Overview

Finishes *(continued)*

GoldGalv®

The standard GoldGalv® finish is made up of a multi-step electrogalvanizing and zinc trivalent chromium process. The trivalent chromium finish is applied over the zinc, producing a chemically bonded non-porous barrier for protection from moisture and air. The .5 mil electro-plated zinc and gold trivalent chromium finish provides all of the features and protection of hexavalent chromium without the use of the chemical.

SilverGalv® (Suffix EG)

Often referred to as "zinc plated" or "electroplated zinc," the steel and .5 mils of zinc are bonded by an electrolysis process. This is the identical process used in the Superstrut Goldgalv® finish without the numerous benefits of the gold-colored trivalent chromium conversion coat (see GoldGalv® finish for more information). Electrogalvanizing is most commonly applied to small fittings, hardware and threaded products.

Green or White Urethane Powder Coated (Suffix GR or WH)

Urethane powder resins are applied electrostatically to the steel after fabrication. Once the material is completely covered with the powder-form urethane, it proceeds through a 400° baking process for ten minutes, creating a chemical bond. This results in a minimum of 1.5 mil thickness of urethane coating, providing excellent resistance to chipping or peeling.

Pregalvanized (Suffix PG)

A zinc coating is applied by hot-dipping the steel coil at the mill prior to fabrication. Once the material is worked by roll-forming, cutting or punching, minimal protection is provided for raw edges. This weakness is typical with precoated material and affects the channel section around holes, extreme ends and the edges of the "U" shape lips. Superstrut pregalvanized material is in conformance with ASTM A-525/G-90 specification standards, representing 0.90 ounces of zinc per square foot of steel. This finish is often referred to as "hot-dipped mill galvanized" or "mill galvanized."

Hot-Dipped Galvanized (Suffix HDG)

The material is zinc coated after fabrication, providing total product protection on all surfaces. The fabricated channel or fitting is suspended and then dipped into tanks of hot zinc for a prolonged period, creating a coherent bond. The result is superior corrosion resistance as compared to pregalvanized material. Hot-dipped galvanizing is not recommended for threaded products, because the thickness of the zinc coating will often disrupt the threads. Superstrut hot-dipped galvanized is in conformance with ASTM Specifications A-123 (formerly A-386) and A-153. Superstrut channels maintain a minimum 1.5 ounces of zinc per square foot of steel or 2.5 mils (ASTM A-123, Thickness Grade 65). This finish is also referred to as "hot-dipped galvanized after fabrication."

PVC Coated (Suffix PVC)

A polyvinyl chloride (PVC) plastic coating is fused to the channel, fitting or accessory after fabrication by immersing the part in fluidized PVC tanks. The fused-melt mixed powder PVC coating thickness is 15 mils (.015") plus or minus five mils. PVC material is a thermoplastic and will soften in high temperature. An inherent weakness with PVC coatings occurs when field alterations are applied, such as cutting or drilling. These acts disrupt the sealed PVC product and warrant field touch-up. Thomas & Betts cannot be held responsible for field-altered PVC coated products.

Copper Plated ("T" inserted as the second digit of the part number; Example: CTL-710-2)

Plain steel proceeds through a series of rinse tanks to clean the material surface. Once cleaned, the fabricated part is etched by dipping into an acid pickle bath to prepare the surface for adhesion. Copper is electrically applied by submerging in a copper bath. To seal the finish, the product continues to a sealer tank and is then dried by forced hot air.

Black (Suffix B)

A black finish is raw steel with only a light oil finish as supplied by the steel manufacturer. There is no protection against red rust.

Stainless Steel (Suffix SS)

Superstrut channel is supplied in type 304 stainless steel when required. Type 316 stainless steel may be available upon request.

Aluminum (Suffix AL)

Superstrut channel and hardware are available in aluminum.

Warning: Load tables, charts and design criteria provided in this catalog are intended as guides only. Selection of proper product, installation intervals, erection and placement are the responsibility of the user.

Superstrut® products are intended to be used for the support and bracing of fixtures, cable, pipe and conduit. Improper use or installation may result in injury to persons or damage of property.

Material and finish specifications are subject to change without notice.

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Threaded Products and Hardware

Channel Nuts

Superstrut® channel nuts are manufactured from mild steel and are case hardened.

