

AMRAMP PRE-MANUFACTURED METAL RAMP SYSTEM SPECIFICATIONS – PRO SERIES

1.01 GENERAL REQUIREMENTS

- A. Provide all materials, labor, equipment and services necessary to furnish, deliver and install all work under this section as shown on the contract documents, specified herein, and as specified by the job conditions.

1.02 RELATED WORK ELSEWHERE

1.03 SUBMITTALS

- A. Procedures: Furnish submittals in accordance with the general requirements specified in section 1.03.
- B. Shop drawing: Furnish shop drawings for architect's approval. Include elevations, sections and details indicating dimensions, materials, finish, conditions for anchoring and support for each ramp section.
- C. Product literature: Submit manufacturers literature describing the product to be used under this section.
- D. Maintenance instructions: Furnish complete information describing the materials devices and procedures to be followed in maintaining all ramps under this section
- E. Warranty must be submitted with bid.
- F. Engineering: Provide wet stamped Professional Engineering drawings upon request.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications. Manufacturer shall have produced the types of ramp systems required for not less than 5 (five) years, with not less than 5(five) similar projects.
- B. Product Description – Modular steel ramps and platforms that can be assembled into a wide range of configurations and disassembled for later re-use.
- C. Warranty: Furnish three (3) year written warranty. Upon notice within the warranty period, defects in materials or workmanship shall be repaired or replaced at no cost to the owner. Ramp finishes are not included under the warranty.

1.05 PRODUCTS

1.05.1 RAMP SECTIONS

1.05.1.1 Engineering

- A. Ramp sections shall be designed for a minimum uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds distributed uniformly over an area of one square foot.

105.1.2 Materials

- A. Ramp section frames and joists shall be all fireproof steel ASTM A572-50
- B. Tek screw fasteners shall be zinc plated grade 5 steel. Other hardware shall be grade 2 or higher
- C. Ramp section decking shall be 1/2 #13 raised expanded metal
- D. Marine coatings(3), prime and paint, shall be oven cured. Ramp surface paint shall have Amramp grip additive for slip resistance.

105.1.3 Design

- A. Ramp Sections shall be fabricated in 43" and 55" widths.
- B. Standard lengths are 6 ft. or less
- C. Custom widths and lengths as requested
- D. Ramp sections shall be designed for a 12:1 slope.
- E. Walking surface shall be continuous with no gap greater than 3/8".
- F. Ramp sections shall be guarded by pickets.

105.2 LANDINGS

105.2.1 Engineering

- A. Landings shall be designed for a minimum uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds distributed uniformly over an area of one square foot.

105.2.2. Materials

- A. Landing frames and joists shall be all steel ASTM A572-50.
- B. Tek screw fasteners shall be zinc plated grade 5 steel. Other hardware shall be grade 2 or higher
- C. Landing decking shall be 1/2 #13 raised expanded metal
- D. Marine coatings, prime and paint, shall be oven cured. Ramp surface paint shall have Amramp grip additive for slip resistance

105.2.3 Design

- A. Landings shall be fabricated 1'x5', 2'x5', 3'x5', 5'x4', and 5' x 5' minimum sections
- B. Custom widths and lengths fabricated as requested.
- C. Landings shall be designed for variable heights.
- D. Walking surface shall be continuous without gaps.
- E. Landings shall be guarded by pickets.

105.3 LEGS

105.3.1. Engineering

- A. The legs shall support the ramp and/or landing section design loads.
- B. For uneven grades, extra length legs shall be provided so legs may be field adjusted to match slope.

105.3.2. Materials

- A. Legs up to 24", shall be 1-1/4"x1-1/4"x12 ga, 80 ksi steel
- B. Legs above 24" shall be 1-1/4"x1-1/4"x12 ga. 80 ksi steel, braced.
- C. All legs shall have 4" x 4" footpads to prevent settling.
- D. Fasteners will be TEK screws, grade 5 equivalent, Zn coated steel.
- E. Marine coatings, prime and paint, shall be oven cured.

105.3.3 Design

- A. Legs shall be perpendicular to the ground.
- B. Legs taller than 24" shall be braced.
- C. Each leg shall be adjusted independently.
- D. Footpads shall be installed to protrude under the ramp, eliminating trip hazards.

105.4 HANDRAILS

105.4.1. Engineering

- A. Handrails and assemblies shall be designed to resist a load of 50 lb/ft (pound-force per linear ft) applied in any direction at the top and to transfer this load through the supports to the structure.
- B. Handrails and assemblies shall be able to resist a single concentrated load of 200 lbs. applied in any direction at any point along the top, and have attachment devices and supporting structure to transfer this loading to appropriate structural elements. Note: The above loading shall not be applied simultaneously.

105.4.2. Materials

- A. Handrails shall be all galvanized steel 1-1/4" diameter steel tubing fabricated from ASTM A500, Grade B steel.
- B. Handrails shall be galvanized finish with polymer coating.
- C. Handrails shall be 14 ga wall

105.4.3. Design

- A. Handrail gripping surface shall be smooth and continuous.
- B. Handrail shall be not less than 34" or more than 38" above ramp

or landing surface measured vertically from the ramp surface.

105.5 PICKET GUARDS

105.5.1 Engineering

- A. Picket guards and assemblies shall be designed to resist a load of 50 lb/ft (pound-force per linear ft) applied in any direction at the top and to transfer this load through the supports to the structure.
- B. Picket guards and assemblies shall be able to resist a single concentrated load of 200 lbs. applied in any direction at any point along the top, and have attachment devices and supporting structure to transfer this loading to appropriate structural elements. Note: The above loading shall not be applied simultaneously.

105.5.2 Materials

- A. Picket guard frames shall be 1-1/2"x1-1/2"x14 ga, 80 ksi steel
- B. Picket guard balusters shall be 3/4"x3/4" x16 ga solid wall tube, A500, Grade B, welded to the frames.

105.5.3 Design

- A. Picket guards shall not be less than 42" above the ramp or platform surface, measured vertically and shall form a protective barrier through which a 4" sphere shall not pass.

1.05.6 STAIRS

1.06.1.1 Engineering

- A. Stairs shall be designed for a minimum uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds distributed uniformly over an area of one square foot.

106.1.2 Materials

- A. Stair frames and joists shall be all steel ASTM A572-50
- B. Tek screw fasteners shall be zinc plated grade 5 steel. Other hardware shall be grade 2 or higher
- C. Stair decking shall be 1/2 #13 raised expanded metal
- D. Marine coatings, prime and paint, shall be oven cured. Stair surface paint shall have Amramp grip additive for slip resistance.

106.1.3 Design

- A. Stair treads shall be fabricated in 43", and 55" widths, by 11" depth, minimum
- B. Custom widths and lengths as requested
- C. Stair risers shall be 7". Optional riser heights by request but shall not be less than 4" or more than 7".
- D. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 0.375"
- E. The triangular openings formed by the riser, tread and bottom rail at the open side of the stairway shall be of a maximum size such that a sphere of 6" in diameter cannot pass through the opening.