

# Specification — Hollow Metal Doors

A&L Shielding's hollow metal doors are designed to contain various levels of shielding protection and can be equipped with a variety of hardware.

## Hollow Metal Doors

### **GENERAL:**

These doors are designed to provide an appearance equal to premium grade hollow metal doors while providing radiation protection.

They are constructed to support the high weight resulting from a full lead sheet located in the center of the door. The basic concept of the design permits all normal architectural hardware to be used in the final door and frame assembly to provide equal performance and appearance to unlined hollow metal doors.

### **PRODUCT DETAILS:**

Fabricate doors from cold rolled steel with a stretcher level degree of flatness. Cold rolled steel shall conform to ASTM Designation A366.

### **EXECUTION:**

Installation should conform with the latest issue of DHI's "Installation Guide for Doors and Hardware."

Special emphasis should be placed on the selection of a proper hinge system and the attachment of the door frame to the wall because of the high weights involved with lead lined doors.

Comply with SDI-100 requirements to be Grade II, Heavy Duty, Model 3, Seamless - Hollow Steel Construction. Form door face sheets from one sheet of 18 gage material with either 16 gage or 14 gage steel available as an option. No seams are allowed on the door face and no visible seams are allowed on the vertical edge. Close the top and bottom of the door with a recessed channel end closure or a flush end closure treatment (end closures are to be not less than 18 gage steel). Face sheets and sheet lead core shall be stiffened by vertical steel stiffeners. Stiffeners shall be formed from not less than 18 gage steel, spaced not more than 6" on center. Lead shall be fastened to stiffeners with adhesive to control movement and noise.

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**LEAD LINED** - Provide a continuous lead sheet of specified thickness, meeting Federal Spec QQ-L201F, Grade C, which is 99.9 percent pure lead, and free from dross, oxide inclusions, laminations, scale blisters or cracks. Extend to all edges of the door. Locate lead in the center of the door using steel stiffeners as support.

**FIRE LABEL** - A fire label to three hours is available.

**HARDWARE REINFORCEMENT** - Shall comply with SDI-107 and ANSI115 Series standards. Prepare per hardware schedule.

**LITE OPENINGS** - Supply a lead lined metal lite frame kit and lead glass assembly for the size and label requirements of this project. Double glaze with either labeled wire glass or ceramic glazing and lead glass where required by local and national fire codes. Meet all local codes.

**FINISH** - After fabrication, clean and dip or spray all exposed surfaces of the door with a coat of rust inhibiting primer, either air dried or baked on. American National Standard "Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces" ANSI A224.1 shall apply to the product finish.

**INSTALLATION** - To be in conformance with the current issue of DHI's "Installation Guide for Doors and Hardware" with special emphasis on selection of the proper hinge system and on a rigid frame attachment to the wall, both because of the high door weights involved.



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