A

Superstrut® - Metal framing

A

Superstrut - Metal framing

Table of contents
Section A

Finishes and materials

Finishes on steel
Bare (suffix B(C))
Pregalvanized (suffix PG(C))
A zinc coating is applied to the steel coil at the mill prior to fabrication. Once the material is worked by roll-forming, cutting or punching, minimal protection is provided for raw edges. This weakness is typical with precoated material and affects the channel section around holes, extreme ends and the edges of the U-shape lips. Superstrut pregalvanized material is in conformance with ASTMA-525/G-90 specification standards, representing 0.90 oz. of zinc per square foot of steel. This finish is often referred to as “mill galvanized.”

Electrogalvanized (suffix EG(C))
Often referred to as “zinc plated” or “electroplated zinc,” the steel and 0.5 mils of zinc are bonded by an electrolysis process. Electrogalvanizing is most commonly applied to small fittings, hardware and threaded products.

GoldGalv® (no suffix)
Gold-coloured zinc dichromate is applied over the zinc, producing a chemically bonded non-porous barrier for protection from moisture and air. This extends the protective life of the zinc, and provides an excellent base for paint, if desired. The GoldGalv hardware finish also provides a low electrical resistance when grounding of the system is required. Superstrut channel and fittings are plated after fabrication, so there are no unprotected edges from cutting or punching. Where field cutting is necessary or scratches occur due to construction handling, you still have the sacrificial protection of the plated zinc to minimize the corrosion of raw edges and prevent spreading.

Hot-dipped galvanized (suffix HDG(C))
The material is zinc coated after fabrication, providing total product protection on all surfaces. The fabricated channel or fitting is suspended and then dipped into tanks of hot zinc for a prolonged period, creating a coherent bond. The result is superior corrosion resistance as compared to pregalvanized material. Hot-dipped galvanizing is not recommended for threaded products, considering the zinc coating thickness will often disrupt the threads. Superstrut hot-dipped galvanized is in conformance with ASTM Specifications A-123 (formerly A-386) and A-153. This finish is also referred to as “hot-dipped galvanized after fabrication.”

Epoxy powder coated – green, grey or white (suffix GR(C), GY(C), or WH(C))
Epoxy powder resins are applied electrostatically to the steel after fabrication. Once the material is completely covered with the powder-form epoxy, it proceeds through a 400 °F (204 °C) baking process for 10 minutes, creating a chemical bond. This results in a minimum of 1.5 mil thickness of epoxy coating, providing excellent resistance to chipping or peeling.

Special materials
Aluminum (suffix AL(C))
Superstrut channel is available in aluminum. Fittings in HDG finish or fiberglass material are suggested for fastening products.

Stainless steel (suffix SS)
Superstrut channel is supplied in type 316 (T316L) stainless steel. All fittings and accessories are in 316SS (SS6). Contact your regional sales office for availability.

ABB reserves the right to change material and finish specifications without notice, to improve its products.

Channels and concrete inserts

Channels
Material
Steel channels are cold-roll formed from strip steel. Aluminum and fiberglass channels are extruded profiles.

Material thickness
All series 1,200 12 gauge material
All series 1,400 14 gauge material
All series 1,600 16 gauge ribbed material

Standard lengths
Standard lengths for channels are 10 ft. and 20 ft. with a tolerance of +⅛ in. Special lengths can be requested; however, minimum quantities may apply. Channels are sold per foot.

Warning
Load tables, charts and design criteria provided in this catalogue are intended as guides only. Selection of proper product, support spacing, erection and placement are the responsibility of the user. When improperly used as tools of erection, pipe hanger products have occasionally failed. To avoid an accident, the user is cautioned to use the product only as it was intended.

Concrete inserts
Material
Superstrut continuous insert channel is manufactured from 12 gauge hot-rolled strip steel in two basic sizes as follows:

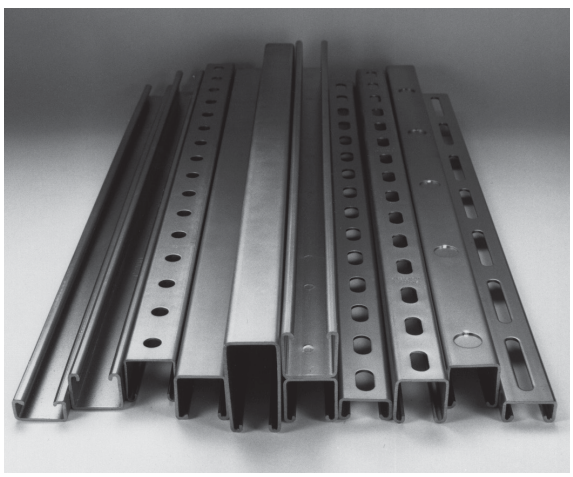
Cat. no. A302
1⅝ in. x 1⅝ in. ⅞ in. slot

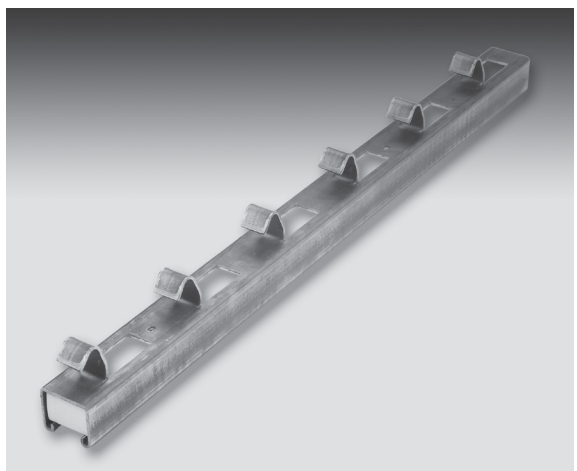
Cat. no. B302
1⅝ in. x 1⅜ in. ⅞ in. slot

Standard lengths
Standard lengths are 10 ft. and 20 ft. Product is supplied with foam filler and end caps to prevent concrete from seeping into channel.

Application
For casting into concrete walls, floors or ceilings to provide for attachment anywhere along the continuous slot.

Design data
Load ratings as shown have a safety factor of 3 in 3,000 psi hard rock concrete. Where sound concrete does not exist, the load ratings shall not apply. GoldGalv hardware finish is standard for all Superstrut concrete insert products. This is a multi-process finish of electro-plated zinc, followed by gold-coloured zinc dichromate to give excellent corrosion resistance and a superior paint base.



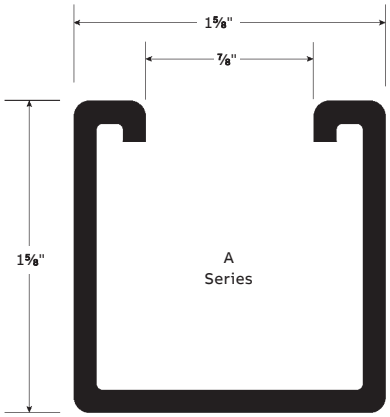


For more information on load design, see page A67 for engineering data and specifications.

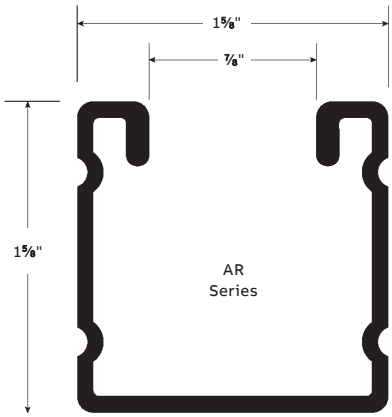
Channels and concrete inserts

Channels at full scale

Available in 10 and 20 foot lengths.



A1200 12 gauge
A1400 14 gauge



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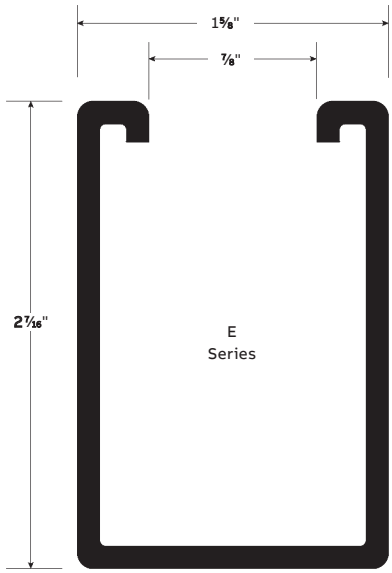
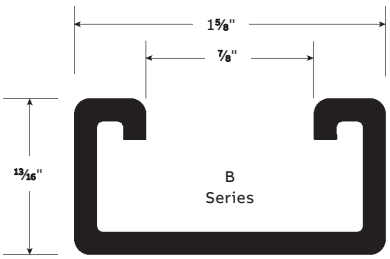
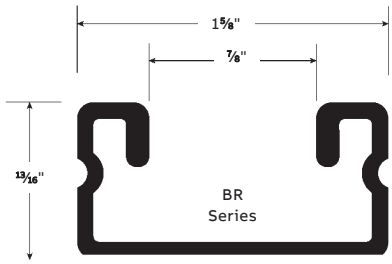


E1200 12 gauge



B1200 12 gauge
B1400 14 gauge



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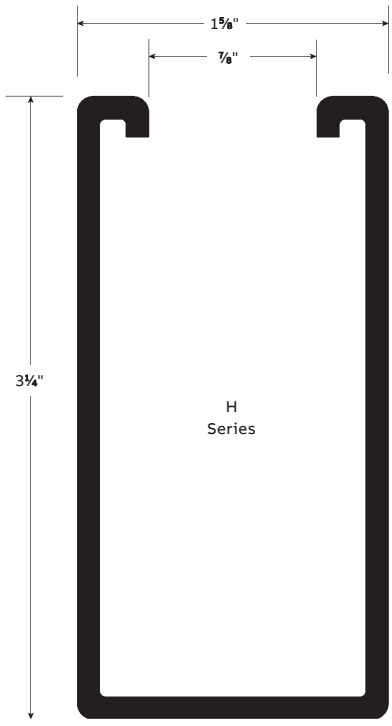
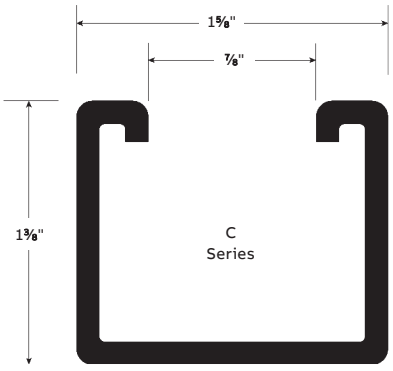
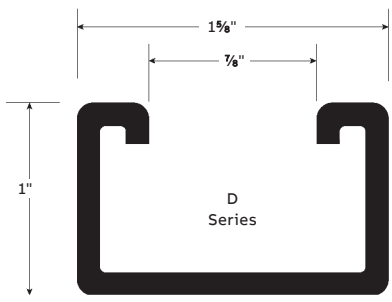


H1200 12 gauge



C1200 12 gauge



D1200 12 gauge

Channels and concrete inserts

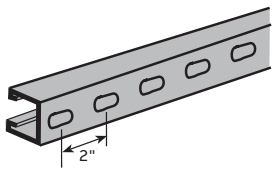
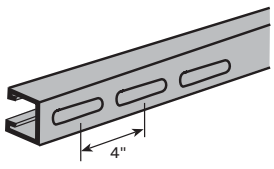
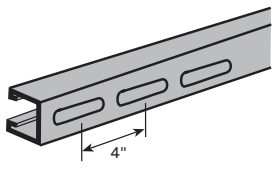
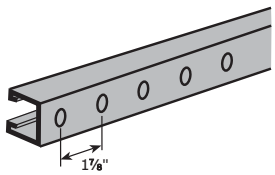
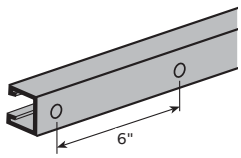
Channel selection chart

Channel	Hole configurations					Length	Finish on steel						Special materials		
Series	HS	S	SW	P	KO	ft.	B(C)	PG(C)	EG(C)	GoldGalv® HDG(C)	GR(C),GY(C),WH(C)		AL(C)	T316L	SS6(C)
A1200	■	■	■	■	■	10 or 20		■	■	■			■	■	■
A1400	■	■	■	■	■	10 or 20			■						
AR1600	■	■	■	■	■	10 or 20		■							
B1200	■	■	■	■	■	10 or 20		■	■	■			■		
B1400	■	■	■	■		10 or 20		■	■	■					
BR1600	■	■	■	■		10 or 20		■							
C1200	■	■		■	■	10 or 20		■		■					
D1200	■	■	■	■		10 or 20		■		■			■	■	■
E1200	■	■		■	■	10 or 20		■		■					
H1200	■	■		■	■	10 or 20			■						

Legend

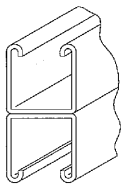
Examples	Hole configuration			Finish on steel		Special materials	
A120010PG Plain channel, 10 ft., pre-galvanized finish	**Suffix**		**Suffix**		**Suffix**	
	Blank	Plain, no holes	B(C)	Bare	AL(C)	Aluminum
	HS	Half slot	PG(C)	Pre-galvanized	SS6(C)	Stainless steel type 316
B1400P10 Punched channel, 10 ft., GoldGalv finish	S	Slotted	EG(C)	Electrogalvanized	T316L	Stainless steel type 316L
	SW	Slotted wide	Blank	GoldGalv®		
	P	Punched	HDG(C)	Hot-dipped galvanized		
E1200HS20HDG Half-slot channel, 20 ft., hot-dipped galvanized	KO	Knockout	GR(C),GY(C),WH(C)	Epoxy paint in green (GR)(C), grey (GY)(C) or white (WH)(C)		
	■	Standard offering		A minimum order quantity may apply		

Hole configuration

Half-slot channel	Slotted channel	SW "slotted wide" channel	Punched channel	Channel with knockouts
Slots: 9/16 in. x 1 1/8 in.	Slots: 7/16 in. x 3 in.	Slots: 9/16 in. x 3 in.	Holes: 9/16 in.	KO: 1/2 in.
				

Channels and concrete inserts

Welded combinations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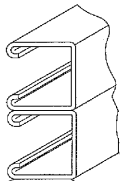
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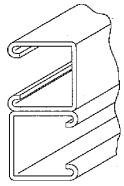
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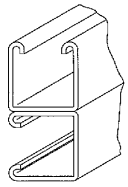
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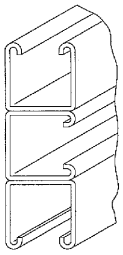
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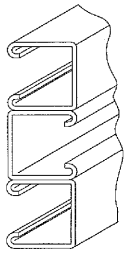
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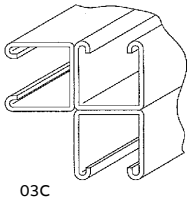
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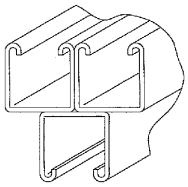
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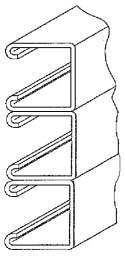
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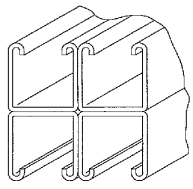
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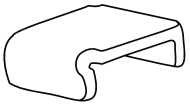
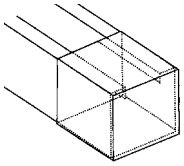
Examples
Two A1200 channels back to back are ordered as A1202.
Two A1200 channels back to side are ordered as A1202C.

Aluminum back-to-back channel are extruded profiles.
All other combinations are spot welded at every 4 inches.
E and H series are not available in triple and quadruple.

End caps and closure strips

	Cat. no.	For channel	Wt./C lb
A804 End cap 	A804EG	A1200	10
		A1400 AR1600	10
	B804EG	B1400 BR1600	5
	C804EG	C1200	8
	E804EG	E1200	15
	H804	H1400	20

Safety end cap

	Cat. no.	For channel	Wt./C lb
1⅝ in. x 1⅝ in. White plastisol 	A804NEOPWH	A1200 AR1600 A1400	1.75
	B804NEOPWH	B1200 BR1600	5
	H804NEOPWH	H1200	2

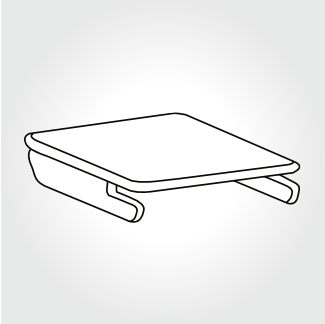
Channels and concrete inserts

Welded combinations

—
01 A243-1EGC End cap
For A1200 channel
Wt./C 16 lb
—
02 U-shape support
A208HDGC
A208EG
Does not include
stud nut or bolts.
A208 A208SS6C
For series A and AR.
Weight/C: 275 lb
—
03 A213 Inside joiner
For A1200 series only.
Available only in
GoldGalv® finish.
—
04 Pre-gavanized
steel closure strip
AB844PGC
AB844PGCWH
White epoxy
powder coated

Also available in
ALC (A844)
Also plastic closure strip
AB844PC colour: gold
AB844PCGY
colour: grey
—
05 Stainless steel
closure strip
AB844SS6CS (strapping
not included)

- When used as a raceway, channel is normally installed with the slot up. After wiring has been completed the closure strip is installed.
- For all channels.
- Standard length: 10 ft.



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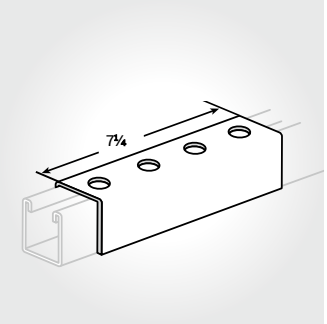

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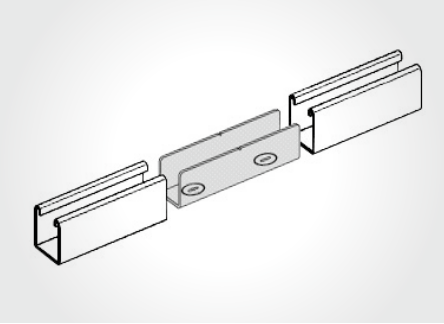

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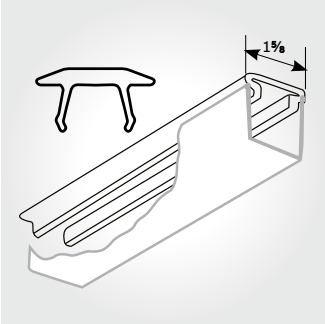

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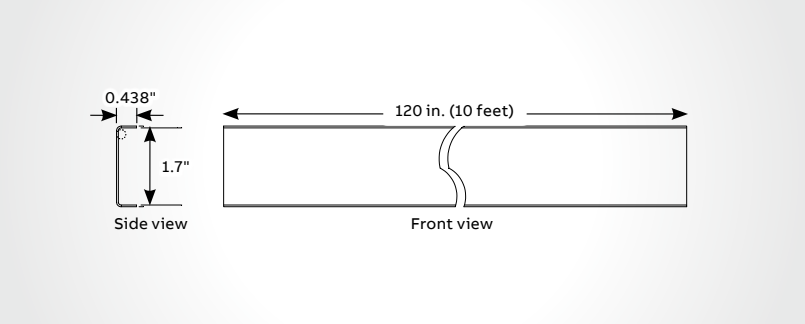

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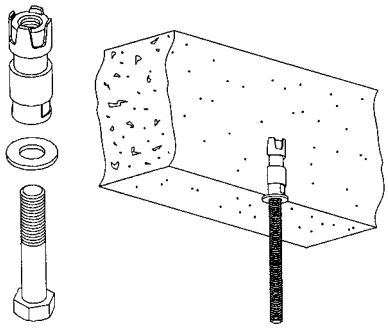
Channels and concrete inserts

Concrete inserts

SI400 Spot insert kit
Std. pack 10

Cat. no.	Thread size	O.D. insert	Wt./C lb
SI400-3/8	⅜–16	2 x ⅝	10
SI400-1/2	½ x 13 x 1¼	2½ x ⅞	35

Other sizes available.
Maximum recommended load:
SI400-3/8 = 450 lb/204 kg
SI400-1/2 = 1,000 lb/454 kg



Threaded products and hardware

Channel nuts

Superstrut channel nuts are manufactured from grade 2 mild steel and are case hardened.

Design data

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

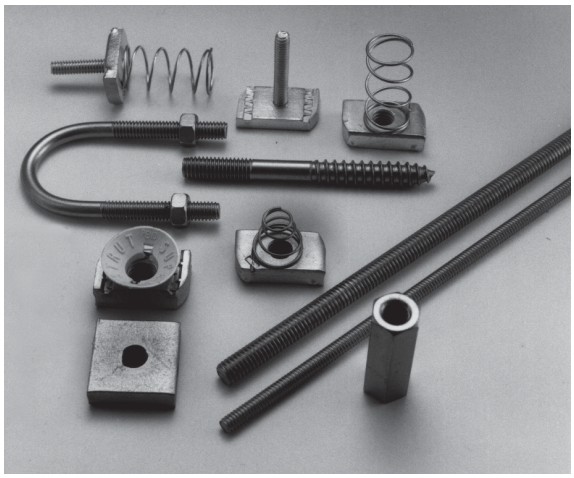
Screw threads

All threaded products are American Standard thread, free fit class 2.

Thread size (in.)	¼	5/16	⅜	½	⅝	¾	⅞	1
Threads per inch	20	18	16	13	11	10	9	8
Design torque (ft.-lb)	6	11	19	50	100	125	185	275

Finish and special materials

Standard finish for all hardware is electrogalvanized (EGC) or GoldGalv®. Stainless steel type 316 is also available. Contact your regional sales office for availability and minimum quantities.

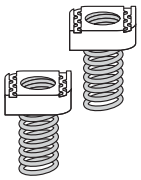


Spring nut selector chart

	Channel series					
Spring nut	A–AR	B–BR	C	D	E	H
A100-1/4EGC	■		■			
A100-5/16EGC	■		■			
A100-3/8EGC	■		■			
A100-1/2EGC	■		■			
A100-3/4	■		■			
B100-1/4EGC		■		■		
B100-5/16EGC		■		■		
B100-3/8EGC		■		■		
B100-1/2EGC		■		■		
H100-3/8EGC					■	■
H100-1/2EGC					■	■
CM100-1/4	■	■	■	■	■	■
CM100-3/8	■	■	■	■	■	■
CM100-1/2	■		■	■	■	■
CM100-1/2B		■				
UC100-1/4	■	■	■	■	■	■
UC100-3/8	■	■	■	■	■	■
UC100-1/2	■	■	■	■	■	■

Threaded products and hardware

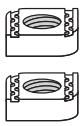
A100 Regular spring nut*
Std. pack 100



Cat. No.	Size (in.)	Wt./C lb
A100-1/4EGC	¼	8
A100-5/16EGC	5/16	9
A100-3/8EGC	⅜	10
A100-1/2EGC	½	12
A100-5/8EGC	⅝	19
A100-3/4	¾	19
A100-7/8	⅞	18

Available in stainless steel 316. Nut is square over ½ in. size.
For all A and C series channel and inserts.

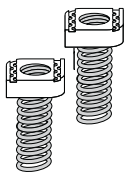
AB100 Springless nut ¼ in. thick
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
AB100-1/4EGC	¼	7
AB100-5/16EGC	5/16	8
AB100-3/8EGC	⅜	9
AB100-1/2EG	½	9
AB100-5/8EG	⅝	10
AB100-3/4EG	¾	10

For use with all channels. Nut is square over ½ in. size.

H100 Long spring nut*
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
H100-3/8EGC	⅜	10
H100-1/2EGC	½	14

For all E and H series channel and inserts.

A182 to A185 Regular spring stud nut*
Std. pack 100

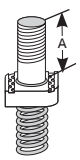
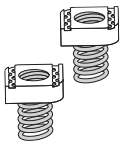


Diagram	Cat. no.	Bolt dia (in.)	Length A (in.)	Wt./ C lb
	A182-1/4x100EG	¼	1	10
	A182-1/4x125EG	¼	1¼	15
	A184-3/8x100EG	⅜	1	10
	A184-3/8x125EG	⅜	1¼	15
	A185-1/2x100EG	½	1	10
	A185-1/2x125EG	½	1¼	15

For all A and C series channels.

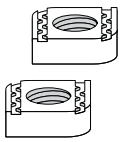
B100 Short spring nut*
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
B100-1/4EGC	¼	7
B100-5/16EGC	5/16	8
B100-3/8EGC	⅜	9
B100-1/2EGC	½	9

Available in stainless steel 316.
For all B and D series channel and inserts.

AC100 Springless nut heavy-duty ⅜ in. thick
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
AC100-3/8EGC	⅜	9
AC100-1/2EGC	½	11
AC100-5/8EGC	⅝	18
AC100-3/4EGC	¾	18

For all A, C, E and H series channel and inserts.
Nut is square over ½ in. size.

A177 to A179 Springless stud nut
Std. pack 100

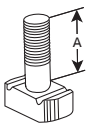


Diagram	Cat. no.	Bolt dia (in.)	Length A (in.)	Wt./ C lb
	A177-1/4x100EG	¼	1	8
	A177-1/4x125EG	¼	1¼	10
	A179-3/8x100EG	⅜	1	13
	A179-3/8x125EG	⅜	1¼	13.5

For use with all channels.

813EG Springless nut light-duty
Std. pack 100

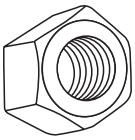
Cat. no.	Size (in.)	Wt./C lb
813EG	¼	5

For use with all channels.

*Supplied with a plastic sleeve over the spring portion to prevent tangling inside the carton.

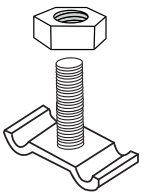
Threaded products and hardware

E145 Standard hex nut
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
E145-1/4EGC	¼	.72
E145-3/8EGC	⅜	1.60
E145-1/2EGC	½	2.78
E145-5/8EG	⅝	6.92
E145-3/4EGC	¾	12.70
E145-7/8EGC	⅞	19.00
E145-1EGC	1	28.00

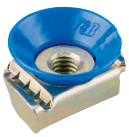
812 Stud nut
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
812-1EG	¼ x 1	6

For attaching fixture to channel slot down or to channel slot up knockouts. Specify length. Hex nut included.

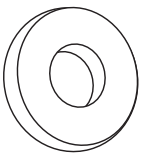
UCN Universal nylon cone nut
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
UCN-1/4	¼	8
UCN-3/8	⅜	10
UCN-1/2	½	12

GoldGalv® only
For all 1⅝ in. and 1½ in. channels.
May be used with ALL strut depths.
Can be used for A100 series, B100 series and AB100 series.

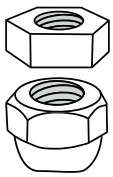
E147 Flat steel washer
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
E147-1/4EG	¼	0.67
E147-5/16EG	5/16	1.11
E147-3/8EG	⅜	1.49
E147-1/2EG	½	3.85
E147-5/8EG	⅝	7.69
E147-3/4EG	¾	9.89
E147-7/8EG	⅞	15.40

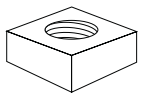
Available in stainless steel.

ES145 Swivel nut and jam nut combinations
Std. pack 100



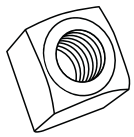
Cat. no.	Size (in.)	Wt./C lb
ES145-3/8	⅜	5.5
ES145-1/2	½	6.0

AB102 Unhardened square nut
Std. pack 100



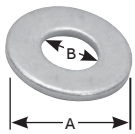
Cat. no.	Size (in.)	Wt./C lb
AB102-1/4	¼	13
AB102-3/8	⅜	14
AB102-1/2	½	14
AB102-5/8	⅝	12
AB102-3/4	¾	11
AB102-7/8	⅞	10

E146 Standard square nut
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
E146-1/4EG	¼	.93
E146-5/16EG	5/16	1.60
E146-3/8EGC	⅜	2.65
E146-1/2EG	½	5.83
E146-5/8EG	⅝	10.80

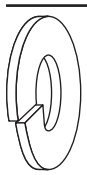
EF147 Fender washer
Std. pack 100



	Cat. no.	Size (in.)	A (in.)	B (in.)	Wt./ C lb
Diagram	EF147-1/4EGC	¼	1¼	5/16	3.1
	EF147-3/8EGC	⅜	1½	7/16	2.9
	EF147-1/2EGC	½	2	9/16	5.0

Available in stainless steel.

E148 Lock washer
Std. pack 100



Cat. no.	Size (in.)	Wt./C lb
E148-1/4EG	¼	0.26
E148-3/8EG	⅜	0.50
E148-1/2EG	½	1.09
E148-5/8EG	⅝	2.57

Available in stainless steel.

Threaded products and hardware

E142 Hex head cap screw
Std. pack 100

Cat. no.	Size (in.)	Wt./C lb
E142-1/4x100EG	¼ x 1	1.74
E142-1/4x150EG	¼ x 1½	2.43
E142-3/8x100EG	⅜ x 1	4.17
E142-3/8x150EG	⅜ x 1½	5.64
E142-1/2x100EG	½ x 1	8.94
E142-1/2x150EG	½ x 1½	10.00
E142-1/2x200EG	½ x 2	11.19
E142-1/2x225EG	½ x 2¼	11.90
E142-1/2x250EG	½ x 2½	12.52
E142-1/2x275EG	½ x 2¾	13.22

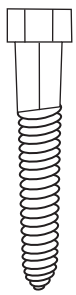
Available in stainless steel.

