

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.



Pipe Straps, Conduit Clamps and Hangers

Excellent Corrosion Resistance and a Superior Paint Base

GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colorized 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. GoldGalv® hardware will be furnished if no other finish is specified.

Materials

Most products are manufactured from hot-rolled carbon steel bars or hot-rolled strip steel. Pipe rollers are cast iron. Products which are copper plated carry the letter "T" in the prefix.

Design Loads

Where design loads are indicated, they provide for a safety factor of 3 in conformance with the "AMERICAN STANDARD CODE FOR PRESSURE PIPING."

Hanger Design

Pipe hangers are of advanced design and afford a new and better way of ordinary use.

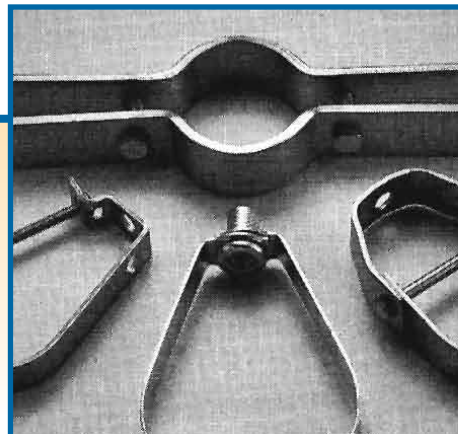
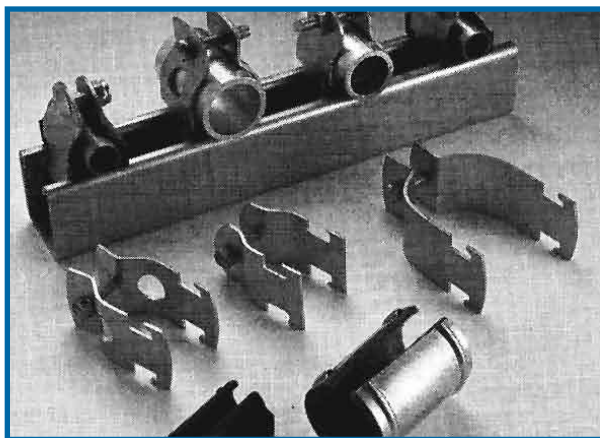
Standard Dimensions

The following, except where noted, apply to all beam clamp fittings.

Hole Size: $\frac{9}{16}$ " diameter

Material: $1\frac{5}{8}$ " wide

Material: $\frac{1}{4}$ " thick



GoldGalv® Outperforms Copper Plated

In a test conforming to ASTM G-87-84, also known as the Kesternich Test, Superstrut's GoldGalv® electrogalvanized zinc trivalent chromium finish achieved superior corrosion resistance in comparison to copper plated.

Performed and certified by an independent testing laboratory, the stringent Kesternich test is equivalent to an acid rain environment. The test procedure exposes subject material to condensed moisture containing harsh sulfur dioxide (SO₂) which accelerates the aging process. During the series of test time cycles, the material is thoroughly inspected for signs and progression of damaging red rust.

The first test series conducted included various light-duty adjustable clevis hangers assembled to copper tubing. The GoldGalv® finish exhibited five times the red rust resistance as compared to copper plated.

The second test series was performed on various O.D. pipe straps attached to copper tubing and continuous slot channel. GoldGalv® achieved greater red rust resistance by seven times over copper plating.

Once tests were completed, all copper tubes were split open and inspected for signs of electrolysis. The copper tubes showed minimal deterioration as a result of the test and no indication of electrolysis occurrence when attached to material with GoldGalv® finish.

ASTM G-87-84 Corrosion Test Results

FINISH	INITIAL RED RUST	50% RED RUST	100% RED RUST
Test Series I: Light-Duty Adjustable Clevis Hanger			
GoldGalv®	120 hours	216 hours	*Never obtained
Copper Plated	24 hours	48 hours	72 hours
Test Series II: O.D. Pipe Straps			
GoldGalv®	168 hours	192 hours	240 hours
Copper plated	24 hours	48 hours	168 hours

*Test series ended after 360 hours.

Standard Finish – GoldGalv®, unless otherwise stated.

Pipe Straps, Conduit Clamps and Hangers

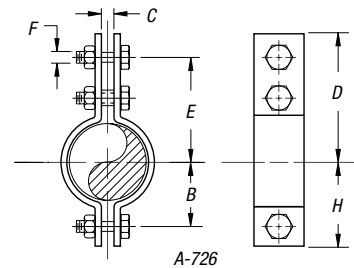
Pipe Clamps — A-726, Alloy Three-Bolt Pipe Clamp

Designed for hot-insulated pipelines. The spacer on the top inner bolt provides uniform space for the connecting eyerod or weldless eyenut.

Temperature range: above 750° F (399° C) to 1050° F (566° C).

