**Atkore - CALBRITE®**

This product specification is written according to the Construction Specifications Institute

*MasterFormat*, 2018 Update.

SECTION 26 05 29

HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS -

STAINLESS STEEL STRUT

## PART I – GENERAL

* 1. SUMMARY
     1. Framing shall be a strut type metal framing system.
        1. Strut System
        2. BriteRail® Sanitary Strut
     2. Strut System shall be used:
        1. To support mechanical and electrical equipment and devices.
        2. For structural applications as applicable.
     3. Strut System and components must be supplied from a single approved Manufacturer.

## REFRENCES

* + 1. UL STANDARDS
       1. UL 5B - Standard for Strut-Type Channel Raceways and Fittings
    2. NFPA 70, National Electrical Code (NEC)
       1. NEC Article 384
    3. ASTM Standards
       1. ASTM A240 - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
       2. ASTM A276 - Standard Specification for Stainless Steel Bars and Shapes
    4. NSF Standards
       1. NSF 169 - Special Purpose Food Equipment and Devices

## QUALITY ASSURANCE

* + 1. 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.

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* + 1. 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
       3. American Society for Testing and Materials (ASTM)
       4. Metal Framing Manufacturer’s Association (MFMA)

## SUBMITTALS

* + 1. Section 01 33 00 – Submittal Procedures: Submittal procedures.
    2. 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
    3. Assembly drawings necessary to install the Strut System in compliance with the Contract Drawings
    4. Pertinent manufacturers published data.

## PRODUCT DELIVERY, STORAGE, AND HANDLING

* + 1. All material is to be delivered to the work site in original factory packaging to avoid damage to the finish.
    2. Upon delivery to the work site, all components shall be protected from the elements by a shelter or other covering.

## WARRANTY

* + 1. 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.
    2. 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

## ACCEPTABLE MANUFACTURERS

* + 1. Atkore Calbrite®, Power Strut®, Unistrut®

2400 E. 69th Ave

Merrillville, IN 464210

1-800-536-2248

## MATERIALS

* + 1. All channel members shall be fabricated conforming to one of the following ASTM specifications:
       1. Stainless Steel:
          1. ASTM A240 (Type 304 or Type 316)
          2. ASTM A276 (Type 304 or Type 316)
    2. All fittings shall be fabricated conforming to one of the following ASTM specifications:
       1. Stainless Steel:
          1. ASTM A240 (Type 304 or Type 316)
          2. ASTM A276 (Type 304 or Type 316)
          3. ASTM B783 (Type SS316N1-25)
    3. Any substitutions of product or manufacturer must be approved in writing ten days prior to bid date by the Professional of Record.

## SANITARY STRUT PERFORMANCE REQUIREMENTS

* + 1. Structural Performance: Hangers and supports for electrical conduit raceways and equipment to withstand the structural loads as indicated within Atkore-Calbrite® specification sheets for BriteRail® and FlatRail® Sanitary Support Systems
       1. Design supports for multiple conduit trade sizes, capable of supporting combined weight of supported systems, system contents, and conditions indicated in accordance with <Insert requirement>.
       2. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
       3. Utilizing design hangers and supports for conduit, piping, and equipment from other manufacturer’s outside of Atkore-Calbrite shall require approval from authorities having jurisdiction and will void the load ratings indicated within Atkore-Calbrite® specification sheets.
       4. Sanitary Strut should not be cut within the continuous slot design (cut within the available stainless material on the sides of the slots) to sustain the load ratings indicated within Atkore-Calbrite® specification sheets.
       5. Rated Strength: Selected to suit applicable load criteria based on length of the Sanitary Strut and number of supports used.
       6. Load ratings are calculated between support rods, to exceed 60” length additional support rods will be required. Do not exceed length to load specifications.

## SANITARY STRUT PERFORMANCE FEATURES

* + 1. BRITERAIL®, FLATRAIL®:
       1. Manufactured in type 304L stainless steel.
       2. Factory-fabricated, stainless steel, hygienically designed, NSF Certified, slotted support systems with ceiling and wall mount options. Installed system configurable and expandable without the need of drilling, cutting, or welding.
       3. Suitable for horizontal or vertical ceiling and wall mount applications.
       4. Polished to an architectural #4 finish that is modern, attractive, easy to clean and that also enhances the surface’s resistance to pitting and bacterial corrosion.
       5. Equipped with a “Smartmark” fiber laser marking process, opposed to paper labels or stamping, eliminating recesses and niches, and opportunities for particle or water retention. In addition, this also eliminates the risk of a paper label becoming foreign matter.
       6. The custom dome and flat-shape designs eliminate surfaces where debris or bacteria can form and eliminates the ability for water to pool during the wash-down process.
       7. Consists of a precision, water jet cut continuous slot design that provides maximum flexibility and reduces labor time to install by eliminating a fixed hole option.
       8. Patent # D830,153

## HANGER ROD AND SUPPORT ACCESSORIES:

* + - 1. Basis-of-Design Products: Subject to compliance with requirements, provided by Atkore-Calbrite®.
      2. Hanger Rods are manufactured in type 304L stainless steel or type 316L upon request.
      3. Hanger Rods is factory-fabricated, hygienically designed, NSF certified, that consist of a smooth stainless surface that minimizes thread exposure.
      4. Hanger rod systems must be used to create adequate space between electrical raceways, equipment, and the wall, allowing space for cleanability of installed system, a minimum of 2 inches.
      5. Material is easily field fabricated, available in custom lengths and can be provided with threads, eliminating the need for field cutting or threading. All hardware to be made of compatible stainless steel.
      6. Hardware: Made from type 316 stainless steel, specially designed to minimize thread exposure and mitigating bacteria / water accumulation.
      7. Install stainless steel hanger rod and accessories that minimize harborage areas for bacteria growth.
      8. Load Distribution: Install hanger rod and accessories, so that conduit and stresses from movement will not be transmitted to connected equipment.
      9. Install hangers and supports complete with necessary attachments and prefabricated kits provided by Atkore-Calbrite® including mounting plates, anchors, U-bolts, rods, nuts, mini-hangers, washers, and other accessories.

# PART 3 – EXECUTION

## EXAMINATION

* + 1. 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.

## INSTALLATION

* + 1. Installation shall be accomplished by a fully trained manufacturer authorized installer.
    2. Set Strut System components into final position true to line, level and plumb, in accordance with approved drawings.
    3. Anchor material firmly in place and tighten all connections to their recommended torques.

## CLEANUP

* + 1. Upon completion of this section of work, remove all protective wraps and debris. Repair any damage due to installation of this section of work.

## PROTECTION

* + 1. During installation, it shall be the responsibility of the installer to protect this work from damage.
    2. 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.