E151 Coach screw rod

Cat. no.	Rod size (in.)	Std rod length (in.)	Wt./C lb
E151-3/8x4EG	⅜	4	9
E151-3/8x6EG	⅜	6	14
E151-3/8x8EG	⅜	8	22
E151-3/8x10EG	⅜	10	29
E151-3/8x12EG	⅜	12	35
E151-1/2x4EG	½	4	17
E151-1/2x6EG	½	6	22
E151-1/2x8EG	½	8	40
E151-1/2x10EG	½	10	51

Machine threaded opposite end, carbon steel.

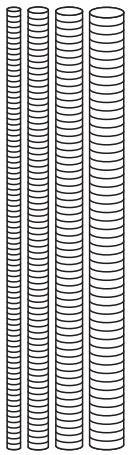
E150S Lag bolt
Std. pack 50



Cat. no.	Drill size (in.)	Size (in.)	Wt./C lb
E150S-3/8x1-1/2EG	¼	⅜ x 1½	5
E150S-3/8x2EG	¼	⅜ x 2	7
E150S-3/8x2-1/2EG	¼	⅜ x 2½	8
E150S-3/8x3EG	¼	⅜ x 3	9
E150S-1/2x1-1/2EG	11/32	½ x 1½	12
E150S-1/2x2EG	11/32	½ x 2	13
E150S-1/2x2-1/2EG	11/32	½ x 2½	15
E150S-1/2x3EG	11/32	½ x 3	18

H104 Hanger rod continuous threaded
Std. pack 3

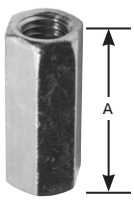
- Black available upon request
- Sold per foot; standard length, 10 ft.
- Also available in stainless steel (316) standard length 6 ft. (suffix SS6)
- National coarse thread



Cat. no.	Thread size (in.)	Wt./lb 100 ft.	Design Load lb
H104-1/4x10EGC	¼	12.5	150
H104-3/8x10EGC	⅜	29	610
H104-1/2x10EGC	½	53.5	1,130
H104-5/8x10EGC	⅝	85	1,810
H104-3/4x10EGC	¾	123	2,710
H104-7/8x10EG	⅞	130	3,770
H104-1x10EG	1	214	4,960

H119 Rod couplings – standard

Diagram



Rod size	A (in.)	Wt./C lb
¼	⅞	1.90
5/16	⅞	3.75
⅜	1⅛	3.50
½	1¼	5.50
⅝	2⅛	18.00
¾	2¼	28.00
⅞	2½	55.00
1	2¼	56.00

Standard rod coupling
Example: H119-1/2EG

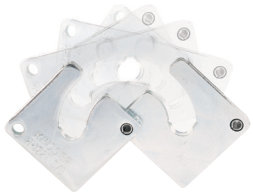
Order by product number, rod size, and finish.
Available in stainless steel.

H119 Rod couplings – reducing

Rod size	A (in.)	Wt./C lb
¼ to ⅜	1½	3.50
⅜ to ½	1¼	6.70
½ to ⅝	1¼	14.00
⅝ to ¾	1½	21.00
¾ to ⅞	1¾	40.00

Rod reducer coupling
Example: H119-1/4x3/8EG

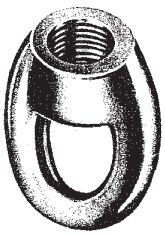
Threaded products and hardware



H122 Trapnut™ strut fastener

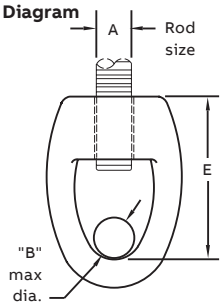
Cat. no.	Size (in.)	Design load (lb)	Std. ctn.
H 122 1/4	¼	150	50
H 122 3/8	⅜	590	50
H 122 1/2	½	1,080	50
H 122 1/4 EG	¼	150	50
H 122 3/8 EG	⅜	590	50
H 122 1/2 EG	½	1,080	50
H 122 3/8 SS6	⅜	590	50
H 122 1/2 SS6	½	1,080	50

Finishes – Electrogalvanized (EG), GoldGalv®, stainless steel type 316 (SS6)



M117 Eye socket

Diagram

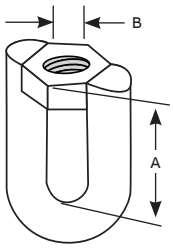


Rod size A (in.)	Pipe size (in.)	B (in.)	E (in.)	Wt./C lb	Design load, lb
¼	⅜	¼	1 11/32	5	230
⅜	½–2	¼	1 11/32	7	610
½	2½–3½	¼	1 17/32	13	1,130
⅝	4–5	⅜	1 13/16	19	1,810
¾	6	½	2 5/32	31	2,400
⅞	8	½	2 11/32	44	2,800

Standard finishes – bare (B), electrogalvanized (EG)
Malleable iron. For attaching hanger rod to various types of hangers and beam clamps.
Order by product number, rod size, and finish. **Example: M117-1/4B**
Complies with Specification MSS SP69, Type 16.

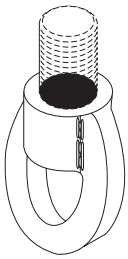
E120 Swivel joint

Diagram

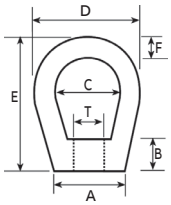


Cat. no.	Size (in.)	A (in.)	B (in.)	Wt./C lb	Design load, lb
E120-3/8	⅜	1⅜	⅜	15	1,000
E120-1/2	½	1½	½	25	1,800

Threaded products and hardware

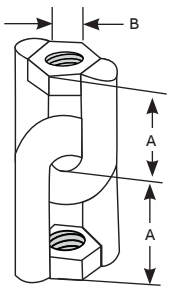


E120A Weldless eye nut

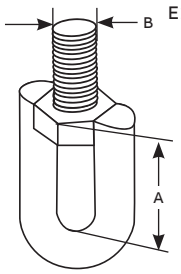
	Rod size T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Wt./C lb	Design load, lb
Diagram	⅜	⅞	⅝	1¼	2	2½	⅜	20	2,700
	½	⅞	⅝	1¼	2	2½	⅜	22	2,700
	⅝	1⅜	¾	1½	2½	3	½	60	5,000
	¾	1⅜	¾	1½	2½	3	½	56	5,000
	⅞	1½	1⅝	1 5⁄16	3⅝	4½	¾	174	10,000
	1	1½	1⅝	1 5⁄16	3⅝	4½	¾	168	10,000

Standard finish – bare (B)
Drop forged steel. For use on high temperature piping installations.
Order by product number and rod size. **Example: E120A-3/8B**

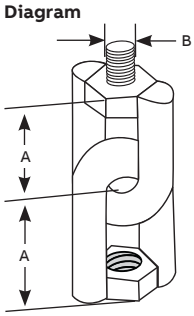
E122 Swivel joint

	Cat. no.	Size (in.)	A (in.)	B (in.)	Wt./C lb	Design load, lb
Diagram	E122-3/8	⅜	1⅜	⅜	28	1,000
	E122-1/2	½	1½	½	48	1,800

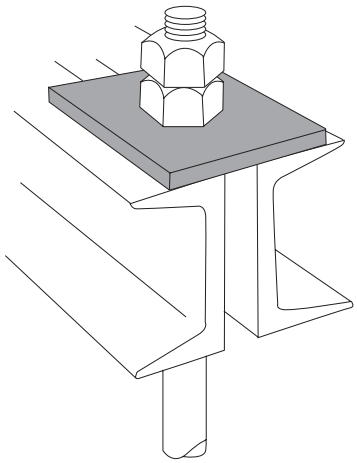
E130 Swivel joint

	Cat. no.	Size (in.)	A (in.)	B (in.)	Wt./C lb	Design load, lb
Diagram	E130-3/8	⅜	1⅜	⅜	23	1,000
	E130-1/2	½	1½	½	48	1,800

E131 Swivel joint

	Cat. no.	Size (in.)	A (in.)	B (in.)	Wt./C lb	Design load, lb
Diagram	E131-3/8	⅜	1⅜	⅜	25	1,000
	E131-1/2	½	1½	½	52	1,800

Threaded products and hardware



C781 Square washer
Std. pack 50

Cat. no.	Rod size (in.)	Hole size (in.)	Overall dimensions (in.)	Wt./C lb
C781-3/8*	3/8	7/16	3 x 3 x 3/16	27
C781-1/2*	1/2	9/16	3 x 3 x 3/16	27
C781-5/8*	5/8	11/16	3 x 3 x 1/4	47
C781-3/4*	3/4	13/16	3 x 3 x 1/4	42
C781-7/8*	7/8	15/16	4 x 4 x 3/8	85
C781-1*	1	1 1/8	4 x 4 x 3/8	160

Used for beam applications. For channel applications, use AB241.
*Finishes
- B
- HDG
- EG
- SS6

Fittings and brackets

Material
Superstrut fittings and brackets are manufactured from hot rolled carbon steel.

Dimensions
The following standard dimensions apply to all fittings except as indicated on the individual drawings:

Hole spacing	13⁄16 in. from end of fittings
Hole spacing	1 7⁄8 in. centers
Hole size	9⁄16 in. diameter
Material	1 5⁄8 in. wide
Material	1⁄4 in. thick

Application instructions
Parts drawings illustrate a typical use for the fitting, and in many cases, other uses for the part are appropriate.

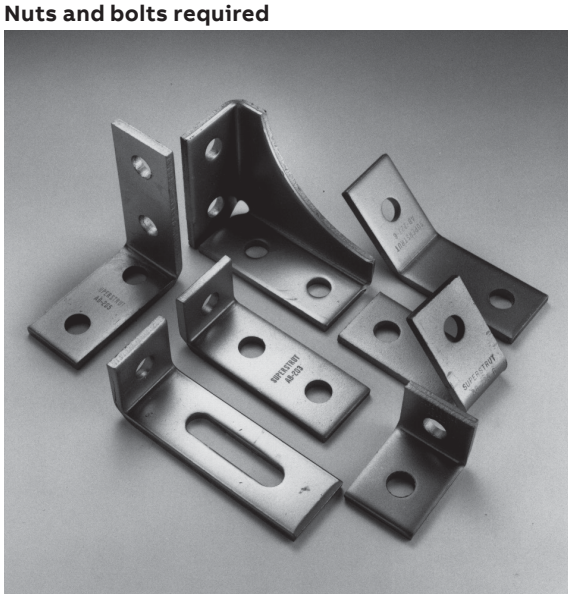
Design data
Load ratings vary depending on whether fittings and brackets are used with 12, 14 or 16 gauge channel. Ratings are shown for each channel material. (See page A66 for engineering data and specifications).

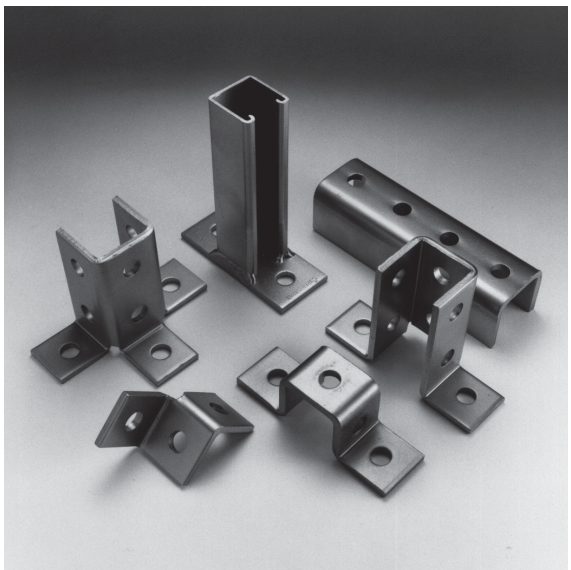
Nuts and bolts required
Unless otherwise noted, nuts and bolts for use with fittings and brackets should be ordered separately. The standard bolt for the 9⁄16 in. hole is a 1⁄2 in. hex head cap screw 1 in. long. The 1 in. length may be used with all series channel.

Design load
For more information on design load, see page A66 for engineering data and specifications.

Finishes and special materials
Standard finishes are hot-dipped galvanized (HDGC) and GoldGalv® (no suffix). Fittings are also available in electrogalvanized (EG) and stainless steel 316 (SS6C). Contact your regional sales office for availability and minimum quantities.

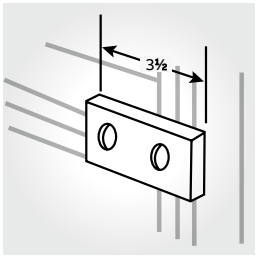
Aluminum channel
For aluminum channel, we suggest fittings in HDG (C) or SS6 (C).





Fittings and brackets

Flat fittings



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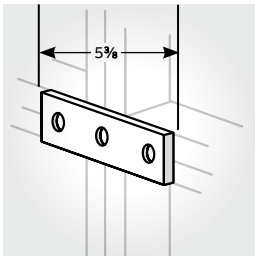

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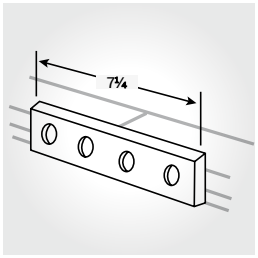

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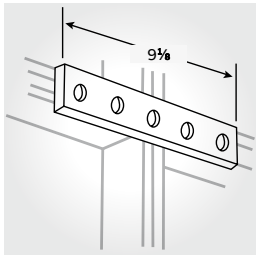

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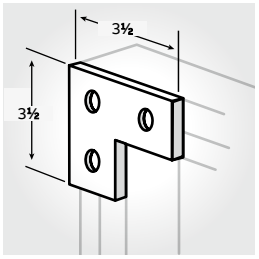

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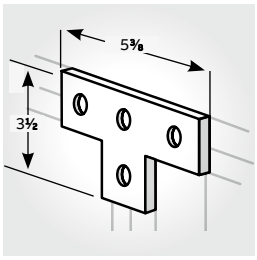

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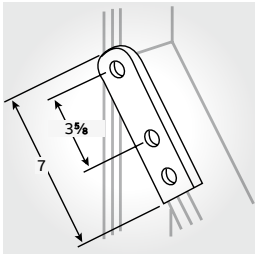

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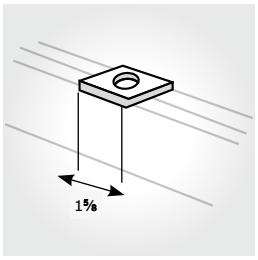

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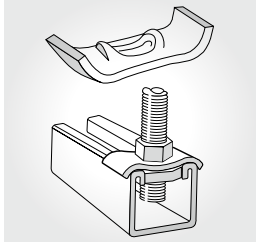

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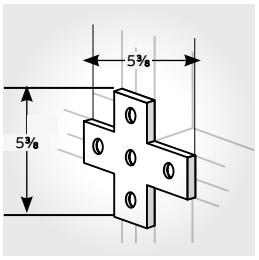

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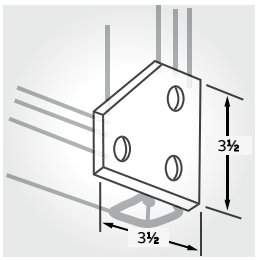

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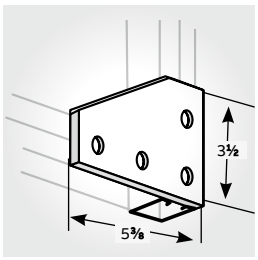

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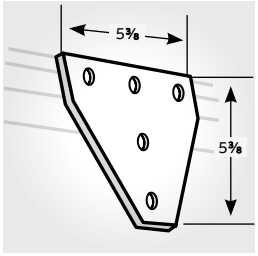

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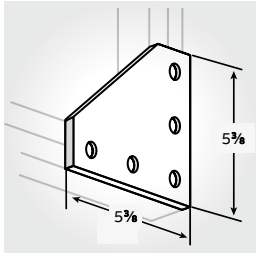

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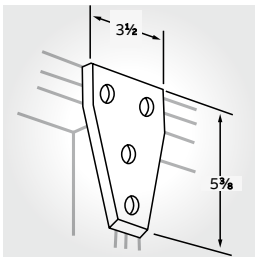


15

01 **AB206**
AB206HDGC
AB206EG
AB206
AB206SS6C
Wt./C 35 lb

02 **AB207**
AB207HDGC
AB207EG
AB207
AB207SS6C
Wt./C 52 lb

03 **X207**
X207HDG
X207EG
X207
X207SS6
Wt./C 78 lb

04 **X208**
X208HDG
X208EG
X208
X208SS6C
Wt./C 88 lb

05 **AB219**
AB219HDGC
AB219EG
AB219
AB219SS6C
Wt./C 53 lb

06 **AB220**
AB220HDGC
AB220EG
AB220-TB*
AB220SS6C
Wt./C 78 lb

07 **AB240**
AB240HDG
AB240EG
AB240-TB*
Wt./C 69 lb

08 **AB241**

Cat. no.	Bolt size (in.)	Wt./ C lb
AB241-1/4*	¼	18
AB241-5/16*	5⁄16	18
AB241-3/8*	⅜	18
AB241-1/2*	½	17
AB241-5/8*	⅝	15
AB241-3/4*	¾	14

*Finishes
- HDGC
- EG
- GoldGalv®
- SS6C

09 **AB242**
AB242HDGC
AB242EG
AB242
Wt./C 9 lb
For use with either ⅜ in. or ½ in. hanger rod.

10 **AB253**
AB253HDGC
AB253EG
AB253-TB*
AB253SS6C
Wt./C 97 lb

11 **AB255**
AB255HDGC
AB255EG
AB255
Wt./C 70 lb

12 **AB257**
AB257HDGC
AB257EG
AB257-TB*
Wt./C 105 lb

13 **AB261**
AB261HDGC
AB261EG
AB261
Wt./C 148 lb

14 **AB263**
AB263HDGC
AB263EG
AB263
AB263SS6
Wt./C 150 lb

15 **AB265**
AB265HDGC
AB265EG
AB265
Wt./C 105 lb

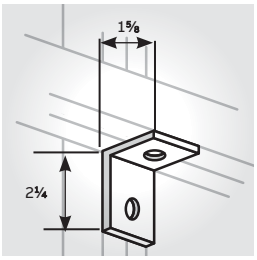
Standard dimensions	
Hole spacing	13⁄16 in. from end
Hole spacing	1⅞ in. centers
Hole size	9⁄16 in. diam.
Material	1⅝ in. width
Material	¼ in. thick

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Fittings and brackets

90° fittings



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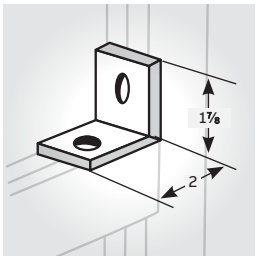

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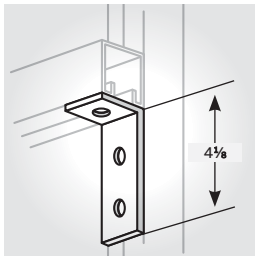

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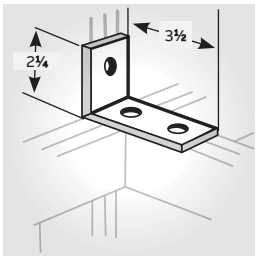

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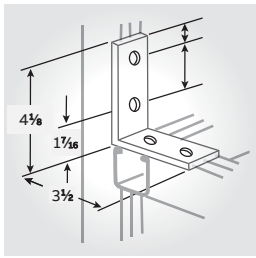

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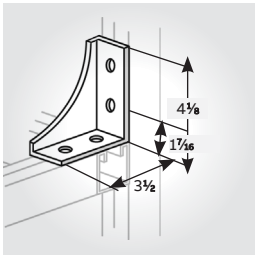

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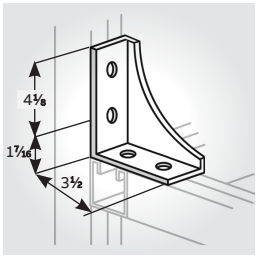

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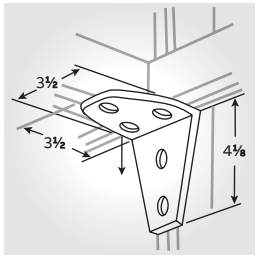

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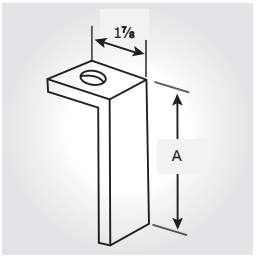

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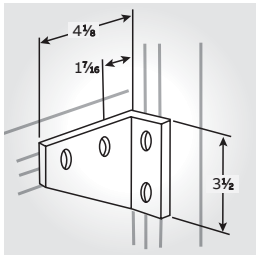

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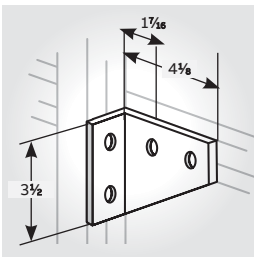

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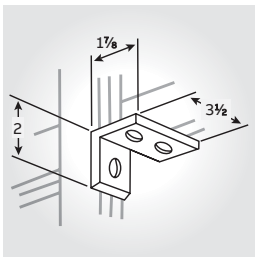

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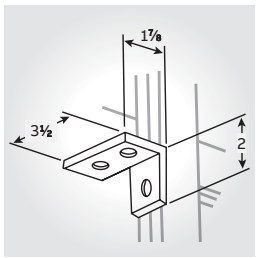

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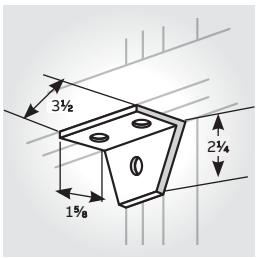

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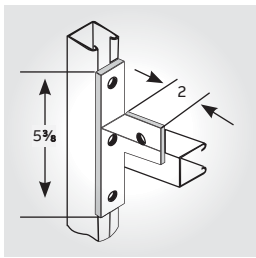


15

01 **AB201**
AB201HDGC
AB201EG
AB201
AB201SS6C
Wt./C 35 lb

02 **AB202**
AB202HDGC
AB202EG
AB202
AB202SS6C
Wt./C 35 lb

03 **AB203**
AB203HDGC
AB203EG
AB203
AB203SS6C
Wt./C 58 lb

04 **AB204**
AB204HDGC
AB204EG
AB204
AB204SS6
Wt./C 58 lb

05 **AB205**
AB205HDGC
AB205EG
AB205
AB205SS6C
Wt./C 78 lb

06 **AB213**
AB213HDGC
AB213EG
AB213
Wt./C 125 lb

07 **AB214**
AB214HDGC
AB214EG
AB214
AB214SS6
Wt./C 125 lb

08 **AB216**
AB216HDGC
AB216EG
AB216SS6C
Wt./C 135 lb

09 **AB252**

Cat. no.	A (in.)	Wt./C lb
AB252-1*	3⅞	61
AB252-2*	5⅞	84
AB252-3*	7⅞	107
AB252-4*	9⅞	130

*Finishes
- HDGC
- EG
- GoldGalv®

10 **AB254R**
AB254RHDGC
AB254REG
AB254R
Wt./C 105 lb

11 **AB254L**
AB254LHDGC
AB254LEG
AB254L
Wt./C 105 lb

12 **AB260R**
AB260RHDGC
AB260REG
AB260R
Wt./C 58 lb

13 **AB260L**
AB260LHDGC
AB260LEG
AB260L
Wt./C 58 lb

14 **AB274**
AB274HDG
AB274EG
AB274
Wt./C 70 lb

15 **AB275**
AB275HDGC
AB275EG
AB275SS6C
Wt./C 77 lb

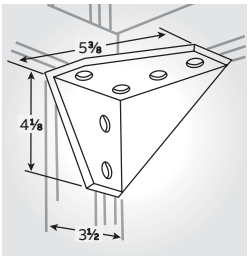
Standard dimensions	
Hole spacing	13/16 in. from end
Hole spacing	1⅞ in. centers
Hole size	9/16 in. diam.
Material	1⅝ in. width
Material	¼ in. thick

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Fittings and brackets

90° fittings



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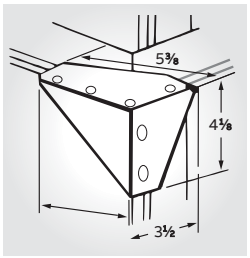

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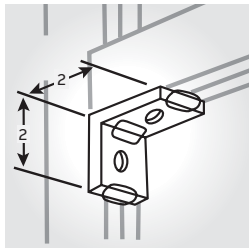

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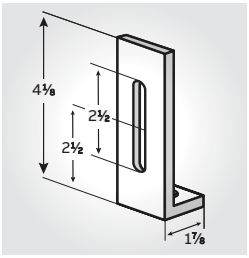

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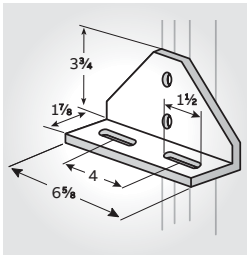

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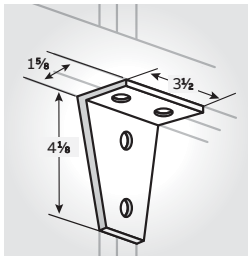

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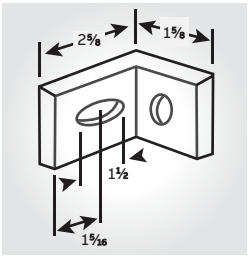

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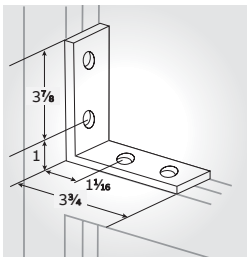

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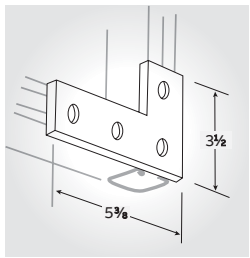


09

01 **AB284R**
AB284RHDG
AB284REG
AB284R
Wt./C 230 lb

02 **AB284L**
AB284LHDG
AB284LEG
AB284L
Wt./C 230 lb

03 **AB299**
AB299HDG
AB299EG
AB299
Wt./C 40 lb

04 **X201**
X201HDG
X201EG
X201
Wt./C 65 lb

05 **X204**
X204HDG
X204EG
X204
Wt./C 1-90 lb

06 **X289**
X289HDGC
X289EG
X289
Wt./C 105 lb

07 **X299**
X299HDGC
X299EG
X299
Wt./C 38 lb

08 **N205**
N205HDGC
N205EG
N205
N205SS6C
Wt./C 74 lb

09 **N219**
N219HDG
N219EG
N219
N219SS6
Wt./C 71 lb

All dimensions shown are in in.

SuperMag™

Magnetic fittings for Superstrut metal framing

Powerful, nickel-plated magnets embedded in the most popular Superstrut steel fittings, including square washers, L-brackets, T-brackets and 90° angle brackets, secure the fitting to the strut during assembly. Acting as a third hand, SuperMag fittings allow the installer to work more efficiently and safely with tools and hardware.

Magnetic 90° angle fitting, SilverGalv™
AB202M EG
2-hole, 1⅞" H x 2" L (pkg. qty. 50)

AB205M EG
4-hole, 4⅛" H x 3½" L (pkg. qty. 25)

Magnetic flat bracket, SilverGalv
AB219M EG
L-bracket (pkg. qty. 25)

AB220M EG
T-bracket (pkg. qty. 25)

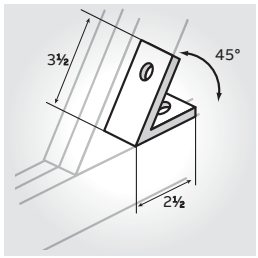
Magnetic square washer SilverGalv
AB241M 1/4 EG
For ¼" bolt (pkg. qty. 100)
AB241M 3/8 EG
For ⅜" bolt (pkg. qty. 100)
AB241M 1/2 EG
For ½" bolt (pkg. qty. 100)

Note: The magnets are only intended for use as an installer aid, not as a permanent installation method on their own. Magnetic fittings must be bolted in place following the same standard installation procedures as non-magnetic fittings for permanent installation. Standard finish is SilverGalv (EG). Best for use with traditional or spring channel nuts.

