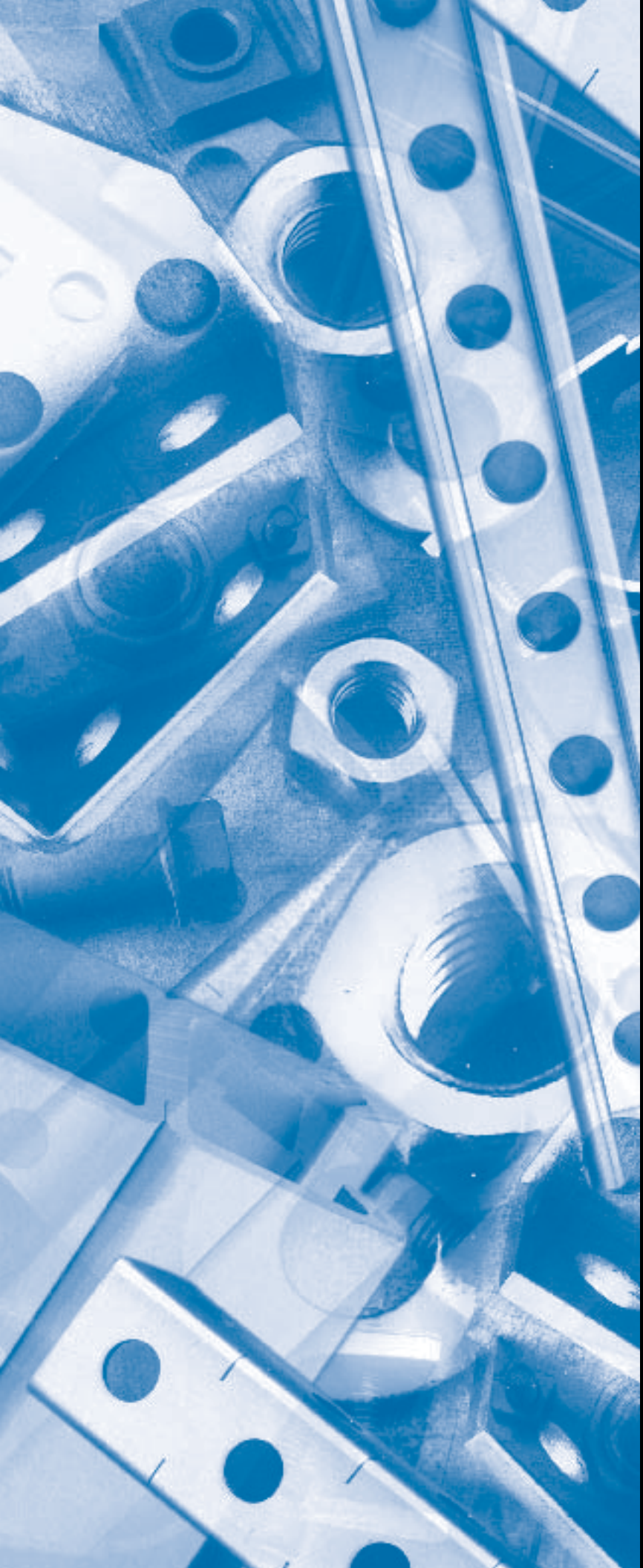

Kindorf®

K

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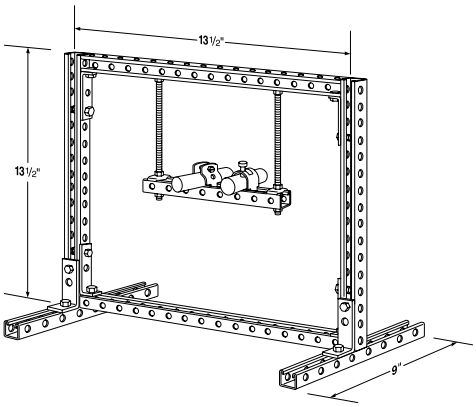

1½" wide x 1½" deep
⅞" continuous open slot
10 ft. and 20 ft. lengths

Kindorf Channel

The Kindorf Channel System is designed so that the maximum number of support and framing applications can be constructed with a minimum amount of labor and pieces.

Uniqueness in Design

The 1½" dimension in the channel, hole spacing and fittings means all parts fit together, no matter where they're used, or at what angle. This modular dimension provides maximum flexibility in field applications, and results in saving inventory and labor dollars. The Kindorf exclusive Galv-Krōm finish provides superior corrosion protection for all threaded components, channel and fittings. Through a two-part process, the coating is applied on all finished parts after fabrication – there is no exposed surface where corrosion can start.

Strength

Even though Kindorf's Channel is slightly smaller in dimensions, it supports the same weight as1⅝" channel.

Compatibility with 1⅝" Strut

The Kindorf System is designed so that most accessories are compatible with 1⅝" strut. Conduit and pipe straps will work equally well with 1⅝" and 1½" strut. In addition, 98% of 1⅝" accessories are interchangeable in Kindorf Channel. Angle fittings can adapt easily to the open side of any 1⅝" strut and the unique parallelogram nuts provide secure attachment to both types of strut.

Full Line of Support Products

Kindorf's many advantages are extended into a broad product offering including beam clamps, concrete inserts, lighting supports, cable cleats and a variety of threaded components. This system is available in the largest selection of finishes and materials including green coated, aluminum, stainless steel and nonmetallic. This combined with a nationwide network of distributors and service centers makes Kindorf a single source for supported metal framing needs.

MEMBER OF
METAL FRAMING MANUFACTURERS ASSOCIATION

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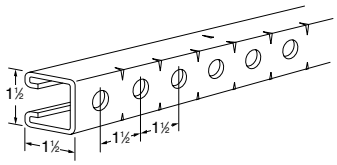
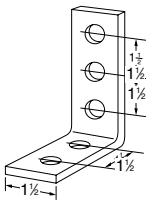
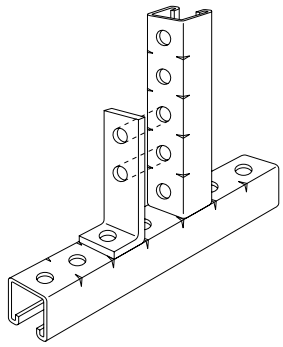
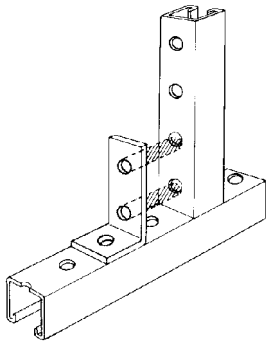


Channel with bolt holes
⁹⁄₁₆" dia. holes on 1½" centers for 1¼" bolts.

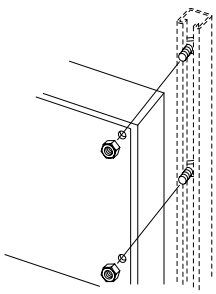




Kindorf 1½"
All holes line up – all the time.



1⅝" Strut
⅛" holes cause misalignment.



Stud nut saves time, reduces labor – like having an extra pair of hands.

Why Kindorf 1½" Channel Saves You Labor Dollars

Kindorf's 1½" is Much More Than A Cross Section Dimension

The 1½" with Kindorf is truly a Modular Dimension. The channel height, width, and prepunched hole spacings are all 1½". The angle fittings and the bolt holes in the angle fittings are all 1½" dimensions. Scribe marks are located at 1½" intervals to mark the midpoint between holes and every 6" on the side for easy measurement.

Job site adaptability and structural integrity are the key factors in making strut channel an economical solution to metal framing needs. Kindorf, with its 1½" modular dimensions allows the installer to do more work with fewer pieces and less labor dollars.

Here's What The Modular Dimension Can Do For You

Using a 1⅝" channel with hole spacings on 1⅞" centers requires numerous fittings and in many cases limits the joint fastening to the open side of the channel. Field drilling and welding, plus extra fittings become the rule rather than the exception. With constant 1½" dimensions throughout the system many structural joints can be made with a minimum of fittings. Consider the following:

1. The Entire Section Can be Used

You are not limited to using only the open slot side. Because holes line up on channel and fittings. Using the scribe marks ensures the fittings will work, and a straight cut is made.

2. Considerable Field Drilling and Welding Eliminated

The holes are already there and they are usable. Back to back; side to back; side to side – all combinations that can be made using B-995 Kindorf channel.

3. Field Cutting And Layout Made Simple

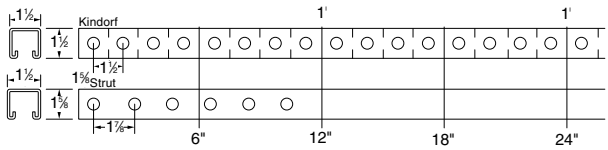
8 scribe marks = 1 ft. Simply count the marks and cut. Position of holes ensures balanced support for trapezes on every piece, thus keeping waste to an absolute minimum.

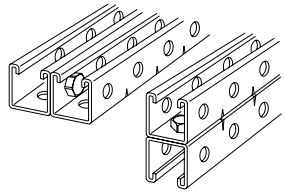
4. Modular Fittings Fasten To Bolt Side or Slot Side – Unique Stud Nut

Kindorf framing fittings are engineered for versatile use – to meet the greatest number of framing combinations with maximum rigidity and security. Fittings may be fastened to the channel on either the bolt hole side or the slot side.

The matching 1½" dimensions of channel bolt holes and fitting bolt holes provide a fast alignment and quick bolting. Fastening on the slot side provides infinite placement of the nut to match bolting requirements. Either way results in simple "building block" erection and permits multiple application of fittings. With the B-911SN Stud Nut, blind fastening of angles and fixtures is eliminated.

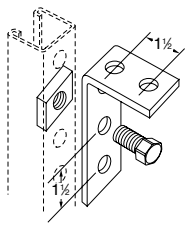
Cuts come where they should





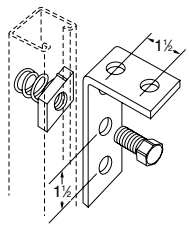
Holes in fittings also line up.

Fastening on bolt hole side



Clamping nut or hex head nut may be used for attachment and security of fittings to either side of channel.

Fastening on slot side.



Spring nut holds in position without support. Inserts easily in channel and sets automatically – cannot rotate.

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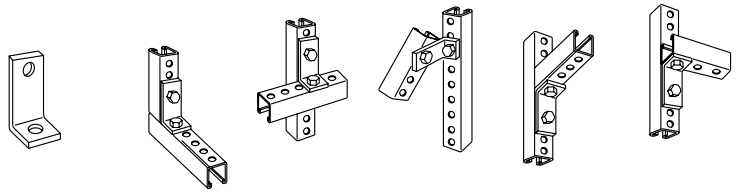
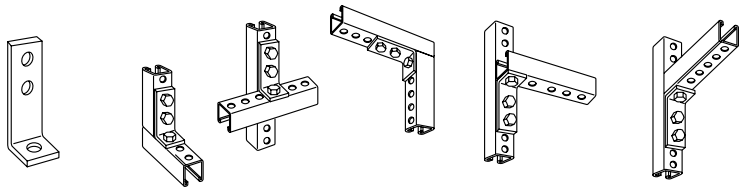
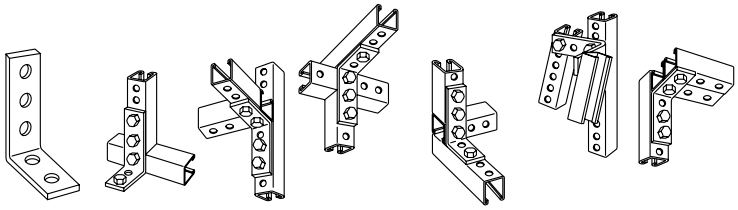
One Kindorf B-915
Two-Hole Connector Will Do



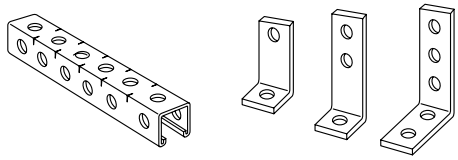
One Kindorf B-916
Three-Hole Connector Will Do



One Kindorf B-917
Five-Hole Connector Will Do



By simply stocking B-995 pre-punched channel and three angle fittings, a great number of joints can be made.



Let the modular 1½" dimension work for you in saving labor and inventory dollars.

Why Kindorf 1½" Saves You Inventory Dollars

Fewer Pieces Do More Work

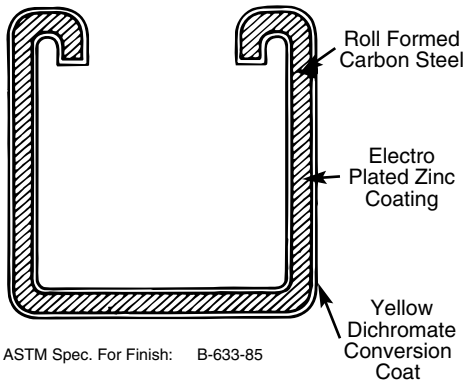
By making equal use of the back of the channel, the sides of the channel (B-995 see page K5) and the open slot, your options are increased. Combine this with three simple fittings that are 1½" wide and have 1½" hole layout, and you have the simplest and most versatile Channel System on the market today.

By stocking a single channel system and only 3 angle fittings, a multitude of jobs can be done.

With fewer pieces doing more work, ordering efficiency is increased and investment dollars are decreased.

Any way you look at it – Kindorf can save you money.

Galv-Krōm®



ASTM Spec. For Finish: B-633-85

The Galv-Krōm® Superior Finish

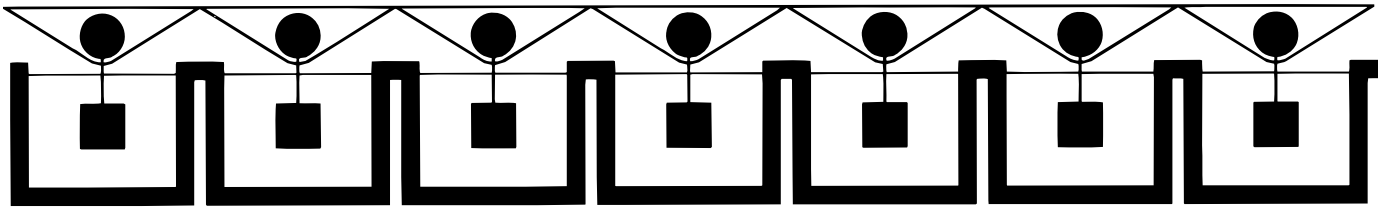
Galv-Krōm is the time-tested and proved metal finish that provides Kindorf with an outstanding measure of product value. It is not a paint – won't chip or peel. Stands up under rough handling.

Galv-Krōm is a superior galvanized finish, plus zinc chromate, resulting in an attractive bronze lustre that needs no painting for protection or appearance. The finish is smooth, clean and remarkably tough. When colorizing is necessary for coding, you'll find Galv-Krōm an excellent bond for the paint of your choice. The surface does not require an acid wash preparation and is non-porous and non-crystalline.

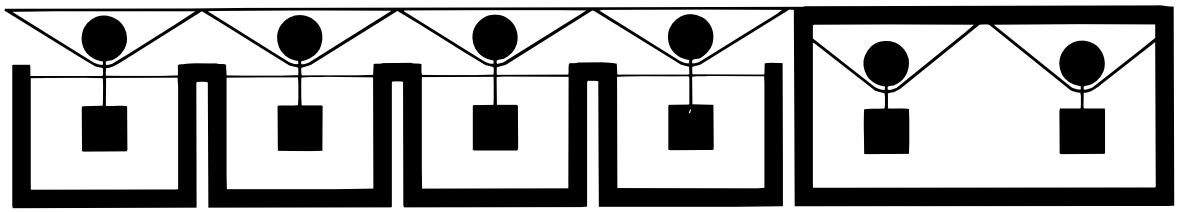
Unlike paint or enamel this surface also offers a minimum of electrical resistance so that electrical applications are easily grounded as required under most electrical codes.

Galv-Krōm protects the steel against rust and corrosion. Kindorf channels, fittings and accessories, including all threaded parts, are Galv-Krōm finish. Channel and fittings with bolt holes are finished after holes are punched so that it has complete Galv-Krōm protection.

Galv-Krōm is a combination of a .5 mil of electrogalvanizing on steel and gold zinc chromate. The base zinc thickness is in compliance with ASTM B633-85 Type LS coating. Zinc, unlike organic coatings, is a sacrificial type plating protecting the base steel from corrosion even though it is exposed at cut edges or scratches. The additional gold zinc chromate film provides a passivating nonporous barrier against moisture and other corrosive elements.



Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6	Tank 7
"Soak Degreasing"	*"Electro Cleaner"*	*"Rinse"*	*"Sulfuric Acid Bath"*	*"Rinse"*	*"Zinc Tank"*	*"Rinse"*
Chemical solution removes bulk of oil and grease buildup.	*The metal is negatively charged to remove minute surface particles.*	*Live, clear water rinse.*	*Prepares the metal by etching the surface for the zinc application.*	*Live, clear water rinse.*	*Electrically applies the zinc metal coating.*	*Chemically treated rinse water.*



Tank 8	Tank 9	Tank 10	Tank 11	Tank 12
"Rinse"	*"Rinse"*	*"Chromate Dip"*	*"Rinse"*	*"Dryer"*
Live, clear water rinse.	*Live, clear water rinse.*	*A yellow dichromate conversion coat is applied to the zinc.*	*Live, clear water rinse.*	*Forced hot air is circulated around the strut until dry.*

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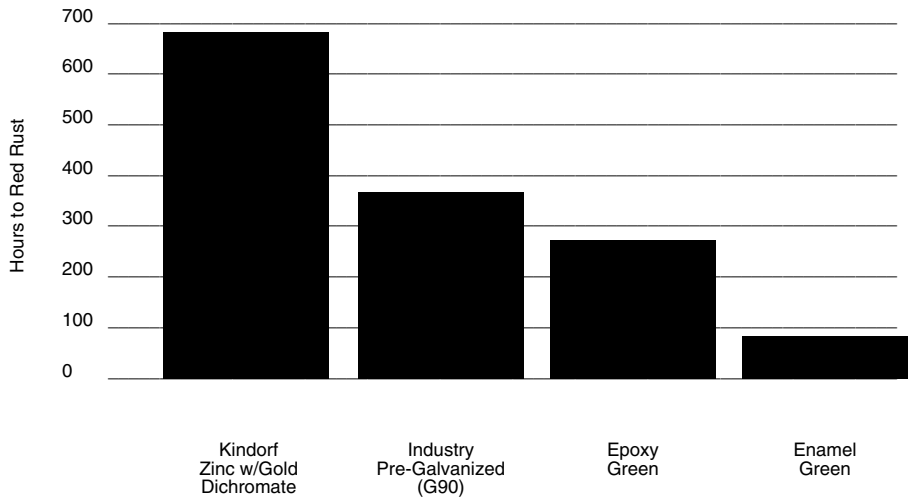
ASTM B 117 Test Information and Specifications

The B117 salt spray (fog) test is applicable to organic and inorganic finishes such as a paint versus plating comparison and is highly recognized for both industrial and military production as a qualifying procedure. It's useful in estimating the relative behavior of closely related material such as low carbon steel since it simulates the basic conditions with some acceleration due to either wetness or temperature or both. The 5% salt solution is the dissolving of 5+/-1 parts of sodium chloride in 95 parts of water conforming to Type IV water in ASTM Sped C 1193. The salt is free of nickel and copper, containing not more than 0.1% sodium iodide or more than 0.3% total impurities. Temperature must be at 95F +2/-3F recorded twice daily. The apparatus consists of a fog chamber, reservoir, compressed air, atomizing nozzles, specimen supports, heat source and controls.

About the Channel Finish Test

Performed and certified by an independent testing laboratory, randomly chosen channel samples were placed in the same chamber and exposed to a continuous salt spray. Channel ends were sealed so that exposed cuts were not subjected, thus measuring the true finish resistance. The channel sections were also suspended vertically with no other contact and positioned to permit the free settling of fog. During the test time cycles, the channel sections were thoroughly inspected for signs and indications of damaging red rust. The Kindorf Zinc and Gold Dichromate finish dramatically outperformed all other tested finishes as shown above.

Metal Framing Channel finish (Unscribed) Independent Laboratory Salt Spray Corrosion Resistant Test ASTM B-117



Finishes

1. Green Coated. (Suffix GR)

Green urethane powder resins are applied electrostatically to the steel after fabrication. Once the material is completely covered with the powdered-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.

2. Pregalvanized Steel. (Suffix PG)

In addition to the standard Galv-Krōm® finish, all Kindorf®channels are available in pregalvanized steel. This material is identical to the standard steel except for its ASTM G-90 zinc coating. This coating is applied at the steel mill prior to the channel fabrication.

3. Electrogalvanized (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-Krōm finish without the numerous benefits of the gold colored dichromate conversion coat (see Galv-Krōm finish for more information). Electrogalvanizing is most commonly applied to small fittings, hardware and threaded products.

4. Hot-Dipped Galvanized (Suffix HD)

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.

Kindorf hot-dipped galvanized is in conformance with ASTM Specifications A-123 (formerly A-386) and A-153.

Kindorf 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.”

5. PVC Coated (Prefix P)

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 temperatures. 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. Kindorf cannot be held responsible for field-altered PVC coated products.

Materials

1. Standard Steel.

The standard Kindorf® Channel is made from high quality carbon steel sheet. These sections are cold formed into a unique and modular profile by an efficient roll forming process. Additionally, the process”cold works” the steel is to give it greater mechanical properties.

2. Extruded Aluminum. (Suffix AL)

For more corrosive environments, Kindorf® also offers extruded aluminum channel sections. These section are nearly identical to their steel counterports. Aluminum channel is made from 6063 Aluminum and heat treated to a T-6 specification.

3. Nonmetallic. (Suffix N)

Kindorf®channels are also available in fiberglass reinforce polyester and vinyl ester. These products are pultruded into shapes similar to steel channels. They offer a high degree of corrosion protection and are very lightweight.

4. Stainless Steel. (Suffix SS)

For the most corrosive environments, Kindorf® offers Type 304 Stainless Steel channel sections and accessories. Type 316 stainless available upon request. Contact your local sales rep. These products are identical to their carbon steel counterparts except for a much greater corrosion resistance.

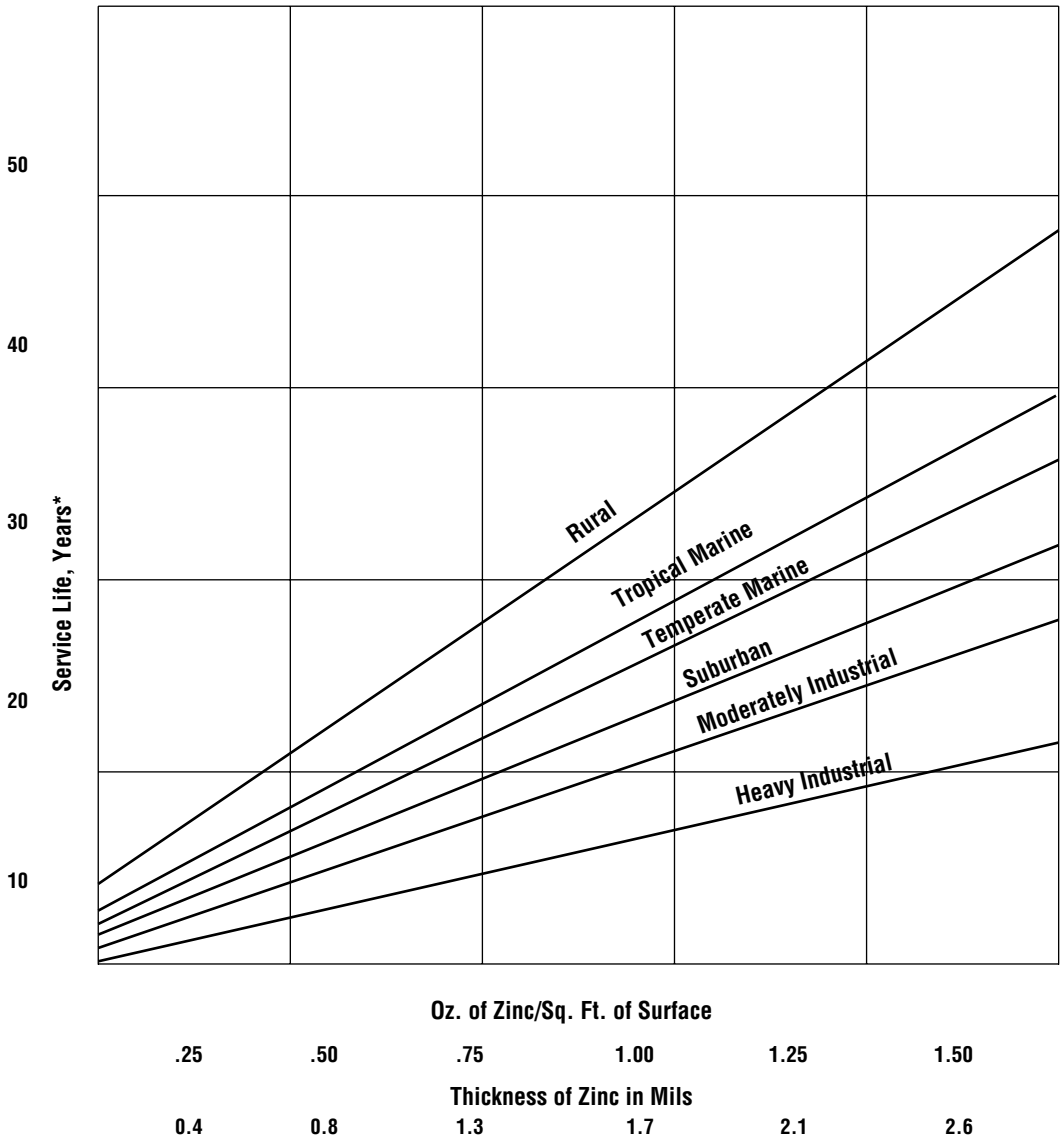
Warning

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.

Pipe hanger products when improperly used as tools of erection have occasionally failed. The user is cautioned to use the product only as it was intended, to avoid an accident.

We reserve the right to change material and finish specifications without notice, to improve our products.

Life of Protection vs. Thickness of Zinc and Type of Atmosphere



* Service Life is defined as the time to 5% rusting of the steel surface.
Courtesy of American Galvanizers Assoc.

Steel Channels

Galv-Krōm Finish

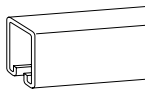
10 ft. and 20 ft. Lengths

Solid Base

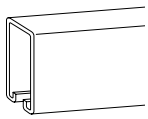
B-906
1½" x ¾" x 14 ga.

B-900 (12 ga.)
B-900-M (14 ga.)
1½" x 1½"

B-901
1½" x 1⅞" x 12 ga.



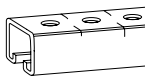
B-902
1½" x 3" x 12 ga.



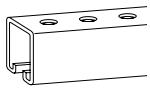
9⁄16" Dia. Bolt Holes On 1½" Centers
¾" From End

B-907
1½" x ¾" x 14 ga.

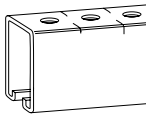
B-905 (12 ga.)
B-905-M (14 ga.)
1½" x 1½"



B-909
1½" x 1⅞" x 12 ga.

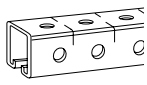


B-903
1½" x 3" x 12 ga.



Bolt Holes 3 Sides
9⁄16" Dia. On 1½" Centers
¾" From End

B-995 (12 ga.)
B-995-M (14 ga.)
1½" x 1½"



Channels, Fittings and Bantam Channels

Kindorf is a rugged heavy gage structural quality steel channel preformed in a "U" shape with a continuous open slot the entire length. The turned-in edges serve as retaining points for the nuts and bolts assembly of fittings to the channel. The shape of the channel permits infinite adjustability of the clamping nut … simply by gliding it along the channel to the desired position. Spring-tensioned nuts are generally used for positioning overhead or in vertical channel installations. A stud nut (with spring) is provided for easy mounting of cabinets and equipment.

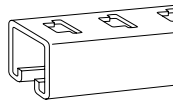
Channel Nuts are specially shaped as parallelograms with biting edges so that when tightened, with normal pressure on the bolt, the nut clamps the sides of the channel together in a secure connection which reinforces the rigidity of the channel itself. The nut rests on the 'lips' of the channel slot.

Continuous-slot channel framing, with its sliding nut and bolt attachment feature, offers substantial installation economy since no pre-measuring, punching, drilling or welding are required. Erection of structural framing provides a basic system for the support of practically all electrical, industrial and mechanical services. The application versatility of Kindorf eliminates the need for individual service support systems and results in lower over-all installation costs for framing and supports.

An important consideration for standardizing on the Kindorf System is its flexibility of purpose for metal framing requirements. A supply of channel and a select group of fittings will take care of a majority of metal framing requirements. It is easy to stock – stacked like conduit, 1000 ft. of channel takes up less than one square foot of floor space. Fittings and channels are reusable – short sections are saved and become valuable for spot arrangements, which means there is no waste in a Kindorf System.

T-Slot Base

B-904
1½" x 1½" x 12 ga.



Bantam Channels – Pre-Galvanized Steel

10 Ft. Lengths

Solid Base

6014
5⁄16" x ½" Nom. x 18 ga.

6013
⅜" x 5⁄8" Nom. x 20 ga.

6029
½" x ¾" Nom. x 16 ga.

Bolt Hole Base

6029
½" x ¾" Nom. x 16 ga.

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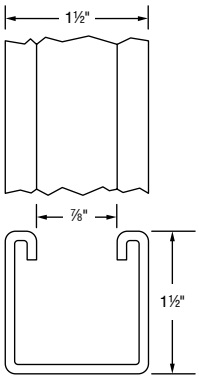
Connection by means of continuous slot.



B-900 Channel – 1½" x 1½"

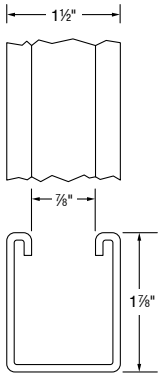
Cat. No.	Description	Joiner	End Caps
B-900	12 ga. Galv-Krōm	G978 G978A G1503S	G967
B-900-M	14 ga. Galv-Krōm		
B-900-10GR	Green Powder Coated		
B-900-20GR	Green Powder Coated		
B-900-10PG	Pregalvanized		
B-900-20PG	Pregalvanized		
B-900-10HD	Hot Dipped Galvanized		
B-900-20HD	Hot Dipped Galvanized		

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. B-900, 162#/C ft. B-900-M, 107#/C ft.

Properties of Section

Cat. No.	Sectional Area	Material Thickness	lbs/ft.	X-X Axis I	X-X Axis S	X-X Axis R	Y-Y Axis I	Y-Y Axis S	Y-Y Axis R
B-900	0.345	0.104	1.206	0.101	0.123	0.535	0.129	0.175	0.603
B-900M	0.217	0.074	0.74	0.018	0.041	0.272	0.077	0.105	0.559

For heavier load requirements. Connection by means of continuous slot.



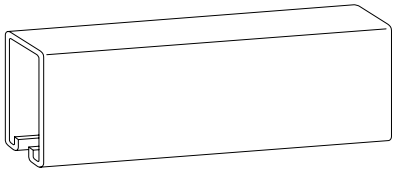
B-901 Channel – 1½" x 1⅞"

Cat. No.	Description	Joiner	End Caps
B-901	12 ga. Galv-Krōm	G978C	G-966
B-901HD	Hot Dipped Galvanized		

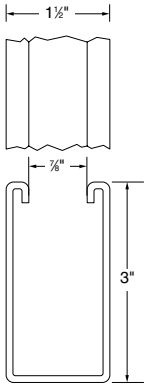
Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. 196#/C ft.

Properties of Section

Cat. No.	Sectional Area	Material Thickness	lbs/ft.	X-X Axis I	X-X Axis S	X-X Axis R	Y-Y Axis I	Y-Y Axis S	Y-Y Axis R
B-901	0.595	0.104	2.028	0.263	0.251	0.665	0.238	0.309	0.632



Connection by means of continuous slot.



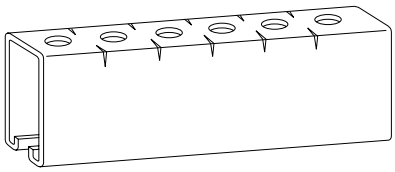
B-902 Channel 1½" x 3"

Cat. No.	Description	Joiner	End Cap
B-902-10	12 ga. Galv-Krōm	G978-D G-3003S	G957
B-902-20	12 ga. Galv-Krōm		
B-902-10HD	Hot Dipped Galvanized		
B-902-20HD	Hot Dipped Galvanized		

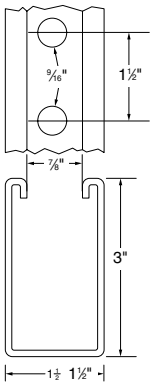
Use H-113-B bolts and B-910-1/2 steel nuts for mounting fittings. 285#/C ft.

Properties of Section

Cat. No.	Sectional Area	Material Thickness	lbs/ft.	X-X Axis I	X-X Axis S	X-X Axis R	Y-Y Axis I	Y-Y Axis S	Y-Y Axis R
B-902	0.837	0.104	2.825	0.909	0.552	1.042	0.363	0.471	0.658



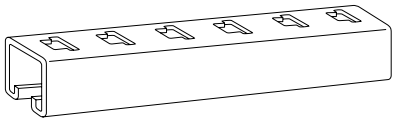
Connection by means of continuous slot or 9⁄16" holes on 1½" centers.



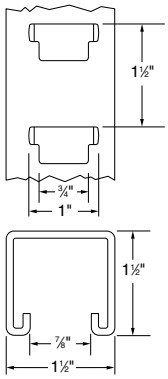
B-903 Channel 1½" x 3"

Cat. No.	Description	Joiner	End Cap
B-903	12 ga. Galv-Krōm	G978-D G3003S	
B-903HD	Hot Dipped Galvanized		

Use H-113-B bolts and B-910-1/2 steel nuts for mounting fittings. 277#/C ft.



Connection by means of continuous slot or T-slots on 1½" centers in base side of channel.

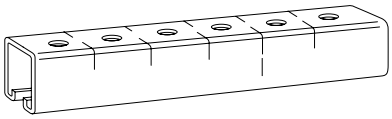


B-904 Channel 1½" x 1½"

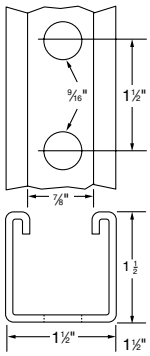
T-Slot Base

Cat. No.	Description
B-904	12 ga. Galv-Krōm
B-904HD	Hot Dipped Galvanized

For attachment to continuous slot use H-113-B bolts and B-910-1/2 steel nuts. For attachment to T-slots use F-739 brackets 155#/C ft.



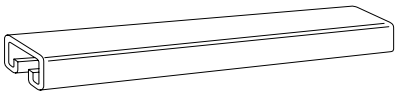
Connections by means of continuous slot or 9⁄16" holes on 1½" centers which match holes in B-900 series fittings.



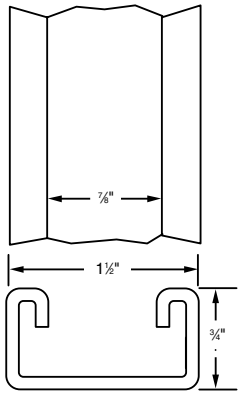
B-905 Channel 1½" x 1½"

Cat. No.	Description	Joiner	End Cap
B-905	12 ga. Galv-Krōm	B941	
B-905-M	14 ga. Galv-Krōm		
B-905-10GR	Green Coated		
B-905-20GR	Green Coated		
B-905-10PG	Pregalvanized		
B-905-20PG	Pregalvanized		
B-905-10HD	Hot Dipped Galvanized		
B-905-20HD	Hot Dipped Galvanized		

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. Scribe marks designate mid-point between holes for accurate field cutting. B-905, 158#/C ft. B-905-M, 102#/C ft.



Connection by means of continuous slot.



B-906 Channel 1½" x ¾"

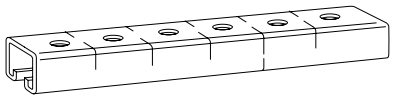
Connection by means of continuous slot.

Cat. No.	Description	Joiner	End Cap
B-906	14 ga. Galv-Krōm	G978-AL G978-L	G-968

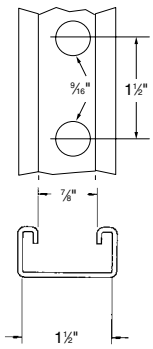
Use H-113-A bolts and B-910-1/2 or B-912-1/2 steel nuts for mounting fittings.
Steel 75#/C ft.

Properties of Sections

Sectional Area	Material Thickness	lbs./ft.	X-X Axis I	X-X Axis S	X-X Axis R	Y-Y Axis I	Y-Y Axis S	Y-Y Axis R
0.521	0.104	1.776	0.155	0.179	0.545	0.2	0.259	0.619



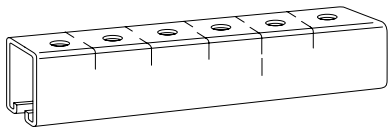
Connection by means of continuous slot or 9⁄16" holes on 1½" centers.



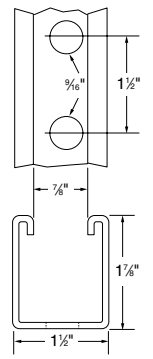
B-907 Channel 1½" x ¾"

Cat. No.	Description	Joiner
B-907	14 ga. Galv-Krōm	B948
B-907-10GR **B-907-20GR**	Green Coated Green Coated	
B-907-10PG **B-907-20PG**	Pregalvanized Pregalvanized	
B-907-10HD **B-907-20HD**	Hot Dipped Galvanized Hot Dipped Galvanized	

Use H-113-A bolts and B-910-1/2 or B-912-1/2 steel nuts for mounting fittings. Holes on B-900 series fittings match channel holes. Scribe marks on steel channel designate midpoint between holes for accurate field cutting. Steel 71#/C. ft.



For heavier load requirements. Connection by means of continuous slot or 9⁄16" holes on 1½" centers.



B-909 Channel 1½" x 1⅞"

Cat. No.	Description	Joiner
B-909	12 ga. Galv-Krōm	G978-C
B-909HD	Hot Dipped Galvanized	

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. 118#/C. ft.

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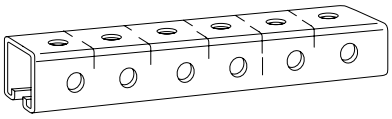
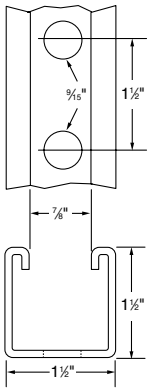


Connection by means of continuous slot or 9/16" holes on 1½" centers on three sides which match holes in B-900 series fittings.



B-995 Channel 1½" x 1½"

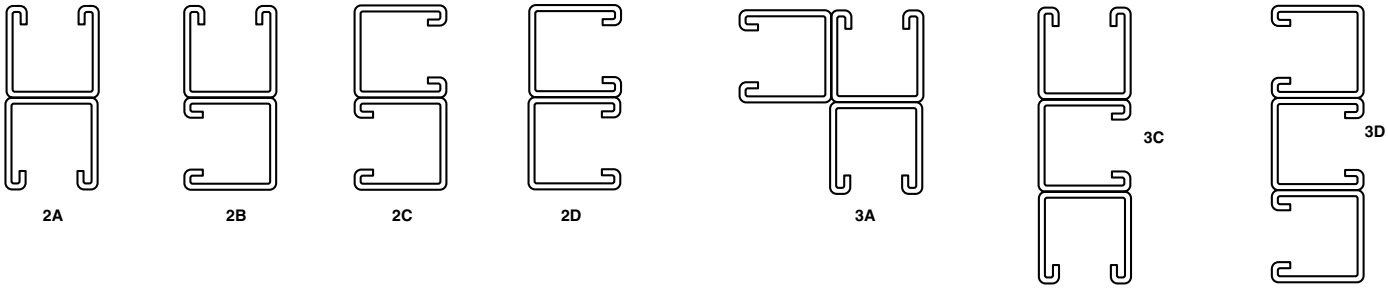
Cat. No.	Description	Joiner
B-995-10	12 ga. Galv-Krōm	B941
B-995-20	12 ga. Galv-Krōm	
B-995-10M	14 ga. Galv-Krōm	
B-995-20M	14 ga. Galv-Krōm	

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. 150#/C ft. Scribe marks designate mid-point between holes for accurate field cutting.

Standard 10 ft. lengths

Kindorf Channels – Welded Combinations

All Kindorf channels are available in a variety of combinations – some are shown below.

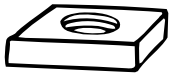


10 and 20 ft. lengths – steel

Special lengths may be ordered.

How To Order

Add the suffix designation of the desired combination to the regular channel catalog number.
(Example: Two **B-900** channels back to back are ordered as **B-900-2A**.)



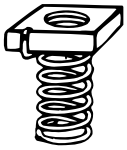
For use with all Kindorf channels

Channel Nuts

Standard Finish: Galv-Krōm

B-910 Series

Cat. No.	Size	Thickness	Wt. lbs./C
B-9100-1/4	¼ - 20	3/16	7.5
B-910-5/16	5/16 - 18	5/16	7.3
B-910-3/8	⅜ - 16	5/16	9.15
B-910-1/2	½ - 13	⅜	9.9

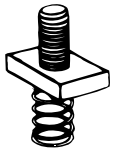


Self-holding clamping nut with spring attached. For use with 1½" deep channels.

B-911 Series

Cat. No.	Size	Thickness	Wt. lbs./C
B-911-1/4	¼ - 20	3/16	8
B-911-5/16	5/16 - 18	5/16	8.25
B-911-3/8	⅜ - 16	5/16	10
B-911-D-3/8*	⅜ - 16	5/16	12
B-911-1/2	½ - 13	⅜	10
B-911-D-1/2*	½ - 13	⅞	13

* For clamping nuts with spring for 3" deep channels add suffix D to catalog number.



Stud nut self-holding clamping nut with spring attached.

B-911-SN Series

Cat. No.	Size	Thickness	Wt. lbs./C
B-911-3/8-SN1†	⅜ - 16	3/16	12.5
B-911-3/8-SN2†	⅜ - 16	5/16	13.0
B-911-1/2-SN1†	½ - 13	5/16	16.0
B-911-1/2-SN2†	½ - 13	⅜	17.0

† B-911-3/8-SN1, Stud: ⅜ Dia., 1" Long. Accepts Kindorf Nuts H-114C (hex), H-116-C (square).
B-911-3/8-SN2, Stud: ⅜ Dia., 1¼" Long. Accepts Kindorf Nuts H-114C (hex), H-116-C (square).
B-911-1/2-SN1, Stud: ½ Dia., 1" Long. Accepts Kindorf Nuts H-114D (hex), H-116-D (square).
B-911-1/2-SN2, Stud: ½ Dia., 1¼" Long. Accepts Kindorf Nuts H-114D (hex), H-116-D (square).

Load Ratings of Steel Channel and Insert Nuts

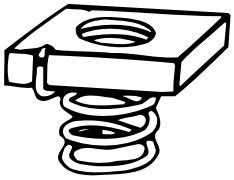
(B-910-1/2 or B-911-1/2) when used in slot of 12 ga. Kindorf channel and tightened to a torque of 50 ft. Pounds are as follows:

Withdrawal resistance to pull out safe load rating = 1600 lbs. Slip resistance safe loading rating = 400 lbs.

(B-910-1/2 or B-912-1/2) when used in slot of 14 ga. Kindorf channel and tightened to a torque of 50 ft. Pounds are as follows:

Withdrawal resistance to pull out safe load rating = 1300 lbs. Slip resistance safe load rating = 400 lbs.

Load ratings are based on safety factor of 3.



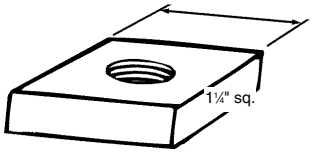
Self-holding clamping nut with spring attached. For use with ¾" deep channels.

Channel Nuts – continued

B-912 Series

Cat. No.	Size	Thickness	Wt. lbs./C
B-912-1/4	¼ - 20	3⁄16	8.0
B-912-5/16	5⁄16 - 18	5⁄16	7.5
B-912-3/8	3⁄8 - 16	5⁄16	9.5
B-912-1/2	½ - 13	5⁄16	9.8

Standard finish: Galv-Krōm



Square nuts for use with channel and spot-type concrete inserts.

B-914 Series

Cat. No.	Size	Thickness	Wt. lbs./C
B-914-1/4	¼ - 20	3⁄16	10.50
B-914-3/8	3⁄8 - 16	5⁄16	13.25
B-914-1/2	½ - 13	3⁄8	14.00
B-914-5/8	5⁄8 - 11	3⁄8	14.00
B-914-3/4	¾ - 10	3⁄8	12.00
B-914-7/8	7⁄8 - 9	3⁄8	10.50
B-914-3/8P	3⁄8 - 18**	3⁄8	12.00
B-914-1/2P	½ - 14**	3⁄8	11.00

** Standard Pipe Threads.
Standard finish: Galv-Krōm

Load Ratings of Steel Channel and Insert Nuts

(B-910-1/2 or B-911-1/2) when used in slot of 12 ga. Kindorf channel and tightened to a torque of 50 ft. Pounds are as follows:

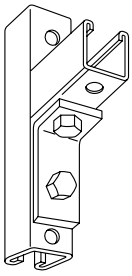
Withdrawal resistance to pull out safe load rating = 1600 lbs. Slip resistance safe loading rating = 400 lbs.

(B-910-1/2 or B-912-1/2) when used in slot of 14 ga. Kindorf channel and tightened to a torque of 50 ft. Pounds are as follows:

Withdrawal resistance to pull out safe load rating = 1300 lbs. Slip resistance safe load rating = 400 lbs.

Load ratings are based on safety factor of 3.

Connectors

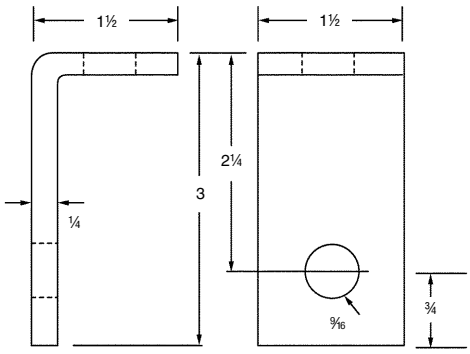


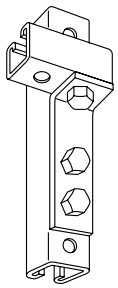
Can also be used as side beam connector to suspend ½" hanger rod.

B-915 Two Hole Angle Connector

Cat. No.	Finish
B-915	Galv-Krōm
B-915GR	Green Coated
B-915EG	Electro-Galvanized Finish
B-915HD	Hot Dipped Galvanized

¼" steel. 39#/C.



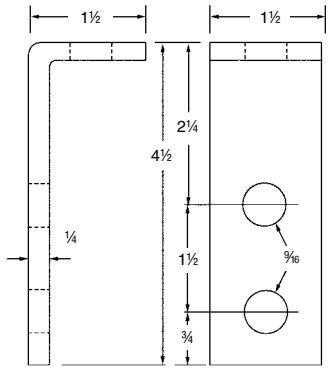


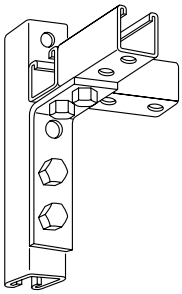
Can also be used as side beam connector to suspend 1½" hanger rod.

B-916 Three Hole Angle Connector

Cat. No.	Finish
B-916	Galv-Krōm
B-916HD	Hot Dipped Galvanized

¼" steel. 46#/C.



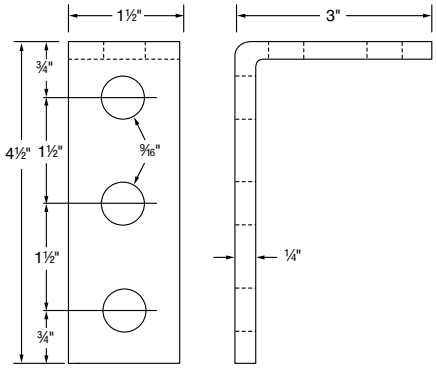


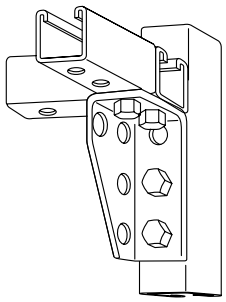
Connectors – (Continued)

B-917 Five Hole Angle Connector

Cat. No.	Finish
B-917	Galv-Krōm
B-917GR	Green Coated
B-917EG	Electro-Galvanized Finish
B-917HD	Hot Dipped Galvanized

¼" steel. 68#/C.

