Bleacher Specifications

Non-Elevated Aluminum Angle Frame

SECTION 13125

NON-ELEVATED ALUMINUM ANGLE FRAME BLEACHERS

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Design and fabrication of Non-Elevated angle frame bleachers

1.02 QUALITY ASSURANCE

A. Manufacturer: National Recreation Systems, Inc.
1300-D Airport North Office Park, Ft. Wayne, IN, 46825
B. Manufacturer Qualifications: Manufacturer must have a minimum of ten years experience in the design and manufacture of bleachers.
C. Welders must conform to AWS standards.
D. Source Quality Control: Mill Test Certification.
E. Codes and Standards: 2012/2015 International Building Code / ICC 300 2012.

1.03 WARRANTY

A. Warranty shall guarantee bleachers 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 for 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 by a **5 year** warranty against loss of structural strength or finish deterioration due to exposure to weather conditions or UV rays. Discoloration of mill finish aluminum due to galvanic reaction not covered.

1.04 PRODUCT LIABILITY INSURANCE

A. Product liability insurance is carried for the life of the product in the amount of $ 2,000,000.

1.05 ENGINEERING

A. Engineering certifications and calculations by a Registered Professional Engineer will be provided upon request at an additional fee.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. National Recreation Systems, Inc.

2.02 DESIGN

A. Applicable Codes:
INTERNATIONAL BUILDING CODE (IBC), 2012/2015 EDITION / ICC 300 2012
Except handicapped requirements
B. Design Loads:
1. Live Loads: Uniform loading - Structure = 100 psf
Uniform loading - Seat and Foot plank = 120 plf
2. Sway Loads: Perpendicular to seats = 10 plf
Parallel to seats = 24 plf
3. Guardrail Loads: Uniform vertical load = 100 plf
Uniform horizontal load = 50 plf
Concentrated horizontal load = 200 pounds
4. *Wind Loads: Basic design wind speed = 150 mph (exposure “B”)

***Note: Bleacher must be anchored to meet wind loads above**

2.03 NON-ELEVATED ANGLE FRAME BLEACHERS

A. Quantity and Size: Shall consist of 1 unit(s) 8 rows high x 27 long.
Net seating capacity per unit 116 (excluding aisles, based on 18" per seat).
B. Framework: Prefabricated aluminum angle spaced at 6' - 0" intervals joined by means of aluminum angle cross bracing.
C. Shop connections: Welded to meet AWS standards and local code requirements

D. Joint Sleeve Assembly: Internal splices, where required shall be two per joint, and shall penetrate the joint a minimum of 8” in each direction and be riveted at one end only to allow for contraction and expansion.
E. Rise and Depth Dimensions: 8” vertical rise and 24” tread depth, Seat height is 17” above its respective tread.
F. Seats: Nominal 2” x 10” anodized aluminum with anodized end caps.
G. Treads: Nominal two (2) 2” x 10” mill finish aluminum with anodized end caps on rows 2 & up.
H. Risers: Nominal two (2) 1” x 6” mill finish aluminum with mill finish end caps on top row.
Nominal 1” x 6” mill finish aluminum with mill finish end caps on all other rows.
I. Aisles: Aisle footboards shall be of aluminum alloy 6063-T6 and be of mill finish with contrasting aisle markings. Three aisle stiffener angles shall be used to strengthen the aisle step. There shall be 1 aisle(s) 60" wide.
J. Aisle Handrail: Anodized aluminum pipe with intermediate rail.
K. Guardrail: Rails shall be anodized aluminum vertical picket panels attached to support members. Rear rail support member to be aluminum channel. Side rail support member to be aluminum angles. Standard AA-M10C223A31(204R1). Panels shall consist of 1-5/8" O.D. round tube and extruded aluminum 5/8" square. Panels shall attach to rail support members by means of 5/16" dia. u-bolts, lock washers, and nuts. Panels shall connect together using internal splice and rivet. End panels shall be terminated using aluminum elbows, and aluminum round tube mechanically fastened.

2.04 MATERIALS / FINISHES

A. Framework:
1. Aluminum: Structural fabrication with aluminum alloy 6061-T6 mill finish. Each frame shall be unit-welded, using metal inert gas method, under guidelines by the American Welding Society. After fabrication all steel is hot dipped galvanized to ASTM A-123 specifications. All crossbracing and horizontal bracing shall be aluminum alloy 6061-T6 mill finish.

B. Extruded Aluminum:
1. Seat planks: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II With a wall thickness nominally .078" for impact and deformation resistance.
2. Tread and Riser Planks: Aluminum alloy 6063-T6, mill finish. With a wall thickness nominally .078” for impact and deformation resistance.
3. Guardrail Pipe: 1-5/8 OD schedule 40 aluminum alloy 6105-T5, clear anodized 204R1, AA-M10C22A31, Class II.

C. Accessories:
1. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1,AA-M10C22A31,Class II.
2. Hardware: Bolts and Nuts shall be hot dipped galvanized.
3. Hold Down Clip Assembly: Aluminum alloy 6063-T6 mill finish.
4. Joint Sleeve Assembly: Aluminum alloy 6061-T6, mill finish.

PART 3 – EXECUTION

3.01 INSTALLATION

A. Install bleacher 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.