Fittings and brackets

Angular and "Z" shape fittings

Angular fittings



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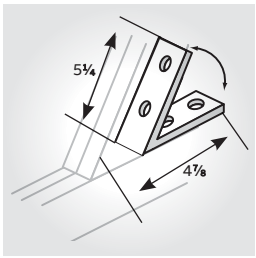

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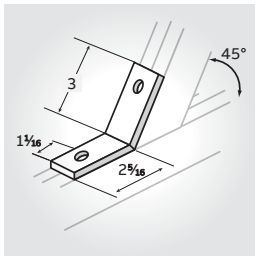

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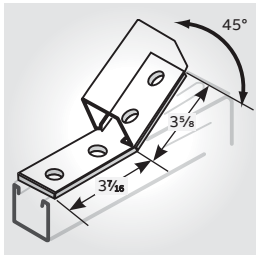

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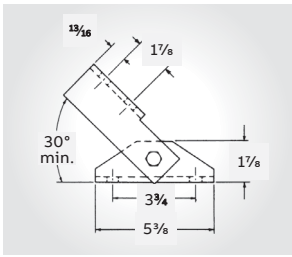

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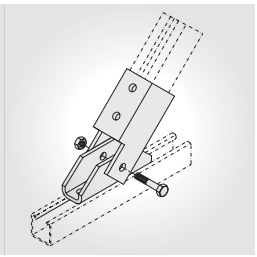

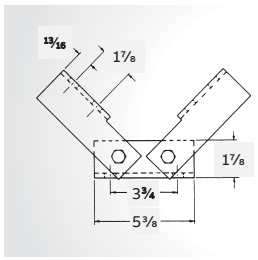

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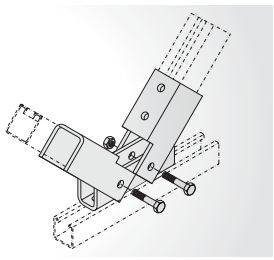
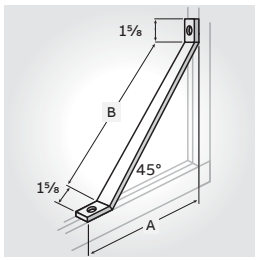
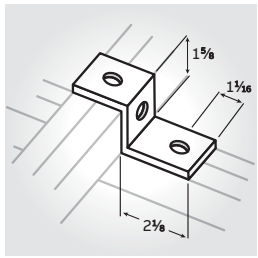




07

"Z" shape fittings



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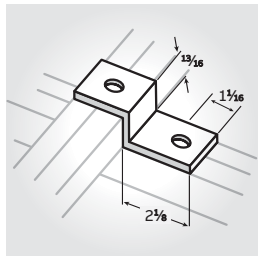

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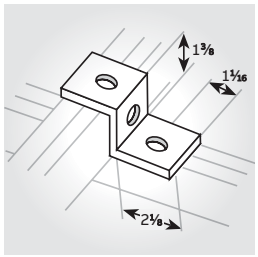

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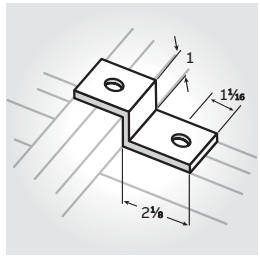

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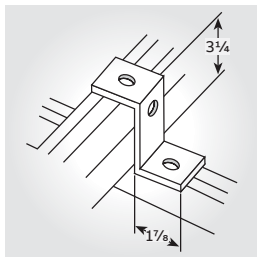

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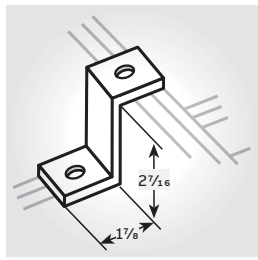


13

Angular fittings

—
01 **AB225**
AB225HDGC
AB225EG
AB225
AB225SS6
Wt./C 58 lb
Other angles available. Contact your regional sales office.
—
02 **AB226**
AB226HDGC
AB226SS6
Wt./C 119 lb
Other angles available. Contact your regional sales office.
—
03 **AB227**
AB227HDGC
AB227EG
AB227
AB227SS6
Wt./C 58 lb
Other angles available. Contact your regional sales office.
—
04 **AB228**
AB228HDGC
AB228SS6C
Wt./C 69 lb
Other angles available. Contact your regional sales office.
—
05 **AB231**
AB231EG
—
06 **AB232**
AB232EG
—
07 **AB239**
*Finishes
- HDGC
- EG
- GoldGalv®

Cat. no.	A (in.)	B (in.)	Wt./C lb
AB239-1*	7 13/16	8½	148
AB239-2*	13¾	17	255
AB239-3*	19¾	25½	363

"Z" shaped fittings

—
08 **A209**
A209HDGC
A209EG
A209
A209SS6
Wt./C 55 lb
For attaching A and AR series channel.
—
09 **B209**
B209HDG
B209EG
B209
Wt./C 43 lb
For attaching B and BR series channel.
—
10 **C209**
C209
Wt./C 49 lb
For attaching C series channel.
—
11 **D209**
Wt./C 45 lb
For attaching D series channel.
—
12 **CZ209**
For attaching H series and A back to back.
—
13 **EZ209**
EZ209HDGC
EZ209EG
EZ209
EZ209SS6
For attaching E series channel.

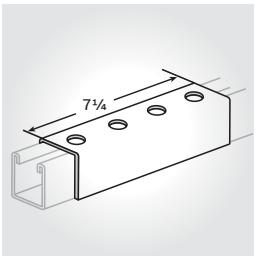
Standard dimensions	
Hole spacing	13/16 in. from end
Hole spacing	1⅞ in. centers
Hole size	9/16 in. diam.
Material	1⅝ in. width
Material	¼ in. thick

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Fittings and brackets

"U" shape fittings



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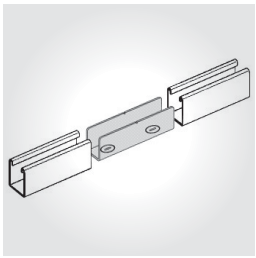

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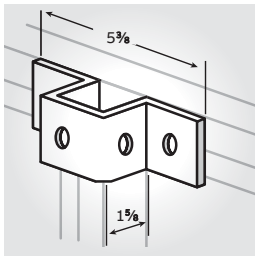

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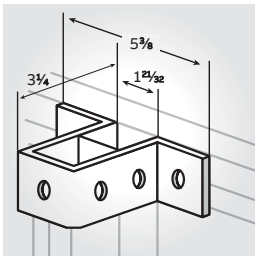

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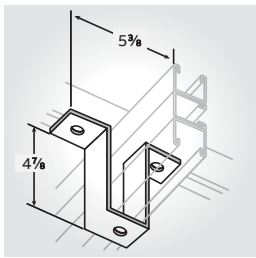

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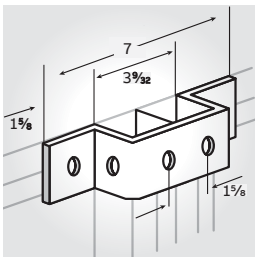

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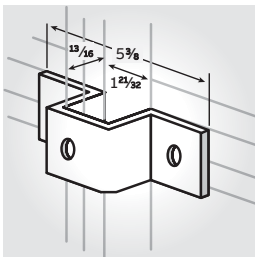

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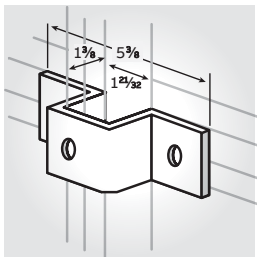

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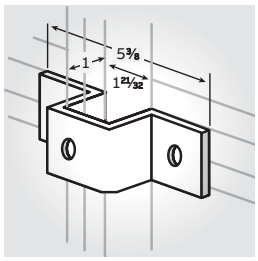

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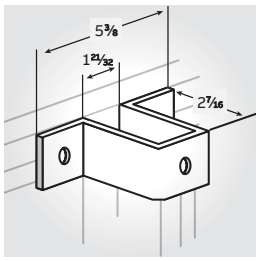

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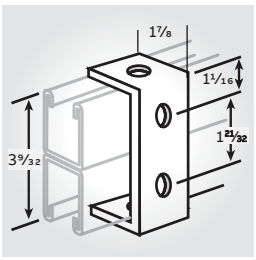

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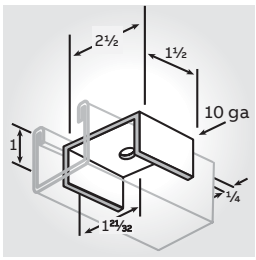


12

01 **A208**
A208HDGC
A208EG
A208
A208SS6C
Wt./C 275 lb
Does not include stud nut or bolts.
For A and AR series channel.

02 **A213 Inside joiner**
Wt./C 40 lb
For A1200 Series.
Available only in GoldGalv® finish.

03 **A210**
A210HDGC
A210EG
A210
A210SS6C
Wt./C 88 lb
For attaching A and AR series channel.

04 **A211**
A211HDGC
A211EG
A211
Wt./C 128 lb
For attaching A and AR series double channel, and H series.

05 **AN211**
AN211HDG
AN211EG
AN211
Wt./C 181 lb

06 **A212**
A212HDG
A212EG
A212
A212SS6
Wt./C 113 lb

07 **B210**
B210HDG
B210EG
B210
B210SS6
Wt./C 65 lb
For attaching B and BR series.

08 **C210**
C210HDG
C210EG
C210
Wt./C 77 lb
For attaching C series channel.

09 **D210**
D210HDG
D210EG
D210
D210SS6
Wt./C 71 lb
For attaching D series channel.

10 **E210**
E210HDGC
E210EG
E210
Wt./C 112 lb
For attaching E series channel.

11 **AB245**
AB245HDG
AB245EG
AB245
Wt./C 70 lb
For attaching A and AR series double channel.

12 **AB288**

Cat. No.	Bolt size (in.)	Wt./C lb
AB288-3/8*	⅜	37
AB288-1/2*	½	37
AB288-5/8*	⅝	37

*Finishes
- HDGC
- EG
- GoldGalv®

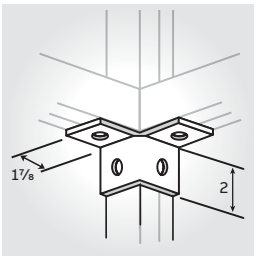
Standard dimensions	
Hole spacing	¹³⁄₁₆ in. from end
Hole spacing	1⅞ in. centers
Hole size	⁹⁄₁₆ in. diam.
Material	1⅝ in. width
Material	¼ in. thick

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Fittings and brackets

Wing fittings



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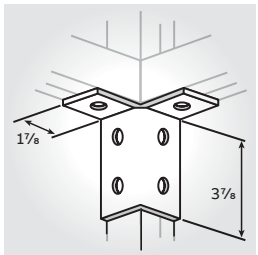

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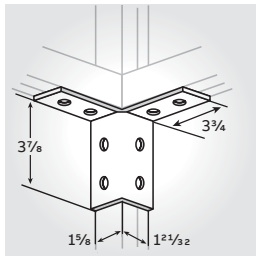

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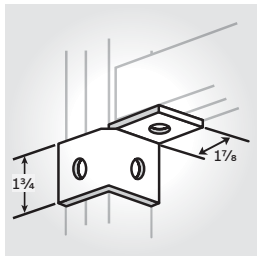

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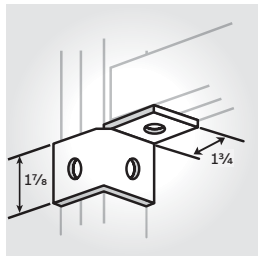

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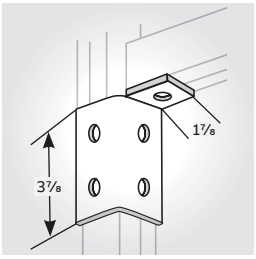

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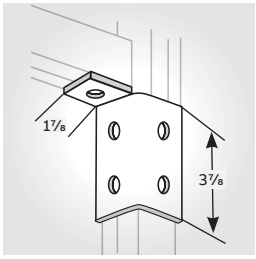

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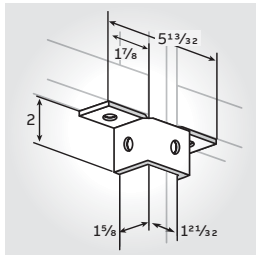

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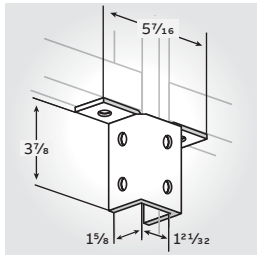

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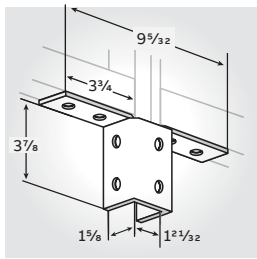

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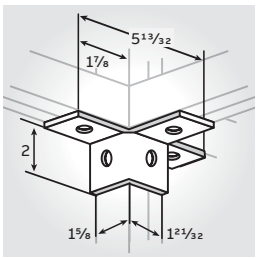

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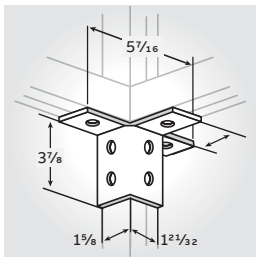

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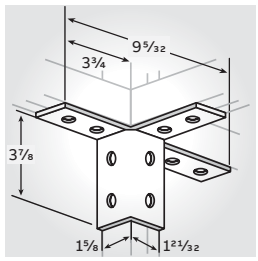


13

01 **AW204**
AW204HDG
AW204EG
AW204
Wt./C 76 lb

02 **AW214**
AW214HDG
AW214EG
AW214
Wt./C 115 lb

03 **A217**
AW217HDG
A217EG
A217
Wt./C 155 lb

04 **AW205L**
AW205LHDG
AW205LEG
AW205L
Wt./C 59 lb

05 **AW205R**
AW205REG
AW205R
Wt./C 59 lb

06 **AW215L**
AW215LHDG
AW215LEG
AW215L
Wt./C 98 lb

07 **AW215R**
AW215RHDG
AW215REG
AW215R
Wt./C 98 lb

08 **AW220**
AW220HDGC
AW220EG
AW220
Wt./C 90 lb

09 **AW224**
AW224HDGC
AW224EG
AW224
Wt./C 147 lb

10 **AW219**
AW219HDGC
AW219EG
AW219
Wt./C 187 lb

11 **AW226**
AW226HDG
AW226
Wt./C 113 lb

12 **A218**
A218HDG
A218EG
A218
Wt./C 177 lb

13 **AW228**
AW228HDG
AW228EG
AW228
Wt./C 230 lb

Standard dimensions	
Hole spacing	**13⁄16** in. from end
Hole spacing	**1⅞** in. centers
Hole size	**9⁄16** in. diam.
Material	**1⅝** in. width
Material	**¼** in. thick

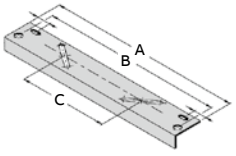
Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Fittings and brackets

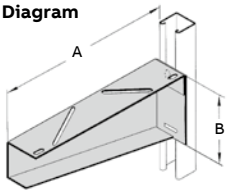
Brackets

S202

	Cat. no.	A (in.)	B (in.)	C (in.)	Wt./C lb
Diagram	S202-6*	6	5	–	75
	S202-9*	9	8	2	100
	S202-15*	15	14	18	175
	S202-21*	21	20	14	250
	S202-27*	27	26	20	325
	S202-33*	33	32	26	400

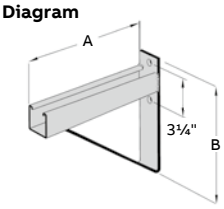
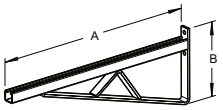
*Finishes
- HDG

S203

	Cat. no.	A (in.)	B (in.)	Design load/lb	Wt./ C lb
Diagram	S203-8*	8½	4 1/16	325	180
	S203-14*	14½	5⅜	325	325
	S203-20*	20½	6 11/16	325	525
	S203-26*	26½	8	325	675
	S203-32*	32½	8	325	840
	S203-38*	38½	8	325	1,050

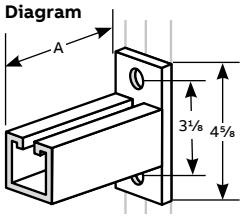
*Finishes
- HDG

S249

	Cat. no.	A (in.)	B (in.)	Design load/lb	Wt./ C lb
Diagram	S249-8*	8½	8	1,600	320
	S249-14*	14½	9	1,325	520
	S249-20*	20½	9	1,000	660
Diagram	S249-26*	26½	11½	850	870
	S249-32*	32½	11½	750	1,030
	S249-38*	38½	11½	600	1,230

*Finishes
- HDG
- SS6C

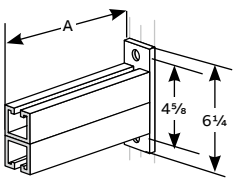
S250

	Cat. no.	A (in.)	Design load/lb	Wt./C lb
Diagram	S250-6*	6	1,500	150
	S250-8*	8½	1,500	150
	S250-12*	12	800	250
	S250-14*	14½	800	250
	S250-18*	18	550	350
	S250-20*	20½	550	350
	S250-24*	24	400	450
	S250-26*	26½	400	450

*Finishes
- HDG
- SS6C

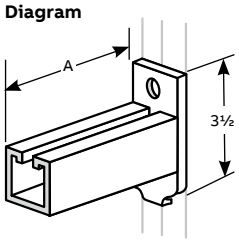
May be installed inverted with no change in load ratings.

S251

	Cat. no.	A (in.)	Design load/lb	Wt./C lb
Diagram	S251-12*	12	1,650	514
	S251-14*	14½	1,650	514
	S251-18*	18	1,050	714
	S251-20*	20½	1,050	714
	S251-24*	24	800	914
	S251-26*	26½	800	914
	S251-30*	30	650	1,114
	S251-32*	32½	650	1,114
	S251-36*	36	500	1,314
	S251-38*	38½	500	1,314

*Finishes
- HDG
- SS6C

S256

	Cat. no.	A (in.)	Design load/lb	Wt./C lb
Diagram	S256-6*	6	1,000	151
	S256-8*	8½	1,000	151
	S256-12*	12	500	251
	S256-14*	14½	500	251
	S256-18*	18	300	351
	S256-20*	20½	300	351
	S256-24*	24	250	451
	S256-26*	26½	250	451

*Finishes
- HDG
- SS6C

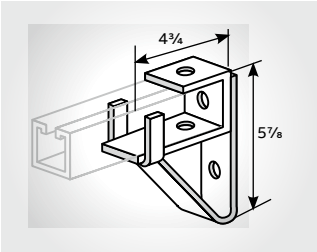
When installed in inverted position reduce load rating 40%.

Standard dimensions	
Hole spacing	13/16 in. from end
Hole spacing	1⅞ in. centers
Hole size	9/16 in. diam.
Material	1⅝ in. width
Material	¼ in. thick

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

Fittings and brackets

Brackets



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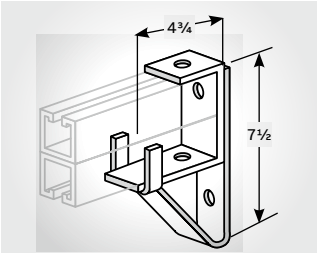

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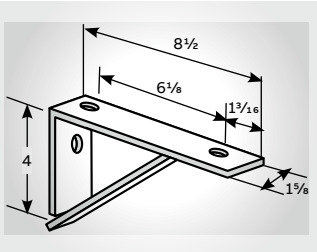

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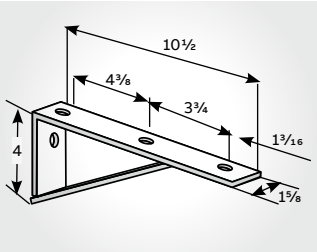

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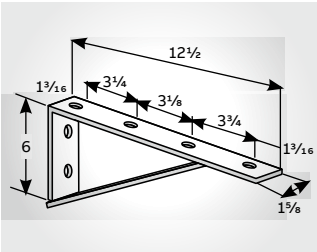

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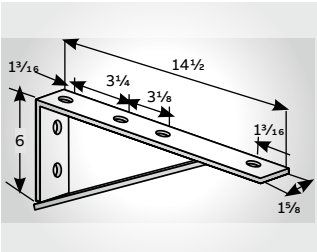

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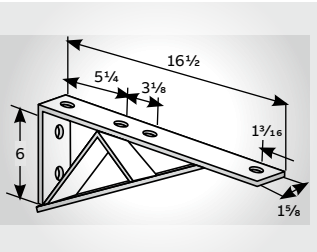

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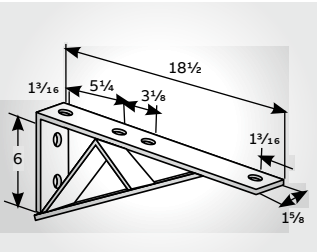


08

01 **S247**
S247HDG
S247
S247SS6
Design moment (channel upright as shown)
When supported by
A-1200 5,250 inch lb
A-1400 3,650 inch lb
Applies to fitting only, not to the arm.

02 **S248**
S248HDGC
S248
Design moment (channel upright as shown)
When supported by
A-1202 10,800 inch lb
A-1402 7,550 inch lb
Applies to fitting only, not to the arm.

03 **S204**
S204HDGC
S204
Wt./C 174 lb

Design uniform load/lb	
A-1200	750
A-1400	500

04 **S205**
S205HDGC
S205
Wt./C 264 lb

Design uniform load/lb	
A-1200	750
A-1400	500

05 **S217**
S217HDG
S217
S217SS6
Wt./C 264 lb

Design uniform load/lb	
A-1200	750
A-1400	650

06 **S218**
S218HDG
S218
Wt./C 295 lb

Design uniform load/lb	
A-1200	750
A-1400	650

07 **S222**
S222HDG
S222
Wt./C 385 lb

Design uniform load/lb	
A-1200	1,000
A-1400	750

08 **S226**
S226HDG
S226-TB**
Wt./C 421 lb
**GoldGalv

Design uniform load/lb	
A-1200	1,000
A-1400	750

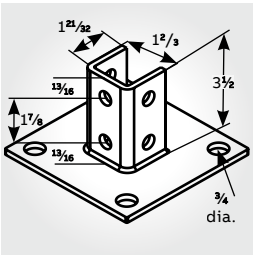
Standard dimensions	
Hole spacing	**13⁄16** in. from end
Hole spacing	**1⅞** in. centers
Hole size	**9⁄16** in. diam.
Material	**1⅝** in. width
Material	**¼** in. thick

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Fittings and brackets

Post bases



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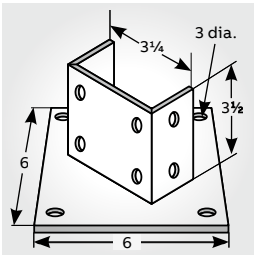

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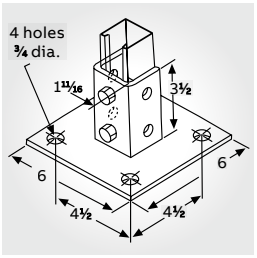

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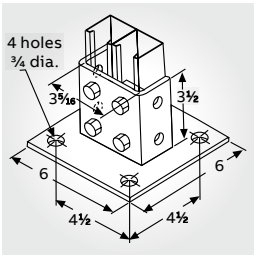

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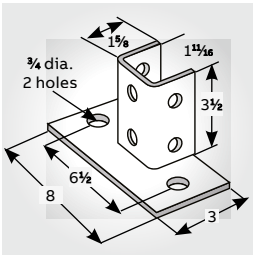

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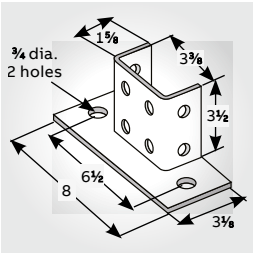

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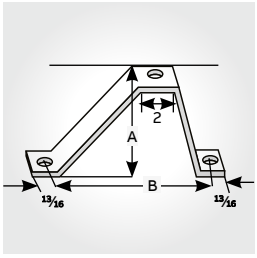

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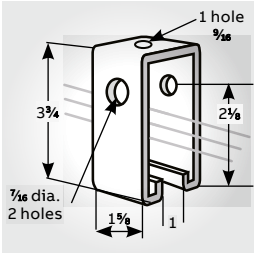

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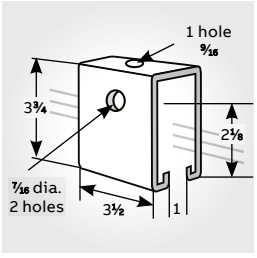


09

01 **AP232**
AP232HDGC
AP232EG
AP232
Wt./C 384 lb

02 **AP235**
AP235HDGC
AP235EG
AP235-TB**
Wt./C 400 lb
**GoldGalv

03 **AP232SQ**
AP232SQHDGC
AP232SQEG
AP232SQSS6
Wt./C 384 lb

04 **AP235SQ**
AP235SQHDGC
AP235SQEG
AP235SQ
AP235SQSS6
Wt./C 400 lb

05 **AP232FL**
AP232FLHDG
AP232FLEG
AP232FL
Wt./C 272 lb

06 **AP235FL**
AP235FLEG
AP235FL
Wt./C 360 lb

07 **AN270**
*Finishes
- HDG
- EG

Cat. no.	A	B	Wt./C lb
AN270-1*	2⅜	6	113
AN270-2*	4⅜	8	151
AN270-3*	6⅜	10	199
AN270-4*	8⅜	12	246
AN270-5*	10⅜	14	293

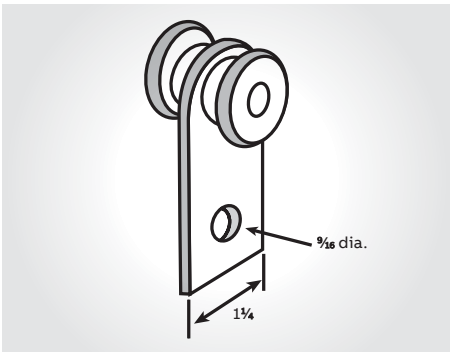
08 **TS272 Track support**
TS272HDG
Requires ⅜ in. x 2½ in. bolt and nut (not included)
Design load: 1,000 lb
Wt./C 104 lb

09 **TS273 Track support**
TS27
For use over channel splice
Requires ⅜ in. x 2½ in. bolt and nut (not included)
Design load: 2,000 lb
Wt./C 228 lb

All dimensions shown are in in.

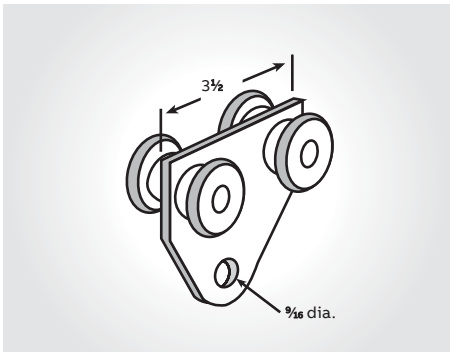
Fittings and brackets

Special application fittings and brackets



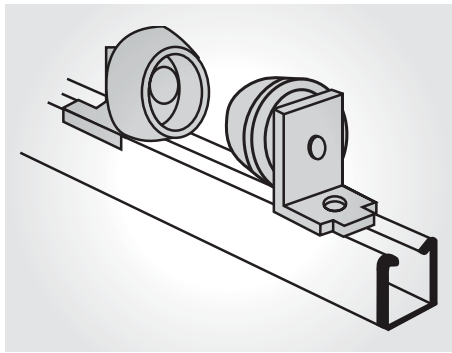
01

01 **TR292**
Can be used for series A, E and H channels only.
Standard finish is electrogalvanized.
Frictionless needle bearings.
Design load: 500 lb
Safety factor of 5.
Wt./C 59 lb



02

02 **TR294**
Can be used for series A, E and H channels only.
Standard finish is electrogalvanized.
Frictionless needle bearings.
Design load: 1,000 lb
Safety factor of 5.
Wt./C 106 lb

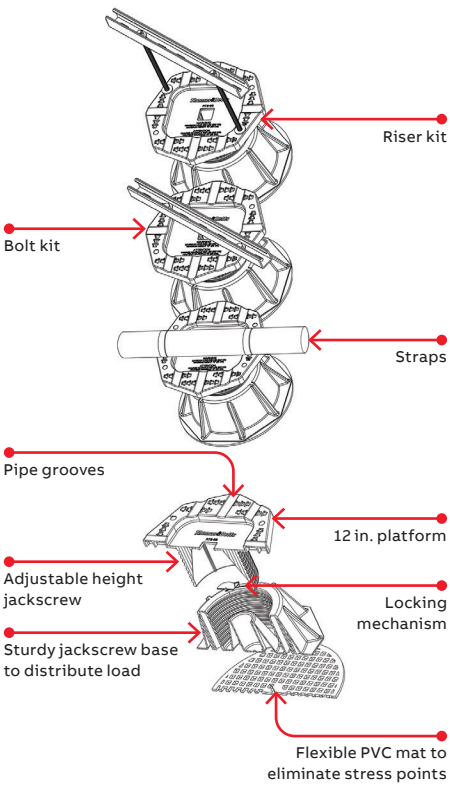


03

03 **C728 Pipe roller** (pair)
Cast aluminum rollers, steel brackets. Designed for standard saddles. Order separately for each pair of rollers: two ½ in. x 5/16 in. hex head cap screws and two ½ in. channel nuts. Space to suit O.D. of pipe and wrapping.
Design load: 2,350 lb
Wt./C : 300 lb

Adjustable universal support

Support building services and access equipment on flat roofs and flat surfaces



The ABB adjustable universal support (AUS) provides an easy method for supporting pipes, conduit and equipment on flat roofs, below raised floors and even on level ground applications. The AUS reduces installation time compared to other support solutions such as wooden blocks, cement blocks, straps and clips. These labor-intensive solutions also increase the danger of roof membrane penetration.

The AUS system allows for tool-free adjustment of the pedestal height from 6 to 9 inches with a twist of the wrist. This ensures that the supported objects or pipes are uniformly supported and no high stress supports are carrying a disproportionate load in a single location.

