



**Alabama Metal Industries Corp.**  
**3245 Fayette Ave.**  
**Birmingham, AL 35208**

## **PRODUCT SPECIFICATION GUIDE**

### **SWAGE-LOCKED ALUMINUM GRATING**

#### How to Specify:

This information is designed to conform to the requirements of the Three-Part Section Format of the CSI/CSC *Master Format* for construction specifications. These specifications are intended to be used as a guideline for architects and engineers as they establish the requirements for a particular project, and may be modified by them as deemed appropriate.

### **PART 1: GENERAL**

#### **1.1 Scope of Work**

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

#### **1.2 Quality Assurance**

- A.** Comply with applicable provisions and recommendations of the ANSI/NAAMM MBG 531 Metal Bar Grating Manual for Steel, Stainless Steel and Aluminum Gratings and Stair Treads.
- B.** The aluminum used in the Bearing Bars shall be either alloy 6061-T6 or 6063-T6 conforming to ASTM B221. The aluminum used in the Cross Bars shall be alloy 6063-T5 conforming to ASTM B221.
- C.** Substitution of materials shall not be accepted unless they are submitted for review and the Architect/Engineer approves their use.

#### **1.3 Submittals**

- A.** The contractor shall submit to the owner or its representative, for approval, the manufacturer's shop drawings for fabrication and erection of the work. Included shall be plans, elevations, sections and details of the work.
- B.** The contractor shall submit the manufacturer's specifications, load tables, anchor details and standard installation details.
- C.** The contractor may be required to take field dimensions to verify "as built" conditions to ensure proper fit of grating.

### **PART 2: PRODUCT**

#### **2.1 General**

- A.** Grating shall be Amico Swage-Locked Bar Grating Type 19-SI-4 as manufactured by Alabama Metal Industries Corp. or approved equal.
- B.** Bearing Bars: Material shall be aluminum alloy as specified and shall be spaced 1 3/16" on center, close tolerance punched to accept a tight fitting cross bar. The bars may be of rectangular shape or may be of an "I" bar shape and be of an appropriate depth and thickness for the required load. Other available centers are; 15/16", 11/16", and 1/2" which may be selected at the discretion of the Architect/Engineer.

- C. Cross Bars: Material shall be aluminum alloy as specified, square in shape and swaged-locked in to place at right angles to the bearing bars under high hydraulic pressure. They shall be placed on 4" centers or 2" centers as selected by the Architect/Engineer.
- D. Surface: The top surface of grating with a rectangular shape bearing bar shall be Smooth unless the Architect/Engineer determines the need for a serrated surface. "I" bar shape grating shall have its top surface grooved for slip resistance.
- E. Loading: At a uniform load of 100 pounds per square foot, deflection shall not exceed ¼ inch over the required span.
- F. Finish: Aluminum shall be mill finish as fabricated (MFAF).

## **PART 3: EXECUTION**

### **3.1 Shop Fabrication**

- A. All required cutting, fitting and welding shall be performed in the manufacturers shop in accordance with the approved shop drawings and shall be in compliance with the NAAMM Metal Bar Grating manual tolerances and welding standards.
- B. All cutouts to clear obstructions shall have a recommended clearance of 1 inch. When banding and toe plates are required they shall be welded to the grating in accordance with NAAMM standards.

### **3.2 Installation**

- A. The grating shall be received at the job site by the contractor, unloaded and protected from damage prior to the requirement for it to be installed.
- B. The installing contractor shall prepare the site for installation, determining that deviations from the approved drawings are corrected prior to grating placement.
- C. Grating shall be installed in accordance with the approved shop drawings and the installation clearances called for in the NAAMM Metal Bar Grating Manual, including the use of the prescribed anchor system.
- D. Pipe penetrations of 4" or less shall be cut in the field. When installed, Grating Cross Bars shall be in alignment.