

A & A Sheet Metal Products, Inc.

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Minimum Specifications for Agri-Chemical Storage

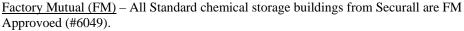
Provide and deliver one pre-engineered, portable hazardous material storage building to selected location. This building shall be FM approved and suitable for storage of combustible, flammable liquids and other hazardous materials. Building shall not require specific foundations or supports. All materials used in construction must be new and unused. Use of wood in construction is unacceptable. Manufacturing quality compliance shall be in accordance with ASTM, AISI, and AWS materials and fabrication standards. The building must meet the model building codes, model fire codes, safety and environmental regulations:

Current Additions:

- International Building Codes (IBC)
- BOCA National Building Code
- Standard Building Code
- Uniform Fire Code
- BOCA National Fire Prevention Code
- Standard Fire Prevention Code
- BOCA Building Officials and Code Administrators
- National Electric Code (NEC/NFPA 70)
- OHSA (29 CFR)
- EPA (40 CFR)
- California Administrative Code
- NFPA National Fire Protection Assoc.
- AWS American Welding Society
- AISC American Institute of Steel Construction
- ANSI American National Standards Institute
- ASTM American Society For Testing and Material
- USPC United States Product Code







Walls are Non-Fire Rated, 2-Hour Fire Rated, or 4-Hour Fire Rated (Check with Local authority having Jurisdiction for Correct wall rating needed).

Roof to be FM Approved Non-Fire Rated, 1.5-Hour Fire Rated, or 3-Hour Fire Rated.



Underwriters Laboratories (UL) – Securall fire doors and window frames are UL Listed (#R18951). Securall Swinging doors are UL Listed (#R18828) and certified in Canada.



















What are SMaRT Sustainable Products?

They are independently certified products deemed to be the best option for the overall sustainability of the environment.

Structural Features

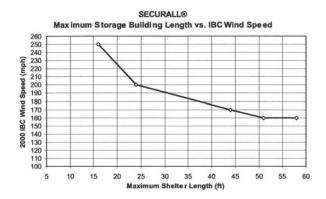
Standard Design Loads

Roof Snow Load: Up to 70 PSF

Wind Load: Min. 90 mph (B1200 and smaller), Min. 170 mph (B1600 and larger)-See Wind Shear Chart

Live Floor Load: 250 psf standard – 500 psf available

Seismic Condition: Zone 4

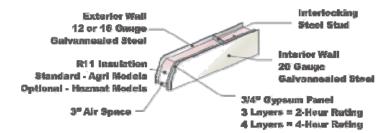


Exterior Wall Construction for AG200-AG1200

Provide noncombustible walls constructed from heavy gauge steel to provide maximum durability, weather resistance, and rigidity.

Exterior Wall Construction for AG1600-AG8000

Provide noncombustible walls constructed from heavy gauge steel to provide maximum durability, weather resistance, and rigidity.



Roof/Ceiling Construction

Provide noncombustible roof/ceiling constructed from steel to provide maximum durability, weather resistance, and rigidity. Roof must be sloped to facilitate rainwater runoff. Roof/ceiling must be permanently attached to exterior walls. Fire rated building should include a FM Approved and Intertek Tested 1.5-hour fire rated roof for a 2-hour fire rated building, and a 3-hour fire rated roof on a 4-hour fire rated building.

Door for AG200-AG400

Provide one 42" wide x 62.5" high door to facilitate the unloading and loading of hazardous material within the building. Installed with a UL Classified commercial grade keyed lockset. The door shall serve as personnel entrance and exit.

Door for AG600-AG1200

Provide one 42" wide x 80" high door to facilitate the unloading and loading of hazardous material within the building. Installed with a UL Classified commercial grade keyed lockset. The door shall serve as personnel entrance and exit.

Door for AG1600-AG8000

Provide one 60" wide x 80" high double door to facilitate the unloading and loading of hazardous material within the building. Installed with a UL Classified commercial grade keyed lockset. The double door shall have one active leaf to serve as personnel entrance and exit. The active leaf must be equipped with a door closer. Available as an upgrade on models B600 through B1200.

Sump Containment

Provide built-in 7-inch high spill containment sump with chemical resistant coating. Sump construction to be weather proof, noncombustible utilizing continuously welded steel sheets for maximum spill containment protection. Mechanical fastener penetrations cannot be used on sump wall skins. Sump capacity to be a minimum 25% of total storage capacity of the building.

Steel Floor Planking

Floor planking above sump area shall be galvanized steel for maximum corrosion resistance. Floor planking must be designed to sustain a minimum uniformly distributed load of 250 pounds per square foot (psf). Floor planking supports must be removable to facilitate sump cleaning in the event of a spill. Permanent or welded in place floor supports are unacceptable.