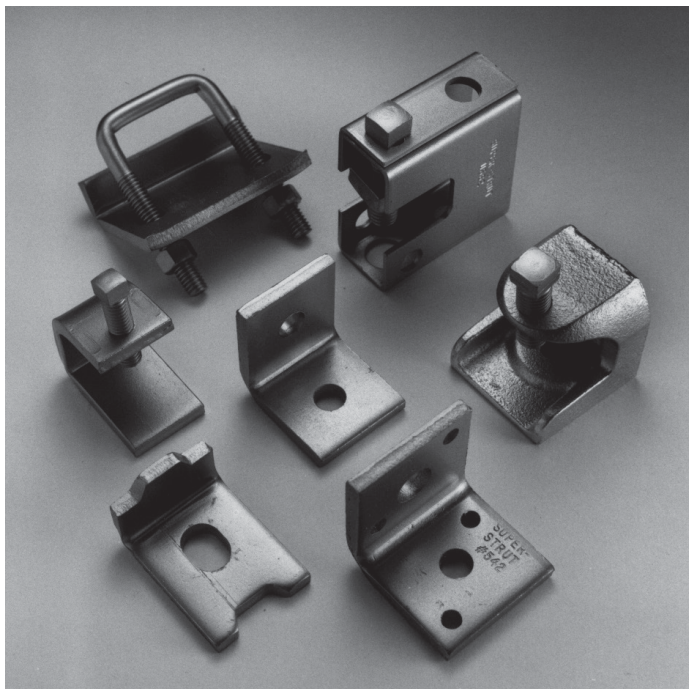
Cat. no.	Description	Qty.
AUS14-96	Adjustable universal support (base only)	1
AUS-RISER-KIT	Riser kit	
A1200HS100PG	14 in. strut	1
H104-1/2X10EGC	12 in. threaded rod	2
E145-1/2EGC	Nut	8
E147-1/2EGC	Washer	8
E148-1/2EGC	Lock washer	4
AUS-STRUT-KIT	Bolt kit	
A1200HS100PG	14 in. strut	1
E142-1/2X200EGC	Bolt	2
E145-1/2EGC	Nut	2
E147-1/2EGC	Washer	4
E148-1/2EGC	Lock washer	2
AUS125PCSS6	4½ in. stainless steel 316 strap (to restrain 1¼ in. pipe)	2
AUS150PCSS6	5 in. strap (to restrain 1½ in. pipe)	2
AUS200PCSS6	6 in. strap (to restrain 2 in. pipe)	2

Beam clamps

Design loads
Where design loads are indicated, they provide for a safety factor of 3 in conformance with the American Standard Code for Pressure Piping. For more information, see page A66 for engineering data and specifications.

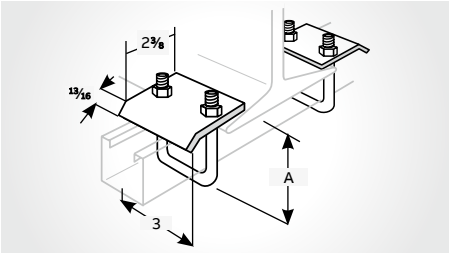
Finishes and special materials
Hot-dipped galvanized (HDGC) is standard for all Superstrut beam clamps. The material is zinc coated after fabrication providing total product protection on all surfaces. The fabricated beam clamps are suspended and then dipped into tanks of hot zinc for a prolonged period, creating a coherent bond.

Selected beam clamps can also be available in GoldGalv® (no suffix) or stainless steel type 316 (SS6C). Contact your regional sales office for availability and minimum quantities.



Beam clamps

Beam clamps for mounting channel



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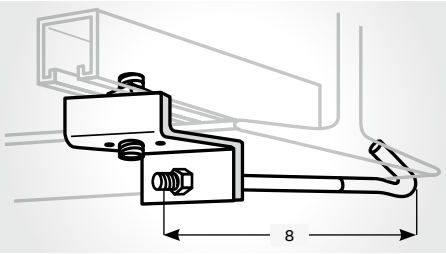

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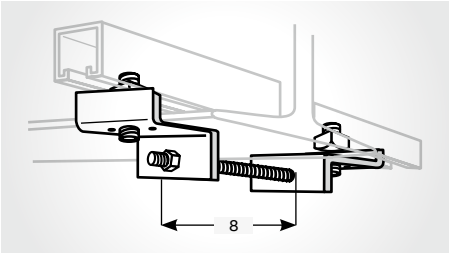

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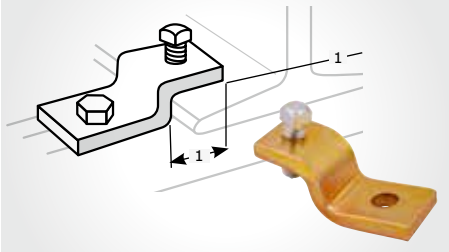

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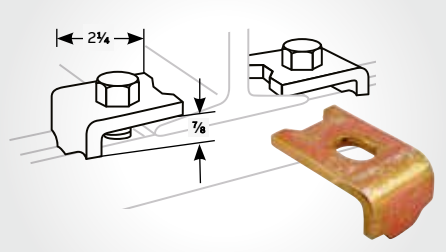

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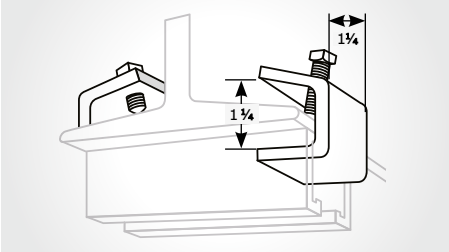

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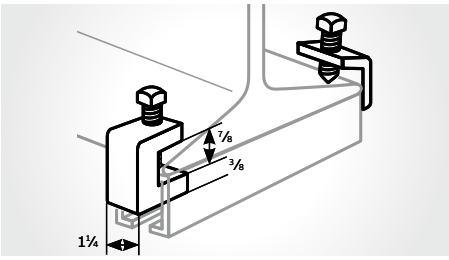

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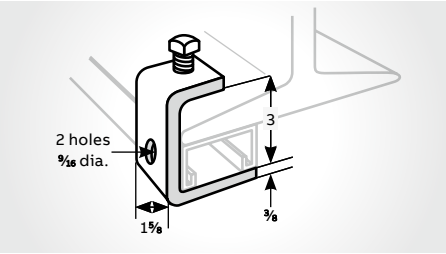

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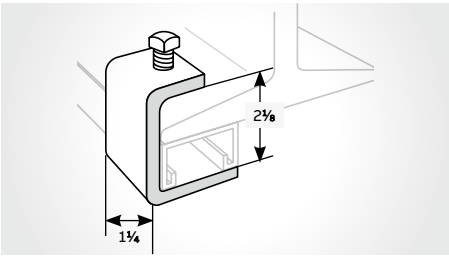


09

—
01 **U501, U502**
Furnished complete.
Design load
U501-TB* : 2,150 lb
U502 : 3,000 lb

*Finishes
- HDG
- EG
- GoldGalv®
- SS6C

Cat. no.	For channel		Size (in.)	Wt./C lb
U501*	A1200	A1400	3⅜16	90
	B1200	B1400	3⅜16	90
	C1200	B1402	3⅜16	90
U502*	A1202	A1402	4¹³⁄₁₆	100
	C1202	H1200	4¹³⁄₁₆	100

—
02 **U504**
U504HDG
U504EG
U504
U504SS6
Can be used with all channels.
Wt./C 140 lb

—
03 **U505**
U505HDG
U505EG
U505
Can be used with all channels.
Wt./C 270 lb

—
04 **U510**
U510HDGC
U510EG
U510
U510SS6

Design load/lb	Channel
1,000	A-1200
800	A-1400

½ in. x 1½ in. set screw included.
Order separately one ½ in. x 1½ in. hex head cap screw and ½ in. channel nut.
Wt./C 75 lb

—
05 **512U**
512UHDG
512UEG
512U

Design load/lb	Channel
1,000	A-1200
800	A-1400

Order separately one ½ in. x 1½ in. hex head cap screw and ½ in. channel nut.
Wt./C 26 lb

—
06 **U514**
U514HDGC
U514EG
U514
U514SS6
⅜ in. x 1½ in. set screw included.
Design load 750 lb/pair
Wt./C 40 lb

—
07 **U514-A**
U514-AHDGC
U514-AEG
U514-A
U514-ASS6
½ in. x 1½ in. set screw included.
Design load 1,650 lb/pair
Wt./C 59 lb

—
08 **U515**
U515HDGC
U515EG
U515
U515SS6
For all A series channel.
½ in. x 1½ in. set screw included.
Design load 800 lb
Wt./C 95 lb

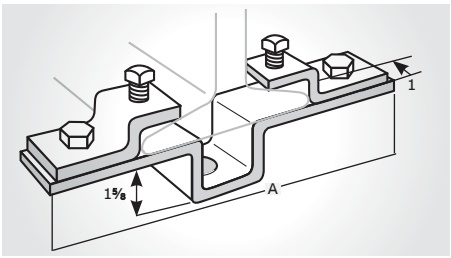
—
09 **U515B**
U515BHDG
U515BEG
U515B
U515BSS6
For all B series channel.
½ in. x 1½ in. set screw included.
Design load 800 lb
Wt./C 91 lb

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Beam clamps

Beam clamps for mounting channel



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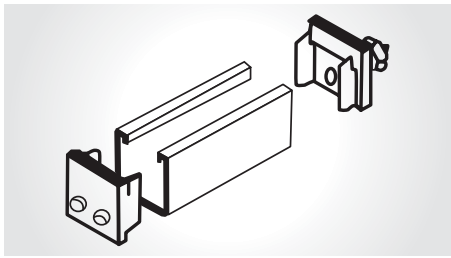

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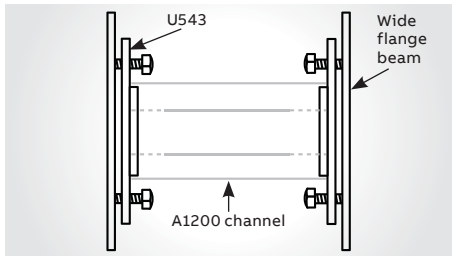

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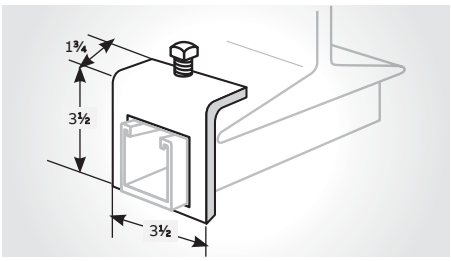

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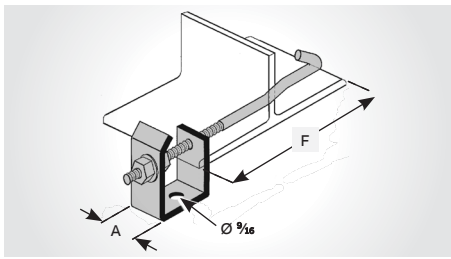


05

01 **U520, U521, U522**
*Finishes
- GoldGalv®

Cat. no.	Flange Width	A	Wt./C lb	Design load lb/ea
U520*	2⅜–4½	8¾	328	2,000
U521*	3¾–5¾	10	343	1,300
U522*	5⅝–7⅝	11⅞	353	900

Nuts, cap screws and set screws included.

02 **U544 Single adjusting screw end cap set**
U544EG
Should be ordered as one set.
Wt./C 39 lb

03 **U543 Adjusting screw end caps**
U543HDG
U543EG
U543
Should be ordered in multiples of two (2).
Wt./C 44 lb

04 **A597**
*Finishes
- HDGC
- SS6C

Cat. no.	Channel series	Wt./C lb	Design load lb/ea
A597*	A	108	800

05 **U570-1, U570-2**
*Finishes
- HDGC

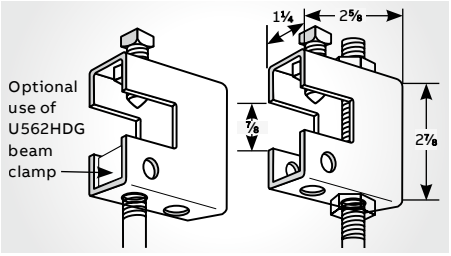
Cat. no.	A (in.)	F (in.)	Wt./C lb	Design load lb/ea
U570-1*	1½	4 to 9	240	800
U570-2*	1½	7 to 17	300	800

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Beam clamps

Beam clamps for hanging rod



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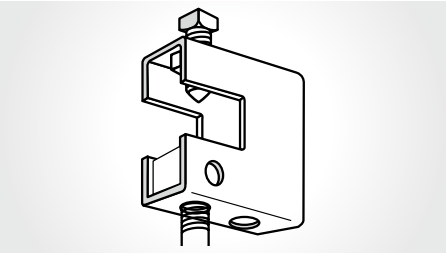

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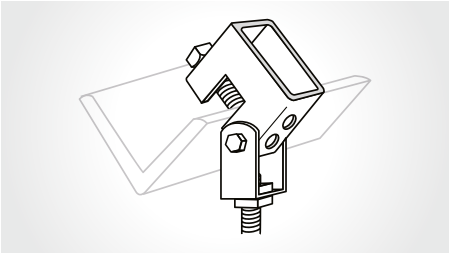

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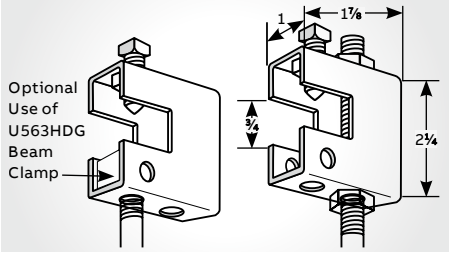

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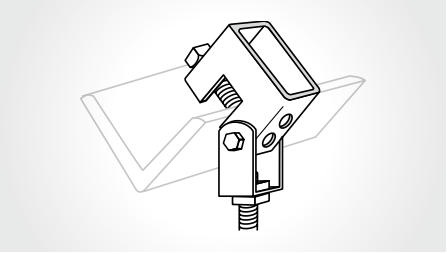
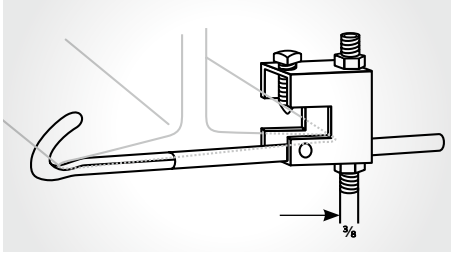
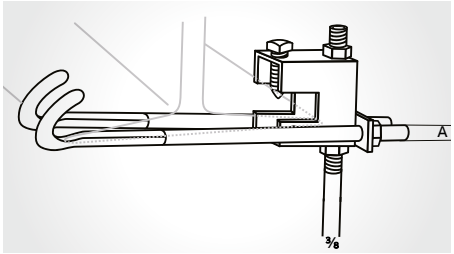


05



06



07

Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

01 **U562 Beam clamp**
U562HDG
U562EG
U562
E146 square nut order separately.
½ in. set screw included.

Rod size (in.)	Wt./C lb	Design load lb/ea
½	80	800

For 20° swivel application use ES-145-1/2 nut.
½ in. set screw included.

Rod size (in.)	Wt./C lb	Design load lb/ea
½	80	500

02 **UM562 Beam clamp**
UM562HDGC
UM562SS6
E146 square nut order separately.
½ in. set screw included.

Rod size (in.)	Wt./C lb	Design load lb/ea
½	100	1,200

For 20° swivel application use ES-145-1/2 nut.

03 **US562 Beam clamp**
with Swing Hanger
US562HDG
US562EG
US562
½ in. set screw included.

Rod size (in.)	Wt./C lb	Design load lb/ea
½	113	800

04 **U563 Beam clamp**
U563HDG
U563EG
U563
U563SS6
Square nut order separately.
⅜ in. set screw included.

Rod size (in.)	Wt./C lb	Design load lb/ea
⅜	33	400

⅜ in. set screw included.

Rod size (in.)	Wt./C lb	Design load lb/ea
⅜	33	240

05 **US563 Beam clamp with swing hanger**
US563HDG
US563
⅜ in. set screw included.

Rod size (in.)	Wt./C lb	Design load lb/ea
⅜	50	400

06 **U569 Beam clamp**
U569HDG
U569
Maximum flange width 5 in.

Cat. no.	A size (in.)	Wt./C lb	Design load lb/ea
U569	⅜	150	400

07 A570 **Beam clamp with safety rod**
Flange width 4 in. min.–8 in. max.
For use with ⅜ in. rod see U-569.

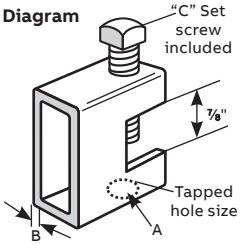
Cat. no.	A size (in.)	Wt./C lb	Design load lb/ea
A570HDG	½	220	500

All dimensions shown are in in.

Beam clamps

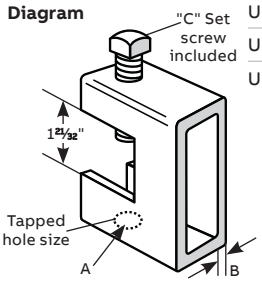
Beam clamps for hanging rod

U560 Heavy-duty beam clamp

Diagram	Cat. no.	A (in.)	B (in.)	C (in.)	Wt./C lb	Design load, lb
	U560-1/4*	1/4	1/8	3/8 x 1 1/2	67	1,050
	U560-3/8*	3/8	1/8	3/8 x 1 1/2	67	1,050
	U560-1/2*	1/2	1/4	1/2 x 1 1/2	130	2,650
	U560-5/8*	5/8	1/4	1/2 x 1 1/2	130	2,650

*Finishes
- GoldGalv®
- EG

U564 Heavy-duty beam clamp

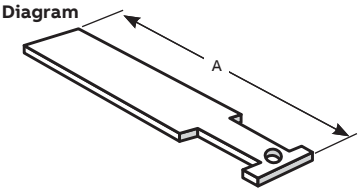
Diagram	Cat. no.	A (in.)	B (in.)	C (in.)	Wt./C lb	Design load, lb
	U564-3/8*	3/8	1/8	3/8 x 2 3/4	109	1,300
	U564-1/2*	1/2	1/4	1/2 x 2 3/4	201	3,150
	U564-5/8*	5/8	1/4	1/2 x 2 3/4	201	3,150

*Finishes
- GoldGalv®
- EG

U568 Beam clamp safety strap
For U563 beam clamp.

Cat. no.	Beam flange width (in.)	A (in.)	Wt./C lb
U568-1EG	6	8	18
U568-2EG	9	11	28

Diagram

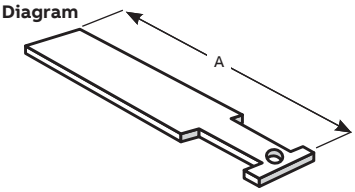


16 gauge material

U568 Beam clamp safety strap
For U562 and UM562 beam clamp.

Cat. no.	Beam flange width (in.)	A (in.)	Wt./C lb
U568-3EG	6	9	25
U568-4EG	9	12	33
U568-5EG	12	15	42

Diagram

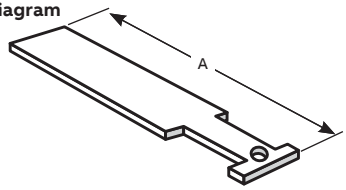


16 gauge material

U568 Beam clamp safety strap
For U560 and U564 beam clamp.

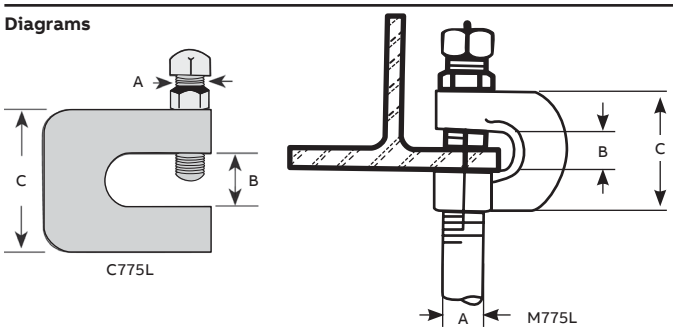
Cat. no.	Beam flange width (in.)	A (in.)	Wt./C lb
U568-6EG	6	9	33
U568-7EG	9	12	42
U568-8EG	12	15	24

Diagram



16 gauge material

C775L/M775L Clamp with lock nut

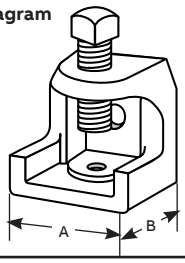
Diagrams	Cat. no.	Pipe size (in.)	Dimensions A (in.)	Dimensions B (in.)	Dimensions C (in.)	Wt./C lb	Design load, lb
	C775L-3/8EG	3/8	3/8	3/8	3/4	38	400
	C775L-1/2EG	1/2	3/8	3/8	3/4	39	500
	C775L-5/8EG	5/8	1/2	1/2	3/4	60	550
	C775L-3/4EG	3/4	5/8	5/8	3/4	69	600
	C775L-7/8EG	7/8	3/4	3/4	1	184	900
	M775L-3/8EG	3/8	3/8	3/4	1 3/4	27	400
	M775L-1/2EG	1/2	1/2	3/4	1 3/4	35	400
	M775L-5/8EG	5/8	5/8	3/4	2	52	440
	M775L-3/4EG	3/4	3/4	3/4	2	63	500

Standard finish – electrogalvanized (EG)
Malleable iron (M775L)
Carbon steel (C775L)

Beam clamps

Beam clamps for hanging rod

500SC, 502, 503SC, 507, 508, 509, 510, 511 Beam clamp

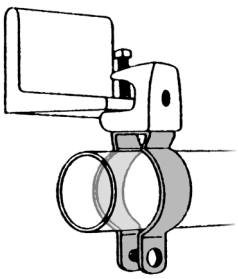
	Cat. no.	Tapped holes	Base dim. A (in.)	Base dim. B (in.)	Jaw opening (in.)	Wt./C lb	Design load/lb
Diagram 	500SC	¼–20	1	1¼	15/16	18	450
	502	⅜–16	2	2	1	92	1,300
	503SC	½–13	2⅝	2½	1	164	1,300
	507	½–13	2½	2⅜	1⅜	165	1,700
	508	½–13	2½	2⅜	2⅛	184	1,700
	509	10–24	1	1¼	15/16	22	375
	510	¼–20	27/32	1⅛	⅝	15	400
	511	10–24	27/32	1⅛	⅝	15	400

Standard finish – Electrogalvanized (no suffix)

6H series in combination with 500 series beam clamp conduit and pipe hanger

Features

- Accommodates ½ in. through 4 in. EMT or rigid conduit
- Can be used for either vertical or horizontal installation
- 6H-TB Series is threaded so there are fewer parts to handle or drop
- Installs easily with a screwdriver



Without bolt		With bolt				
Cat. no.	Fig. no.	Cat. no.	Fig. no.	EMT (in.)	Rigid conduit or pipe (in.)	Qty. per box
6H0	1	6H0-B	2	½	⅜–½	100
6H0-T	3	6H0-TB	4	½	⅜–½	100
6H1	1	6H1-B	2	¾	¾	100
6H1-T	3	6H1-TB	4	¾	¾	100
6H2	1	6H2-B	2	1	1	100
		6H2-TB	4	1	1	100
6H2 1/2	1	6H2 1/2B	2	1¼	–	100
		6H2 1/2-TB	4	1¼	–	100
6H3-SC	1	6H3-B	2	1½	1¼	100
		6H3-TB	4	1½	1¼	100
6H4	1	6H4-B	2	–	1½	100
		6H4-TB	4	–	1½	100
6H5	1	6H5-B	2	2	2	100
		6H5-TB	4	2	2	100
6H6	1	6H6-B	2	2½	2½	100
6H7	1	6H7-B	2	3	3	100
6H8	1	6H8-B	2	3½	3½	100
6H9	1	6H9-B	2	4	4	100

Diagrams

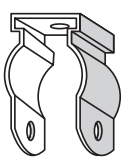


Fig. 1: 6H series without bolt

Fig. 2: 6H-B series with bolt and hex nut

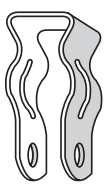


Fig. 3: 6H-T threaded series threaded without bolt

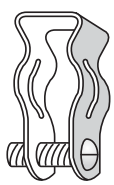
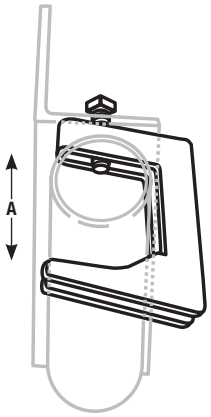


Fig.4: 6H-TB threaded series threaded with bolt

Standard finish – electrogalvanized (no suffix). Use SS suffix for stainless steel.
Load rating: 500 lb with a safety factor of 3. (For weight per 100 see page A44.)

Beam clamps

Beam clamps for mounting pipe and conduit



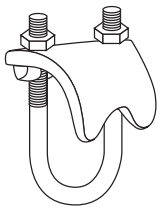
U571, U572 Conduit clamp
For attaching ½ in. thru 1½ in. conduit to beam, channel, angle or column. Secures conduit to the support parallel or at right angles to it.
5⁄16 in. set screw
12 gauge material
Standard finish – GoldGalv®
Wt./C 38 lb

Cat. no.	Conduit size (in.)	Max. flange thickness (in.)	Dim. A (in.)	Wt./C lb
U571	½	1	1¾	36
	¾	¾	1¾	36
	1	½	1¾	36
U572	¾	1½	2½	59
	1	1¼	2½	59
	1¼	1	2½	59
	1½	⅝	2½	59

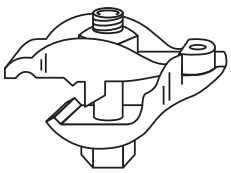
Pipe supports
Three types of pipe clamps are available to provide right angle, vertical and parallel attachment to a beam. Types RC, EC and PC are malleable iron clamps with an edge that grips the structural member for maximum holding power when tightened.

Type RCS clamps are all steel, providing two bearing surfaces for strong attachment for mounting pipe or conduit at right angles to the beam.

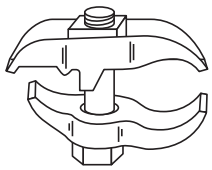
All parts are electrogalvanized (no suffix) including the threads. The clamps are designed for clamping to a wide variety of beam thicknesses and tapers. Can be installed using only a wrench.


Type RC and RCS

- Malleable iron
- For mounting pipe or conduit at right angles to the beam
- Use SS316 suffix for 316 stainless steel
- Use HDG suffix for hot-dipped galvanized


Type EC

- Malleable iron
- For mounting pipe or conduit vertically across the beam
- Use HDG suffix for hot-dipped galvanized
- CSA certified


Type PC

- Malleable iron
- For mounting pipe or conduit parallel to the beam
- Use HDG suffix for hot-dipped galvanized

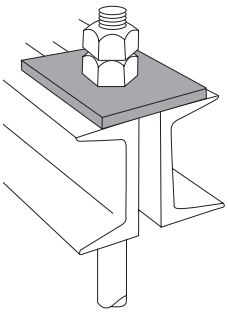
Cat. no. and size	O.D. of conduit or pipe (in.)	Nom. conduit or pipe size (in.)	Std. ctn.	Wt./C lb
RCS-3/8	0.675	⅜	50	31
RCS-1/2	0.840	½	50	34
RCS-3/4	1.050	¾	50	39
RCS-1	1.315	1	50	42
RCS-1-1/4	1.660	1¼	50	43
RCS-1-1/2	1.900	1½	50	60
RCS-2	2.375	2	50	72
RC-1/2	0.840	½	50	36
RC-3/4	1.050	¾	50	43
RC-1	1.315	1	50	49
RC-1-1/4	1.660	1¼	50	51
RC-1-1/2	1.900	1½	50	54
RC-2-SC	2.375	2	50	76
RC-2-1/2	2.875	2½	25	107
RC-3	3.500	3	25	116
RC-3-1/2	4.000	3½	25	134
RC-4-SC	4.500	4	20	158
EC-1/2	0.840	½	50	69
EC-3/4	1.050	¾	50	78
EC-1	1.315	1	25	83
EC-1-1/4	1.660	1¼	25	108
EC-1-1/2	1.900	1½	25	112
EC-2	2.375	2	25	140
EC-2-1/2	2.875	2½	10	183
EC-3	3.500	3	10	203
PC-3/8	0.675	⅜	50	32
PC-1/2	0.840	½	50	53
PC-3/4	1.050	¾	50	53
PC-1	1.315	1	50	61
PC-1-1/4	1.660	1¼	25	79
PC-1-1/2	1.900	1½	25	56
PC-2	2.375	2	25	116
PC-2-1/2	2.875	2½	25	148
PC-3	3.500	3	10	175
PC-3-1/2	4.000	3½	10	199
PC-4	4.500	4	10	224

Beam clamps

Beam fittings

C781 Square washer

Std. pack 50



Cat. no.	Rod size (in.)	Hole size (in.)	Overall dimensions	Wt./C lb
C781-3/8*	3/8	7/16	3 x 3 x 3/16	27
C781-1/2*	1/2	9/16	3 x 3 x 3/16	27
C781-5/8*	5/8	11/16	3 x 3 x 1/4	47
C781-3/4*	3/4	13/16	3 x 3 x 1/4	42
C781-7/8*	7/8	15/16	4 x 4 x 3/8	85
C781-1*	1	1 1/8	4 x 4 x 3/8	160

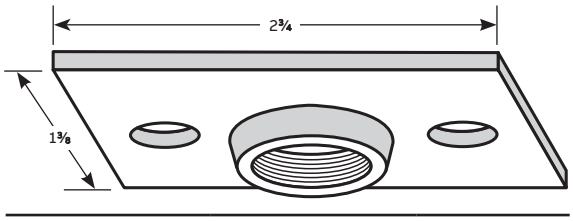
*Finishes
- B
- EDG
- EG
- SS6

Used for beam applications.
For channel applications, use AB241.

