



**SPECIFICATIONS FOR
FRAME TYPE BLEACHER – ELEVATED**

PART I GENERAL

1.01 SYSTEM DESCRIPTION

- A. Design and fabrication of Frame Type Bleacher

1.02 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer must have ten years of experience in the manufacturer of bleachers and grandstands; welders must be AWS certified.
- B. Source Quality Control: Mill Test Certification.

1.03 BUILDING CODES

- A. Owner to confirm the national code and the version which applies to the project for inclusion in specifications.

1.04 WARRANTY

Bleachers International warrants its frame type bleacher to be free from defects in material and workmanship in the course of manufacturing for a period of five year beginning at day of substantial completion for projects installed by Bleachers International and beginning at Date of Initial Delivery of Product for projects installed by others. This warranty excludes defects resulting from abnormal use, accidental or intentional damage, or any occurrences beyond Bleachers International control. Any exposed mill finish aluminum surface will become discolored due to oxidation, which is a natural phenomenon.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. Bleachers International, 33990 CR 27, Kiowa, Colorado 80117 U.S.A., (303) 646-1038 Fax: (303) 6246-0599
- B. Other manufacturers seeking to be approved must submit product literature on frame-type design to the Owner for review and receive approval from Owner via addendum ten days prior to bid date.

2.02 ANGLE FRAME BLEACHERS

- A. Product Descriptions
 - 1. Elevated Bleachers
 - a. Rise and Depth Dimensions: Standard Vertical rise and Standard horizontal depth per row: 8 inches x 24 inches. **Optional:** Vertical rise and horizontal depth per row can be also customized: 12 or 16 inches rise x 30 and 36 inches depth, respectively.
 - b. Seat is 17 inches above its respective tread.
 - c. Framework: Prefabricated angle frames are space at maximum of 6' spacing and connected by cross braces.
 - d. Seats: Nominal 2 x 10" anodized aluminum plank with 2 x 10" anodized end caps.
 - e. Footboards: Two nominal 2 x 10" mill aluminum planks with 2 x 10" anodized end caps. **Optional:** "Tongue & Groove" plank for closed deck systems in all walk areas.

- f. Risers: Nominal 1 x 6-1/2" mill finished (Optional: anodized) aluminum riser planks. Two 1 x 6-1/2" aluminum riser planks on top row.
 - g. Guardrails: Three lines of aluminum pipe with chain link fence 42 inches above seat across the back and on both sides of the bleacher. The front guardrail is 42" high above the walkway with a 2 line aluminum pipe and toeboard without fencing when the walkway is 30" or less above the ground. The front guardrail is 42 inches above the walkway with a 3 line aluminum pipe and chain link fence when the walkway is greater than 30" above the ground. **Optional:** All-aluminum Vertical Picket guardrails .
 - h. Entry Steps: Frames with 2 x 12" mill finish aluminum plank with step riser, contrasting aluminum stair nose and 2 line rail 36 inches above nose of step. Handrails shall extend in the direction of the exit steps 12 inches beyond the end of the steps. Ends shall terminate in newel posts.
 - i. Front Walkway: 30-inch elevation and 57-inch clear width (or wider if needed).
 - j. Aisle (if required): Aisle to be provided with 34" high handrail and intermediate rail at approximately 22" above the tread. Handrails with rounded ends are discontinuous to allow access to sitting through a 24" wide space. Aluminum tread nosing of contrasting color on aisle steps.
2. Wheelchair Area
- a. Wheelchair area to be 5'-6" wide for two wheelchairs (33" each) and 36" wide for one wheelchair.
 - b. Ramp:
 - (1) Slope - 1 in 12.
 - (2) Guardrails: Three line aluminum rail 36 inches above ramp tread with intermediate rail at approximately 20 inches. Railing shall be continuous the full length of the ramp, and shall extend in the direction of the ramp 12 inches beyond the end of the ramp, returning to end at a newel post.
- B. Materials/Finishes
- 1. Framework – Aluminum, Structural fabrication with aluminum alloy 6061-T6, mill finish.
 - a. Vertical members shall be 1-1/2" x 1-1/2" X 3/16" structural angle, except the rear vertical member shall be 2" x 2" x 3/16" structural angle.
 - b. Horizontal footboard mounting support shall be 2" x 1-1/2" x 3/16" structural angle.
 - c. Bottom horizontal member shall be 2" x 2" x 3/16" structural angle.
 - d. Vertical handrail supports shall be 4" x 1-1/2" channel.
 - e. Structure is designed to be easily repaired with replacement parts, using common hand tools.
 - 2. Extruded Aluminum
 - a. Seat Planks, Riser Planks, Step Risers: Extruded aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II, and a wall thickness of .078".
 - b. Tread Planks: Extruded Aluminum alloy 6063-T6, mill finish and a wall thickness of .078".
 - 3. Accessories
 - a. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.
 - d. Hardware:
 - (1) Bolts, Nuts: Hot-dipped Galvanized
 - (2) Hold-Down Clip Assembly: Aluminum alloy 6063 - T6 (3) Structural Hardware: Hot-dipped galvanized, ASTM-A305.

- c. Guard railing: Anodized Aluminum Pipe: 1.66" O.D. 9 gauge chain link fencing or vertical bars guard rails.
- d. Handrails: Anodized aluminum rail 1 .66" O.D.
- e. Cross braces: Extruded aluminum angle alloy 6061-T6, mill finish.
- f. Aisle Nose and Stair Nose: Aluminum alloy, 6063-T6. Optional: black powder coat finish.

C. Design Specifications

1) Design Load:

- a. Live Load: 100 psf gross horizontal projection
- b. Lateral Sway Load: 24 plf seat plank
- c. Perpendicular Sway Load: 10 plf seat plank.
- d. Wind load: 30 psi vertical projection
- e. Live load of Seat and Tread Plank: 120 plf
- f. Guardrail: 100 plf vertical and 50 plf horizontal.

2) All connections made in shop to be welded.

- a. Manufactured by certified welders conforming to AWS Standards.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Install bleacher unit in accordance with manufacturer's installation procedures.
- B. It is recommended that the bleacher unit be securely anchored.

(01/03/09)