

UNISTRUT® DEFENDER™

This product specification is written according to the Construction Specifications Institute *MasterFormat*, 2018 Update.

SECTION 05 43 00

SLOTTED CHANNEL FRAMING

PART I – GENERAL

1.01 SUMMARY

- A. Framing shall be a strut type metal framing system (Strut System)
- B. Strut System shall be used:
 - 1. To support mechanical and electrical equipment and devices.
 - 2. For structural applications as applicable.
- C. Strut System and components must be supplied from a single approved Manufacturer.

1.02 QUALITY ASSURANCE

- A. Manufacturer's qualifications:
 - 1. The manufacturer shall have at least 10 years' experience in manufacturing Strut Systems.
 - 2. The manufacturer must certify in writing all components supplied have been produced in accordance with an established quality assurance program.
- B. Work shall meet the requirements of the following standards:
 - 1. Federal, State and Local codes
 - 2. American Iron and Steel Institute (AISI) Specification for the Design of Cold-Formed Steel Structural Members 2007 Edition
 - 3. American Society for Testing And Materials (ASTM)
 - 4. Metal Framing Manufacturer's Association (MFMA)

1.03 SUBMITTALS

- A. Structural calculations by a Registered Professional or Structural Engineer in the State of the Project's location for approval by the Professional of Record. Calculations may include, but are not limited to:
 - 1. Description of design criteria
 - 2. Stress and deflection analysis
 - 3. Selection of framing members, fittings, and accessories
- B. Assembly drawings necessary to install the Strut System in compliance with the Contract Drawings
- C. Pertinent manufacturers published data

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. All material is to be delivered to the work site in original factory packaging to avoid damage to the finish.
- B. Upon delivery to the work site, all components shall be protected from the elements by a shelter or other covering.

1.05 WARRANTY

- A. Manufacturer shall warrant for 1 year from the shipment date that products will be free from defects in material or manufacture. In the event of any such defect in violation of the warranty, Manufacturer shall have the option to repair or replace any such defective product.
- B. Installer shall warrant for 1 year from the date of completion of work that the work will be free of defects in installation. In the event of any such defect in violation of the warranty, Installer shall have the option to repair or replace any such defective product.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Strut System and components shall be UNISTRUT® DEFENDER™

2.02 MATERIALS

- A. All channel members shall be fabricated conforming to one of the following ASTM specifications:
 - 1. UNISTRUT® DEFENDER™: ASTM A1046 SS Grade 33
- B. All fittings shall be fabricated conforming to one of the following ASTM specifications:
 - 1. Carbon Steel: All carbon steel fittings shall be fabricated from steel that meets/exceeds the physical requirements of ASTM A1011 SS Grade 33 and conforms to one of the following ASTM specifications:
 - a. ASTM 575
 - b. ASTM 576
 - c. ASTM 36
 - d. ASTM 635
 - e. ASTM 1059
 - f. ASTM 1046
- C. Any substitutions of product or manufacturer must be approved in writing ten days prior to bid date by the Professional of Record.

2.03 FINISHES

- A. UNISTRUT® DEFENDER™ per ASTM A1046 and A1059
 - 1. Strut coated per A1046 to a mass of 0.45 oz./ sq. ft. surface area
 - 2. Fittings coated per A1059 to a thickness of 30 microns and/or A1046 to a mass of 0.45 oz./sq. ft. surface area

PART 3 - EXECUTION

3.01 EXAMINATION

- A. The installer shall inspect the work area prior to installation. If work area conditions are unsatisfactory, installation shall not proceed until satisfactory corrections are completed.

3.02 INSTALLATION

- A. Installation shall be accomplished by a fully trained manufacturer authorized installer.
- B. Set Strut System components into final position true to line, level and plumb, in accordance with approved drawings.
- C. Anchor material firmly in place, and tighten all connections to their recommended torques.

3.03 CLEANUP

- A. Upon completion of this section of work, remove all protective wraps and debris. Repair any damage due to installation of this section of work.

3.04 PROTECTION

- A. During installation, it shall be the responsibility of the installer to protect this work from damage.
- B. Upon completion of this scope of work, it shall become the responsibility of the general contractor to protect this work from damage during the remainder of construction on the project and until substantial completion.