M742R Ceiling flange

Cat. no.	Rod size (in.)	Wt./C lb
M742R-3/8*	3/8	16
M742R-1/2*	1/2	16

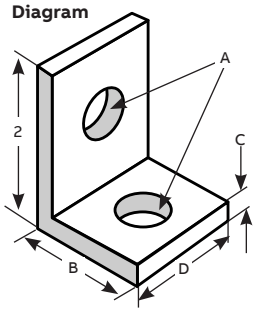
Diagram



*Finishes
- B
- EG

540 Side beam hanger clip

Diagram



Cat. no.	A (in.)	B (in.)	C (in.)	D (in.)	Wt./C lb
540-3/8*	7/16	1 7/8	1/4	7/8	38
540-1/2*	9/16	1 7/8	1/4	1 5/8	36
540-5/8*	11/16	2 1/2	3/8	2	84
540-3/4*	13/16	2 1/2	3/8	2	113

*Finishes
- B
- EG
- GoldGalv®

542 Side beam hanger clip

Cat. no.	Figure	Rod size (in.)	Design load/lb	Wt./C lb
542	1	3/8	610	35
	2	1/2	1,000	38

Diagrams

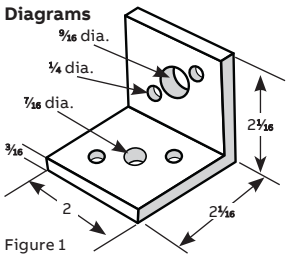


Figure 1

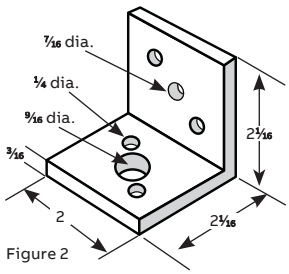
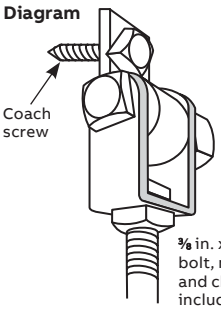


Figure 2

Standard finish – GoldGalv®
For 3/8 in. and 1/2 in. rods.

S541 Swing connector

Diagram



Cat. no.	Rod size (in.)	Wt./C lb
S541-3/8	3/8	31

Standard finish – GoldGalv®
For use with wood beam.

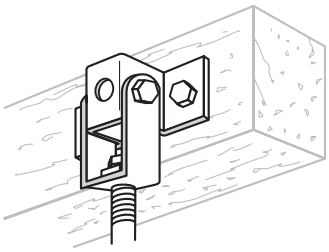
Materials	
HDG(C)	Hot-dipped galvanized
EG(C)	Electrogalvanized
(No suffix)	GoldGalv®
SS6(C)	Stainless steel 316

All dimensions shown are in in.

Beam clamps

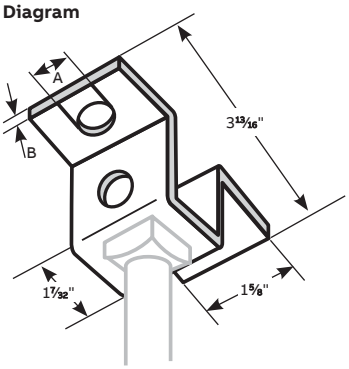
Beam fittings

U577 Clevis and swing connector

	Cat. no.	Rod size (in.)	Wt./C lb
	U577-1/2	½	69

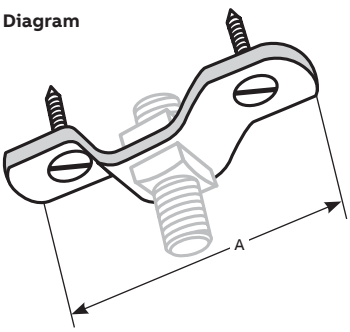
Standard finish – GoldGalv®
For use with wood beam.

U576 Hanger clevis

	Cat. no.	Hole A (in.)	Material thickness B (in.)	Wt./C lb
Diagram	U576-3/8	7/16	3/16	27
	U576-1/2	9/16	3/16	27

Standard finish – GoldGalv®
For rods up to ½ in.
Mounting holes 7/16 in. diameter.
For use with wood beam.

U579 Ceiling flange

	Cat. no.	A (in.)	Wt./C lb
Diagram	U579-3/8	3½	30
	U579-1/2	4¼	50

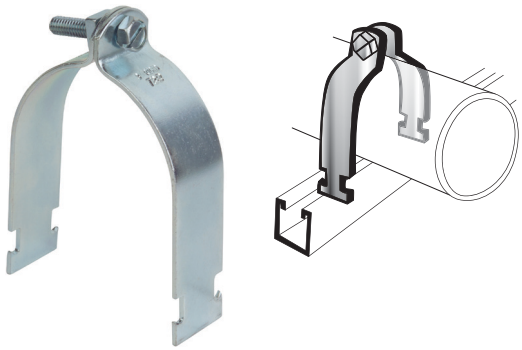
Standard finish – GoldGalv®
Malleable iron
Nuts and wood screws not included. Mounting holes 13/32 in.

Pipe straps, pipe and conduit clamps and hangers

Design loads
Where design loads are indicated, they provide for a safety factor of 3 in conformance with the American Standard Code for Pressure Piping.

Hanger design
Pipe hangers are of advanced design to be user friendly.

Finishes and special materials
The standard finish is electrogalvanized (EGC) or GoldGalv®. Some products are offered in aluminum and stainless steel where noted.



701 O.D. Pipe and conduit clamp
Machine screw and nut included.

Standard finishes and materials

PG	Pregalvanized (i.e. 701-045PG)
AL	Aluminum (i.e. 701-045AL) with zinc-plated hardware
SS6	Stainless steel type 316 (i.e. 701-045SS6)

Cat. no.	O.D. of pipe (in.)	O.D. of pipe (mm)	Rigid conduit (in.)	EMT conduit (in.)	Wt./C lb	Std. Pack
701–045PG	0.36–0.45	9–11.5	–	–	9	10
701–055PG	0.46–0.55	11.5–14	–	–	10	10
701–065PG	0.56–0.65	14–17	–	–	11	10
701–075PG	0.66–0.75	17–19.5	–	½	13	10
701–088PG	0.76–0.88	19.5–22.5	½	–	15	10
701–100PG	0.89–1.00	22.5–25.4	–	¾	16	10
701–113PG	1.01–1.13	25.5–29	¾	–	17	10
701–126PG	1.14–1.26	29–32	–	1	18	10
701–140PG	1.27–1.40	32–36	1	–	18	10
701–153PG	1.41–1.53	36–39	–	1¼	19	10
701–167PG	1.54–1.67	39–42.5	1¼	–	20	10
701–180PG	1.68–1.80	42.5–46	–	1½	23	10
701–193PG	1.81–1.93	46–49	1½	–	26	10
701–204PG	1.93–2.04	49–52	–	–	30	10
701–225PG	2.10–2.25	53–57.5	–	2	32	10
701–237PG	2.26–2.37	57.5–60	2	–	34	10
701–245PG	2.33–2.45	59.95–62.5	–	–	36	10
701–257PG	2.46–2.57	62.5–65.5	–	–	38	10
701–287PG	2.75–2.87	70–73	2½	2½	40	10
701–294PG	2.88–2.94	73–75	–	–	42	10
701–306PG	2.95–3.06	75–78	–	–	42.5	10
701–319PG	3.07–3.19	78–81	–	–	43	10
701–350PG	3.36–3.50	85.5–89	3	3	45	10
701–356PG	3.51–3.56	89–90	–	–	46	10
701–379PG	3.70–3.79	94–96.5	–	–	48	10
701–400PG	3.80–4.00	96.5–101.5	3½	3½	49	10
701–450PG	4.25–4.50	108–114	4	4	70	10
701–556PG	5.25–5.56	121–141	5	5	75	5
701–665PG	6.25–6.65	146–170	6	6	80	5
701–876PG	8.50–8.75	197–222	8	8	85	5

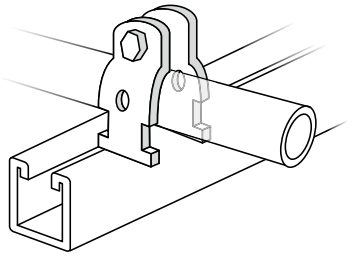
Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps

703 Universal clamp

Cat. no.	EMT/rigid (in.)	Conduit O.D.	Material thickness (gauge)	Wt./C lb	Std. ctn.
703-1/2EG	½	0.706–0.840	16	13	100
703-3/4EG	¾	0.932–1.050	14	14	100
703-1EG	1	1.163–1.315	14	15	100
703-1-1/4EG	1¼	1.508–1.660	14	18	50
703-1-1/2EG	1½	1.738–1.900	14	28	50
703-2EG	2	2.195–2.375	14	29	50

Diagram

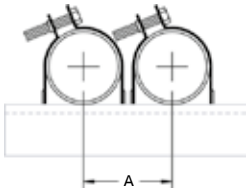


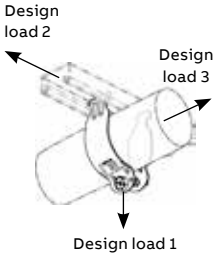
Standard finishes – GoldGalv® (i.e.) 703-1/2
Electrogalvanized (EG suffix) (i.e.) 703-1-1/2EG
One size fits both rigid and electric metal tubing (EMT).
Individually assembled with screw and nut.

Quik Clamp II™

Cat. no.	Dimension Trade size in. (mm)	Dimension A EMT in. (mm)	Dimension A rigid conduit in. (mm)	Quantity per box	Wt./C lb	Design load 1 static load limit lb (kg)	Design load 2 lb (kg)	Design load 3 lb (kg)
TBQC050	½ (12.7)	1 5/16 (33.5)	½ (12.7)	100	10	200 (90)	50 (23)	50 (23)
TBQC075	¾ (19.05)	1¾ (44.5)	¾ (19.05)	100	12	200 (90)	50 (23)	50 (23)
TBQC100	1 (44,5)	1 13/16 (46)	1 (44,5)	100	13	200 (90)	50 (23)	50 (23)
TBQC125	1 ¼ (31.75)	2⅛ (54)	1 ¼ (31.75)	50	15	200 (90)	50 (23)	50 (23)
TBQC150	1 ½ (38.1)	2⅜ (60.5)	1 ½ (38.1)	50	16	200 (90)	50 (23)	50 (23)
TBQC200	2 (50.8)	2⅝ (66.5)	2 (50.8)	50	19	200 (90)	50 (23)	50 (23)
TBQC250	2 ½ (63.5)	3 1/16 (78)	2 ½ (63.5)	25	29	350 (158)	50 (23)	50 (23)
TBQC300	3 (76.2)	3 11/16 (93.5)	3 (76.2)	25	34	350 (158)	50 (23)	50 (23)
TBQC350	3 ½ (88.9)	4 3/16 (106.5)	3 ½ (88.9)	25	38	350 (158)	50 (23)	50 (23)
TBQC400	4 (101.6)	4 11/16 (119)	4 (101.6)	25	42	350 (158)	50 (23)	50 (23)

Diagrams





Design load 1 has a safety factor of 4.
Design loads 2 and 3 have a safety factor of 1.
Standard material electrogalvanized steel.

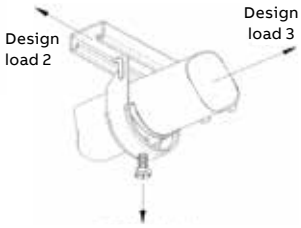
Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps

Cobra® clamp

Cat. no.	EMT trade size (in.)	Rigid cond. trade size (in.)	Cable O.D. range (in.)	Static load limit (lb) safety factor = 4	Qty. per box	Wt./C lb	Torque value (in.-lb)	Design load 1 Static load limit lb (kg)	Design load 2 lb (kg)	Design load 3 lb (kg)
CPC025	–	–	0.312–0.600	200	100	8	35	200 (91)	50 (23)	50 (23)
CPC050	½	½	0.650–0.890	200	100	10	35	200 (91)	50 (23)	50 (23)
CPC075	¾	¾	0.860–1.110	200	100	12	35	200 (91)	50 (23)	50 (23)
CPC100	1	1	1.100–1.400	200	100	14	35	200 (91)	50 (23)	50 (23)
CPC125	1¼	1¼	1.400–1.725	200	50	16	35	200 (91)	50 (23)	50 (23)
CPC150	1½	1½	1.690–1.980	200	50	18	35	200 (91)	50 (23)	50 (23)
CPC200	2	2	1.980–2.576	200	50	24	35	200 (91)	50 (23)	50 (23)
CPC250	2½	2½	2.576–3.060	350*	25	36	35	350 (159)	50 (23)	50 (23)
CPC300	3	3	3.060–3.626	350*	25	42	35	350 (159)	50 (23)	50 (23)
CPC350	3½	3½	3.626–4.126	350*	25	46	35	350 (159)	50 (23)	50 (23)
CPC400	4	4	4.126–4.626	350*	25	50	35	350 (159)	50 (23)	50 (23)

Diagram



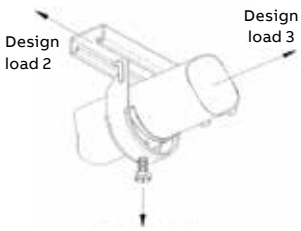
* Aluminum product has a static load of 250 lb
Standard material is commercial-grade, bright electrogalvanized steel.
Aluminum: Add the suffix AL to the catalogue number (i.e. CPC050AL)
Stainless steel: Add the suffix SS6 to catalogue number (i.e.: CPC050SS6). Stainless steel bolt head is hexagonal and slotted only.

Loc-King Cobra™ clamp

- Superior design load capabilities for heavy-duty applications
- Pre-set torque prevents over-tightening
- Anti-vibration nut
- Steel construction with GoldGalv® finish

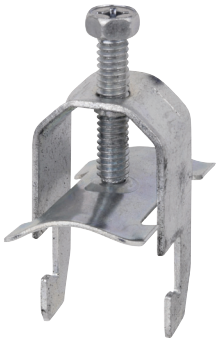
Cat. no.	EMT trade size (in.)	Rigid cond. trade size (in.)	Cable O.D. range (in.)	Static load limit (lb) safety factor = 4	Qty. per box	Wt./ C lb	Torque value (in.-lb)	Design load 1 Static load limit lb (kg)	Design load 2 lb (kg)	Design load 3 lb (kg)
LKCPC050	½	½	0.650–0.890	100	15	10	35	300 (136)	50 (23)	50 (23)
LKCPC075	¾	¾	0.860–1.110	100	16	12	35	300 (136)	50 (23)	50 (23)
LKCPC100	1	1	1.100–1.400	50	19	14	35	300 (136)	50 (23)	50 (23)
LKCPC125	1¼	1¼	1.400–1.725	50	23	16	35	300 (136)	50 (23)	50 (23)
LKCPC150	1½	1½	1.690–1.980	50	27	18	35	300 (136)	50 (23)	50 (23)
LKCPC200	2	2	1.980–2.576	50	38	24	35	300 (136)	50 (23)	50 (23)
LKCPC250	2½	2½	2.576–3.060	25	44	36	35	450 (204)	50 (23)	50 (23)
LKCPC300	3	3	3.060–3.626	25	53	42	35	450 (204)	50 (23)	50 (23)
LKCPC350	3½	3½	3.626–4.126	25	58	46	35	450 (204)	50 (23)	50 (23)
LKCPC400	4	4	4.126–4.626	25	66	50	35	450 (204)	50 (23)	50 (23)

Diagram



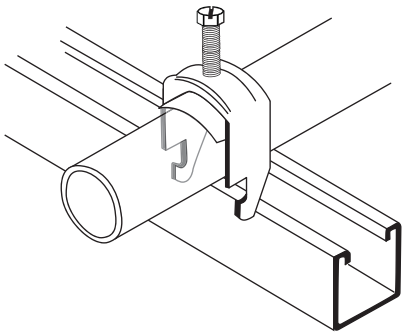
Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps



CH118 Heavy-duty cable clamp

Diagram

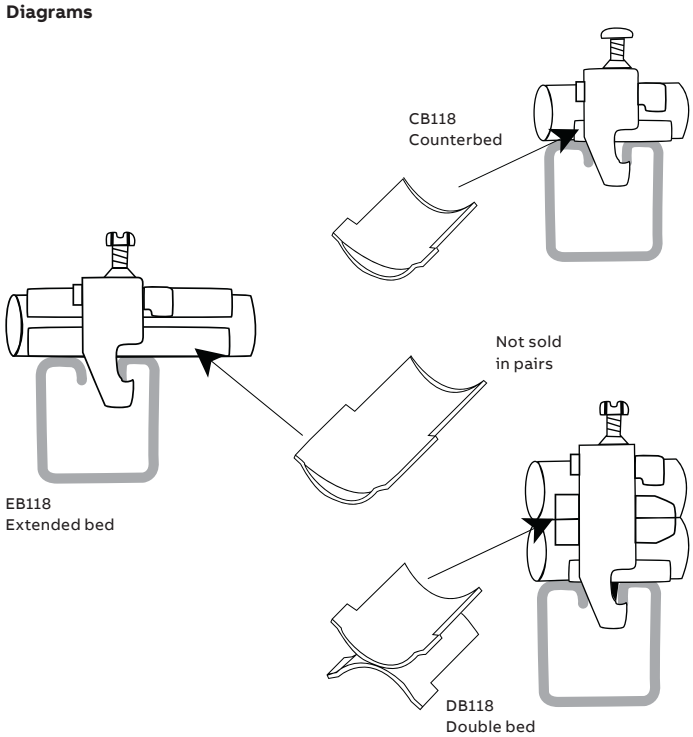


Cat. no.	O.D. of cable or pipe (in.)	O.D. of cable or pipe (mm)	Rigid cond. (in.)	EMT cond. (in.)	WT./C. lb
CH118-055EG	0.40–0.55	10–14	–	–	8
CH118-081EG	0.50–0.81	13–21	½	½	9
CH118-110EG	0.70–1.10	18–28	¾	¾	17
CH118-125EG	0.85–1.25	22–27	¾	1	18
CH118-135EG	1.00–1.35	26–36	1	1	19
CH118-175EG	1.33–1.75	34–44	1¼	1¼	21
CH118-205EG	1.65–2.05	42–52	1½	1½	24
CH118-250EG	2.12–2.50	54–64	2	2	48
CH118-300EG	2.60–3.00	66–76	2½	2½	54
CH118-325EG	2.75–3.25	70–82	–	–	65
CH118-375EG	3.25–3.75	82–94	3	3	105
CH118-425EG	3.75–4.25	94–110	3½	3½	113
CH118-475EG	4.25–4.75	110–120	4	4	124

Available in double or triple configurations.
Example: Double – CH128-047EG
Triple – CH138-047EG
Standard finishes – Electrogalvanized (EG)
Stainless steel type 316 clamp comes with type 304 stainless steel hardware.

CB118 Counterbed
EB118 Extended bed
DB118 Double bed

Diagrams



Cat. no.	Wt./C. lb
Counterbed	
CB118-055PG	1
CB118-090PG	2
CB118-110PG	3½
CB118-140PG	4
CB118-175PG	4½
CB118-200PG	5
CB118-250PG	11
CB118-300PG	13
Extended bed	
EB118-047PG	4
EB118-055PG	4½
EB118-090PG	6
EB118-110PG	13½
EB118-140PG	16
EB118-175PG	17
EB118-200PG	20
EB118-250PG	30
EB118-300PG	38
Double bed	
DB118-047PG	2
DB118-055PG	2
DB118-070PG	3

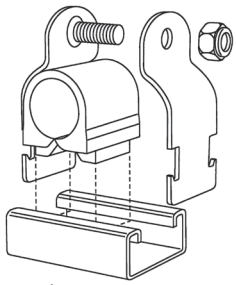
Standard finish – Pregalvanized (PG)

Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps

A716 Snap•Guard® cushioned clamp tube series
P716 Snap•Guard® cushioned clamp pipe series

- Assembly consisting of GoldGalv® finish steel clamp with bolt/locknut and cushion
- Secure pipes, tubes and hoses for fluid conductors
- Installation is easy and requires no more time than a simple pipe clamp installation
- Cushion absorbs the shocks and associated vibrations from fluid surges in tubes, pipes and hoses
- It can handle temperatures from 149 °C to -40 °C (300 °F to -40 °F)
- Cushioned clamp assemblies are available individually bagged

		Tubing			Standard pipe		
	Assembly cat. no.	Tube O.D. (in.)	Wt./C lb	Assembly cat. no.	Nominal pipe size (in.)	Std. ctn.	Wt./C lb
Diagram	A716-1/4	¼	10	P716-1/4	¼	25	10
	A716-3/8	⅜	14	P716-3/8	⅜	25	14
	A716-1/2	½	16	P716-1/2	½	25	16
	A716-5/8	⅝	16	P716-3/4	¾	25	18
	A716-3/4	¾	18	P716-1	1	25	22
	A716-7/8	⅞	18	P716-1-1/4	1¼	25	27
	A716-1	1	22	P716-1-1/2	1½	10	36
	A716-1-1/8	1⅛	24	P716-2	2	10	43
	A716-1-1/4	1¼	27	P716-2-1/2	2½	10	49
	A716-1-3/8	1⅜	27	P716-3	3	10	60
	A716-1-1/2	1½	36	P716-3-1/2	3½	10	62
	A716-1-5/8	1⅝	37	P716-4	4	10	94
	A716-1-3/4	1¾	37	–	–	10	–
	A716-1-7/8	1⅞	43	–	–	10	–
	A716-2	2	43	–	–	10	–
	A716-2-1/8	2⅛	44	–	–	10	–
	A716-2-3/8	2⅜	49	–	–	10	–
	A716-2-5/8	2⅝	53	–	–	10	–
	A716-3-1/8	3⅛	62	–	–	10	–
	A716-4-1/8	4⅛	94	–	–	10	–

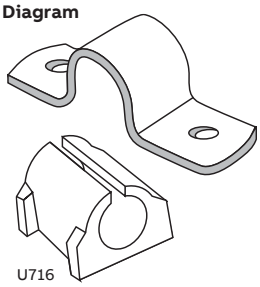
A716 / P716

Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps

U716 Two-hole cushioned clamp

- Guides, protects and uniformly spaces line runs. Low cost, time saving method of attaching tubing and hose to equipment.
- Cushion is built to withstand the effects of most oils, chemical and industrial cleaning compounds, in temperatures from -45 °C to 121 °C (-50 °F to 275 °F). Interlock edge ensures cushion remains in place.
- Attached with two standard fasteners to any flat surface, this clamp eliminates the use of special channels, providing a savings in both space requirements and cost
- Cushioned clamps reduce vibration, shock and noise in fluid systems and eliminates electrolysis

Diagram	Assembly cat. no.	Copper and steel tubing O.D. (in.)	Copper water pipe (nom.) (in.)	Normal pipe size (in.)	Std. ctn.	Wt./C lb
 U716	U716-1/4	¼	–	–	25	3
	U716-3/8	⅜	¼	–	25	4
	U716-1/2	½	⅜	¼	25	6
	U716-5/8	⅝	½	⅜	25	6
	U716-3/4	¾	⅝	–	25	7
	U716-7/8	⅞	¾	½	25	7
	U716-1	1	–	–	25	8
	U716-1-1/8	1-⅛	1	–	25	8
	U716-1-1/4	1-¼	–	–	10	17
	U716-1-3/8	1-⅜	1¼	–	10	20
	U716-1-1/2	1-½	–	–	10	22
	U716-1-5/8	1-⅝	1½	–	10	23
	U716-2	2	–	–	10	41
	U716-2-1/8	2-⅛	–	–	10	41
	U716-2-3/8	2-⅜	–	–	10	44

Standard finish – GoldGalv®

Pipe straps, pipe and conduit clamps and hangers

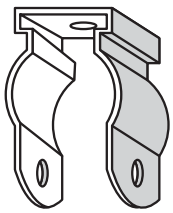
Conduit and cable clamps

6H series conduit and pipe hanger

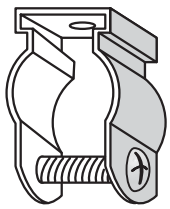
Features

- Accommodates ½ in. through 4 in. EMT or rigid conduit
- Can be used for either vertical or horizontal installation
- 6HTB Series have a built-in nut so there are fewer parts to handle or drop
- Installs easily with a screwdriver

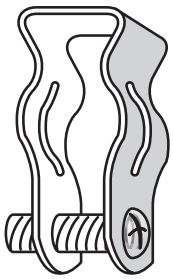
Diagrams



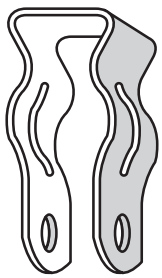
6H Series



6H-B Series with bolt and hex nut



6H-TB Threaded series



6H-T Threaded series

Cat. no.	Conduit size Rigid (in.)	Conduit size EMT (in.)	Wt./C. lb
6H0	⅜–½	½	5
6H0-B	⅜–½	½	7
6H0-T	⅜–½	½	5
6H0-TB	⅜–½	½	6
6H1	¾	¾	6
6H1-B	¾	¾	7
6H1-T	¾	¾	6
6H1-TB	¾	¾	7
6H2	1	1	7
6H2-B	1	1	9
6H2-1/2	–	1¼	8
6H2-1/2-B	–	1¼	10
6H3-SC	1¼	1½	8
6H3-B	1¼	1½	10
6H3-TB	1¼	1½	10
6H4	1½	–	17
6H4-B	1½	–	19
6H4-TB	1½	–	19
6H5	2	2	24
6H5-B	2	2	26
6H5-TB	2	2	26
6H6	2½	2½	28
6H6-B	2½	2½	30
6H7	3	3	36
6H7-B	3	3	38
6H8	3½	3½	39
6H8-B	3½	3½	41
6H9	4	4	44
6H9-B	4	4	47

Standard finish – Electrogalvanized (no suffix)

Pipe straps, pipe and conduit clamps and hangers

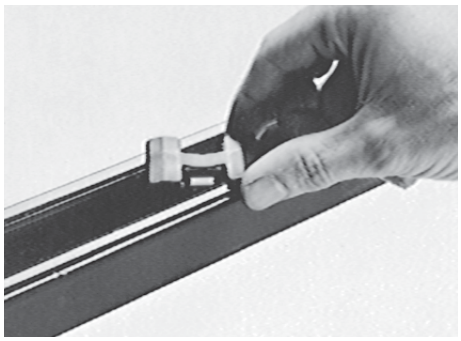
Conduit and cable clamps

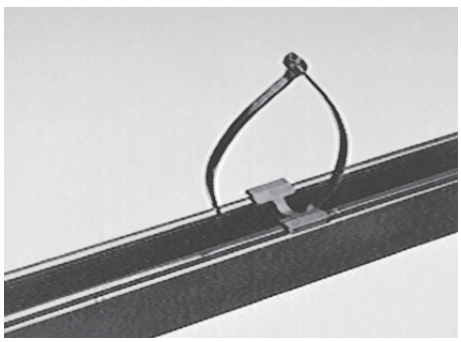
When fastening wire bundles, cables or hoses to framing channels, you can cut costs considerably by using this mounting base. It is made of smooth, weather-resistant nylon and designed to protect cable insulation and hoses from the wear or damage that can occur with metal clamps. The mounting base may 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 mounting base fits all 1½ in. and 1⅝ in. channels regardless of channel depth. Ty-Rap® and Ty-Fast® cable ties can be ordered separately.

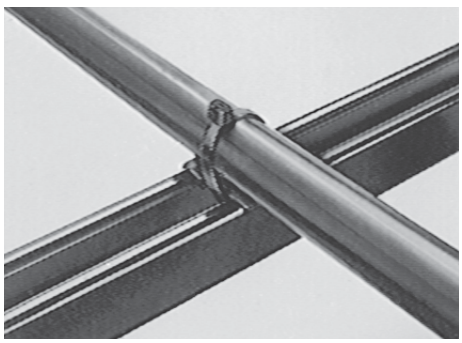
- Installs with a push and twist
- Designed for indoor or outdoor use
- Smooth design protects cable insulation
- Takes range of cable diameters

Cat. no.	Channel size (in.)	Maximum tie width accom. (in.)	Unit qty.	Std. pkg.
TC5363X	1½ and 1⅝	0.301	50	250

Installation



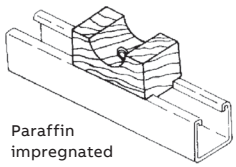




Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps

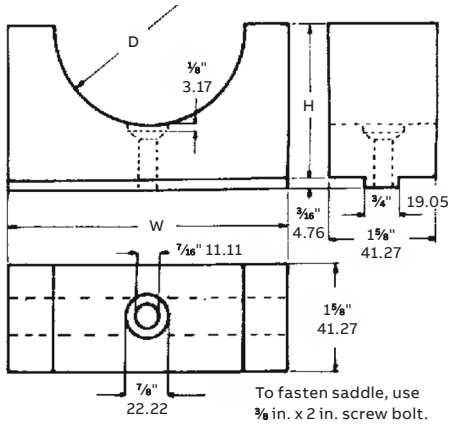
WS716 Maple hardwood saddle
Std. pack 10



Paraffin impregnated maple.

