

## BENCH SPECIFICATIONS

PD Style – Galvanized Straight Leg Permanent Bench without Back

### SECTION 13125

#### Galvanized Straight Leg Permanent Bench without Back

#### PART 1 – GENERAL

##### 1.01 SECTION INCLUDES

- A. Design and fabrication of steel frame aluminum seat benches.

##### 1.02 QUALITY ASSURANCE

- A. Manufacturer Qualifications
  - 1. Manufacturer with minimum 30 years of experience in the design and manufacture of benches.
  - 2. Welders must conform to AWS and CSB standards.
  - 3. Material source quality control: Mill Test Certification.
  - 4. Adheres to International Building Code (IBC) 2018 and ICC-300 2023 Standards for Bleachers, Folding and Telescopic Seating, and Grandstands.

##### 1.03 WARRANTY

- A. Warranty shall guarantee benches to be free from defect in materials and workmanship for a period of **1 year** under normal use. Warranty period shall begin on date of completion of projects installed by manufacturer, or its subcontractors, **OR** warranty period shall begin on date of final delivery on projects installed by others.
- B. Anodized finish of plank extrusions shall be covered for a period of **5 years** against loss of structural strength or finish deterioration due to exposure to weather conditions or UV rays.
- C. Discoloration of mill finish aluminum due to galvanic reaction not covered.

#### PART 2 – PRODUCTS

##### 2.01 ACCEPTABLE MANUFACTURER

- A. National Recreation Systems, Inc.

##### 2.02 DESIGN

- A. Design Loads:
  - 1. Live Loads:
    - a. Uniform Loading Structure: 100psf
    - b. Uniform Loading Seat: 120plf
  - 2. Sway Loads:
    - a. Perpendicular to Seat: 10plf
    - b. Parallel to Seat: 24plf

##### 2.03 STEEL FRAME BENCH

- A. Quantity and Size: Shall consist of 1 unit 6'-0" long.
- B. Framework: Prefabricated galvanized steel spaced at 4'-0" intervals consisting of 2 3/8" O.D. schedule 40 pipe with seat supports of 1/4" x 3" hot rolled steel bar (ASTM A-36). Imbedded end of legs shall be formed to help prevent twisting in concrete footer. No mechanical fastening to seat support or leg shall be permitted except in factory provided, and designated holes.
- C. Shop Connections: Welds shall meet AWS standards.
- D. Seat: Nominal 2" x 10" anodized aluminum with grey poly end caps.

## **2.04 MATERIALS / FINISHES**

- A. Framework:
  - 1. Galvanized Steel: Structural fabrication with ASTM A-36 steel with galvanized finish. Each frame shall be unit-welded, using gas metal arc welding (GMAW) in accordance with AWS specifications (D1.1). After fabrication all steel components shall be hot dipped galvanized in accordance with ASTM A-123 specifications.
- A. Extruded Aluminum:
  - 1. Seat Planks: Aluminum alloy 6063-T6, clear anodized 204MR1, AA-M10C22A31, Class II, with a wall thickness of .078" for impact and deformation resistance.
- B. Accessories
  - 1. Channel End Caps: Polyethylene Resin, Grey 2X10, HDPE-DMDA-8904 NT7 w/ added Inhibitor.
  - 2. Hardware: Bolts and Nuts shall be hot dipped galvanized
  - 3. Hold Down Clip: Aluminum alloy 6063-T6 mill finish.

## **PART 3 – EXECUTION**

### **3.01 INSTALLATION**

- A. Install bench unit in accordance with manufacturer written instructions and shop drawings.

**Note: Building codes may vary from site to site. The customer is responsible for verification of local code requirements.**