

Bally Modular Structures

Architectural Specifications

1. SCOPE - These specifications cover **BALLY MODULAR STRUCTURES** and related equipment and accessories, manufactured or supplied by Bally

2. MANUFACTURERS' INSTALLATION INSTRUCTIONS - Contractor shall furnish to owner instructions detailing assembly of the building, wiring diagrams, operating and maintenance instructions, and other data pertaining to proper upkeep and operation of the building. Installation, start-up and testing shall be carried out in accordance with the equipment manufacturers' published instructions.

3. WARRANTY - 10 YEARS - The manufacturer shall warrant that **Bally** manufactured components are free from defects in material or workmanship under normal use and service. The warranty shall not apply to equipment which has been subjected to any accident, alteration, abuse, misuse or improper installation and shall not include any labor charges for replacement or repair of defective panels, parts or other equipment. Review all warranties for specific details pertaining to coverage.

4. PERFORMANCE SPECIFICATIONS - Because requirements vary with individual site locations and local construction regulations, review and approval of all such plans must be the responsibility of an engineer familiar with the circumstances of the individual installation. All work and materials shall be in full accordance with local and/or state ordinances, and with any other prevailing rules and regulations regarding potentially hazardous equipment or locations. **Bally Modular Structures** is not responsible for furnishing items required by the regulations, but not specified or shown on the drawing or contained in the specifications.

A. The urethane foam core of the panels shall be certified by Underwriters Laboratories as having flame spread of 25 or lower and smoke generation of 450 or lower when tested in accordance with UL Standard 723 (ASTM Standard E-84).

B. The foam core of the panels shall be tested in accordance with ASTM Standard D- 1929 to determine the self-ignition temperature.

C. These panels shall be listed by Factory Mutual as having been tested in accordance with the Factory Mutual Full Scale Corner Test, Procedure 4880.

D. All buildings have been designed

for Seismic Zone IV with a roof live load of 30 psf, a roof dead load of 4 psf and a wind load of 90 mph. (Specify other design loads if required).

E. Panels shall be tested in accordance with ASTM Standards E-72, E-455 and E- 564 for determination of the structural characteristics of the panel system.

F. The foam insulation shall be tested in accordance with ASTM Standard C-177 to evaluate the insulation performance of the material.

G. Certification of the above performance specifications must be provided by the indicated independent testing laboratory or by any other independent agency recognized by the major model building code agencies: UBC, BOCA or the SBBC.

H. Foam insulation manufacturer shall be licensed by the State of California Board of Thermal Insulation.

5. PRODUCT SPECIFICATIONS - Buildings shall be manufactured by **Bally Modular Structures**.

A. Panels shall consist of interior and exterior metal skins formed with steel dies and roll-forming equipment and checked with gauges for uniformity and accuracy. The metal skins shall be placed into steel molds and liquid urethane injected between them. For extra rigidity, the exteriors of all vertical panels, except corners, shall have vertical grooves spaced on 5-3/4" centers. Panels over 12 feet high will also have interior vertical grooves. Urethane shall be foamed-in-place (poured, not frothed) and, when completely heat-cured, shall bond to the metal skins to form a rigid 4"-, 5"-, or 6"-thick insulated panel. Panels shall contain 100-percent urethane insulation and have no internal wood between the skins. To insure tight joints, panel edges must have foamed-in-place tongues and grooves with a flexible vinyl gasket also foamed-in-place on the interior and exterior of all tongue edges.

B. All panels except corner panels shall be made in 23" and 46" widths, and shall be fully interchangeable for easy assembly. Panels 11- 1/2" or 34-1/2" wide are to be furnished only when required to fit the allocated space. To assure correct alignment and maximum strength, corner panels shall be 90 degree angles with exterior horizontal dimensions of 12" on each side.

C. Panels shall be equipped with

Bally "Speed-Lok®" joining devices. The distance between locks shall not exceed 46". Each locking device shall consist of a cam-action, hooked locking arm of a replaceable type placed in one panel, and a steel rod precisely positioned in the adjoining panel, so that when the lacking arm is rotated, the hook engages over the rod and draws the panels tightly together with cam action. When tested, the tensile strength of the Speed-Lok connection shall not be less than 750 pounds. The locking arms and steel rods shall be housed in individual steel pockets set into the pockets. Pockets on one side of the panel shall be connected to pockets on the other side, in width, by the use of steel straps set into the insulation. When panels are joined together - these straps shall form "perimeters of steel," with lock-to-lock-to-lock connections for extra strength. An aligning device shall be provided in at least one "Speed-Lok" pocket for every vertical panel. Press-fit caps shall be provided to close wrench holes.

D. EXTERIOR FINISH

1. .026" embossed galvanized steel with sand tan polyester painted finish (24 ga.)
2. .026" galvanized steel with white polyester painted finish (24 ga.)
3. Profile finish .022" embossed galvanized steel with white polyester painted finish.
4. Pebble Beach Sandex (other colors available).
5. .026" bright embossed galvanized steel (24 ga.).
6. .038" stucco embossed aluminum.
7. .030" stainless steel (22 ga.)
8. Other finishes available. Contact **BMIL International, Inc.** for additional information.

E. INTERIOR FINISH - Same as above except 3,4. Bally floor panels are provided with .073" Galvanized (14 gauge) or .060" stainless steel (16 gauge).

F. BUILT-IN INSULATED FLOORS

- The floor shall be constructed on the job site. It shall consist of a depressed, reinforced concrete sub slab. Slab urethane shall be built into this depressed slab. Wall panels shall be fastened to this floor. Adequate drainage and ventilation (or other heat source) must be provided beneath and around all construction.

