

**ACL Industries, Inc.**  
**Recreational Marine Division**  
**GANGWAY SPECIFICATIONS**

**PART 1: GENERAL**

**1.1 SUMMARY OF WORK**

**A.** The work of this section includes, but is not limited to providing all labor, equipment, materials, incidental work and construction methods necessary to perform the project in a satisfactory manner.

**B.** Provide prefabricated gangway(s) according to project specifications. Prefabricated gangways shall be manufactured by ACL Industries, Inc. The following specifications shall be regarded as minimum standards for the design and construction of the gangway structure and the related components mentioned herein.

**1.2 QUALITY ASSURANCE**

**A.** Approved Manufacturer: ACL Industries, Inc. 179 Elm Street, Manchester, NH 03101. Contact number: 603 668 1276. Web site at <http://www.aclindustries.com> or e-mail: [recsales@aclindustries.com](mailto:recsales@aclindustries.com).

**B.** Approved equal manufacturer should be certified to a Quality management policy (ISO 9001). The aluminum gangways shall be fabricated by a company specializing in the fabrication of these items with a minimum of 5 years documented experience.

**C.** Design of the aluminum members shall conform to the current edition of the Aluminum Association Specifications and Guidelines for Aluminum Structures.

**D.** Aluminum welding shall be in accordance with AWS D1.2 Structural welding code and shall be performed by experienced operators.

**E.** All exposed surfaces and their welded joints shall be smooth and free of sharp or jagged edges. Surfaces to be welded shall be free from scale, paint, grease or other foreign matter. Welds shall be sufficient size and shape to develop the full strength of the parts connected by the welds.

**1.3 SUBMITTALS**

**A.** Shop drawings of the aluminum gangway structure showing all dimensions, clearances and anchorage locations.

**B.** Detailed fabrication drawings showing details of connections to bulkhead or fixed pier shall be supplied.

**C.** All shop drawings have to be approved by the Engineer for the project prior to shop fabrication

**PART 2: PRODUCTS**

**2.1 DESIGN AND LOAD CONDITIONS**

**A.** Uniform Live Load Selection

a. Gangways 4 feet clear width and less shall be designed for a uniform live load of 50 pounds per square foot.

- b. Gangways over 4 feet clear width shall be designed for a uniform live load of 100 pounds per square foot.
- B.** Maximum deflection of structure shall be calculated using  $L/180$  where “L” is the length of the gangway in inches.
- C.** Deck material shall be designed for a concentrated vertical load of 300 pounds distributed over a one square foot area.
- D.** Handrails shall be designed to withstand a horizontal load of 20 pounds per linear foot.
- E.** Hinged end of gangway shall be designed to adapt to existing mounting surface (i.e.: Concrete bulkhead, wood dock, concrete abutment, etc.)

## **2.2 MATERIALS**

- A.** Material and components shall be new and shall be free from defects which would adversely affect the performance or maintainability of individual components or other overall assembly or structure. Materials not specified herein shall be of the same or higher quality used for the intended purpose in commercial practice.
- B.** Aluminum extrusions for gangway structure shall be constructed from 6061, 6063 series aluminum alloy with 6061-T6 for primary structural components and shall be extruded in accordance with applicable sections of Federal Specifications QQ-A-200.
- C.** All fasteners shall be Stainless Steel type (Grade 316).
- D.** The decking of the gangways shall be non-skid with a raised rib profile with the ribs no higher than  $\frac{1}{4}$ ” and perpendicular to the flow of traffic.
- E.** Gangway connection to the dock shall be a heavy continuous heavy duty hinge with a connecting pin made of either stainless steel or heavy duty aluminum.
- F.** Roller at end of the gangway shall be UHMW polyethylene material and stainless steel axle.
- G.** Aluminum non-skid transition plate should be attached to the gangway at the dock end for ADA access.
- H.** ADA accessible inside handrail shall be a continuous 1-1/4” Sch 40 pipe at 34” above the decking surface.
- I.** All dissimilar metals shall be separated by plastic separation sheets or bushings not less than 1/16 inch thick. The separation sheets shall be Nylatron-GS, plastic sheet confirming to Military Specification MIL-P-15035 or other suitable material for precluding galvanic corrosion.

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**CUSTOM DESIGNS AVAILABLE**

***Contact us for a soft copy of the specifications and CAD drawings for the gangways.***