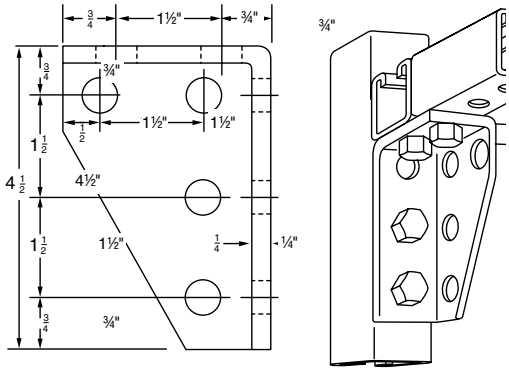




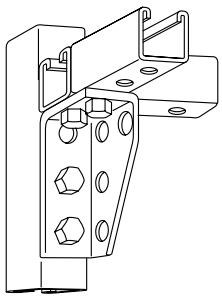
B-918 Left Hand Gusset Connector

Cat. No.	Finish
B-918	Galv-Krōm
B-918GR	Green Coated
B-918EG	Electro-Galvanized

12 Ga. and ¼" steel. 102#/C.



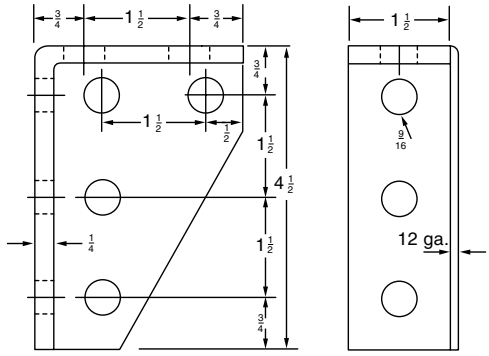
Connectors – (Continued)

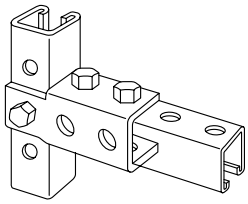


B-919 Right Hand Gusset Connector

Cat. No.	Finish
B-919	Galv-Krōm
B-919GR	Green Coated
B-919EG	Electro-Galvanized

12 Ga. and ¼" steel. 102#/C.

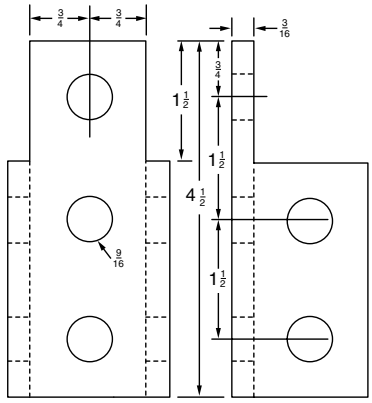




B-920 End Connector

Cat. No.	Finish
B-920	Galv-Krōm

3⁄16" steel. 80#/C.



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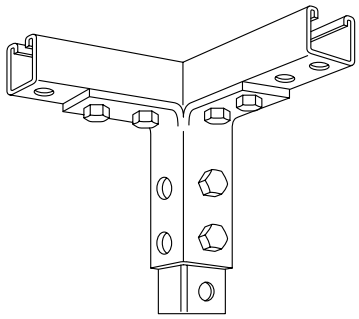
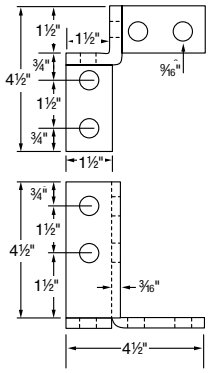


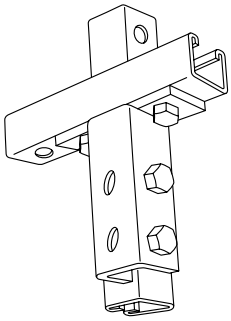
Connectors – (Continued)

B-921 Two Side Corner Connector

Cat. No.	Finish
B-921	Galv-Krōm

3/16" steel. 101#/C.

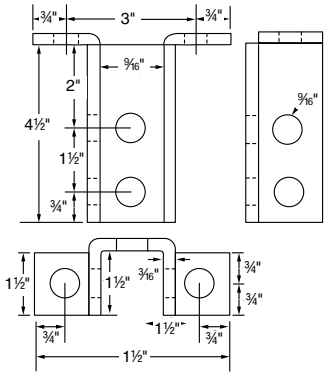


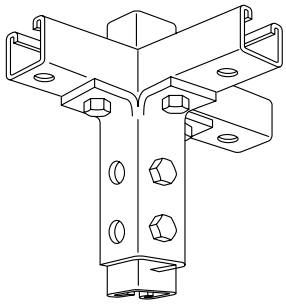


B-922 Opposite Side Angle Connector

Cat. No.	Finish
B-922	Galv-Krōm

3/16" steel. 124#/C.



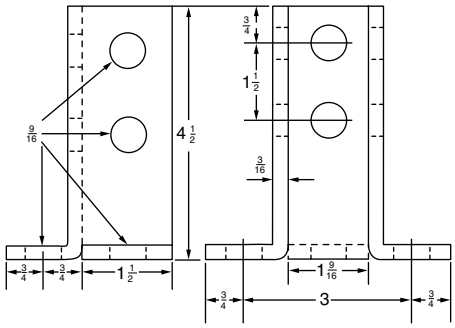


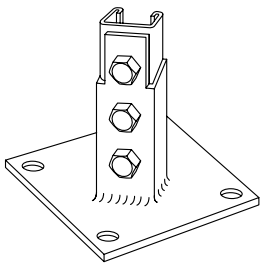
Connectors – (Continued)

B-923 Three Side Angle Connector

Cat. No.	Finish
B-923	Galv-Krōm

3⁄16" steel. 137#/C.

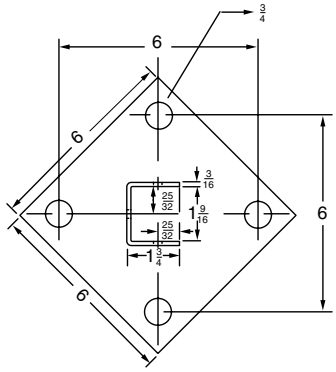


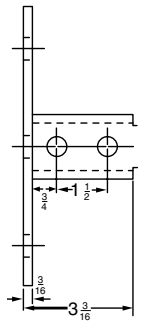


B-924 Post Base Connector

Cat. No.	Finish
B-924	Galv-Krōm
B-924-GR	Green Coated
B-924-EG	Electro-Galvanized

3⁄16" steel 250#/C.
For use with 1½" x 1½" channels.





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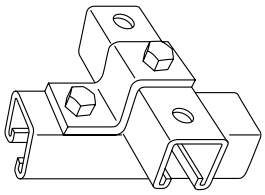
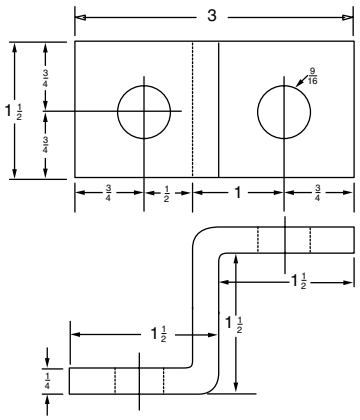


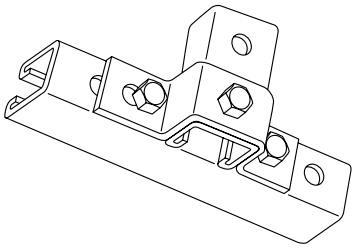
Supports

B-926 Z Support

Cat. No.	Finish
B-926	Galv-Krōm

¼" steel. 42#/C.
For use with 1½" x 1½" channels.

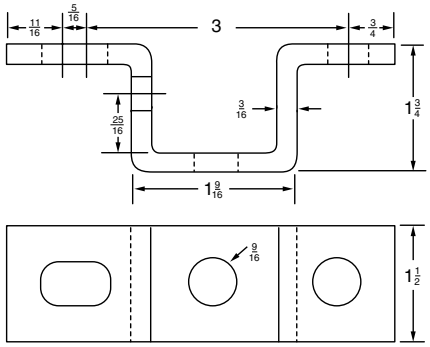




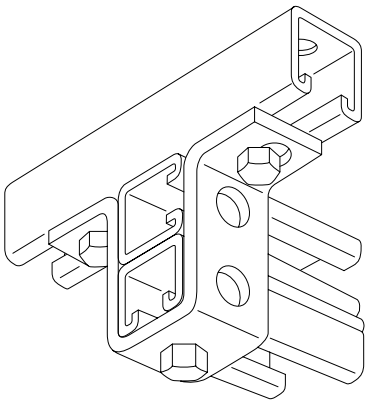
B-927 U Support

Cat. No.	Finish
B-927	Galv-Krōm
B-927GR	Green Coated
B-927EG	Electro-Galvanized

3⁄16" steel. 57#/C.
For use with 1½" x 1½" channels.



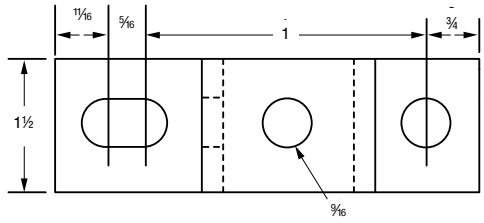
Supports – (Continued)

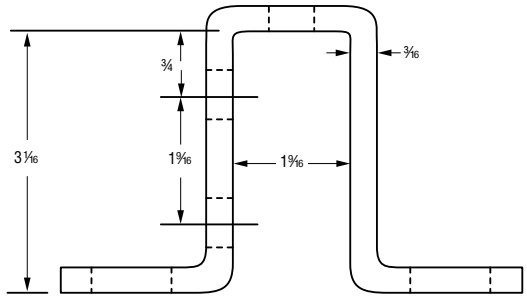


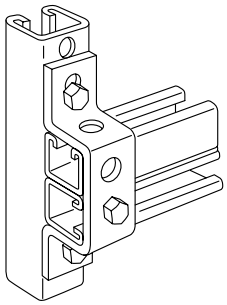
B-928 Deep U Support

Cat. No.	Finish
B-928	Galv-Krōm

3⁄16" steel. 77#/C.



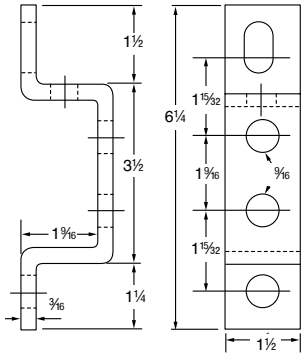




B-929 Wide U Support

Cat. No.	Finish
B-929	Galv-Krōm

3⁄16" steel. 63#/C.



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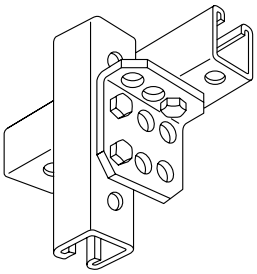
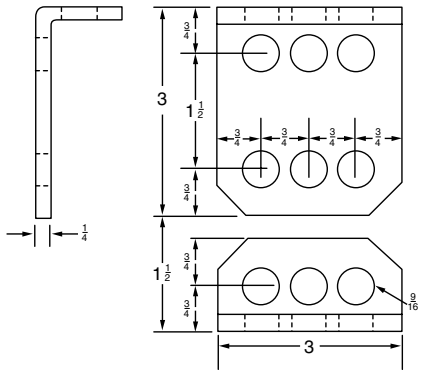


Supports – (Continued)

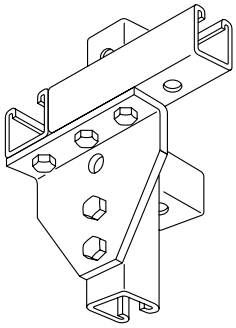
B-930 Angle Support

Cat. No.	Finish
B-930	Galv-Krōm

¼" steel. 70#/C.



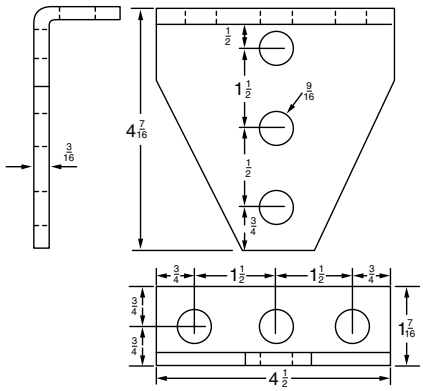
Connectors



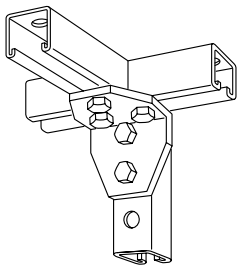
B-932 Heavy Angle Connector

Cat. No.	Finish
B-932	Galv-Krōm

3/16" steel. 136#/C.



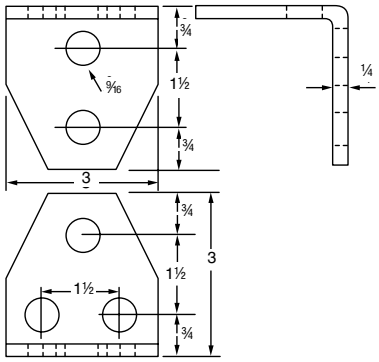
Connectors – (Continued)

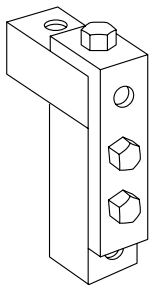


B-933 Five Hole Joint Connector

Cat. No.	Finish
B-933	Galv-Krōm

¼" steel. 96#/C.

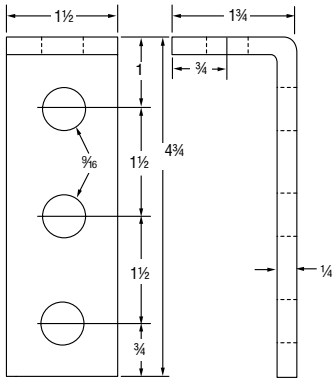




B-934 Outside Corner Connector

Cat. No.	Finish
B-934	Galv-Krōm

¼" steel. 57#/C.



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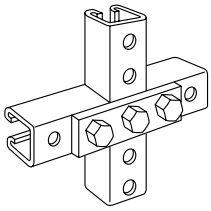
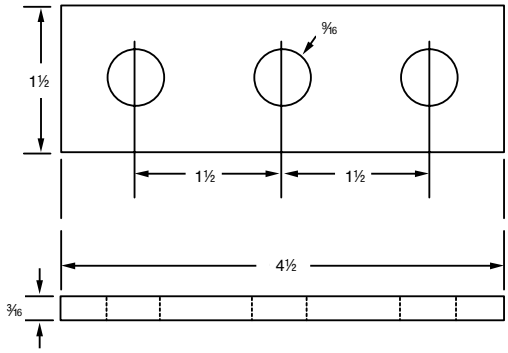
Connectors – (Continued)

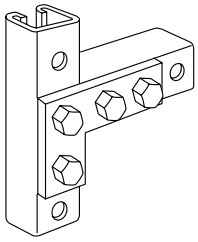


B-935 Three Hole Plate Connector

Cat. No.	Finish
B-935	Galv-Krōm
B-935-GR	Green Coated
B-935-EG	Electro-Galvanized

3/16" steel. 32#/C.

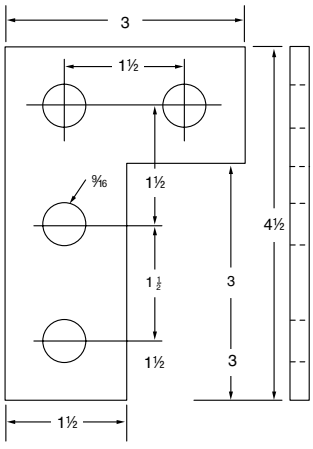




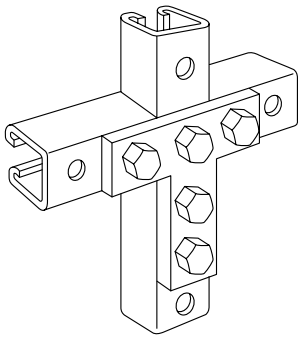
B-936 Angle Plate Connector

Cat. No.	Finish
B-936	Galv-Krōm
B-936GR	Green Coated
B-936EG	Electro-Galvanized

3/16" steel. 42#/C.



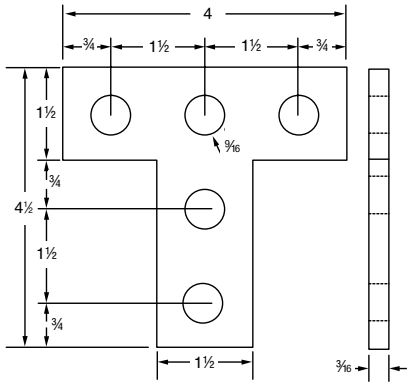
Connectors – (Continued)

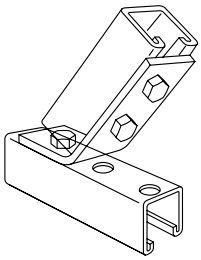


B-937 T-Plate Connector

Cat. No.	Finish
B-937	Galv-Krōm

3⁄16" steel. 53#/C.

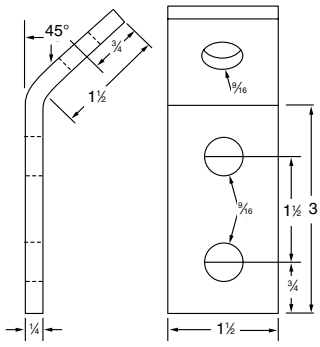


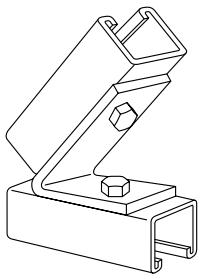


B-938 Open Angle Connector

Cat. No.	Finish
B-938	Galv-Krōm

¼" steel. 42#/C.



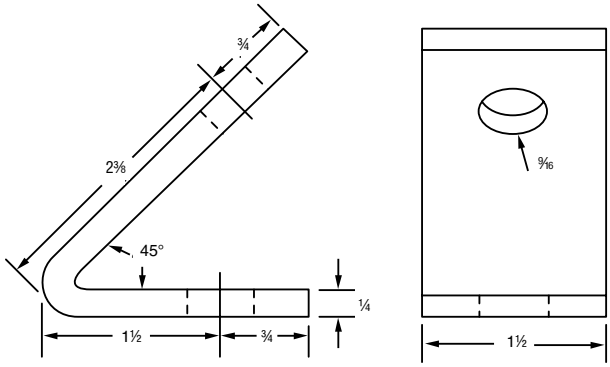


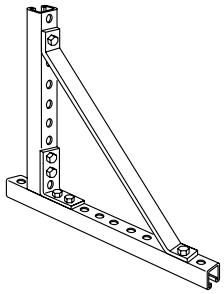
Connectors – (Continued)

B-939 Closed Angle Connector

Cat. No.	Finish
B-939	Galv-Krōm

¼" steel. 50#/C.



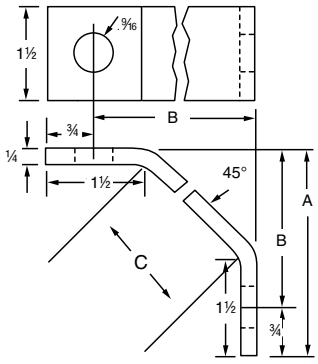


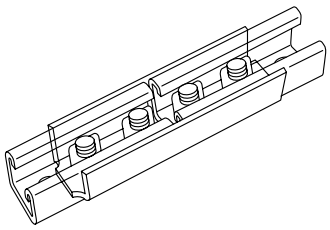
All sizes match hole structure of the B-905 channel at 90°.

B-940 Corner Braces

Cat. No.	Dimension A	Dimension B	Dimension C	Wt. in lbs./C
B-940-1	7½	6¾	8⅛	115
B-940-2	13½	12¾	16⅝	212
B-940-3	19½	18¾	25⅛	305

¼" steel, Galv-Krōm

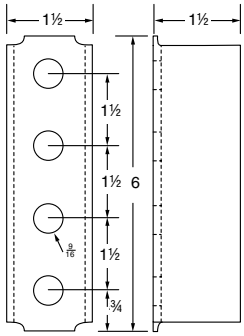


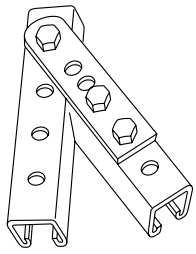


B-941 Joiner for B-905 Channel

Cat. No.	Finish
B-941	Galv-Krōm

Order four B-910-1⁄2 nuts and four H-113-A cap screws separately.
12 ga. steel 80#/C.

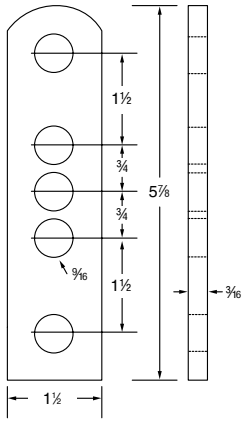


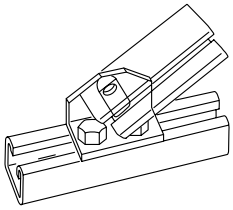


Swivel Plate

Cat. No.	Finish
B-942	Galv-Krōm

3⁄16" steel. 40#/C.

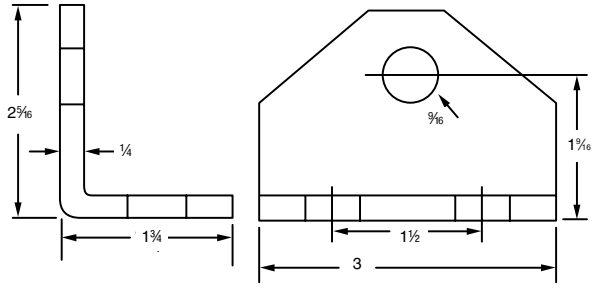


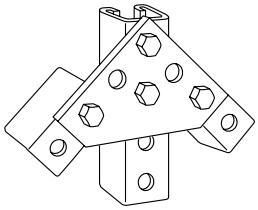


B-943 Brace Connectors

Cat. No.	Finish
B-943	Galv-Krōm

¼" steel. 66#/C.

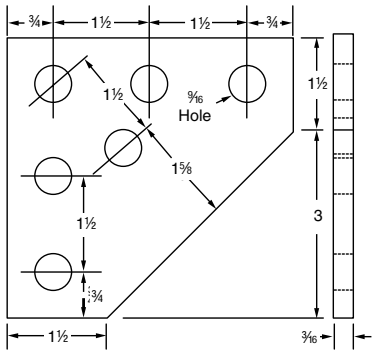


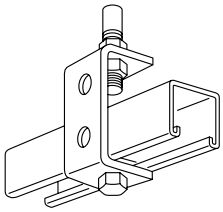


B-944 Double Brace Connector

Cat. No.	Finish
B-944	Galv-Krōm

3/16" steel. 75#/C.

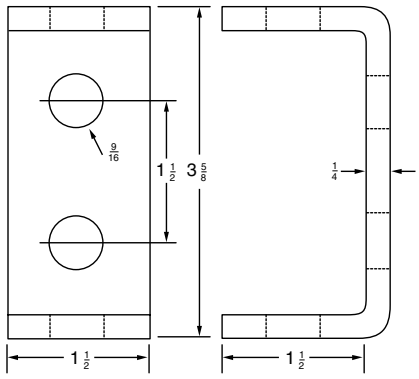


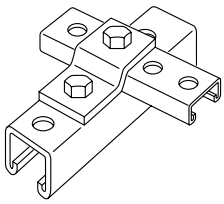


Rod Connector

Cat. No.	Finish
B-945	Galv-Krōm

¼" steel. 61#/C.



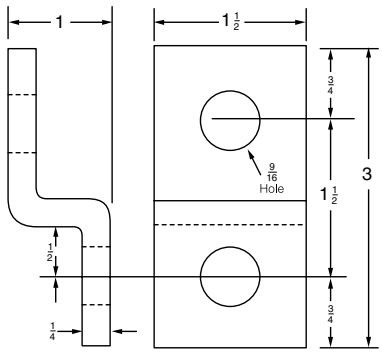


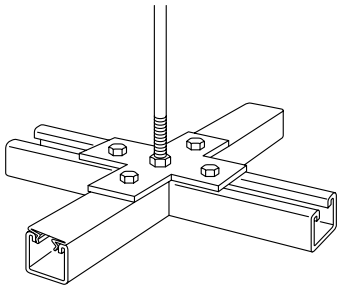
For use with B-906 or B-907 channel only.

Z Support

Cat. No.	Finish
B-946	Galv-Krōm

¼" steel. 34#/C.

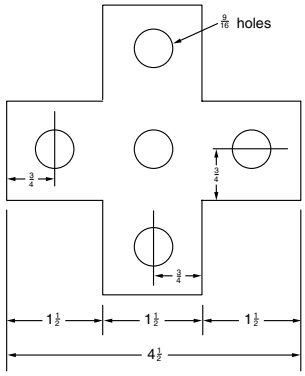


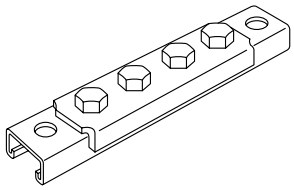


Cross Plate Connector

Cat. No.	Finish
B-947	Galv-Krōm

3⁄16" steel. 55#/C.

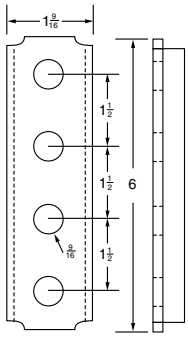




Joiner for B-907 Channel

Cat. No.	Finish
B-948	Galv-Krōm

Order four B-910-1/2 nuts and four H-113-A cap screws separately.
12 ga. steel. 51#/C.



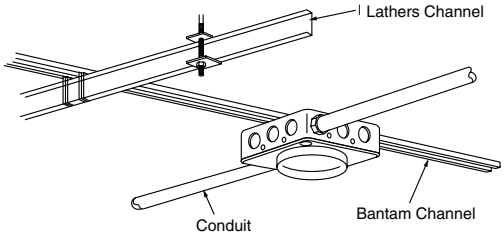
Bantam Channels

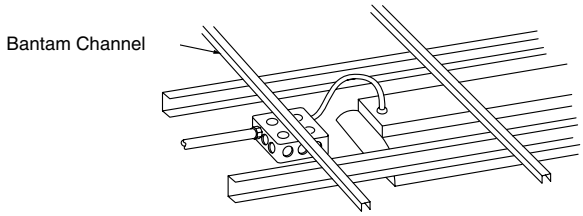
For the support of light and medium weight equipment in electrical and mechanical applications.

Bantam Channels simplify the support of overhead fixtures, conduits, pipes and boxes in suspended ceiling installations where they can be supported on runs of lathers channel or directly from bar joists or ceiling beams. Ribbed channels may also be mounted on concrete forms and used as low-cost continuous slot concrete inserts.

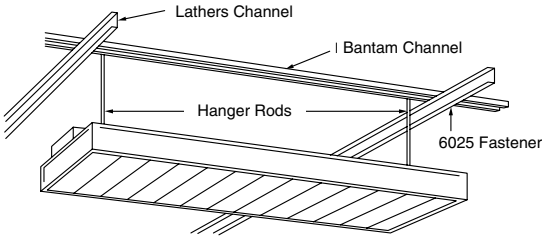
Installed slot down the open slot accommodates and allows easy positioning of accessory fittings or ¼" hanger rod to support light or medium weight equipment.

The use of Kindorf Channel Bar provides a ready made system of bars and accessories designed to eliminate costly and time consuming on-the-job improvising.

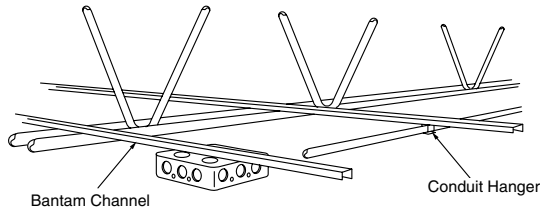




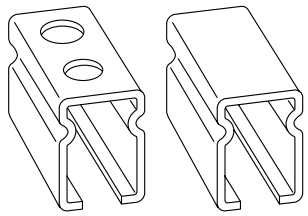
Box mounted on Bantam Channel to feed fixtures.



Suspended Fixture



Typical mounting on bar joists

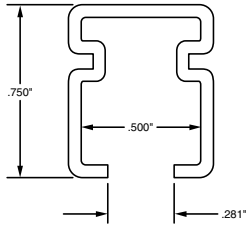


6029-H
Holes for ¼ inch threaded rod and #12 sheet metal screw.

Ribbed Channels (extra strength)

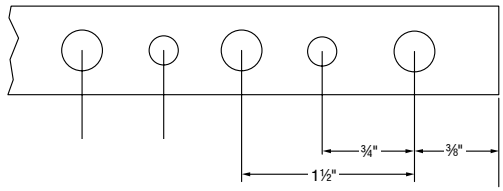
Cat. No.	Description	Wt. lbs./C ft.
6029-H	16 gauge (.060") Ribbed Channel with holes	30
6029	16 gauge (.060") Ribbed Channel	45

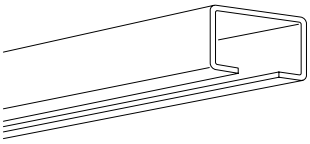
Channels are produced in 10 ft. lengths. Pre-galvanized steel.



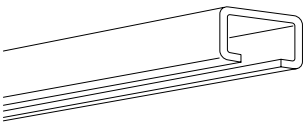
.266 dia. holes clearance for ¼" threaded rod

.177 dia. holes for #12 Sheet Metal Screw





6013
Single
Bantam Channel

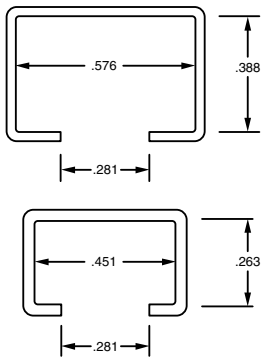


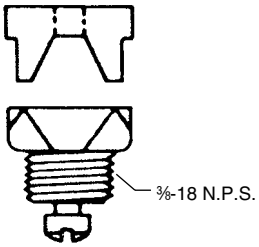
6014
Single
Bantam Channel

Lightweight Channels

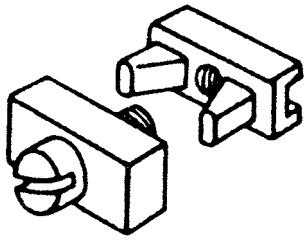
Cat. No.	Description	Wt. lbs./C ft.
6013	20 gauge (.034") Lightweight Channel	17
6014	18 gauge (.044") Lightweight Channel	16

Channels are produced in 10 ft. lengths. Pre-galvanized steel.





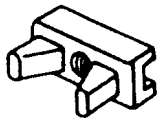
6015



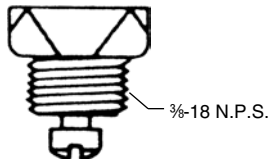
6016

Bantam Channel Accessories

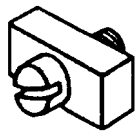
Cat. No.	Description
6015	Fixture stud and carrier, (complete assembly) 7#/C.
6016	Fastener and carrier, (complete assembly) 6#/C.
6017	Channel carrier, 2#/C.
6018	Fixture stud, 5#/C.
6019	Fastener, 4#/C.
6024	Beam flange clip, pre-assembled – includes clip, round head machine screw and square nut, 3½#/C.
6025	Channel fastener, ½#/C.
6026	Joiner, for ribbed channel, screws included, 41#/C.



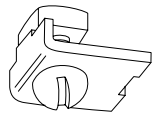
6017



6018

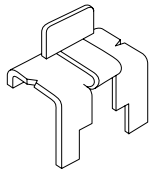


6019

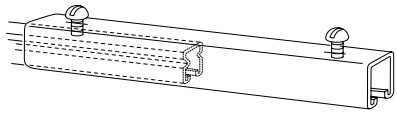


6024

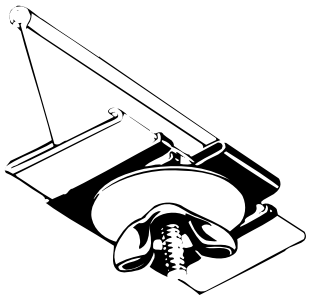
Fastens channel bar to I-beam, angle iron and bar joists with flanges not exceeding ¼" thickness.



6025
Secures channel bar to lathers channel or other ceiling carrying channel.



6026
Fits over ends of ribbed channels for continuous runs.

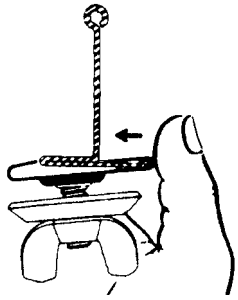


6075
Mounts electrical fixtures to exposed acoustical ceilings. Fits 15⁄16" or 1" bar face.

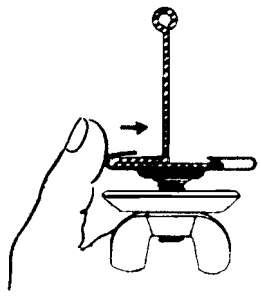
T-bar Clip

Cat. No.	Description
6075	T-bar clip

Load rating: 50 lbs. Safety factor of 3. Furnished complete with cupped washer and wing nut. 8 lbs./C.
Fast, Easy Installation



1
Snap Prong Side Over Tee-Bar Edge



2
Reverse Push-Prongs Lock Clip in Place

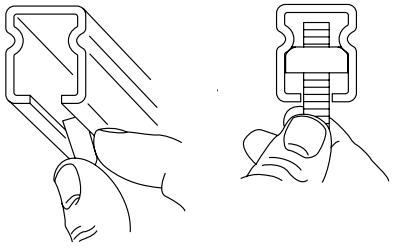
K

Kindorf®

Thomas&Betts

Low Cost Techniques for Bantam Channel

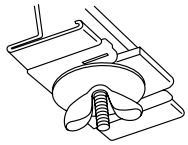
Fast, Easy Hanging With Standard Fittings



No. H-116-A-1/4"
square nut tips in anywhere.

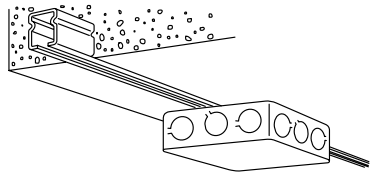
Groove holds nut squarely – nut won't rotate.

T-Bar Clip

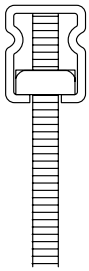


6075
Mounts electrical fixtures to exposed grid acoustical ceilings. Fits 15/16" or 1" bar face. Load Rating: 100 lbs. Safety factor of 4. Furnished complete with cupped washer and wing nut.

Bantam Channel for Low-cost, Continuous-slot Concrete Inserts



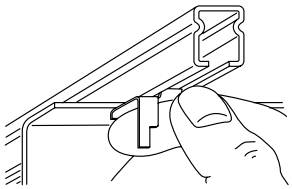
6029
Maximum recommended loads 200 lbs.



IH-193-1/4
hanger rod.

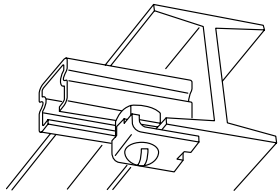
Insert rod full height of channel for rigidity.

Channel Fastener



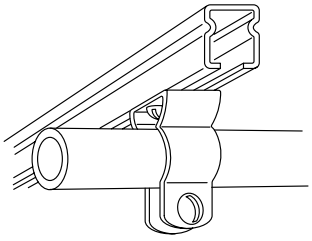
Insert and turn in place – press on.

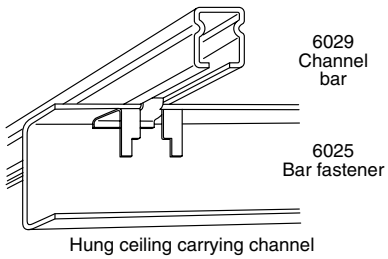
Beam Flange Clip



6024
Secures channel to I-beams, angle iron or bar joists with flanges not exceeding 1/4" thickness.

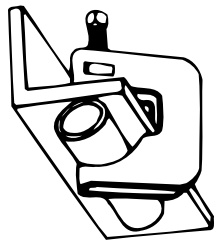
Pipe Hanger



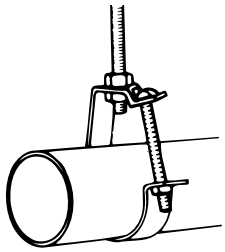


Hung ceiling carrying channel

6025
Secures channel to lathers channel or other ceiling-carrying channels.



C-247 Beam clamp supports pipe.



Pipe supported by C-149 lay-in hanger.

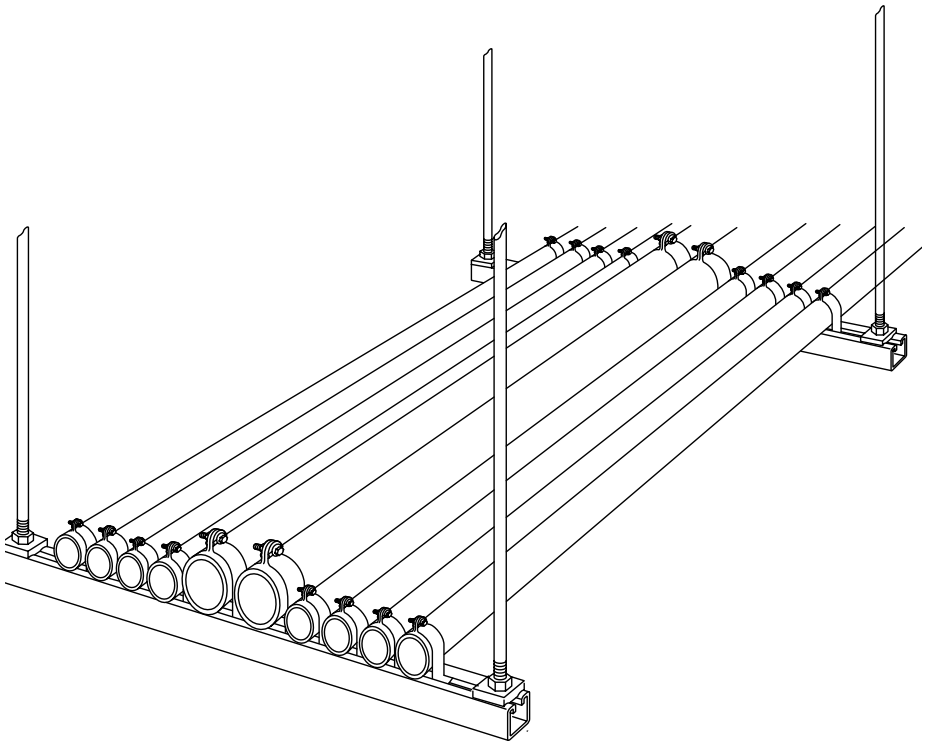
Single or multiple runs of pipe and cable are secured easily and economically by Kindorf supports. In the racking of multiple runs of pipe, for example, C-105 Straps are quickly twist inserted into a channel slot and the pipe is installed by the tightening of a single screw. There are no holes to drill and position adjustment is made simple by sliding the strap along the channel slot. Runs of pipe or conduit can be spaced with complete freedom, as close as conduit couplings permit.

For single runs the C-149 Pipe Hanger saves installation time by allowing the conduit or pipe to be laid in place after the hanger is mounted. The versatile C-149 can be suspended from hanger rod or bolted directly to the wall and pipe insulation, when needed, can be installed without removing the pipe from the hanger.

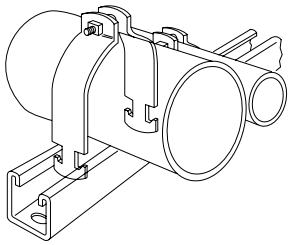
These are but two examples of how Kindorf products deliver lower installed costs. Whether it be a problem of tight spacing, adjustment, or alignment of adequate spacing between hangers, there's a Kindorf support to solve it.

Kindorf pipe and cable supports are engineered to provide safe and secure installations. The majority of Kindorf supports are protected by the exclusive Galv-Krōm finish, including threaded components.

There's a wide range of Kindorf pipe and cable supports to meet almost every job condition, installed either in combination with channel or individually secured to the structure surface.



Trapeze application supporting multiple conduit runs

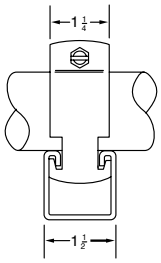


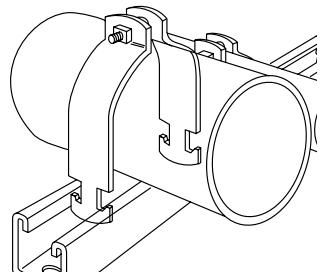
C-105 and C-106 Pipe Straps

Kindorf Pipe Straps are designed to be twist inserted anywhere along the slot side of the channel. Pipes can be placed as closely as pipe couplings permit.

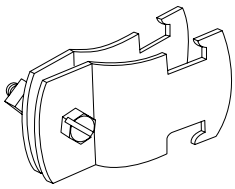
Some unique features of the straps include:

- Bolt head is combination slot and hex head for flexibility of attachment.
- Square nut is captivated on the shoulder for easy one-handed tightening.
- Straps are interchangeable with 1⅝" strut, for broader application.
- Straps are shipped assembled so counting and sorting are easier.
- Pipe or conduit sizes are shown on the strap for easy identification.





Interchangeable strap fits both 1½" and 1⅝"

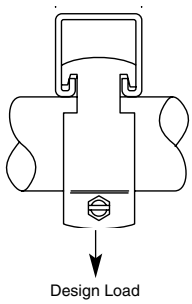


All Kindorf Straps are pre-assembled for easy handling and sorting

Kindorf Straps for Rigid Conduit, IMC and Pipe

Steel Straps – Galv-Krōm Finish

Cat. No.	Rigid Conduit or Pipe Size	O.D. Size (In.)	Steel Strap Thickness	Design Load (lbs.)	Wt. lbs./C
C-105-3/8	⅜"	0.675	14 ga.	750	12
C-105-1/2	½"	0.840	14 ga.	750	13
C-105-3/4	¾"	1.050	14 ga.	750	15
C-105-1	1"	1.315	14 ga.	750	17
C-105-1-1/4	1¼"	1.660	14 ga.	800	19
C-105-1-1/2	1½"	1.900	12 ga.	800	28
C-105-2	2"	2.375	12 ga.	800	31
C-105-2-1/2	2½"	2.875	12 ga.	1000	36
C-105-3	3"	3.500	12 ga.	1650	42
C-105-3-1/2	3½"	4.000	11 ga.	1650	56
C-105-4	4"	4.500	11 ga.	1650	64
C-105-4-1/2	4½"	5.000	11 ga.	1650	72
C-105-5	5"	5.563	11 ga.	1650	76
C-105-6	6"	6.625	11 ga.	1650	89
C-105-8	8"	8.625	11 ga.	1650	114
C-105-10	10"	10.750	10 ga.	1650	160
C-105-12	12	12.750	10 ga.	1650	165



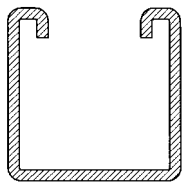


Figure 1

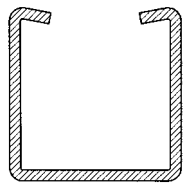
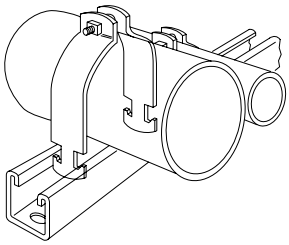


Figure 2

C105, C106 and C107 pipe straps are specifically designed to work with all brands of channel that have a rolled lip design (figure 1). Should you need to install pipe straps on old style Kindorf channel (figure 2) see table on page K40 to determine the strap to use with each diameter of conduit pipe.



Kindorf Straps for EMT

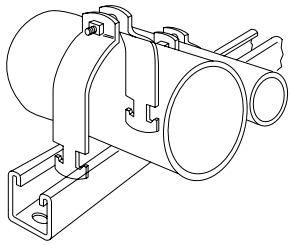
Steel – Galv-Krōm Finish

Cat. No.	EMT Size	O.D. Size (In.)	Steel Strap Thickness	Design Load (lbs.)	Wt. lbs./C
C-106-3/8	⅜"	0.577	14 ga.	750	13
C-106-1/2	½"	0.706	14 ga.	750	14
C-106-3/4	¾"	0.922	14 ga.	750	13
C-106-1	1"	1.163	14 ga.	750	16
C-106-1-1/4	1¼"	1.510	14 ga.	750	19
C-106-1-1/2	1½"	1.740	12 ga.	800	20
C-106-2	2"	2.197	12 ga.	800	22

Kindorf Straps for O.D. Tubing

Cat. No.	Tubing O.D.	Steel Thickness	Design Load (lbs.)	Wt. lbs./C
C-107-1/4	¼"	14 ga.	750	8
C-107-3/8	⅜"	14 ga.	750	8
C-107-1/2	½"	14 ga.	750	9
C-107-5/8	⅝"	14 ga.	750	10
C-107-3/4	¾"	14 ga.	750	11
C-107-7/8	⅞"	14 ga.	750	12
C-107-1	1"	14 ga.	1000	12
C-107-1/8	1-⅛"	14 ga.	1000	12
C-107-1-1/4	1-¼"	14 ga.	1000	13
C-107-1-3/8	1-⅜"	14 ga.	1000	14
C-107-1-1/2	1-½"	14 ga.	1000	14
C-107-1-5/8	1-⅝"	14 ga.	1000	15
C-107-1-3/4	1-¾"	14 ga.	1000	28
C-107-1-7/8	1-⅞"	12 ga.	1000	29
C-107-2	2"	12 ga.	1000	31
C-107-2-1/8	2-⅛"	12 ga.	1300	32
C-107-2-1/4	2-¼"	12 ga.	1300	33
C-107-2-3/8	2-⅜"	12 ga.	1300	34
C-107-2-1/2	2-½"	12 ga.	1300	35
C-107-2-5/8	2-⅝"	12 ga.	1300	37
C-107-2-3/4	2-¾"	12 ga.	1300	38
C-107-2-7/8	2-⅞"	12 ga.	1300	40
C-107-3	3"	12 ga.	1300	41
C-107-3-1/8	3-⅛"	12 ga.	1300	43
C-107-3-1/4	3-¼"	12 ga.	1300	45
C-107-3-3/8	3-⅜"	12 ga.	1300	46
C-107-3-1/2	3-½"	12 ga.	1300	47
C-107-3-5/8	3-⅝"	11 ga.	1650	56
C-107-3-3/4	3-¾"	11 ga.	1650	58
C-107-3-7/8	3-⅞"	11 ga.	1650	60

C105, C106 and C107 pipe straps are specifically designed to work with all brands of channel that have a rolled lip design (figure 1 page K38). Should you need to install pipe straps on old style Kindorf channel (figure 2 page K38) see table on page K40 to determine the strap to use with each diameter of conduit pipe.



Kindorf Straps for O.D. Tubing – Continued

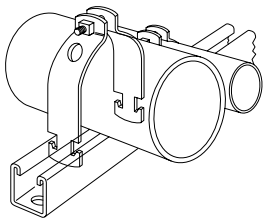
Cat. No.	Tubing O.D.	Steel Thickness	Design Load (lbs.)	Wt. lbs./C
C-107-4	4"	11 ga.	1650	62
C-107-4-1/8	4-⅛"	11 ga.	1650	62
C-107-4-1/4	4-¼"	11 ga.	1650	64
C-107-4-3/8	4-⅜"	11 ga.	1650	66
C-107-4-1/2	4-½"	11 ga.	1650	67
C-107-4-5/8	4-⅝"	11 ga.	1650	70
C-107-4-3/4	4-¾"	11 ga.	1650	72
C-107-4-7/8	4-⅞"	11 ga.	1650	73
C-107-5	5"	11 ga.	1650	74
C-107-5-1/8	5-⅛"	11 ga.	1650	76
C-107-5-1/4	5-¼"	11 ga.	1650	77
C-107-5-3/8	5-⅜"	11 ga.	1650	78
C-107-5-1/2	5-½"	11 ga.	1650	79
C-107-5-5/8	5-⅝"	10 ga.	1650	88
C-107-5-3/4	5-¾"	10 ga.	1650	90
C-107-5-7/8	5-⅞"	10 ga.	1650	92
C-107-6	6"	10 ga.	1650	94
C-107-6-1/8	6-⅛"	10 ga.	1650	96
C-107-6-1/4	6-¼"	10 ga.	1650	98
C-107-6-3/8	6-⅜"	10 ga.	1650	99
C-107-6-1/2	6-½"	10 ga.	1650	100
C-107-6-5/8	6-⅝"	10 ga.	1650	100
C-107-6-3/4	6-¾"	10 ga.	1650	102
C-107-6-7/8	6-⅞"	10 ga.	1650	106
C-107-8	8"	10 ga.	1650	112

C105, C106 and C107 pipe straps are specifically designed to work with all brands of channel that have a rolled lip design (figure 1 page K38). Should you need to install pipe straps on old style Kindorf channel (figure 2 page K38) see table below to determine the strap to use with each diameter of conduit pipe.