Design Data

Superstrut® self-aligning channel nuts are designed to provide resistance to pull out and resistance to side slip in excess of the full strength of the channels with which they are used. The extreme resistance to side slip results from the unique design of the alternate teeth, spaced and designed to develop a wedging action that increases with pressure or load.

Load Ratings for ¼", ⅜" and ½" Strut Nuts used in Superstrut®

CHANNEL NUT SIZES (IN.)	SLIP TEST RATING	PULL TEST RATING
¼	300	500
⅜	750	1,000
½	1,200	2,000

If connections will be subjected to dynamic or seismic loading conditions, contact the factory for design assistance.

1. All ratings have safety factor of 3 applied.

2. Load ratings are for Static Applications.

UC-100 Universal Cone Nut

Eliminates the inventory and installation hassles of conventional spring nuts. Fits all 1⅝" channel, regardless of depth, with a simple twist of your thumb. Pliable nylon cone secures the nut in place through the entire range of construction site temperatures.
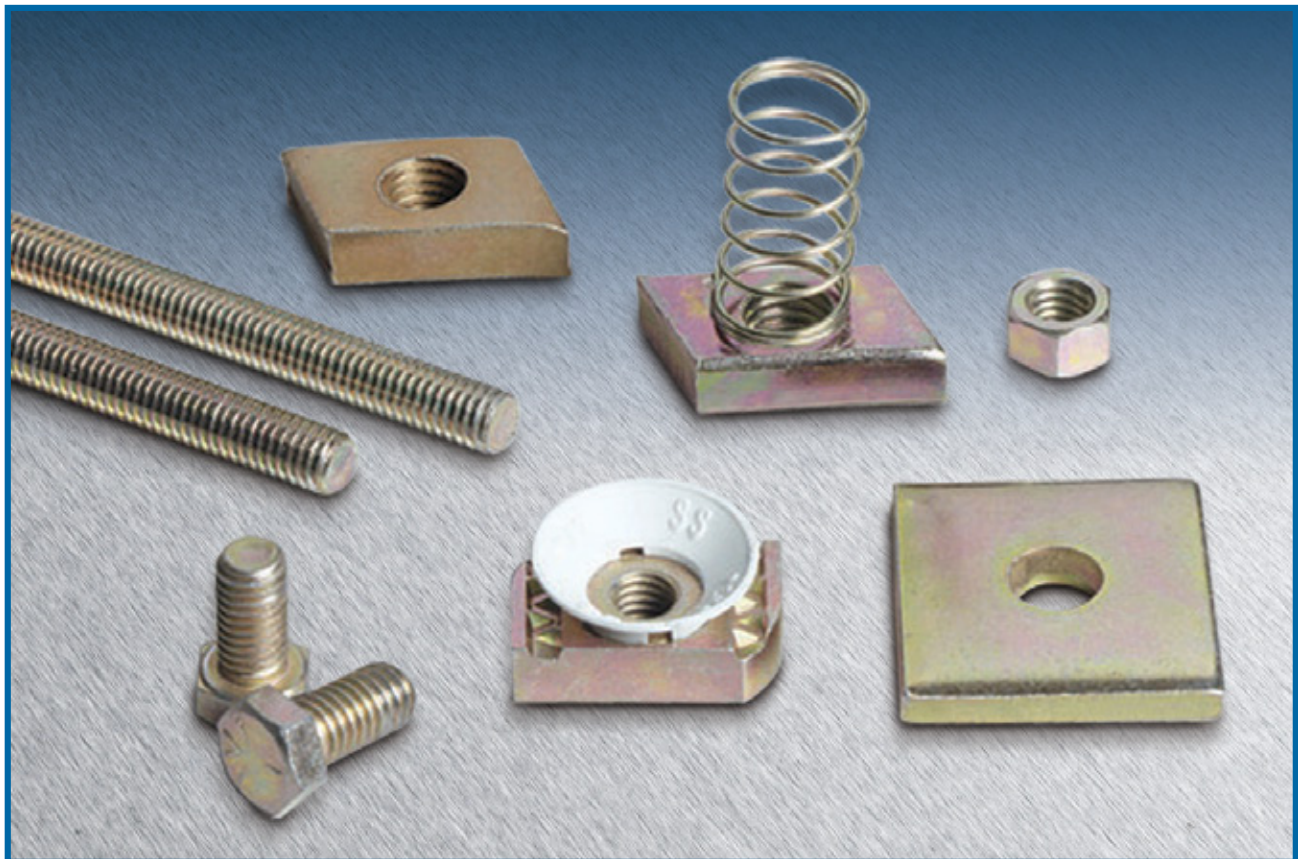
Screw Threads

