



Sapa Extrusions Inc, (REDD Team)

FLOATING DOCK SPECIFICATIONS

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

1. SCOPE OF WORK

- 1.1 Provide prefabricated floating dock(s) according to project specifications. Prefabricated dock(s) shall be manufactured by Sapa Fabricated Products, (REDD Team) or approved equal. The following specifications shall be regarded as minimum standards for the design and construction of the floating dock(s) and the related components mentioned herein.

2. QUALITY ASSURANCE

- 2.1 Manufacturer: **Sapa Extrusions Inc. (REDD Team), 248 W. Greene St, Magnolia, Arkansas 71753. Call toll free: 1-800-779-5509. Fax 1-866-840-4566.** Visit our web site at <http://www.reddteam.com> or e-mail: AAR-ReddTeamCustomerService@sapagroup.com.
- 2.2 Design of the aluminum members shall conform to the current edition of the Aluminum Association Specifications and Guidelines for Aluminum Structures.
- 2.3 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.
- 2.4 All exposed surfaces and their welded joints shall be smooth and free of sharp or jagged edges.

3. MATERIALS

- 3.1 Aluminum extrusions for dock structures shall be constructed from 6000 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.
- 3.2 All fasteners shall be Stainless Steel type 18-8 (Grade 304).
- 3.3 Rollers used in pile guides shall be ultra high molecular weight polyethylene (hereafter referred to as UHMW) with black ultraviolet light inhibitor added.
- 3.4 Flotation devices shall be rotationally molded, heavy wall polyethylene float drums, with black ultraviolet light inhibitor, and shall be filled with modified polystyrene, expanded in place, to a minimum density of 1.0 to 1.2 lbs./cu. ft.

4. ENGINEERING

- 4.1 Floating dock(s) shall be engineered to support a uniform live load of 35-lbs./sq. ft.
- 4.2 Deck material shall be designed for a concentrated vertical load of 300 pounds distributed over a one square foot area.
- 4.3 Maximum deflection of structures shall be calculated using $L/180$ where "L" is the span length in decimal inches. (Example: $120 \text{ in. span}/180 = .667$ inches of deflection)
- 4.4 Flotation devices shall be sized and placed to provide a minimum freeboard of eight (8) inches under dead load plus a concentrated load of 400 lbs., applied evenly over a one (1) square foot area, at any location on the walking surface. Flotation shall also provide a minimum of 12 inches freeboard under dead load only. Additional flotation may be added to support the additional loading caused by gangways and to alleviate unnecessary distortion of the dock.

5. DESIGN

5.1 DECKING

- a. Decking material shall be 1 1/2" X 6" or 1-1/2" X 8" slip-resistant, self-mating, extruded aluminum with a minimum coefficient of friction of 0.75 wet / 0.93 dry.
- b. Wood decking: Various wood products are available upon request (CCA treatment is not available)
- c. Wood polymer composite.

6. DOCK ACCESSORIES

6.1 PILE GUIDES

- a. Floating dock(s) shall incorporate inboard pile guides capable of accepting round or square wooden piles, which are _____ inches in diameter. Inboard pile guides shall have four (4) 3" O.D. UHMW rollers (one per side). Roller axles shall be minimum 1/2" solid stainless

steel rod with 1/2" stainless steel retaining washers and 1/8" stainless steel keeper pins at each end. Inboard pile guides shall be an integral, unmovable part of the dock sub-framing.

- b. Floating dock(s) shall incorporate outboard pile guides capable of accepting round wooden piles, which are _____ inches in diameter. Outboard pile guides shall have one (1) 3" O.D. UHMW roller. Roller axle shall be 1/2" O.D. stainless steel rod with 1/2" stainless steel retaining washers and 1/8" stainless steel keeper pins at each end. Outboard pile guides shall be externally mounted with min. 1/2" S.S. hex head bolts and shall be placed prior to shipping. Outboard pile guides shall be removable and can be relocated by the owner at his or her own expense.

6.2 DOCK EDGING

- a. Floating dock(s) shall have wood fendering that contains no CCA. Fendering shall be a minimum of 2" X 8" boards and shall be secured to the docksides with a minimum of two (2) No. 14 X 2-1/2" S.S. oval head screws located at 4'-0" maximum on center. Bolt heads shall be recessed into the fendering to provide a smooth dock edge. Wood fendering shall be placed according to the buyer's specifications.
- b. Floating dock(s) shall have wood polymer composite fendering that contains no CCA. Fendering shall be minimum 2" X 8" boards and shall be secured to the docksides with a minimum of two (2) No. 14 X 2-1/2" S.S. hex head bolts located at 2'-0" maximum on center. Screw heads shall be recessed into the fendering to provide a smooth dock edge. Wood fendering shall be placed according to the buyer's specifications.
- c. Dock edging shall be non-marring, non-yellowing, extruded marine grade white vinyl dock bumper. Dock bumper shall be "Single-P" profile and shall be secured to the dock with broad head aluminum pop rivets located along the top and sides at a maximum of 12" on center. Dock bumper(s) shall be installed prior to shipping and shall be placed according to the buyer's specifications.
- d. Dock(s) shall incorporate both wood fendering that contains no CCA or wood polymer composite fendering and vinyl bumper. Wood fendering or wood polymer composite fendering shall be installed according to Section 6.2 paragraph a. Vinyl dock bumper shall be secured to the fendering using S.S. roofing nails along the top and sides at a maximum of 12" on center.

6.3 CLEATS

- a. Cleats shall be ALMAG cast aluminum alloy meeting the requirements of Federal Specification QQ-A-571F and QQ-A-601E.
- b. Cleats shall be through bolted to the dock framing and shall withstand a mooring line load of 1500 lbs. in any direction.

7. DOCK CONNECTIONS

- 7.1 Floating dock(s) shall have pre-fabricated rigid connections.
- 7.2 Floating dock(s) shall have hinged connections.

8. STRUCTURES

- 8.1 Floating dock(s) connections shall be sequentially numbered and shall be pre-fitted at the fabrication facility to assure a quality fit as well as ease of assembly. External pile guides may be removed for shipping purposes. If this is necessary, they shall be numbered and their hardware shall be inspected, packed, and shipped with them. All Wood Piles are responsibility of others.

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Call toll free: 1-800-779-5509. Fax 1-866-840-4566
CUSTOM DESIGNS AVAILABLE

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