Conduit Strap Size Chart – Old Kindorf Strut

EMT Trade Size	Strap
½	**C105-3/8**
¾	**C105-1/2**
1	**C105-3/4**
1¼	**C105-1**
1½	**C105-1-1/2**
2	**C106-2**

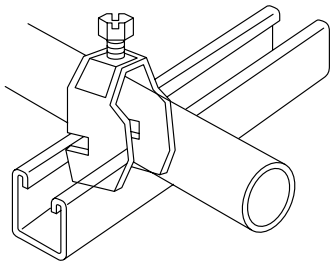
Rigid Conduit Size	Strap
½	**C106-1/2**
¾	**C106-3/4**
1	**C106-1**
1¼	**C106-1-1/4**
1½	**C105-1 1/2**
2	**C105-2**



C-200 Universal Pipe Straps

Cat. No.	EMT, IMC, Rigid Pipe Size	Pipe O.D. Range	Strap Thickness	Wt. lbs./C
C-200-1/2	½"	.706 – .804	14 ga.	12
C-200-3/4	¾"	.922 – 1.060	14 ga.	13
C-200-1	1"	1.163 – 1.315	14 ga.	14
C-200-1-1/4	1¼"	1.508 – 1.660	14 ga.	16
C-200-1-1/2	1½"	1.738 – 1.900	12 ga.	27
C-200-2	2"	2.196 – 2.375	12 ga.	31

Design load equal to C-105 straps.



EZ-Strap

The C-108 Universal Pipe Strap

Cat. No. & Size	Dimensions (in.) Conduit or Pipe Size			Thickness Steel	O.D. Size	Wt. lbs./C
C-108-1/2	½ EMT	½ IMC	½ Rigid	16 ga.	⅞	8
C-108-3/4	¾ EMT	¾ IMC	¾ Rigid	16 ga.	1 23/32	10
C-108-1	1 EMT	1 IMC	1 Rigid	16 ga.	1 11/32	10
C-108-1-1/4	1¼ EMT	1¼ IMC	1¼ Rigid	14 ga.	1 11/16	15
C-108-1-1/2	1½ EMT	1½ IMC	1½ Rigid	14 ga.	1 15/16	16
C-108-2	2 EMT	2 IMC	2 Rigid	14 ga.	2 13/32	19

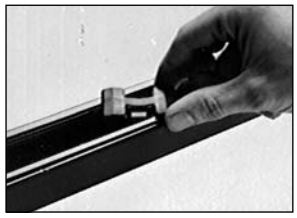
- ***Fits E.M.T., I.M.C., rigid conduit.***
- ***Size range ½" thru 2".***
- ***Can be used on 1½" or 1⅝" channel.***
- ***Saves inventory dollars.***
- ***Corrosion resistant Galv-Krōm finish.***
- ***One piece construction means no assembly required.***
- ***Installs directly over conduit for easy installation.***
- ***50% reduction of installation time.***
- ***No twisting required to install.***
- ***Slotted hex head screw.***

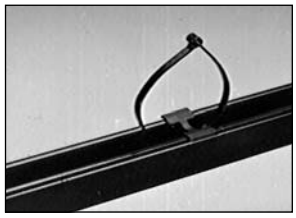
Framing Channel Clamp

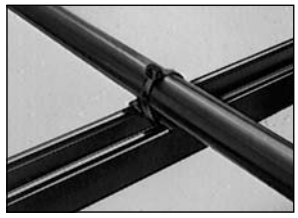
Cat. No.	Channel Size	Maximum Tie Width Accom.	Unit Quan.	Std. Pkg.
TC5363X	1.5 & 1.625	.301	50	250

Mounting bases for heavy duty applications are made from high-impact weather-resistant nylon.

Ty-Rap® Installation







- ***Installs with a push and twist.***
- ***Smooth design protects cable insulation.***
- ***Designed for indoor or outdoor use.***
- ***Takes range of cable diameters.***

When fastening wire bundles, cables, or hoses to framing channels, you can cut costs considerably by using the TY-RAP® cable clamp. It is made of smooth, weather-resistant nylon and designed to protect cable insulation and hoses from wear or damage as can occur with metal clamps. The clamp may be used for both indoor or outdoor applications. It installs in the framing channel with a simple push and twist. It requires no screws, nuts or tools. The clamp fits all 1½" and 1⅝" channels regardless of channel depth.

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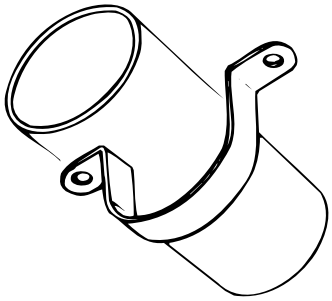
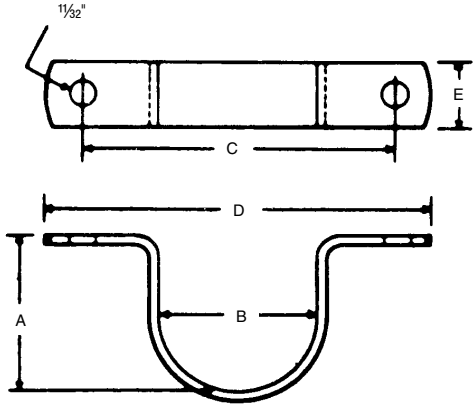


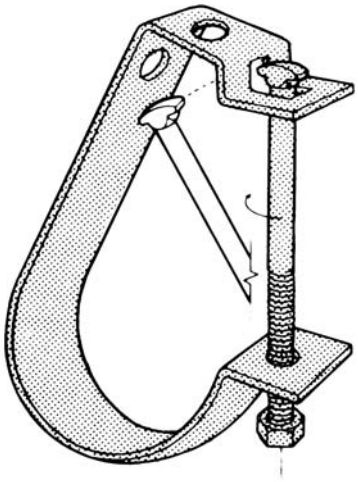
Holds pipe tight against mounting surface.

C-144 Two Hole Pipe Straps

Cat. No. & Size	Dimensions (in.) A & B	C	D	E	Wood Screw Size Req'd.	Thickness Steel	Wt. lbs./C
C-144-1/2	.840	2	3	¾	No. 12 x 1	⅛	10
C-144-3/4	1.050	2¼	3¼	¾	No. 12 x 1	⅛	11
C-144-1	1.315	2½	3½	¾	No. 12 x 1	⅛	13
C-144-1-1/4	1.660	3¼	4¼	1	No. 12 x 1	⅛	20
C-144-1-1/2	1.900	3½	4½	1	No. 12 x 1	⅛	23
C-144-2	2.375	4¼	5¼	1	No. 16 x 1½	⅛	30
C-144-2-1/2	2.875	5	6	1	No. 16 x 1½	⅛	35
C-144-3	3.500	5¾	6¾	1	No. 16 x 2	⅛	42
C-144-3-1/2	4.000	6½	7½	1	No. 16 x 2½	3/16	69
C-144-4	4.500	7	8	1	No. 16 x 3	3/16	78

Standard finish Galv-Krōm





Rest pipe in body of hanger. Fasten side bolt when convenient.

Saves installation time by allowing the conduit or pipe to be laid in place after the hanger is mounted. Fastening of side bolt can be delayed until most convenient for job conditions. Insulation can be installed without removing pipe from hanger. The C-149 hanger can be suspended from hanger rod or can be bolted directly to a wall. When used with hanger rod, assembly requires two H-114 hex nuts. Vertical adjustment of at least 1½ inches after pipe is laid in place. The lower nut adjusts pipe lines to the proper pitch and the top nut when locked into position prevents loosening due to vibration. The square nut on the side bolt is kept from loosening by the arrangement of hole and up-turned lip.

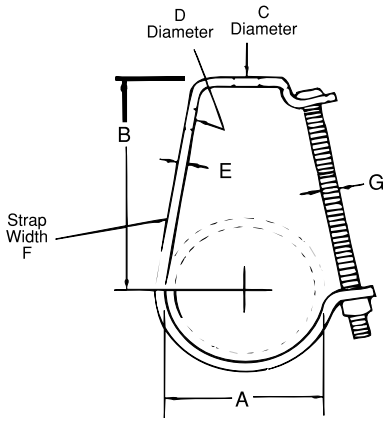
C-149 Lay-in Pipe Hanger (J-Hanger)

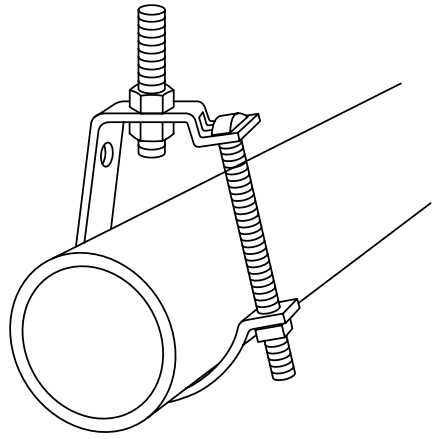
Cat. No. & Size	Max.* Recom. Load (lbs.)	Dimensions (in.) A	B	C	D	E	F	G	Wt. lbs./C
C-149-1/2	700	.840	2½	13/32	7/16	.104	¾	¼ x 21¼	18
C-149-3/4	700	1.050	2⅝	13/32	7/16	.104	¾	¼ x 2¼	21
C-149-1	700	1.315	2 15/16	13/32	7/16	.104	¾	¼ x 2¾	22
C-149-1-1/4	700	1.660	3¼	13/32	7/16	.104	¾	¼ x 3¼	25
C-149-1-1/2	700	1.900	3½	13/32	7/16	.104	¾	¼ x 3½	27
C-149-2	700	2.375	3⅝	13/32	7/16	.104	¾	¼ x 4	29
C-149-2-1/2	875	2.875	4⅝	9/16	9/16	.104	1¼	⅜ x 5	64
C-149-3	875	3.500	4 7/16	9/16	9/16	.104	1¼	⅜ x 5	72
C-149-3-1/2	965	4.000	4¾	9/16	9/16	.188	1¼	⅜ x 5½	84
C-149-4	965	4.500	5 7/16	9/16	9/16	.188	11¼	⅜ x 6	138
C-149-5	965	5.563	6 9/16	11/16	9/16	.188	1¼	⅜ x 7	162
C-149-6	1300	6.625	8	11/16	9/16	.188	1¾	⅜ x 8½	249
C-149-8	1300	8.625	9 5/16	15/16	9/16	.188	13¾	⅜ x 12	291

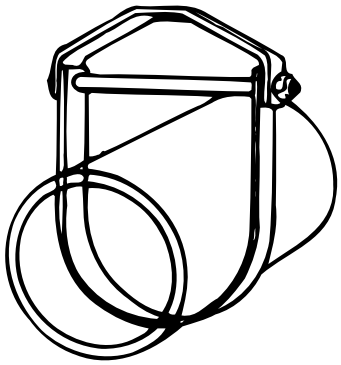
* Safety factor of three.

Standard finish: Galv-Krōm

Above dimensional information is general and not for critical measurements; please consult technical services for additional dimensional requirements.







Provides a vertical adjustment of approximately 1½ inches after pipe is in place. The lower nut adjusts pipe line to the proper pitch and the top nut, when locked into position, prevents loosening due to vibration. Assembly requires two H-114 hex nuts along with hanger rod.

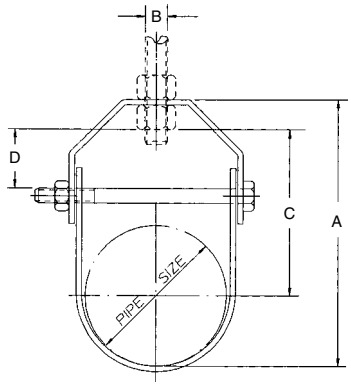
C-150 Clevis Hanger

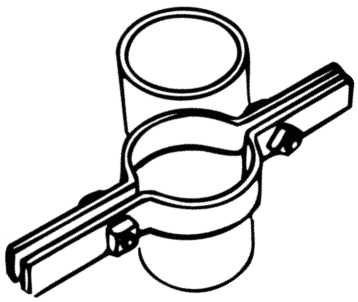
Cat. No. & Size	Max. Recom.* Load (lbs.)	Dimensions (in.) A	B	C	D	Wt. lbs./C
C-150-1/2	1000	2⅞"	⅜"	1 13/16"	1"	43
C-150-3/4	1000	3 1/16"	⅜"	1⅞"	1"	47
C-150-1	1000	3⅜"	⅜"	2 1/16"	1"	50
C-150-1-1/4	1000	3¾"	⅜"	2¼"	1"	52
C-150-1-1/2	1000	4 1/16"	⅜"	2⅜"	1"	57
C-150-2	1000	4½"	⅜"	2¾"	1¼"	63
C-150-2-1/2	1850	5½"	½"	3¼"	1¼"	109
C-150-3	1850	6⅛"	½"	3½"	1¼"	117
C-150-3-1/2	1850	6¾"	½"	3¾"	1¼"	133
C-150-4	1850	7⅝"	⅝"	4¼"	1½"	204

* Safety factor of three.

Standard finish: Black

Above dimensional information is general and not for critical measurements; please consult technical services for additional dimensional requirements.





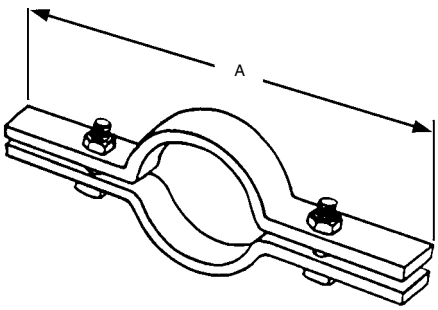
Firmly grips vertically mounted pipe or conduit and distributes the load over a larger area.

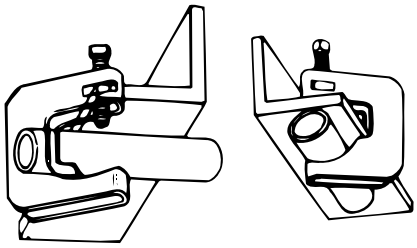
C-210 Riser Clamps

Cat. No. & Size	Dimensions (in.) A	Stock Size	Bolt Size	Wt. lbs./C
C-210-1/2	9¼	3/16 x 1¼	⅜ x 1½	138
C-210-3/4	9¼	3/16 x 1¼	⅜ x 1½	140
C-210-1	9 5/16	3/16 x 1¼	⅜ x 1½	150
C-210-1-1/4	9 11/16	3/16 x 1¼	⅜ x 1½	200
C-210-1-1/2	10⅜	3/16 x 1¼	⅜ x 1½	205
C-210-2	10¾	3/16 x 1¼	⅜ x 1½	224
C-210-2-1/2	11⅜	¼ x 1¼	⅜ x 1½	241
C-210-3	12	¼ x 1¼	⅜ x 1½	270
C-210-3-1/2	13	¼ x 1¼	⅜ x 1½	335
C-210-4	13½	¼ x 1¼	½ x 1½	340
C-210-5-B	14½	¼ x 1½	½ x 1½	510
C-210-6-B	15⅛	¼ x 2	½ x 1½	560

Two bolts and nuts included. Sizes thru 4" are steel with Galv-Krōm finish. *Larger sizes are steel with black finish.

Above dimensional information is general and not for critical measurements; please consult technical services for additional dimensional requirements.



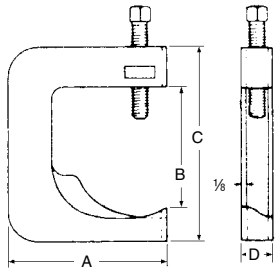


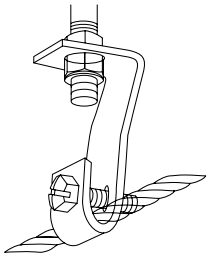
A versatile clamp for attaching conduit to any type of beam, channel, angle, or column. Designed to hold the conduit snug against the support with conduit either parallel or at right angle to it. The case hardened set screw bites into the structural member for maximum security. ⅛" steel.

C-247, C-248, & C-249 Steel Conduit Clamps

Conduit Size	Maximum Beam Flange Thickness		
	C-247	C-248	C-249
½	⅝	1	
¾	7⁄16	¾	1½
1		½	1¼
1¼		1	
1½			⅝
Dim A	2¼	2⁹⁄16	3¼
Dim B	1⅜	1¾	2½
Dim C	2¾	3	4
Dim D	⁹⁄16	⁹⁄16	⅝
Per Carton	100	50	50
Wt. in lbs./C	33	36	59

Galv-Krōm Finish



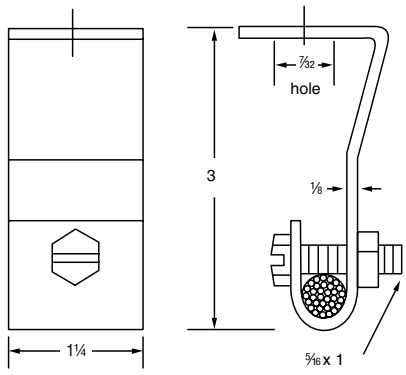


Designed for use as intermediate supports for ⅜" messenger cable. Grips cable when 5⁄16" screw is tightened. Provides easy vertical adjustment. Design load 1000#. Safety factor of 3.

C-708 Messenger Cable Support

Cat. No.	Description
C-708	⅛" steel, 27#/C

Galv-Krōm Finish



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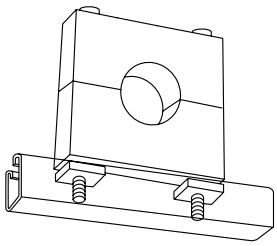
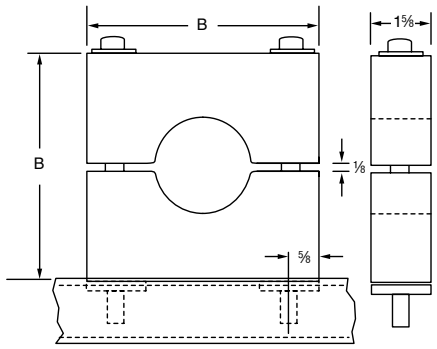


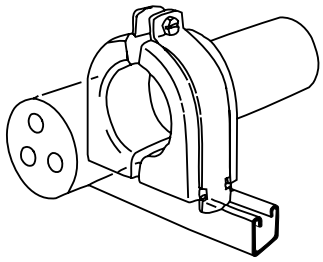
Maple blocks, impregnated with paraffin. ⅜" bolts with special nuts facilitate installation on B-900 channel.

C-750 Maple Cable Clamp

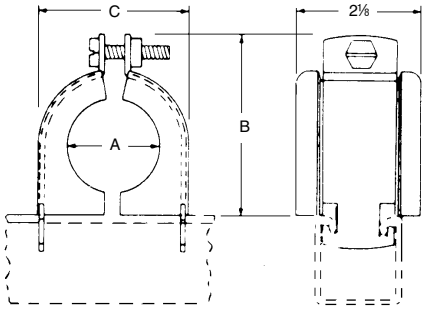
Cat. No. & Size	Dimensions (in.) O.D. of Cable	A	B	Wt. in. lbs./C
C-750-1	0 – 0.99	4	3⅞	90
C-750-2	1.0 – 1.49	4½	4⅜	100
C-750-3	1.5 – 1.99	5	4⅞	120
C-750-4	2 – 2.49	5½	5⅜	140
C-750-5	2.5 – 2.99	6	5⅞	160
C-750-6	3 – 3.49	7	6⅞	200
C-750-7	3.5 – 3.99	8	7⅞	240
C-750-8	4 – 4.49	–	–	–
C-750-9	4.5 – 5.00	–	–	–

Size refers to over-all dimensions of maple cable clamp only. Hole will be bored to fit O.D. of cable.
Orders MUST specify exact O.D. of cable.
Special Order.



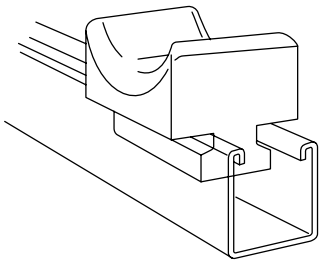


Dry process white glaze porcelain insulators assembled in pairs to accept cables from ⅜" thru 4½" O.D. C-105 clamp with bronze slotted hex head screw and nut furnished. Fits all Kindorf channels



C-755 Porcelain Insulator Clamp

Cat. No. & Size	Dimensions (in.) A	B	C	Strap C-105	Wt. in lbs./C
C-755-1A	⅜	2 1⁄16	1 9⁄16	1"	50
C-755-1B	½	2 1⁄16	1 9⁄16	1"	50
C-755-1C	⅝	2 1⁄16	1 9⁄16	1"	50
C-755-2	¾	2 21⁄32	2 5⁄32	1½"	91
C-755-2A	⅞	2 21⁄32	2 5⁄32	1½"	90
C-755-2B	1	2 21⁄32	2 5⁄32	½"	85
C-755-2C	1⅛	2 21⁄32	2 5⁄32	1½"	82
C-755-3	1¼	3⅛	2⅝	2"	114
C-755-3A	1⅜	3⅛	2⅝	2"	110
C-755-3B	1½	3⅛	2⅝	2"	105
C-755-3C	1⅝	3⅛	2⅝	2"	102
C-755-4	1¾	4¼	3¾	3"	220
C-755-4A	1⅞	4¼	3¾	3"	214
C-755-4B	2	4¼	3¾	3"	205
C-755-4C	2⅛	4¼	3¾	3"	200
C-755-5	2¼	4¾	4¼	3½"	260
C-755-5A	2⅜	4¾	4¼	3½"	250
C-755-5B	2½	4¾	4¼	3½"	243
C-755-5C	2⅝	4¾	4¼	3½"	240
C-755-6	2¾	5¼	4¾	4"	250
C-755-6A	2⅞	5¼	4¾	4"	240
C-755-6B	3	5¼	4¾	4"	230
C-755-6C	3⅛	5¼	4¾	4"	220
C-755-7	3¼	6 5⁄16	5 13⁄16	5"	340
C-755-7A	3⅜	6 5⁄16	5 13⁄16	5"	330
C-755-7B	3½	6 5⁄16	5 13⁄16	5"	318
C-755-7C	3⅝	6 5⁄16	5 13⁄16	5"	387
C-755-8	3¾	7⅜	6⅞	6"	565
C-755-8A	3⅞	7⅜	6⅞	6"	550
C-755-8B	4	7⅜	6⅞	6"	535
C-755-8C	4⅛	7⅜	6⅞	6"	520
C-755-8D	4¼	7⅜	6⅞	6"	490
C-755-8E	4⅜	7⅜	6⅞	6"	475
C-755-8F	4½	7⅜	6⅞	6"	460

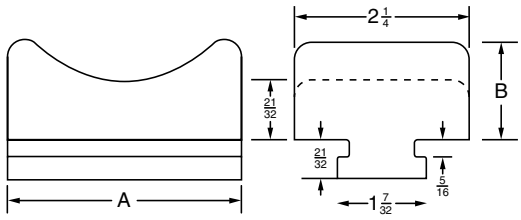


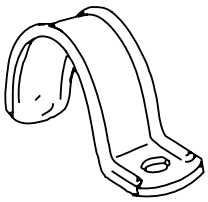
White glaze dry process porcelain cable rack insulator. Fits all sizes of B-900 series channel including B-906.

C-756-1 Porcelain Saddle / C-756-2 Porcelain Saddle

Cat. No.	Dimensions (in.) A	B
C-756-1	3	13⁄16
C-756-2	4	17⁄32

C-756-1 is for cables up to 3" O.D. Weight 72#/C.
C-756-2 for cables up to 5" O.D. Weight 102#/C.

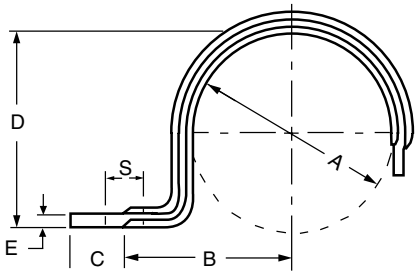


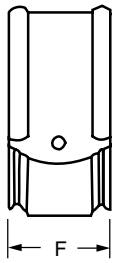


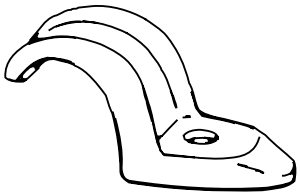
HS-100 One Hole Pipe Straps

Cat. No.	Nom. Size	Dimensions (in.) A	B	C	D	E	F	S Hole	Wt. in lbs./C
HS-100	⅜	.718	.797	11⁄32	.640	14 ga.	11⁄16	¼	3
HS-101	½	.840	.900	7⁄16	.780	16 ga.	1	9⁄32	5
HS-102	¾	1.050	1.000	7⁄16	.990	16 ga.	1	9⁄32	6
HS-103	1	1.315	1.187	13⁄32	1.215	13 ga.	1	9⁄32	10
HS-104	1¼	1.660	1.490	5⁄8	1.562	13 ga.	1	11⁄32	14
HS-105	1½	1.900	1.667	5⁄8	1.770	13 ga.	1 3⁄16	13⁄32	16
HS-106	2	2.375	1.875	5⁄8	2.200	13 ga.	1 3⁄16	7⁄16	20
HS-107	2½	2.875	2.563	13⁄16	2.688	3⁄16	1¼	15⁄32	52
HS-108	3	3.500	3.000	13⁄16	3.328	¼	1⅜	17⁄32	84
HS-109	3½	4.000	3.250	13⁄16	3.938	¼	1⅜	17⁄32	92
HS-110	4	4.500	3.273	13⁄16	4.375	¼	1⅜	17⁄32	101

Galvanized finish.



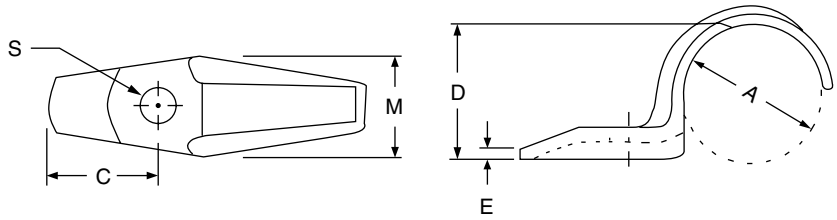


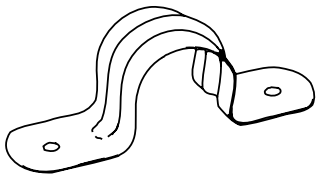


HS-400 One Hole Pipe Straps

Cat. No.	Nom. Size (in.)	Dimensions (in.) A	C	D	E	M	S Hole	Wt. per 100/pcs.
HS-400	⅜	.680	35⁄64	⅝	3⁄32	17⁄32	9⁄32	4
HS-401	½	.840	41⁄64	51⁄64	3⁄32	⅝	9⁄32	4
HS-402	¾	1.050	53⁄64	1 1⁄64	3⁄32	13⁄16	5⁄16	7
HS-403	1	1.315	13⁄16	1¼	3⁄32	15⁄16	5⁄16	12
HS-404	1¼	1.660	1 1⁄32	1 19⁄32	⅛	1 1⁄32	⅜	21
HS-405	1½	1.900	1 3⁄32	1 27⁄32	3⁄16	1⅛	7⁄16	25
HS-406	2	2.375	1 19⁄64	2 19⁄64	¼	1 5⁄16	9⁄16	40
HS-407	2½	2.875	1 41⁄64	2 25⁄32	5⁄16	1⅝	11⁄16	99
HS-408	3	3.500	1⅞	3 25⁄64	⅜	1⅞	11⁄16	111
HS-409	3½	4.000	2 5⁄32	3⅞	7⁄16	2⅛	11⁄16	218
HS-410	4	4.500	2⅜	4 11⁄32	½	2⅜	11⁄16	295
HS-411	5	5.563	2⅜	5 3⁄8	½	2⅝	11⁄16	400

Malleable iron – Galvanized finish.

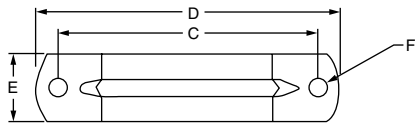


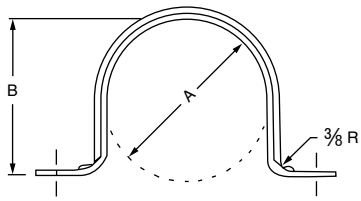


Two-hole pipe straps for surface mounting pipes and tubing. Formed steel for strength.

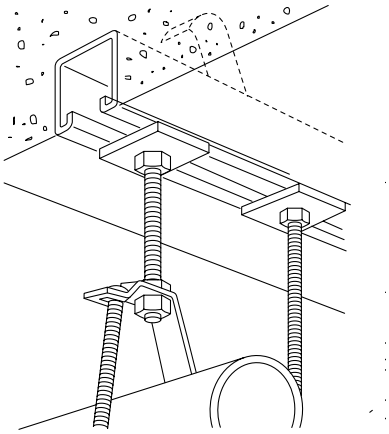
HS-900 Two Hole Pipe Straps

Cat. No.	Nom. Size	Dimensions (in.) A	B	C	D	E	F	Thickness Steel	Wt. in lbs./C
HS-901	½	.840	.850	1.812	2 7⁄16	¾	.188	20 ga.	2
HS-902	¾	1.050	1.050	2.062	2 11⁄16	¾	.188	20 ga.	3
HS-903	1	1.315	1.300	2.812	3 7⁄16	¾	.188	20 ga.	4
HS-904	1¼	1.660	1.610	3.218	3 27⁄32	¾	.188	20 ga.	5
HS-905	1½	1.900	1.850	3.437	4 1⁄16	¾	.188	20 ga.	5
HS-906	2	2.375	2.350	3.812	4 7⁄16	¾	.188	20 ga.	7
HS-907	2½	2.875	2.750	5.250	5⅝	1	.252	16 ga.	18
HS-908	3	3.500	3.281	5.562	6 3⁄16	1	.252	16 ga.	22
HS-909	3½	4.000	3.687	6.562	7 3⁄16	1	.252	16 ga.	25
HS-910	4	4.500	4.375	8.062	8 1⁄16	1	.252	16 ga.	28

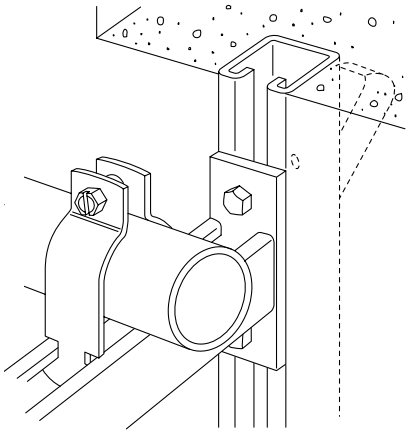




Thomas&Betts



Pipe section hangs from D-990 concrete insert.



D-990 concrete insert supports conduit installation.

Concrete Inserts

Buildings designed with concrete inserts as an integral part of the ceiling or wall construction realize many economies, both in initial construction and when updating of the mechanical and electrical system is required. The initial economies of construction stem from the ease with which pipe, air conditioning, lighting and other fixtures can be attached to ceilings or walls.

Inserted by casting into the structure, Kindorf continuous-slot channels will accept all the assembly parts and fittings of the Kindorf system. This provides virtually limitless structural arrangements – present and future.

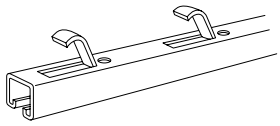
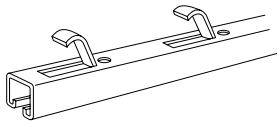
Hanger attachments are made by the standard Kindorf procedure of simply inserting a standard channel nut which can be pre-started on the hanger rod or bolt. Placement or adjustment of attachments can be made in infinite increments at any time along the length of the concrete insert. Future flexibility means economies in terms of future changes in equipment or its placement.

Initial Installation of Continuous-Slot Channel Inserts Offers:

- An immediate savings in time and labor by eliminating the need for precise calculation and measurement, both in layout planning and actual installation of attachment devices
- Additional savings in time and labor because changes or additions can be made readily to the existing channel at any time; the need for costly drilling in concrete and other costly procedures can be eliminated.

Companion to the channel inserts is the spot-type insert for use where a single hanger is required at a specific location.

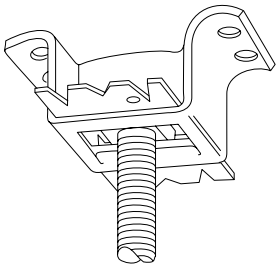
Two types of Continuous Insert Channels, Standard lengths 10 and 20 feet. Special lengths available on request.

Cat. No.	Type Anchor	Cross-Section	Load Rating Lbs. per Ft.*
D-990	Punched	 1½ x 1½ x 12 ga.	2000
D-996	Punched	 1½ x ¾ x 14 ga.	1500

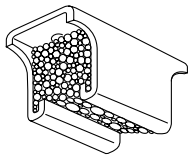
* Safety factor of 3. Based on uniformly distributed load.

Two types of Spot Inserts

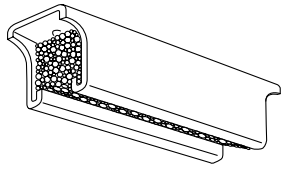
D-255 concrete inserts



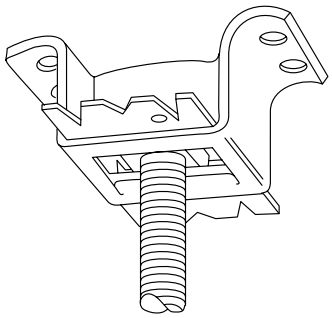
D-256-2 and D-256-5



D-256-2



D-256-5

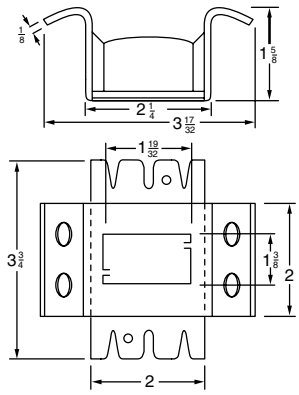


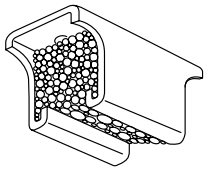
An insert with a knockout saves covering the slot or covering the opening. Load rating at 1300 lbs. with a safety factor of three. Accommodates hanger rod sizes from ¼" thru ⅞" by means of a B-914 insert nut. ⅛" steel. 52#/C.

D-255 Concrete Inserts

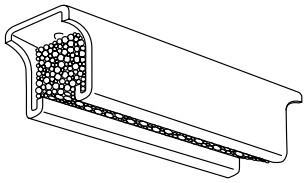
Cat. No.	Description
D-255	For ¼" through ⅞" hanger rod – ¼" through ½" pipe

Standard finish: Galv-Krōm





D-256-2



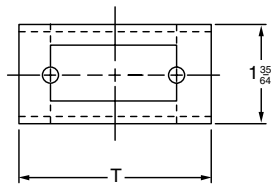
D-256-5

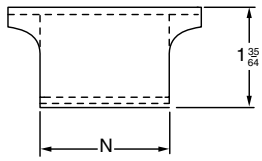
This unique product reduces the "spot" concrete insert to its simplest possible components with all the adjustability of the most expensive. Its features include: two sizes – 2" and 5" adjustability, takes standard insert nuts, uses hanger rod sizes ¼" thru ⅝" and has a load rating up to 1000 lbs. and a safety factor of 3 (hanger rod permitting).

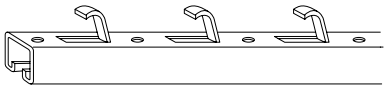
D-256-2 and D-256-5 Concrete Insert

Cat. No.	N	T	Wt. in lbs./C
D-256-2	2"	3"	34
D-256-5	5"	6"	76

Standard finish: Galv-Krōm





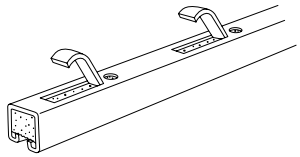


Insert is made of B-900 channel (12 ga.) with anchors punched out of insert on 6" centers. Polystyrene filled.

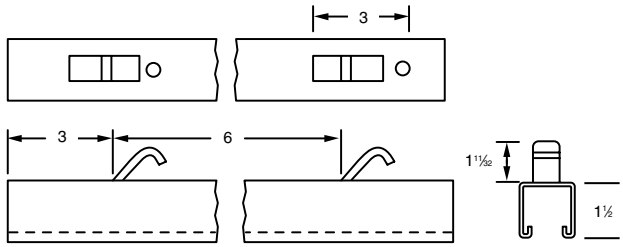
D-990

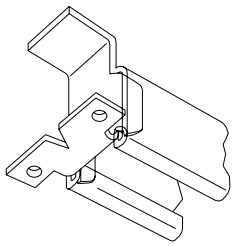
Cat. No.	Description
B-990	Continuous slot and concrete insert

Use B-910 or B-914 steel nuts for assembly. Load rating 2000 lbs. per foot with a safety factor of three. Available in 10 and 20 foot lengths.
Galv-Krōm finish



D-990 is provided with a rigid plastic closure strip which prevents concrete from entering the channel section. When the channel is in place, the strip is easily removed.



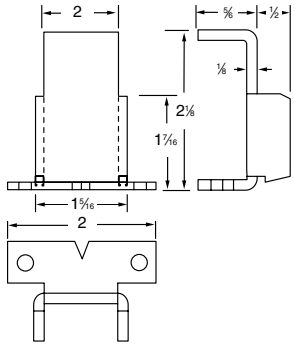


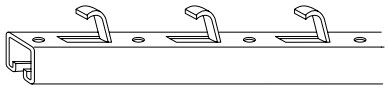
For capping the ends of D-990 continuous slot concrete inserts. May be used on the job to make up inserts of less than 1 foot lengths of B-900 channel.

D-982 Anchor End Cap

Cat. No.	Description
B-982	Anchor end cap

Load rating of such an insert less than 1 foot long is 1000 lbs. with a safety factor of three. 1⁄8" steel. 19#/C.
Galv-Krōm finish



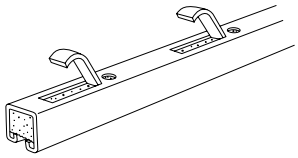


Insert is made of B-906 channel (14 ga.) with anchors punched out of insert on 6" centers. Polystyrene filled.

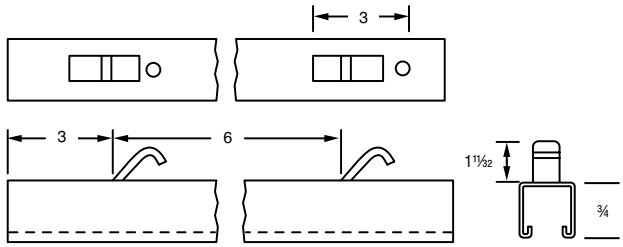
D-996 Continuous Slot Concrete Insert

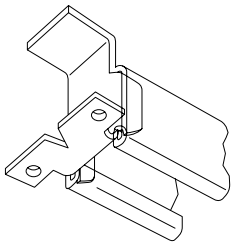
Cat. No.	Description
B-996	Continuous slot and concrete insert

Use B-910 or B-914 steel nuts for assembly. Load rating 1500 lbs. per foot with a safety factor of three. Available in 10 and 20 foot lengths.
Galv-Krōm finish



D-996 is provided with a rigid plastic closure strip which prevents concrete from entering the channel section. When the channel is in place, the strip is easily removed.



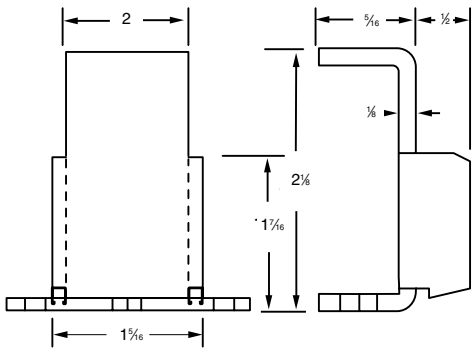


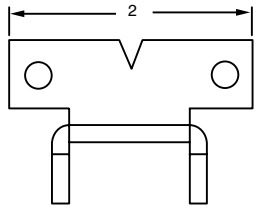
For capping the ends of D-996 continuous slot concrete inserts. May be used on the job to make up inserts of less than 1 foot lengths of B-906 channel.

D-988 Anchor End Cap

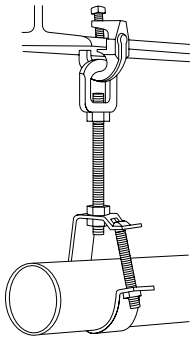
Cat. No.	Description
D-988	Anchor end cap

Load rating of each insert less than 1 foot long is 600 lbs. with a safety factor of three. 1/8" steel. 13#/C.
Galv-Krōm finish

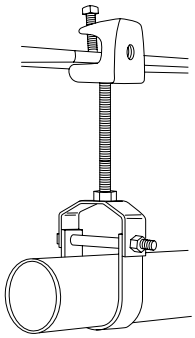




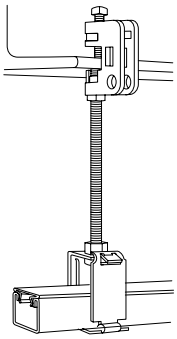
Beam Clamps and Hanger Rod Supports



H-550 Swivel beam clamp supports pipe with C-149 hanger.



500 Series beam clamp supports pipe with C-150 clevis hanger.



E-231 Beam clamp supports channel raceway with G-1012 lay-in-hanger.

Kindorf devices for hanging the load can deliver lower installed costs. Hanger rod and conduit pipe supports are attached to ceilings or to other structural members such as beams, columns, or purlins without drilling, welding or fastening by means of power actuated tools. A full selection of beam clamps and hanger rod supports are offered to meet a wide variety of needs.

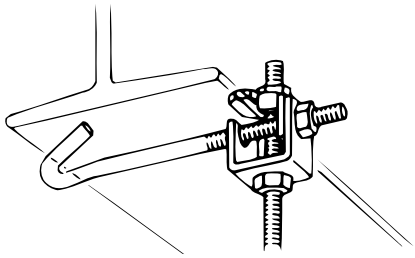
The flexibility of the Kindorf Series of clamps affords a range of applications from simple attachment of channel to the suspending of supports from sloping as well as horizontal beams.

Where high vibrations are expected additional support can be attained by gripping the beam on both sides. From the simple job to the complex job with special needs the Kindorf line of beam clamps can fill the bill.

The following table may be used when attaching hanger rod with Kindorf beam clamps.

Rod Size	Beam Clamp	Rod Size	Beam Clamp
⅜"	E-230, E-231-3/8, E-232-3/8	⅝"	E-237-5⁄8
		¾"	E-237-3⁄4
½"	E-160-1/2, E-177, E-165-1/2, E-231-1/2, E-232-1/2 507, 508	⅞"	E-237-7⁄8
Channel to Beam	E-760-2 E-760-3 E-761 E-763 E-767		

For additional beam clamps see Steel City Hanger and Clamp Section.



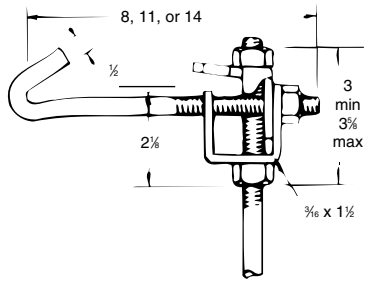
Clamps to I-beams where edge of beam flange does not exceed .8 inch thickness. Hook rod is furnished in three lengths to fit beam flanges up to 6, 9 or 12 inch widths.

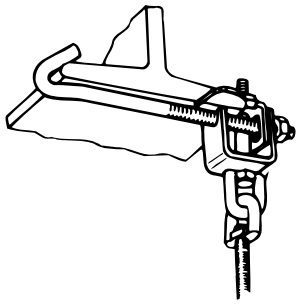
E-160 Adjustable Beam Clamp

(½" rod)

Cat. No. for ½" Hanger Rods	For Beam Flange width/in.	Wt. lbs./C
E-160-1/2-6	2½ to 6	115
E-160-1/2-9	5½ to 9	125
E-160-1/2-12	8½ to 12	154

Load rating 800 lbs. with a safety factor of three. Assembly requires hanger rod of the proper length and size plus two H-114-D nuts. 3⁄16" steel, ½" hook rod.
Galv-Krōm finish





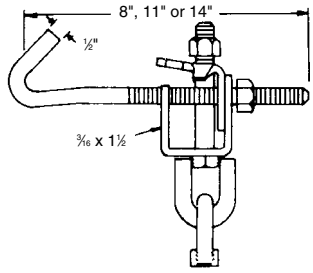
Similar to E-160 with swing connector added.

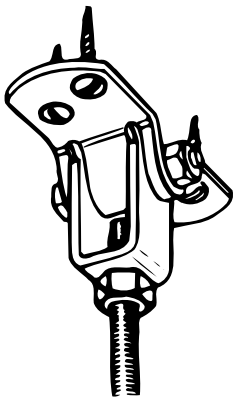
E-165 Adjustable Beam Clamp with Swing Connector

(½" rod)

Cat. No. for ½" Hanger Rods	For Beam Flange width/in.	Wt. lbs./C
E-165-1/2-6	2½ to 6	210
E-165-1/2-9	5½ to 9	227
E-165-1/2-12	8½ to 12	245

Load rating of 1300 lbs. with a safety factor of three.
Assembly requires hanger rod of the proper length and size. 3⁄16" steel, ½" hook rod.
Galv-Krōm finish





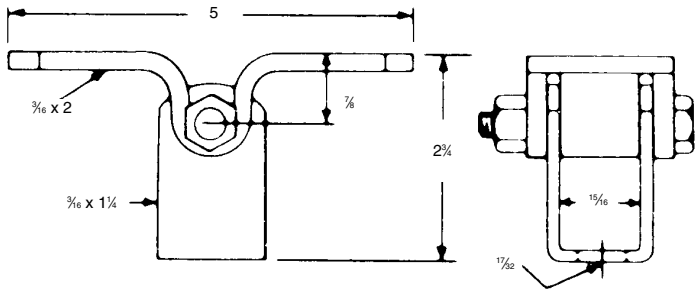
Flange has 13/32" holes for connection to ceiling.

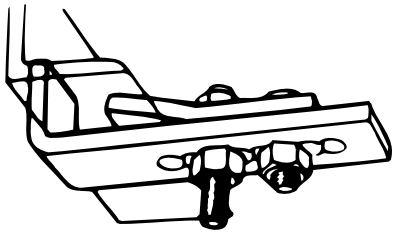
E-170 Adjustable Swinging Hanger Flange

(3/8" or 1/2" rod)

Cat. No.	Wt. lbs./C
E-170	100

Assembly requires 3/8" or 1/2" hanger rod of proper length plus two H-114-C or H-114-D nuts. 3/16" steel. Flange has 13/32" diameter holes for connection to ceiling.
Galv-Krōm finish





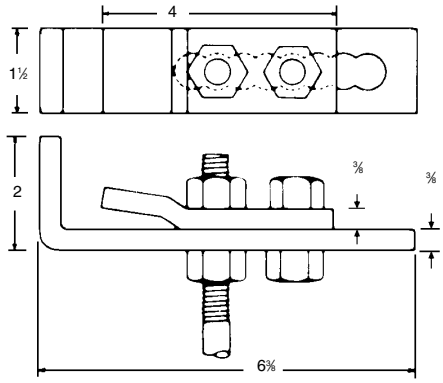
Adjustable to fit all structural channels up to a maximum flange width of 3¼" inches, and all structural angles with leg up to 3 inches long and not more than ⅜ inch thick.

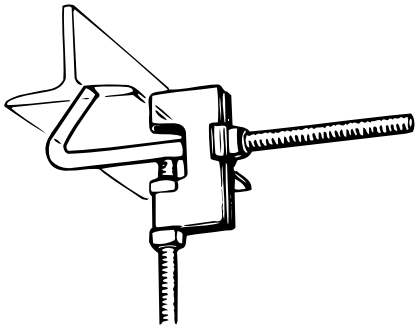
E-177 Adjustable Channel Clamp

(1/2" rod)

Cat. No.	Wt. lbs./C
E-177	183

Load rating is 800 lbs. with a safety factor of three. Assembly requires 1/2" hanger rod of the proper length plus two H-114-D nuts. 3/8" steel.
Galv-Krōm finish





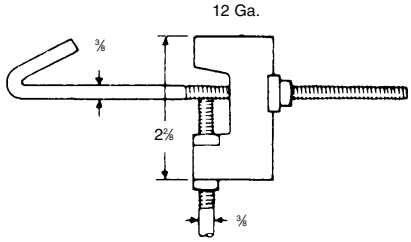
Clamps to I-beams where edge of beam flange does not exceed .8 inch. Hook rod is furnished to fit beam flanges from 2½ through 10 inch widths.

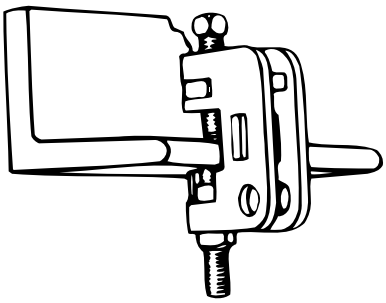
E-230 I-Beam Clamp

(⅜" rod)

Cat. No.	For Beam Flange width/in.	Wt. lbs./C
E-230-6	2½ to 6	60
E-230-10	5½ to 10	72

Load rating 800 lbs. with a safety factor of three. Assembly requires ⅜" hanger rod of the proper length plus two H-116-C square nuts.
Galv-Krōm finish





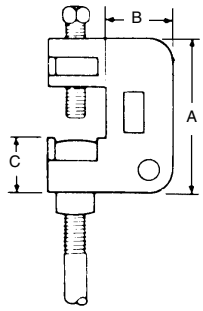
Clamps to I-beams, channels, angles and column. Two sizes are available, one for ⅜ inch and the other for ½ inch hanger rod. Each takes flanges up to .8 inch thickness.

