

# Aluminum Plank PLK Series Grating – Product Specification Guide

## How to Specify:

The following information provides a model specification format for architectural and engineering specification sections that, when applied, will be consistent with the Three-Part Section Format of The Construction Specifications Institute (CSI) for specifications serving the construction industry. The CSI specification section for Grating is listed in Section 05 53 00, Metal Fabrications - Metal Gratings. These specifications are intended for use as a guide for architects and engineers and may need to be altered or modified to fit the specific conditions of the application in question.

## PART 1: GENERAL

### 1.1 Scope

The contractor shall provide all labor, materials, equipment and incidentals as shown, specified and required to furnish and install grating, stair treads and frames.

### 1.2 Quality Assurance

A. Comply with applicable provisions and recommendations of the following standards:

1. ANSI/NAAMM MBG 531-09 (Metal Bar Grating Manual) and MBG-533-09 (Welding Standards for Fabrication of Steel, Stainless Steel and Aluminum Bar Grating).
2. Aluminum: ASTM B221, Aluminum Alloy, Extruded Bars, Rods, Wire, Shapes and Tubing.

### 1.3 Submittals

- A. The contractor shall submit for approval shop drawings for the fabrication and erection of all grating work. Include plans, elevations, and details of sections and connections. Show type and location of all fasteners.
- B. The contractor shall submit manufacturer's catalog pages, specifications, load tables, anchor details and standard installation details.
- C. Grating samples shall be submitted for approval as required.

## PART 2: PRODUCT

1. Grating: Extruded Aluminum Heavy Duty Plank (PLK Series) by Pleasant Mount Welding, Inc., or approved equal.
2. Plank Construction: 6" wide extruded Aluminum Heavy Duty Plank with support bars spaced 1.2" on centers, fabricated with banding into panels of standard width to fill grating areas shown on shop drawings. See view of plank section profile for PLK-Series on this sheet.
3. Plank Depth: 1" to 2-1/2" based on loading requirements and clear span.
4. Top Surface: Striated or optional Slip Resistant coating.
5. Available Punch Patterns:
  - A. Unpunched
  - B. 19/32" x 2-3/4" Rectangular Punched openings staggered and spaced 4" on center along span, and spaced 1.2 inches on center between support bars.
  - C. ALPlank 8 - Diagonal (45°) punched slotted holes 0.225" x 0.787" on 1.5" centers along span, and spaced 1.2 inches on center between support bars. Five rows per 6" wide plank section. To provide 8% open area.
  - D. ALPlank 15 - Diagonal (45°) punched slotted holes 0.225" x 0.787" on 0.75" centers along span, and spaced 1.2 inches on center between support bars. Five rows per 6" wide plank section. To provide 15% open area.
6. Loading: Grating shall be designed to meet live load conditions of 100 lbs./sq.ft. over the required clear span with deflection not to exceed 1/4". Note: alternate loading requirements may be specified at the discretion of the architect/engineer (base grating depth on loading and clear span requirements).
7. Plank and banding shall be Aluminum Type 6063-T6.
8. Finish: Standard Mill Finish. Optional A-41 Clear Anodizing available.
9. Fabrication and Tolerances: In accordance with the ANSI/NAAMM MBG 531-09 Metal Bar Grating Manual.
10. Provide appropriate fasteners for type, grade, and class required for the approved anchoring system.

## PART 3: EXECUTION

### 3.1 Installation

A. Prior to grating installation, contractor shall inspect supports for correct size, layout and alignment. Any discrepancies between contract drawings and supporting structure determined to be detrimental to grating placement shall be reported in writing to the architect or owner's agent prior to grating placement.

B. Install grating in accordance with shop drawings and standard installation clearances as recommended by the ANSI/NAAMM MBG 531-09 Metal Bar Grating Manual.

C. Cutting, Fitting and Placement.

1. Fabricate cutouts in grating sections for penetrations indicated. Arrange cutouts to permit grating removal without disturbing items penetrating gratings. Band ends and cuts in grating with bars of same size and material as the bearing bars.
2. Fabricate standard panel widths from full 6" wide plank sections wherever possible.

D. Protection of Aluminum from Dissimilar Materials:

1. Where aluminum surfaces come into contact with dissimilar metals, surfaces shall be kept from direct contact by painting the dissimilar metal with one coat of bituminous paint or other approved insulating material.
2. Where aluminum surfaces come into contact with dissimilar materials such as concrete, masonry or lime mortar, exposed aluminum surfaces shall be painted with one coat of bituminous paint or other approved insulating material.

### 3.2 Grating Attachment

Use approved attachment system and fasteners to secure grating to supporting members as shown on plans.