

Sturdisteel
PO Box 2655
Waco, Texas 76702
Toll Free 800-433-3116
Phone 254-666-5155
Fax 254-666-4472
Website www.sturdisteel.com
E-mail info@sturdisteel.com

May 2017

Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The CSI Construction Specifications Practice Guide*.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers and titles are from *MasterFormat 2016 update*.

SECTION 13 34 16.53

TILT-AND-ROLL BLEACHERS

Specifier Notes: This section covers Sturdisteel tilt-and-roll bleachers. Consult Sturdisteel for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Tilt-and-roll bleachers.

1.2 REFERENCE STANDARDS

Specifier Notes: List reference standards used elsewhere in this section, complete with designations and titles.

- A. Aluminum Association (AA) Specification for Aluminum Structures, Aluminum Design Manual.
- B. ASTM A 307 – Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.

- C. AWS D1.1 / D1.1M – Structural Welding Code – Steel.

Specifier Notes: Include CWB CSA W47.1 for projects in Canada.

- D. CWB CSA W47.1 – Certification of Companies for Fusion Welding of Steel.

1.3 PREINSTALLATION MEETINGS

Specifier Notes: Edit preinstallation meetings as necessary. Delete if not required.

- A. Convene preinstallation meeting [1 week] [2 weeks] before start of installation of tilt-and-roll bleachers.
- B. Require attendance of parties directly affecting work of this section, including Contractor, Architect, installer, and manufacturer's representative.
- C. Review materials, preparation, installation, adjusting, protection, and coordination with other work.

1.4 SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, fasteners, hardware, finish, options, and accessories.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Design Data: Submit manufacturer's design data, including structural calculations, signed and sealed by qualified professional engineer registered in state of the installation.
- F. Manufacturer's Project References: Submit manufacturer's list of successfully completed tilt-and-roll bleacher projects, including project name and location, name of architect, and type and quantity of tilt-and-roll bleachers furnished.
- G. Installer's Project References: Submit installer's list of successfully completed tilt-and-roll bleacher projects, including project name and location, name of architect, and type and quantity of tilt-and-roll bleachers installed.
- H. Warranty Documentation: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged, for past 10 years, in design and manufacture of tilt-and-roll bleachers of similar type to that specified.
- B. Installer's Qualifications:
 - 1. Installer regularly engaged, for past 5 years, in installation of tilt-and-roll bleachers of similar type to that specified.
 - 2. Employ persons trained and experienced for installation of tilt-and-roll bleachers.

Specifier Notes: Specify AWS for projects in USA. Specify CWB for projects in Canada.

- C. Welder's Qualifications: [AWS] [CWB] certified within past 12 months for each type of weld required.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
 - 1. Store and handle materials in accordance with manufacturer's instructions.
 - 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 - 3. Do not store materials directly on ground.
 - 4. Protect materials and finish during storage, handling, and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: Sturdisteel, PO Box 2655, Waco, Texas 76702. Toll Free 800-433-3116. Phone 254-666-5155. Fax 254-666-4472. Website www.sturdisteel.com. E-mail info@sturdisteel.com.
- B. Substitutions: Not permitted.

2.2 TILT-AND-ROLL BLEACHERS

- A. Tilt-and-Roll Bleachers:
 - 1. Portable, nonelevated.
 - 2. Can be rolled and tilted up against wall to save room for storage.
 - 3. Can be rolled and tilted down for use as seating.
- B. Size:

Specifier Notes: Specify number of rows.

1. Rows: [3] [4].

Specifier Notes: Specify length of tilt-and-roll bleachers.

2. Length: [7'-6"] [15'-0"] [21'-0"] [27'-0"].

Specifier Notes: Refer to Tilt-and-Roll Bleacher Seating Capacity Chart for gross seating capacity. Gross seating capacity is based on 18 inches per seat and is a function of bleacher length.

- C. Gross Seating Capacity: [15] [30] [42] [54].
- D. Design: Conform to AA Specification for Aluminum Structures, Aluminum Design Manual.
- E. Design Loads:
 1. Live Load: 100 pounds per square foot (psf) gross horizontal projection.
 2. Perpendicular Sway Load: 10 pounds per linear foot (plf) of seat plank.
 3. Lateral Sway Load: 24 plf of seat plank.
 4. Wind Load: Conform to local building code.
 5. Live Load for Seat and Tread Planks: 120 plf.
- F. Shop Connections: Welded and capable of carrying stress put upon them.

Specifier Notes: Specify AWS D1.1 for projects in USA. Specify CWB W47.1 for projects in Canada.

- G. Welding: [AWS D1.1] [CWB W47.1].
- H. Framework: Prefabricated aluminum angle bleacher frames spaced at 6-foot intervals and connected by cross braces.
- I. Rise and Depth Dimensions:

Specifier Notes: Specify dimensions for 3-row or 4-row bleachers.

1. Vertical Rise and Horizontal Depth per Row:
 - a. 3-Row Bleachers: 7 inches by 24 inches.
 - b. 4-Row Bleachers: 6 inches by 24 inches.
2. Seat Above its Respective Tread:
 - a. 3-Row Bleachers: 16 inches.
 - b. 4-Row Bleachers: 12 inches.
- J. Seats: Nominal 2-inch by 12-inch anodized aluminum boards, with 2-inch by 12-inch end caps.
- K. Treads: Nominal one 2-inch by 10-inch for all rows with end caps of matching materials.
- L. Floor Protection:

1. Non-marking rubber pads.
2. Size: 1 inch by 2-1/2 inches.
3. Five at every 6-foot stringer.

M. Casters:

1. 4-inch-diameter rubber wheels with swivels.
2. Ball bearings.

N. Tipping arms.

2.3 MATERIALS

A. Framework: Aluminum alloy 6061-T6, mill finish.

B. Seat Planks: Extruded aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.

C. Tread Planks: Extruded aluminum alloy 6063-T6, mill finish.

Bleacher manufacturer will not be responsible for the discoloration, staining and fading of exposed mill finish aluminum surfaces due to oxidation; prior to, during or after installation. Oxidation of mill finish aluminum surfaces is a natural phenomenon and is caused by condensation or moisture during packaging, transportation and/or storage.

D. Accessories:

1. Steel Bolts and Nuts: ASTM A 307, galvanized or cadmium plated.
2. Hold-Down Clip Assembly: Aluminum alloy 6063-T6.
3. Channel End Caps: Aluminum alloy 6063-T6, clear anodized 204R1, AA-M10C22A31, Class II.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive tilt-and-roll bleachers.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 PREPARATION

- A. Ensure surfaces to receive tilt-and-roll bleachers are flat and level.

3.3 INSTALLATION

- A. Install tilt-and-roll bleachers in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install tilt-and-roll bleachers plumb, level, square, straight, and secure.

3.4 ADJUSTING

- A. Inspect completed tilt-and-roll bleachers and make necessary adjustments to ensure proper installation.
- B. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- C. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

3.5 PROTECTION

- A. Protect completed tilt-and-roll bleachers to ensure that, except for normal weathering, bleachers will be without damage or deterioration at time of Substantial Completion.

END OF SECTION