E-231 Structural Steel Clamp

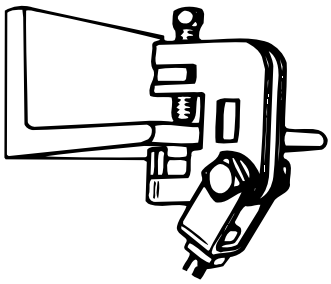
(⅜" or ½" rod)

Cat. No.	Dimensions (in.) A	B	C	Wt. lbs./C
E-231-3/8 *	2½	1	⅞	31
E-231-1/2**	3	1 9/32	15/16	53

Assembly requires two H-116-C (⅜") or two H-116-D (½") square nuts to attach hanger rod. ⅛" steel.
* Load rating of 500 lbs. with a safety factor of three.
** Load rating of 800 lbs. with a safety factor of three.
Galv-Krōm finish



Beam Clamps and Hanger Rod Supports



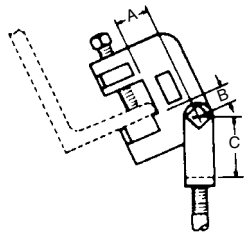
E-231 clamp with swing connector. Affords a convenient method of attaching to angled beams.

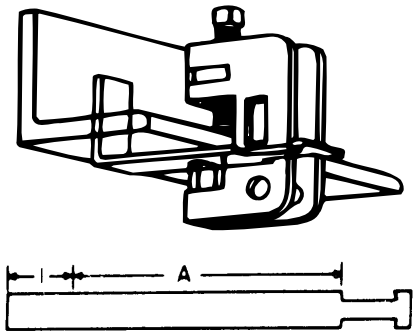
E-232 Clamp with Swing Connector

(⅜" or ½" rod)

Cat. No.	Diameter for Rod	Dimensions (in.) A	B	C	Wt. lbs./C
E-232-3/8*	⅜"	9⁄16	7⁄16	1	48
E-232-1/2**	½"	⅞	29⁄64	1⅝	76

* Load rating of 400 lbs. with a safety factor of three.
** Load rating of 550 lbs. with a safety factor of three.
Galv-Krōm finish





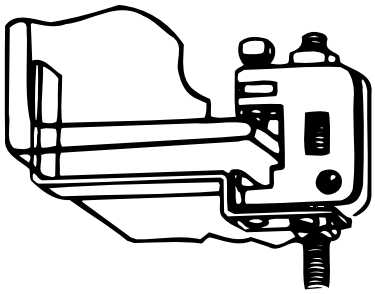
For use with E-231 and E-232 clamps when hanger rod is not in straight through position.

E-233 Anchor Clip

Cat. No.	Rod Size	Max. Beam Width "A"	For use With	Wt. lbs./C
E-233-3/8-6	⅜	6"	E-231-3/8 or	20
E-233-3/8-10	⅜	10"	E-232-3/8	33
E-233-1/2-6	½	6"	E-231-1/2 or	26
E-233-1/2-10	½	10"	E-232-1/2	37

Anchor Clips should be used when clamps are subject to excessive vibration. To obtain the correct size clips add 1 inch to the flange width. If length required is not standard, order next largest standard length.
Galv-Krōm finish

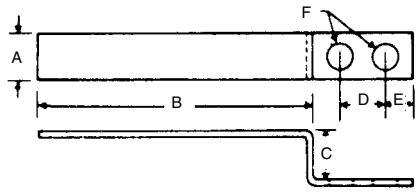
Beam Clamps and Hanger Rod Supports



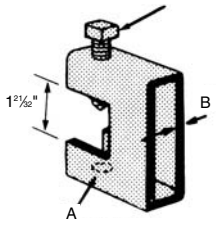
E-234 Anchor Clip

Cat. No.	Rod Size	Max. Beam Width	For Use With	Dimensions (in.) A	B	C	D	E	F	Wt. lbs./C
E-234-3/8-6	3/8	6"	E-231-3/8 or	3/4	6 1/8	7/8	7/8	5/8	7/16	20
E-234-3/8-10	3/8	10"	E-232-3/8	3/4	10 1/8	7/8	7/8	5/8	7/16	33
E-234-1/2-6	1/2	6"	E-231-1/2 or	1	6 1/8	15/16	1	11/16	9/16	32
E-234-1/2-10	1/2	10"	E-232-1/2	1	10 1/8	15/16	1	11/16	9/16	45

Galv-Krōm finish



Set screw C included

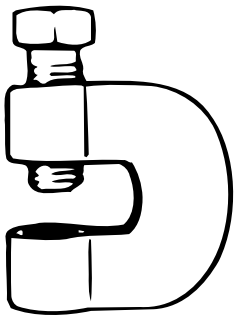


Tapped hole size

E-235 Heavy Duty Beam Clamp

Cat. No.	Dimensions A	B	C	Wt. lbs./C	Design Load lbs.
E-235-3/8-HD	3/8	1/8	3/8 x 2 3/4	109	1300
E-235-1/2-HD	1/2	1/4	1/2 x 2 3/4	201	3150

Finish: Hot-Dipped Galvanized



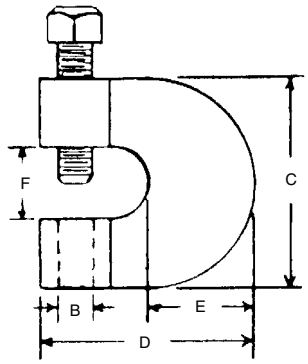
For beam flange thicknesses up to .¾". Hardened cup pointed set screw secures clamp to flange.

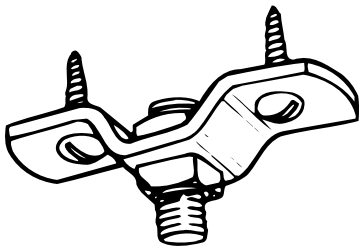
E-237 Beam Clamps

(5/8", ¾" or 7/8" rod)

Cat. No.	Max. Load lbs.*	Steel Size	Dimensions (in.) B	C	D	E	F	Set Screw Size	Approx. Weight per 100
E-237-5/8	900	3/16	5/8	2 1/4	2 5/16	1	3/4	5/8 x 1 1/2	65
E-237-3/4	900	3/16	3/4	2 1/4	2 1/4	1	3/4	3/4 x 1 1/2	68

* Load rating based on safety factor of three.
Standard finish: black.





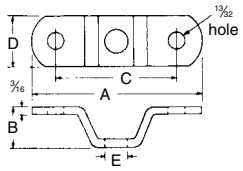
For suspending hanger rods from the ceiling.

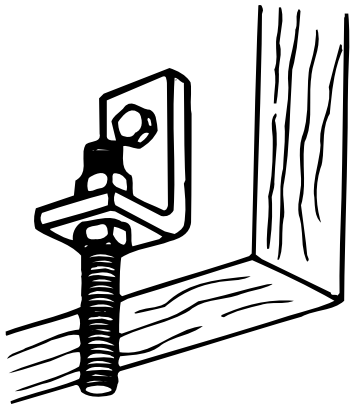
E-243 Ceiling Flange

(⅜" or ½" rod)

Cat. No.	Dimension (in.) A	B	C	D	E	Weight
E-243-3/8	3 7⁄16	5⁄8	2¼	1	⅜ rod	18
E-243-1/2	4¼	1	3⅛	1¼	½ rod	31

Assembly requires two H-116-C (⅜") or two H-116-D (½") square nuts for the hanger rod. Also requires screws or bolts for fastening to the ceiling. 3⁄16" steel. 18#/C.
Galv-Krōm finish





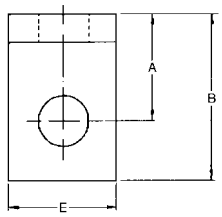
Secures hanger rod to the side of beams and joists.

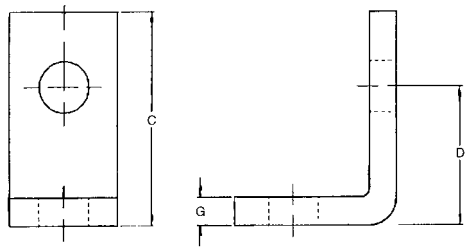
E-244 Side Beam Connector

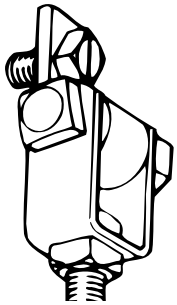
(⅜", ⅝" rod)

Cat. No. and Rod Size	Hole Size	Max. Recom. Load (lbs.) Lag Screw	Bolt to Steel	Wt. lbs./C	Dimension (in.) A	B	C	D	E	G
E-244-3/8	7⁄16"	390	580	20	1"	1 9⁄16"	1 7⁄8"	1 3⁄8"	1"	¼"
E-244-5/8	11⁄16"	760	1,500	70	1 7⁄16"	2¼"	2 5⁄8"	1 7⁄8"	1½"	⅜"

For ½" rod use B-915 or B-916 connectors.
Assembly requires hanger rod of proper size and two hex nuts, plus screw or bolt for fastening to beam or joist. Cat. No. E-244-3⁄8 has Galv-Krōm finish. Larger sizes: Black.







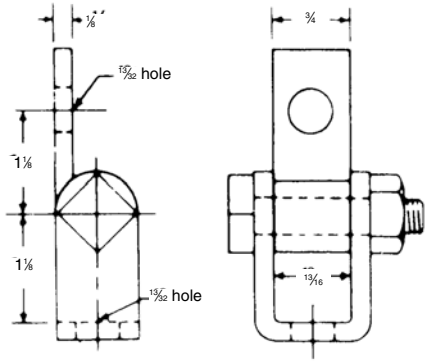
Used to secure a ⅜-inch hanger rod to the side or bottom of beam or ceiling.

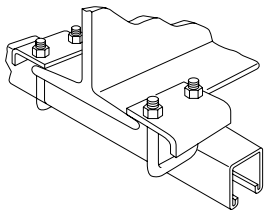
E-245 Swing Connector

(⅜" rod)

Cat. No.	Wt. lbs./C
E-245	28

Assembly requires two H-116-C (⅜") square nuts. Also screw or bolt for fastening to beam or ceiling. ⅛" steel.
Load rating of 700 lbs. with a safety factor of three.
Galv-Krōm finish



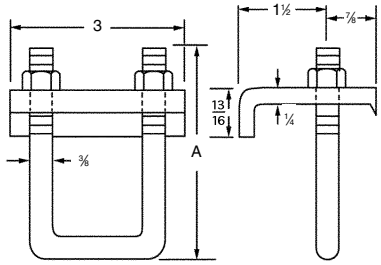


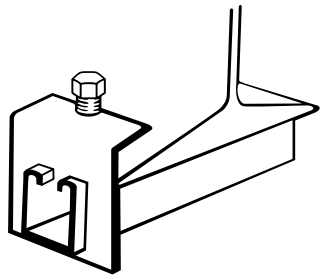
Hardened points bite into beam flange. Fits all I-beams where edge of beam flange does not exceed .8 inch thickness.

E-760 Channel to Beam Clamp

Cat. No.	For Structor Channel	Dimension A (in.)	Wt. lbs./C
E-760-2*	B-900, B-905, B-906, B-907	3¼	76
E-760-2SS	Stainless Steel		
E-760-3	B-901, B-900-2A, B-902, B-903	4¾	88

* Load rating of 2,200 lbs. with a safety factor of three.
¼" steel, ⅜-inch U-bolt.
Standard finish: Galv-Krōm

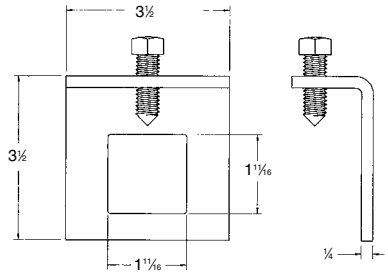


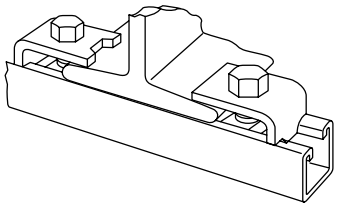


E-761 Channel to Beam Clamp

Cat. No.	Design Load lbs./ea.	Channel Series	Wt. lbs./C
E-761	800	B-900, B-905, B-995	108

½" x 1½" set screw included
Galv-Krōm finish



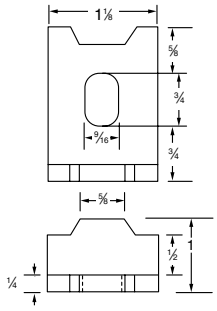


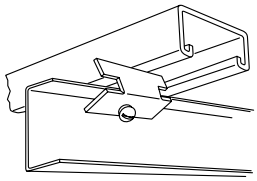
Secures all sizes of Kindorf channel to beams where flange edge does not exceed .8" thickness.

E-763 Channel to Beam Clamp

Cat. No.	Design Load	Wt. lbs./C
E-763	500 lbs.	25

Load rating each clamp 800 lbs. with a safety factor of 3. ¼" steel. Assembly requires one H-113-E bolt and one B-910-1⁄2 steel nut per clamp – order separately.
Galv-Krōm finish



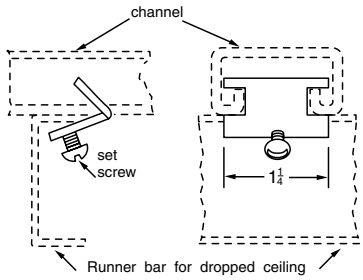


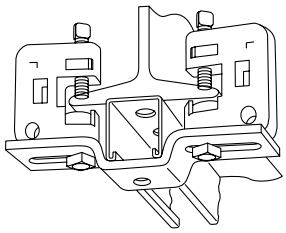
Complete with set screw. For clipping a length of channel slot-side down and across the runner bars of a dropped ceiling installation.

E-764 Channel Clip

Cat. No.	Wt. lbs./C
E-764	4

At least two required per each such application.
Galv-Krōm finish



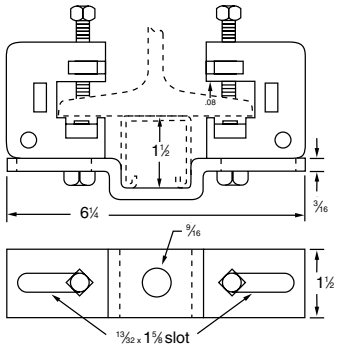


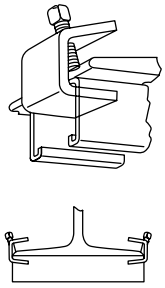
Clamps 1½" x 1½" Kindorf channel to beams where beam flange does not exceed ¾" thickness and 4" to 6¾" wide.

E-765 Center Beam Clamp

Cat. No.	Load Rating	Wt. lbs./C
E-765	800 lbs.	112

Load rating is 800 lbs. with a safety factor of 3. Furnished assembled. ⅛" steel clamps, 3⁄16" steel strap.
Galv-Krōm finish



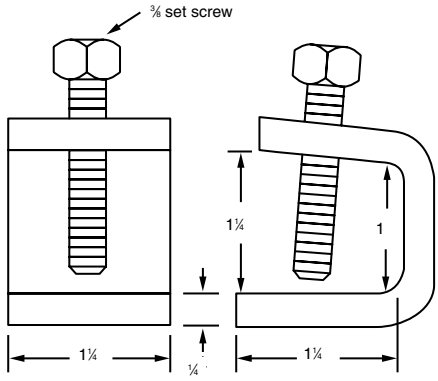


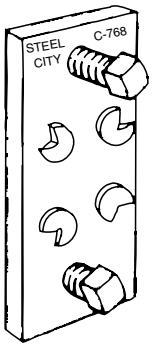
Supports any size Kindorf channel. Clamps to I-beam where flange edge does not exceed .8" thickness.

E-767 Channel Support

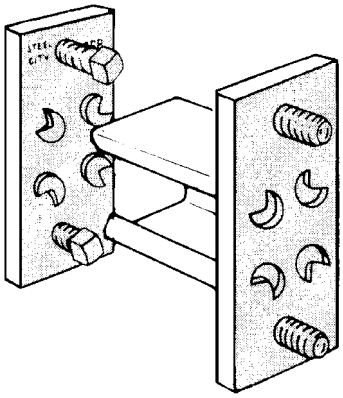
Cat. No.	Load Rating	Wt. lbs./C
E-767	800 lbs.	44

Load rating is 800 lbs. with a safety factor of 3. ¼" steel.
Galv-Krōm finish





For use with 1½" x 1½" channel. Provides a rigid support between 'H' beam flanges for mounting pipe, conduit, outlet boxes, panel boards.



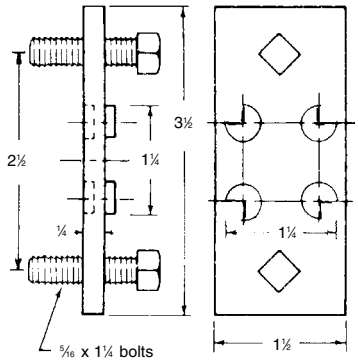
Use 1½" x 1½" size Kindorf Channel.

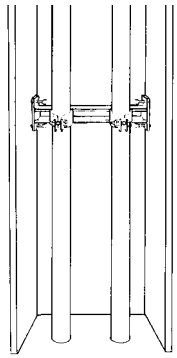
E-768 Column Mount Support

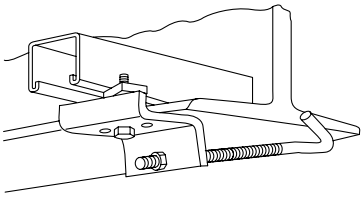
Cat. No.	Load Rating	Wt. lbs./C
E-768	800 lbs.	50

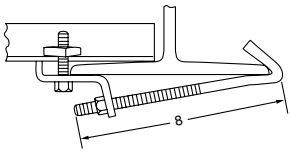
Two E-768's required for installation. Use C-105, C-106 or C-107 straps for mounting ½" to 8" pipe on channel section. Load rating of 800# – safety factor of three.

Galv-Krōm finish







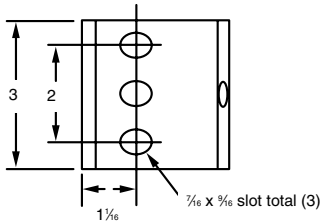


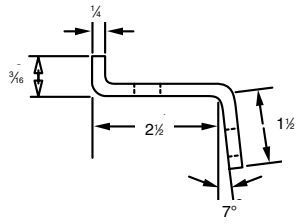
For use in attaching channel on top of beam flange with slot side down. Members are shipped assembled for easy installation.

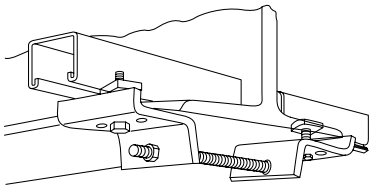
E-781 Single Beam Clamp

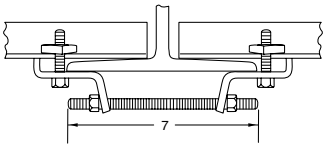
Cat. No.	Wt. lbs./C
E-781	133

Galv-Krōm finish







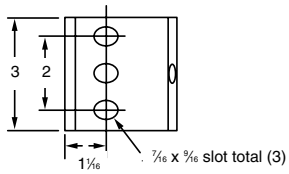


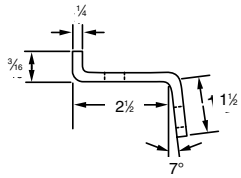
For use in attaching channel on both sides of a beam flange with slot side down. Members are shipped assembled for easy installation.

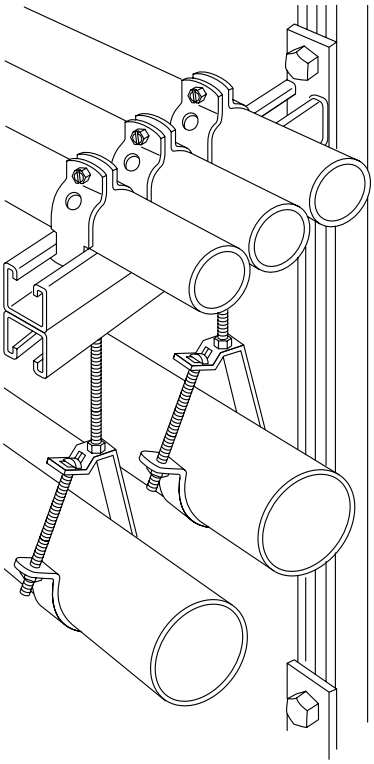
E-782 Double Beam Clamp

Cat. No.	Wt. lbs./C
E-782	235

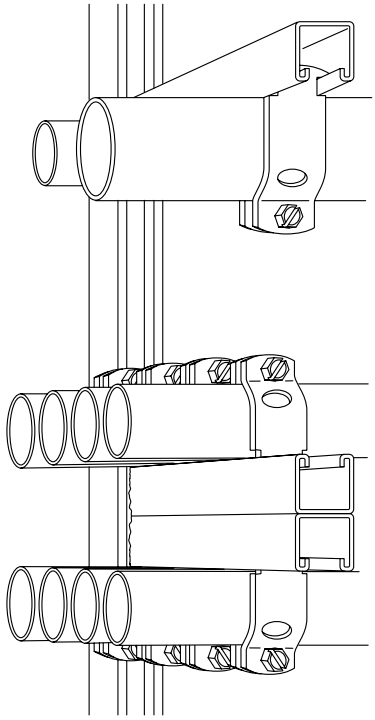
Galv-Krōm finish







F-721 Wall bracket hangs and supports pipe runs.



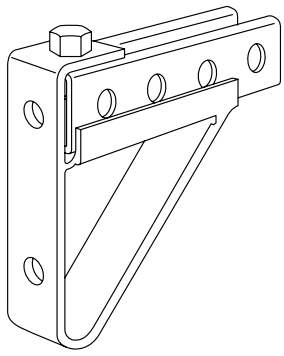
Conduit installations supported above and below by F-721 wall bracket.

Kindorf Wall brackets provide a ready-made shelving arrangement that can be attached quickly to the supporting channels.

Utilizing the built-in advantages of the Kindorf Channel, the support bracket members allow a great deal of flexibility in meeting the structural framing needs.

Axle supports and a variety of wall brackets all adapt to the standard Kindorf channel and allow additional flexibility in the support of cables, conduit, pipe and other equipment.

The application of axle supports and bracket members can be made on either the continuous slot of the channel or the prepunched hole side. Utilizing the 1½" hole spacing, greater adaptability is attained with a minimum of fittings.

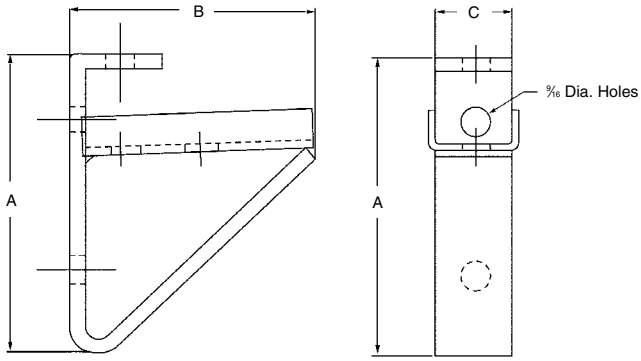


Mounts on Kindorf channel or directly to wall. F-715 bracket supports 1½" or 1⅝" channels. Brackets allow for a variety of support channel lengths. The continuous tray on brackets prevent lateral movement of supported channels. Support channels can be fastened from top, bottom or both.

F-715 Wall Bracket

Cat. No.	Dimensions (in.) A	B	C	Wt. lbs./C.
F-715	5 27/32	4 5/8	1½	163

Galv-Krōm finish



F-716-3 Wall Bracket

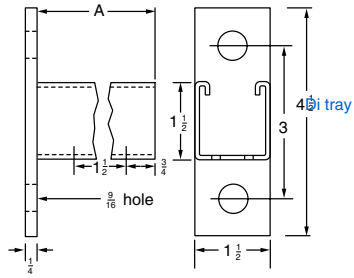
Cat. No.	Dimensions (in.) A	B	C	Wt. lbs./C.
F-716-3	7 1⁄32	4 5⁄8	1 1⁄2	179

Galv-Krōm finish

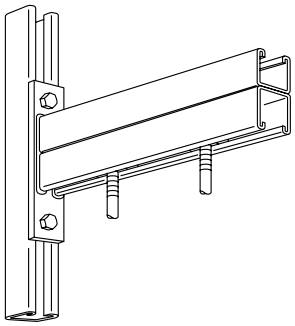
20 Wall Bracket

..	Dim. A (in.)	End Load Rating lbs.*	Wt. lbs./C
20-6**	6	600	132
20-9**	9	450	155
720-12**	12	300	200
-720-18	18	200	275
F-720-24**	24	150	350

* Safety factor of 3.
** This product available in green & hot-dipped galvanized.
Standard finish: Galv-Krōm



Support Brackets

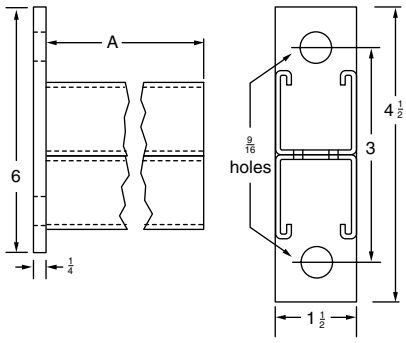


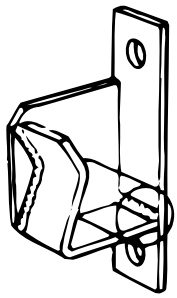
F-721 Wall Bracket

Cat. No.	Dim. A (in.)	End Load Rating lbs.*	Wt. lbs./C.
F-721-18	18	300	568
F-721-24	24	225	736
F-721-30	30	180	904
F-721-36	36	150	1072

* Safety factor of 3.
Standard finish: Galv-Krōm

Double channel to provide continuous-slot for both top and bottom mounting. 12 ga. steel, ¼ inch back plate. May be attached to either the continuous slot side or prepunched holes in back or side of Kindorf channel.





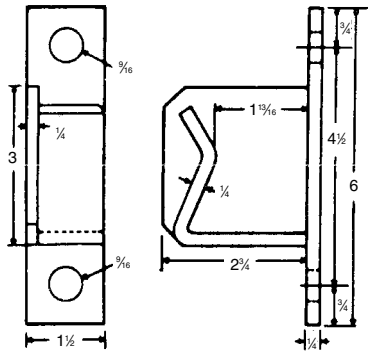
F-735 and F-736 Axle Supports

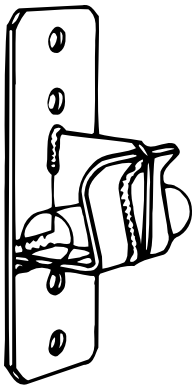
Cat No.	Description	Wt. lbs./C
F-735	Left hand	165
F-736	Right hand	165

Assembly requires two B-910-1/2 steel nuts and two H-113-B bolts. Accepts up to 1¼" steel bar or pipe for axle.
Galv-Krōm finish

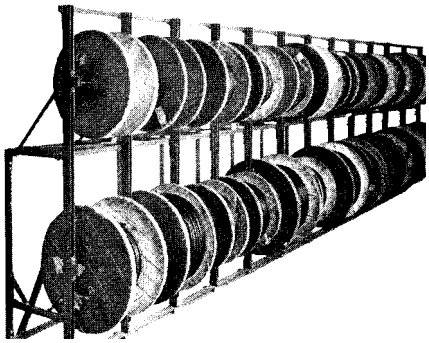
For use on storage racks constructed on Kindorf channel. Supports reels of electrical cables, wire rope, chain and other materials. Left hand axle support illustrated. F-736 identical except right hand.

May be attached to either the continuous slot side or prepunched holes in back or side of Kindorf channel.



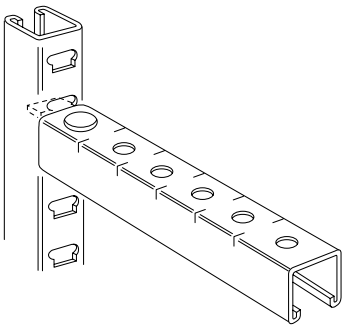


To be used as center support for tandem reel assembly.



Typical Kindorf Space-Saver reel rack. Kindorf reel racks are easy to build, exceptionally strong and economical. Racks adjust easily to accommodate a variety of reel sizes.

No special tools needed.

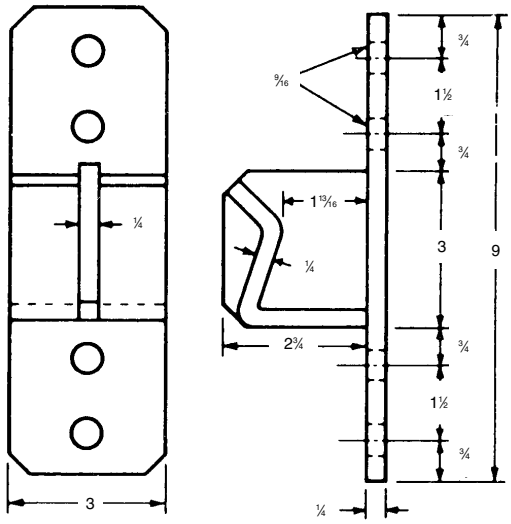


Cantilever type cable hooks fit into 'T' slot on B-904 channel for rigid, non-slip support. Fast mounting, no hardware to tighten.

F-737 Double Axle Support

Cat. No.	Wt. lbs./C
F-737	335

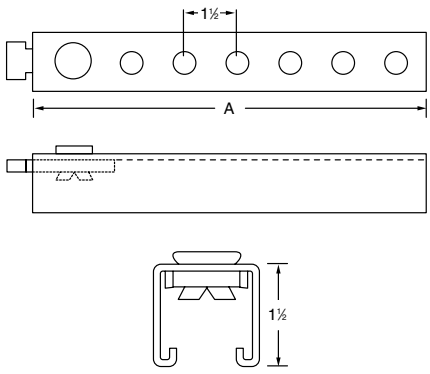
Assembly requires four B-910-1⁄2 steel nuts and four H-113-B bolts. To be used with F-735 and F-736. ¼" steel. Galv-Krōm finish

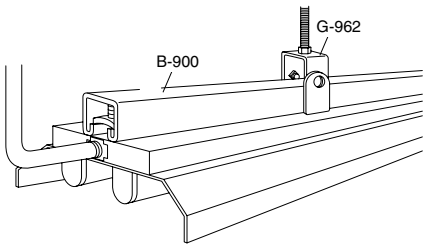


F-739 Telephone Cable Hook

Cat. No.	Dimension A (in.)	Wt. lbs./C
F-739-4-1/2	4½	81
F-739-7-1/2	7½	122
F-739-10-1/2	10½	162
F-739-13-1/2	13½	198
F-739-18	18	278

Has 9⁄16" diameter holes on 1½" centers to allow for easy tie banding of cables. Galv-Krōm 12 ga. steel.





Channel raceway system supports and feeds fluorescent lighting fixtures.

Surface Raceway and Lighting Support Systems

The Kindorf Lighting Support System consists of high quality construction materials that afford definite installation advantages to those most concerned with lighting installations. When used as a Surface Metal Raceway it is U.L. Listed and complies with National Electrical Code Article 352.

To The Owner

A flexible installation requiring fewer attachments to the building structure with built-in provisions for easy maintenance and future modifications when lighting fixtures must be added, deleted or relocated. Kindorf channel and fittings form a strong, economical and attractive support and wiring system for fixtures and other equipment.

To The Architect and Engineer

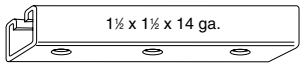
A system of construction least demanding on general design conditions and readily adaptable to all spacing of pillars, purlins and other structural components. Supply will not delay a job because Kindorf is stocked at many locations throughout the country. The Kindorf System saves planning time because it is designed for fast and easy installation by the contractor with little or no detailing.

To the Contractor

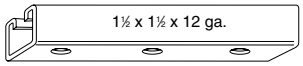
The Kindorf System consists of time saving materials that will simultaneously provide for the electrical feed and the mechanical support of lighting and other equipment. Kindorf affords a means of making fewer attachments to the structure at wider spacing. It insures true and rigid alignment and lends itself to systematic preassembly methods which economize on labor. No special tools for installation and no painting is required. Kindorf speeds all jobs because a complete line of fittings assures easy solution of many installation problems as they arise in the field.

Surface Raceway Channel Systems

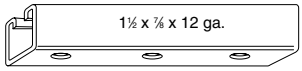
Knock-out type
by means of ½" channel knockouts
on 6" centers



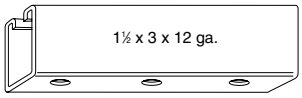
G-975-M



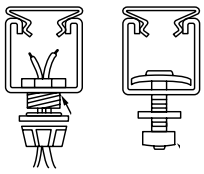
G-975



G-965

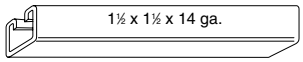


G-955

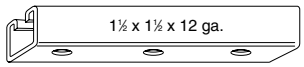


G-972-1/2 **G-974-1-1/4**
Nipple
Lock nut and
bushing

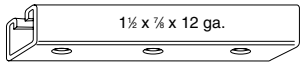
Plug-in type
by means of sliding fixture hanger



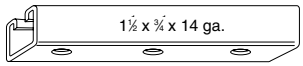
B-900-M



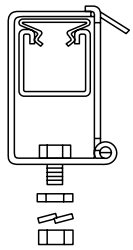
B-900



B-901



B-906



G-1012
Hanger with H-115-A bolt and
square nut plus
G-1016 and H-118-C washers

Electrical Conductors "Lay-In" the Channel

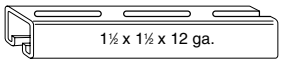
Kindorf Surface Raceway channels provide a central wiring distribution system with conductor capacity that exceeds requirements of any lighting layout and with 'power to spare' for other uses. Channel adapts to any interval of structural support – may be dropped to any level where it becomes a rigid platform for fixture attachment. Lighting fixtures may be spaced and fastened anywhere along the channel system with "plug-in" or direct feed electrical connection.

Branch lighting circuit conductors are completely enclosed in channel from panel to fixture eliminating the ordinary "clutter" of external conductors and protecting the wires from physical damage.

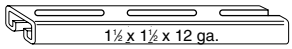
Listed by Underwriters' Laboratories, Inc.

Channel Support Lighting Systems

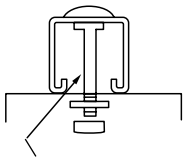
Shoulder bolt type
by means of special shoulder bolt
13/32" x 3" slots on 4" centers



G-953

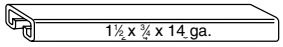


G-956

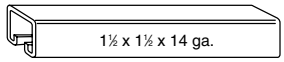


G-973-2-1/4

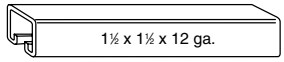
Spring-nut type
by means of spring-nut and bolt combination



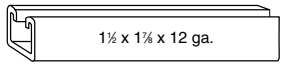
B-906



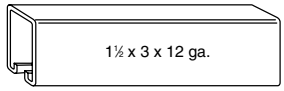
B-900-M



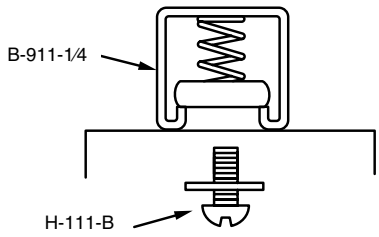
B-900



B-901



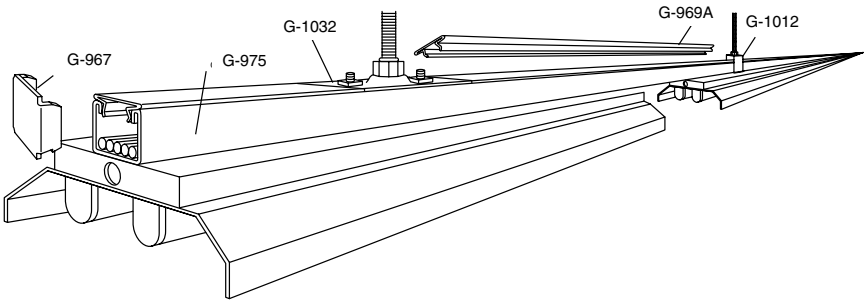
B-902

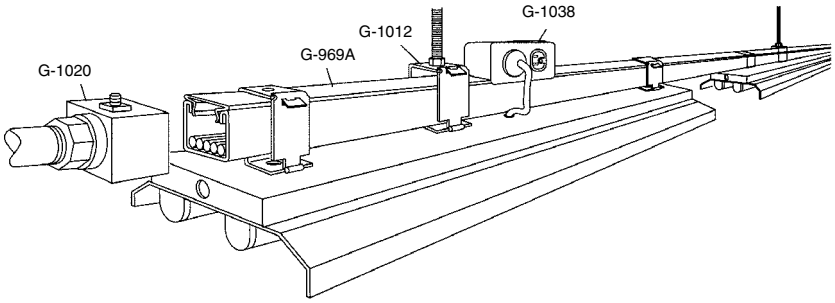


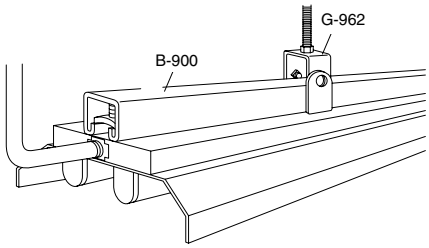
Kindorf channels, installed slot-side down, are designed to provide fixture support only. A range of accessory fittings permit fixture attachment to the channel safely and securely in an approved manner. Channels with solid base or with slots are generally used for simple channel support systems.

Channel support systems combine economy of investment with maximum strength and rigidity. The continuous-slot channel provides complete flexibility of lighting layout with fixture spacing continuous or intermittent. Fixtures may be added or relocated to meet changing requirements without disturbing the basic support system. The rigid channels maintain fixture alignment, adapt to any interval of structural support.

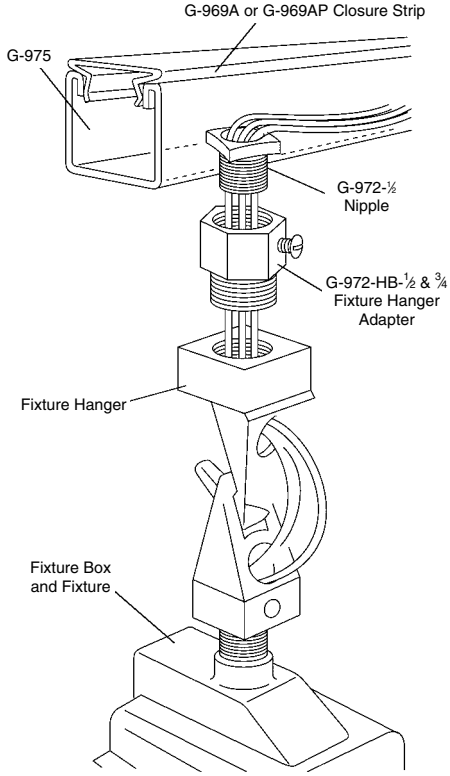
Other mechanical details





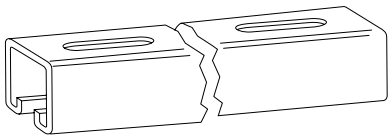


For mounting or suspending high intensity lighting fixtures in high bay installations.



Maximum Number of Wires in Raceway

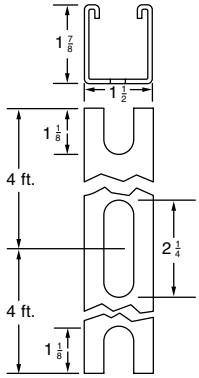
See page K138 and K139 for maximum number of wires in raceway.

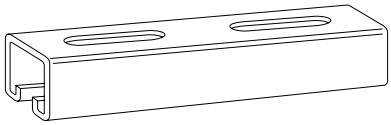


G-950 Fixture Hanging Channel

Cat. No.	Description	Joiner
G-950	1½" x 1⅞" x 12 ga.	G-978C

1⅛" x 2¼" slots on 4 foot centers
20 ft. lengths only 194#/C ft.
Standard finish: Galv-Krōm

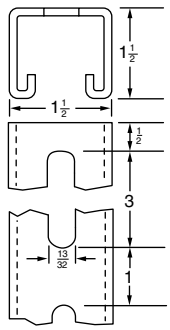


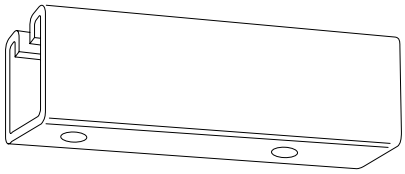


G-953 Fixture Hanging Channel

Cat. No.	Description	Joiner
G-953	1½" x 1½" x 12 ga.	G-958

Fixtures attached to channel of G-973-2-1⁄4 shoulder bolts. 154#/C ft.
13⁄32" x 3" slots on 4" centers
Standard finish: Galv-Krōm



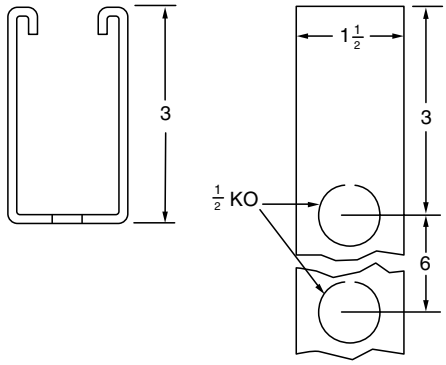


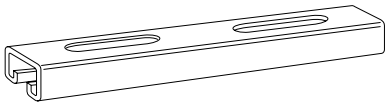
To be used in place of G-975 channel when heavy fixtures are used or supports are on wider spacing.

G-955 Fixture Hanging Channel

Cat. No.	Description	Joiner	End Cap
G-955	1½" x 3" x 12 ga.	G-978-D	G-957 G-959

270#/C ft. UL Listed for raceway.
½" KO's on 6" centers
Standard finish: Galv-Krōm



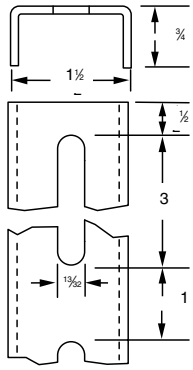


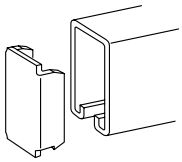
Similar to G-953 channel except it is lighter gauge and only ¾" deep.

G-956 Fixture Hanging Channel

Cat. No.	Description	Joiner
G-956	1½" x ¾" x 14 ga.	G-960

Fixtures attached to channel by means of G-973-1-1/2 shoulder bolts or G-973-2-1⁄4 fixture bolts. 80#/C ft.
13⁄32" x 3" slots on 4" centers
Standard finish: Galv-Krōm



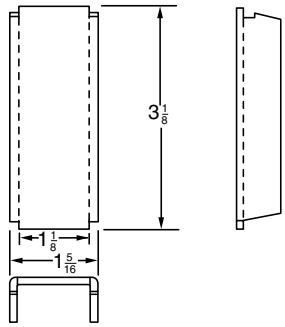


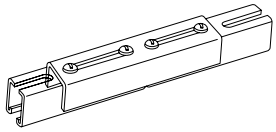
Blank end cap for use with G-955 and B-902 channel.

G-957 End Cap

Cat. No.	Wt. lbs./C
G-957	14

14 ga. steel.
U.L. Listed for raceway.
Galv-Krōm finish





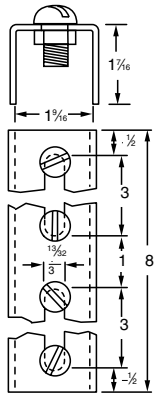
For 1½" deep slotted channel G-953.

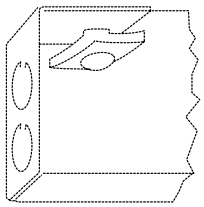
G-958 Channel Joiner

Cat. No.	Wt. lbs./C
G-958	92

Four ⅜" x ¾" bolts and nuts are furnished with the joiner. 14 ga. steel.
Galv-Krōm finish

Bolts and Nuts





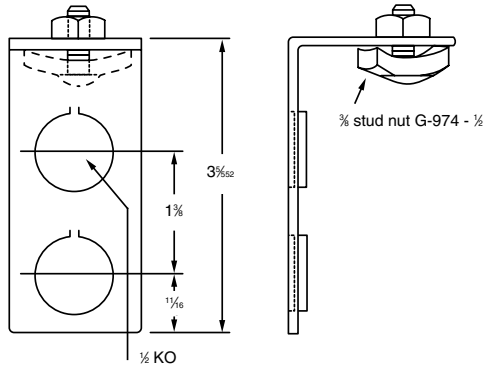
For use with G-955 and B-902 channel.

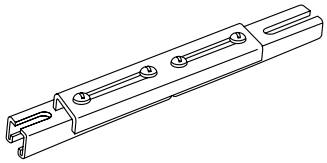
G-959 End Cap

With Two ½ inch Knockouts

Cat. No.	Wt. lbs./C
G-959	31

12 ga. steel.
U.L. Listed for raceway.
Galv-Krōm finish





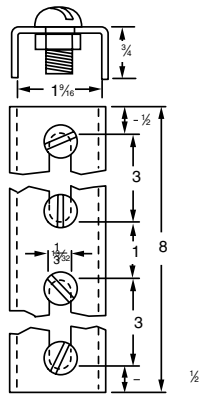
For ¾" deep slotted channel G-956.

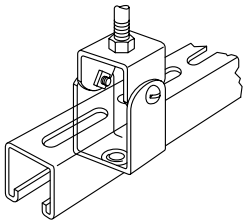
G-960 Channel Joiner

Cat. No.	Wt. lbs./C
G-960	70

Four ⅜" x ¾" bolts and nuts are furnished with the joiner. 14 ga. steel.
Galv-Krōm finish

Bolts and Nuts





G-962 fits around 1½" or 1⅞" deep channel. G-962-D series hangers for 3" deep channel.

G-962 and G-962-D Channel Hangers

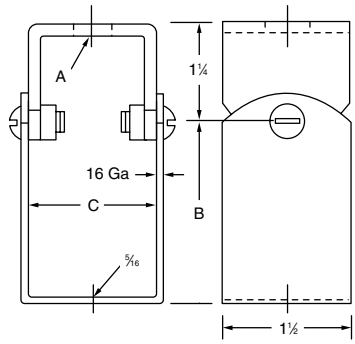
Cat. No.	Wt. lbs./C	Cat. No.	Wt. lbs./C	Hanger Size (in.)	Dim. A (in.)
G-962-1	40	**G-962-D-1**	47	¼ and ⅜ rod	13/32
G-962-2	42	**G-962-D-2**	47	½ rod and ¼ pipe	9/16
G-962-3	39	**G-962-D-3**	47	⅜ pipe and ⅝ rod	11/16
G-962-4*	47	**G-962-D-4****	47	½ pipe	⅞

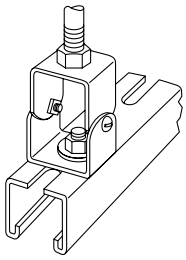
* Load rating of 600 lbs. with a safety factor of three.

** Load rating of 700 lbs. with a safety factor of three.

"B" dimension for G-962:2 1/2"; for G-962-D:4". U.L. Listed for raceway. 'C' dimension for G-962, 1 3/64", for G-962-D, 3 3/64".

Galv-Krōm finish





For use with G-953 or G-956 channel. Does not interfere with fluorescent fixtures.

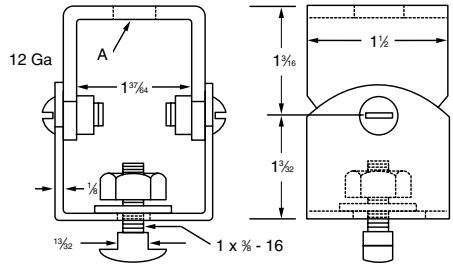
G-963 Channel Hanger

Cat. No.	Hanger Size (in.)	Dim. A (in.)
G-963-1	¼ and ⅜ rod	13/32
G-963-2	½ rod and ¼ pipe	9/16

Load rating of 900 lbs. with a safety factor of three.

48#/C.

Galv-Krōm finish



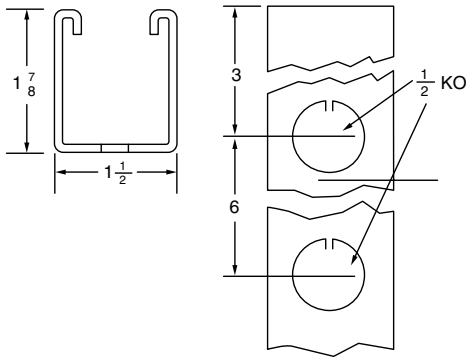
Provides a combination fixture support and surface raceway.

