



Notes to architect

1. These specifications are presented as a general guide to the architect or structural engineer in preparing project specifications. Allowable loads, spans, and other limiting conditions presented in this catalog are product data for use in design and construction. These products must not be used without prior structural design by a qualified engineer or architect.
2. Grip Strut Safety Gratings are intended for general purpose use in plants and process facilities by industry, commerce, and public utilities.
Grip Strut Safety Grating Stair Treads are intended for utility stairs and fire escapes in commercial, industrial buildings where local code permits. They are not intended for staircases and other areas used regularly by the general public where flat closed surfaces are desired.
3. All supports should 1 1/2" minimum bearing surface free of burrs, bridging, welds and other irregularities. (Note: When using Butterfly Anchor Clips "H-BC-10" it is advisable to provide a minimum of 3" for bearing per support per grating).
4. Random-, diagonal- or circular-cut exposed edges should be reinforced with a bar of grating thickness (minimum 1/8") and width equal to overall grating depth, welded at contact points of the designer's discretion.
5. Bolted connections, except stair or ladder tread attachment to stringers, may be replaced by welded connections of equal or greater strength.

Part 1: General

1.1 Scope

The contractor shall furnish and install Grip Strut Grating and Stair Treads, as specified, in all areas where shown on the drawings.

1.2 Qualifications

All Grip Strut Grating, Stair Tread and accessories, unless otherwise indicated, shall be manufactured by Cooper B-Line, and shall be installed in accordance with its current recommendations.

1.3 Submittals

The contractor shall furnish shop drawings of grating layout, framing and supports, unit dimensions and sections, fastener and weld types and locations.

1.4 storage and Handling

All materials shall be stored and handled to avoid damage. Damaged or deteriorated materials shall be removed from the premises.

Part 2: Products

2.1 Gratings

- a. **Type:** Heavy-Duty Grip Strut Safety Grating (Plank) (Walkway).
- b. **Metal:** (carbon steel) (5052 H-32 aluminum alloy).
- c. **Finish:** mill-galvanized before fabrication, ASTM A525) plain, unpainted, and oiled (HRP&O); mill finish (aluminum).
- d. **Metal gauge:** 11-ga., 10-ga., 9-ga. (ASG steel); .125" (aluminum).
- e. **Section width:** 9 1/4", 13 3/4", 23 1/4", 27 3/4", 36" (plank); 24", 30", 36" (walkway).
- f. **Side channel height:** 2", 2 1/2", 3", 4" (plank); 5" (walkway), also Canadian OH & S compliant.
- g. **Standard lengths:** 10'-0", 12'-0", 24'-0" (walkway); 10'-0", 12'-0", special order (plank).
- h. **Opening diamond:** "H" Series, 3 7/8" x 1 1/4" wide (grating surface-projected dimensions).
- i. **Reticulated pattern:** 1 5/16" high, minimum of 500 teeth per square foot.
- j. **Slip resistance:** Complies with Federal Specification RR-G-1602A standards.
- k. **Surface texture:** Standard serrated, non-serrated, and reduced opening.



2.2 Stair Treads

- a. **Type:** Heavy-Duty Grip Strut Stair Tread, Standard Nosing.
- b. **Metal:** (carbon steel) (5052 H-32 aluminum alloy).
- c. **Finish:** mill-galvanized before fabrication, ASTM A525) plain, unpainted, and oiled (HRP&O); mill finish (aluminum).
- d. **Metal thickness:** 10-ga. (ASG, steel); .125" (aluminum).
- e. **Section width:** 9¹/₂".
- f. **Side channel height:** 2".
- g. **Standard lengths:** (2", 2¹/₂", 36", 4" (nominal and actual), ±1/8"
- h. **Opening diamond:** "H" Series, 3⁷/₈" x 1¹/₄" wide (grating surface-projected dimensions).
- i. **Open area:** 52%.
- j. **Reticulated pattern:** 1⁵/₁₆" high, minimum of 500 teeth per square foot.
- k. **Slip resistance:** Complies with Federal Specification RR-G-1602A standards.

2.3 Accessories

Heavy-Duty Grip Strut Hold-Down Clip, stainless steel, Catalog Number H-BC-10. (Use with 3/8" square-shank carriage bolts, nuts, and washers obtained locally).

Handrail Bracket - hardware to attach bracket to walkway is supplied. Optional hot dipped galvanized after fabrication is available per request.

Heavy-Duty Grip Strut Splice plate (P-H-Sp-U), 30", 9 gauge mill-galvanized steel splice plate with bolts, hex nuts, and washers.

Part 3: Execution

3.1 Bearing surfaces

Prior to grating installation, inspect supports for correct size, layout and alignment, and verify that bearing surfaces are smooth and free of debris. Report in writing to the engineer or owner's agent and defects so they can be corrected before grating is installed.

3.2 Grating installation

Install grating in accordance with manufacturer's recommendations and shop drawings. Position grating sections flat and square with ends bearing min. 1¹/₂" on supporting structure; for sections over 12'-0" long, and when Heavy-Duty Grip Strut Hold-Down Clips are used, 3" minimum bearing surface is required. Bearing surface must be smooth, level, free of burrs, bridging, welds and other irregularities. Space grating sections a minimum 1/4" from vertical steel sections, and 1/2" from concrete walls. Allow maximum clearance between sections at joints of 1/4" at side channels, 3/8" at ends.

Band random-cut ends and diagonal or circular cut exposed edges with a bar of grating thickness (min. 1/8") and width equal to overall depth, welded at contact points of the designer's discretion.

3.3 Grating attachment

Attach grating to supports without warp or deflection as follows:

- a. **Single plank application:** Secure plank ends to supporting members at every point of contact. At each end, use Heavy-Duty Grip Strut Hold-Down Clips with 3/8" square shank carriage bolts and nuts, or secure each side channel to support by 1/8" x 1" long fillet welds.
- b. **Multiple plank application:** Secure perimeter plank to supporting members with 1/8" x 1" long fillet welds at every point of contact, intermediate grating sections with at least one attachment each end on alternate sides. When span exceeds 6'-0", attach side channels of adjacent planks together at mid-point of span for added rigidity. To joint adjacent planks together, weld them at 24" O.C. staggered top and bottom.

3.4 Stair Tread Installation

Fasten Grip Strut Stair Treads shown on the drawings, or as herein specified, to stair stringers with 3/8" x 1" machine bolts and nuts.