



Specifications

High Range Blast Resistant Doors (The "HRB" Series)

Part I - General

1.1 Description

- a) **Product:** Provide blast-resistant custom-designed swinging door system where shown on drawings and as specified herein.
Nominal door size is: [] w x [] h.

1.2 Submittals

- a) **Shop Drawings and Calculations:** Submit () copies of shop drawings. The drawings shall show details of fabrication, installation and frame to wall anchorage. The drawings shall also fully detail and describe the latch, hinges, hardware functions and, if required, thresholds and weather stripping. Provide design calculations showing conformance with the specified blast loading requirements or provide certified test reports from an independent laboratory.
- b) **Warranty:** Provide () copies of the manufacturer's warranty. The manufacturer shall warrant its products to be free of defects in labor and material for one year after shipment.

Part 2 - Products

2.1 Design

- a) **Design Basis and Type:** Blast resistant pre-engineered door system designs shall be based on the HRB series as manufactured by the Overly Door Company, Greensburg, PA 15601-0070.
- b) **Design Criteria:** Custom designed swinging door to be Overly Model HRB or equal. The door, frame and restraining hardware shall be designed to withstand a dynamic overpressure of [] psi for duration of [] ms. Rebound pressure shall be based on the dynamic response of the door. Initial blast pressure acts to [seat] [unseat] the door. Ductility ratio shall be limited to []. Door edge rotation shall be limited to [] degrees. Door [shall remain operable] [is permitted to be inoperable] after specified loads.
- c) **Secondary Design Criteria:** Assemblies shall resist penetration from a steel missile fragment weighing a maximum of [] oz. [gm] and traveling at a velocity of [] fps [mps]. Door to be air and gas tight before and after the blast. Assemblies shall be fire-rated for [3] [1 1/2] hr.

2.2 Fabrication

- a) **General:** Assemble work using all welded construction conforming to the applicable requirements of AWS D1.1 and D1.3.
- b) **Materials:** Construct from formed sheet conforming to ASTM A1008 or ASTM A1011. Steel plate and shapes for reinforcing and/or framing members shall conform to ASTM A36 and bars shall conform to ASTM A108 Grade 1018. Hardware shall be corrosion resistant steel of the appropriate design for the function intended.

- c) **Painting and Cleaning:** After fabrication, remove all tool marks and surface imperfections, and dress all welded joints smooth and coat with a rust-inhibitive primer.

Part 3 - Quality Control

- a) **Quality Control:** Manufacturer shall submit evidence of having been engaged in the design and manufacture of similar blast resistant door assemblies for a minimum of (10) years.

Part 4 - Execution

- a) **Site Storage and Protection of Materials:** Store all material in a dry, controlled area to protect from damage.
- b) **Installation:** Install work in strict accordance with approved shop drawings and recommended installation instructions of the manufacturer. Certified welders in accordance with AWS D1.1 and D1.3 must perform any required field welding.