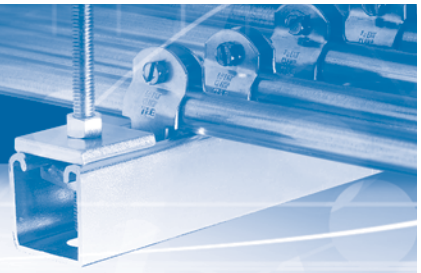


Finishes

GoldGalv®

The standard GoldGalv® finish is made up of a multi-step electrogalvanizing and zinc dichromate 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 provide all of the features and protection of hexavalent Chromium without the use of the chemical.

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, considering the zinc coating thickness 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."

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 Kindorf Galv-Krom® finish without the numerous benefits of the gold colored trivalent chromium conversion coat (see Galv-Krom® finish for more information). Electrogalvanizing is most commonly applied to small fittings, hardware and threaded products.

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.

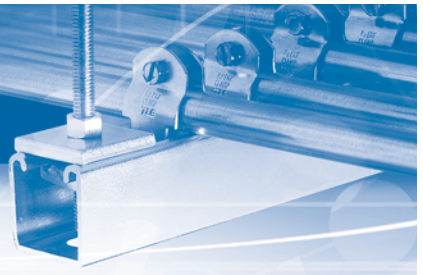
Aluminum (Suffix AL)

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.



Finishes *(continued)*

SilverGalv®

Electro-Galvanized Finish From Superstrut®

Protection is the name of the game and SilverGalv® delivers a winning combination of features designed to meet the most exacting specifications. SilverGalv® offers the ultimate in corrosion protection versatility and performance, including…

- **Strong Abrasion Resistance**
  SilverGalv® provides strong abrasion resistance, even under extreme conditions, thanks to its unique zinc finish and chromate barrier. The green paint finishes typically used for strut cannot compare to this level of protection

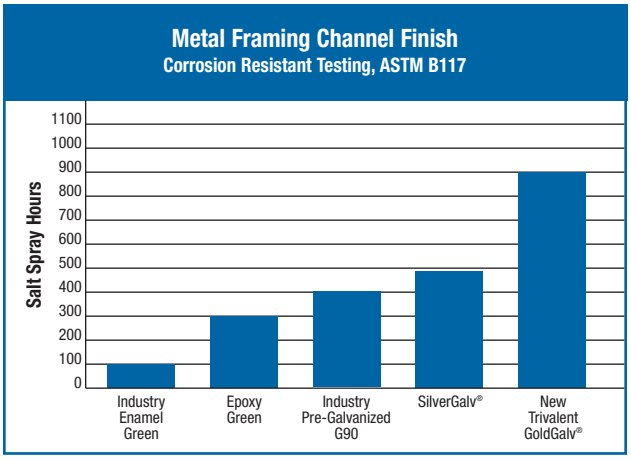
- **Clean Finish**
  SilverGalv® ensures a finished product that leaves no residue on your hands. In the SilverGalv® process, a zinc finish is applied after fabrication. As a result, all the oil and grime that accumulates during manufacturing gets thoroughly cleaned off during the plating process

- **Paintable Surface**
  Applying SilverGalv® after fabrication provides the end user with a clean, smooth surface to paint

- **Interchangeable Silver Color**
  SilverGalv's silver hue means it can be used interchangeably with either standard pre-galvanized channel systems or silver colored fittings commonly used with green painted strut systems

- **No More White Rust**
  With pre-galvanized strut, white rust frequently taints the zinc finish. With SilverGalv®, this problem is eliminated thanks to a clear chromate applied over the zinc that stops white rust from forming

- **Punched Holes and Cut Ends are Protected**
  Unlike a pre-galvanized finish where steel holes and cuts have no corrosion protection, Silver-Galv® protects every portion of the strut. Because SilverGalv's finish is applied after fabrication, all punched holes and cut ends share a consistent quality with the rest of the material



SilverGalv® provides more corrosion protection than Pre-Galvanized or Green Painted finishes.

Standard Channels

Material

Channels are cold formed from hot-rolled pickled and oiled strip steel.

