

**SECTION 10 56 13  
STEEL SHELVING**

SPEC WRITER NOTES:

1. Use this section only for NCA projects.
2. Delete between //\_\_\_\_\_// if not applicable to project. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

A. This section specifies medium duty and heavy duty storage shelving.

**1.2 DEFINITIONS**

A. For the purposes of this specification the shelf category, //"Medium Duty"// //"Heavy Duty"// will be as follows. Load is given per shelf in kilograms (pounds) for evenly distributed load. This does not limit the shelf size, only the shelving category.

SPEC WRITER NOTES:

1. Delete types not used in project.

1. Minimum Evenly Distributed Load per Shelf in Kilograms:

Type	Type	
Shelf Size	Medium Duty	Heavy Duty
450 by 900 mm	320	590
450 by 1200 mm	230	410

2. Minimum Evenly Distributed Load Per Shelf in Pounds:

Type	Type	
Shelf Size	Medium Duty	Heavy Duty
18 by 36 in.	706	1301
18 by 48 in.	508	904

**1.3 SUSTAINABILITY REQUIREMENTS**

A. Materials in this section may contribute towards contract compliance with sustainability requirements. See Section 01 81 13, SUSTAINABLE DESIGN REQUIRMENTS, for project // local/regional materials, // low-emitting materials, // recycled content, // \_\_\_\_\_// requirements.

**1.4 SUBMITTALS**

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Product Data: Submit manufacturer's literature for shelving units, accessories; include test reports and installation instructions.
- C. Samples: Provide color samples on actual shelving material.

## 1.5 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of this specification to extent referenced. Publications are referenced in text by the basic designation only. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.

### SPEC WRITER NOTES:

1. Remove reference citations that do not remain in Part 2 or Part 3 of edited specification.
2. Verify and make dates indicated for remaining citations the most current at date of submittal; determine changes from date indicated on the TIL download of the section and modify requirements impacted by the changes.

- B. American Society for Testing and Materials (ASTM):

D522-17R21	Mandrel Bend Test of Attached Organic Coatings
D2794-93R19	Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
D3359-22	Measuring Adhesion by Tape Test

- C. Material Handling Industry of America, Inc. (MHIA):

MHI MH28.1-2018	Industrial Steel Grade Shelving
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## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages, containers or bundles bearing the brand name and identification of the manufacturer. Store inside under cover. Protect surfaces from damage.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURED UNITS

- A. Reference Standard: Comply to MHI MH28.1.
- B. Provide shelving units //indicated// //scheduled//.
- C. Provide shelving units designed for full dead and live load, designated //medium duty// //heavy duty//.
- D. Provide units with base plates for floor anchorage indicated.
- E. Provide wall connections for units over 2500 mm (8 feet 3 inches) to top shelf.
- F. Provide floor and wall anchorages for units in Seismic Zone // 3// 4//.
- G. Provide door and drawer earthquake stops.
- H. Provide wall connections for drawer units if necessary.

### 2.2 ACCESSORIES

- A. Drawers: 180 kg (400 pound) capacity, and mounting brackets.
- B. Partitions and dividers.

- C. Label Holders: //56 x 20 mm // 75 x 125 mm // (//2 1/4 x 3/4 inches // 3 x 5 inches //).

**2.3 FINISH**

- A. Provide the shelving units in the manufacturer's standard colors //as indicated // as chosen by the COR // as chosen by the Architect //.
- B. Clean metal by multiple stage phosphatizing and sealing process, for rust resistance and paint adhesion.
- C. Provide electrostatically applied enamel finish coats, baked hard for a minimum of 30 minutes at 149 degrees C (300 degrees F).
- D. Provide special finish meeting the flexibility, adhesion, and impact standards below.

**2.4 SOURCE QUALITY CONTROL**

- A. MHI MH28.1, for tests of shelf capacity, lateral stability and shelf connections.
- B. Finish Flexibility: Comply to ASTM D522.
- C. Finish Adhesion: Comply to ASTM D3359, Method B.
- D. Impact Resistant Finish: Comply to ASTM D2794.

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A. Before installation, examine shelving units for dents and scratches. Replace damaged shelving and units.

**3.2 INSTALLATION**

- A. Install shelving according to manufacturer's installation instructions. //Make wall and floor connections as indicated.//

**3.3 PROTECTION**

- A. Cover and protect shelving from damage during the completion of construction. Remove prior to acceptance of project.

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