



ROLLING DOORS

1. Scope

This specification defines the materials and design criteria of a complete bottom rolling door system as manufactured by WELL BILT INDUSTRIES of Williston, Florida

2. Materials

All materials used for the construction of rolling door system components shall be new and free from any defects or imperfections which could affect serviceability.

- **2.1** Hot rolled structural steel shapes shall conform to ASTM A36 with a minimum yield strength of 36,000 psi. Tensile strength is 58,000 to 80,000 psi.
- **2.2** Cold formed structural steel shapes such as cee's, zee's and channels shall conform to ASTM A570 grade 55 with a minimum yield strength of 57,000 psi.
- **2.3** Welded mechanical tubing shall conform to ASTM A-500 grade B with a minimum yield strength of 46,000 psi. Typical tensile strength is 58,000 psi.
- **2.4** Mechanical fasteners critical to the assembly or function of a rolling door system shall be ASTM-A-325 or SAE grade 5. Bottom track support anchor bolts or threaded rod may be ASTM-A-307 or equivalent.
- **2.5** Elastomeric sealing elements to seal the sides and bottoms of the door systems shall be fabricated using EPDM type 40 elastomer. EPDM is for outdoor and high temperature applications. It resists ozone, steam, water, oxygenated solvents plus animal and vegetable oils.



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3. Framing

The basic outer frame shall be constructed of hot rolled or cold formed structural steel shapes or in the case of relatively small door sections, welded mechanical tubing.

- **3.1** Vertical structural members, referred to as stiles or jambs shall be one piece for the height of the door. They shall be designed for a maximum vertical plane deflection not to exceed the door height in inches divided by 180 (L/180) at specified code and wind load conditions. Where wind load is not specified, a standard wind load of 90 MPH shall be used.
- **3.2** Door Horizontal members
 - **3.2.1** Bottom beam or sill shall be structurally capable of supporting the total weight of the finished door and transmitting that weight plus the lateral force due to wind loading through the bottom rollers to the bottom track system.
 - **3.2.2** Top beam or header shall be structurally capable of transmitting wind load forces into the top guide system.
 - **3.2.3** Intermediate horizontal members or girts are normally fabricated from hot rolled structural shapes unless weight is a consideration then cold formed shapes may be substituted. Members are typically spaced so as to provide proper vertical spacing for attaching the customers exterior sheeting.
 - **3.2.4** Intermediate vertical members shall be hot rolled or cold formed structural shapes as required to accommodate imposed loads.
 - **3.2.5** Diagonal bracing shall be of cold formed structural shapes or welded mechanical tubing.
 - **3.2.6** Construction - Except for small door sections which can be transported in one piece, WELL BILT INDUSTRIES rolling doors are fabricated in sections which can be easily shipped. These sections are then bolted at the job site to clips that are welded to the vertical members.

4. Bottom roller and track system

All bottom rollers used by WELL BILT INDUSTRIES are equipped with re-lubeable anti-friction bearings. Smaller, light weight doors are supplied with vee groove rollers with caged needle anti-friction bearings for use with inverted angle track systems. Larger doors are furnished with tapered roller bearing bottom rollers designed to be used with rail track systems. All bottom roller systems are serviceable without removing the door section from the track.

5. Top guide system

WELL BILT INDUSTRIES offers both fixed and telescoping top guide systems. The fixed top guide system can accommodate a maximum total vertical deflection of three inches. The telescoping top guide system is used where total building vertical deflection is greater than three inches or where positive engagement of the top guide is required because of wind uplift conditions. Both systems utilize sealed ball bearings for guide and carrier rollers. The fixed top guide system engages a structural angle guide beam and the telescoping top guide system engages an "I" or wide flange beam. Either are furnished by WELL BILT INDUSTRIES and are to be installed by others. Lateral supports for the top guide beams are to be supplied by others and are to be spaced 8' to 10' apart.

6. Pick up bars

WELL BILT INDUSTRIES provides pick up bars to be welded or bolted to the leading and trailing edges of the door sections of a power operated door system. These bars permit multiple sections to be opened or closed by one operator.

7. Weather Seals

WELL BILT INDUSTRIES shall provide EPDM style 40 black rubber and galvanized retainer strips for bottom and side of each rolling door section.

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8. Protective Finish

Standard finish on WELL BILT INDUSTRIES doors is a low voc gray oxide primer. This provides short term protection of the metal surfaces until the door is installed and can be painted with a finish coat of paint. Red primer can be provided by request. An optional charcoal gray metallic industrial enamel finish paint is available.

9. Rolling Door Operators

WELL BILT INDUSTRIES offers a patented rolling door operator adaptable to either in-the door or out-of-door installation. Most WELL BILT INDUSTRIES rolling door systems can be furnished with or retrofitted with operators.

10. Personnel Doors

The standard personnel door supplied by WELL BILT INDUSTRIES is a 3078 size aluminum framed, hollow core door (30' x 78'). Other sizes are available on special order. An electrical interlock can be provided to prevent the door from being operated unless the personnel door is securely closed. Passage lock sets and wind chains are included. WELL BILT INDUSTRIES also offers wind load rated personnel (36' x 80'), as well as framed openings for personnel doors provided by others (sized per customer specifications).

Lock sets with dead bolts are available as well as master keyed lock sets for multiple door installations.

11. Information and Documentation

WELL BILT INDUSTRIES provides drawings, cut sheets and instructions adequate for the preparation of the job site and the assembly and installation of the rolling door system.

12. Compliance

WELL BILT INDUSTRIES doors are constructed to comply with all codes and specifications provided at the time an order is initiated. Wind load compliance certification by a professional engineer licensed to practice in the state of Florida is available if required. WELL BILT INDUSTRIES is a Miami-Dade County Approved Hangar Door Manufacturer and has been issued a Certificate of Competency.

13. Warranty

WELL BILT INDUSTRIES rolling door systems are warranted for one year from the date of purchase against defects in material and workmanship. Refer to WELL BILT INDUSTRIES for specific details.

14. Owner's Manual

WELL BILT INDUSTRIES will provide each customer with an "Owner's Manual" which details the specifics pertaining to their custom door system.