



## 420 Series - Vent Master Rolling Steel Door / 20 Gauge

11/23/2009

### Part 1 - GENERAL

#### 1.01 DESCRIPTION

- A. **Type:** Vent-Master Rolling Steel Doors to be manufactured by Porvene Doors, Inc.
- B. **Operation:** to be chain hoist operated using gear reduction.
- C. **Mounting:** to be interior face mounted on a prepared opening.

#### 1.02 RELATED WORK

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

### Part 2 - PRODUCT

#### 2.01 CURTAIN

- A. **Slats:** 20 gauge, galvanized steel cold roll formed in continuous lengths. Galvanized according to A.S.T.M. A653-G60 and finished with baked epoxy primer and baked polyester topcoat.
- B. **Vents:** flat slats to have Vent cutouts 5" (127mm) wide x 7/8" (22mm) high. Spaced 3" (76mm) apart.
- C. **Endlocks:** each end of alternate slats to be fitted with endlocks to provide a wearing surface in the guides and to maintain slat alignment. Fastened with 1/4" rivets.
- D. **Windload:** door construction designed to satisfy a *non-operational* windload in the closed lock position of windloads up to 20 PSF (0.96KPA) or 87 MPH (140 KPH). Consult factory for available sizes and corresponding windloads.
- E. **Bottom Bar:** curtain to be reinforced with a bottom bar consisting of two 2" X 2" X 1/8" (50.8mm x 50.8mm x 3.18mm) structural steel angles with P.V.C. bulb astragal.

#### 2.02 BARREL ASSEMBLY

- A. **Barrel:** to be a steel pipe of diameter and wall thickness to restrict maximum deflection to 0.03 in/ft (2.5mm/m) of door width.
- B. **Springs:** to be oil tempered, grease packed, helical torsion type designed to cycle 20,000 times with an overload factor of 25%. Springs are to be mounted on a cold rolled steel inner shaft. Option of high cycle spring life.
- C. **End Bearings:** to be self-lubricating ball bearings or oil-impregnated bronze bushings.

#### 2.03 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 self aligning sealed ball bearing.

#### 2.04 OPERATION

- A. **Drive:** to be roller chain reduction or (optional) electric motor.
- B. **Hand Chain:** to be galvanized machine link. Pull not to exceed 35 lbs. (156N).

#### 2.05 GUIDE ASSEMBLY

- A. **Wall Angles:** to be structural steel angles, minimum 3/16" (4.76mm) thick.
- B. **Guides:** to be structural steel angles 3/16" (4.76mm) minimum thickness with removable head stops.
- C. **Guide Depth:** to provide slat penetration adequate to satisfy specified wind loading.

#### 2.06 HOODS

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

#### 2.07 LOCKING

- A. **Hand Chain Lock:** chain keeper, to be mounted on guide angle or wall for chain operated doors.
- B. **Curtain Lock:** (Optional) to be hardened galvanized steel slide bolts attached to bottom angle, suitable for padlocking. (Padlock by others)

#### 2.08 FINISH

- A. **Ungalvanized Surfaces:** to be shop coated with rust reducing black prime paint.

### Part 3 - EXECUTION

#### 3.01 INSTALLATION

- A. **Installation:** to be by authorized representative according to Porvene Doors, Inc. standards and instructions.

\*A.S.T.M. A653 is the new designation of ASTM A527