Specifications

- Material: Chromium Molybdenum Steel, ASTM A-387 Grade 22
- Compliance: Federal Specification A-A-1192A Type 3, MSS-SP-69 Type 3 and BSPSS-BS3974
- Finish: Standard Finish — GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number and pipe size



CAT. NO.	PIPE SIZE (IN.)	MAXIMUM LOAD			B (IN.)	C (IN.)	D (IN.)	TAKE OUT E (IN.)	F (IN.)	H (IN.)	(LBS.)
		950° F/510° C	1000° F/538° C	1050° F/566° C							
A-726-3/4	¾	870	600	440	1½	¾	3	2½	¾	1½	1.09
A-726-1	1	870	600	440	1½	¾	3½	2½	¾	1¾	1.14
A-726-1-1/4	1¼	870	600	440	1½	¾	3¾	2½	¾	2¼	1.23
A-726-1-1/2	1½	1,400	1,000	700	1½	1	4½	4½	¾	2½	2.48
A-726-2	2	1,400	1,000	700	2½	1	5½	5½	¾	2¾	2.70
A-726-2-1/2	2½	1,400	1,000	700	2½	1	6½	5½	¾	3	2.76
A-726-3	3	1,400	1,000	700	2½	1	6¾	6	¾	3½	3.19
A-726-4	4	2,300	1,600	1,100	3½	1	7¾	6½	¾	4½	7.30
A-726-5	5	2,300	1,600	1,100	4	1½	8½	7	¾	5½	7.96
A-726-6	6	2,600	1,800	1,300	4½	1½	10	8½	¾	6½	12.26
A-726-8	8	2,600	1,800	1,300	5½	1½	11	9½	¾	7½	14.04
A-726-10	10	3,000	2,100	1,500	6½	1½	12	10½	1	8½	21.33
A-726-12	12	3,000	2,100	1,500	8½	1½	13½	11½	1	9½	24.00
A-726-14	14	3,900	2,800	2,000	9½	2	14½	12¾	1¼	10¾	38.78
A-726-16	16	3,900	2,800	2,000	10	2	15½	14	1¼	11¾	43.13
A-726-18	18	39	2,800	2,000	11½	2	16¾	15½	1¼	13¾	47.78
A-726-20	20	5,000	3,200	2,000	12½	2	17½	15½	1½	14	58.67
A-726-24	24	5,500	3,500	2,700	14¾	1½	19½	17½	1½	16½	90.82

Standard Finish — GoldGalv®, unless otherwise stated.

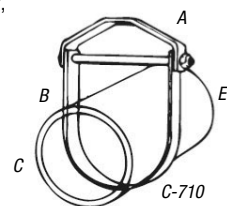
Pipe Hangers — C-710, C-710F, C-710P, C-710SS

Designed to support non-insulated, stationary lines from above, allowing for approximately 1" to 1½" of vertical adjustment after the pipe is in place. The lower nut (not furnished) adjusts the pipe line to the proper elevation, the top nut (not furnished) prevents loosening due to vibration and must be tightened securely to assure proper hanger performance.

Rated Loads are for up to 650° F (343° C) for carbon steel. Maximum PVC temperature is 140° F (60° C).

Specifications

- Material: Carbon Steel (Also available in Stainless Steel as C-710SS)
- Compliance: Federal Specification A-A-1192A Type 1, MSS-SP-69 Type 1, BSPSS-BS3974, UL and FM
- Finish: Standard Finish — GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, finish and pipe size



CAT. NO.	PIPE SIZE (IN.)	MAX. LOAD (LBS.)	A (IN.)	B (IN.)	C (IN.)	ROD TAKE OUT E (IN.)	WT. EACH (LBS.)
C-710-1/2	½	610	¾	2¼	3½	1½	.27
C-710-3/4	¾	610	¾	2½	2¾	1½	.29
C-710-1	1	610	¾	3	3¾	2¼	.33
C-710-1-1/4	1¼	610	¾	3½	4	2¼	.36
C-710-1-1/2	1½	610	¾	3¾	4¼	2½	.42
C-710-2	2	610	¾	3¾	4½	3½	.52
C-710-2-1/2	2½	1,130	½	4½	5½	3½	.61
C-710-3	3	1,130	½	5	6¾	4½	.90
C-710-3-1/2	3½	1,130	½	4½	6½	3½	.99
C-710-4	4	1,430	¾	5½	7¾	4½	1.40
C-710-5	5	1,430	¾	6	8½	5	2.10
C-710-6	6	1,940	¾	7	10½	5½	3.00

Standard Finish — GoldGalv®, unless otherwise stated.

CAT. NO.	PIPE SIZE (IN.)	MAX. LOAD (LBS.)	A (IN.)	B (IN.)	C (IN.)	ROD TAKE OUT E (IN.)	WT. EACH (LBS.)
C-710-7	7	2,000	¾	7½	11¾	6½	5.42
C-710-8	8	2,000	¾	8½	12¾	6¾	5.25
C-710-10	10	3,600	¾	10	15½	8¼	9.10
C-710-12	12	3,800	¾	11½	17½	9¼	11.75
C-710-14	14	4,200	1	12½	19½	10½	14.25
C-710-16	16	4,800	1	15	23	13½	20.75
C-710-18	18	4,800	1¼	15¾	24¾	13¾	23.00
C-710-20	20	4,800	1¼	17½	27½	15¼	41.50
C-710-24	24	4,800	1¼	19½	31½	17½	50.00
C-710-30	30	6,000	1¼	24¾	40¾	21¾	68.08
C-710-36	36	9,500	1½	32½	50½	30	68.68

Standard Finish — GoldGalv®, unless otherwise stated.