Cat. no.	Dimensions					
Hardwood paraffin imp.	Depth		Width		Height	
	(in.)	(mm)	(in.)	(mm)	(in.)	(mm)
WS716-3/4	¾	19.0	3	76.2	1¾	44.4
WS716-1	1	25.4	3	76.2	1¾	44.4
WS716-1-1/4	1¼	31.7	3½	88.9	2	50.8
WS716-1-1/2	1½	38.1	3½	88.9	2	50.8
WS716-1-3/4	1¾	44.4	4	101.6	2¼	57.1
WS716-2	2	50.8	4	101.6	2¼	57.1
WS716-2-1/4	2¼	57.1	4½	114.3	2½	63.5
WS716-2-1/2	2½	63.5	4½	114.3	2½	63.5
WS716-2-3/4	2¾	69.8	5	127	2¾	69.8
WS716-3	3	76.2	5	127	2¾	69.8
WS716-3-1/4	3¼	82.5	5½	139.7	2¾	76.2
WS716-3-1/2	3½	88.9	5½	139.7	3	76.
WS716-3-3/4	3¾	95.2	6	152.4	3¼	82.5
WS716-4	4	101	6	152.4	3¼	82.5
WS716-4-1/2	4½	114.3	6½	165.1	3½	88.9
WS716-5	5	127	7	177.8	3¾	95.2
WS716-5-1/2	5½	139.7	7½	190.5	4	101.6
WS716-6	6	152.4	8	203.2	4¼	107.9
WS716-6-1/2	6½	165.1	8½	215.9	4½	114.3
WS716-7	7	177.8	9	228.6	4¾	120.6

Diagram

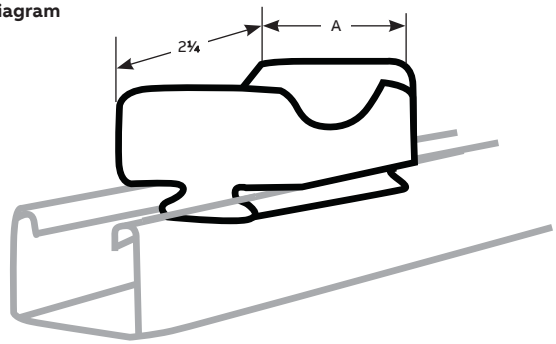


Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps

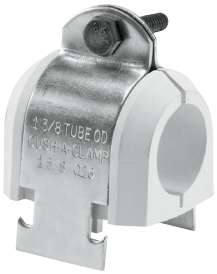
AB880 3 in. Porcelain saddle
AB881 4 in. Porcelain saddle

Diagram



Cat. no.	A (in.)	Max. cable diam. (in.)	Wt./C lb
AB880	3	3	73
AB881	4	4½	104

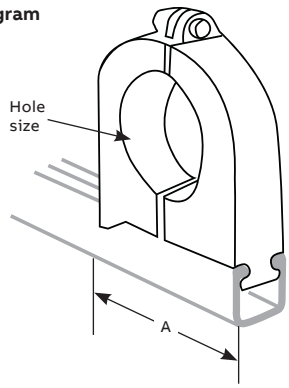
C755 Porcelain cable clamps



Cat. no.	Hole size (in.)	A (in.)	Wt./C lb
C755-1A	⅜	1⁹⁄₁₆	50
C755-1B	½	1⁹⁄₁₆	50
C755-1C	⅝	1⁹⁄₁₆	50
C755-2	¾	2⁵⁄₃₂	91
C755-2A	⅞	2⁵⁄₃₂	90
C755-2B	1	2⁵⁄₃₂	85
C755-2C	1⅛	2⁵⁄₃₂	82
C755-3	1¼	2⅝	114
C755-3A	1⅜	2⅝	110
C755-3B	1½	2⁵⁄₃₂	105
C755-3C	1⅝	2⅝	102
C755-4	1¾	3¾	220
C755-4A	1⅞	3¾	214
C755-4B	2	3¾	205
C755-4C	2⅛	3¾	200
C755-5	2¼	4¼	260
C755-5A	2⅜	4¼	250
C755-5B	2½	4¼	243
C755-5C	2⅝	4¼	240
C755-6	2¾	4¾	250
C755-6A	2⅞	4¾	240
C755-6B	3	4¾	230
C755-6C	3⅛	4¾	220

Cat. no.	Hole size (in.)	A (in.)	Wt./C lb
C755-7	3¼	5¹³⁄₁₆	340
C755-7A	3⅜	5¹³⁄₁₆	330
C755-7B	3½	5¹³⁄₁₆	318
C755-7C	3⅝	5¹³⁄₁₆	387
C755-8	3¾	6⅞	565
C755-8A	3⅞	6⅞	550
C755-8B	4	6⅞	535
C755-8C	4⅛	6⅞	520
C755-8D	4¼	6⅞	490
C755-8E	4⅜	6⅞	475
C755-8F	4½	6⅞	460

Diagram



Standard finish – GoldGalv® with bronze hardware
Also fits 1½ in. wide channel.
For minimum order quantities, contact your Regional Sales Office.

Pipe straps, pipe and conduit clamps and hangers

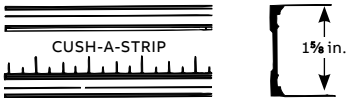
Conduit and cable clamps

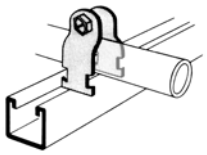
For use with 701 O.D. tubing and pipe clamp. To determine 701 clamp size add ¼ in. to O.D. tube size to allow for the cushioned strip material.

S716-TB Cushioned strip for isolation and vibration applications

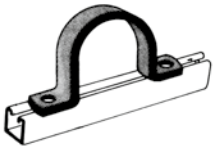
¼ in. markings for fast measuring and cutting. Measurement chart is printed on back of carton. 20 feet included in each carton.

Prevent metal-to-metal contact with the cushioned strip material. It aids in sound insulation, shock absorption and protects against corrosion, distortion and abrasion. Cushioned strip material is designed for optimal use between -1 °C and 149 °C (30 °F and 300 °F). Cushioned strip material combined with the Superstrut 701 pipe strap can handle clamping assignments from ¼ in. to 6 in.





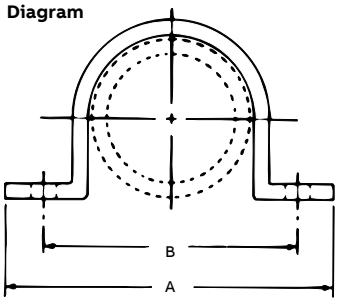
Order 701 clamp separately.



Carbon Steel

C708U Short strap for channel or wall mounting

Diagram



Pipe size (in.)	A (in.)	B (in.)	Thickness (in.)	Width (in.)	Hole size (in.)	Design load lb	Wt./C lb
½	2⅞	2	⅛	1⅝	9/32	650	23
¾	3 1/16	2 3/16	⅛	1⅝	9/32	650	26
1	3⅜	2½	⅛	1⅝	9/32	650	31
1¼	3 11/16	2 13/16	⅛	1⅝	9/32	650	35
1½	3 15/16	3 1/16	⅛	1⅝	9/32	650	39
2	5¾	4⅛	¼	1⅝	7/16	650	94
2½	6 3/16	4 9/16	¼	1⅝	7/16	1,000	114
3	6 13/16	5 3/16	¼	1⅝	7/16	1,000	133
3½	7 5/16	5 11/16	¼	1⅝	7/16	1,000	152
4	7 13/16	6 3/16	¼	1⅝	7/16	1,200	176
5	8⅞	7¼	¼	1⅝	7/16	1,200	198
6	9 15/16	8 5/16	¼	1⅝	7/16	1,200	246

Standard finish – GoldGalv®

Example: C708U-1/2

No clearance between pipe and channel.

Pipe straps, pipe and conduit clamps and hangers

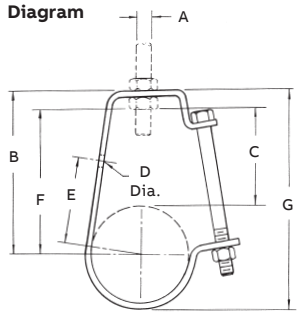
Conduit and cable clamps

Standard

C711 "J" Pipe hanger

Pipe size (in.)	A rod size (in.)	B (in.)	C (in.)	Overall dimension D (in.)	E (in.)	F (in.)	Bolt size (in.)	G (in.)	Thickness	Width (in.)	Max. rec. load lb	Approx. Wt./C lb
½	⅜	2⅝	1¾	7⁄16	1½	1 15⁄16	¼	3 5⁄32	12 ga	¾	400	18
¾	⅜	2⅞	1⅞	7⁄16	1 11⁄16	2⅛	¼	3½	12 ga	¾	400	21
1	⅜	2 15⁄16	1 15⁄16	7⁄16	1 13⁄16	2 5⁄16	¼	3 11⁄16	12 ga	¾	400	22
1¼	⅜	3¼	2	7⁄16	2 1⁄16	2⅝	¼	4⅛	12 ga	¾	400	25
1½	⅜	3 9⁄16	2 3⁄16	7⁄16	2 7⁄16	2⅞	¼	4⅝	12 ga	¾	400	27
2	⅜	3 11⁄16	2⅛	7⁄16	2 9⁄16	3 1⁄16	¼	5	12 ga	¾	400	29
2½	½	4 7⁄16	2 7⁄16	9⁄16	3 3⁄16	3⅝	⅜	6	12 ga	1¼	500	64
3	½	4 13⁄16	2 9⁄16	9⁄16	3½	4 1⁄16	⅜	6 21⁄32	12 ga	1¼	500	72
3½	½	5⅛	2⅝	9⁄16	3¾	4⅜	⅜	7 5⁄16	3⁄16	1¼	500	84
4	⅝	6⅛	3 3⁄16	9⁄16	4⅝	5 3⁄16	⅜	8 9⁄16	3⁄16	1¼	550	138
5	⅝	6¾	3¼	9⁄16	5 1⁄16	5⅗	⅜	9 23⁄32	3⁄16	1¼	550	162
6*	¾	7¾	3 9⁄16	9⁄16	5 13⁄16	6⅝	⅜	11¼	3⁄16	1¼	600	249
8*	⅞	9 3⁄16	3 15⁄16	9⁄16	6 15⁄16	8	⅜	13 11⁄16	3⁄16	1¼	760	291

Diagram



*Hangers 6 in. and over have hole instead of slot.
Standard finishes – GoldGalv®, electrogalvanized (EG)
Complies with specification MSS SP69, Type 5.Hole provided for side mounting to wall as bracket.
Example: C711-1/2

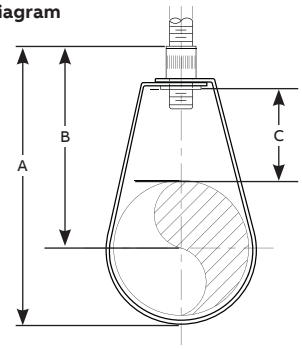
Pipe straps, pipe and conduit clamps and hangers

Conduit and cable clamps

C727 Adjustable ring

Tube size (in.)	Rod size (in.)	A (in.)	B (in.)	C (in.)	Thickness	Width (in.)	Approx max. rec. load	Wt./C lb
½	⅜	3⅛	2⅝	1⅜	16 ga	1	400	9
¾	⅜	3⅛	2½	1⅛	16 ga	1	400	9
1	⅜	3⅜	2⅝	1⅛	16 ga	1	400	9
1¼	⅜	3¾	2⅞	1⅛	16 ga	1	400	10
1½	⅜	3⅞	2⅞	1	16 ga	1	400	11
2	⅜	4¼	3	1	16 ga	1	400	12
2½	½*	5¾	4¼	1⅝	14 ga	1 3⁄16	600	28
3	½*	6	4⅛	1¼	14 ga	1 3⁄16	600	30
3½	½*	7⅜	5¼	2⅛	14 ga	1 3⁄16	600	34
4	⅝*	7⅜	5	2⅝	14 ga	1¼	1,000	37
5	⅝*	9	6⅛	2¼	14 ga	1¼	1,250	83
6	¾**	9⅜	6½	1⅞	14 ga	1¼	1,250	95

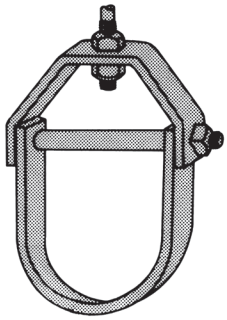
Diagram



*⅜ in. nut is used when NFPA rod sizing is requested.
**½ in. nut is used when NFPA rod sizing is requested.
Standard finish – Pregalvanized (no suffix)
Carbon steel. For suspension of non-insulated pipe lines. Complies with specification MSS SP69, Type 10.
Example: C727-1/2

Pipe straps, pipe and conduit clamps and hangers

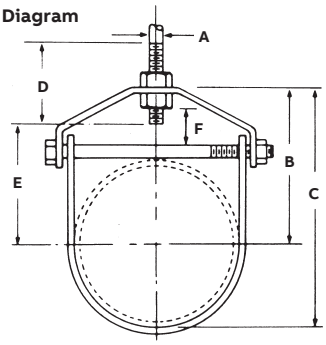
Pipe hangers



C710 Adjustable clevis hanger

Pipe size (in.)	Size of steel (in.) Upper	Lower	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Max. rec. load, lb	Wt./C lb
½	⅛ x 1	⅛ x 1	⅜	1 11/16	2⅛	2½	⅞	7/16	610	30
¾	⅛ x 1	⅛ x 1	⅜	1⅞	2 7/16	2½	1	½	610	32
1	⅛ x 1	⅛ x 1	⅜	2⅛	2 13/16	2½	1¼	⅝	610	36
1¼	⅛ x 1	⅛ x 1	⅜	2 9/16	3 7/16	2½	1¾	⅞	610	42
1½	⅛ x 1	⅛ x 1	⅜	3	4	2½	2⅛	1 1/16	610	55
2	⅛ x 1	⅛ x 1	⅜	3 11/16	4⅞	2½	2 15/16	1⅝	610	60
2½	3/16 x 1¼	3/16 x 1¼	½	4 11/16	6⅛	3	3 13/16	2	1,130	115
3	3/16 x 1¼	3/16 x 1¼	½	4¾	6 9/16	3	3⅞	1¾	1,130	132
3½	3/16 x 1¼	3/16 x 1¼	½	4 15/16	6 15/16	3	4 1/16	1¾	1,130	156
4	¼ x 1¼	3/16 x 1¼	⅝	5 3/16	7 13/16	3½	4½	1 15/16	1,430	190
5	¼ x 1¼	3/16 x 1¼	⅝	6 3/16	9	3½	5⅛	1¾	1,430	240
6	¼ x 1½	3/16 x 1½	¾	6 13/16	10⅛	4	5⅝	1⅞	1,940	320
8	¼ x 1¾	3/16 x 1¾	⅞	8 5/16	12⅝	4¼	7	2⅛	1,940	500

Diagram



Standard finishes – GoldGalv®, electrogalvanized (EG)
Complies with specification MSS SP69, Type 1.
Example: C710-1/2EG

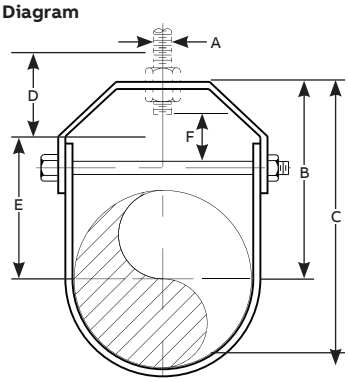
Pipe straps, pipe and conduit clamps and hangers

Pipe hangers

CL710 Light-duty adjustable clevis hanger

Pipe size (in.)	Thickness of steel (in.) Upper	Lower	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Max. rec. load, lb	Wt./C lb
⅜	16 ga. x ⅞	16 ga. x ⅞	⅜	1⅞	2 3⁄16	2½	1¼	9⁄16	150	12
½	16 ga. x ⅞	16 ga. x ⅞	⅜	1¾	2 3⁄16	2½	1⅛	9⁄16	150	13
¾	16 ga. x ⅞	16 ga. x ⅞	⅜	1⅞	2¼	2½	1¼	½	250	15
1	16 ga. x ⅞	16 ga. x ⅞	⅜	2 3⁄16	2¾	2½	1½	¾	250	18
1¼	16 ga. x ⅞	16 ga. x ⅞	⅜	2⅝	3⅜	2½	1¾	1	250	20
1½	13 ga. x ⅞	13 ga. x ⅞	⅜	3	3⅞	2½	2¼	1 3⁄16	250	30
2	13 ga. x ⅞	13 ga. x ⅞	⅜	3 9⁄16	4¾	2½	2 13⁄16	1⅝	250	38
2½	⅛ x 1¼	⅛ x 1¼	½	4	5½	3	3¼	1⅜	350	80
3	⅛ x 1¼	⅛ x 1¼	½	4 9⁄16	6½	3	3 9⁄16	1½	350	89
3½	⅛ x 1¼	⅛ x 1¼	½	5	7	3	4⅛	1¾	350	106
4	3⁄16 x 1¼	⅛ x 1¼	½	5¼	7½	3½	4¼	1⅞	400	146
6	¼ x 1½	3⁄16 x 1½	¾	6 13⁄16	10⅛	4	5⅝	1⅞	1,940	320
8	¼ x 1¾	3⁄16 x 1¾	⅞	8 5⁄16	12⅝	4¼	7	2⅛	1,940	500

Diagram



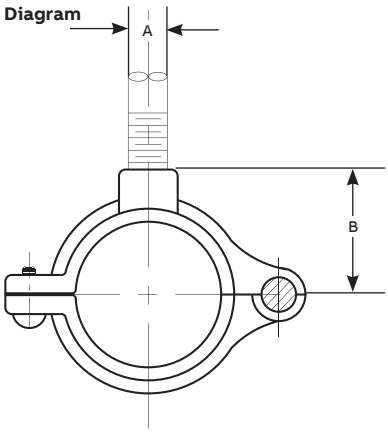
Standard finishes – GoldGalv®, Bare (B), electrogalvanized (EG), fiberglass (FG).
Carbon steel
Used on non-insulated, stationary pipelines. A lock nut above the clevis yoke is required for full rated load.
Example: CL710-3/8B

Pipe straps, pipe and conduit clamps and hangers

Pipe hangers

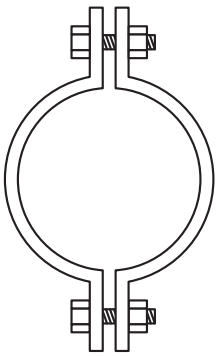
M718 Split pipe ring

Diagram



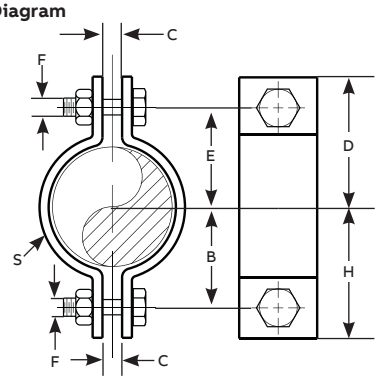
Pipe size (in.)	A (in.)	B (in.)	Max. rec. load, lb	Wt./C approx.
⅜	⅜	13⁄16	180	10
½	⅜	⅞	180	13
¾	⅜	1	180	14
1	⅜	1⅛	180	16
1¼	⅜	1 5⁄16	180	22
1½	⅜	1 7⁄16	180	24
2	⅜	1 11⁄16	180	31
2½	½	2⅛	300	60
3	½	2 7⁄16	300	74
4	½	2 15⁄16	300	116

Standard finishes – Bare (B) or electrogalvanized (EG) malleable iron.
For suspension of non-insulated, stationary pipelines.
Example: M718-3/8B



C725 Medium pipe clamp

Diagram



Pipe size (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	H (in.)	S (in.)	Max. rec. load, lb	Wt./C approx.
½	1	7⁄16	1⅝	1	5⁄16	1½	⅛ x 1	500	29
¾	1⅛	7⁄16	1¾	1¼	5⁄16	1¾	⅛ x 1	500	32
1	1¼	7⁄16	1 13⁄16	1¼	5⁄16	1 13⁄16	⅛ x 1	500	33
1¼	1 7⁄16	7⁄16	2	1 7⁄16	5⁄16	2	⅛ x 1	500	38
1½	1⅝	½	2 1⁄16	1½	5⁄16	2¼	⅛ x 1	715	39
2	2⅛	9⁄16	3⅛	2¼	½	3	¼ x 1	1,040	117
2½	2 5⁄16	9⁄16	3 5⁄16	2½	½	3¼	¼ x 1	1,040	128
3	2¾	9⁄16	3¾	2¾	½	3⅝	¼ x 1	1,040	140
3½	3⅞	⅝	3¾	3	½	3⅞	¼ x 1	1,040	145
4	3 5⁄16	¾	4¼	3 5⁄16	⅝	4¼	¼ x 1¼	1,040	238
6	4⅞	⅞	5⅞	5	¾	5¾	⅜ x 1½	1,615	542
8	6	1	7	6⅛	¾	6⅞	⅜ x 1½	1,615	651
10	7 5⁄16	1	8 9⁄16	7 1⁄16	⅞	8 7⁄16	½ x 2	2,490	1,360
12	8¼	1	9 9⁄16	8 7⁄16	⅞	9⅜	½ x 2	2,490	1,605

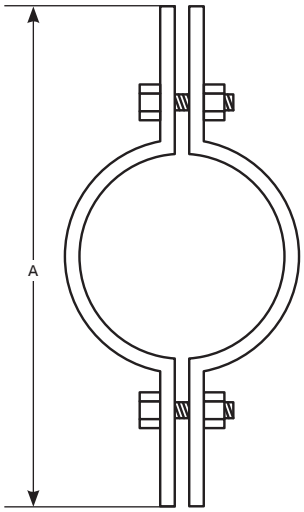
Based on the allowable stresses shown in ANSI Code for pressure piping.
For sizes 14 to 24, contact your regional sales office.
Standard finishes – GoldGalv®, Bare (B), electrogalvanized (EG) carbon steel. For suspension of pipelines where little or no insulation is required.
Complies with specification MSS SP69, Type 23.
Example: C725-1/2B

Pipe straps, pipe and conduit clamps and hangers

Pipe hangers

C720 Riser clamp

Diagram



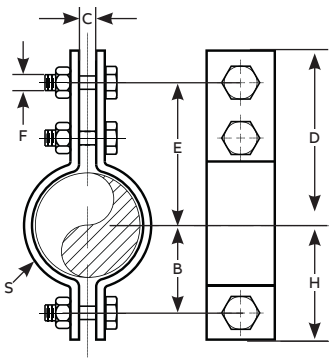
Standard riser

Pipe size (in.)	A (in.)	Thickness (in.)	Width (in.)	Bolt (in.)	Max. rec. load, lb	Wt./ea. approx.
½	9 1/8	3/16	1	3/8 x 1½	220	1,01
¾	9¼	3/16	1	3/8 x 1½	220	1,06
1	9 5/8	3/16	1	3/8 x 1½	220	1,07
1¼	9 7/8	¼	1	3/8 x 1½	250	1,12
1½	10	¼	1	3/8 x 1½	250	1,20
2	10½	¼	1	3/8 x 1½	300	1,25
2½	11 1/16	¼	1	3/8 x 1½	400	1,67
3	11 13/16	¼	1	3/8 x 1½	500	1,81
3½	13	¼	1	½ x 1½	600	2,12
4	13½	¼	1	½ x 1½	750	2,22
5	14	¼	1½	½ x 1¾	1,500	3,44
6	15 3/16	¼	1½	½ x 1¾	1,600	3,65
8	19	3/8	1½	5/8 x 2½	2,500	7,24

Standard finishes – GoldGalv®, bare (B)
Available in sizes ½ in. through 10 in.
Complies with specification MSS SP69, Type 8.
Example: C720-1-1/2B

C726 Double bolt pipe clamp

Diagram

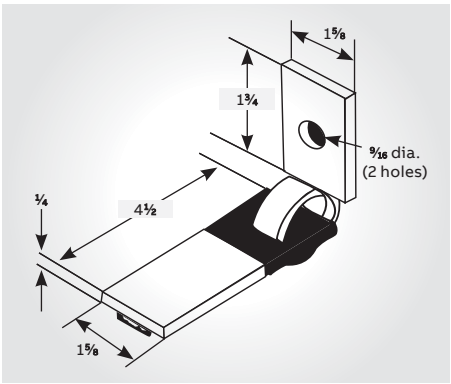


Pipe size (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	H (in.)	S (in.)	Max. rec. load, lb	Wt./C approx.
¾	1 1/16	5/8	3 3/16	2½	3/8	1 11/16	3/16 x 1	950	66
1	1½	5/8	3¾	2½	3/8	2 1/16	3/16 x 1	950	69
1¼	1½	¾	3 11/16	2 7/8	3/8	2¼	3/16 x 1	950	75
1½	1 13/16	1 1/16	4 7/8	3¾	5/8	2 13/16	¼ x 1¼	1,545	181
2	2¼	1 1/16	5 11/16	4 11/16	5/8	3 3/16	¼ x 1¼	1,545	200
2½	2 5/8	1 1/16	6½	5 3/8	5/8	3½	¼ x 1¼	1,545	232
3	2¾	1 1/16	6 7/8	6	5/8	3¾	¼ x 1¼	1,545	258
3½	3	1 1/16	7 1/16	6 3/16	5/8	4	¼ x 1¼	1,545	264
4	3 3/8	1 1/16	7 5/8	6½	¾	4½	3/8 x 2	2,500	750
5	3 15/16	1 1/16	8 1/8	7	¾	5	3/8 x 2	2,500	813
6	4¾	1 7/16	9 15/16	8 9/16	1	6 1/8	3/8 x 2½	2,865	1311
8	5¾	1 7/16	10 15/16	9 9/16	1	7 1/8	3/8 x 2½	2,865	1467

Standard finish – bare (B)
carbon steel. For the suspension of insulated pipelines.
Normally used with weldless eye nut.
Example: C726-1/2B

Pipe straps, pipe and conduit clamps and hangers

Seismic bracing



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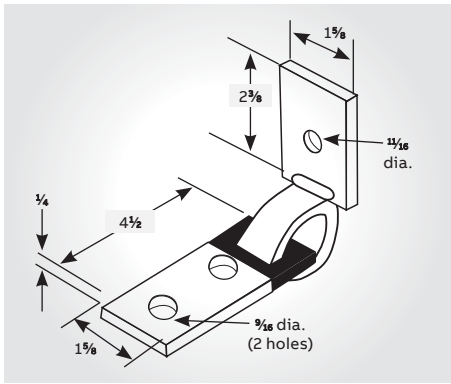

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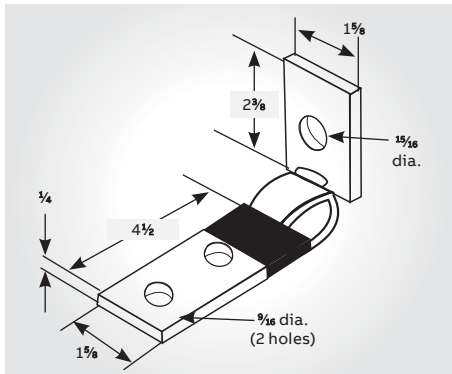

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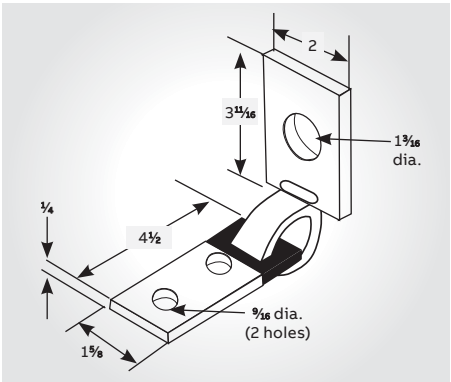

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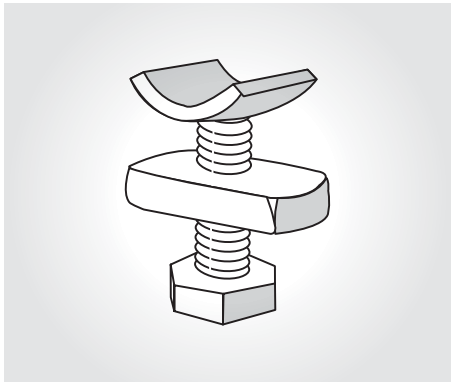


05

01 **C749N Seismic brace**
Standard finish
– GoldGalv®
1650 lb load
Safety factor 3
Wt./C 61 lb

02 **C749N-5/8 Seismic brace**
Standard finish
– GoldGalv®
1650 lb load
Safety factor 3
Wt./C 56 lb

03 **C749N-7/8 Seismic brace**
Standard finish
– GoldGalv®
1650 lb load
Safety factor 3
Wt./C 74 lb

04 **C749N-1 1/8 Seismic brace**
Standard finish
– GoldGalv®
1650 lb load
safety factor 3
Wt./C 72 lb

05 **ES142**
Standard finish
– GoldGalv®

Cat. no.	Bolt dia.	Wt./C lb
ES-142-1/2 x 1-1/2	½	21

Seismic bracing rod stiffener connector.
Wt./C 21 lb

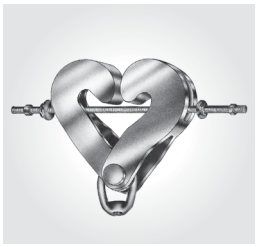
All dimensions shown are in in.

All braces have plastisol coating on the flat member. Plastisol insulates against vibration noise transmission and eliminates rattle at the connection points.

Hanger accessories

Other products available. Contact your regional sales office.

