

SECTION 08 39 50

BULLET-RESISTANT STEEL DOORS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Bullet-resistant steel door and frame assemblies.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.
 - 2. Section [08 7100 - Door Hardware.] [__ ____ - _____.]

1.2 REFERENCES

- A. American Welding Society (AWS) (www.aws.org) D1.3/D1.3M - Structural Welding Code - Sheet Steel.
- B. ASTM International (ASTM) (www.astm.org) A1008/A1008M - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
- C. Underwriters Laboratories (UL) (www.ul.com) 752 - Bullet Resisting Equipment.

1.3 SYSTEM DESCRIPTION

- A. Design Requirements: Provide door and frame assemblies of "non-ricochet type" intended to permit capture and retention of attacking projectile, lessening potential of random injury or lateral penetration.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Provide hardware templates to door and frame assembly manufacturer for preparation of door and frame units to receive hardware other than hinges.

1.5 SUBMITTALS

- A. Submittals for Review:
 - 1. Shop Drawings: Include door and frame profiles and sizes, type and spacing of frame anchors, reinforcement size and locations, details of joints and connections, and welding details.
 - 2. Product Data: Include product description for door and frame assemblies including bullet-resistant ratings.
- B. Closeout Submittals:
 - 1. Maintenance Data: Include instructions for cleaning of glazed panels.

1.6 QUALITY ASSURANCE

- A. Door and Frame Assemblies: Ballistic Level [[1,] [2,] [3,] [4,] [5,] [6,] [7,] [8,] tested to UL 752.] [AP.]
- B. Doors and frames manufactured by same firm.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Store door and frame assemblies upright in protected, dry area, off ground or floor, with at least 1/4 inch space between individual units.

- B. Do not cover with non vented coverings that create excessive humidity.
- C. Remove wet coverings immediately.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Contract Documents are based on products by ARMORTEX, 5926 Corridor Parkway, Schertz, Texas, 800-880-8306, www.armortex.com.
- B. Substitutions: [Under provisions of Division 01.] [Not permitted.]

2.2 MATERIALS

- A. Steel Sheet:
 - 1. ASTM A1008/1008M, cold rolled, free from scale, pitting, coil breaks, and other surface defects.
- B. Bullet-Resistant Composite: UL Listed Bullet Resistant Composite by ARMORTEX, of UL level equal to specified door and frame ballistic protection level.
- C. Ballistic Steel: Hi-Hard Ballistic Steel, of UL Ballistic Level equal to specified door and frame ballistic protection level.

2.3 ACCESSORIES

- A. Hinges: Aluminum continuous gear type.

2.4 FABRICATION

- A. Doors:
 - 1. Fabricate with 16 gage steel face plates, foam insulation, and [bullet-resistant composite] [ballistic steel] core.
 - 2. Weld 16 gage rails and stiles to face plates with flush surface on all edges.
 - 3. Factory hang doors in frames using specified hinges.
 - 4. Mortise and reinforce doors and frames at factory to receive hardware in accordance with approved hardware schedule.
 - 5. Vision Panels: Clear glazing material of same ballistic level as door and frame assembly.
- B. Frames:
 - 1. Same ballistic protection as doors.
 - 2. Fabricate from 16 gage steel lined with [bullet-resistant composite.] [ballistic steel.]
 - 3. Weld frame corners; knock-down and mechanical joints not acceptable.
- C. Welding: In accordance with AWS D1.3/D1.3M. Grind exposed welds flush and smooth.
- D. Finish work neat and free from defects.
- E. Allowable Tolerances: Plus or minus 1/16 inch for frame opening width, height, diagonal dimensions, and overall width and height (outside to outside).

2.5 FINISHES

- A. Steel:
 - 1. Dress tool marks and surface imperfections to smooth surfaces.
 - 2. Clean and chemically treat steel surfaces.
 - 3. Apply manufacturer's standard rust inhibiting gray primer paint.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install door and frame assemblies in accordance with manufacturer's instructions and approved Shop Drawings.
- B. Set plumb, square, and level.
- C. Secure to adjacent construction using fastener type best suited to application.
- D. Drill and tap for surface-mounted hardware in field. Install hardware in accordance with Section [08 7100.] [__ ____.]
- E. Field alterations to door and frame assemblies other than drilling and tapping for surface-mounted hardware not permitted unless approved in advance by manufacturer and Architect.

3.2 ADJUSTING

- A. Touch up minor scratches and abrasions in primer paint to match factory finish.
- B. Adjust doors to swing freely, without sticking or binding.

END OF SECTION