**SECTION 05 53 00**

**Metal Fabrications – Profile Bar Metal Gratings**

**Part 1: General**

**1.1 Section Includes**

 A. Prefabricated custom-designed light duty stainless steel bar gratings.

 B. Miscellaneous installation hardware and accessories.

**1.2 References**

 A. ASTM A-666 Stainless Steel Strip

 B. ASTM A-269 Stainless Steel Tubing

 C. ASTM A-967 Standard for Chemical Passivation for Stainless Steel

 D. ANSI/NAAMM- MBG-531-09 Metal Bar Grating Manual

**1.3 Action Submittals**

A. Product Data: The contractor shall submit the manufacturer’s catalog pages including load tables, anchor details and standard installation details.

B. Shop drawings: The contractor shall submit for approval shop drawings for the fabrication and erection of all gratings, based on construction drawings of current issue. Include plans, elevations, and details of sections and connections as required. Show type and location of all fasteners.

 C. Samples of Grating and Anchorage system shall be submitted for approval.

**1.4 Quality Assurance**

A. Manufacturer Qualification: A company specializing in the manufacture of metal bar gratings with not less than 10 years of documented experience.

B. Fabrication tolerances shall be in accordance with applicable provisions and recommendations of ANSI/NAAMM 531-09 Metal Bar Grating Manual.

**Part 2: Products**

**2.1 Source Requirements:**

Design is based upon use of gratings as manufactured by Hendrick Architectural Products, and terminology used herein may include reference to the specific performance or product of this manufacturer.

**2.2 Manufacturers:**

 Manufacture: **Hendrick Architectural**, Carbondale, PA

 email: arch@hendrickcorp.com, phone: 877-840-0881, fax: 570-282-1506

**2.3 Manufactured Units:**

A. **Fabrication:** Fabricated using Profile Bar wires and U-clip supports from 304 or 316 stainless

 material. Sections to be supplied in lengths as needed with opening area as required and 0 degree deflection. Corners grates will be mitered and banded. Grating shall include hidden mounting tabs as required.

B. **Design Criteria:**

1. **Loading:** Grating Products shall be designed and manufactured to meet the live load conditions of 300 lbs/ Sq Ft with maximum deflection of 1/8” for the clear spans shown on the drawings. Bearing bar depth shall be as shown on the contract drawings or as recommended by the manufacturer to meet the loading requirements, clear span conditions and maximum deflections specified.

C. **Materials:** Bearing bars and banding are per ASTM A-666 Stainless Steel Strip - Alloy 304 or 316 and Stainless Steel Tube Cross Bars are type ASTM A-269 Stainless Steel Tubing Alloy 304 or 316.

D. **Fabrication Tolerances** shall be in accordance with ANSI/NAAMM MBG 531-09 Metal Bar Grating Manual.

 E. **Finish:** Gratings shall be a matte non-directional finish unless otherwise specified.

**2.4 Accessories:**

Provide appropriate fasteners for type, grade, and class required for the approved anchorage system.

**Part 3: Execution**

**3.1 Field Verification:** Take field measurements prior to preparation of final shop drawings and fabrication where required to ensure proper fitting of the work.

**3.2 Installation**

A. Prior to grating installation, contractor shall inspect supports for correct alignment and conditions for proper attachment and support of the gratings. Any inconsistencies between contract drawings and supporting structure deemed detrimental to grating placement shall be reported in writing to the architect or owner’s agent prior to placement.

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

**3.3 Grating Attachment:** Use approved attachment system and fasteners to secure grating to supporting members as shown on plans.

**END OF SECTION**