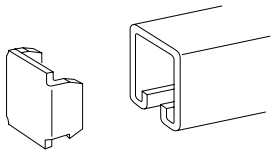
G-965 Fixture Hanging Channel

1½" x 1⅞"

Cat. No.	Description	Joiner	End Cap
G-965	12 ga., 190#/C ft.	G-978-C	6959

U.L. Listed for raceway.
½" knockouts on 6" centers
Standard finish: Galv-Krōm



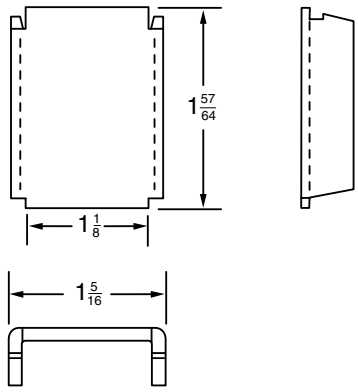


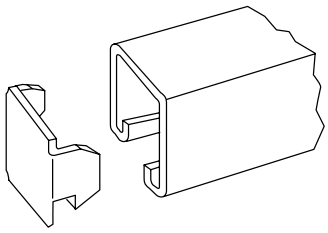
For 1⅛" deep channel.

G-966 Blank End Cap

Cat. No.	Wt. lbs./C
G-966	8

U.L. Listed for raceway.
Galv-Krōm finish



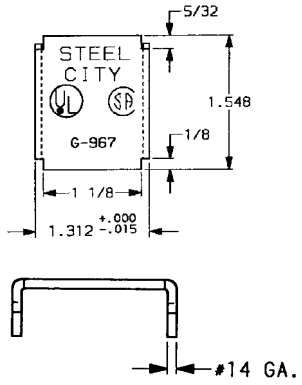


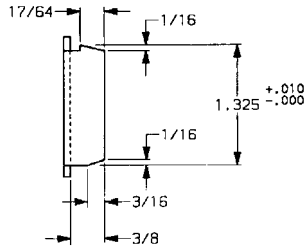
For use with 1½" deep channel.

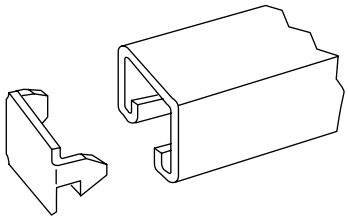
G-967 Blank End Cap

Cat. No.	Wt. lbs./C
G-967	6

U.L. Listed for raceway.
Galv-Krōm finish





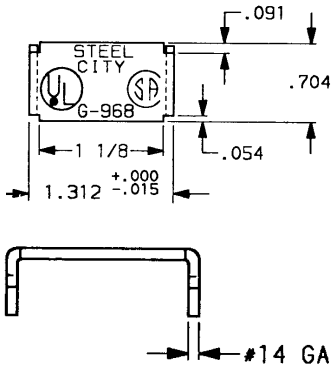


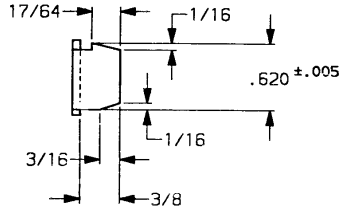
For ¾" deep channel.

G-968 Blank End Cap

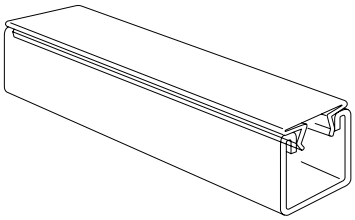
Cat. No.	Wt. lbs./C
G-968	3

U.L. Listed for raceway.
Galv-Krōm finish





K
Kindorf®

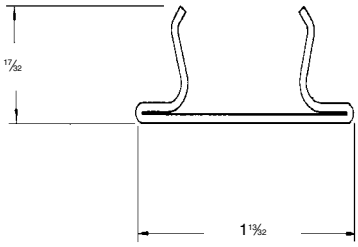


For use with all channel series to complete enclosure.

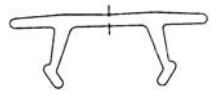
G-969A Closure Strip for New Style Kindorf Channel

Cat. No.	Description
G-969A	Steel Closure Strip – Galv-Krōm finish
G-969AP	Plastic Closure Strip – Gold

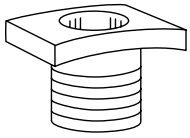
19 ga. steel. 35#/C. U.L. Listed for raceway.



G-969A



G-969AP

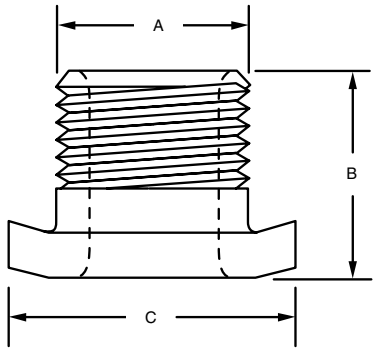


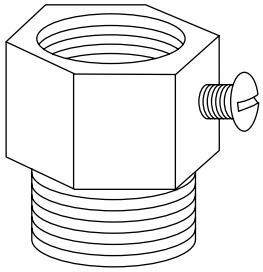
The ½" size can nipple fixtures through channel knockouts. All sizes can be fastened to the open slot of all Kindorf channels. Locknut supplied with nipple.

G-972 Nipple Malleable Iron

Cat. No.	A	B	C	Wt. in lbs./C
G-972-1/2	½" Pipe Size	⅞"	1¼"	7
G-972-3/4	¾" Pipe Size	⅞"	1¼"	11
G-972-L-1/2	½" Pipe Size	2"	1¼"	9

The extra length of the G-972-L-1/2 permits its use as a spacing nipple when locked into knockout or continuous slot.
Load rating 750#, with a safety factor of 3.
Galv-Krōm finish





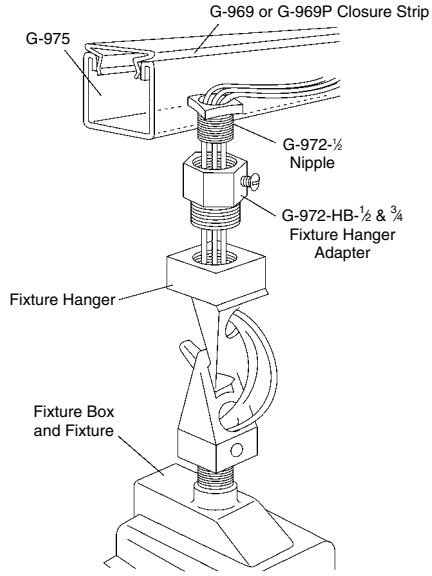
G-972-HB-1/2 Steel Fixture Hanger Adapter

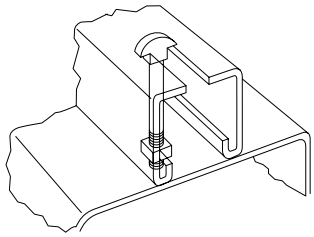
Cat. No.		Wt. lbs./C
G-972-HB-1/2	Galv-Krōm finish	17

The Fixture Hanger Adapter extends the flexibility of the Kindorf System by easily adapting the ¾" hanger size of high intensity fixtures to channel mounting.

The hanger adapter securely mounts the fixture hanger or box to the channel through the ½" KO in the base. No special tools are needed for installation of fittings and fixtures.

Kindorf channels, with ½" KO's every 6", hangs and feeds the fixtures – thus simplifying installation.



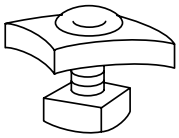


G-973 Shoulder Type Fixture Bolt and Nut

Cat. No.	Used with Channel	Size	Wt. lbs./C
G-973-1-1/2	G-956	⅜ x 1½	7
G-973-2-1/4	G-953	⅜ x 2¼	10

Galv-Krōm finish

For use in fastening fixtures to slotted channels. Permits the preassembly of hardware to the fixture. The head of the G-973 is simply inserted into the channel slot and twisted 90° to seat. The fixture is secured tightly when the nut is run home.

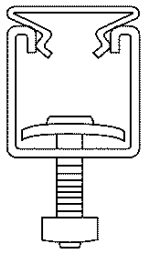


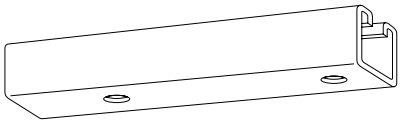
Will fasten fluorescent fixtures to G-975 thru knockouts or to the open slot of all Kindorf channels when installed slot down.

G-974 Fastener

Cat. No.	Size	Wt. lbs./C
G-974-1/2	¼ x ½	8
G-974-3/4	¼ x ¾	8½
G-974-1	¼ x 1	9
G-974-1-1/4	¼ x 1¼	10
G-974-1-1/2	¼ x 1½	11

Galv-Krōm finish





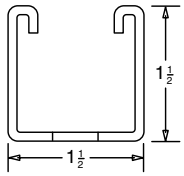
Designed to provide a combination fixture support and surface raceway. Fixture attaches to KO's by G-972-½ nipple for wiring, or a G-974 stud nut where wiring is not required.

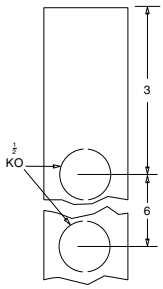
G-975 Fixture Hanging Channel

1½" x 1½"

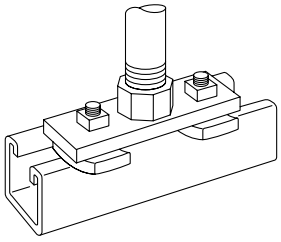
Cat. No.	Description	Joiner	End Cap
G-975	12 ga.	G978A	G967
G-975-M	14 ga.	G1503-S	G979

G-975: 160#/C ft. G-975-M: 107#/C ft. U.L. Listed for raceway.
½" knockout's on 6" centers
Standard finish: Galv-Krōm





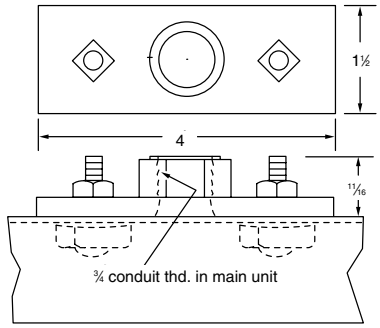
G-976 Connector



Accepts either ½" or ¾" conduit to feed control channel when used as a combination raceway and lighting fixture support. Includes two stud nuts. Malleable iron.

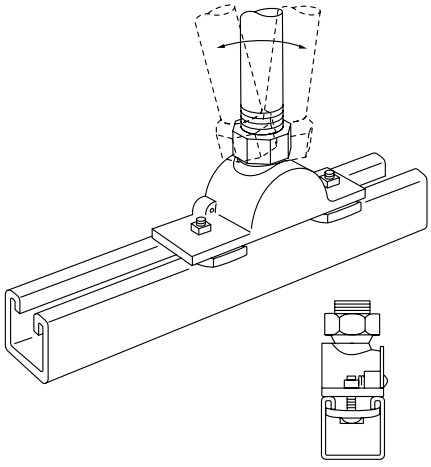
Cat. No.		Wt. lbs./C
G-976	Galv-Krōm finish	54

Load rating 1000# with a safety factor of 3. U.L. Listed for raceway.



G-977 Swing Connector

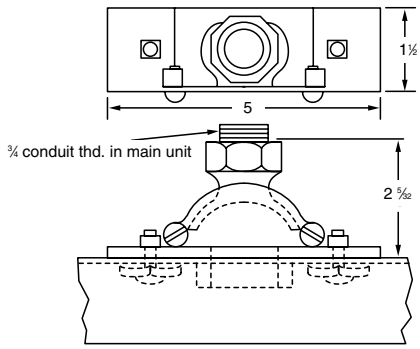
Channel feed hanger

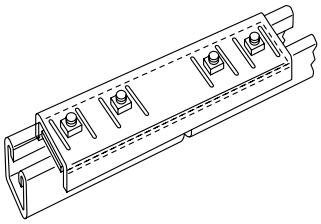


Provides a 15° swing in either direction to the channel run. Accepts ½" or ¾" conduit, or may be adapted for use with ⅜" fixture stem when specified.

Cat. No.		Wt. lbs./C
G-977	Galv-Krōm finish	130

Includes two stud nuts. Malleable iron.
U.L. Listed for raceway. Load rating of 1300 lbs. with a safety factor of three.



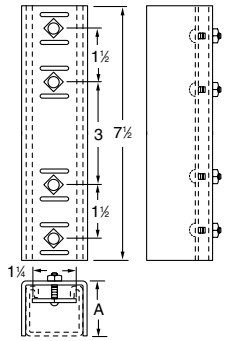


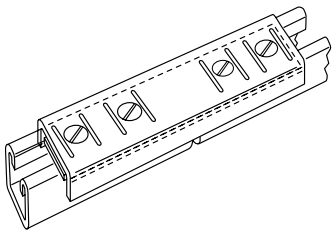
To splice lengths of raceway channel. Installed by tightening nuts on ¼" studs which are permanently attached to a smooth inner plate.

G-978 Joiners

Cat. No.	Type of Channel Applicable	Dim. A (in.)	Wt. lbs./C
G-978	Use with G-975, G-975-M and B-900, B-900-M	1½	107
G-978-L	Use with B-906	¾	87
G-978-D	Use with G-955 and B-902	3	137
G-978-C	Use with B-901, G-950 and G-965	1⅞	122

Nuts included. 14 ga. steel.
U.L. Listed for raceway.
Galv-Krōm finish



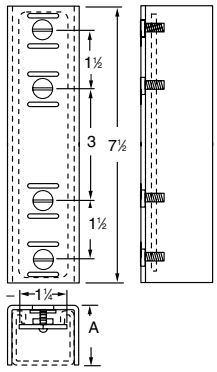


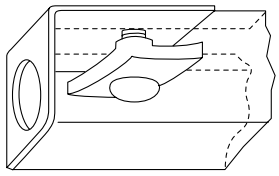
For installations where fixtures are mounted flush to slot-down channels. Fastening is accomplished by tightening flat head machine screws.

G-978-A Joiners

Cat. No.	Type of Channel Applicable	Dim. A (in.)	Wt. lbs./C
G-978-A	Use with G-975, G-975-M and B-900, B-900-M	1½	103
G-978-AL	Use with B-906	¾	83

14 ga. steel.
Galv-Krōm finish



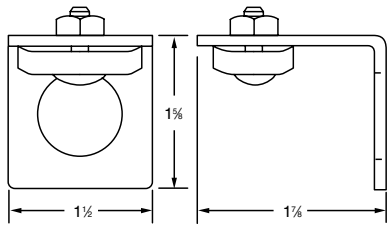


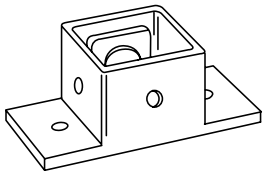
Use with G-975 or B-900 channel to provide conduit entrance.

G-979 End Cap

Cat. No.	Description	Wt. lbs./C
G-979-1/2	For ⅞" hole, ½" conduit	25
G-979-3/4	For 1 3⁄32" hole, ¾" conduit	25

Furnished with stud nut. 12 ga. steel. U.L. Listed for raceway.
Galv-Krōm finish



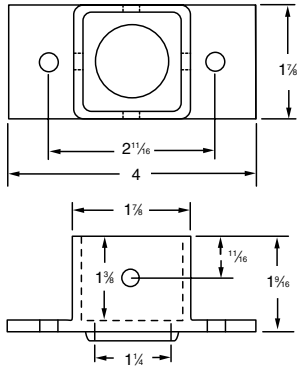


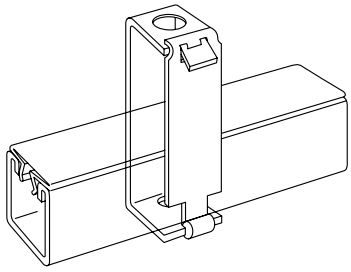
Mounts 1½" x 1½" raceway channel to panel board.

G-1007 Panel Adapter

Cat. No.	Wt. lbs./C
G-1007	36

Complete with stud nuts.
U.L. Listed for raceway.
Galv-Krōm finish



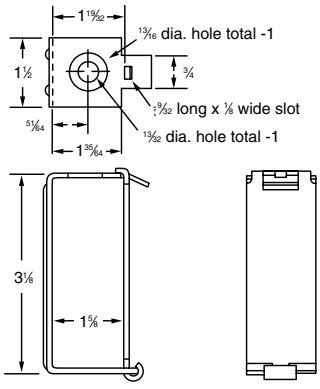


Hinged channel hanger for raceway channel.

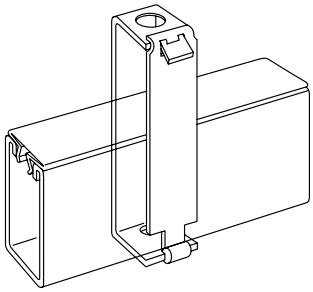
G-1012 "Lay-In" Channel Hanger

Cat. No.		Wt. lbs./C
G-1012	Galv-Krōm finish	33

14 ga. steel. U.L. Listed for raceway. Load rating of 500 lbs. with a safety factor of three.



Thomas&Betts

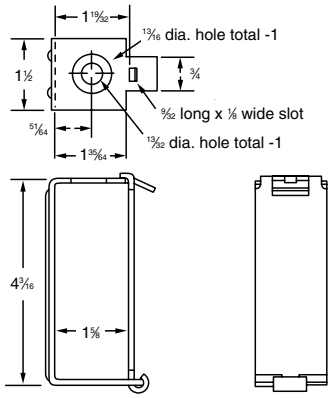


Hinged channel hanger for 3" deep raceway channel.

G-1012-D "Lay-In" Channel Hanger

Cat. No.		Wt. lbs./C
G-1012-D	Galv-Krōm finish	40

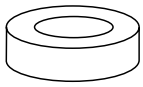
14 ga. steel. U.L. Listed for raceway. Load rating of 450 lbs. with a safety factor of three.



Two required for each G-1012 channel hanger to provide swivel action.

G-1013 Hex Swivel Nuts

Cat. No.	Description	Wt. lbs./C
G-1013-3/8	For 3/8" hanger rod	7
G-1013-1/2	For 1/2" hanger rod	7

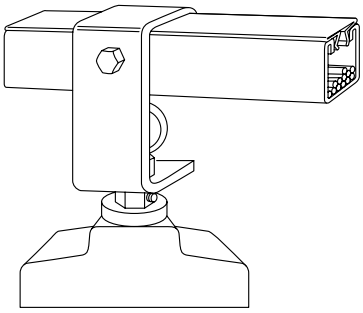


Use with G-1012 fixture hanger as cushion between fixture and hanger.

G-1016 Rubber Washer

Cat. No.	Wt. lbs./C
G-1016	1

Washers are 1" diameter, 1/4" thick with 5/16" hole.

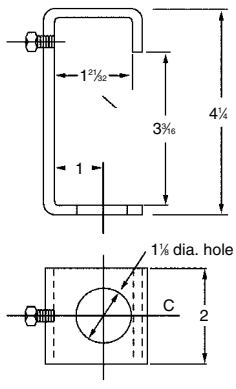


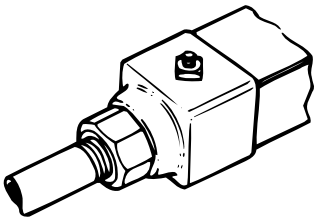
To support high or low bay mercury vapor or heavy incandescent fixtures from raceway channels. Permits plug-in connections with G-1038 raceway outlets.

G-1017 Mercury Vapor Hanger

Cat. No.	Used with Channel	Depth Size	Wt. lbs./C
G-1017	B-900, B-901 G-975 G-965	4¼"	76

Galv-Krōm finish



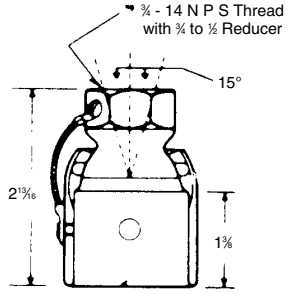


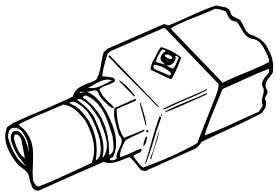
Mounts to 1½" x 1½" raceway channel. Threaded for ¾" conduit or fitting. Swivel action, adapter for ½" conduit furnished.

G-1020 End Swivel Joint

Cat. No.		Wt. lbs./C
G-1020	Galv-Krōm finish	40

U.L. Listed for raceway.



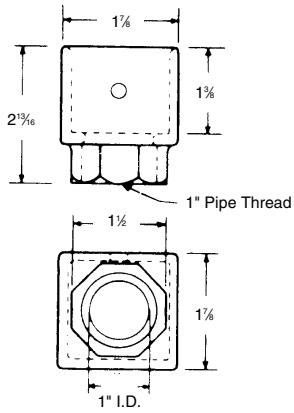


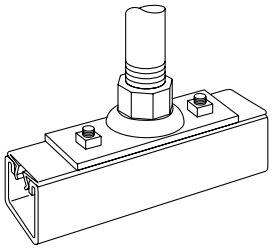
Mounts to 1½" x 1½" raceway channel. Threaded for 1" conduit or fitting. No swivel action.

G-1021 Threaded End Fitting

Cat. No.		Wt. lbs./C
G-1021	Galv-Krōm finish	32

U.L. Listed for raceway.



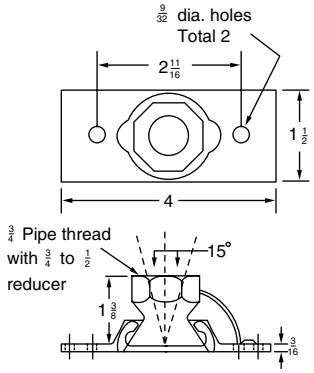


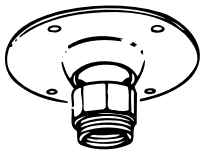
Provides a 15° swivel action (to offset possible movement) for connection of ½" or ¾" conduit to raceway channels. May be accepted for use with ⅜" fixture stem when specified. Order two G-974-¾" fasteners for channel mounting.

G-1032 Channel Swivel Joint

Cat. No.		Wt. lbs./C
G-1032	Galv-Krōm finish	25

Load rating 500# with a safety factor of 3. U.L. Listed for raceway.



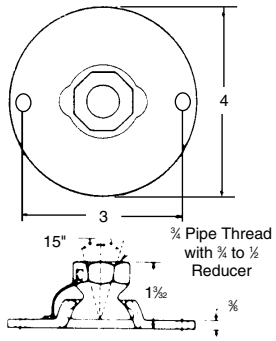


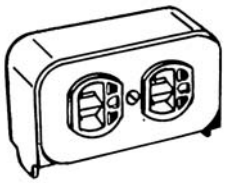
Cover for G-2000 through G-2004 junction boxes. Use with ¾" or ½" conduit. Swivel action.

G-1033 4 Inch Diameter Swivel Cover

Cat. No.		Wt. lbs./C
G-1033	Galv-Krōm finish	35

Load rating 400# with a safety factor of three. U.L. Listed for raceway.



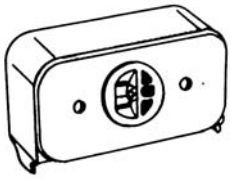


Complete unit including housing, standard duplex 3-wire, 15 amp. 125 volt NEMA ground receptacle and cover plate.

G-1038 Raceway Outlet

Cat. No.		Wt. lbs./C
G-1038	Gold finish	55

U.L. Listed for raceway.

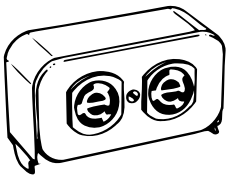


Complete unit including housing, standard single 3-wire, 15 amp. 125 volt NEMA ground receptacle and cover plate.

G-1038-A Raceway Outlet

Cat. No.		Wt. lbs./C
G-1038A	Gold finish	50

U.L. Listed for raceway.

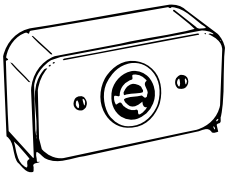


Complete unit including housing, duplex, 3-wire, 15 amp. 277 volt-twistlock receptacle and cover plate.

G-1038-D Raceway Outlet

Cat. No.		Wt. lbs./C
G-1038-D	Gold finish	60

U.L. Listed for raceway.

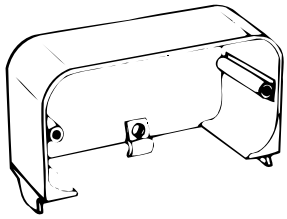


Complete unit including housing, single, 3-wire, 15 amp. 277 volt-twistlock receptacle and cover plate.

G-1038-E Raceway Outlet

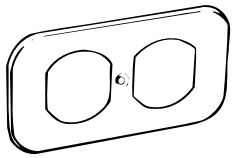
Cat. No.		Wt. lbs./C
G-1038-E	Gold finish	50

U.L. Listed for raceway.



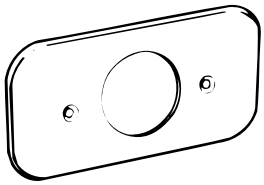
G-1038-B Housing Only

Cat. No.		Wt. lbs./C
G-1038-B	Gold finish	25



G-1038-C Duplex Cover Plate

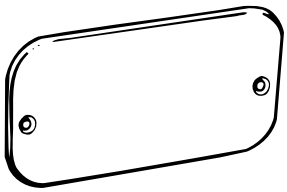
Cat. No.		Wt. lbs./C
G-1038-C	Gold finish	12



G-1038-CA Single Cover Plate

Cat. No.		Wt. lbs./C
G-1038-CA	Gold finish	14

Size of opening: 1.391 diameter



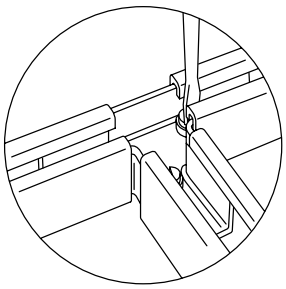
G-1038-CX Blank Cover Plate

Cat. No.		Wt. lbs./C
G-1038-CX	Gold finish	15

G-1060 Nylon Bushing

Cat. No.	Wt. lbs./C
G-1060	2

Strain relief bushing to protect lead from fluorescent fixture.



Channel should be supported a minimum of 12" from joiner.

Channel Joiners for Lay-In Wiring

The direction-change joiner fittings for Kindorf Channels expand to three the number of channel depths available for complete raceway wiring systems.

Joiner Fittings are made for 1½", 1⅞" and 3" depths of 1½" wide channels. These three systems provide raceway conductor fill capacities for any lighting layout and with erected strength to spare for lighting fixture support.

The Joiner Fitting rests inside the channel without obstructing the channel, nor the lay-in of electrical conductors. No time-consuming "fishing" of conductors at the elbows, tee and crosses.

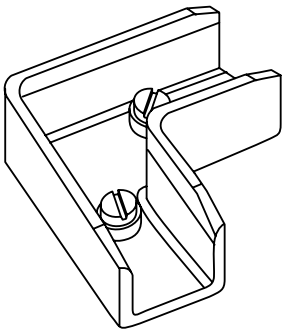
Installation is fast, simply insert the fitting into the end of the channel and turn the captive set-screw. This "jack-screws" the fitting sidewalls beneath the channel lips for snug, strong joints.

Standard Kindorf Channel Closure Strip is used for a completely enclosed raceway.

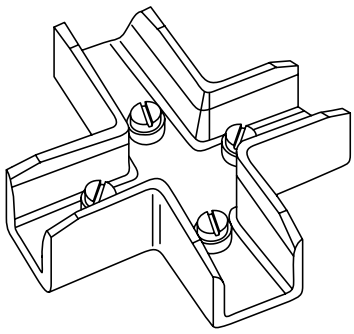
Listed by Underwriters' Laboratories, Inc.

G-1500, G-1870 and G-3000 Series Direction Change Joiner Assemblies

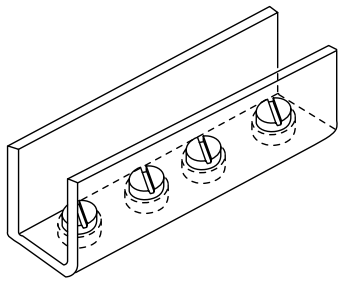
Direction change joiners for 1½", 1⅞" and 3" deep raceway channels complete with screws and washers. Joiners fit into end of channel. When screws are tightened, joiner is forced up against channel lips for secure installation. Conductors can be laid in, no pulling required. No need for junction boxes. Available in X, T, L and S configurations. Support required within 12" of each joiner.



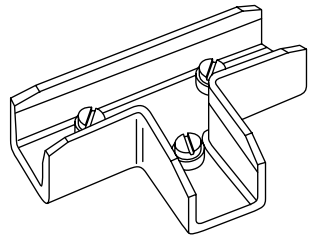
Elbow



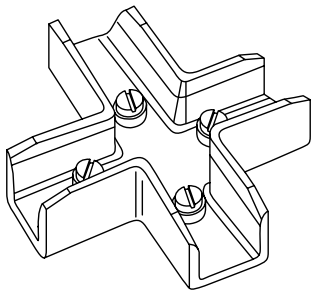
Cross



Straight



Tee

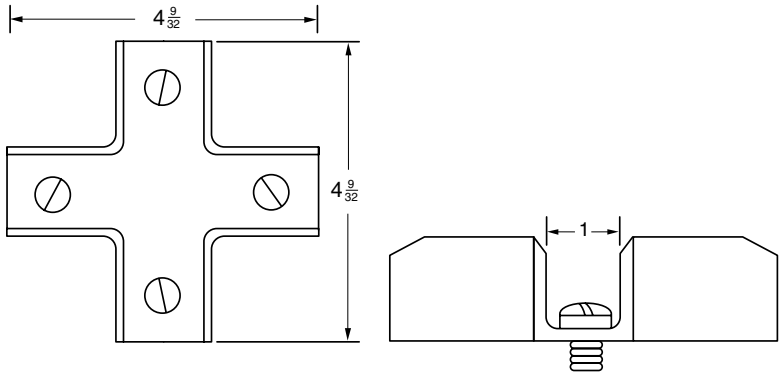


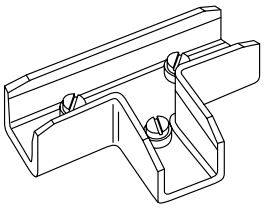
X-style – G-1500X, G-1870X and G-3000X

Cast Aluminum

Cat. No.	For Use with Channel No.	Wt. lbs./C
G-1500X	B-900 & G-975	44
G-1870X	B-901 & G-965	51
G-3000X	B-902 & G-955	79

Galv-Krōm finish



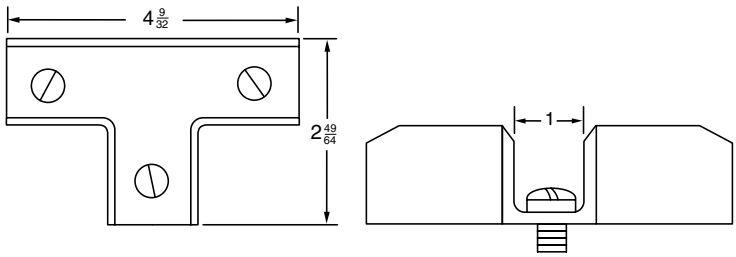


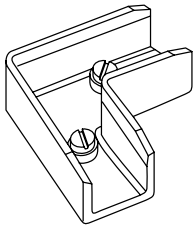
T-style – G-1501T, G-1871T and G-3001T

Cast Aluminum

Cat. No.	For Use with Channel No.	Wt. lbs./C
G-1501T	B-900 & G-975	34
G-1871T	B-901 & G-965	45
G-3001T	B-902 & G-955	66

Galv-Krōm finish



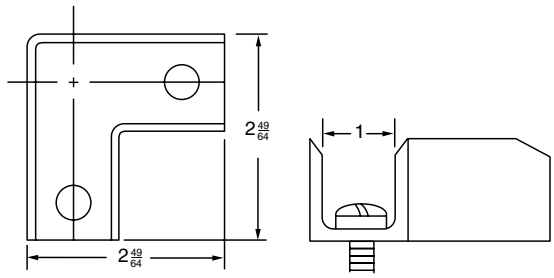


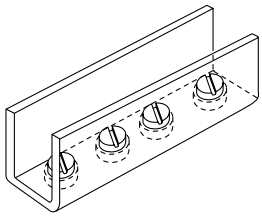
L-style – G-1502L, G-1872L and G-3002L

Cast Aluminum

Cat. No.	For Use with Channel No.	Wt. lbs./C
G-1502L	B-900 & G-975	25
G-1872L	B-901 & G-965	32
G-3002L	B-902 & G-955	51

Galv-Krōm finish



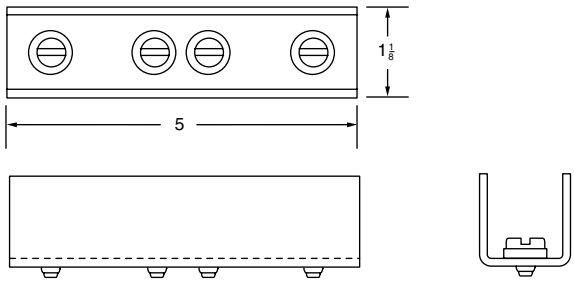


S-style – G-1503S, G-1873S and G-3003S

Steel

Cat. No.	For Use with Channel No.	Wt. lbs./C
G-1503S	B-900 & G-975	21
G-1873S	B-901 & G-965	25
G-3003S	B-902 & G-955	36

Galv-Krōm finish



Raceway Junction Boxes

Kindorf Raceway System Fittings for 1½" x 1½" Channel Systems

The Kindorf Channel system serves both as a raceway for electrical conductors and a support system for the electrical outlets or tap-offs.

Kindorf is a complete wiring and support system with fittings and accessories for the design and installation of your electrical system.

A full line of direction change junction boxes are provided for use with the Kindorf raceway system. These are made up of a standard Steel City octagon box, box cover and attachment fittings. Assemblies as shown are available complete, or members can be purchased separately to make up a junction.

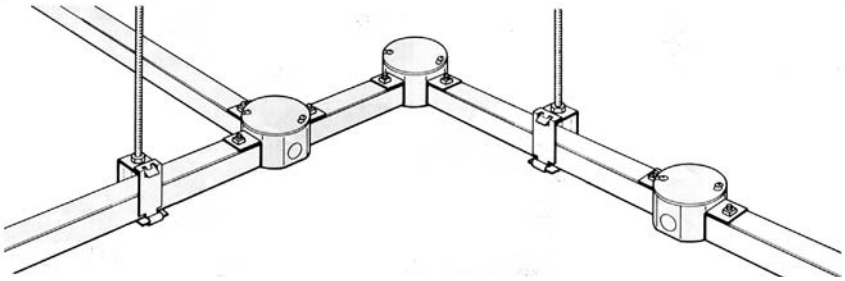
Junction Boxes for 1½" x 1½" Raceway Channels Galv-Krōm Finish

The assembly consists of the following components:

Item	Quantity
Octagon Box	*1*
Box Cover	*1*
Locknuts	*1, 2, 3, or 4 (as required)*
Nipples	*1, 2, 3, or 4 (as required)*
End Caps	*1, 2, 3, or 4 (as required)*

When purchased as an assembly, the octagon box and cover are Galv-Krōm finish to match the channel and end cap and all parts are factory fabricated.

Raceway Junction Boxes
Kindorf Raceway System Fittings for 1½" x 1½" Channel Systems



G-2000
Type 'E'
100 lbs./C

G-2003
Type 'T'
140 lbs./C

G-1007
36 lbs./C

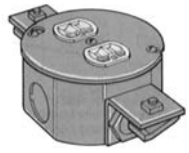
G-2001
Type 'C'
121 lbs./C

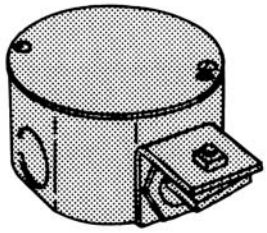
G-2004
Type 'X'
150 lbs./C

G-1033
For ½" or ¾" conduit feed from outlet box
35 lbs./C

G-2002
Type 'L'
90°

G-2001
Junction Box with No. 5402-LR outlet box cover and field-mounted duplex receptacle.



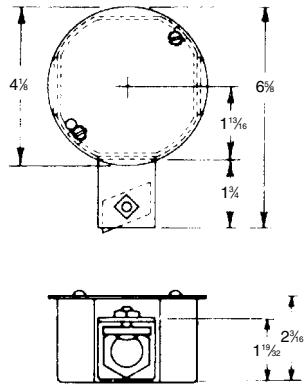


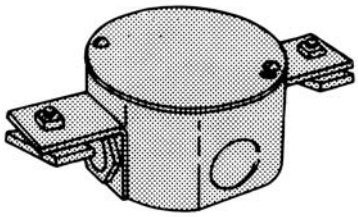
Type 'E' dead-end junction box for raceway channel. Accepts standard devices and covers for 4" octagon outlet boxes.

G-2000 Junction Box

Cat. No.		Wt. lbs./C
G-2000	Galv-Krōm finish	123

Complete with cover, locknuts, nipples and end caps.



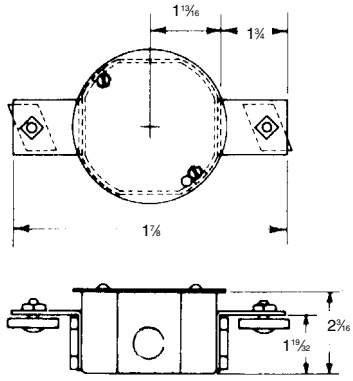


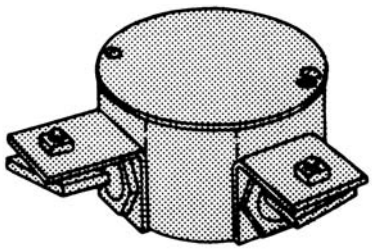
Type 'C' straight-through junction box for two raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.

G-2001 Junction Box

Cat. No.		Wt. lbs./C
G-2001	Galv-Krōm finish	147

Complete with cover, locknuts, nipples, and end caps.



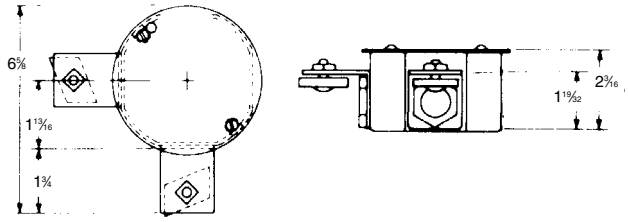


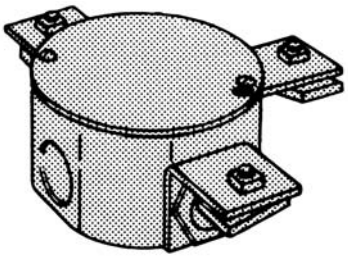
Type 'L' 90° junction box for two raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.

G-2002 Junction Box

Cat. No.		Wt. lbs./C
G-2002	Galv-Krōm finish	120

Complete with cover, locknuts, nipples, and end caps.



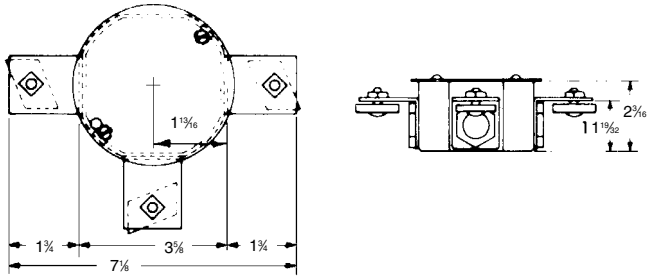


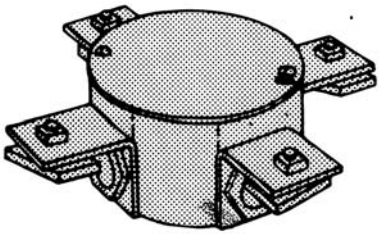
Type 'T' junction box for three raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.

G-2003 Junction Box

Cat. No.		Wt. lbs./C
G-2003	Galv-Krōm finish	140

Complete with cover, locknuts, nipples and end caps.



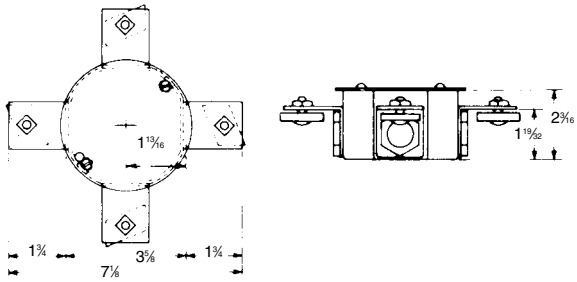


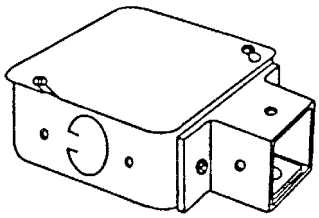
Type 'X' junction box for four raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.

G-2004 Junction Box

Cat. No.		Wt. lbs./C
G-2004	Galv-Krōm finish	150

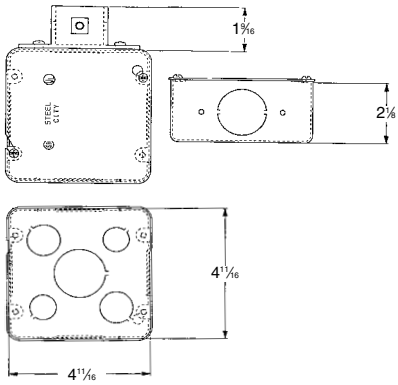
Complete with cover, locknuts, nipples and end caps.

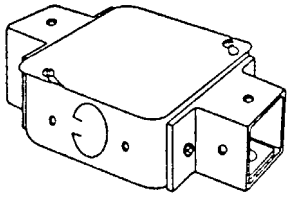




G-2005 Junction Box

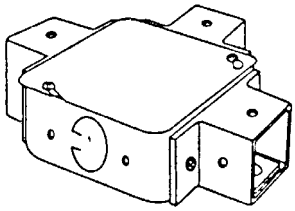
Cat. No.		Wt. lbs./C
G-2005	Galv-Krōm finish	189





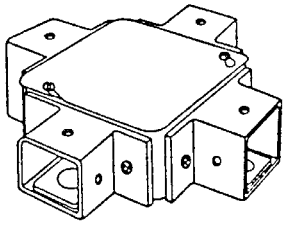
G-2006 Junction Box

Cat. No.		Wt. lbs./C
G-2006	Galv-Krōm finish	225



G-2007 Junction Box

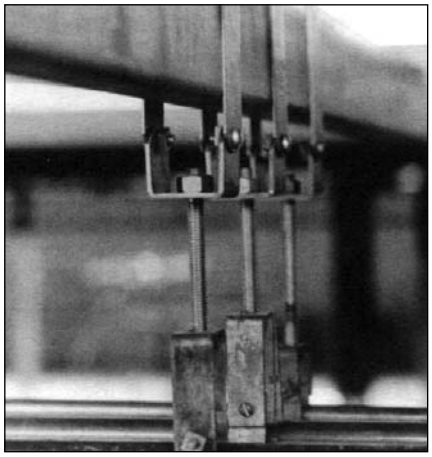
Cat. No.		Wt. lbs./C
G-2007	Galv-Krōm finish	261



G-2008 Junction Box

Cat. No.		Wt. lbs./C
G-2008	Galv-Krōm finish	290

Hardware and Threaded Components



H-193 Hanger Rod supports conduit from G-962-D hanger.

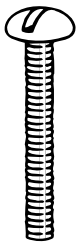
ASTM Class 2

"Threads" are an integral part of erector systems because nearly everything hangs by – or is secured by threaded fasteners. Kindorf threaded hardware includes continuous rolled-thread hanger rod, and special and standard screws and nuts designed with the necessary holding power to serve the requirements of framing and hanging installations.

It is vital that each thread be fully protected against rust and corrosion because they are usually exposed to corrosive atmospheres. Kindorf threaded hardware and accessories are completely protected by the same Galv-Krōm finish that protects Kindorf channel and fittings. Kindorf extra-quality threads are always:

- Free-running – clean, uniform
- Corrosion resistant – no paint required
- Burr-free – smooth finish

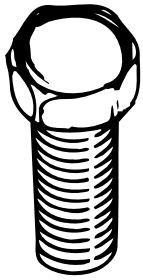
Trouble-free threaded hardware is an investment in fast installation and low maintenance. Free-running threads are a time saving asset on every job – saving fingers and tempers, and eliminating delays that result when threads must be specially treated before use. Threaded rod is packed in tubes to prevent damage during shipment. Kindorf threaded hardware is produced from high tensile strength carbon steel with Unified National Coarse (U.N.C.) threads. Galv-Krōm finish is standard.



H-111 Round Head Machine Screw – Less Nut

Cat. No.	Sizes (in.)	Wt. lbs./C
H-111-A	¼-20 x ½	1.00
H-111-B	¼-20 x ¾	1.25
H-111-C	¼-20 x 1¼	1.76
H-111-D	¼-20 x 2	2.54
H-111-E	⅜-16 x ¾	3.45
H-111-F	½-13 x ¾	6.40
H-111-G	½-13 x 1	7.50
H-111-H	½-13 x 1¼	8.50

Standard finish: Galv-Krōm unless otherwise specified.



H-113 Hex Head Cap Screw – Less Nut

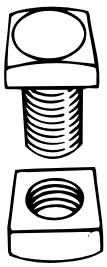
Cat. No.	Sizes (in.)	Wt. lbs./C
H-113-A	½-13 x ¾	7.0
H-113-B	½-13 x 1	9.0
H-113-BSH	½-13 x 1	9.0
H-113-C	½-13 x 1¼	9.0
H-113-D	½-13 x 1½	10.0
H-113-E	½-13 x 1¾	13.0
H-113-F	½-13 x 2	14.0
H-113-G	½-13 x 2¼	16.0
H-113-H	½-13 x 2½	16.0
H-113-I	½-13 x 3	20.0
H-113-J	½-13 x 3½	23.0
H-113-K	½-13 x 4	25.0
H-113-N	⅜-16 x ¾	3.0
H-113-O	⅜-16 x 1	4.0
H-113-P	⅜-13 x 1¼	4.0
H-113-Q	⅜-16 x 1½	5.0
H-113-R	⅜-16 x 1¾	6.0
H-113-S	⅜-16 x 2	7.0
H-113-T	⅜-16 x 2¼	7.0
H-113-U	⅜-16 x 2½	8.0
H-113-V	⅜-16 x 2¾	9.0
H-113-W	⅜-16 x 3	10.0
H-113-X	⅜-16 x 3½	11.0
H-113-Y	⅜-16 x 4	13.0
H-113-ZA	¼ x ¾	1.0
H-113-ZB	¼ x 1	1.0
H-113-ZC	¼ x 1¼	1.5
H-113-ZD	¼ x 1½	2.0

Standard finish: Galv-Krōm unless otherwise specified.

H-114 Hex Nut

Cat. No.	Sizes (in.)	Wt. lbs./C
H-114-A	¼-20	1.2
H-114-B	5⁄16-18	2.0
H-114-C	⅜-16	3.2
H-114-D	½-13	5.0
H-114-E	⅝-11	9.0
H-114-F	¾-10	13.0

Standard finish: Galv-Krōm unless otherwise specified.



H-115 Square Head Machine Bolt with Square Nut

Cat. No.	Sizes (in.)	Wt. lbs./C
H-115-A	⅜-16 x 1	7.39
H-115-B	⅜-16 x 1¼	8.15
H-115-C	⅜-16 x 1½	8.83
H-115-D	½-13 x 1	16.00
H-115-E	½-13 x 1¼	16.70
H-115-F	½-13 x 1½	18.00

Standard finish: Galv-Krōm unless otherwise specified.

H-116 Square Nut

Cat. No.	Sizes (in.)	Wt. lbs./C
H-116-A	¼-20	1.00
H-116-B	5⁄16-18	2.40
H-116-C	⅜-16	2.37
H-116-D	½-13	6.00
H-116-E	⅝-11	11.00
H-116-F	¾-10	15.00

Standard finish: Galv-Krōm unless otherwise specified.

H-117 Flat Steel Washer

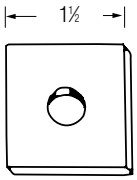
Cat. No.	Sizes (in.)	Wt. lbs./C
H-117-A	¼	.67
H-117-B	5⁄16	1.20
H-117-C	⅜	2.00
H-117-D	½	3.85
H-117-E	⅝	7.70
H-117-F	¾	9.00

Standard finish: Galv-Krōm unless otherwise specified.

H-118 Lock Washer

Cat. No.	Sizes (in.)	Wt. lbs./C
H-118-A	¼	.259
H-118-B	5⁄16	.550
H-118-C	⅜	.630
H-118-D	½	1.436
H-118-E	⅝	2.587
H-118-F	¾	4.293

Standard finish: Galv-Krōm unless otherwise specified.



H-119 Square Washer

Cat. No.	Dimensions (in.) Size	Thickness	Wt. lbs./C
H-119-A	¼	⅛	8.10
H-119-B	5⁄16	⅛	8.00
H-119-C	⅜	3⁄16	11.50
H-119-D	½	¼	14.36
H-119-E	⅝	¼	13.50
H-119-F	¾	¼	12.50
H-119-G	⅞	¼	13.00

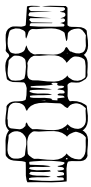
Standard finish: Galv-Krōm unless otherwise specified.