THREAD SIZE (IN.)	¼	⅜	½
THREADS PER INCH	20	16	13
DESIGN TORQUE (FT.–LBS.)	6	19	50

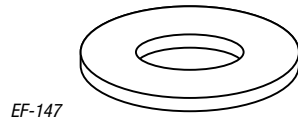*Standard Finish – GoldGalv®, unless otherwise stated.*

All threaded products are American Standard thread, free fit class 2. GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colored trivalent chromium to give excellent corrosion resistance and a superior paint base. See **pages B-106–B-107** for a complete description of the GoldGalv® hardware finish.

Note: Standard Spring and Springless Nuts are supplied with a silver electro-galvanized (EG) finish. These items are not visible in a gold system and are universal with other systems' finishes and colorations.
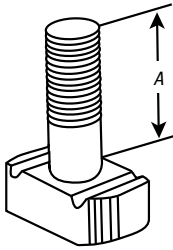

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Threaded Products and Hardware

Fender Washer

EF-147

CAT. NO.	SIZE (IN.)	DIA. (IN.)	HOLE STD. (IN.)	STD. CTN.
EF147 1/4	¼	1¼	⁵⁄₁₆	100
EF-147-3/8	⅜	1½	⁷⁄₁₆	100
EF-147-1/2	½	2	⁹⁄₁₆	100

Springless Stud Nut

A-177 to A-180

CAT. NO.	BOLT DIA. (IN.)	LENGTH A (IN.)	STD. CTN.
A177 1/4 1	¼	1	50
A-177-1/4 X 1-1/4	¼	1¼	250
A-179-3/8 X 1	⅜	1	250
A-179-3/8 X 1-1/4	⅜	1¼	50
A-180-1/2 X 1*	½	1	250
A-180-1/2 X 1-1/4*	½	1¼	250

* Cannot be used with "B" Series channel.

Regular Spring Stud Nut
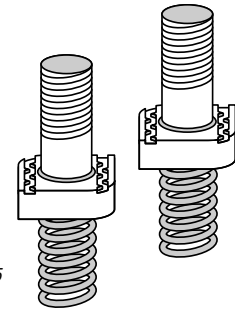
A-182 to A-185

CAT. NO.	BOLT DIA. (IN.)	LENGTH A (IN.)	STD. CTN.
A182 1/4 1	¼	1	250
A-182-1/4 X 1-1/4	¼	1¼	250
A-184-3/8 X 1	⅜	1	50
A-184-3/8 X 1-1/4	⅜	1¼	50
A-185-1/2 X 1	½	1	50
A-185-1/2 X 1-1/4	½	1¼	50

For all "A" and "C" series channels.

Standard Finish – GoldGalv®, unless otherwise stated.
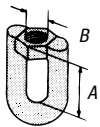
Swivel Eye

E-120

CAT. NO.	A (IN.)	B (IN.)	DESIGN LOAD LBS.	STD. CTN.
E120 3/8	1⅜	⅜	1,000	25
E120 1/2	1½	½	1,800	25

Swivel Joint
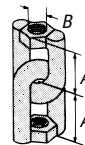
E-122

CAT. NO.	A (IN.)	B (IN.)	DESIGN LOAD LBS.	STD. CTN.
E122 3/8	1⅜	⅜	1,000	25
E-122-1/2	1½	½	1,800	10

Standard Finish – GoldGalv®, unless otherwise stated.

Swivel Eye with Stud
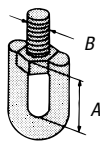
E-130

CAT. NO.	A (IN.)	B (IN.)	DESIGN LOAD LBS.	STD. CTN.
E130 3/8	1⅜	⅜	1,000	25
E-130-1/2	1½	½	1,800	25

Swivel Joint with Stud
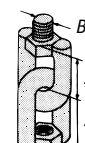
E-131

CAT. NO.	A (IN.)	B (IN.)	DESIGN LOAD LBS.	STD. CTN.
E131 3/8	1⅜	⅜	1,000	25
E-131-1/2	1½	½	1,800	10

Standard Finish – GoldGalv®, unless otherwise stated.

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