.4/-20.2 psf)
2. 400IM - Impact Rated Up To 16' wide x 30' high (+55/60 psf) and 24' wide x 30' high (+28.8/-30.5 psf)
3. 400HD - Windload Certified Up To 28' wide x 30' high (+35.3/-38.3 psf)
4. 400MD - Miami Dade Certified Up To 20' wide x 30' high (+60/-65 psf)

**D. Bottom Bar:** Bottom bar consisting of two structural steel angles bolted back-to-back with bottom astragal, painted black (powder coat optional).

1. 400WL & 400IM: 2" x 2" x 1/8" hot rolled steel angles
2. 400HD & 400MD: 2" x 2" x 1/4" hot rolled steel angles

#### **2.2 BARREL ASSEMBLY**

**A. Barrel:** to be a steel pipe of diameter and wall thickness to restrict maximum deflection to .03" per foot (2.5 mm/m) of door width.

**B. Springs:** to be oil tempered, grease packed helical torsion type designed to cycle 25,000 times (other options are 50,000 and 100,000 cycles). Springs are to be mounted on a cold rolled steel inner shaft.

**C. End Bearing:** to be self lubricating ball bearings or oil impregnated bronze bushings.

## 2.3 BRACKET PLATES

- A. **Bracket Plates:** to be 1/4" (6.35mm) minimum thickness steel plate and enclose ends of barrel assembly.
- B. **Drive End Bracket Plate:** to be fitted with a self-aligning sealed ball bearing.

## 2.4 OPERATION

- A. **Chain Hoist:** to consist of roller chains and sprockets. Hand chain to be galvanized machine link. Pull not to exceed 35 lbs. (156 N).
- B. **Electric Motor Operation:** to be front of hood mount or wall mounted.

## 2.5 GUIDE ASSEMBLY 3-PIECE STRUCTURAL STEEL ANGLES

- A. **Wall Angles:** to be 1/4" (6.35 mm) minimum thickness structural steel angles.
- B. **Guides:** to be structural steel angles 3/16" (4.76mm) minimum thickness with removable head stops and 30" (762mm) service cutout on both sides.
- C. **Guide Depth:** to provide slat penetration adequate to satisfy specified windloading.
- D. **Weather Seal (optional):** non-coil side to be vinyl weather seal or aluminum retainer with brush seal.

## 2.6 HOODS

- A. **Hoods:** to be 24-gauge galvanized steel with baked epoxy primer and/or baked polyester topcoat and enclose coil
- B. **Reinforcing:** to be 1/4" (6.35mm) thick steel brackets for doors over 16'0" (4877mm) wide.

## 2.7 LOCKING

- A. **Hand Chain Lock:** Lockable bracket, mounted on guide angle or wall, suitable for padlocking, padlock by others.
- B. **Slide Bolt Lock:** Hardened galvanized steel slide bolts attached to bottom angle, suitable for padlocking, padlock by others.

## 2.8 FINISH

- A. **Ungalvanized Surfaces:** to be shop coated with rust reducing black prime paint, except for the malleable iron windlocks.
- B. **Curtain:**
  1. Satin White Topcoat
  2. Gray Topcoat
  3. Tan Topcoat
  4. Galvanized in 22 gauge only
  5. Powder Coat Optional Ral. # \_\_\_\_\_

## **Part 3 - EXECUTION**

### 3.01 INSTALLATION

- A. **Installation:** to be by Asta America authorized representative according to Asta America standards and instructions.