

ALUMINUM-DECKED LOW FLOATING CREW-PRO DOCK SPECIFICATIONS

I. GENERAL REQUIREMENTS

These specifications are for a fully CAD designed and engineered Aluminum Decked Low Floating dock system and are the minimum standards for design and fabrication. The dock system shall be designed and manufactured by HALLSTEN CORPORATION, P. O. Box 41036, Sacramento, CA 95841, (800) 473-7440.

II. ENGINEERING

A. Freeboard

Dock flotation shall be designed to support the dead weight of the complete dock, including any permanently attached accessories, plus an additional live load of 20 pounds per square foot over the entire dock area. Flotation material shall be distributed completely under the entire dock for maximum stability. Minimum freeboard under combined dead and live load shall not be less than 2 inches. Freeboard under dead load only shall be no more than 7 inches.

B. Factors of Safety

The deck and structural components shall be designed with minimum safety factors on working stresses, which conform to those specified in the American Association Design Manual specification for aluminum structures, as applicable.

C. Vertical Design Loads

The dock structure and deck shall include the dead weight of the dock components as well as a vertical distributed live load of 20 pounds per square foot of dock area. The deck and structural components shall also be designed to support the dead load plus a concentrated vertical live load of 400 pounds applied over a 6" x 6" area located anywhere on the deck surface. The distributed and concentrated live loads need not be applied simultaneously.

D. Horizontal Design Loads

The dock structure and deck shall be designed for a lateral load of 150 pounds per foot of length to account for wind and water currents.

E. Connections Between Dock Modules

Connecting hardware (hinges) and its attachments between any adjacent dock modules shall be designed to support a bending moment in the horizontal plane of 3,000 foot-pounds.

III. MATERIALS

A. DECKING

Decking shall be aluminum deck slat 6 "wide by 1.61" deep produced from alloy 6061 - T6 with ribbed non-skid surface. The deck slats shall interlocking top and bottom with rolled interlocks which causes the slats to act together when loaded. The ends of the deck slats interlock into the structural frame and are retained without welding. After installation, the decking shall be given an AA-M44 (course matte) finished to increase skid resistance, reduce glare, and give a uniform appearance.

B. Dock Fenders/Bumpers

Fenders shall be extruded grey polyethylene 5/4"x 6" lumber and attached to the side member on 2' centers with 1/4" x 2 1/2" S.S. Fasteners.

C. Bolts & Fasteners

Bolts shall be American standard regular with hexagonal or oval heads and nuts, and shall be hot-dipped galvanized in accordance with ASTM A153.

D. Flotation Foam

The buoyant units of the docks shall be polyethylene foam with a minimum density of 0.9 pounds per cubic foot. All foam shall be completely protected from the water & deteriorating elements by means of aluminum sheet fastened to the frame using aluminum rivets on 6" centers and Sikaflex sealant.

E. Mooring Cleats

Optional mooring cleats, to secure power boats can be installed on the dock were needed using galvanized steel through bolts. The cleats shall be, as a minimum, the dimensions shown on the drawings, be fabricated steel, galvanized after fabrication, and shall be sufficient to withstand a static of 500 pounds in any direction, applied to a rope secured to the cleat. Secondary cleats for temporarily securing small boats and rowing sculls must be beneath the deck surface, cut out of the plastic fender so as to prevent trip hazards and interference with outriggers and oars.

IV. FABRICATION & WORKMANSHIP

A. Workmanship

The quality of workmanship shall be equal to the best general practice in modern structural fabrication shops.

B. Experience

The fabricator must be able to furnish adequate evidence of a minimum of 5 years of ongoing successful experience in fabricating aluminum dock structures, and shows that all workmen employed in dock fabrication are properly experienced and skilled in the work they are called upon to perform.