Material Thickness

All Series 1200	12 gauge material
All Series 1400	14 gauge material

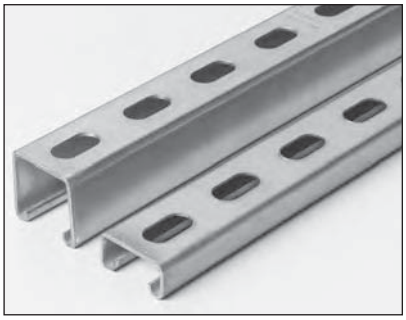
Standard Lengths

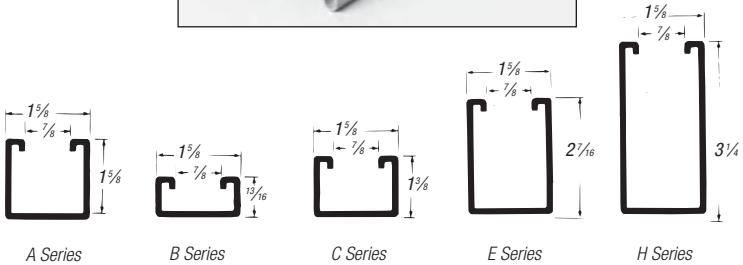
Standard lengths for channel are 10 ft. and 20 ft.

Standard length tolerance ± ⅛".

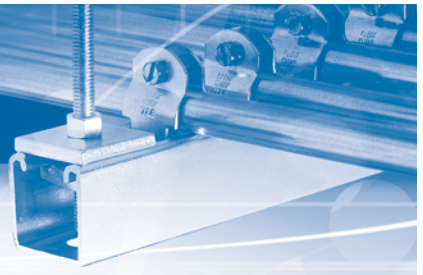
Shorter lengths are available at a small cutting charge.

GoldGalv® hardware finish is standard for all Superstrut products. This is a multi-process finish of electro-plated zinc, followed by gold colored zinc dichromate to give excellent corrosion resistance and superior paint base. See **page D-4** for a complete description of the GoldGalv® hardware finish. GoldGalv® hardware will be furnished if no other finish is specified.





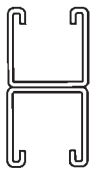
Metal Framing Channels — Overview



Superstrut® Channels — Welding Combinations

All Superstrut® Channels are available in a variety of combinations — some are shown here.

Multiple channels are spot welded on 3" centers.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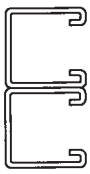
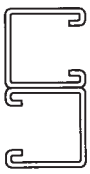
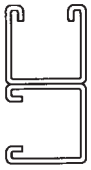
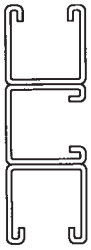
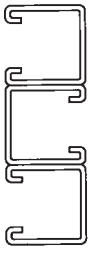
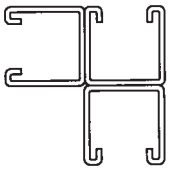

2-A

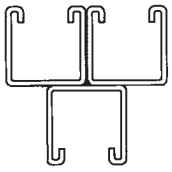

2-B

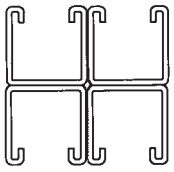

2-C


3-A


3-B


3-C


3-D


4

How to Order

10 and 20 ft. lengths — steel. Special lengths may be ordered.

Replace the 3 last digits of the regular channel catalog number with the designation of the desired combination.

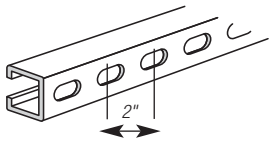
EXAMPLES:

Two A-1200 channels back to back are ordered as A-1202.
Two A-1200 channels back to side are ordered as A-1202-C.

Specify desired finish or material.

*"A" and "B" Series back-to-back combinations are joined using Thomas & Betts' steel rivet joining process. The riveted channel is offered in standard GoldGalv®, stainless steel, painted, pre-galvanized and hot-dip galvanized finishes.

Hole Configurations



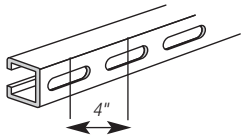
Half Slot Channel

CAT. NO.	DIM. (IN.)	GA.	STD. CTN.
A-1200-HS	1⅝ x 1⅝	12	*
B-1200-HS	1⅝ x 13/16	12	*
C-1200-HS	1⅝ x 1⅜	12	500
E-1200-HS	1⅝ x 2 7/16	12	500
H-1200-HS	1⅝ x 3¼	12	*
A-1400-HS	1⅝ x 1⅝	14	*
B-1400-HS	1⅝ x 13/16	14	500

9/16" x 1⅛" slots on 2" centers.