For rigid attachment of rod to channel. For use with either ⅜" or ½" hanger rod.

H-120 Saddle Type Washer

Cat. No.	Wt. lbs./C
H-120	7

Standard finish: Galv-Krōm unless otherwise specified.

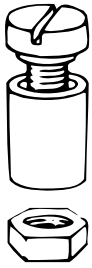


A ⅝"-18 x 2" galvanized steel nipple in assembly with four jam nuts. This feed attachment provides spacing between lighting fixtures and raceway channels.

H-133-N Nipple Assembly

Cat. No.	Wt. lbs./C
H-133-N	27

Approved for G.S.A. installations.



Used for attaching fixture to channel with a uniform 1" clearance between fixture and supporting channel. Assembly includes a 1" spacer, a ⅝"-18 x 1½" bolt and jam nut, all galvanized.

H-134-S Spacer Assembly

Cat. No.	Wt. lbs./C
H-134-S	21

Approved for G.S.A. installations.

Thomas&Betts

Six, ten and twelve foot lengths continuous thread.

H-193 Hanger Rod, Continuous Thread-Galv-Krōm

Cat. No.	Size	Wt./lbs. per 100 pcs.
H-193-1/4-6 ft.		73
H-193-1/4-10 ft.	¼"-20	124
H-193-1/4-12 ft.		148
H-193-3/8-6 ft.		172
H-193-3/8-10 ft.	⅜"-16	293
H-193-3/8-12 ft.		348
H-193-1/2-6 ft.		313
H-193-1/2-10 ft.	½"-13	530
H-193-1/2-12 ft.		648
H-193-5/8-6 ft.		510
H-193-5/8-10 ft.	⅝"-11	850
H-193-5/8-12 ft.		1020

Suffix indicates rod size and length.

R-Series Continuous Thread Rod – Electro-Galvanized

Cat. No.	Size	Wt./lbs. per 100 pcs.
R628-6 ft.	¼"-20	74
R1028-10 ft.		120
R638-6 ft.	⅜"-16	174
R1038-10 ft.		290
R648-6 ft.	½"-13	324
R1048-10 ft.		530

Suffix indicates rod size and length.

National Coarse Thread

Size	Threads per inch	Lbs./ 100 ft.	Design Load lbs.
¼	20	12.5	150
⅜	16	29.0	610
½	13	53.5	1130
⅝	11	85.0	1810
¾	10	123.0	2710
⅞	9	130.0	3770
1	8	214.0	4960

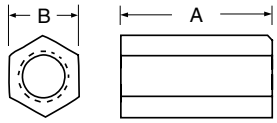
Grade ASTM A-510

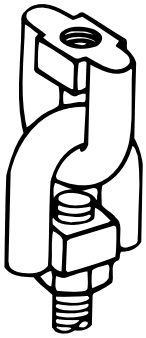
For coupling lengths of H-193 hanger rod. Right-hand threaded. Threads tapered to lock rods in place.

H-195 Steel Rod Coupling

Cat. No.	Threads	Dimensions (in.) A	Dimensions (in.) B	Load Rating (lbs.)	Wt. lbs./C
H-195-1/4	¼-20	⅞	⅜	240	2
H-195-3/8	⅜-16	1⅛	½	610	4
H-195-1/2	½-13	1¼	⅝	1130	5
H-195-5/8	⅝-11	1⅞	13⁄16	1810	10

Galv-Krōm finish



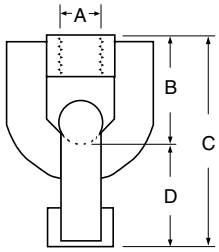


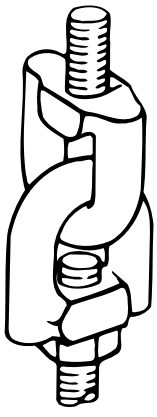
Permits hanger rod to swing freely in any direction.

H-260 Swivel Joint

Cat. No.	Dimensions (in.) A	Dimensions (in.) B	Dimensions (in.) C	Load Rating	Wt. lbs./C
H-260-A	⅜-16	1⅜	2¾	1000	28
H-260-B	½-13	1½	3	1800	48

Safety factor of three.
Galv-Krōm finish



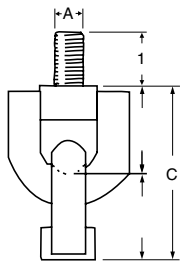


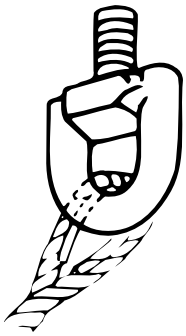
Same as H-260, but with a ⅜" or ½" stud on one end.

H-261 Swivel Joint with Stud

Cat. No.	Dimensions (in.) A	Dimensions (in.) B	Dimensions (in.) C	Load Rating	Wt. lbs./C
H-261-A	⅜-16	1⅜	2¾	1000	25
H-261-B	½-13	1½	3	1800	52

Safety factor of three.
Galv-Krōm finish



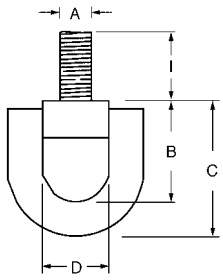


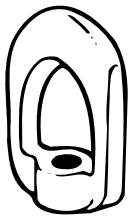
For bolting to a supporting member to furnish suspension for rope, chain or cable.

H-262 Eyelet with ½" or ⅜" Stud

Cat. No.	Dimensions (in.) A	B	C	D	Load Rating	Wt. lbs./C
H-262-A-3/8	⅜-16	1⅜	1¾	½	1000	23
H-262-B-1/2	½-13	1½	2	¾	1800	28

Safety factor of three.
Galv-Krōm finish



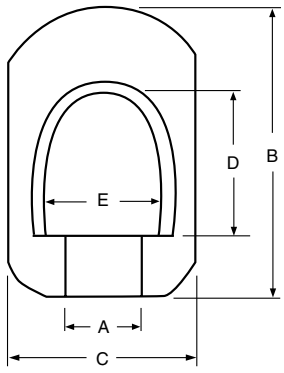


H-272 swivel eye has ⅜" or ½" tapped hole for hanger rod applications.

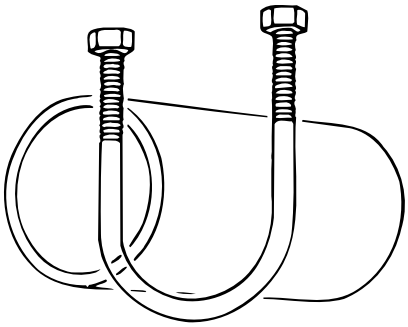
H-272 Swivel Eye

Cat. No.	Dimensions (in.) A	B	C	D	E	Load Rating	Wt. lbs./C
H-272-3/8	⅜-16	2¾	1½	1⅜₁₆	⅞	2000	19
H-272-1/2	½-13	2¾	1½	1⅜₁₆	⅞	2000	19

Safety factor of three.



H-272

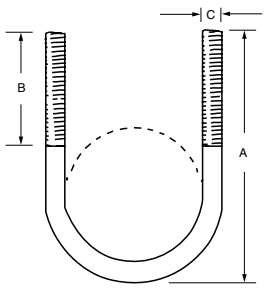


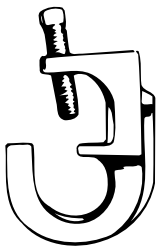
"U" bolt to support, anchor or guide pipe lines. Sizes through 4" are furnished with one hex nut per leg in Galv-Krōm. H-286 sizes 5" and above are furnished with two hex nuts per leg in black.

H-286 U-Bolts

Cat. No. and Pipe Size	Rec. Max. Load (lbs.)	Dimensions (in.) A	B	C	Wt. in lbs./C
H-286-3/8	1500	2 5/16	1 5/16	1/4	7
H-286-1/2	1500	2 3/4	1 3/4	5/16	13
H-286-3/4	2000	3 1/16	1 3/4	5/16	15
H-286-1	2500	3 5/16	1 7/8	5/16	16
H-286-1-1/4	2500	3 1/2	1 3/4	5/16	17
H-286-1-1/2	2500	3 3/4	1 3/4	5/16	18
H-286-2	3300	4 1 1/16	2 1/16	3/8	32
H-286-2-1/2	4000	5 1/8	2 1/16	3/8	34
H-286-3	4000	5 1 1/16	2	3/8	38
H-286-3-1/2	4000	6 3/16	2	3/8	40
H-286-4	4000	6 15/16	2 1/4	3/8	46
H-286-5	4000	8 5/32	2 1/4	1/2	128
H-286-6	4000	9 3/4	2 5/8	5/8	239
H-286-8	4000	11 3/4	2 5/8	5/8	283
H-286-10	5400	14 1/8	2 3/4	3/4	479
H-286-12	7500	16 1/2	3	7/8	764

Complies with Fed. Spec. WW-H-171E and MSS SP-69 Type 24



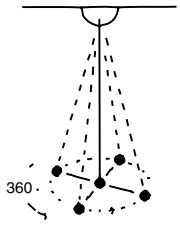


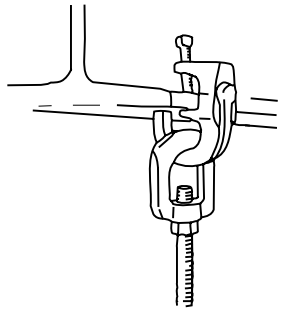
One piece malleable iron casting. Attaches to beam flanges up to ¾" thickness.

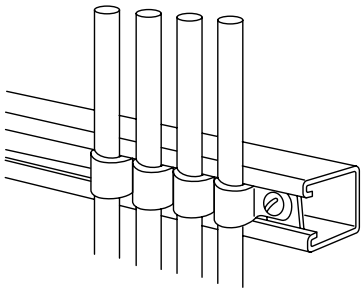
H-550 Swivel Beam Clamp

Cat. No.	Description
H-550	Max. load rating 500 lbs. with a safety factor of 3.33#C.

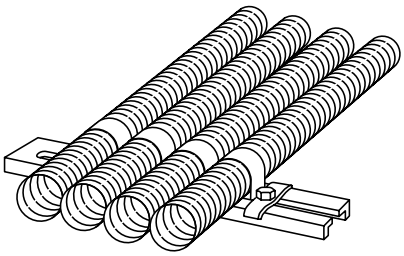
Galv-Krōm finish



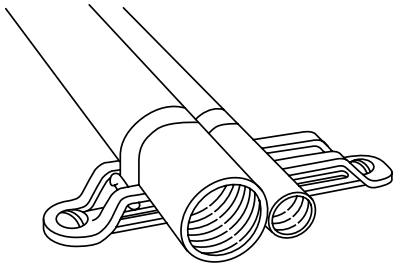




Copper Tubing



Flexible Tubing



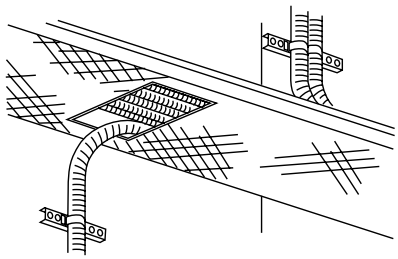
Shipboard Cables

Designed originally to eliminate costly and time-consuming methods of installing cables aboard ships, the Kindorf J-800 series of straps, hangers and brackets has found ever-widening applications by mechanical and electrical contractors in general construction. The J-800 system has proven to be a work-saver when used to install tubing or cable. Tubing and cable of various construction and fabrication can be racked efficiently with built-in provisions for making additions or changes at a later date. They can be secured in all combinations and sequences of sizes. A variety of hangers and brackets secures multiple runs as well as single branch take-offs.

Installation of J-800 straps on Kindorf supports is simple, requiring only a screwdriver or small wrench. Each run is gripped individually on a hanger and all runs are secured by tightening a single locking device. Loosening the locking device permits fast access to the runs … making it easy to add, remove or adjust them at any time.

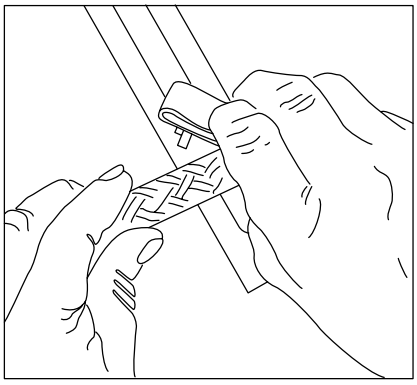
J-800 installations have withstood the severe conditions of service at sea for many years. In countless installations they have proven their ability to withstand the effects of salt air, moisture, shock and vibration.

J-800 racking is well known for its fast, yet precise installation methods. A proven method that results in labor economy and neat, workmanlike installation.

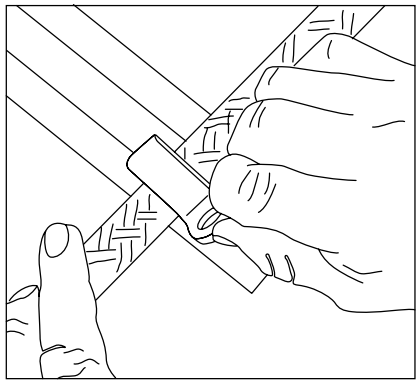


Armored Cable
(Take-off from Cable Tray)

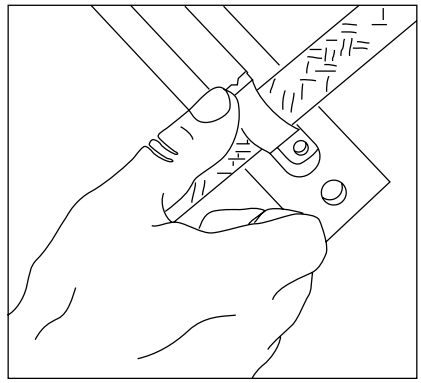
Installation Steps



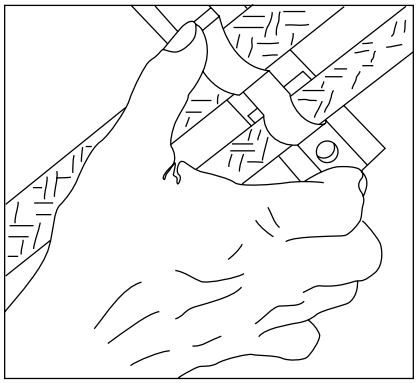
1. Insert pin of strap in slot of hanger.



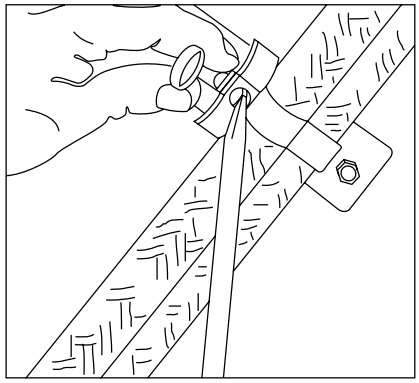
2. Close Kindorf cable strap down over cable.



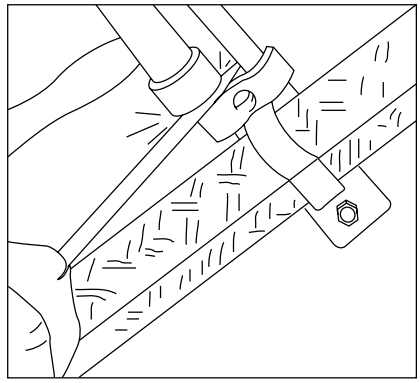
3. Push strap and cable to end of hanger slot so tongue of strap hooks below slot.



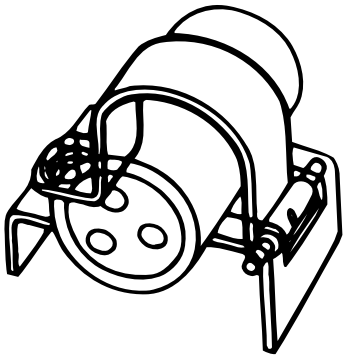
4. Apply second cable strap, hooking strap tongue under pin of first strap.



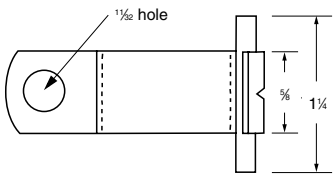
5. Apply locking device and tighten screw moderately.

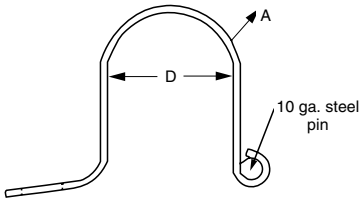


6. Drive locking device tight against cable strap. Tighten locking device screw.



Straps are steel, and have Galv-Krōm finish.





J-800 Interlocking Straps

One J-800 strap of the proper diameter is used to secure each run. All straps have a 1¼" pin. In multiple runs the pin is simply twist inserted into the supporting Kindorf hanger, bracket or channel slot; the strap closed over the cable or tube to lock the strap tongue under the pin of the adjacent strap.

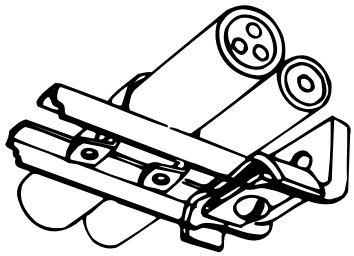
The same procedure is used for single runs except the strap tongue is secured directly to the hanger. When all multiple runs have been assembled, they are secured by a single locking device.

J-800 straps can be installed along the continuous slot of any Kindorf channel. This increases their versatility and extends their possible applications.

J-800 Interlocking Straps

Cat. No. & Size	Strap Size	A Gauge	Dimensions (in.) D max.	Wt. lbs./C	Use In New Kindorf Channel	Use In Old Kindorf Channel	Use In J Series Mountings
J-800-8	8	18	.2500	2.50	–	0.250	0.250
J-800-10	10	18	.3124	2.60	–	0.313	0.313
J-800-12	12	18	.3750	2.75	0.250	0.375	0.375
J-800-14	14	18	.4375	2.90	0.313	0.438	0.438
J-800-16	16	18	.5000	2.75	0.375	0.500	0.500
J-800-18	18	18	.5625	2.90	0.438	0.563	0.563
J-800-20	20	18	.6250	3.35	0.500	0.625	0.625
J-800-22	22	18	.6875	3.50	0.563	0.688	0.688
J-800-24	24	18	.7500	3.65	0.625	0.750	0.750
J-800-26	26	18	.8125	3.80	0.688	0.813	0.813
J-800-28	28	18	.8750	3.95	0.750	0.875	0.875
J-800-30	30	18	.9375	4.10	0.813	0.938	0.938
J-800-32	32	18	1.0000	4.25	0.875	1.000	1.000
J-800-34	34	18	1.0625	4.40	0.938	1.063	1.063
J-800-36	36	18	1.1250	4.55	1.000	1.125	1.125
J-800-38	38	18	1.1875	4.70	1.063	1.188	1.188
J-800-40	40	18	1.2500	4.85	1.125	1.250	1.250
J-800-42	42	18	1.3125	5.00	1.188	1.313	1.313
J-800-44	44	18	1.3750	5.15	1.250	1.375	1.375
J-800-46	46	18	1.4375	5.30	1.313	1.438	1.438
J-800-48	48	18	1.5000	5.45	1.375	1.500	1.500
J-800-50	50	16	1.5625	6.38	1.438	1.563	1.563
J-800-52	52	16	1.6250	6.55	1.500	1.625	1.625
J-800-54	54	16	1.6875	6.73	1.563	1.688	1.688
J-800-56	56	16	1.7500	6.90	1.625	1.750	1.750
J-800-58	58	16	1.8125	7.08	1.688	1.813	1.813
J-800-60	60	16	1.8750	7.25	1.750	1.875	1.875
J-800-62	62	16	1.9375	7.43	1.813	1.938	1.938
J-800-64	64	16	2.0000	7.6	1.875	2.000	2.000
J-800-68	68	16	2.1250	7.95	1.938	2.063	2.063
J-800-72	72	16	2.2500	8.30	2.000	2.250	2.250
J-800-76	76	16	2.3750	8.65	2.125	2.375	2.375
J-800-80	80	16	2.5000	9.00	2.250	2.500	2.500
J-800-84	84	16	2.6250	9.35	2.375	2.625	2.625

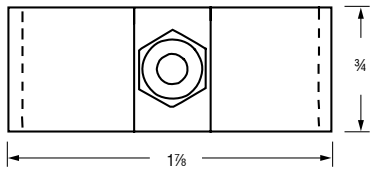
Separate strap sizes rack ¼" through 2⅝" dia. rounds in 1⁄16" increments.

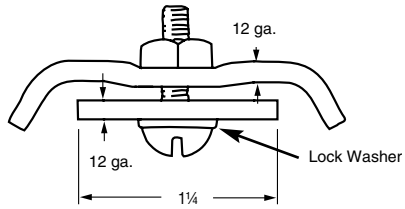


J-850 Locking Device

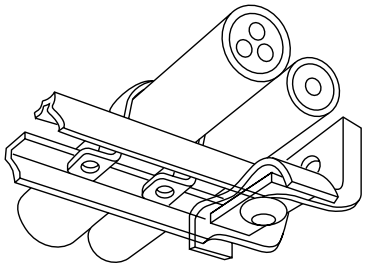
Cat. No.	Description
J-850	Steel, Galv-Krōm finish, 11#/C

Includes ¼" screw, nut and lock washer.





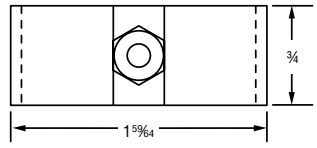
Secures single or multiple interlocked assemblies on bar hangers, mounting brackets and continuous slot channel. For installations not subject to severe shock.

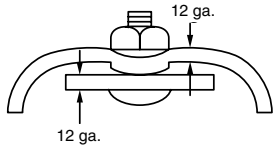


J-851 Locking Device

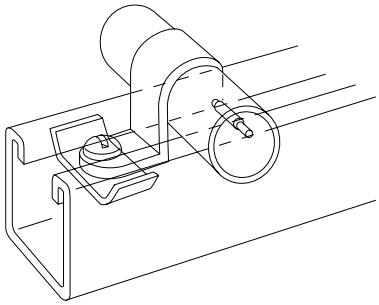
Cat. No.	Description
J-851	Steel, Galv-Krōm finish, 11#/C

Includes ¼" screw, nut and lock washer.



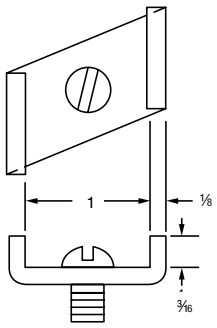


Secures single or multiple interlocked assemblies on bar hangers, mounting brackets and continuous slot channels. Similar to J-850 except stud replaces screw for easier assembly.

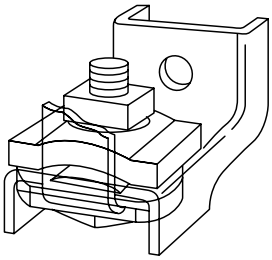


J-852 Locking Device

Cat. No.	Description
J-852	Steel, Galv-Krōm finish, 5#/C



Secures single or multiple interlocked assemblies on bar hangers, mounting brackets and continuous slot channels. Designed for use with B-900 Kindorf channels.

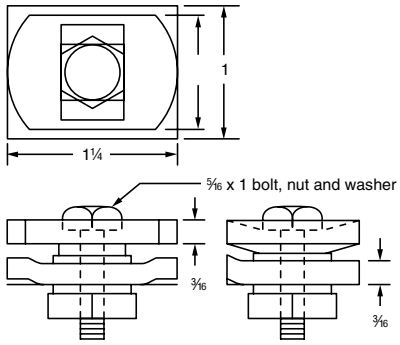


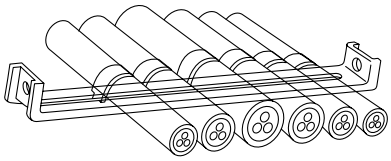
For use with channel-type hangers in installations subject to extreme shock.

J-855 Locking Device – Heavy Duty

Cat. No.	Description
J-855	Steel, Galv-Krōm finish, 15#/C

Includes 5⁄16" bolt, nut and washer.

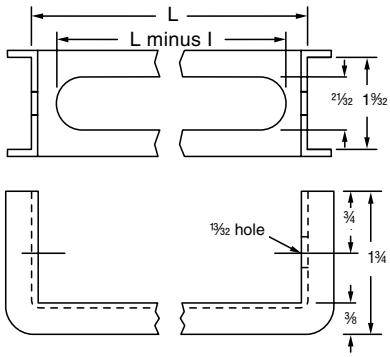


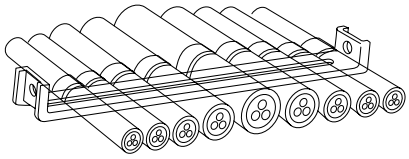


U-style channel, 12 ga. steel, with Galv-Krōm finish, ⅜" turned edge. Three sizes.

J-860 Mounting Brackets

Cat. No.	Dimensions L (in.)	Wt. lbs./C
J-860-6	6	42
J-860-9	9	48
J-860-12	12	59

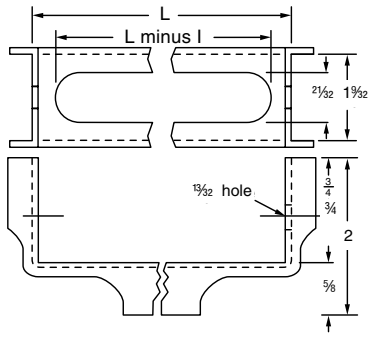


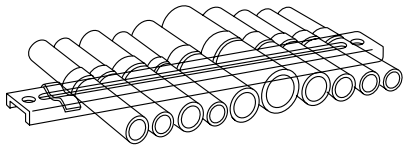


U-style channel, 12 ga. steel, with Galv-Krōm finish, ⅝" turned edge. Six sizes.

J-861 Mounting Brackets

Cat. No.	Dimensions L (in.)	Wt. lbs./C
J-861-10	10	64
J-861-12	12	73
J-861-14	14	86
J-861-15	15	89
J-861-16	16	96
J-861-18	18	100

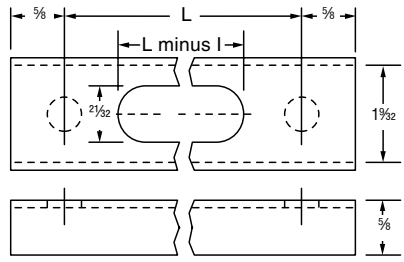


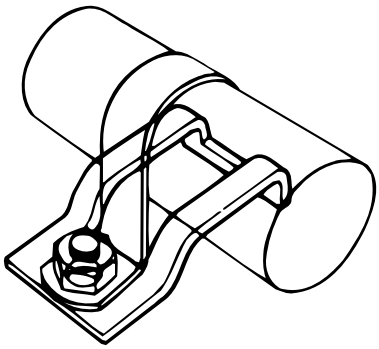


Straight, heavy duty channel. 12 ga. steel, with Galv-Krōm finish. Five sizes.

J-863 Mounting Brackets

Cat. No.	Dimensions L (in.)	Wt. lbs./C
J-863-6	6	42
J-863-9	9	57
J-863-12	12	73
J-863-15	15	85
J-863-18	18	106

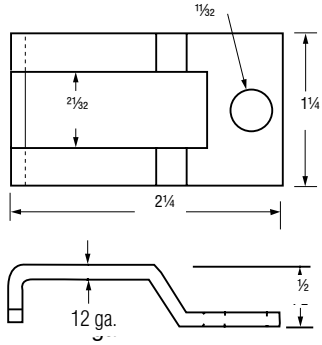


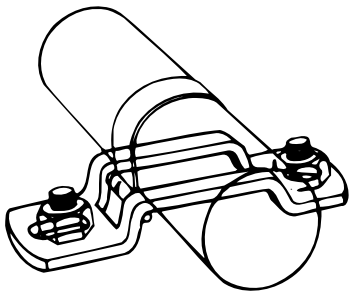


Supports one cable or tube up to 1⅛" O.D. Only one stud or screw necessary for mounting.

J-865 Bar Hanger

Cat. No.	Description
J-865	Steel, Galv-Krōm finish, 6.7#/C

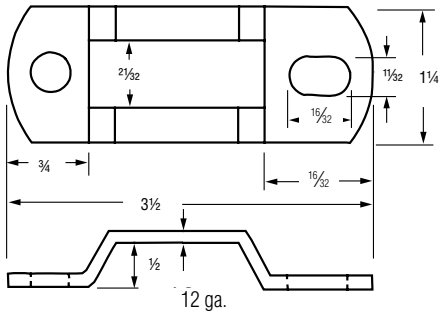


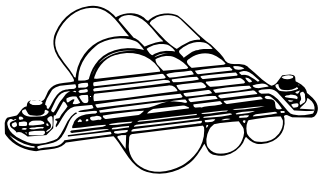


Supports one large or two small cables or tubes up to a total of 1⅝" O.D.

J-866 Bar Hanger

Cat. No.	Description
J-866	Steel, Galv-Krōm finish, 9#/C



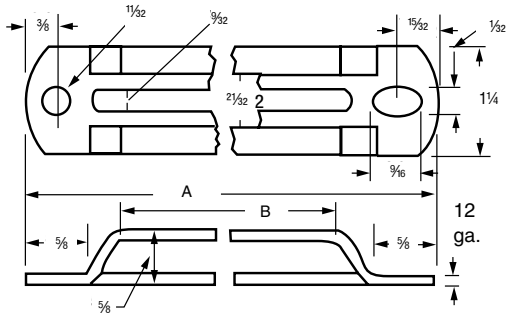


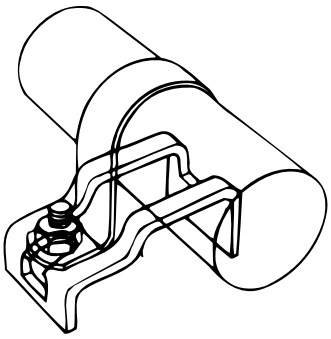
Cable or tube assembly locks in place with one short ¼" screw and nut. Use two studs, welding pads or bolts to mount.

J-867 Bar Hanger

Cat. No. & Size	Dimensions (in.) A	Dimensions (in.) B	Wt. lbs./C
J-867-1	5⅛	2⅞	15
J-867-2	7⅛	4⅞	20
J-867-3	9⅛	6⅞	27

Steel, Galv-Krōm finish.



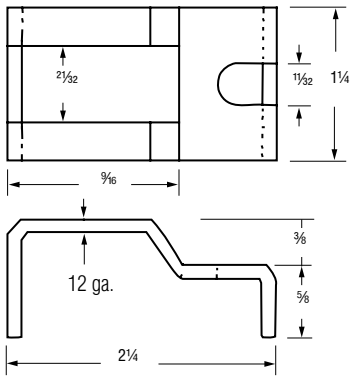


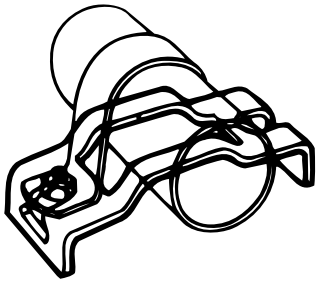
Supports one cable or tube up to 1 1/16" O.D. Strap fastens to hanger by short machine screw and nut.

J-868 Bar Hanger

Cat. No.	Description
J-868	Steel, Galv-Krōm finish, 8.3#/C

Use one stud or weld to mount.

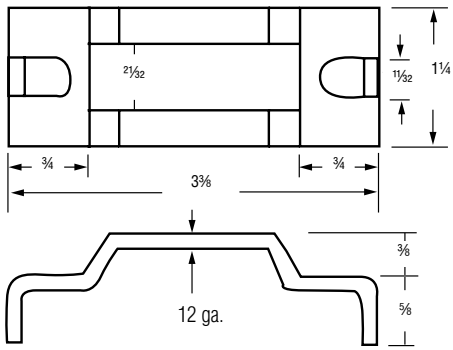


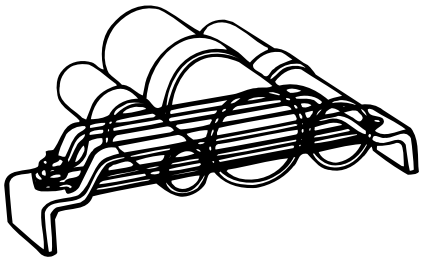


Supports one large or two small cables or tubes up to a total of 1 5/16" O.D. Both ends of hanger have nut engaging slot.

J-869 Bar Hanger

Cat. No.	Description
J-869	Steel, Galv-Krōm finish, 11.2#/C



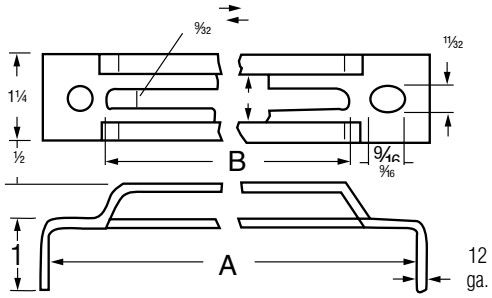


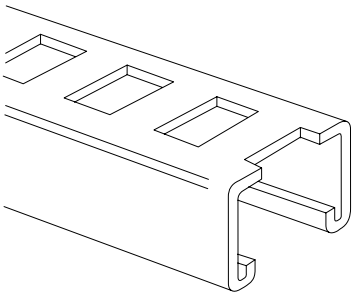
J-870 Bar Hanger

Cat. No. & Size	Dimensions (in.) A	Dimensions (in.) B	Wt. lbs./C
J-870-1	5⅛	3 7⁄16	22.5
J-870-2	7⅛	5 7⁄16	28.0
J-870-3	9⅛	7 7⁄16	33.3

Steel, Galv-Krōm finish

Supports cable or tube assembly, locked in place with one short ¼" screw and nut. Mount by welding.





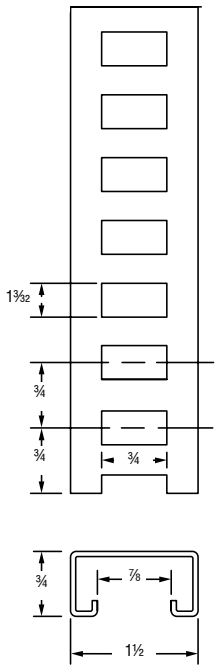
J-864 Slotted Channel

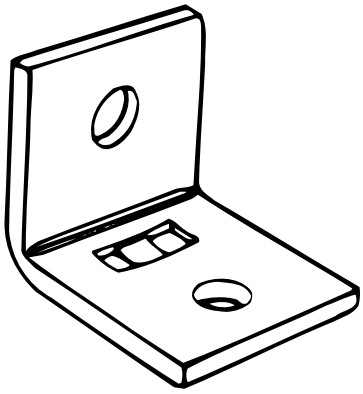
Mount, Band or Support at any Slot

Cat. No.	Description	Wt. lbs./C
J-864	10' length ¾" deep Kindorf slotted channel	65

For applications see page K117.
Galv-Krōm finish

10' length slotted channel provides "cut to length" versatility. For use with standard marine steel banding. Uniformly spaced slot size 13⁄32" x ¾" spaced on ¾" centers. Cut anywhere along entire length.

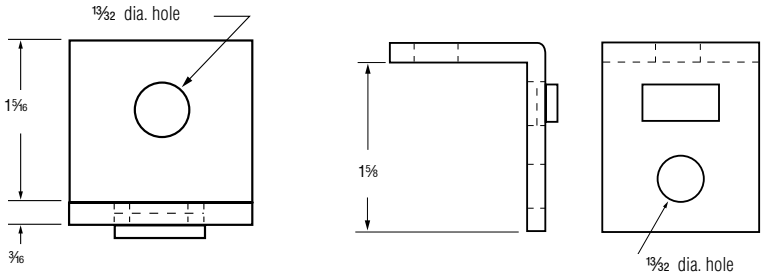




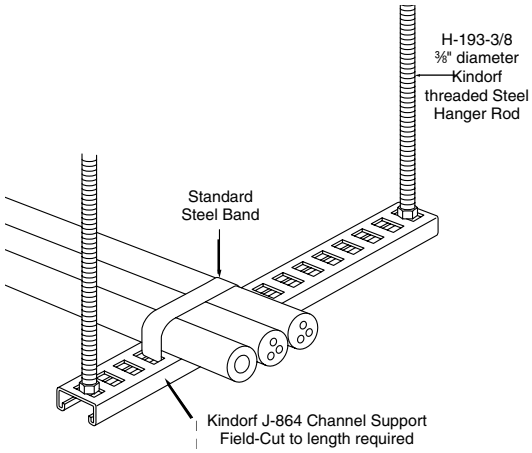
Integral pilot, prevent twist.

J-844 Channel Angle Connector

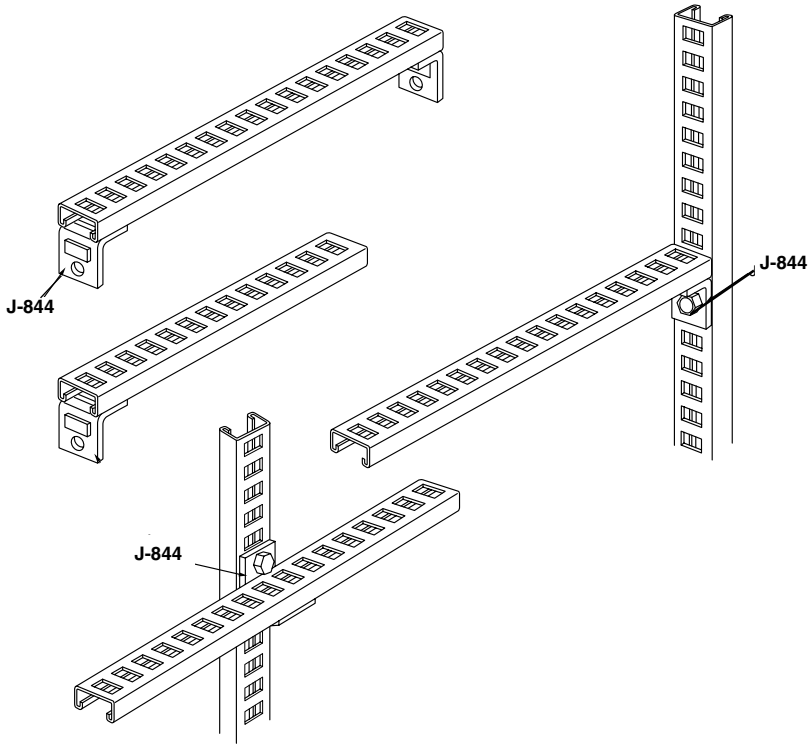
Cat. No.	Description
J-844	Galv-Krōm finish



Slotted Channel Installation Applications



Angle Connector Provides “On The Job” Versatility for Cable Racking and Mounting.



K
Kindorf®

Thomas&Betts

 www.tnb.com

Channels – Aluminum and Stainless Steel

Aluminum • Extruded 6063-T6 Aluminum Alloy

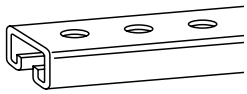
10 and 20 foot lengths

Solid Base

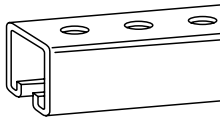
B-906-AL
1½" x ¾" x .104"

B-900-AL
1½" x 1½" x .104"

Bolt Hole Base



B-907-AL
1½" x ¾" x .104"

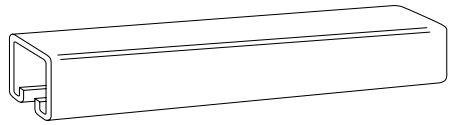


B-905-AL
1½" x 1½" x .104"

Stainless Steel – Type 304

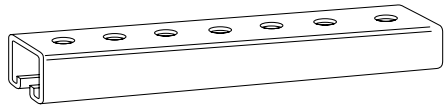
10 and 20 foot lengths

Solid Base

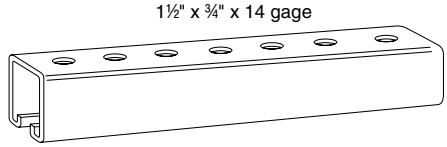


B-900-SS
1½" x 1½" x 13 gage

Bolt Hole Base



B-907-SS
1½" x ¾" x 14 gage



B-905-SS
1½" x 1½" x 13 gage

Aluminum

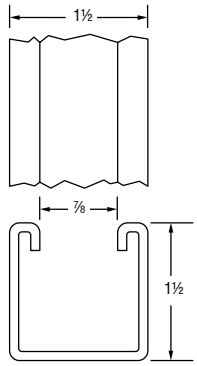
Connection by means of continuous slot.

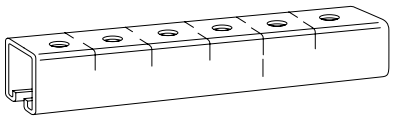
B-900-AL Channel

Aluminum (extruded 6063-T6)

Cat. No.	Description
B-900-AL	1½" x 1½" x .1046; 58#/C ft.

Use H-113-B bolts and B-910-1/2, B-911--1/2 or B-911-1/2-TL steel nuts for mounting fittings.
10 ft. lengths only





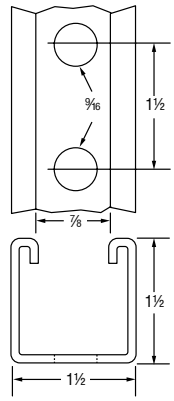
9⁄16" holes on 1½" centers punched in channel base. Connection also by means of continuous slot.

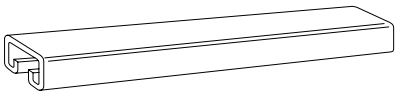
B-905-AL Channel

Aluminum (extruded 6063-T6)

Cat. No.	Description
B-905-AL	1½" x 1½" x .1046; 56#/C ft.

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings.
10 ft. lengths only





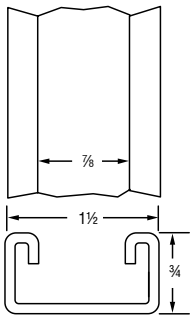
Connection by means of continuous slot.

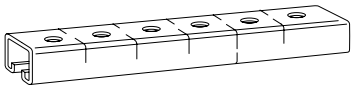
B-906-AL Channel

Aluminum (extruded 6063-T6)

Cat. No.	Description
B-906-AL	1½" x ¾" x .1046; 40#/C ft.

Use H-113-A bolts and B-910-1/2 or B-912-1/2 steel nuts for mounting fittings.





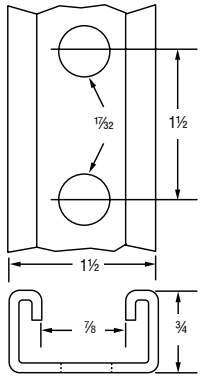
Connection by means of continuous slot or 9⁄16" holes on 1½" centers.

B-907-AL Channel

Aluminum (extruded 6063-T6)

Cat. No.	Description
B-907-AL	1½" x ¾" x .1046; .37#/C ft.

Use H-113-A bolts and B-910-1/2 or B-912-1/2 steel nuts for mounting fittings. Holes on B-900 series fittings match channel holes.

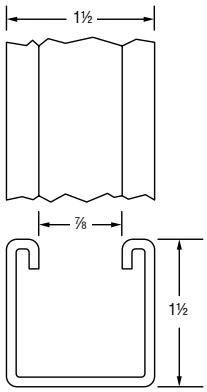


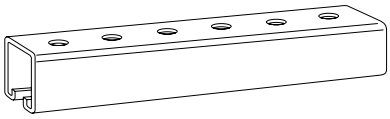
Connection by means of continuous slot.

B-900 Channel – Stainless Steel – 1½" x 1½"

Cat. No.	Description
B-900-10SS	Type 304
B-900-20SS	Type 304

Use H-113-B bolts and B-910-1/2 or B-911-1/2 stainless steel nuts for mounting fittings.



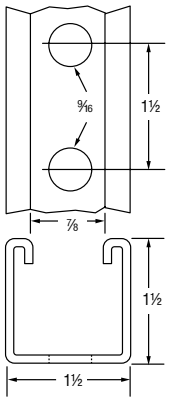


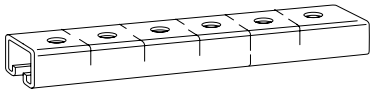
Connections by means of continuous slot or 9⁄16" holes on 1½" centers which match holes in B-900 series fittings.

B-905 Channel – Stainless Steel – 1½" x 1½"

Cat. No.	Description
B-905-10SS	Type 304
B-905-20SS	Type 304

Use H-113-B bolts and B-910-1/2 or B-911-1/2 stainless steel nuts for mounting fittings. Scribe marks designate mid-point between holes for accurate field cutting.



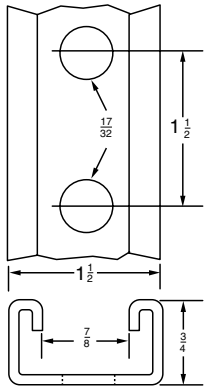


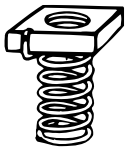
Connection by means of continuous slot or 9⁄16" holes on 1½" centers.

B-907 Channel – Stainless Steel

Cat. No.	Description
B-907-10SS	Type 304
B-907-20SS	Type 304

Use H-113-A bolts and B-910-1/2 or B-912-1/2 steel nuts for mounting fittings. Holes on B-900 series fittings match channel holes.





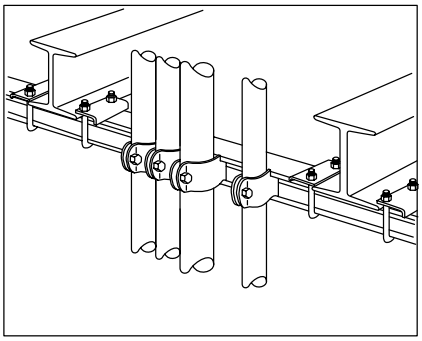
Stud nut self-holding clamping nut with spring attached.

B-911 Channel – Stainless Steel

Cat. No.	Size	Thickness	Wt. lbs./C
B-911-3/8-SS†	⅜ - 16	3⁄16	12.5
B-911-1/2-SS†	½ - 13	5⁄16	16.0

† B-911-3/8-SS, Stud: ⅜ Dia., 1" Long. Accepts Kindorf Nuts H-114C (hex), H-116-C (square).
B-911-1/2-SS, Stud: ½ Dia., 1" Long. Accepts Kindorf Nuts H-114D (hex), H-116-D (square).

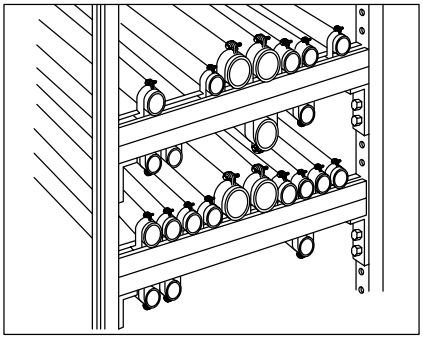
Pipe Supports – Aluminum



Steel beam mounting application.
Aluminum straps with stainless steel hardware.
Frame assembly carries multiple conduit runs.

Kindorf Straps for Rigid Conduit and Pipe – Aluminum

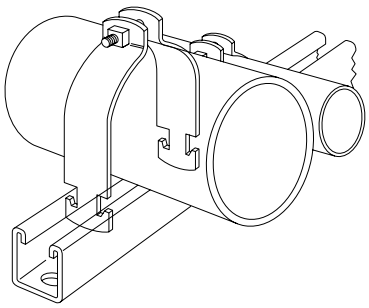
Cat. No.	Rigid Conduit or Pipe Size	Aluminum Strap Material Thickness	Wt. lbs./C
C-105AL-1/2	½"	14	7
C-105AL-3/4	¾"	14	8
C-105AL-1	1"	14	9
C-105AL-1-1/4	1¼"	14	10
C-105AL-1-1/2	1½"	12	12
C-105AL-2	2"	12	14
C-105AL-2-1/2	2½"	12	16
C-105AL-3	3"	12	18
C-105AL-3-1/2	3½"	⅛"	22
C-105AL-4	4"	⅛"	24



Kindorf Straps for EMT – Aluminum

Cat. No.	Rigid Conduit or Pipe Size	Aluminum Strap Material Thickness	Wt. lbs./C
C-106AL-1/2	½"	14	7
C-106AL-3/4	¾"	14	8
C-106AL-1	1"	14	9
C-106AL-1-1/4	1¼"	14	10
C-106AL-1-1/2	1½"	12	12
C-106AL-2	2"	12	14

Pipe Supports – Stainless Steel



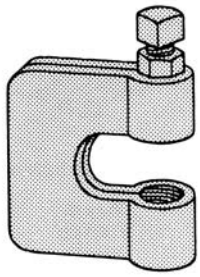
Kindorf Straps for Rigid Conduit and Pipe – Type 304

Cat. No.	Rigid Conduit or Pipe Size
C-105-1/2SS	½"
C-105-3/4SS	¾"
C-105-1SS	1"
C-105-1-1/4SS	1¼"
C-105-1-1/2SS	1½"
C-105-2SS	2"
C-105-2-1/2SS	2½"
C-105-3SS	3"
C-105-3-1/2SS	3½"
C-105-4SS	4"

Kindorf Straps for EMT – Type 304

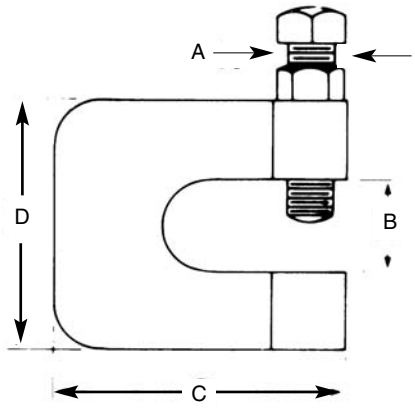
Cat. No.	Rigid Conduit or Pipe Size
C-106-1/2SS	½"
C-106-3/4SS	¾"
C-106-1SS	1"
C-106-1-1/4SS	1¼"
C-106-1-1/2SS	1½"
C-106-2SS	2"

Beam Clamps for Hanging Rod – Stainless Steel



E-236 Clamp with Lock Nut – Type 304

Cat. No.	Rod Size	Dimensions (in.)				Wt./C C-775-L	Design Load (lbs.)
		A	B	C	D		
E-236-3/8SS	⅜	⅜	⅜	2¼	2¼	35	550
E-236-1/2SS	½	½	¾	2¼	2¼	41	600



PVC Coated Steel Channel and Fittings for High Corrosive Atmospheres

The complete and lasting corrosion protection of conduit with polyvinyl chloride coating is now extended to the supporting system. No longer will installers be faced with the problem of installing PVC coated conduit or other corrosion resistant material only to have the support system require constant maintenance or replacement.