Building Base

Provide open channel design to allow visual inspection under building. Crane/forklift opening to be provided for ease in off loading and relocation.

Interior Finish

Finish on ceiling, walls, and sump floor with a two-part chemical resistant white aliphatic polyurethane. Able to withstand salt spray/chemical rub and durable to impact damage.

Exterior Finish

Finish on roof, walls, and doors surfaces with a two-part chemical resistant white aliphatic polyurethane. UV protection. Able to withstand salt spray/chemical rub and durable to impact damage.

Signs/Labeling

Provide permanent aluminum DOT placard holder, NFPA 704 hazard rating sign, Danger Pesticide Storage Area Sign, and No Smoking/No Open Flames label on front of building.

Anchoring

7 gauge angle with 7/8" hole welded to building for wind and seismic anchoring.

Air Inlet Vents

Provide air inlet vents for natural ventilation. Natural ventilation shall provide a rate of 1cubic foot per min per square foot of floor space. Each vent to be equipped with an exterior louver for optimum airflow and preclusion of bird and animal entry.

Fire Rating

If a fire rated building is required, it must have an FM Approved Fire Rated Wall and Roof Design. Wall and roof should be tested at Intertek Testing Laboratories. Wall ratings are either 2 or 4 hour fire rated (Check with your local authority having jurisdiction for correct wall/roof rating needed). Roof ratings are either 1.5 or 3 hour fire rated. Building will consist of multiple layers of ¾" Gypsum Ultracode Wallboard. Air inlet vents will have UL Listed and Labeled fire dampers with louvers. Dampers have a galvanized steel frame, curtain-style galvanized steel blades and a UL Listed 165 degree fusible link.

Electrical System

Provide a pre-wired electrical system including necessary breaker panel, relays, and switches. All interior electrical components must be rated for class 1, division 1 or division 2, subtle for hazardous locations. Pre-wired electrical systems to include one exterior NEMA 3R load center with appropriate circuit breakers.

Grounding

Provide interior and exterior grounding lugs to building. Exterior optional – grounding kit with ½" dia. X 8' long copper plated ground rod, ½" dia. Copper alloy rod clamp, and 10' - #6 bare copper wire. Conforms to OSHA requirements 1910.106. Building to be grounded per local building codes.

Interior Lighting

Provide dust/moisture resistant fluorescent light(s) ceiling mount type and rated for wet locations. Light fixture to be activated by one exterior light switch suitable for outdoor locations. Electrical requirements are 120 volt, single phase, .73 amps, 40 watt, UL Listed.

Exterior Lighting

Provide one exterior moisture resistant light fixture with photocell rated for outdoor locations. Light fixture shall be fully enclosed with a gasket between the die-cast aluminum housing and lens. A lens guard shall protect shall protect the lens. Electrical requirements are 120 volt, single phase, 1.25 amps, 150 watt, UL Listed.

Receptacles

Provide one exterior GFI receptacle located in close proximity to load center. Electrical requirements are 120 volt, single phase, 20 amps, UL Listed.

Fire Suppression Systems (Optional)

Fire Sprinkler Assembly

Provide fire sprinkler piping subassembly equipped with a minimum of one sprinkler head and an exterior NPT fitting.

Dry Chemical Fire Suppression System

Provide one pre-engineered dry chemical fire suppression system rated for Class A, B, and C fires. Systems to include fusible link detection for automatic actuation, audible alarm, and exterior manual activation. System to include interior nozzle system for total flooding application. Dry chemical agent tank and releasing device must be housed inside an exterior tamperproof enclosure per the requirements of NFPA 17. System to be equipped with automatic ventilation system shutdown upon system actuation. SECURALL® is a certified Ansul installer.

Heating, Ventilating, and Air Conditioning System (Optional)

Heating System

Provide explosion proof convection heater and interior mounted thermostats rated for Class I, Groups B, C, and D, Division I hazardous locations. Thermostat to have user adjustable temperature settings from 50° F to 90° F. The heater is to have a NEC Operating Temperature Code of T2A and rated for hazardous atmospheres with auto ignition temperatures at or above 536° F. UL Listed

Explosion Proof Ventilation System

Ventilation system includes one UL Listed through the wall 200 CFM ventilator. Exhaust blower is an industrial centrifugal type fan. Interior exhaust shall be located within 12 inches of the floor facilitating the extraction of heavier than air vapors. Electrical requirements are 120 volt, single phase, 2.1 amps, 1/80 HP, 1050-1550 RPM.

Air Conditioning System

Provide explosion proof convection air conditioner rated for Class I, Groups B, C, and D, Division II hazardous locations. Air conditioning unit to be equipped with one interior thermostat bulb and one exterior temperature controller with user adjustable temperature setting from 70° F to 100° F. Protective coating to be applied to finned tube coils (evaporator and condenser), compressor and all other exposed surfaces. UL Listed

Other options available, please ask sales associate.