6. 4"-THICK HINGED ENTRANCE DOOR PANELS

A. Entrance openings listed in the following size schedule shall be provided in 46"-(or 69"-) wide panels. The door is an infitting flush-mounted type. Construction of both panel and

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door shall be as stated in paragraph 5. A thermoplastic gasket with a magnetic core shall be mounted on the top edge and along both sides of the door. The magnetic force of the gasket shall keep the door closed and the gasket shall form a tight seal. The bottom edge of the door shall contain a flexible, dual-blade wiper gasket. Construction of the door panel shall include a heavy, "U" channel type, reinforced steel frame around the entire perimeter of the door opening to prevent racking or twisting. Doors are available in the following clear opening sizes:

30" x 78", 30" x 84", 34" x 66", 34" x 78", 34" x 84", 42" x 78", 48" x 78", 48" x 84", 60" x 78", 60" x 84".

The numbers of doors, their location and direction of swing is specified on the plans.

B. Hardware for standard hinged entrance doors. (Doors with 30"-34"- and 42"-wide openings.) All hardware shall be surface-mounted, satin-finish.

DOOR HINGES: Each door shall have two hinges of the spring-loaded, self-closing type, with plated steel pins and Delrin cam-type bearings.

DOOR LATCH: The latch shall be designed to open the door easily by breaking the magnetic force of the door gasket. The latch shall have a cylinder lock with provisions for padlocking. It shall also include an inside safety release handle to prevent anyone from being locked inside.

C. Hardware for hinged entrance door (Doors with 48" and 60" openings) - All hardware to be surface mounted.

LATCH AND STRIKE ASSEMBLY: The latch and strike assembly shall be satin- finish. The latch shall be made to accommodate a padlock but must include an inside safety release mechanism to prevent anyone from being locked inside.

HINGES: The hinges shall match the latch in general finish and design. Blades shall be no less than 9" long and hinges shall be of the up-lift type with Delrin cams on 3/8" dia. pins. (60"-wide doors are provided with three hinges.)

D. Weatherproof shield - All doors for outdoor structures shall be supplied with a metal shield above the door to divert rain and snow from the door opening.

E. Sillplates - An extruded aluminum sill plate shall be provided on applications without floors.

7. 2"- THICK HINGED ENTRANCE DOORS

A. Insulation shall consist of a full 2"-thick foam urethane insulation core. Heavy-gauge matching- metal jambs must be designed to fit prefab panels perfectly without the use of any interior framing. Jamb members shall attach to panels with sheet metal screws. The door shall be supplied with weather stripping and a wiper gasket. observation windows, 10" x 10" or 24" x 36", are available as factory-installed options and must be specified if required. Entrance openings are available in the following clear opening sizes: 36" x 84" for single doors; and 48" x 84", 60" x 84", and 72" x 84" for double doors.

B. Hardware for Doors - Hardware shall be cylindrical lockset with satin stainless steel finish. Pin tumbler cylinder can be keyed differently, keyed alike or master keyed.

C. Door Hinges - Each door shall have (3) tamper-proof pinned butt hinges.

D. Weatherproof Shields - All doors for outdoor structures shall be supplied with a metal shield above the door to divert rain and snow from the door opening.

E. Sillplates - An extruded aluminum sillplate shall be provided on outdoor buildings which are furnished without floors.

8. MANUAL OVERHEAD SLIDING DOORS - Doors shall be steel sectional overhead type. Sections shall be 2" thick, roll-formed from hot-dip galvanized steel. Finish shall be painted on the exterior, a coat of baked-on polyester enamel over epoxy primer. Interior finish is baked-on polyester enamel. Exterior lock shall be five-pin tumbler cylinder with night latch and steel bar engaging track. Interior locking is dead bolt with hole to receive padlock. Bottom of door is to have flexible U-type vinyl seal in aluminum retainer attached to section with 1/4" bolts.

9. WINDOWS - Windows shall be 30" x 30" in size and be of the "fixed" type. Each shall be made as a complete unit and shall consist of two panes of glass separated by a sealed air space. The metal trim shall be of the same finish as the remainder of the panel.

10. PARTITIONS - Insulated metal - clad partition panels shall be provided when compartments are to be separated.

11. PREFAB SECTIONAL METAL ROOF - (For buildings installed outdoors and not exceeding 34'7" in width - can be any length) A prefab sectional roof shall be furnished for the building to provide a waterproof covering for ceiling panels. It shall be made of .038"stucco-embossed aluminum.

12. SUPPORTING STEEL - Structural steel of sufficient size and strength shall be supplied to support ceiling panels and wall panels where necessary. If the building is installed outdoors, snow load and wind load must be specified to determine steel sizes. (Where required, all sizes, types and weights of steel, as recommended by the manufacturer / supplier, shall be submitted by the architect to state or local building authorities for approval.)

13. GUTTERS AND DOWNSPOUTS Rain gutters and downspouts shall be provided to match exterior finish of building.

14. LOUVERS - Louvers are fixed type with insect screen, factory installed. Operable louvers are available at special request.

15. ALTERNATE AND OPTIONAL EQUIPMENT

A. Type M Bullet Resistant - Steel plate shall be foamed in panel which will absorb fire from calibers up to a .30-06 rifle.

B. .073" Galvanized Exterior Metal 14 Gauge - Exterior skins can be furnished in 14-ga. steel. This design will absorb fire from calibers up to a .22 rifle.

C. Air Conditioners/Heaters - Specify BTU requirements for heating or cooling loads.

16. SPECIFY BY NAME - To assure that specifications prepared from this guide will be complied with fully, we suggest that the following paragraph be included:

The modular structure shall be as manufactured by Bally to protect the client's interests, no substitutions will be accepted unless by specific approval.

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