** Standard lengths 10 ft. and 20 ft. for standard cartons. Please consult your local T&B representative.*

Slotted Channel

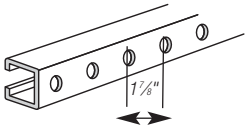


CAT. NO.	DIM. (IN.)	GA.	STD. CTN.
A-1200-S	1⅝ x 1⅝	12	*
B-1200-S	1⅝ x 13/16	12	*
A-1400-S	1⅝ x 1⅝	14	*
B-1400-S	1⅝ x 13/16	14	*

7/16" x 3" slots on 4" centers.

** Standard lengths 10 ft. and 20 ft. for standard carton. Please consult your local T&B representative.*

Punched Channel

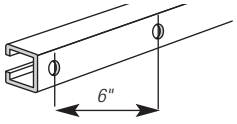


CAT. NO.	DIM. (IN.)	GA.	STD. CTN.
A-1200-P	1⅝ x 1⅝	12	500
B-1200-P	1⅝ x 13/16	12	500
H-1200-P	1⅝ x 13/16	12	500
A-1400-P	1⅝ x 1½	14	500
B-1400-P	1⅝ x 13/16	14	500

9/16" holes on 1⅞" centers.

Available in 10 & 20 ft. lengths.

Channel with Knockouts



CAT. NO.	DIM. (IN.)	GA.	STD. CTN.
A-1200-KO	1⅝ x 1⅝	12	*
A-1400-KO	1⅝ x 1⅝	14	*

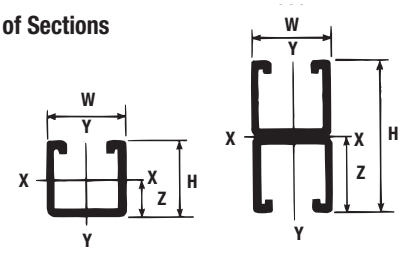
KO for ½" conduit.

Please consult your local T&B representative.

Standard Finish – GoldGalv® brand.

Design Data — Metal Framing Channel

Elements of Sections



Single Channels *Double Channels*

Nominal Thickness (IN.)

12 ga. = .105
14 ga. = .075
16 ga. = .060

I — Moment of Inertia
S — Section of Modulas
r — Radius of Gyration
Z — Nominal Axis
A — Area

Table 1 — Properties for Design: Single Channel

CAT. NO.	H IN.	W IN.	A IN.2	X-X AXIS I IN.4	X-X AXIS S IN.3	X-X AXIS R IN.	X-X AXIS Z IN.	Y-Y AXIS I IN.4	Y-Y AXIS S IN.3	Y-Y AXIS R IN.
A-1200	1.625	1.625	.557	.192	.212	.587	.719	.237	.292	.652
B-1200	.813	1.625	.381	.031	.063	.283	.331	.137	.168	.600
C-1200	1.375	1.625	.500	.121	.155	.492	.595	.205	.252	.640
E-1200	2.438	1.625	.726	.529	.399	.853	1.112	.335	.413	.679
H-1200	3.250	1.625	.897	1.100	.635	1.107	1.507	.436	.536	.697
A-1400	1.625	1.625	.401	.134	.146	.577	.707	.184	.226	.677
B-1400	.813	1.625	.280	.024	.051	.295	.338	.103	.127	.607

