



Specifications

Medium Range Blast Resistant Doors

(The "MRB" Series)
Single or Pair Swing

Part I - General

1.1 Description

- a) **Product:** Provide blast-resistant 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 Certification:** Submit () copies of shop drawings and certified blast resistance test reports. 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, closers and weather stripping. The certified test reports shall be 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 MRB series as manufactured by the Overly Door Company, Greensburg, PA 15601-0070.
- b) **Design Criteria:** Pre-engineered swinging doors to be Overly Model MRB or equal. The door, frame and restraining hardware shall be designed to withstand pressures up to [] psi seating the door into the frame and [] psi unseating the door from the frame (rebound). The door system shall be fully operable after application of the specified loads.
- c) **Product Description:** Doors shall be constructed of 11 gauge carbon steel face sheets, cold-formed and structural tube internal stiffeners. Doors shall be a nominal 2 3/4" thick, full flush, constructed and reinforced to resist the blast forces specified. Design door hardware and reinforcements to transfer all applicable loadings to frame. Design frame anchors to transfer all loadings to walls or structural sub-frame embed. Frames shall be [#11-gauge formed steel with formed stops] [structural channel, weld-in] [structural channel, poured in place], three sided, factory reinforced and tapped for hardware. Frame anchorage shall be [concrete expansion anchors] [tap bolts] [welded connection] [strap anchors (poured in place)].
- d) **Fire rating:** Those openings scheduled as fire rated shall have been tested by and bear the labels of Underwriters Laboratories marked for 3 hour, A label for flush doors and 1 1/2 hour, B label for doors with a vision light or window (Maximum vision area: 100 square inches).
- e) **Lockset (MRB-1, active leaf):** Overly single point Model "5000 Series Modified" lockset equipped with a solid stainless steel latchbolt. The function of the lockset to be

determined by the user. The lockset shall be suitable for use with project master-keyed key cylinders where specified.

- f) **Lockset (MRB-2, active leaf):** Overly single point Model "7000 Series Modified" lockset equipped with a hardened steel latchbolt. The function of the lockset to be determined by the user. The lockset shall be suitable for use with project master-keyed key cylinders where specified.
- g) **Lockset (MRB-3, -4, active leaf):** Overly two point Model "900-C" lockset equipped with hardened steel latch-bolts. The function of the lockset to be determined by the user. The lockset shall be suitable for use with project master-keyed key cylinders where specified.
- h) **Passive Restraining Pins:** Dependent upon the loading on the door panel, passive hardened restraining pins may be mounted in the hinge edge of the door directly adjacent to each hinge.
- i) **Door Closer:** Hydraulic Closer as required.
- j) **Weather stripping:** Provide [solid] [closed cell sponge] elastomer seals.
- k) **Hinges:** Hinge shall be Overly Model M1800 heavy-duty mortised butt hinges of sufficient size and quantity to withstand blast loadings and door weight.

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 Assurance

- a) **Experience:** Provide work of this Section designed and furnished by one manufacturer. Use a manufacturer who is ISO9001:2000 certified and has been engaged in the manufacture of Blast Resistant Metal Swinging Door systems for at least five (5) years immediately prior to the start of this work, and who has a history of successful production acceptable to the Architect.

Part 4 – Execution

4.1 Site Storage & Protection of Materials

- a) **Receipt:** Upon receipt of product, all materials shall be thoroughly inspected and all discrepancies, deficiencies and/or damages shall be immediately reported to the supplier in writing.
- b) **Storage:** Store all materials on planks or dunnage in a dry location in a vertical position, spaced by blocking to permit air circulation between units. Cover all material or store in a controlled area to protect from damage.

4.2 Installation

- a) **Prior to installation,** secure the services of a qualified representative of the manufacturer to visit the job site and instruct the contractor's personnel in proper installation and adjustment of the assemblies or secure services of manufacturer's factory trained and authorized installer to perform installation of assemblies.
- b) **Install work of this Section** in strict accordance with approved shop drawings and manufacturer's recommended installation instructions. Where installations require

field welding, all work must be performed by certified welders in accordance with AWS D1.1/D1.3.

- c) **Upon installation**, secure the services of a qualified representative of the manufacturer to visit the jobsite and inspect the complete installation of the door and frame assemblies, test all components thru a minimum of ten (10) cycles of operation and direct installer in correcting any non-conforming items found.