PVC coated Kindorf channel and fittings complement other corrosion resistant services installed in chemical plants, foundries, meat packing plants, oil refineries, paper mills, sewage treatment plants and other locations.

PVC Plastic-Coated Kindorf Channel Support System for Installations in Severely Corrosive Atmospheres

PVC Coating

The coating is a polyvinyl chloride (PVC) plastic coating that is permanently fused to the Kindorf Galv-Krōm galvanized steel channels, fittings and accessories. The fused-melt mixed powder (PVC) coating is 15 mils. (.015") ±5 mils thickness.

The physical properties of the PVC coating material are as follows:

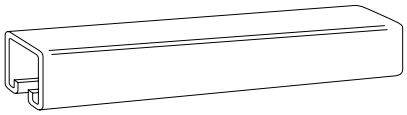
Hardness	*90+ Shore A Durometer*
Dielectric Strength (volts/mil @ 60 cycles	*1100*
Flammability	*Self-extinguishing*
Tensile strength	*2000 p.s.i.*
Percent elongation	*180%*
Aging	*14,000 hours Atlas Weatherometer*

The material is a thermoplastic and will soften in high temperatures. Service life will be decreased if the normal operating temperature of the support system is in excess of 225°F.

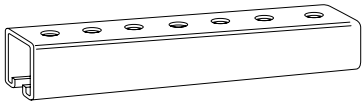
The service life expectancy is 20 years in normal weathering, with no indication of hardening, softening or other physical change.

The Kindorf plastic coated support system has excellent resistance to the corrosive atmospheres created in modern processing industries which materially reduce the life of standard products and cause high maintenance costs. The fused-on coating of PVC plastic to a pre-galvanized steel effectively bars corrosive action by eliminating “undercreep” or “corrosion travel”. There is practically no maintenance. No special tools are required for installation of the Kindorf PVC system.

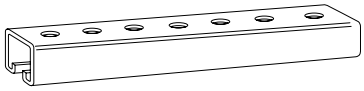
The Kindorf PVC coated support system, combining the strength of steel and the corrosion resistance of plastic, is designed for mechanical support of plastic and plastic-coated conduits and pipes. PVC Kindorf meets the requirements for corrosion-resistance in those environments generally found in chemical processing plants, oil refineries, steel mills, foundries, meat packing and other food processing plants, fertilizer plants, textile and paper processing industries.



PB-900-10



PB-905-10



PB-907-10

PVC Coated Steel Channel

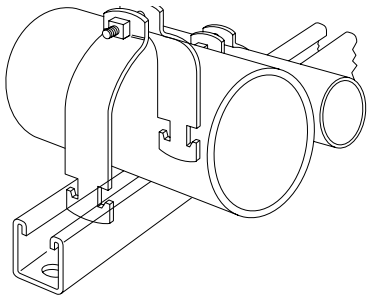
Cat. No.	Description	Wt. lbs./C
PB-900-10	1½" x 1½" x 12 ga. Solid Base	168
PB-905-10	1½" x 1½" x 12 ga. 9⁄16" Holes on 1½" Centers	160
PB-907-10	1½" x ¾" x 14 ga. 9⁄16" Holes on 1½" Centers	82

Standard 10 ft. lengths

PBH-193

PVC Coated Steel Hanger Rod

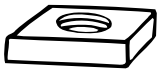
Cat. No. & Size	Description	Wt. lbs./C
PBH-193-3/8-6	⅜" x 6'	174
PBH-193-3/8-10	¾" x 10'	290
PBH-193-1/2-6	½" x 6'	324
PBH-193-1/2-10	½" x 10'	540



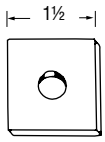
PBC-105

PVC Coated Steel Conduit Straps

Cat. No. & Size	Description	Wt. lbs./C
PBC-105-3/4	¾"	16
PBC-105-1	1"	18
PBC-105-1-1/4	1¼"	20
PBC-105-1-1/2	1½"	29
PBC-105-2	2"	33
PBC-105-2-1/2	2½"	38
PBC-105-3	3"	45
PBC-105-3-1/2	3½"	58
PBC-105-4	4"	64



PB-910



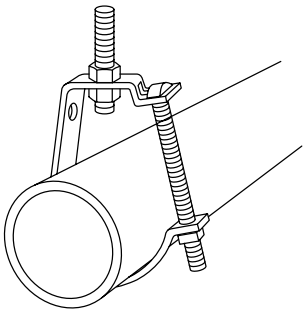
PBH-119

PBH-120

PVC Coated Hardware

Cat. No. & Size	Description	Wt. lbs./C
PB-910-3/8	⅜-16 Steel Nut	9
PB-910-1/2	½-13 Steel Nut	10
PBH-119C-3/8	1½" Square Washer with 7⁄16" hole	12
PBH-119D-1/2	1½" Square Washer with 27⁄32" hole	14
PBH-120	Saddle Washer for ⅜" or ½" rod	7

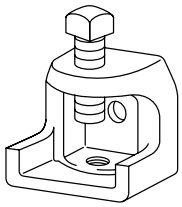
Thomas&Betts



PBC-149

PVC Coated Single Run Conduit Supports

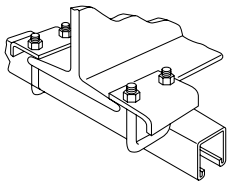
Cat. No. & Size	Description	Wt. lbs./C
PBC-149-3/4	¾"	19
PBC-149-1	1"	22
PBC-149-1-1/4	1¼"	26
PBC-149-1-1/2	1½"	26
PBC-149-2	2"	31
PBC-149-2-1/2	2½"	66
PBC-149-3	3"	72
PBC-149-3-1/2	3½"	84
PBC-149-4	4"	178



PB-500 Series

PVC Coated Beam Clamps

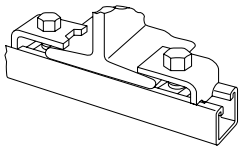
Cat. No. & Size	Description	Wt. lbs./C
PB-502	2" – ⅞" Jaw Tapped ⅜-16	95
PB-508	2½" – 2" Jaw Tapped ½-13	182



PBE-760

PVC Coated Beam Clamps

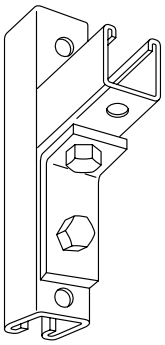
Cat. No. & Size	For Use With	Wt. lbs./C
PBE-760-2	PB-900, PB-905, PB-906 or PB-907	80
PBE-763	All Channels	25



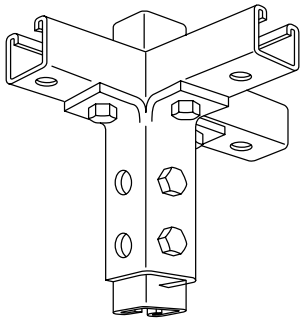
PBE-763

PVC Coated Framing Fittings

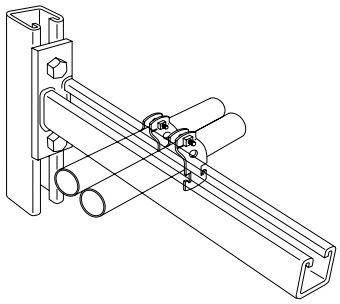
Cat. No. & Size	Description	Wt. lbs./C
PB-915	2-Hole Angle Connector	40
PB-923	3-Side Angle Connector	137
PB-927	U Support	53
PB-943	Double Brace Connector	66
PBF-720-18	Single Channel Wall Bracket – 18"	275
PBF-721-18	Double Channel Wall Bracket – 18"	568



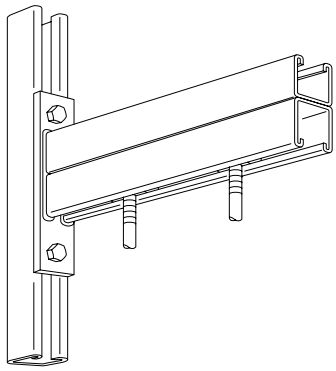
PB-915



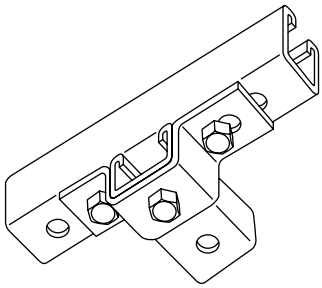
PB-923



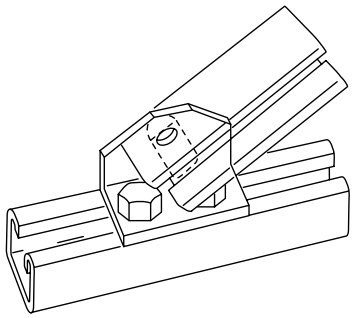
PBF-720



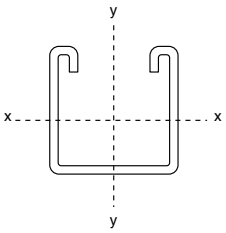
PBF-721



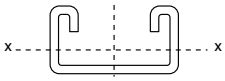
PB-927



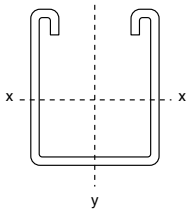
PB-943



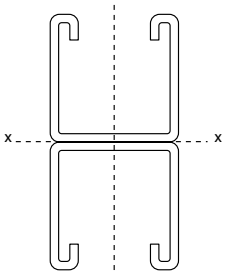
B-900
1½" x 1½" x 12 ga. steel
B-900-M
1½" x 1½" x 14 ga. steel
B-900-AL
1½" x 1½" x .1046 aluminum



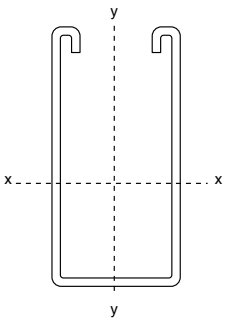
B-906
1½" x ¾" x 14 ga. steel



B-901
1⅝" x 1½" x 12 ga. steel



B-900-2A
1½" x 3" x 12 ga. steel



B-902
1½" x 3" x 12 ga. steel

Channel Load Data

Steel Section Properties
Material Properties f=30,000 E=30,000,000

Channel	Area	lbs/ft.	X-X Axis I	X-X Axis S	X-X Axis r	Y-Y Axis I	Y-Y Axis S	Y-Y Axis r
B-906	0.217	0.740	0.018	0.041	0.272	0.077	0.105	0.559
B-900	0.521	1.776	0.155	0.179	0.545	0.200	0.259	0.619
B-900-M	0.354	1.206	0.101	0.123	0.535	0.129	0.175	0.603
B-901	0.595	2.028	0.263	0.251	0.665	0.238	0.309	0.632
B-902	0.837	2.852	0.909	0.552	1.042	0.363	0.471	0.658

Span	Channel	Simple Beam Uniformly Distributed Load: Max Load	Deflection	1/240 Span Load	Design Load	Simple Beam Concentrated Center Load: Max Load	Deflection	1/240 Span Load	Design Load	Column Load For K=1
	B-906	**820**	0.034	1200	820	**410**	0.027	750	410	**7337**
	B-900	**3580**	0.017	10333	3580	**1790**	0.014	6458	1790	**7628**
12˝	B-900-M	**2460**	0.018	6733	2460	**1230**	0.015	4208	1230	**7625**
	B-901	**5020**	0.014	17533	5020	**2510**	0.011	10958	2510	**7660**
	B-902	**11040**	0.009	60600	11040	**5520**	0.007	37875	5520	**7699**
	B-906	**547**	0.077	533	533	**273**	0.062	333	273	**6852**
	B-900	**2387**	0.039	4593	2387	**1193**	0.031	2870	1193	**7507**
18˝	B-900-M	**1640**	0.041	2993	1640	**820**	0.033	1870	820	**7499**
	B-901	**3347**	0.032	7793	3347	**1673**	0.026	4870	1673	**7579**
	B-902	**7360**	0.020	26933	7360	**3680**	0.016	16833	3680	**7665**
	B-906	**410**	0.137	300	300	**205**	0.109	188	188	**6172**
	B-900	**1790**	0.069	2583	1790	**895**	0.055	1615	895	**7338**
24˝	B-900-M	**1230**	0.073	1683	1230	**615**	0.058	1052	615	**7324**
	B-901	**2510**	0.057	4383	2510	**1255**	0.046	2740	1255	**7465**
	B-902	**5520**	0.036	15150	5520	**2760**	0.029	9469	2760	**7619**
	B-906	**328**	0.214	192	192	**164**	0.171	120	120	**5299**
	B-900	**1432**	0.108	1653	1432	**716**	0.067	1033	716	**7121**
30˝	B-900-M	**984**	0.114	1077	984	**492**	0.091	673	492	**7098**
	B-901	**2008**	0.089	2805	2008	**1004**	0.072	1753	1004	**7319**
	B-902	**4416**	0.057	9696	4416	**2208**	0.046	6060	2208	**7560**
	B-906	**273**	0.308	133	133	**137**	0.246	83	83	**4231**
	B-900	**1193**	0.156	1148	1148	**597**	0.125	718	597	**6855**
36˝	B-900-M	**820**	0.164	748	748	**410**	0.132	468	410	**6822**
	B-901	**1673**	0.129	1948	1673	**837**	0.103	1218	837	**7140**
	B-902	**3680**	0.082	6733	3680	**1840**	0.066	4208	1840	**7487**

For channel with holes in bottom, multiply load by 0.95.
For channel with holes in bottom and sides, multiply load by 0.90.
For extruded aluminum channel, multiply load by .33
Column loads calculated in accordance with AISI Light Gauge Cold-Formed Steel Design Manual, Section 3.6.

Channel Load Data – continued

Span	Channel	Simple Beam Uniformly Distributed Load				Simple Beam Concentrated Center Load				Column Load For K=1
		Max Load	Deflection	1/240 Span Load	Design Load	Max Load	Deflection	1/240 Span Load	Design Load	
	B-906	**234**	0.419	98	98	**117**	0.335	61	61	**3125**
	B-900	**1023**	0.212	844	844	**511**	0.170	527	511	**6541**
42″	B-900-M	**703**	0.224	550	550	**351**	0.179	344	344	**6496**
	B-901	**1434**	0.175	1431	1431	**717**	0.140	895	717	**6929**
	B-902	**3154**	0.112	4947	3154	**1577**	0.089	3092	1577	**7401**
	B-906	**205**	0.547	75	75	**103**	0.437	47	47	**2392**
	B-900	**895**	0.277	646	646	**448**	0.222	404	404	**6178**
48″	B-900-M	**615**	0.292	421	421	**308**	0.234	263	263	**6120**
	B-901	**1255**	0.229	1096	1096	**628**	0.183	685	628	**6686**
	B-902	**2760**	0.146	3788	2760	**1380**	0.117	2367	1380	**7302**
	B-906	**182**	0.692	59	59	**91**	0.554	37	37	**1890**
	B-900	**796**	0.351	510	510	**398**	0.281	319	319	**5767**
54″	B-900-M	**547**	0.370	333	333	**273**	0.296	208	208	**5693**
	B-901	**1116**	0.290	866	866	**558**	0.232	541	541	**6410**
	B-902	**2453**	0.184	2993	2453	**1227**	0.148	1870	1227	**7189**
	B-906	**164**	0.854	48	48	**82**	0.683	30	30	**1531**
	B-900	**716**	0.433	413	413	**358**	0.346	258	258	**5308**
60″	B-900-M	**492**	0.457	269	269	**246**	0.365	168	168	**5216**
	B-901	**1004**	0.358	701	701	**502**	0.286	438	438	**6101**
	B-902	**2208**	0.228	2424	2208	**1104**	0.182	1515	1104	**7064**
	B-906	**137**	1.230	33	33	**68**	0.984	21	21	**1063**
	B-900	**597**	0.624	287	287	**298**	0.499	179	179	**4244**
72″	B-900-M	**410**	0.658	187	187	**205**	0.526	117	117	**4113**
	B-901	**837**	0.515	487	487	**418**	0.412	304	304	**5387**
	B-902	**1840**	0.328	1683	1683	**920**	0.262	1052	920	**6773**
	B-906	**117**	1.674	24	24	**59**	1.339	15	15	**781**
	B-900	**511**	0.849	211	211	**256**	0.679	132	132	**3136**
84″	B-900-M	**351**	0.895	137	137	**176**	0.716	86	86	**3022**
	B-901	**717**	0.701	358	358	**359**	0.561	224	224	**4543**
	B-902	**1577**	0.446	1237	1237	**789**	0.357	773	773	**6429**

For channel with holes in bottom, multiply load by 0.95.
For channel with holes in bottom and sides, multiply load by 0.90.
For extruded aluminum channel, multiply load by .33
Column loads calculated in accordance with AISI Light Gauge Cold-Formed Steel Design Manual, Section 3.6.

Channel Load Data – continued

Span	Channel	Simple Beam Uniformly Distributed Load				Simple Beam Concentrated Center Load				Column Load For K=1
		Max Load	Deflection	1/240 Span Load	Design Load	Max Load	Deflection	1/240 Span Load	Design Load	
96″	B-906	**103**	2.187	19	19	**51**	1.749	12	12	**598**
	B-900	**448**	1.109	161	161	**224**	0.887	101	101	**2401**
	B-900-M	**308**	1.169	105	105	**154**	0.935	66	66	**2314**
	B-901	**628**	0.916	274	274	**314**	0.733	171	171	**3575**
	B-902	**1380**	0.583	947	947	**690**	0.466	592	592	**6032**
108″	B-906	**91**	2.768	15	15	**46**	2.214	9	9	**473**
	B-900	**398**	1.403	128	128	**199**	1.123	80	80	**1897**
	B-900-M	**273**	1.480	83	83	**137**	1.184	52	52	**1828**
	B-901	**558**	1.160	216	216	**279**	0.928	135	135	**2825**
	B-902	**1227**	0.738	748	748	**613**	0.590	468	468	**5582**
120″	B-906	**82**	3.417	12	12	**41**	2.733	8	8	**383**
	B-900	**358**	1.732	103	103	**179**	1.386	65	65	**1537**
	B-900-M	**246**	1.827	67	67	**123**	1.461	42	42	**1481**
	B-901	**502**	1.432	175	175	**251**	1.145	110	110	**2288**
	B-902	**1104**	0.911	606	606	**552**	0.729	379	379	**5080**

For channel with holes in bottom, multiply load by 0.95.
For channel with holes in bottom and sides, multiply load by 0.90.
For extruded aluminum channel, multiply load by .33
Column loads calculated in accordance with AISI Light Gauge Cold-Formed Steel Design Manual, Section 3.6.

Beam Formula

For calculating deflection and maximum safe load (Beams of uniform cross section)

I = *Moment of inertia, in position of load, in inches^4.*

S = *Section modulus – in position of load I/n, in inches^3.*

f = *Bending stress in extreme fiber, in pounds per square inch.*

E = *Modulus of elasticity, in pounds per square inch.*

L = *Length of section, in inches.*

W = *Superimposed loads supported by beam, in pounds.*

W Max. = *Maximum safe load at point given, in pounds.*

M = *Maximum bending moment, in inch pounds.*

D, D1 = *Deflections at points given, in inches.*

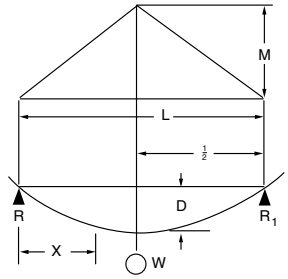
D Max. = *Maximum deflection at point given, in inches.*

Steel and Aluminum

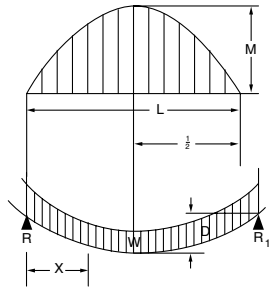
Modulus of Elasticity (E)

Steel – 29,500,000 pounds per square inch

Aluminum – 10,000,000 pounds per square inch



Beam supported at ends
Concentrated load at center
W max. = 4fS/L
D max. = WL^3/48EI

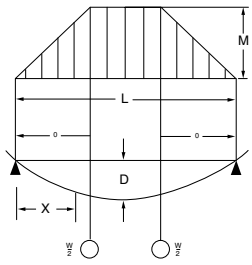


Beam supported at ends
Uniformly distributed load
W max. = 8fS/L
D max. = 5WL^3/384EI

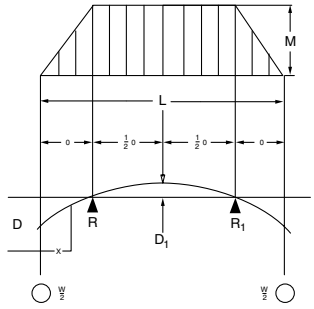
Maximum Fiber Stress (f)

Steel – 30,000 pounds per square inch

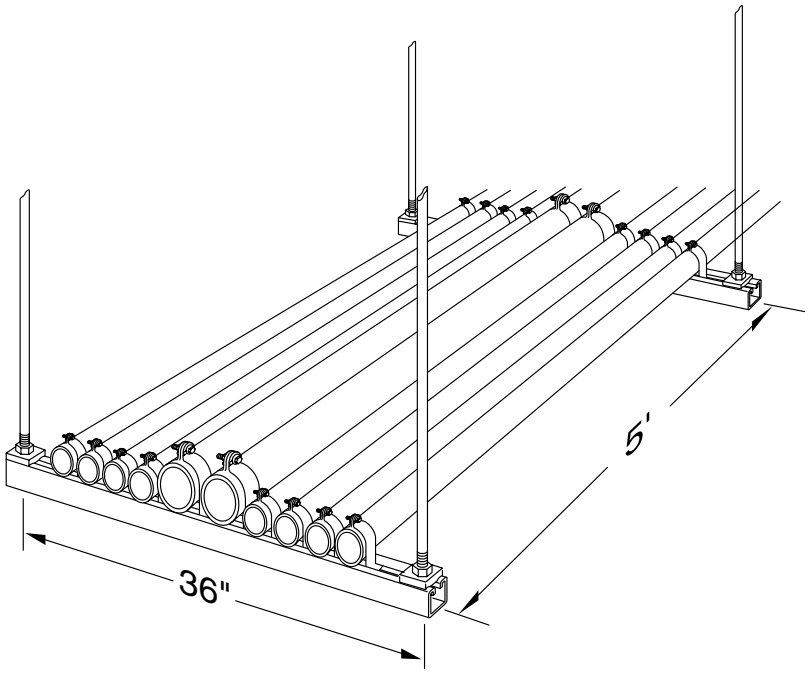
Aluminum – 10,000 pounds per square inch

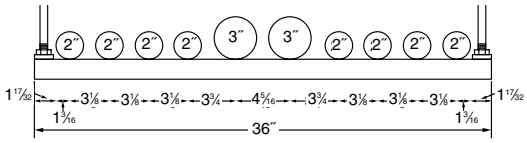


Beam supported at ends
Two symmetrical concentrated loads
W max. = 2fS/a
D max. = Wa/12EI (¾ L^2 - a^2)



Beam continuous over two supports
Two exterior symmetrical loads
W max. = 2fS/a
D, distance a = Wa(3aL-4a^2)/12EI
D1, distance L/2 - a = Wa(2-2a)^2/16EI





Problem

Design trapeze to support 8-2" rigid steel conduits and 2-3" rigid steel conduits on a No. B-905 channel span with hangers spaced five (5) feet apart.

Weight per Hanger Equals

2" rigid steel conduit with heaviest conductor combination = 6.625 lbs. per foot.
3" rigid steel conduit with heaviest conductor combination = 13.415 lbs. per foot.

8	x	6.625	x	5	=	265 lbs.	=	weight of 2" conduits per hanger
2	x	13.415	x	5	=	134 lbs.	=	weight of 3" conduits per hanger
				Total	=	399 lbs.	=	weight of conduits per hanger

Conclusion

Referring to the load span tables on page K128 for B-905 channel, a 36-inch span has a uniformly distributed load rating of 1133 lbs., which is greater than the 390 lb. load calculated above, and is therefore satisfactory.

On longer spans or spans with greater loads, use B-901, B-900-2A or B-905-2A channel or provide an intermediate support

Note on Conduit Support

The 1987 edition of the *National Electrical Code* states the rigid metal conduit, intermediate metal conduit, and electrical metallic tubing shall be supported at least every 10 feet. See Article 346, Section 346-12 for exceptions for rigid-metal conduit.

Conduit Spacings

Spacings in inches between centers of conduits.
The light face figures are the minimum dimensions to provide clearance between locknuts.
The more liberal spacings printed in bold face type should be used whenever possible.

Size	½	¾	1	1¼	1½	2	2½	3	3½	4	4½	5	6
½	1 3/16	–	–	–	–	–	–	–	–	–	–	–	–
	1⅜	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
¾	1 5/16	1 1/16	–	–	–	–	–	–	–	–	–	–	–
	1½	**1⅝**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
1	1½	1⅝	1¾	–	–	–	–	–	–	–	–	–	–
	1¾	**1⅞**	**2**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
1¼	1¾	1⅞	2	2¼	–	–	–	–	–	–	–	–	–
	2	**2⅛**	**2¼**	**2½**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
1½	1 15/16	2 1/16	2 3/16	2 7/16	2 9/16	–	–	–	–	–	–	–	–
	2⅛	**2¼**	**2⅜**	**2⅝**	**2¾**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
2	2 3/16	2 5/16	2½	2¾	2⅞	3⅛	–	–	–	–	–	–	–
	2⅜	**2½**	**2¾**	**3**	**3⅛**	**3⅜**	**–**	**–**	**–**	**–**	**–**	**–**	**–**
2½	2 7/16	2 9/16	2¾	3	3⅛	3⅜	3⅝	–	–	–	–	–	–
	2⅝	**2¾**	**3**	**3¼**	**3⅜**	**3⅝**	**4**	**–**	**–**	**–**	**–**	**–**	**–**
3	2 13/16	2 15/16	3 1/16	3 5/16	3 7/16	3¾	4	4 5/16	–	–	–	–	–
	3	**3⅛**	**3⅜**	**3⅝**	**3¾**	**4**	**4⅜**	**4¾**	**–**	**–**	**–**	**–**	**–**
3½	3⅛	3¼	3⅜	3⅝	3¾	4 1/16	4 5/16	4⅝	4 15/16	–	–	–	–
	3⅜	**3½**	**3⅝**	**3⅞**	**4**	**4⅜**	**4⅝**	**5**	**5⅜**	**–**	**–**	**–**	**–**
4	3 7/16	3 9/16	3 11/16	3 15/16	4 1/16	4⅜	4⅝	4 15/16	5¼	5 9/16	–	–	–
	3¾	**3⅞**	**4**	**4¼**	**4⅜**	**4¾**	**5**	**5⅜**	**5⅝**	**6**	**–**	**–**	**–**
4½	3¾	3⅞	4	4¼	4⅜	4⅝	4⅞	5¼	5 9/16	5⅞	6⅛	–	–
	4	**4⅛**	**4¼**	**4½**	**4¾**	**5**	**5¼**	**5⅝**	**6**	**6¼**	**6½**	**–**	**–**
5	4⅛	4¼	4⅜	4⅝	4¾	5	5¼	5 9/16	5⅞	6 3/16	6½	6 13/16	–
	4⅜	**4½**	**4⅝**	**4⅞**	**5**	**5⅜**	**5⅝**	**6**	**6¼**	**6⅝**	**7**	**7¼**	**–**
6	4¾	4⅞	5	5¼	5⅜	5⅝	5⅞	6 3/16	6½	6 13/16	7⅛	7 1/16	8⅛
	5	**5⅛**	**5¼**	**5½**	**5⅝**	**6**	**6¼**	**6⅝**	**7**	**7¼**	**7⅝**	**8**	**8⅝**

Pipe Data

Trade Size	Rigid Conduit – Aluminum and Steel: Nominal Outside Diameter (in. per UL-6)		Outside Diameter of Coupling (in. per UL-6)		Weight of Conduit (lbs. per ft.)		Max. Weight of Conduit and Conductor (lbs. per foot) Not Lead Covered	
	steel	alum.	steel	alum.	steel	alum.	steel	alum.
½	0.840	0.840	1.010	1.078	0.790	0.274	1.040	.524
¾	1.050	1.050	1.250	1.328	1.050	0.364	1.760	1.074
1	1.315	1.315	1.525	1.563	1.530	0.530	2.695	1.695
1¼	1.660	1.660	1.869	1.953	2.010	0.696	3.975	2.661
1½	1.900	1.900	2.155	2.219	2.490	0.822	5.000	3.332
2	2.375	2.375	2.650	2.750	3.320	1.157	6.625	4.462
2½	2.875	2.875	3.250	3.281	5.270	1.825	9.460	6.015
3	3.500	3.500	3.870	3.812	6.830	2.389	13.415	8.974
3½	4.000	4.000	4.500	4.438	8.310	2.877	16.690	11.257
4	4.500	4.500	4.875	5.000	9.720	3.400	20.410	14.090
5	5.563	5.563	6.000	6.219	13.140	4.654	29.350	20.864
6	6.625	6.625	7.200	7.313	17.450	6.120	41.910	30.580

Pipe Data – continued

Trade Size	Intermediate Metal Conduit (IMC): Nominal Outside Diameter (in. per UL)	Outside Diameter of Coupling (in. per UL)	Weight of Conduit (lbs. per foot)	Max. Weight of Conduit and Conductor (lbs. per ft.)	Thinwall Conduit (EMT) Per UL-797: Nominal Outside Diameter (in.)	Weight of EMT (lbs. per ft.)	Max. Weight of EMT and Conductor (lbs. per ft.)
½	0.815	1.010	.6	0.850	0.706	0.285	0.538
¾	1.029	1.250	.8	1.530	0.922	0.435	1.160
1	1.290	1.525	1.1	2.325	1.163	0.640	1.825
1¼	1.638	1.869	1.5	3.465	1.510	0.950	2.950
1½	1.883	2.155	1.8	4.330	1.740	1.100	3.674
2	2.360	2.650	2.4	5.725	2.197	1.400	4.436
2½	2.857	3.250	4.2	8.470	2.875	2.050	6.400
3	3.476	3.870	5.2	11.845	3.500	2.500	9.262
3½	3.971	4.500	6.1	14.500	4.000	3.400	12.100
4	4.466	4.875	6.8	17.510	4.500	3.700	15.355

Column Loading-structor Channel

Column Height (ft.)	Type of Channel	Max. Column Loading (lbs.)	Number of Tiers or Braces per Column 1	2	3	4	5
1	B-900	8,625	2590				
	B-900-2A	17,400	4450				
	B-906	4,170	1280				
	B-906-2A	8,570	2160				
2	B-900	7,900	2520	2000			
	B-900-2A	16,500	4400	3650			
	B-906	3,450	1200	980			
	B-906-2A	7,840	2100	1720			
3	B-900	6,960	2420	1960	1780		
	B-900-2A	15,000	4300	3520	2960		
	B-906	2,250	1015	950	795		
	B-906-2A	6,680	2020	1700	1435		
4	B-900	5,970	2280	1910	1640	1360	
	B-900-2A	13,095	4100	3480	2930	2520	
	B-906	1,270	755	895	775	670	
	B-906-2A	4,980	1830	1660	1420	1230	
5	B-900	5,055	2140	1850	1560	1340	1180
	B-900-2A	11,490	3950	3420	2900	2500	2210
	B-906			830	745	650	575
	B-906-2A	3,340	1550	1610	1400	1215	1075

Column Height (ft.)	Type of Channel	Max. Column Loading (lbs.)	Number of Tiers or Braces per Column 1	2	3	4	5	6	7	8	9	10
6	B-900	4,275	1990	1790	1540	1325	1150	1035				
	B-900-2A	9,990	3750	3340	2870	2480	2190	1960				
	B-906			700	710	635	565	505				
	B-906-2A	2,170	1240	1550	1370	1205	1065	955				
7	B-900	3,645	1840	1720	1490	1310	1140	1025	925			
	B-900-2A	8,715	3550	3240	2820	2470	2170	1945	1760			
	B-906			520	635	610	550	495	450			
	B-906-2A			1450	1330	1180	1050	945	860			
8	B-900	3,045	1670	1650	1460	1290	1130	1015	920	835		
	B-900-2A	7,395	3180	3140	2780	2450	2160	1930	1750	1600		
	B-906			470	605	590	535	490	445	410		
	B-906-2A			1330	1290	1160	1040	935	850	780		
9	B-900	2,580	1520	1570	1430	1260	1120	1000	905	825	760	
	B-900-2A	6,190	3030	3040	2730	2420	2140	1920	1745	1595	1465	
	B-906			130	535	555	525	485	435	400	370	
	B-906-2A			1200	1250	1150	1020	930	840	775	715	
10	B-900	2,100	1340	1500	1380	1230	1110	990	900	820	755	700
	B-900-2A	5,580	2900	2940	2665	2380	2135	1910	1730	1580	1460	1350
	B-906				470	520	500	465	430	395	365	340
	B-906-2A			1160	1190	1120	1010	915	835	770	710	660

This table recognizes eccentricity on the column caused by usual connections.

Examples for Using the Continuous Run Load Chart for Channel

Example Number 1

A total load of 500 lbs. is to be supported in an evenly distributed manner over a distance of 28 feet with the maximum deflection being not greater than 1/240 of the span between the supports.

Which Kindorf channel should be used and how many supports are needed? On the chart, find the point of intersection for a total load of 500 lbs. and a total run of 28 feet.

Pick the next graph line vertically above this point. This B-900 or G-975 with 4 supports (4B) evenly spaced. By reading horizontally to the left from this point, it can be seen that up to 565 lbs. can be supported on B-900, (G-975) under these conditions and still maintain a deflection of 1/240 of the span.

Example Number 2

Four foot fixtures weighing 30 lbs. each are to be attached to a channel suspended from a ceiling in a continuous 20-foot run and maintain a deflection of less than 1/240 of the span between the supports.

Which Kindorf channel should be used and how many supports are needed?

$$\text{Number of fixtures} = \frac{20 \text{ ft.}}{4 \text{ ft./fixture}} = 5 \text{ fixtures}$$

$$\text{Total Load} = 5 \text{ fixtures} \times \frac{30 \text{ lbs.}}{\text{fixture}} = 150 \text{ lbs.}$$

On the chart, find the point of intersection for a total load of 150 lbs. and a total run of 20 feet.

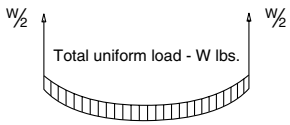
Pick the next graph line vertically above this point. This is B-900-M (G-975-M) with 3 supports (3A) – one support on each end and one in the center of the run.

Example Number 3

A 20-foot run of B-901 or G-965 is supported by 3 hangers, one on each end and one in the center. How much evenly distributed weight can this system support and maintain a maximum deflection of 1/240 of the span between the supports?

On the chart, find the point of the intersection for a total run of 20 feet and the graph line for B-901 (G-965) with 3 supports (3C).

From this point, read horizontally to the left to find the total uniform load of 690 lbs. on the vertical scale.

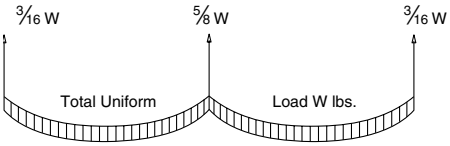


Selection of Hanger Rods

Use H-193-3/8 or 'R' series hanger rod for	if the total uniform load is:	Use H-193-1/2 or 'R' series hanger rod for	if the total uniform load is between
2 supports	*1220 lbs. or less*	*2 supports*	*1220 lbs. and 2260 lbs.*
3 supports	*975 lbs. or less*	*3 supports*	*975 lbs. and 1810 lbs.*
4 supports	*1665 lbs. or less*	*4 supports*	*1665 lbs. and 3080 lbs.*

Load distribution on hanger rods – 2 Supports

Example – If the total uniformly distributed load W is 1,000 lbs., each hanger must be capable of supporting half of the load or 500 lbs. Therefore, H-193-3/8 or ⅜ 'R' series hanger rod would be sufficient to support this load.

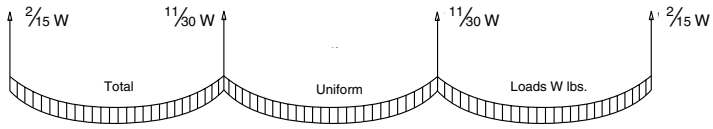


Maximum Safe Load - per hanger rod
H-193-3/8 or 'R' Series - 610 lbs.
H-193-1/2 or 'R' Series - 1130 lbs.

3 Supports

Example – If the total uniformly distributed load W is 1,000 lbs., the load is distributed to each support in the following manner: 187½ lbs. to each end support and 625 lbs. to the center support. In this case, the maximum load to be supported is 625 lbs., which exceeds the recommended safe load of 610 lbs. for H-193-3/8 hanger rod., therefore H-193-1/2, or ½ 'R' series supports should be used.

4 Supports



Example – If the total uniformly distributed load W is 1,000 lbs., the load is distributed to each support in the following manner: 133 lbs. to each end support and 367 lbs. to each inner support. Therefore, H-193-3/8, or ⅜ 'R' series hanger rod would be sufficient to support this load.

Kindorf Channel Bars – Load Deflection Charts

Concentrated Center Loads

Cat. No.	Beam Span (in.)	Load at 25,000 psi Stress (lbs.)	Deflection at 25,000 psi Stress (in.)	Load at Max. Deflection of 1/240 Span (lbs.)
6013		55	.038	55
6014	12	34	.048	34
6029		180	.023	180
6029-H		175	.024	175
6013		27	.153	18
6014	24	17	.192	9
6029		89	.093	89
6029-H		87	.095	87
6013		18	.345	8
6014	36	11	.433	4
6029		59	.208	42
6029-H		57	.213	40
6013		13	.615	4
6014	48	8	.773	2
6029		43	.367	23
6029-H		42	.375	22
6013		11	.963	2
6014	60	6	1.216	1
6029		34	.550	14
6029-H		33	.581	13

Loads for lengths greater than 60" spans are available on request.

Kindorf Channel Bars – Load Deflection Charts – continued

Uniformly Distributed Loads

Cat. No.	Beam Span (in.)	Load at 25,000 psi Stress (lbs.)	Deflection at 25,000 psi Stress (lbs.)	Load at Max. Deflection of 1/240 Span (lbs.)
6013		110	.049	110
6014	12	68	.060	57
6029		361	.029	361
6029-H		350	.030	350
6013		55	.194	28
6014	24	34	.238	14
6029		180	.117	154
6029-H		174	.119	146
6013		36	.437	12
6014	36	22	.536	6
6029		119	.263	67
6029-H		115	.268	64
6013		27	.776	6
6014	48	16	.953	3
6029		88	.467	37
6029-H		86	.477	35
6013		21	1.213	4
6014	60	13	1.490	1
6029		70	.729	22
6029-H		68	.746	21

Loads are rounded off to the nearest pound in all cases.

RJBT March 21, 1980

Surface Metal Raceways

Kindorf Channel Systems E55273 (N)

(K-cont. from J card)

For use with not more than the number of wires of sizes and types indicated in the following tables when used solely as a surface metal raceway or when also used for the support of light fixtures and the fixtures over ½ in. from raceway.

Wire Size AWG	Raceway Cat. No. B-900, B-900M, G-975, G-975M	Raceway Cat. No. B-901, G965	Raceway Cat. No. B-906	Raceway Cat. No. B-902 G-955
Type insulation AVB, RH, RHH, RHW				
14	*21*	*25*	*10*	*44*
12	*17*	*20*	*8*	*35*
10	*14*	*16*	*7*	*29*
8	*9*	*10*	*4*	*18*
6	*5*	*6*	*2*	*10*
Type Insulation FEP, FEPB, THHN, THWN				
14	*79*	*94*	*39*	*165*
12	*58*	*69*	*29*	*121*

Replaces E55273K dated Feb. 17, 1978. (Cont. on L card)

466409002 Underwriters Laboratories Inc.® F110059784

RJBT March 21, 1980

Surface Metal Raceways

Kindorf Channel Systems E55273 (N)

(L-cont. from K card)

Wire Size AWG	Raceway Cat. No. B-900, B-900M, G-975, G-975M	Raceway Cat. No. B-901, G965	Raceway Cat. No. B-906	Raceway Cat. No. B-902 G-955
10	*37*	*44*	*18*	*77*
8	*21*	*25*	*10*	*44*
6	*9*	*10*	*4*	*18*
Type Insulation RUH, RUW, T, TW, XHHW				
14	*51*	*61*	*25*	*107*
12	*40*	*48*	*20*	*84*
10	*30*	*36*	*15*	*63*
8	*16*	*19*	*8*	*33*
6	*8*	*9*	*4*	*16*
Type insulation THW				
14	*33*	*39*	*16*	*69*
12	*27*	*32*	*13*	*56*
10	*22*	*26*	*11*	*46*
8	*13*	*15*	*6*	*27*
6	*8*	*9*	*4*	*16*

Replaces E55273L dated Feb. 21, 1978. (Cont. on M card)

466409002 Underwriters Laboratories Inc.® F110059785

RJBT January 31, 1984

Surface Metal Raceways

Kindorf Channel Systems E55273 (N)

(M-cont. from L card)

Note A is suitable for number of wires in table below when installed to support and supply electric discharge lighting fixtures mounted flush to the underside of the raceway and when raceway wiring is suitable for at least 75 C, except wire suitable for 60 C may be used when clearance between fixtures and raceway is at least ½ in. In all cases, closure strip G-969 or G-969-AL is required to complete raceway enclosure

Wire Size AWG	Raceway Cat. No. B-900, B-900M, B-901, G-965, G-975, G-975M	Raceway Cat. No. B-906	Raceway Cat. No. B-902, G-955
Type Insulation. AVB, FEP, FEPB, RH, RHH, RHW, RUH, RUW, T, THHN, THW, THWN, TW, XHHW			
14	*10*	*4*	*10*
12	*10*	*3*	*10*
10	*5*	–	*8*
8	*4*	–	*6*
6	*4*	–	*4*

Look For Listing Mark on Product

(Cont. on N card)

466409002 Underwriters Laboratories Inc.® F110059786

To Select Proper Channel

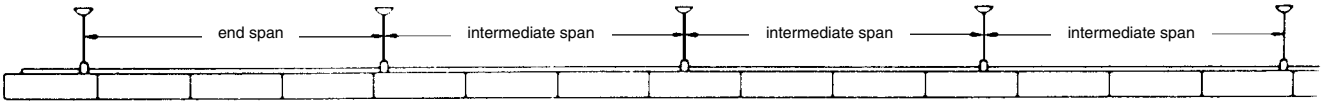


Figure 1 – long continuous run

The hanger spacing is often determined by the type of building construction. The deflection then will determine the proper channel since this deflection should not exceed 1/240 of the span.

To estimate the deflection at the center of an intermediate span in long continuous runs (Fig. 1), multiply the weight of a single fixture times the applicable deflection constant (from table). This deflection also applies to the end span in Figure 1 and the single span in Figure 2 if the dimension "C" is between ¼ and ⅓ of the length of the span. If a cantilever does not exist as in the double span (Figure 3), the deflection of end spans (Figure 3) will be doubled.

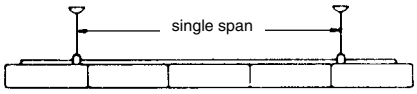


Figure 2 – single span

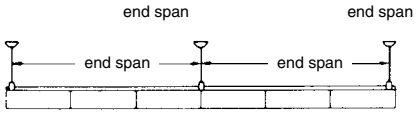


Figure 3
double span

Deflection Constants for Continuous Run, 4-Foot Fixtures*

Span feet	B-906 G-956	B-900-M G-975-M	G-953	B-900 G-975	B-901 G-950, G-965	B-900-2A	B-902 G-955
6	.004	.000	.000	.000	.000	.000	.000
8	.009	.002	.001	.000	.000	.000	.000
10		.005	.004	.003	.001	.000	.000
12		.010	.007	.006	.004	.001	.001
14				.012	.007	.002	.002
16				.020	.011	.004	.004
18					.018	.007	.006
20						.010	.009

** For 8-foot fixtures reduce the deflection constant by 50%. This table is for normal weight fixtures – the constant ".000" infers negligible deflection.*

A long, continuous run of 30# 4-foot fixtures on G-975 channel is supported on 12' centers. The deflection at the center of an intermediate span will be the deflection constant (.006) times the fixture weight (30#) or 0.18 inches.

Suggested Kindorf Specifications

I. For purposes of designating type and quality for work in this section, drawings and specifications are based upon products of standard Kindorf product drawings. Whenever substitute products are to be considered, supporting technical literature, samples, drawings, and certified performance data must be submitted in order to make a valid comparison of products involved.

II. Materials

Steel channel sections shall be rolled from AISI 1008 commercial grade steel and be in conformance with ASTM A569-72.

Aluminum channel sections shall be extruded from 6063-T6 aluminum alloy and be in conformance with ASTM-B221-80.

III. Construction

A. Channel and Accessories for Support Systems.

The cross sectional width dimension of the channel shall be a minimum of 1½". The depth will be as required to satisfy the load requirements. Channel with 1½" depth or greater shall be rolled from Manufacturing Std. 12 gauge steel. Channel smaller than 1½" may be Manufacturing Std. 14 gauge.

Attachment holes, when required, shall be factory punched on hole centers equal to the channel cross sectional width dimension and shall be a maximum of 9⁄16" in diameter.

Channel attachment nuts shall be designed to prelocate in the channel and provide a bearing surface on the turned down lips while making positive contact with the side walls of the channel.

Straps for the support of conduit shall be designed such that the attachment nut is captivated on the shoulder of the strap when tightened, and the attachment bolt will allow tightening by either a slot-head screwdriver or wrench.

All nuts, bolts, straps, threaded rod and edges of punched holes shall be protected with the same finish as the channel as described in the FINISH section of this specification.

B. Channel and Accessories for Surface Raceway Systems.

Fluorescent fixtures, as designated on the drawings and according to the fixture schedule, shall be supported and supplied through a combination raceway and support system.

The cross sectional width dimension of the channel shall be a minimum of 1½". The depth will be as required to satisfy the load and wire carrying requirements.

The supporting channel shall have ½" diameter knockouts on 6" centers to accommodate ½" conduit fittings, and be listed by Underwriters' Laboratories Inc. as complying with Std. UL-5 for use as surface raceway and support for electric discharge type lighting fixture. The channel must also provide for ground continuity.

The combination raceway and support system shall be complete with channel joiners, end caps, closure strips, hangers, wiring entrance and all necessary fittings for electrical and mechanical connections.

When splicing or joining raceway channel at 90 degree angles, the joiners shall be designed such that they are concealed and fastened to the inside surface of the channel. Joiners shall be listed by Underwriters' Laboratories Inc. and allow wires to be directly laid in place.

All channel and fittings, including threaded components, shall be protected against corrosion as outlined in the finish section of this specification.

Installation of the system shall be in accordance with the National Electrical Code, NFPA 70 and ANSI C1.

IV. Galv-Krōm Zinc Dichromate Finish

The finish on steel components shall consist of a combination of .0005 inch electrogalvanizing on steel in accordance with ASTM B633-78 Type LS coating and a gold zinc dichromate barrier formed on the zinc. This coating shall be applied after factory fabrication of the material.

