



Hydro Extrusion USA LLC, (REDD Team)

GANGWAY SPECIFICATIONS

(PLACE AN "X" IN THE BOX (☐) BY ALL APPLICABLE ITEMS)

1. SCOPE OF WORK

1.1 Provide prefabricated Aluminum Gangway(s) according to the following specifications: _____length X _____inside width. Prefabricated gangways shall be manufactured by Hydro Extrusion USA LLC (REDD Team), or approved equal. The following specifications shall be regarded as minimum standards for design and construction.

2. QUALITY ASSURANCE

- 2.1 **Manufacturer:** Hydro Extrusion USA LLC (REDD Team), 125 Superior Drive Delhi, LA 71232. Call toll free: 1-800-648-3696. Fax 1-866-840-4566. **Visit our web site at** <http://www.reddteam.com> **or e-mail:** AAR-ReddTeamCustomerService@hydro.com.
- 2.2 Design of the aluminum members shall conform to the current edition of The Aluminum Association Specification and Guidelines for Aluminum Structures.
- 2.3 Gangway railings shall be constructed as a free span truss design.
- 2.4 Aluminum welding shall be in accordance with the ANSI/AWS D1.2-97 gas metal arc welding process and shall be performed by experienced operators.
- 2.5 All exposed surfaces and their welded joints shall be smooth and free of sharp or jagged edges.

3. MATERIALS

- 3.1 Aluminum extrusions for gangway structures shall be aluminum alloy 6061-T6, 6063-T5 and 6063-T6 and shall be extruded in accordance with the requirements of applicable sections of Federal Specification QQ-A-200.
- 3.2 Stainless Steel Fasteners shall be grade 304.
- 3.3 Rollers used at the end of the gangway shall be ultra high molecular weight polyethylene (UHMW) with black ultra violet light inhibitor added.

4. ENGINEERING

- 4.1 Uniform Live Load Selection
- a. Gangways 4 feet wide and less shall be designed for a uniform live load of 50 pounds per square foot.
- b. Gangways over 4 feet wide shall be designed for a uniform live load of 85 pounds per square foot.
- 4.2 Maximum deflection of structure shall be calculated using $L/180$ where "L" is the length of the gangway in inches.
- 4.3 Deck material shall be designed for a concentrated vertical load of 300 pounds distributed over a one square foot area.
- 4.4 Handrails shall be designed for a horizontal load of 20 pounds per linear foot.

5. DESIGN

- 5.1 Hinged end of gangway shall be designed by the gangway manufacturer to adapt to existing mounting surface (i.e.: Concrete bulkhead, wood dock, concrete abutment, etc.)
- 5.2 Top Rail (Top Chord Member) shall end at walking surface of gangway.
- 5.3 Top Rail (Top Chord Member) shall extend 18 inches beyond end(s) of walking surface.
- a. Top rail shall extend past upper (hinge) end of gangway
- b. Top rail shall extend past lower (roller) end of gangway
- c. Top rail shall extend past both ends of gangway
- 5.4 Top Rail (Top Chord Member) Selection
- a. Square or rectangular tube with .125 inch radius edges. (Size of tube is dependent upon length and width of gangway.)
- b. Round schedule 40 pipe. (Size of pipe is dependent upon length and width of gangway.)

- 5.5 Continuous Safety Guard Rails -- Please select your preference:
- a. Continuous fabric or vinyl with brass grommets 6 inches on center, laced onto 1.25 inch round tube framework with 0.25 inch cord.
 - b. Continuous 1.25 inch O.D. round tube with a maximum clear opening of _____ inches.
 - c. Continuous 1.25 inch X 1.25 inch X 0.125 inch aluminum angle with a maximum clear opening of _____ inches.
 - d. 3/4" square aluminum tube vertical pickets spaces such that a sphere with a diameter of 4 inches cannot pass through any opening.
- 5.6 Deck Material Selection
- a. Decking material shall be 1 1/2 inch X 6 inches or 1 1/2 inches X 8 inch slip-resistant, self-mating, extruded aluminum with a minimum coefficient of friction of 0.93.
 - b. Wood Decking: Various wood products are available upon request (CCA treatment not available).
 - c. Wood polymer composite.

6. ACCESSORIES SELECTION

- 6.1 Aluminum transition plate on roller end of gangway 0.25 inch thick X _____ inches wide X 24 inches long with slip resistant surface.
- 6.2 Continuous 1.5 inch Schedule 40 (1.66" O.D.) pipe grab rails 34 inches from finished deck surface.
- 6.3 Continuous rub rail shall be 0.25 inch X 3 inch aluminum flat bar midway on inside of railing.
- 6.4 Decking cleats shall be 18 inches on center and shall be 0.25 inch X 1.5 inch X _____ inch long aluminum flat bar with slip resistant surface. (Weld cleats to aluminum deck, use stainless steel screws for wood deck.)
- 6.5 Continuous kick plate shall be 0.25 inch X 3 inch aluminum flat bar along the edge of the walking surface on the inside of the railing.

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