Table 1 — Properties for Design: Double Channel

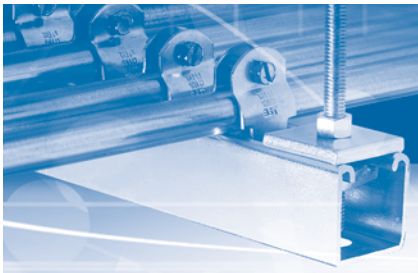
CAT. NO.	H IN.	W IN.	A IN.2	X-X AXIS I IN.4	X-X AXIS S IN.3	X-X AXIS R IN.	X-X AXIS Z IN.	Y-Y AXIS I IN.4	Y-Y AXIS S IN.3	Y-Y AXIS R IN.
A-1202	3.250	1.625	1.114	.948	.583	.992	1.625	.474	.584	.652
B-1202	1.626	1.625	.762	.147	.181	.439	.813	.274	.337	.600
C-1202	2.750	1.625	1.000	.595	.433	.772	1.375	.409	.504	.640
E-1202	4.876	1.625	1.450	2.854	1.171	1.402	2.438	.672	.827	.680
H-1202	6.500	1.625	1.794	6.273	1.930	1.870	3.250	.871	1.072	.697
A-1402	3.250	1.625	.801	.668	.411	.913	1.625	.367	.452	.677
B-1402	1.626	1.625	.560	.112	.138	.447	.813	.206	.254	.607

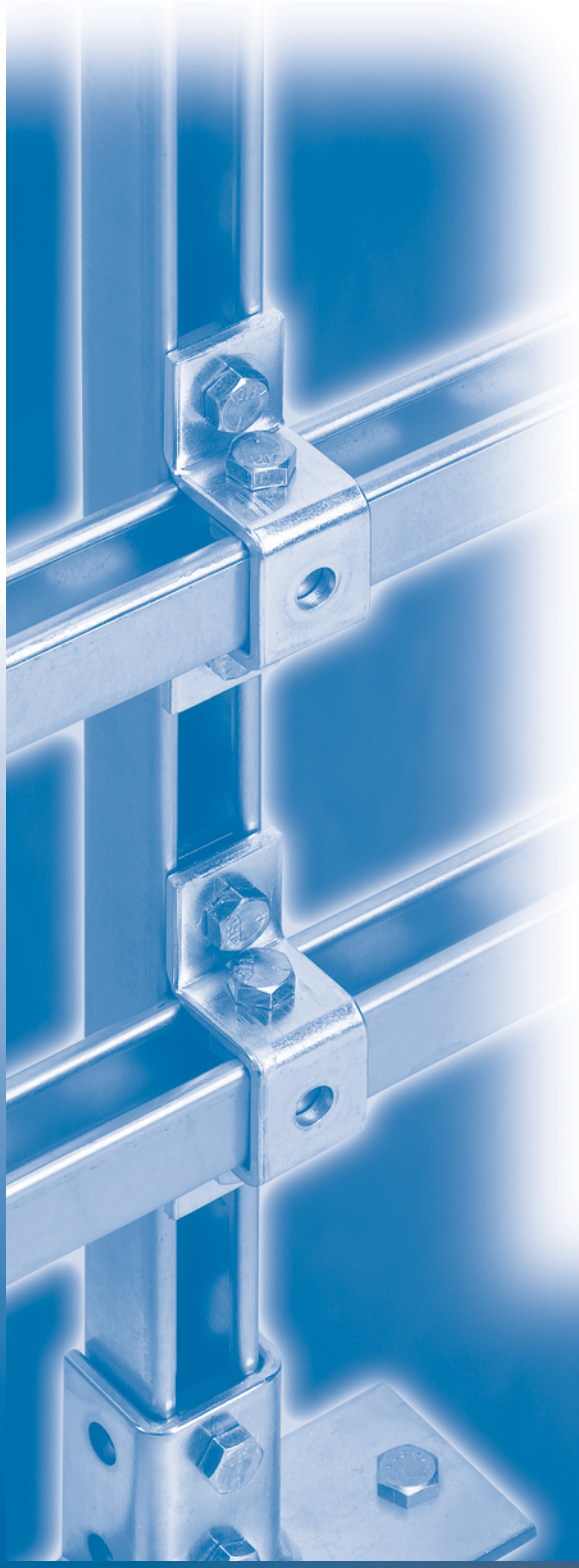
Table 2 — Load Ratings for ½" Strut Nuts used in Superstrut Channel

CHANNEL NO.	SLIP RESISTANCE (LBS.)	PULL-OUT STRENGTH (LBS.)
A-1200	1,500	2,000
C-1200	1,500	2,000
B-1200	1,400	1,400
A-1400	1,000	1,400
B-1400	1,000	1,400

Safety Factor of 3

If connections will be subjected to dynamic or seismic loading conditions, contact Thomas & Betts Technical Services for design assistance.