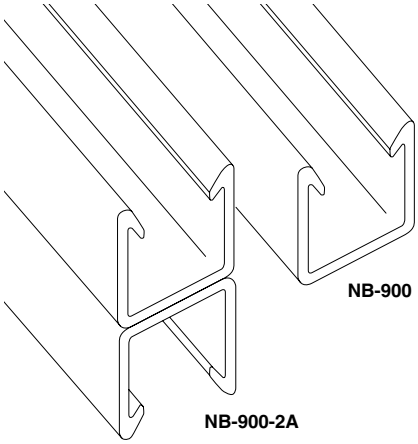
When tested in accordance with ASTM B117-73 procedure, there shall be no sign of red rust after 1,000 hours of testing. Certified test results to support this must be submitted upon request.

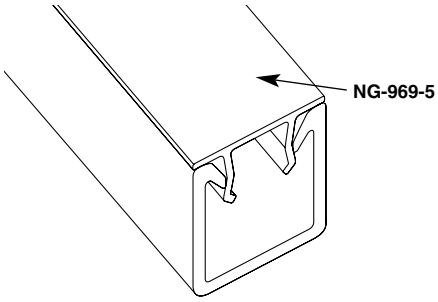
Nonmetallic Channels and Accessories

Kindorf strut is a complete corrosion-proof system, with a comprehensive selection of channels and accessories. Cost-efficient, extremely durable, easy to use, and made of the strongest non-metallic materials available.

Kindorf: Demanding products for demanding environments.

- Can't rust under the worst of conditions
- Cost-effective
- Maintenance-free
- Easy to use, cut and drill
- Ideal for a wide variety of applications
- Unsurpassed reliability



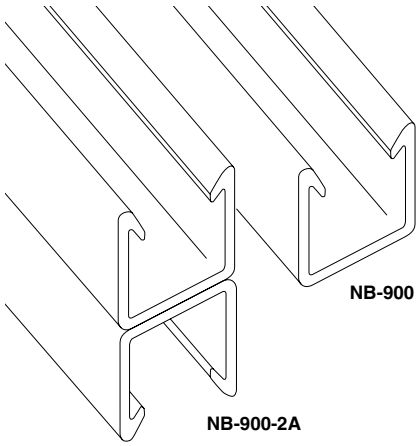


Channels

Cat. No.	Description	Material	Color	Lbs. Wt./100 ft.
NB-900-10-P	1½" x 1½" x 10' Single Channel	Polyester	Gray	55
NB-900-10-V	1½" x 1½" x 10' Single Channel	Vinylester	Beige	55
NB-900-2A-10-P	3" x 1½" x 10' Back to Back Channel	Polyester	Gray	110
NB-900-2A-10-V	3" x 1½" x 10' Back to Back Channel	Vinylester	Beige	110

Channel Closure Strip

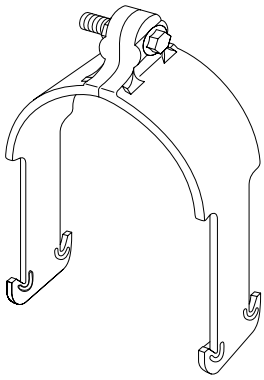
Cat. No.	Description	Material	Color	Lbs. Wt./100 ft.
NG-969-5	Standard length 5'	Rigid PVC	Dark Gray	20



Channel Simple Beam Loading Table

Cat. No.	Max Uniform Beam Load lbs.	Max Uniform Beam Load Def (in.)	1/360 Span lbs.	1/360 Span Def (in.)	Max Column Load lbs.
12 inches					
NB-900-10-P	1430	0.066	723	0.033	3439
NB-900-10-V	1430	0.066	723	0.033	3439
NB-900-2A-10-P	4231	0.036	3940	0.033	7007
NB-900-2A-10-V	4231	0.036	3940	0.033	7007
18 inches					
NB-900-10-P	953	0.148	321	0.050	3136
NB-900-10-V	953	0.148	321	0.050	3136
NB-900-2A-10-P	2821	0.081	1751	0.050	6501
NB-900-2A-10-V	2821	0.081	1751	0.050	6501
24 inches					
NB-900-10-P	715	0.264	180	0.067	2778
NB-900-10-V	715	0.264	180	0.067	2778
NB-900-2A-10-P	2115	0.143	985	0.067	5909
NB-900-2A-10-V	2115	0.143	985	0.067	5909
30 inches					
NB-900-10-P	572	0.412	115	0.083	2369
NB-900-10-V	572	0.412	115	0.083	2369
NB-900-2A-10-P	1692	0.224	630	0.083	5236
NB-900-2A-10-V	1692	0.224	630	0.083	5236
36 inches					
NB-900-10-P	476	0.593	80	0.100	1906
NB-900-10-V	476	0.593	80	0.100	1906
NB-900-2A-10-P	1410	0.322	437	0.100	4482
NB-900-2A-10-V	1410	0.322	437	0.100	4482
48 inches					
NB-900-10-P	357	1.055	45	0.133	1091
NB-900-10-V	357	1.055	45	0.133	1091
NB-900-2A-10-P	1057	0.573	246	0.133	2809
NB-900-2A-10-V	1057	0.573	246	0.133	2809
60 inches					
NB-900-10-P	286	1.648	28	0.167	698
NB-900-10-V	286	1.648	28	0.167	698
NB-900-2A-10-P	846	0.895	157	0.167	1798
NB-900-2A-10-V	846	0.895	157	0.167	1798
72 inches					
NB-900-10-P	238	2.373	20	0.200	485
NB-900-10-V	238	2.373	20	0.200	485
NB-900-2A-10-P	705	1.289	109	0.200	1248
NB-900-2A-10-V	705	1.289	109	0.200	1248

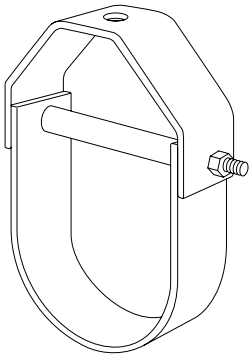
Deflection in excess of 3.00 inches; midspan support is recommended.
Table lists the total allowable load for various simple spans based on a minimum safety factor of 3:1.
All beams should be supported in a manner to prevent rotation at supports.
For beams longer than 72 inches, contact manufacturer's engineering department.
Recommend sealing ends of channel with sealant after cutting (see page K148).



Pipe Clamps

Cat. No.	Conduit/Pipe Style: Nominal in.	PVC Sch. 80	Rigid	PVC Coated Metal (Typ.)	Recommended Torque in lbs.	Design Load*	Wt. lbs./100
NC-105-1/2	½	.840	.840	.920	5	100	4
NC-105-3/4	¾	1.050	1.050	1.130	5	100	4
NC-105-1	1	1.315	1.315	1.395	5	200	4.8
NC-105-1 1/4	–	–	–	–	–	–	–
NC-105-1 1/2	1½	1.900	1.900	1.980	5	200	6.4
NC-105-2	2	2.375	2.375	2.455	5	200	8
NC-105-3	3	3.500	3.500	3.580	20	300	10
NC-105-4	4	4.500	4.500	4.580	20	300	10
NC-105-6	6	6.625	6.625	6.705	20	300	16.3

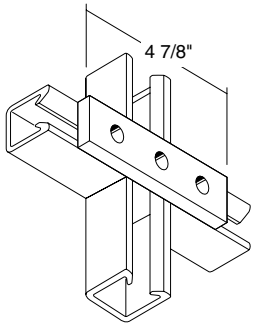
* Design load is based on pullout values with a 3:1 factor of safety.
Material: Polyurethane
Color: Gray



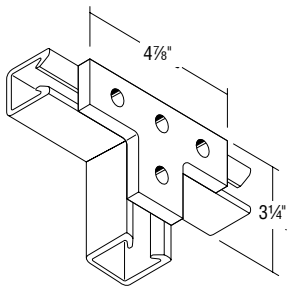
Clevis Hangers

Cat. No.	Nominal Diameter	(A) Max Pipe OD	(B) Dimension Height	(C) Hanger Rod Size	Maximum Load	Wt. lbs./100
NC-149-1	1	1½	2¾	½	60	20.8
NC-149-1 1/2	1½	2	3½	½	60	24
NC-149-2	2	2⅝	4¾	½	90	38
NC-149-2 1/2	2½	3¼	5½	½	120	40
NC-149-3	3	3⅞	7	⅝	160	62.5
NC-149-4	4	5⅛	8½	⅝	250	88
NC-149-6	6	7⅛	10⅞	⅝	400	170
NC-149-8	8	9¼	14	⅝	450	250
NC-149-10	10	11⅜	18	⅝	500	400
NC-149-12	12	13½	21½	⅝	600	550
NC-149-14	14	15¾	24½	¾	700	700
NC-149-16	16	18	27⅜	¾	800	1150
NC-149-19	19	21	34¼	¾	900	1700

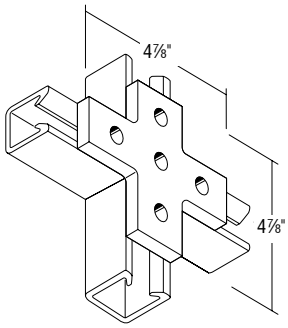
Design loads given are in pounds at 70°F with a 3:1 factor of safety.
Insulate hangers from pipe at higher temperatures
Material: Polyester
Color: Yellow and Gray



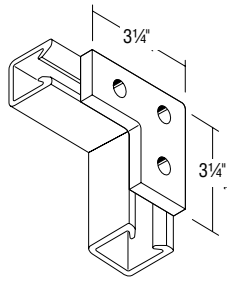
NB-935-P
NB-935-V



NB-937-P
NB-937-V



NB-947

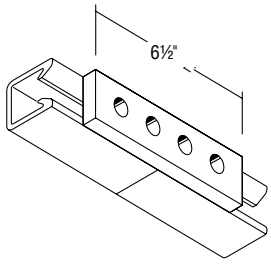


NB-931

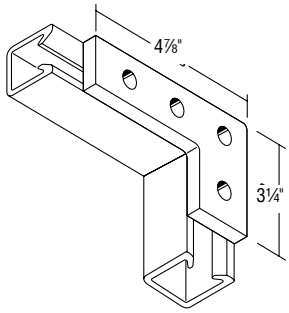
Fittings

- Polyester and Vinylester Kindorf fittings are suited for use with all 1½" and 1⅝" channels.
- Kindorf fittings are manufactured from 3⁄16" flat material.
- Consult the Chemical Compatibility Chart to ensure material will withstand the specific chemical environment.
- All holes in Kindorf fittings are 13⁄32" in diameter.

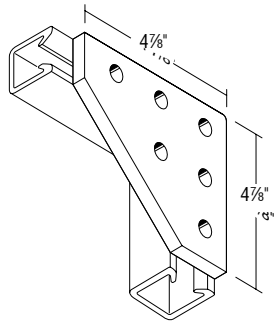
Cat. No.	Material	Color	Wt lbs./100
NB-935-P	Polyester	Gray	13
NB-935-V	Vinylester	Beige	13
NB-931	Polyurethane	Gray	14
NB-947	Polyurethane	Gray	24
NB-949-P	Polyester	Gray	22
NB-949-V	Vinylester	Beige	22
NB-936-P	Polyester	Gray	28
NB-936-V	Vinylester	Beige	28
NB-937-P	Polyester	Gray	20
NB-937-V	Vinylester	Beige	20
NB-924	Polyurethane	Gray	56
NB-944	Polyurethane	Gray	34
NB-925	Polyurethane	Gray	70
NB-918	Polyurethane	Gray	4.6



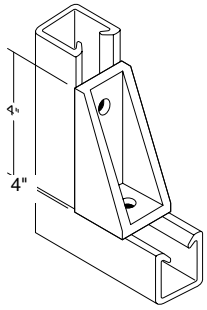
NB-949-P
NB-949-V



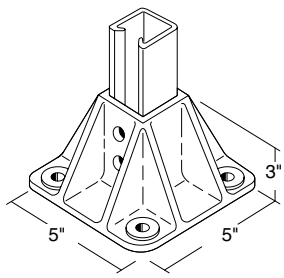
NB-936-P
NB-936-V



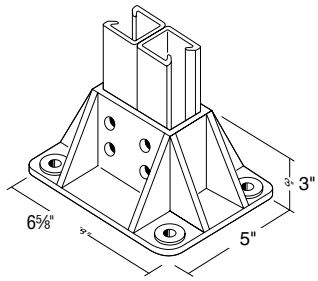
NB-944



NB-918



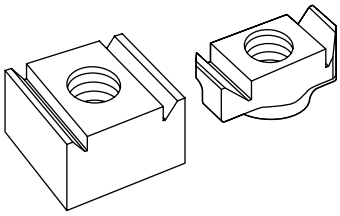
NB-924



NB-925

K
Kindorf®

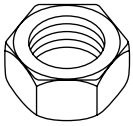
Thomas&Betts



Channel Nuts

Cat. No.	Thread Size	Maximum Load/lbs.	Maximum Torque/lbs.	Wt. lbs./100
NB-910-3/8	3/8"	450	35	1.8
NB-910-3/8 HD	3/8"	1,370	100	2.6
NB-910-1/2	1/2"	450	40	1.8
NB-910-1/2 HD	1/2"	1,500	130	5.2

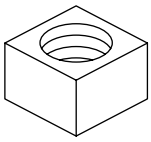
3:1 Factor of Safety
Material: Glass Fiber Reinforced Polyurethane
Color: Gray



Hex Nuts

Cat. No.	Size	Maximum Load/lbs.	Maximum Torque/lbs.	Wt. lbs./100
NH-114-C	3/8"	465	50	.33
NH-114-D	1/2"	830	125	.8

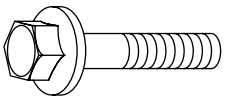
3:1 Factor of Safety
Material: Glass Fiber Reinforced Polyurethane
Color: Gray



Square Nuts

Cat. No.	Size	Thread Shear/lbs.	Max. Torque/lbs.	Wt. lbs./100
NH-116-C	3/8"	1,300	125	1.8
NH-116-D	1/2"	1,600	200	2.8
NH-116-E	5/8"	1,600	200	5.6

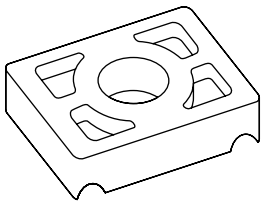
3:1 Factor of Safety
Material: Vinylester
Color: Gray



Hex Head Bolts

Cat. No.	Size	Maximum Load/lbs.	Maximum Torque/lbs.	Wt. lbs./100
NH-113-P	3/8" x 1 1/4"	360	30	1.4
NH-113-U	3/8" x 2 1/2"	360	30	2
NH-113-C*	1/2" x 1 1/4"	600	90	1.4
NH-113-H*	1/2" x 2 1/2"	600	90	2

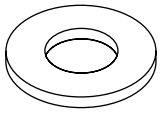
3:1 Factor of Safety
Material: Glass Fiber Reinforced Polyurethane
Color: Gray
* With molded washer



Channel Washers

Cat. No.	Hole Size	Wt. lbs./100
NH-119-C	⅜"	4
NH-119-D	½"	3.6
NH-119-E	⅝"	3.6

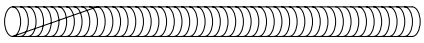
Material: Glass Fiber Reinforced Polyurethane
Color: Gray



Flat Washers

Cat. No.	Size	Wt. lbs./100
NH-117-C	⅜"	.6
NH-117-D	½"	.6
NH-117-E	⅝"	.8

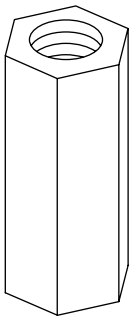
Material: Rigid PVC
Color: Gray



Threaded Rod

Cat. No.	Size	Thread Shear/lbs.	Maximum Torque/lbs.	Wt. lbs./100
NH-193-3/8-4	⅜" x 4'	300	30	7.0
NH-193-1/2-4	½" x 4'	510	80	12
NH-193-5/8-4	⅝" x 4'	1,600	200	18

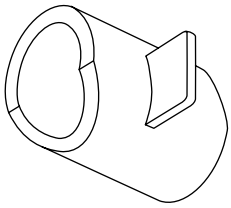
3:1 Factor of Safety
Material: Vinylester
Color: Gray



Rod Couplers

Cat. No.	Size	Maximum Load/lbs.	Wt. lbs./100
NH-195-3/8	⅜"	880	6.4
NH-195-1/2	½"	1,000	6.4
NH-195-5/8	⅝"	1,700	13.2

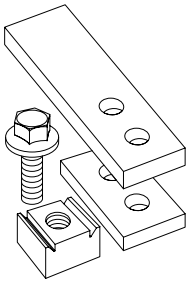
3:1 Factor of Safety
Material: Glass Fiber Reinforced Polyurethane
Color: Gray



Channel Reinforcement Spacer

Cat. No.	Hole Size	Wt. lbs./100
NB-950	3⁄8" – 1⁄2"	1.6

Material: Polyurethane
Color: Gray



Channel to Beam Clamp Assembly

Cat. No.	Weight	Maximum Load/lbs.
NE-763-3/8	110	200
NE-763-1/2	120	200

Kit Consists Of:

Description	Qty.	Material	Color
Channel Nuts	4	Polyurethane	Gray
Clips(set)	2	Vinylester	Beige
Bolts	4	Polyurethane	Gray

Kindorf Brush-On Fiberglass End Sealant

When fabricating Type “P” or “V” Series materials, Kindorf Fiberglass End Sealant should be used. After cutting or drilling the channel, interior glass fibers may fray and lose strength due to exposure to the environment. Kindorf sealant protects the exposed glass fibers and prevents deterioration. Kindorf sealant exceeds Vinylester (V) material in corrosion resistance.

Cat. No.	Description	Size	Wt. lbs./100
NH-600	Brush-On Sealant	1 qt.	220

Kindorf Spray-On Fiberglass End Sealant

Kindorf Spray-On Fiberglass End Sealant provides a quick and easy corrosion-resistant coating when applied to fiberglass channel and accessories. Kindorf Spray-On Fiberglass End Sealant is a rubberized spray which is supplied in a 12 oz. pressurized can.

Cat. No.	Description	Size	Wt. lbs./100
NH-601	Spray-On Sealant	12 oz.	100

Chemical Resistance

Chemical	Polyester		Vinylester		Rigid PVC		Polyurethane	
	70°F	160°F	70°F	160°F	70°F	160°F	70°F	160°F
Acetic Acid, <50%	•	•	•	•	†	†	•	–
Acetone, <10%	†	†	†	†	–	–	–	–
Aluminum Hydroxide	•	•	•	•	–	–	–	–
Ammonium Hydroxide, <20%	†	†	•	150°	•	•	•	–
Ammonium Nitrate	•	•	•	•	–	–	–	–
Ammonium Phosphate	•	•	•	•	–	–	–	–
Benzene	•	•	†	†	–	–	–	–
Benzoic Acid	•	•	•	•	•	•	•	–
Bromine, Wet Gas	†	†	•	100°	•	†	–	–
Butylene Glycol	•	•	•	•	–	–	–	–
Butyric Acid, <50%	•	•	•	•	–	–	–	–
Chlorine, Dry Gas	•	•	•	•	–	–	–	–
Chlorine, Wet Gas	†	†	•	•	–	–	–	–
Chlorine, Liquid	†	†	†	†	–	–	–	–
Chlorine, Water	•	•	•	•	•	•	•	–
Chromic Acid, <5%	†	†	•	•	–	–	–	–
Copper Chloride	•	•	•	•	•	•	•	–
Copper Cyanide	•	•	•	•	•	•	•	–
Copper Nitrate	•	•	•	•	–	–	–	–
Copper Sulfate	•	•	•	•	•	•	•	–
Esters, Fatty Acids	•	•	•	•	–	–	–	–
Ferric Chloride	•	•	•	•	•	•	–	–
Ferrous Chloride	•	•	•	•	–	–	–	–
Fluoboric Acid	•	120°	•	•	•	•	•	–
Fluosilicic Acid, <32%	†	†	•	100°	–	–	–	–
Formic Acid, <50%	†	†	•	100°	†	†	•	–
Gasoline, Aviation	•	†	•	•	–	–	–	–
Hydrochloric Acid, <37%	•	†	•	•	•	•	•	–

• Recommended for use
° Recommended up to temperature indicated
† Not recommended for use
– No information available at this time

Note: The guidelines presented in this table assume the typical application of Kindorf products where exposure is limited to fumes, vapors, and occasional splashes from chemicals. This information is intended as a guideline and does not guarantee product performance for the applications listed. In special situations where chemical resistance is critical, the factory should be consulted. Some applications may require a screening test of samples in the chemical environment of interest. The user is advised to determine suitability of the product for its particular use.

Class I fire rated per ASTM E-84 and are UL-94 V-0.

Type operating ranges for;

Polyester	-30°F – 150°F
Vinylester	-35°F – 200°F
Polyurethane	-40°F – 130°F
Nylon	-20°F – 150°F

Chemical Resistance – continued

Chemical	Polyester 70°F	Polyester 160°F	Vinylester 70°F	Vinylester 160°F	Rigid PVC 70°F	Rigid PVC 160°F	Polyurethane 70°F	Polyurethane 160°F
Hydroflouric Acid, <20%	†	†	•	100°	•	†	–	–
Hydrogen Chloride, Wet Gas	•	†	•	•	–	–	–	–
Hydrogen Sulfide, Wet Gas	•	†	•	•	•	•	–	–
Lactic Acid	•	†	•	•	•	•	•	–
Nickel Sulfate, low pH	†	†	•	•	–	–	–	–
Nickel Sulfate, high pH	†	†	•	•	–	–	–	–
Nitric Acid, <35%	†	†	•	120°	•	•	•	–
Perchloric Acid, <10%	†	†	•	150°	–	–	–	–
Phosphoric Acid	•	•	•	•	•	•	•	–
Potassium Chloride	•	•	•	•	•	•	•	–
Potassium Nitrate	•	•	•	•	–	–	–	–
Potassium Persulfate	†	†	•	•	–	–	–	–
Sodium Hydroxide, <50%	†	†	•	180°	•	•	•	–
Sodium Hypochlorite, <15%	†	†	•	150°	•	•	•	–
Sodium Nitrate	•	•	•	•	–	–	–	–
Sodium Sulfate	•	†	•	•	–	–	–	–
Sodium Sulfide	†	†	•	•	•	•	•	–
Sulfuric Acid, <70%	†	†	•	•	•	•	•	–
Sulfuric Acid >70%	†	†	•	102°	†	†	–	–
Trisodium Phosphate	†	†	•	•	•	•	•	–
Urea	•	†	•	150°	–	–	–	–
Vegetable Oils	•	•	•	•	–	–	–	–
Vinegar	•	•	•	•	–	–	–	–
White Liquor	–	–	•	•	•	•	•	–

• Recommended for use
° Recommended up to temperature indicated
† Not recommended for use
– No information available at this time

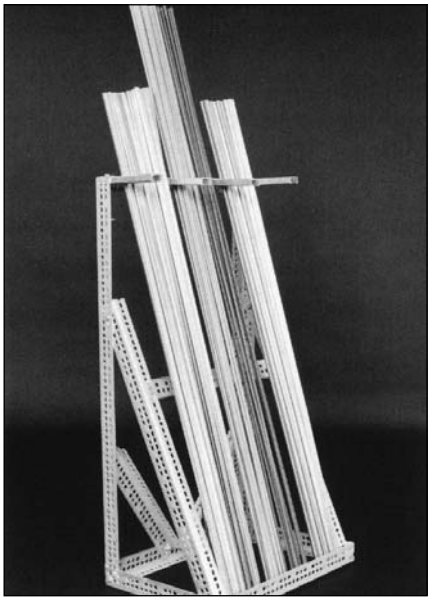
Note: The guidelines presented in this table assume the typical application of Kindorf products where exposure is limited to fumes, vapors, and occasional splashes from chemicals. This information is intended as a guideline and does not guarantee product performance for the applications listed. In special situations where chemical resistance is critical, the factory should be consulted. Some applications may require a screening test of samples in the chemical environment of interest. The user is advised to determine suitability of the product for its particular use.

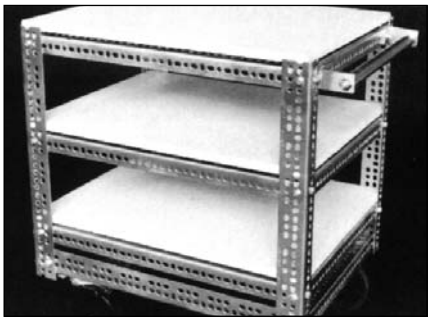
Class I fire rated per ASTM E-84 and are UL-94 V-0.

Type operating ranges for;

Polyester	-30°F – 150°F
Vinylester	-35°F – 200°F
Polyurethane	-40°F – 130°F
Nylon	-20°F – 150°F

Right Angle Slotted Angle





With Right Angle you get Flexibility – Simplicity – Economy

Create the support framing you need

Right Angle is manufactured from commercial quality steel in three different sizes. The small sizes are 14 ga. steel, the larger size is 12 ga. steel. With this offering, an endless variety of metal framing requirements can be met, from lightweight supporting needs to larger shelving for inventory storage.

One of the legs on all sizes is 1⅝" wide, while the other is either 1⅝", 2⅜" or 3⅛" long. Depending on the frame requirements, a single size can be utilized throughout, or the sizes can be interchanged to get the most efficient usage from the material.

This book will serve as a guide to plan and build your structure.

Installation time is reduced – inventory space is minimal.

Scribe marks are placed every ¾" which saves planning, layout and cutting time and assures accuracy. The exclusive slot and hole pattern, repeated every 3", is scientifically designed for ease of assembly and rigidity. No welding is necessary, no holes to drill. A 9⁄16" wrench is the only tool required for assembly. The proper nuts and bolts are included with the material to ensure fast and easy erection.

Right Angle Metal Framing is packaged in 10' and 12' lengths to minimize cut offs and ensure maximum use of material.

120 feet, 10, 12 foot lengths of Right Angle takes up the same amount of space as one 2 x 4. A standard package includes five pieces to a bundle, therefore handling and storage space are significantly reduced.

The importance of cutting Right Angle easily, quickly and accurately is the key to time saving assembly. The Steel City Portable Cutter provides these advantages and make layout and erection of any structure a “light-work” job.

Steel City Right Angle comes standard with our Galv-Krōm Finish, which assures a long-lasting, durable installation.

Galv-Krōm is a two-part finishing process that protects the entire system, including all nuts and bolts. The first part of the finish is electrogalvanized zinc that covers the bare steel. The second part is a gold zinc dichromate that is applied over the zinc base.

Three aspects of the Galv-Krōm Process are worthy of note:

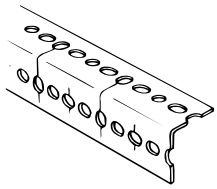
1. Zinc Coating – In the first part of the Galv-Krōm process, a .5 mil coating of zinc is placed on the bare steel. This assures the sacrificial quality of any galvanizing and becomes a working finish. The zinc literally sacrifices itself over bare steel and protects cut edges or scratches which may occur during construction.

Galv-Krōm is in compliance with ASTM B633-78 Type II coating.

2. Electrogalvanizing – Because the zinc is applied through a temperature-controlled electrolytic process, a cohesive bond with the steel is assured. This prohibits chipping or peeling. It also distributes the zinc evenly so all components – including threads – can be equally protected.

3. Zinc Dichromate Barrier – The second part of the Galv-Krōm finish is a gold zinc dichromate that is applied over the zinc base. This second layer of plating forms a non-porous barrier which protects the underlying zinc and adds additional resistance to corrosion. In addition, the gold zinc dichromate covering provides an excellent base if the surface is to be painted.

Right Angle Slotted Angle

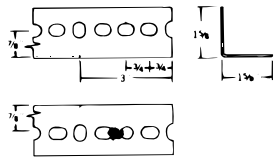


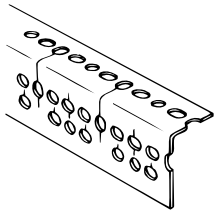
Type RA-160

- *1⅝" x 1⅝" x .080" (14 gauge)*
- *Designed for light duty applications where extra strength is not a requirement*
- *Ideal material for light racking and shelving*
- *Packaged in five 10-ft. or 12-ft. lengths complete with thirty-six ⅜" x ⅝" long hex head bolts and nuts*
- *Standard package 10' lengths – 39 lbs., 12' lengths – 48 lbs*

Type RA-160 Slotted Angle Metal Framing

Cat. No.	Length	Ft. per Pkg.	Wt. per 100 Ft.
RA-160-10	10 ft.	50	75 lbs.
RA-160-12	12 ft.	60	75 lbs.



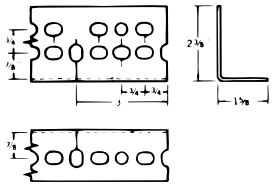


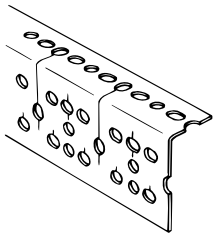
Type RA-225

- *2⅜" x 1⅝" x .080" (14 gauge)*
- *Wide range versatility for nearly every type of framing*
- *Well suited for electrical applications*
- *Slot-and-hole pattern provides ready-made anchoring points for panel-board framing and fixtures of all kinds*
- *Packaged in five 10-ft. or 12-ft. lengths complete with thirty-six ⅜" x ⅝" long hex head bolts and nuts*
- *Standard package 10' lengths – 48 lbs., 12' lengths – 56 lbs*

Type RA-225 – For Heavy Duty

Cat. No.	Length	Ft. per Pkg.	Wt. per 100 Ft.
RA-225-10	10 ft.	50	93 lbs.
RA-225-12	12 ft.	60	93 lbs.



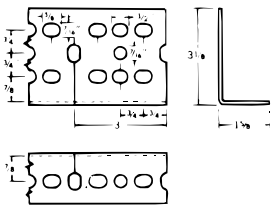


Type RA-300

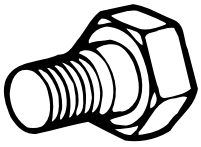
- *3⅛" x 1⅝" x .104" (12 gauge)*
- *Used where heavy loads are involved*
- *Racks and shelving for heavy material and large structures such as ramps and balconies are typical uses*
- *Packaged in five 10-ft. or 12-ft. lengths complete with thirty-six ⅜" x ¾" long hex head bolts and nuts*
- *Standard package 10' lengths – 72 lbs., 12' lengths – 84 lbs*

Type RA-300 – For Extra Heavy Duty

Cat. No.	Length	Ft. per Pkg.	Wt. per 100 Ft.
RA-300-10	10 ft.	50	135 lbs.
RA-300-12	12 ft.	60	135 lbs.



Right Angle Slotted Angle



3/8"-16 x 5/8"

3/8"-16 x 3/4"

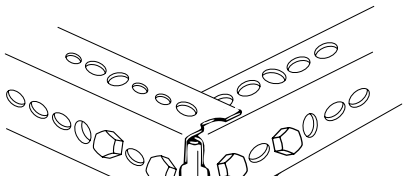
- *100 sets per package*
- *No. RA-BN-5/8, 3/8"-16 x 5/8" long for RA-160 and RA-225*
- *No. RA-BN-3/4, 3/8"-16 x 3/4" long for RA-300*
- *A 9/16" wrench is only tool needed for assembly*

Nuts Serrated for Self-Locking

Cat. No.	Standard Package	Weight per 100 Sets
RA-BN-5/8	100 3/8"-16 x 5/8"	4 lbs.
RA-BN-3/4	100 3/8"-16 x 3/4"	5 lbs.

A 9/16" wrench is only tool needed for assembly.

RA-GP



RA-GP

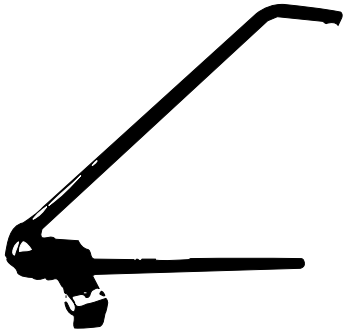
- *Three hole connector for extra rigid angle assembly*
- *For use with all three types of Right Angle*
- *Galvanized steel*

Gusset Plate

Cat. No.	Standard Package	Weight per 100 Sets
RA-GP	25	10

For proper assembly, insert plate between the angle flanges for 3-bolt connection.

Right Angle Slotted Angle

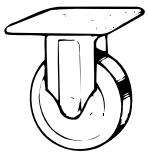


RA-C

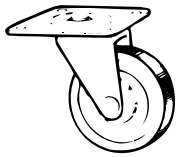
- *Designed for use with all three types of Slotted Angle.*
- *Cuts with single stroke of handle.*
- *Produces clean, burr free cuts.*

Portable Cutter

Cat. No.	Standard Package	Weight Each
RA-C	1	17



RA-RC
Rigid Center

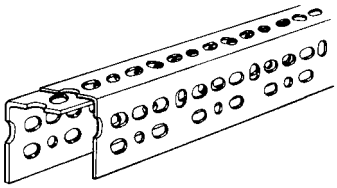


RA-SC
Swivel Caster

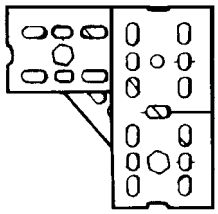
- *Hard rubber composition.*
- *3½" diameter with load rating of 225 lbs. per wheel.*
- *Plate has 13/32" diameter holes for mounting on all three types of Slotted Angle.*

Rigid and Swivel Casters

Cat. No.	Standard Package	Weight Each
RA-RC	2	2
RA-SC	2	3



Nesting

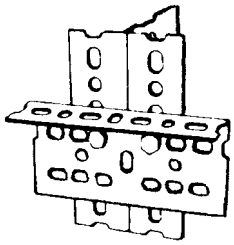


Triangulation

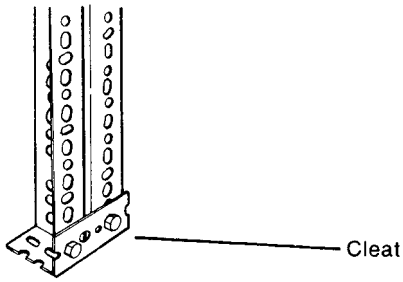
Helpful Hints to Maximize Right Angle Erection

Slot and Hole Pattern

The Right Angle hole pattern is simple and flexible. It is repeated every 3" along the entire length of the Right Angle. An extended line marks the 3" increments, (vertical slots), while shorter lines mark every ¾" increment. With this hole pattern, nesting, triangulation, cross beams and many additional combinations are possible.



Cross Beams

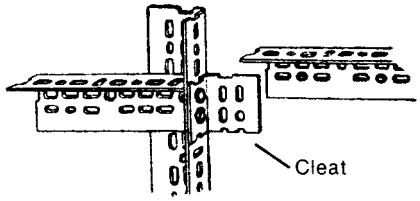


Cleat

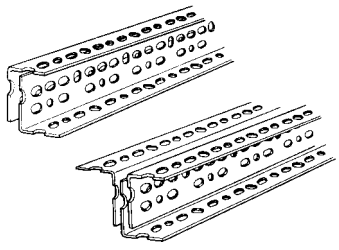
Cleat Sections

Cut Off Cleats are small sections of Right Angle used to reinforce joints or used as feet to support vertical columns. These feet prevent damage to floor surfaces or can be used to bolt a structure to the floor.

Additional joints can be made using cut off cleats. Simply butt the cleat against a column and behind a right side beam, as shown in the illustration.



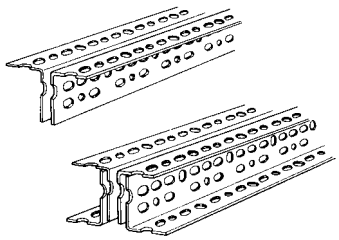
Cleat

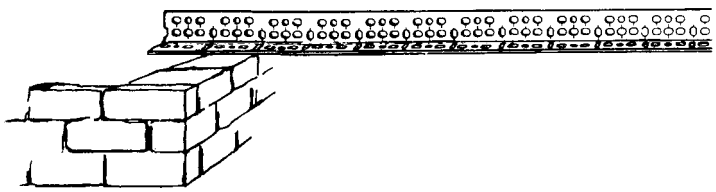


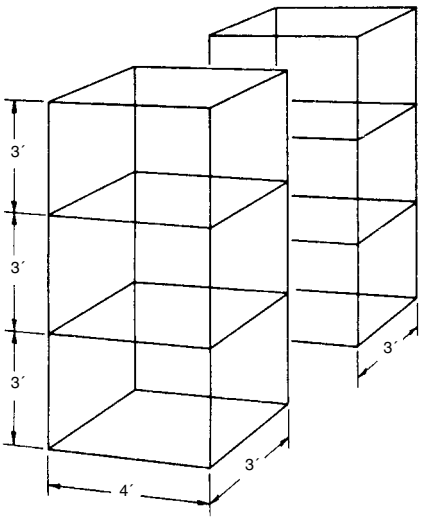
When a beam rests on a ledge of other material (such as a wall) the long flange should extend upward. Right Angle beams are at their strongest when assembled with long flange downward. Vertical columns may be in either direction. Place short flange of vertical column in front for shelving to permit wider opening for handling material.

Variety of Combinations to Meet Needs

Greater strength is obtained by joining sections of Right Angle in various combinations for beams and columns. See the load chart on page K159 for the combination that best suits your need.







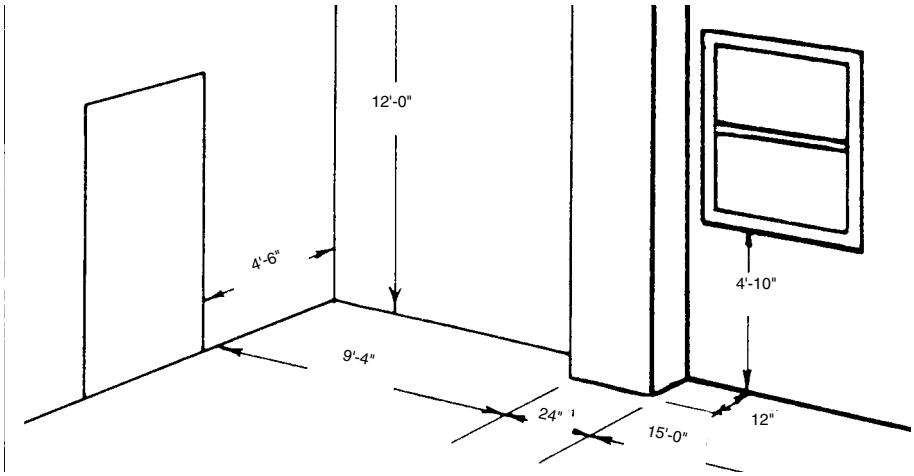
Procedure for Laying Out Structure

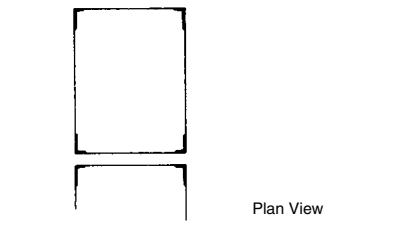
Measure the Space

Right Angle structures may be built to the size of the space available. Measure the space and make a sketch of the area.

Sketch the Planned Structure

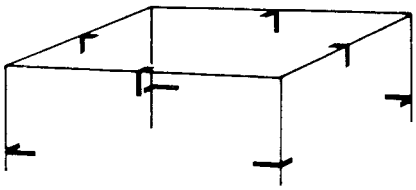
Sketch the structure you plan to build listing all vital dimensions. Include length, width and height of all sections so that load limits can be calculated safely.

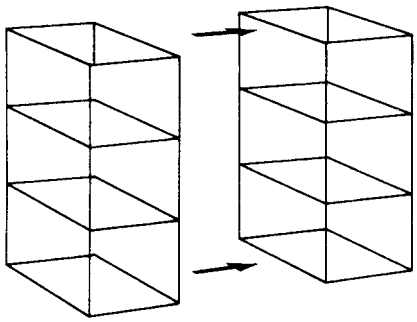



Plan View

Plan Flange Direction

Right Angle beams are at their strongest position with the long flange downward. Vertical uprights may be in either direction for equal strength. Be sure to measure the material to be shelved to allow space for handling. Your sketch will also be used as a cutting and assembly plan.





Assembling the Structure

Follow your plan for cutting sections and for layout. Assemble the structure as a series of frames, or bays and bolt together as units. Use as many bolts as possible and turn nuts up finger-tight. Square-up and level the entire structure. Proceed to tighten bolts with wrench … starting with corners to assure permanent squareness. Use diagonal bracing, if necessary. Add shelves. Your Right Angle structure is ready for a useful lifetime.

Erect vertical frames into bays. Bolt bays together.

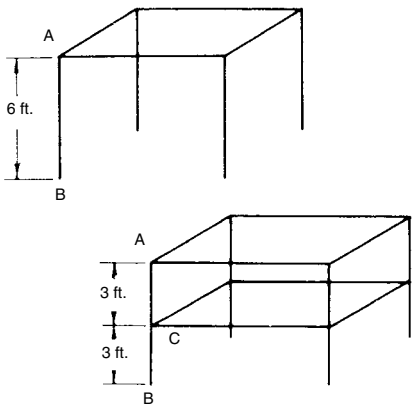


Figure Load Limits

Figure the load your structure must bear – on each level or shelf. This is necessary to determine the sections required to carry the load safely.

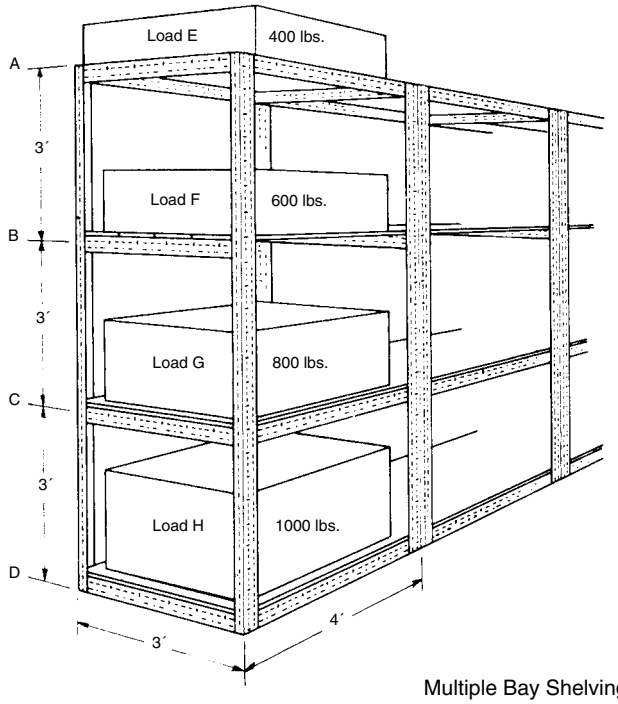
The load tables will enable you to determine the Right Angle gauge and section combination needed.

Load Limit Example For Evenly Distributed Loads

Using the sketch shown and the load tables, calculate the weight supportable by a structure with two or more shelves. A 6-ft. high single shelf structure AB will support a load of 5200 lbs. using RA-225 Right Angle (4 single uprights x 1100 lbs. each) from table.

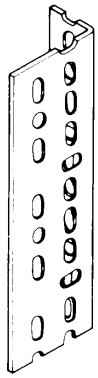
When an additional shelf is framed at C, columns become the same as two 3-ft. uprights, AC and CB, and the total safe load is 10200 lbs. on columns CB (4 x 2550 lbs.). This load can be divided between the shelves in any convenient way, so long as the total load on columns CB does not exceed 10200 lbs. If shelf loads are unequal, the heavier load should go on the lower shelf to avoid top-heavy instability.

Use the same method of calculating for three or more shelves with the load tables as reference.

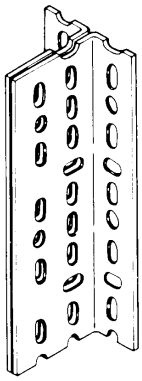


Multiple Bay Shelving

Right Angle Slotted Angle



Single Section



T-Section

How to Determine Weight to be Supported

Multiple-bay shelving is typical of many Right Angle weight-bearing structures. Load tables are your guide to the weights supportable by RA-160, RA-225 and RA-300. Strengths are increased where needed by combining sections for beams or columns, and by adding braces.

Example for Checking Load Safety

This structure is erected as 3 separate bays and bolted together, using RA-225.

Beam Load Bearing

Load E = 400 lbs. evenly distributed on two 4' beams. Refer to beam load tables for RA-225: Two 4' beams will support 1090 lbs. – Safe load.

Load F = 600 lbs. on solid shelf evenly distributes weight to two 3' beams. Refer to beam load tables: Two 3' beams will support 1560 lbs. – Safe load.

Load G = 800 lbs. on shelf supported by two 3' beams and two 4' beams. Add the 4 sections: 3 + 3 + 4 + 4 = 14 ft. Divide total load G by 14, i.e., 800 ÷ 14 = 57 lbs. per ft.

Compute wt. on longest beam – two 4' sections, or 8 ft. Multiply 8' x 57 lbs. per ft. load = 456 lbs. supported by the two 4' beam. Refer to load tables: Two 4' beams support 1090 lbs. – Safe load. Since the 3' beams are stronger, they are also safe for the load. Load H, any load on shelf supported by beams at floor level – considered safe.

The example illustrates methods of figuring loads on three different types of shelf construction. It is not a typical bay.

It should be remembered that a safe beam load does not assure a safe structure – column load safety must also be computed.

Column Load Bearing

Four columns support load equally. Column section AB = ¼ load E, or 100 lbs.

Column section BC = ¼ load F, or 150 lbs., PLUS ¼ load E, 100 lbs. or 250 lbs.

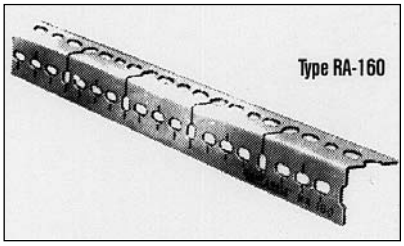
Column section CD = ¼ load G, or 200 lbs. PLUS 150 lbs., ¼ load F, PLUS 100 lbs., ¼ load E, for a total load on section CD of 450 lbs. Load H is at floor level, does not count.

Assuming a 9' high structure, the 9' column is supported at 3' intervals by ties for shelving, the 3' column section data is used. Refer to column load tables: 3 column (vertical) supports 2550 lbs. – Safe for the load.

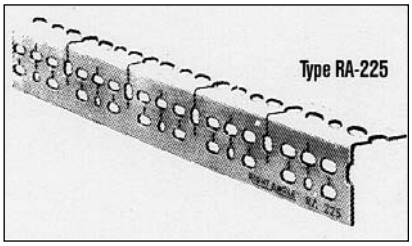
Figures are for a free-standing, unbraced structure. Common uprights in two or more bay structures carry a double load.

See page K159 for load tables.

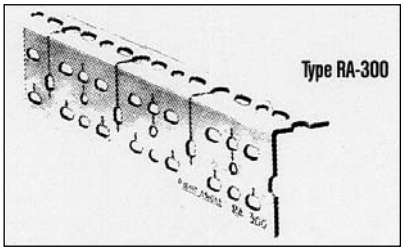
Right Angle Slotted Angle



Single Section



Narrow Channel



Broad Channels

Column Loads

RA 160 – 14 ga. x 1⅝" x 1⅝"

	T-Section	Single Section
3'	3880	1500
4'	3500	1200
5'	3000	950
6'	2500	750

RA 225 – 14 ga. x 2⅜" x 1⅝"

	T-Section	Single Section
3'	5550	2550
4'	5050	1900
5'	4400	1550
6'	3850	1300
7'	3400	970
8'	3000	–
9'	2650	–
10'	2300	–

RA 300 – 12 ga. x 3⅛" x 1⅝"

	T-Section	Single Section
3'	8000	3500
4'	7100	2900
5'	6300	2400
6'	5550	1800
7'	4750	1300
8'	4000	1000
9'	3200	–
10'	2400	–

Notes: Values shown are static loads (lbs.) applied vertically to an unbraced column. Min. safety factor 2.1. To increase load capacity columns can be reinforced with side braces cut to size.

Beam Loads

	Broad Channel	Narrow Channel	Single Section
3'	2550	1490	770
4'	1780	1040	530
5'	1330	770	400
6'	1030	600	310
7'	820	470	240
8'	590	380	–
9'	420	310	–
10'	310	230	–
3'	4110	3050	1560
4'	2870	2130	1090
5'	2140	1580	810
6'	1660	1230	630
7'	1330	980	500
8'	1080	790	410
9'	890	650	330
10'	720	540	280
3'	7570	6300	3220
4'	5290	4400	2250
5'	3950	3280	1680
6'	3060	2540	1300
7'	2440	2020	1040
8'	1990	1650	840
9'	1650	1360	690
10'	1380	1140	580

Notes: Values shown are for a pair of beams supporting an evenly distributed load (lbs.). For a concentrated load these values should be halved. Min. safety factor 1.4. Multiple angle beams should be bolted every 6 in. with bolts staggered in alternate rows. To increase load capacity tie angles can be cut to size and bolted between beams.

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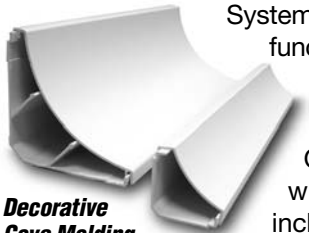

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