01



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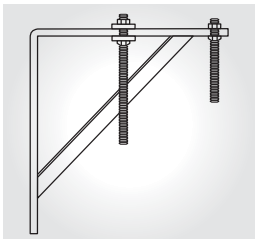

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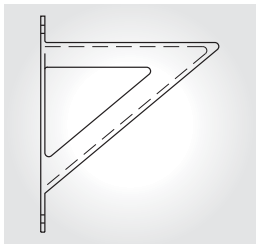

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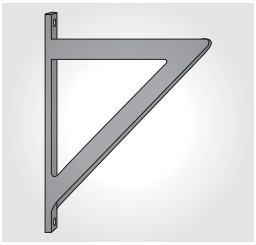

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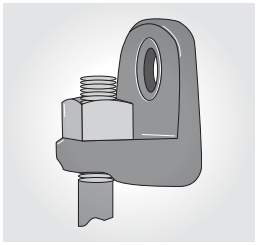

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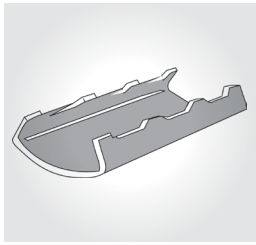

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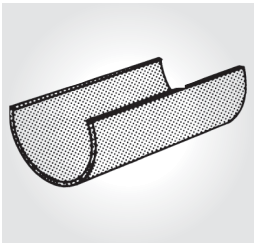

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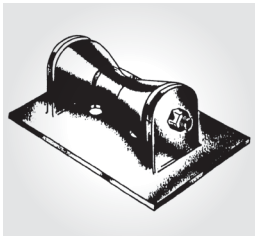

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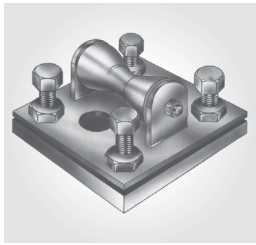

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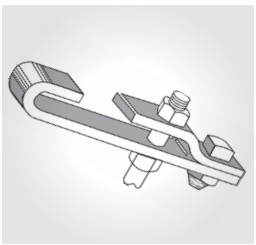

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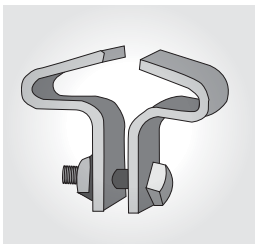

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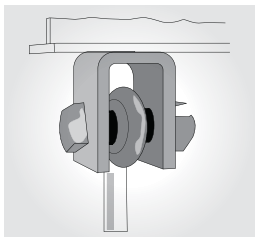

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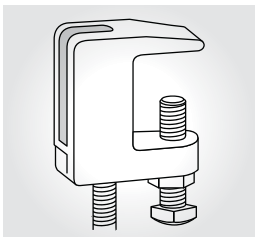

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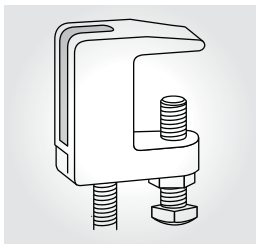


20

01 **C704A Offset J-hook**
Sizes ½ in. through 3 in. IPS

02 **M732H I-beam with eye nut**
MSS SP69 Type 28

03 **M732/M732 Ext I-beam clamp with swing nut**
Sizes ⅜ in. through ⅞ in. Rod
MSS SP69 Type 30

04 **C736 Light welded steel bracket**
Max. load 750 lb
MSS SP69 type 31

05 **C739M Medium welded steel bracket**
Max. load 1,500 lb
MSS SP69 type 32

06 **C739H Heavy welded steel bracket**
Max. load 3,000 lb
MSS SP69 type 33

07 **M750 Side beam bracket**
Sizes ⅜ in. through ⅞ in. rod
MSS SP69 type 34

08 **C785A Pipe stanchion saddle**
Sizes 4 in. through 36 in. IPS
MSS SP69 type 37

09 **C786 Adj. pipe saddle support**
Sizes 2½ in. through 36 in. IPS
MSS SP69 type 38

10 **C789 Steel pipe covering protection saddle**
MSS SP69 type 39

11 **C790 Insulation protection shield**
for PVC-coated pipe lines and insulated copper tubing
Sizes ¾ in. through 12 in. IPS
MSS SP69 type 40

12 **RC729A Single pipe roll**
Sizes 1 in. through 24 in. IPS
MSS SP69 type 41

13 **C729 Adj. roller hanger**
Sizes 1 in. through 20 in. IPS
MSS SP69 type 43

14 **S730C Pipe roll + base**
MSS SP69 type 44

15 **S730D Adj. pipe roll & base**
MSS SP69 type 46

16 **C769 Top I-beam clamp**
Sizes ¾ in. through ⅞ in. rod
MSS SP69 type 25

17 **C755 T/C757 T Center I-beam clamp**
MSS SP69 type 21

18 **C780** Weld attachment as shown or inverted less bolt
MSS SP69 type 22

19 **M778 Top beam C-clamp**
Sizes ⅜ in. through ¾ in. rod
MSS SP69 type 19

20 **M777 Junior top beam C-clamp**
Sizes ⅜ in. through ½ in. rod
MSS SP69 type 18

Surface raceway and lighting systems

Material

Superstrut electrical raceway, fixture hanging channel, closure strip and accessories are manufactured from hot-rolled strip steel. Standard finish for the accessories is GoldGalv®.

Design data

Deflections at various hanger rod spacings for raceway channels based on 40 to 45 lb per fixture.

Deflection			
Channel	**at 10 ft. (in.)**	**at 12 ft. (in.)**	**at 14 ft. (in.)**
A1200	¼	½	¾
C1200	⅜	¾	*
A1400	⅜	¾	*

Deflection			
Channel	**at 6 ft. (in.)**	**at 7 ft. (in.)**	**at 9 ft. (in.)**
B1200	⅜	9⁄16	⅝
B1400	1	½	*

*Not recommended for this spacing.

Electrical raceway

Superstrut channel together with snap-in closure strip is listed by Underwriters Laboratories as a surface metal raceway. Other accessories listed by Underwriters Laboratories are identified on the drawings.

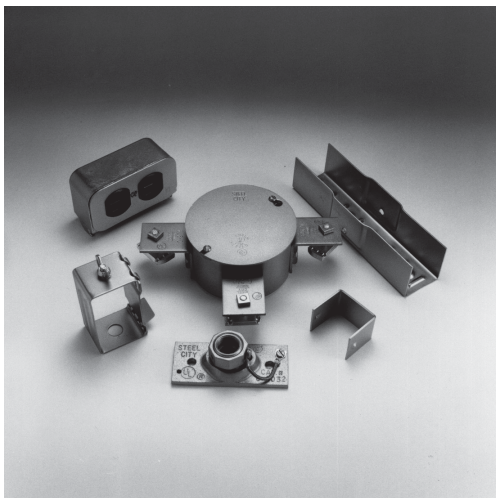
Maximum number of wires								
							Raceway	
Wire size	**With or without KO A1200 A1400**		**B1200 B1400**		**C1200**		**E1200 H1200**	
AWG	**A**	**B**	**A**	**B**	**A**	**B**	**A**	**B**
14	6	10	4	6	5	10	6	10
12	6	10	3	6	4	10	6	10
10	5	8			4	6	5	8
8	4	6			3	4	4	6
6	2	3			2	2	2	3

Column A: Suitable for number of wires indicated when used as a raceway. Also suitable for number of wires indicated when installed to support and supply electrical fixtures when raceway wiring is suitable for not less than 75 °C.

By providing clearance between fixture and raceway of not less than ½ in., where suitable for 60°C may be used.

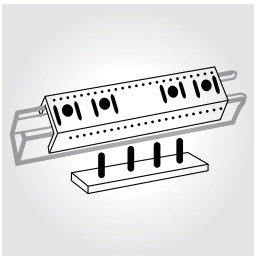
Column B: Suitable for number of wires indicated when used as a raceway. Also suitable for number of wires indicated when installed to support electrical fixtures when clearance of not less than ⅛ in. is provided between raceway and fixture and when wiring is suitable for 75 °C.

Applicable channels	
A1200	B1200
A1200-KO	B1400
A1400	C1200
A1400-KO	E1200
	H1200



Surface raceway and lighting systems

Fixture fittings



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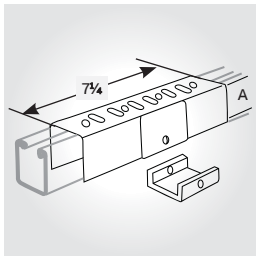

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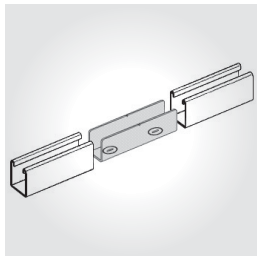

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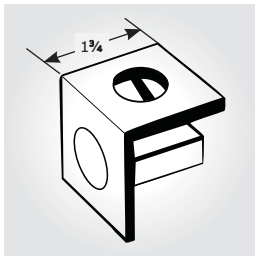

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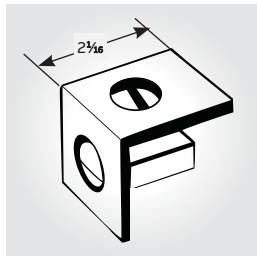

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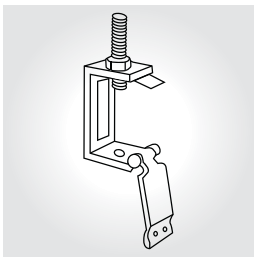

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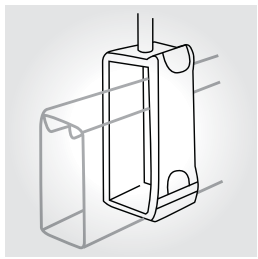

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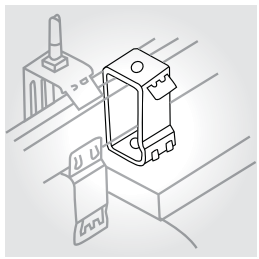

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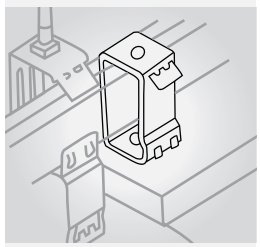


09

01 **802 Raceway joiner with reinforcing plate**
Furnished complete with nuts.

Cat. no.	For channel	Wt./C lb
A802EG	A series	158
B802EG	B series	112
E802EG	E series	170
H802	H series	182

02 **822 Raceway joiner and seal**
Furnished complete with ¼ in. x ⅝ in. machine screws and AB100-1/4 nuts.

Cat. no.	A (in.)	For channel	Wt./C lb
A822	1¹¹⁄₁₆	A series	75
B822	⅞	B series	56

03 **A213 Inside joiner**
For A1200 series channel.
Only available in GoldGalv® finish.

04 **805 End cap with knockout**
KO for ½ in. conduit. Furnished complete with ¼ in. x ⅝ in. flat head machine screw and AB100-1/4 nut.

Cat. no.	For channel	Wt./C lb
A805EG	A series	21
H805EG	H series	31

All dimensions shown are in in.

05 **809 Tapped end cap**
12 ga. steel. For ¾ in. or 1 in. conduit. Furnished complete with ¼ in. x ⅝ in. flat head machine screw and AB100-1/4 nut.

06 **A853 Channel hanger**
Use hanger rod ⅜ in. or ½ in. Use with A, AR, B, BR or C series single channel.
Wt./C 25 lb

Rod size	For channel	Wt./C lb
A809-3/4EG	A series	2
E809-3/4EG	E series	26

07 **A853L Channel hanger – long**
Long type for all series channel.
Wt./C 48 lb

08 **A854 Channel hanger**
Illustration showing A854 with nut and bolt furnished to attach to fluorescent fixture. Use with A, B, C or D series channel.
Wt./C 34 lb

09 **A854L Channel hanger – long**
Illustration showing A854L with nut and bolt furnished to attach to fluorescent fixture. Use with E and H series channel as well as A, B, C or D series channel.
Wt./C 51 lb

Surface raceway and lighting systems

Fixture fittings

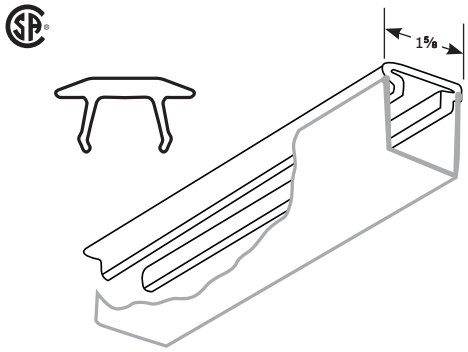
Pre-galvanized steel closure strip

AB844PGC
AB844PGCWH White epoxy powder coated

Plastic closure strip

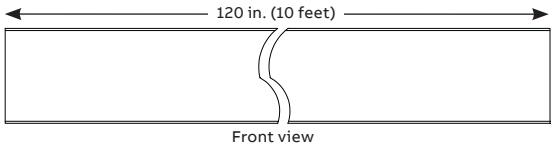
AB844PC Color: Gold
AB844PCGY Color: Grey

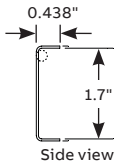
- When used as a raceway, channel is normally installed with the slot up. After wiring has been completed the closure strip is installed.
- For all channels.
- Standard length: 10 ft.



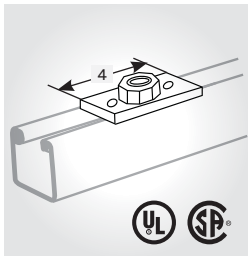
Stainless steel closure strip

AB844SS6CS





Note: Strapping not included.



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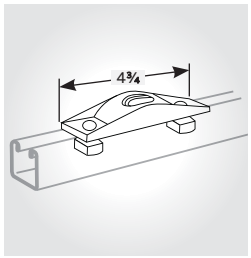

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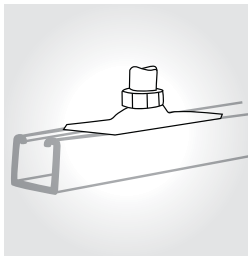

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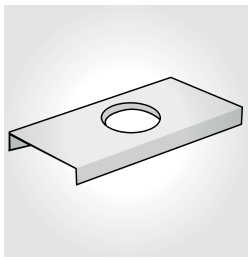

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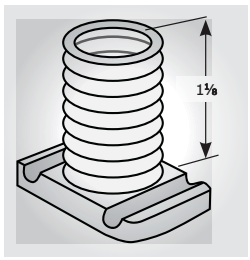

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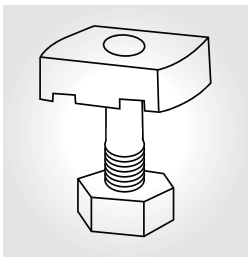

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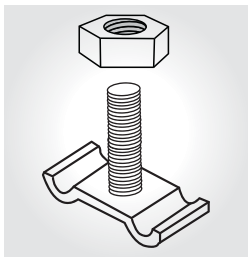

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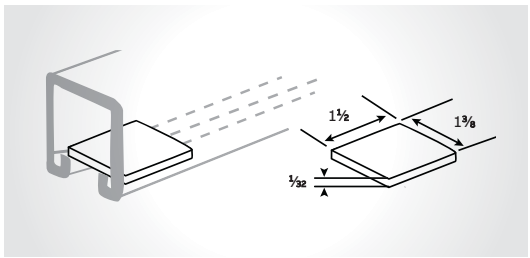


08

01 **AB803 Cast conduit connector**
To connect ½ in. or ¾ in. conduit to raceway channel. Furnished complete with stud nuts and hex nuts. Part has removable bushing to increase size from ½ in. to ¾ in.
Wt./C 60 lb

02 **AB815 Swing connector**
Nuts and bolts to clamp to channel is included.
For ½ in. or ¾ in. conduit.
Wt./C 95 lb

03 **AB885 15° Swivel**
Nuts and bolts to clamp to channel included.
For ½ in. or ¾ in. conduit.
Wt./C 25 lb

04 **AB867 Spacer**
For use with AB866 wiring stud nuts.
Wt./C 24 lb

05 **AB866 Wiring stud nut**
½ in. pipe thread
Wt./C 21 lb

06 **811 Stud nut**

Cat. no.	For channel	Wt./C lb
811-1STR	¼ x 1	8
811-2STR	¼ x 1¼	9

All dimensions shown are in in.

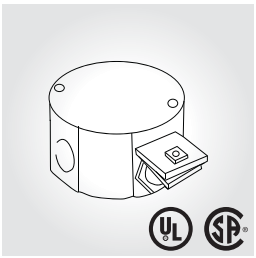
07 **812 Stud nut**
For attaching fixture to slot-down channel or to slot-up knockouts. Specify length. Hex nut included.

Cat. no.	For channel	Wt./C lb
812-1EG	¼ x 1	6

08 **AB868 Fiber retainer for cables**
Until closure strip is Installed
Std. pack 100
Wt./C 3 lb

Surface raceway and lighting systems

Kindorf® channel boxes and receptacles



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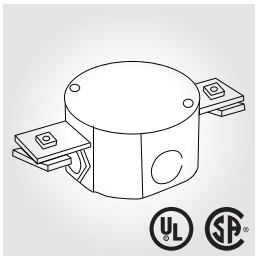

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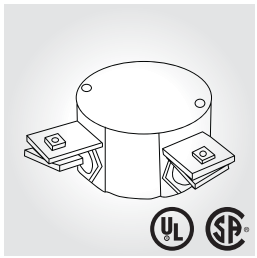

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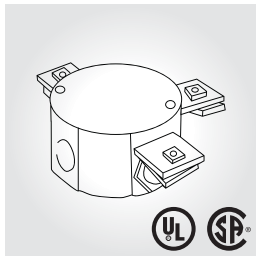

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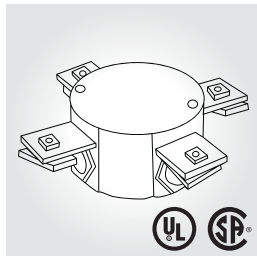

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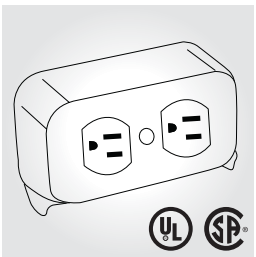

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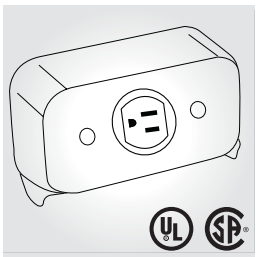

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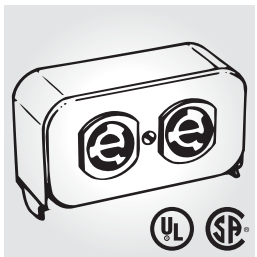

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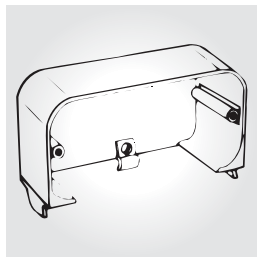

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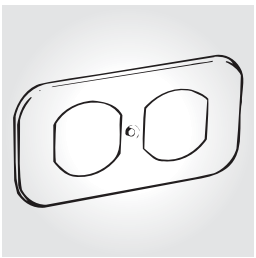

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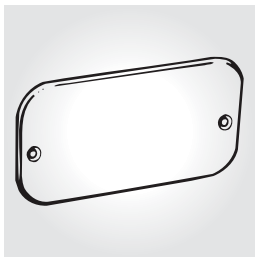


13

01 **G2000**
Finish – GoldGalv®
Wt./C 110 lb

02 **G2001**
Finish – GoldGalv®
Wt./C 120 lb

03 **G2002**
Finish – GoldGalv®
Wt./C 120 lb

04 **G2003**
Finish – GoldGalv®
Wt./C 130 lb

05 **G2004**
Finish – GoldGalv®
Wt./C 140 lb

06 **G1038 Duplex outlet**
Complete unit including housing, standard duplex 3-wire, 15 amp., 125 volt, ground receptacle and cover plate.
Finish – GoldGalv®
Wt./C 55 lb

07 **G1038A Single outlet**
Complete unit including housing, standard single 3-wire, 15 amp., 125 volt, ground receptacle and cover plate.
Finish – GoldGalv®
Wt./C 50 lb

08 **G1038D Raceway outlet**
Complete unit including housing, duplex, 3-wire, 15 amp., 277 volt-twistlock receptacle and cover plate.
Finish – GoldGalv®
Wt./C 60 lb

09 **G1038E Raceway outlet**
Complete unit including housing, single, 3-wire, 15 amp., 277 volt-twistlock receptacle and cover plate.
Finish – GoldGalv®
Wt./C 50 lb

10 **G1038B Housing only**
Finish – GoldGalv®
Wt./C 25 lb

11 **G1038C Duplex cover plate**
Finish – GoldGalv®
Wt./C 12 lb

12 **G1038CA Single cover plate**
Size of opening: 1.391 in. diameter
Finish – GoldGalv®
Wt./C 14 lb

13 **G1038CX Blank cover plate**
Finish – GoldGalv®
Wt./C 15 lb

Surface raceway and lighting systems

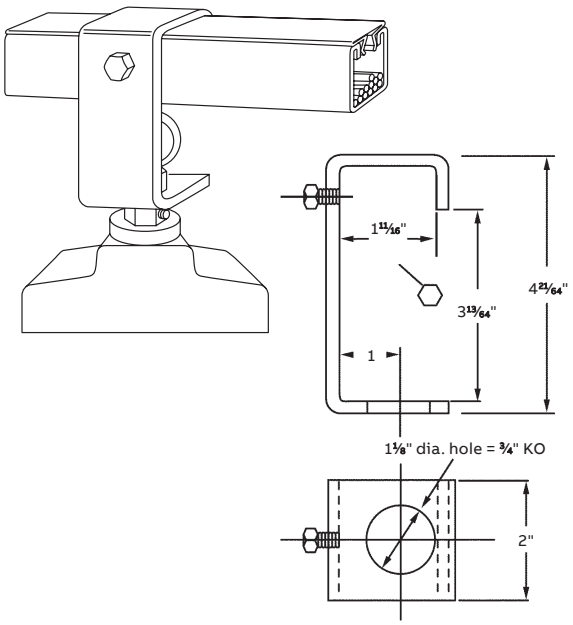
Kindorf® fixture accessories

G1017 Mercury vapor hanger

Used with channel	Depth (in.)	Wt./C lb
A-1200	4¼	76

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

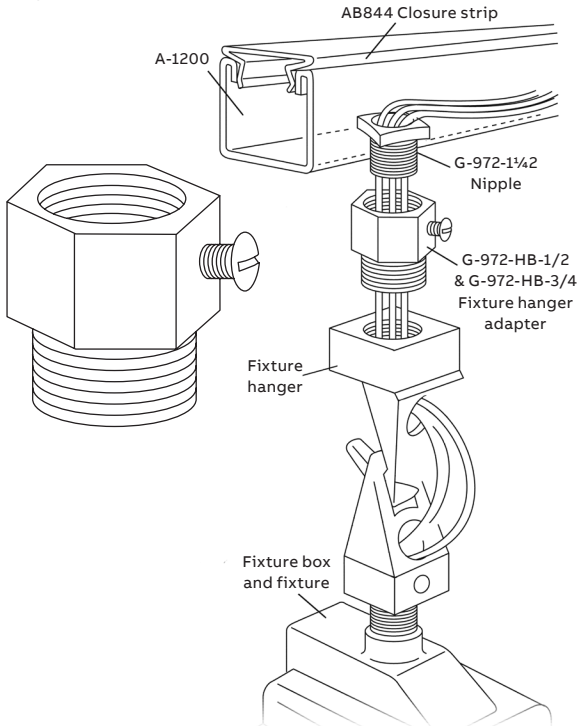
Diagrams



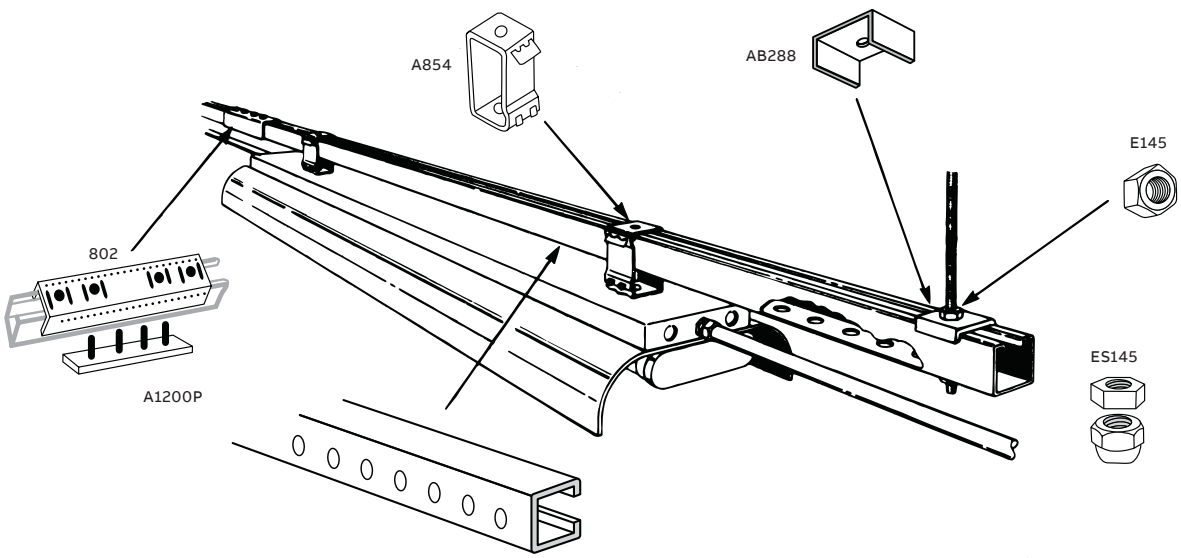
G972HB1/2 Steel fixture hanger adapter

Finish – GoldGalv®
The hanger adapter securely mounts the fixture hanger or box to the channel through the ½ in. KO in the base. No special tools are needed for installation of fittings and fixtures.
Superstrut channels, with ½ in. KO's every 6 in., hangs and feeds the fixtures, thereby simplifying installation.
Wt./C 17 lb

