



## **PART 1 GENERAL**

### **1.01 DESIGN CRITERIA**

- A. The prefabricated metal Hazardous Material Storage Building shall be designed in accordance with Uniform Building Code (UBC), Building Officials and Code Administrators (BOCA), National Building Code (NBC), Southern Building Code (SBC), Uniform Fire Code (UFC), National Fire Protection Association (NFPA 30), Occupational Safety and Health Administration (OSHA), Environmental Protection Agency (EPA) Codes and Regulations and compliance with the requirements of the local *Authority Having Jurisdiction* (AHJ).
- B. The building system shall carry the ULC/ORD-C 142.6, “Storage Vaults” label for fire and explosion resistance and the Factory Mutual (FM) label for Standard 6049 “Flammable and Combustible Liquid Storage Building.” The entire building assembly shall have undergone and passed investigation by a recognized standards development organization (UL/ULC) including the following performance tests: 1) freeze-thaw; 2) hydrostatic; 3) vandalism protection; 4) interior pool fire; 5) hose stream; 6) vapor explosion; 7) drum explosion; and, 8) environmental exposure (coating endurance).
- C. The building system shall be of all-welded non-combustible construction using heavy gauge (14) corrosion protected steel. The steel shall be blasted, sanded and coated with an industrial epoxy gray primer (4 mil) and bone white/cream urethane top coat (3 mil) on both the INTERIOR and EXTERIOR surfaces. All seams shall be caulked with polyurethane sealant.

Contact Core Engineered Solutions, Inc. 800.628.5502 / info@core-es.com

## **PART 2 PRODUCTS**

### **2.01 FABRICATION**

The building system shall be designed and include:

- A. Walls:
  - 1. 14 gauge welded load bearing steel wall panels, supported by vertical formed 14 gauge steel members
  - 2. Natural ventilation fixed aluminum louvers
  - 3. All walls (interior and exterior) entirely coated with chemical resistant urethane paint
- B. Roof:
  - 1. 12 gauge welded steel panels supported by HSS members
  - 2. Sloped roof assembly with overhangs front and back to ensure rain and snow runoff and limit moisture contact with wall assemblies
  - 3. Entire roof construction coated with chemical resistant urethane paint
- C. Door:
  - 1. 14 gauge welded steel panels on exterior face supported on HSS sections for door frames
  - 2. Stainless steel hinges, (welded construction) four per door with non-removable pins

3. Three point locking heavy-duty hardware (allows padlock) with interior safety override and interior stainless steel striker plates for hardware engagement
  4. Door height and width to afford two high drum palletized storage capacity
  5. Replaceable clip-on weather stripping around door frame
- D. Floor:
1. Galvanized 10 gauge steel grated decking level with door threshold and designed to withstand a loading rate of 300 lbs/sq ft
  2. All decking supported on preformed (raised) sump dividers - not square tubing or channels
  3. Open grating to insure visual inspection of incidental spillage in sump area
  4. Individual grating pieces to weight less than 40 lbs to meet OSHA requirements
- E. Sump:
1. Monolithic secondary containment assembly with containment capacity minimum equal to 25% of maximum liquid storage capacity within building
  2. Visual inspection under assembly provided by 4-6" elevation to comply with EPA monitoring requirements
  3. Structural steel skid assemblies, welded to underside of sump frame Assembly
  4. Floor of 10 gauge steel, with continuous welds to ensure leak free Containment
  5. Containment divided into 36" wide chambers to confine spillage to the smallest possible area
  6. Entire assembly shall be hydrostatically tested for a period of two hours to verify containment capabilities. This procedure shall be part of the UL/ULC procedures manual and periodic inspection program and shall be verified by the manufacturer's listing.
- F. Base: Standard open channel base for inspection and fork lift access
- G. Grounding: Exterior grounding and bonding tab included
- H. Hazardous Material: DOT placard holder on door exterior and MSD sheet binder holder on inside of door
- I. Shipping and Delivery: Building systems to be shipped requiring no on-site assembly
- J. Limited Warranty:
1. The building structure shall carry a written limited warranty (in the owner's manual) for a period of ten years for manufacturing defects from defective materials or workmanship The building structure shall carry a written limited warranty (in the owner's manual) for a period of ten years for manufacturing defects from defective materials or workmanship
  2. The exterior finish will not craze, peel or otherwise corrode or discolor, for a period of one year from the date of installation
  3. Entire building system will be water and weather tight, structurally sound and free from distortion for a period of three years from the date of Final Certificate of Completion

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