Design Loads for Channel Used as Beam or Column.

Design Data — Metal Framing Channel *(continued)*

Table 3

Beam Loads

Table 3 contains simple beam, uniformly-distributed loads calculated at 25,000 psi fiber stress. Beam loads are based on channel being loaded across the x-x axis. Loads are also listed at reduced deflections for long spans.

Maximum Loads @ 25,000 psi Stress

Maximum allowable deflections and maximum uniform loads for all spans @ 25,000 psi fiber stress.

Reduced Load for all 1/180 Span Deflection

For moderate deflections on the longer spans, reduced loads are listed which will produce a deflection equal to 1/180 of the span. When maximum loads do not induce deflections exceeding 1/180 x the span length, reduced loads are not required.

Reduced Load for 1/360 Span Deflection

For very slight deflections on the longer spans, reduced loads are listed which will produce a deflection equal to 1/360 of the span. When maximum loads do not induce deflections exceeding 1/360 x the span length, reduced loads are not required.

Concentrated Loads

To obtain values for concentrated loads from Table 3, multiply uniform load by 0.5 and deflection by 1.25.

Slotted, Punched or KO Channel

Reduce load rating 5%.

Long Span Deep Beams

Support in a manner to prevent rotation at supports and tie between supports to prevent twist.

Column Loads

Allowable column loads given are for uniform axial loading with pinned ends. For eccentric loading or other end conditions, reduce allowable loads according to standard engineering practice.

Dynamic Loads

Allowable dynamic loads may be calculated by dividing the static loads shown in Table 3, by 2.08.

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Fax: 901.252.1321

Tool Services
Tel: 800.284.8665

Design Data — Metal Framing Channel *(continued)*

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM LOAD	MAXIMUM UNIFORM DEFL.	1/180 SPAN LOAD	1/180 SPAN DEFL.	1/360 SPAN LOAD	1/360 SPAN DEFL.	COL. LOAD
12" Beam or Column									
A-1202	3¼	12	—	.008	—	.067	—	.033	21,177
B-1202	1⅝	12	3,016	.016	—	.067	—	.033	14,110
C-1202	2¾	12	—	.010	—	.067	—	.033	18,990
E-1202	4⅞	12	—	.005	—	.067	—	.033	27,623
H-1202	6½	12	—	.004	—	.067	—	.033	34,210
A-1402	3¼	14	—	.008	—	.067	—	.033	15,250
B-1402	1⅝	14	2,300	.016	—	.067	—	.033	10,390
18" Beam or Column									
A-1202	3¼	12	—	.018	—	.100	—	.050	20,609
B-1202	1⅝	12	2,011	.036	—	.100	—	.050	13,440
C-1202	2¾	12	4,811	.021	—	.100	—	.050	18,470
E-1202	4⅞	12	—	.013	—	.100	—	.050	16,926
H-1202	6½	12	—	.009	—	.100	—	.050	33,390
A-1402	3¼	14	—	.018	—	.100	—	.050	14,867
B-1402	1⅝	14	1,534	.036	—	.100	—	.050	9,910
24" Beam or Column									
A-1202	3¼	12	4,858	.031	—	.133	—	.067	19,974
B-1202	1⅝	12	1,509	.064	—	.133	—	.067	12,670
C-1202	2¾	12	3,609	.038	—	.133	—	.067	17,890
E-1202	4⅞	12	—	.021	—	.133	—	.067	26,143
H-1202	6½	12	—	.016	—	.133	—	.067	32,435
A-1402	3¼	14	3,425	.033	—	.133	—	.067	14,426
B-1402	1⅝	14	1,150	.064	—	.133	—	.067	9,350
30" Beam or Column									
A-1202	3¼	12	3,886	.049	—	.167	—	.083	19,261
B-1202	1⅝	12	1,206	.100	—	.167	—	.083	11,803
C-1202	2¾	12	2,886	.059	—	.167	—	.083	17,230
E-1202	4⅞	12	7,806	.034	—	.167	—	.083	25,259
H-1202	6½	12		.025	—	.167	—	.083	31,395
A-1402	3¼	14	2,740	.050	—	.167	—	.083	13,937
B-1402	1⅝	14	920	.100	—	.167	—	.083	8,730

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

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Tool Services
Tel: 800.284.8665