Diagrams



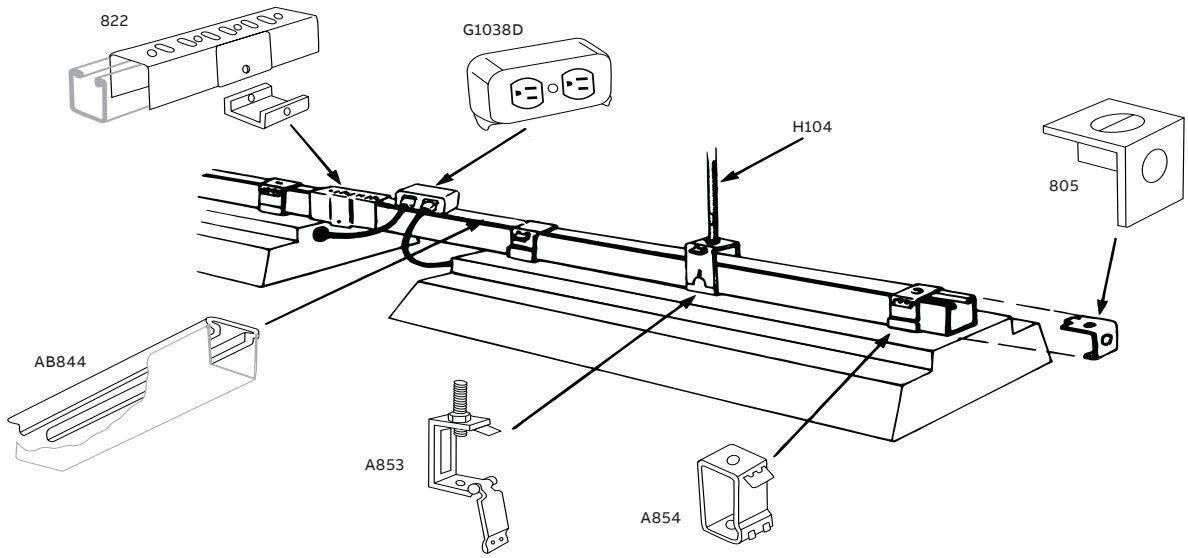
Electrical applications



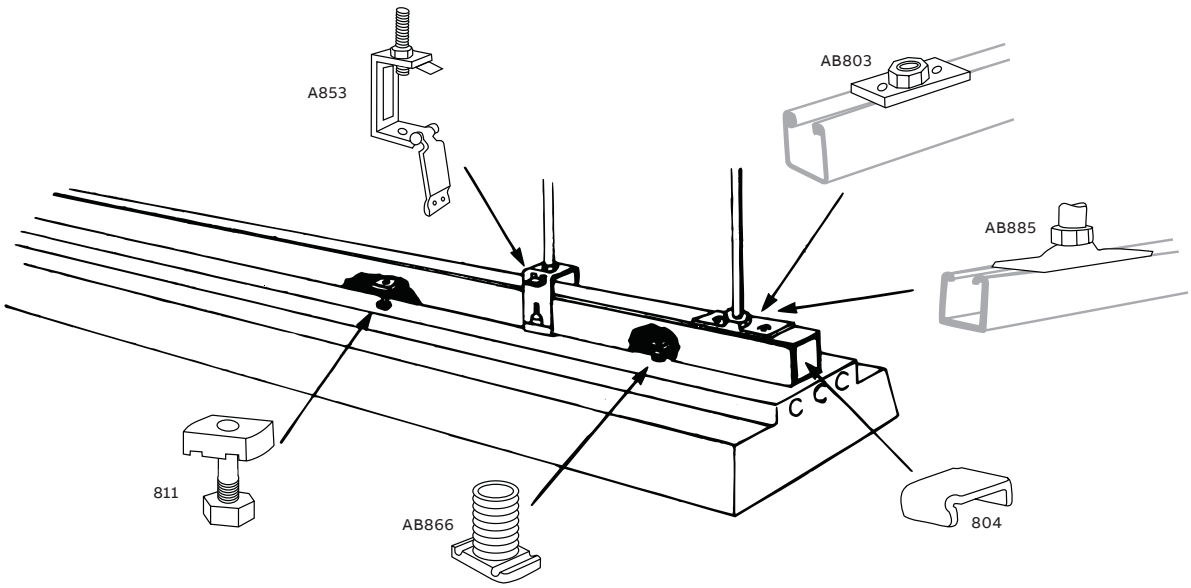
Surface raceway and lighting systems

Electrical applications

Electrical applications

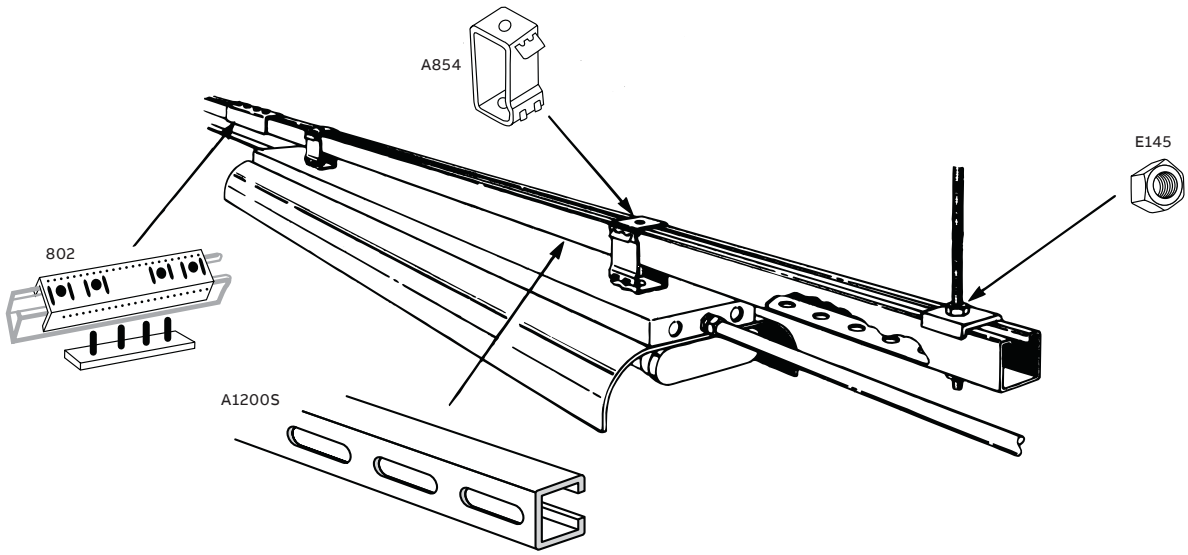


Electrical applications

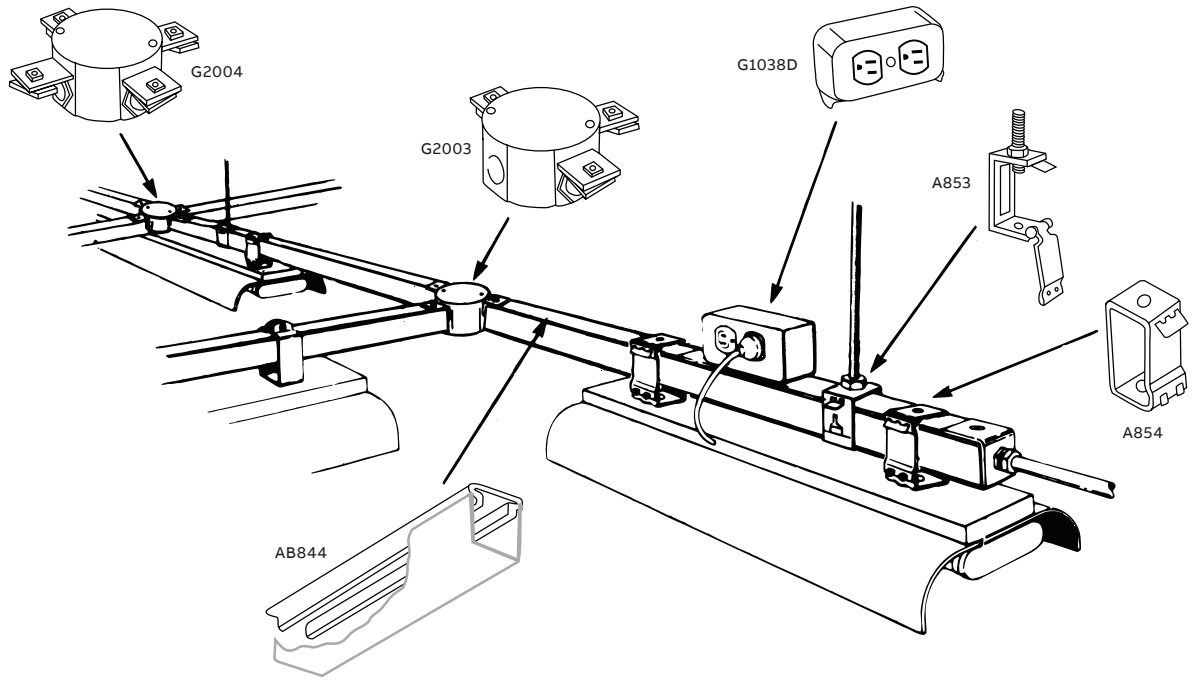


Surface raceway and lighting systems
Electrical applications

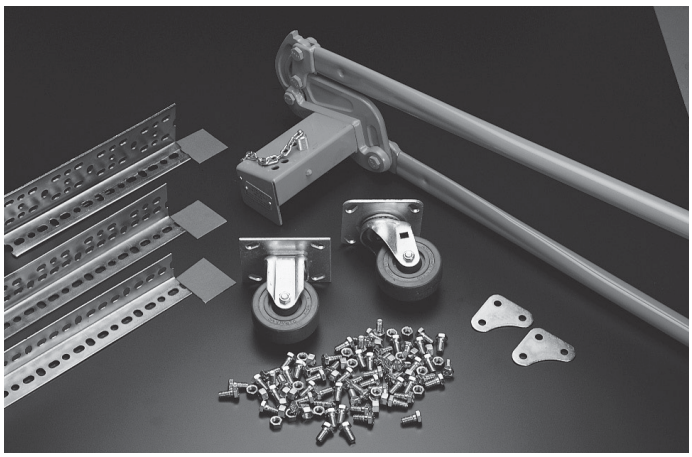
Electrical applications

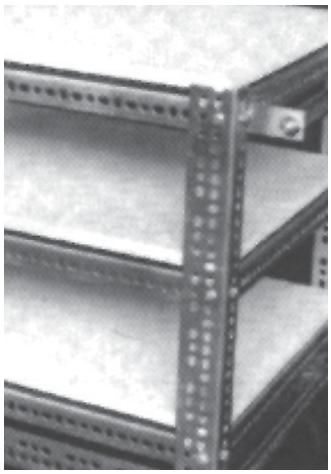


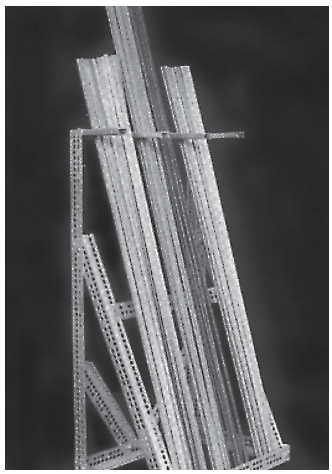
Electrical applications



Right angle slotted metal framing







Create the support framing you need
Right angle metal framing is manufactured from commercial quality steel in three different sizes. The small sizes are 14 ga. steel, the larger 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 in. wide, while the other is either 1⅝ in., 2⅜ in. or 3⅛ in. 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 section 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 in. which saves planning, layout and cutting time and ensures accuracy. The exclusive slot and hole pattern, repeated every 3 in., is scientifically designed for ease of assembly and rigidity. No welding is necessary, no holes to drill. A 9⁄16 in. 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.

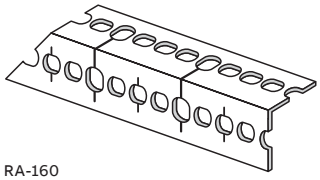
120 feet, 10, 12 foot lengths of right angle metal framing take up the same amount of space as one 2x4. A standard package includes 5 pieces to a bundle, significantly reducing handling and storage space.

The importance of cutting right angle easily, quickly and accurately is the key to time-saving assembly. The portable cutter provides these advantages and makes layout and erection of any structure a “light-work” job.

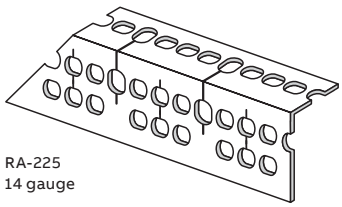
Finish is designed for long lasting durability
The standard GoldGalv® hardware finish is applied to all right angle metal framing after rolling and punching of the holes. This provides you with a number of benefits. First, raw ends resulting from cuts will be protected by the sacrificial quality of zinc. Second, the edges of all holes are protected against formation of rust, to provide a call-back-free installation. Third, the electrogalvanizing provides an excellent bonding surface for paint if desired for aesthetic reasons.

Note: Product is also available in pregalvanized (PG) sections.

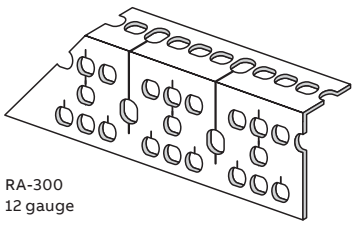
Right angle slotted metal framing



RA-160
14 gauge



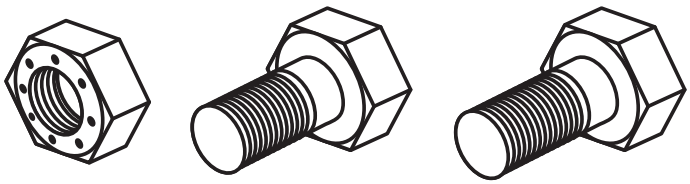
RA-225
14 gauge



RA-300
12 gauge

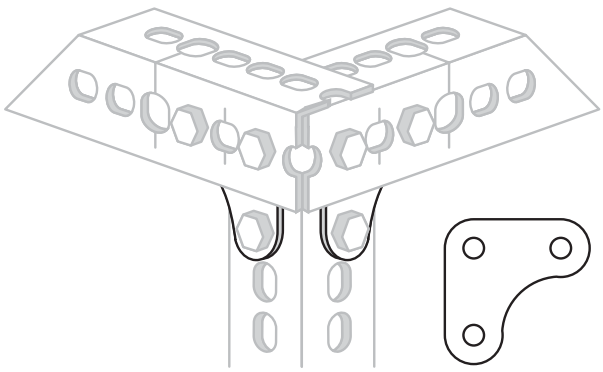
Cat. no.	Length ft.	No. of ft./per pkg.
RA-160-10	10	50
RA-160-12	12	60
RA-225-10	10	50
RA-225-12	12	60
RA-300-10	10	50
RA-300-12	12	60

Each package includes 36 nuts and bolts.



Extra nuts and bolts

Cat. no.	Package 100 sets	Std. ctn.
RA-BN-5/8 Use with RA-160 & RA-225	2⅜ in.–16 x 1⅝ in.	100
RA-BN-3/4 Use with RA-300	2⅜ in.–16 x ¾ in.	100

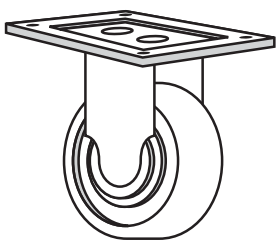


RA-GP
Gusset plate
for extra rigid assembly

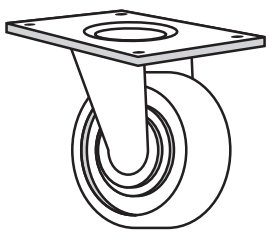
Rigid and swivel casters

Cat. no.	Package	Std. ctn.
RA-GP	25	100
RA-RC	2	2
RA-SC	2	2
RA-C	1	1

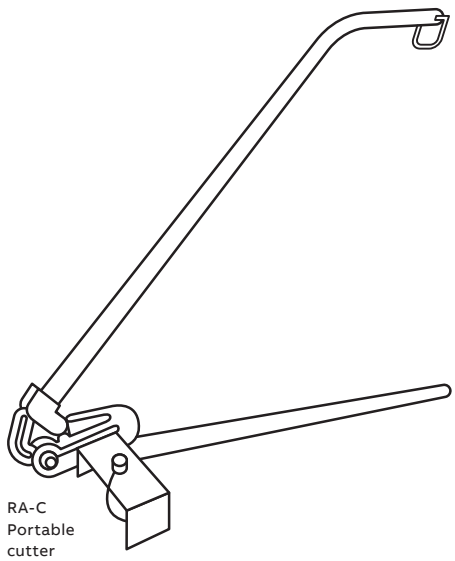
Hard rubber composition 3½ in. dia. with load rating of 225 lb per wheel.



RA-RC



RA-SC



RA-C
Portable
cutter

Engineering data and specifications

Design data – metal framing channel

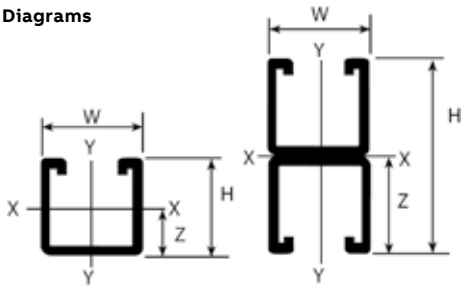
Table 1

Elements of sections properties for design

Nominal thickness (inches)
12 ga = 0.105
14 ga = 0.075
16 ga = 0.060

Legend	
I	Moment of inertia
S	Section Modulus
r	Radius of Gyration
Z	Nominal Axis
A	Area

Diagrams



Single channels Double channels

					X-X axis				Y-Y axis		
Section member	**Wt. lb/ft.**	**H (in.)**	**W (in.)**	**A $(in.)^2$**	**I $(in.)^4$**	**S $(in.)^3$**	**r (in.)**	**Z (in.)**	**I $(in.)^4$**	**S $(in.)^3$**	**r (in.)**
Single channel											
A1200	1.90	1.625	1.625	0.557	0.192	0.212	0.587	0.719	0.237	0.292	0.652
B1200	1.28	0.813	1.625	0.381	0.031	0.063	0.283	0.331	0.137	0.168	0.600
C1200	1.70	1.375	1.625	0.500	0.121	0.155	0.492	0.595	0.205	0.252	0.640
D1200	1.44	1.000	1.625	0.424	0.053	0.092	0.356	0.403	0.159	0.196	0.616
E1200	2.47	2.438	1.625	0.726	0.529	0.399	0.853	1.112	0.335	0.413	0.679
H1200	3.05	3.250	1.625	0.897	1.100	0.635	1.107	1.507	0.436	0.536	0.697
A1400	1.40	1.625	1.625	0.401	0.134	0.146	0.577	0.707	0.184	0.226	0.677
B1400	0.97	0.813	1.625	0.280	0.024	0.051	0.295	0.338	0.103	0.127	0.607
Double channel											
A1202	3.80	3.250	1.625	1.114	0.948	0.583	0.992	1.625	0.474	0.584	0.652
B1202	2.56	1.626	1.625	0.762	0.147	0.181	0.439	0.813	0.274	0.337	0.600
C1202	3.40	2.750	1.625	1.000	0.595	0.433	0.772	1.375	0.409	0.504	0.640
D1202	2.88	2.000	1.625	0.847	0.257	0.257	0.552	1.090	0.319	0.393	0.616
E1202	4.94	4.876	1.625	1.450	2.854	1.171	1.402	2.438	0.672	0.827	0.680
H1202	6.10	6.500	1.625	1.794	6.273	1.930	1.870	3.250	0.871	1.072	0.697
A1402	2.80	3.250	1.625	0.801	0.668	0.411	0.913	1.625	0.367	0.452	0.677
B1402	1.94	1.626	1.625	0.560	0.112	0.138	0.447	0.813	0.206	0.254	0.607

Table 2

Maximum pullout and slip loads for steel channel and channel nuts

Channel nuts size/thread	Channel all series	Pull out strength lb	Pull out strength kN	Slip resistance lb	Slip resistance kN	Torque Ft-lb	Torque Nm
¼ – 20	A1200 B1200 C1200 D1200 E1200 H1200	600	2.7	300	1.3	6	8
5/16 – 18		800	3.6	500	2.2	11	15
⅜ – 16		1,000	4.4	800	3.6	19	25
½ – 13		2,000	8.9	1,500	6.7	50	70
⅝ – 11		2,500	11.1	1,500	6.7	100	135
¾ – 10		2,500	11.1	1,700	7.6	125	170
¼ – 20	A1400	600	2.7	300	1.3	6	8
5/16 – 18		800	3.6	400	1.8	11	15
⅜ – 16	B1400	1,000	4.4	750	3.3	19	25
½ – 13		1,400	6.2	1,000	4.4	50	70

For aluminum channel the pull out load is calculated by multiplying the appropriate data by 50%. For slip resistance multiply by 75%.

Maximum pullout and slip loads for fiber glass channel and channel nuts

Channel nuts size/thread	Channel all series	Pull out strength lb	Pull out strength kN	Slip resistance lb	Slip resistance kN	Torque Ft-lb	Torque Nm
¼ – 20	–	–	–	–	–	–	–
5/16 – 18	–	–	–	–	–	–	–
⅜ – 16	A1200	300	1.3	150	0.6	200	22.6
½ – 13	D1200	300	1.3	150	0.6	200	22.6

Engineering data and specifications

Design data – metal framing channel

Table 3

Design loads for channel used as beam or column
Beam loads
Table 3 contains simple beam, uniformly distributed loads calculated at 25,000 psi material stress. Beam loads are based on channel being loaded across the X-X axis. Loads are also listed at reduced deflections for long spans.

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

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

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

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

Slotted, punched or KO channel
Reduce load rating by 5%.

Long span deep beams
Support in a manner to prevent rotation at supports and tie between supports to prevent twist.

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

Dynamic loads
Allowable dynamic loads may be calculated by dividing the static loads shown in Table 3, by 2.08. Maximum beam and column loading for special materials is multiplied with the following factors:

Channel type	Beam type	Column load
Stainless steel	1	1
Aluminum	0.33	0.33

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

ABB reserves the right to change material and finish specifications without notice, to improve its products.

Engineering data and specifications

Design data – metal framing channel

Table 3 (cont'd)

Single channel									
			Maximum uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
12 in. beam or column									
A1200	1 5/8	12	3,534	0.014	–	0.067	–	0.033	10,533
B1200	13/16	12	1,050	0.026	–	0.067	–	0.033	6,683
C1200	1 3/8	12	2,584	0.016	–	0.067	–	0.033	9,345
D1200	1	12	1,538	0.022	–	0.067	–	0.033	8,670
E1200	2 7/16	12	6,650	0.010	–	0.067	–	0.033	13,830
H1200	3 1/4	12	10,583	0.008	–	0.067	–	0.033	17,106
A1400	1 5/8	14	2,434	0.015	–	0.067	–	0.033	7,575
B1400	13/16	14	850	0.028	–	0.067	–	0.033	4,950
18 in. beam or column									
A1200	1 5/8	12	2,355	0.033	–	0.100	–	0.050	10,2100
B1200	13/16	12	700	0.059	–	0.100	–	0.050	6,058
C1200	1 3/8	12	1,723	0.038	–	0.100	–	0.050	8,970
D1200	1	12	1,025	0.052	–	0.100	–	0.050	7,930
E1200	2 7/16	12	4,434	0.023	–	0.100	–	0.050	13,482
H1200	3 1/4	12	7,055	0.016	–	0.100	–	0.050	16,693
A1400	1 5/8	14	1,623	0.031	–	0.100	–	0.050	7,334
B1400	13/16	14	566	0.063	–	0.100	453	0.050	4,150
24 in. beam or column									
A1200	1 5/8	12	1,766	0.058	–	0.133	–	0.067	9,842
B1200	13/16	12	525	0.105	–	0.133	333	0.067	5,315
C1200	1 3/8	12	1,291	0.066	–	0.133	–	0.067	8,545
D1200	1	12	769	0.087	–	0.133	490	0.067	7,050
E1200	2 7/16	12	3,325	0.039	–	0.133	–	0.067	13,082
H1200	3 1/4	12	5,291	0.030	–	0.133	–	0.067	16,277
A1400	1 5/8	14	1,216	0.056	–	0.133	–	0.067	7,058
B1400	13/16	14	425	0.110	–	0.133	258	0.067	4,000
30 in. beam or column									
A1200	1 5/8	12	1,414	0.089	–	0.167	–	0.083	9,419
B1200	13/16	12	420	0.164	–	0.167	266	0.083	4,465
C1200	1 3/8	12	1,034	0.104	–	0.167	1,040	0.083	8,060
D1200	1	12	0.615	0.129	–	0.167	389	0.083	6,650
E1200	2 7/16	12	2,660	0.063	–	0.167	–	0.083	12,640
H1200	3 1/4	12	4,234	0.046	–	0.167	–	0.083	15,698
A1400	1 5/8	14	974	0.088	–	0.167	–	0.083	6,753
B1400	13/16	14	340	0.172	–	0.167	165	0.083	3,420

Double channel									
			Maximum Uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
12 in. beam or column									
A1202	3 1/4	12	–	0.008	–	0.067	–	0.033	21,177
B1202	1 5/8	12	3,016	0.016	–	0.067	–	0.033	14,110
C1202	2 3/4	12	–	0.010	–	0.067	–	0.033	18,990
D1202	2	12	–	0.012	–	0.067	–	0.033	18,312
E1202	4 7/8	12	–	0.005	–	0.067	–	0.033	27,623
H1202	6 1/2	12	–	0.004	–	0.067	–	0.033	34,210
A1402	3 1/4	14	–	0.008	–	0.067	–	0.033	15,250
B1402	1 5/8	14	2,300	0.016	–	0.067	–	0.033	10,390
18 in. beam or column									
A1202	3 1/4	12	–	0.018	–	0.100	–	0.050	20,609
B1202	1 5/8	12	2,011	0.036	–	0.100	–	0.050	13,440
C1202	2 3/4	12	4,811	0.021	–	0.100	–	0.050	18,470
D1202	2	12	–	0.028	–	0.100	–	0.050	17,942
E1202	4 7/8	12	–	0.013	–	0.100	–	0.050	16,926
H1202	6 1/2	12	–	0.009	–	0.100	–	0.050	33,390
A1402	3 1/4	14	–	0.018	–	0.100	–	0.050	14,867
B1402	1 5/8	14	1,534	0.036	–	0.100	–	0.050	9,910
24 in. beam or column									
A1202	3 1/4	12	4,858	0.031	–	0.133	–	0.067	19,974
B1202	1 5/8	12	1,509	0.064	–	0.133	–	0.067	12,670
C1202	2 3/4	12	3,609	0.038	–	0.133	–	0.067	17,890
D1202	2	12	2,680	0.042	–	0.133	–	0.067	17,160
E1202	4 7/8	12	–	0.021	–	0.133	–	0.067	26,143
H1202	6 1/2	12	–	0.016	–	0.133	–	0.067	32,435
A1402	3 1/4	14	3,425	0.033	–	0.133	–	0.067	14,426
B1402	1 5/8	14	1,150	0.064	–	0.133	–	0.067	9,350
30 in. beam or column									
A1202	3 1/4	12	3,886	0.049	–	0.167	–	0.083	19,261
B1202	1 5/8	12	1,206	0.100	–	0.167	–	0.083	11,803
C1202	2 3/4	12	2,886	0.059	–	0.167	–	0.083	17,230
D1202	2	12	2,128	0.084	–	0.167	–	0.083	16,480
E1202	4 7/8	12	7,806	0.034	–	0.167	–	0.083	25,259
H1202	6 1/2	12	–	0.025	–	0.167	–	0.083	31,395
A1402	3 1/4	14	2,740	0.050	–	0.167	–	0.083	13,937
B1402	1 5/8	14	920	0.100	–	0.167	–	0.083	8,730

When no numbers are shown, use the maximum uniform load.
Deflections are given in inches; loads in lb

Engineering data and specifications

Design data – metal framing channel

Table 3 (cont'd)

Single channel									
			Maximum uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
36 in. beam or column									
A1200	1⅝	12	1,178	0.129	–	0.200	917	0.100	8,962
B1200	13/16	12	350	0.236	–	0.200	148	0.100	3,498
C1200	1⅜	12	861	0.149	–	0.200	578	0.100	7,525
D1200	1	12	513	0.198	–	0.200	217	0.100	4,335
E1200	2 7/16	12	2,216	0.088	–	0.200	–	0.100	12,160
H1200	3¼	12	3,528	0.068	–	0.200	–	0.100	15,132
A1400	1⅝	14	811	0.126	–	0.200	640	0.100	6,416
B1400	13/16	14	284	0.248	–	0.200	115	0.100	2,755
42 in. beam or column									
A1200	1⅝	12	1,010	0.175	–	0.233	674	0.117	8,466
B1200	13/16	12	300	0.323	217	0.233	109	0.117	2,579
C1200	1⅜	12	738	0.203	–	0.233	425	0.117	6,945
D1200	1	12	440	0.264	319	0.233	160	0.117	3,280
E1200	2 7/16	12	1,900	0.120	–	0.233	–	0.117	11,698
H1200	3¼	12	3,024	0.091	–	0.233	–	0.117	14,514
A1400	1⅝	14	695	0.160	–	0.233	470	0.117	6,051
B1400	13/16	14	243	0.336	168	0.233	84	0.117	2,060
48 in. beam or column									
A1200	1⅝	12	884	0.228	–	0.267	516	0.133	7,943
B1200	13/16	12	263	0.420	167	0.267	83	0.133	1,981
C1200	1⅜	12	646	0.265	–	0.267	325	0.133	6,325
D1200	1	12	384	0.352	244	0.267	122	0.133	2,439
E1200	2 7/16	12	1,663	0.156	–	0.267	–	0.133	11,092
H1200	3¼	12	2,646	0.120	–	0.267	–	0.133	13,850
A1400	1⅝	14	609	0.120	–	0.267	360	0.133	5,658
B1400	13/16	14	213	0.440	129	0.267	64	0.133	1,580
54 in. beam or column									
A1200	1⅝	12	785	0.289	–	0.300	408	0.150	7,369
B1200	13/16	12	234	0.533	132	0.300	66	0.150	1,555
C1200	1⅜	12	574	0.335	–	0.300	257	0.150	5,650
D1200	1	12	341	0.466	193	0.300	96	0.150	2,012
E1200	2 7/16	12	1,478	0.198	–	0.300	1,123	0.150	10,505
H1200	3¼	12	2,351	0.151	–	0.300	–	0.150	13,150
A1400	1⅝	14	541	0.286	–	0.300	284	0.150	5,241
B1400	13/16	14	189	0.556	102	0.300	51	0.150	1,250

Double channel									
			Maximum uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
36 in. beam or column									
A1202	3¼	12	3,239	0.071	–	0.200	–	0.100	18,470
B1202	1⅝	12	1,005	0.144	–	0.200	702	0.100	10,840
C1202	2¾	12	2,400	0.085	–	0.200	–	0.100	16,500
D1202	2	12	`1,428	0.114	–	0.200	1,248	0.100	15,057
E1202	4⅞	12	6,505	0.048	–	0.200	–	0.100	24,316
H1202	6½	12	–	0.036	–	0.200	–	0.100	30,265
A1402	3¼	14	2,284	0.071	–	0.200	–	0.100	13,416
B1402	1⅝	14	766	0.144	–	0.200	535	0.100	8,050
42 in. beam or column									
A1202	3¼	12	2,776	0.098	–	0.233	–	0.117	17,635
B1202	1⅝	12	863	0.195	–	0.233	516	0.117	9,790
C1202	2¾	12	2,063	0.115	–	0.233	–	0.117	15,730
D1202	2	12	1,224	0.166	–	0.233	1,069	0.117	13,042
E1202	4⅞	12	5,576	0.065	–	0.233	–	0.117	23,272
H1202	6½	12	–	0.049	–	0.233	–	0.117	29,025
A1402	3¼	14	1,958	0.225	–	0.233	–	0.117	12,832
B1402	1⅝	14	658	0.195	–	0.233	393	0.117	7,300
48 in. beam or column									
A1202	3¼	12	2,429	0.128	–	0.267	–	0.133	16,730
B1202	1⅝	12	754	0.255	–	0.267	395	0.133	8,640
C1202	2¾	12	1,804	0.151	–	0.267	–	0.133	14,890
D1202	2	12	1,071	0.203	–	0.267	702	0.133	11,387
E1202	4⅞	12	4,879	0.085	–	0.267	–	0.133	22,170
H1202	6½	12	–	0.064	–	0.267	–	0.133	27,700
A1402	3¼	14	1,713	0.128	–	0.267	–	0.133	12,223
B1402	1⅝	14	575	0.255	–	0.267	301	0.133	6,480
54 in. beam or column									
A1202	3¼	12	2,159	0.161	–	0.300	–	0.150	15,763
B1202	1⅝	12	670	0.323	–	0.300	312	0.150	7,405
C1202	2¾	12	1,604	0.190	–	0.300	1,263	0.150	13,990
D1202	2	12	952	0.266	–	0.300	624	0.150	10,391
E1202	4⅞	12	4,338	0.108	–	0.300	–	0.150	20,980
H1202	6½	12	7,149	0.081	–	0.300	–	0.150	16,280
A1402	3¼	14	1,523	0.161	–	0.300	–	0.150	11,566
B1402	1⅝	14	511	0.323	–	0.300	238	0.150	5,580

When no numbers are shown, use the maximum uniform load.
Deflections are given in inches; loads in lb

Engineering data and specifications

Design data – metal framing channel

Table 3 (cont'd)

Single channel

Cat. no.	Depth (in.)	Ga.	Maximum uniform Load	Maximum uniform Defl.	1/180 Span Load	1/180 Span Defl.	1/360 Span Load	1/360 Span Defl.	Col. load
60 in. beam or column									
A1200	1 5/8	12	706	0.358	–	0.333	330	0.167	6,762
B1200	13/16	12	210	0.658	107	0.333	53	0.167	–
C1200	1 3/8	12	516	0.414	–	0.333	208	0.167	4,920
D1200	1	12	308	0.550	157	0.333	78	0.167	1,561
E1200	2 7/16	12	1,330	0.244	–	0.333	909	0.167	9,874
H1200	3 1/4	12	2,116	0.186	–	0.333	–	0.167	12,406
A1400	1 5/8	14	486	0.353	–	0.333	231	0.167	4,792
B1400	13/16	14	170	0.687	82	0.333	41	0.167	–
66 in. beam or column									
200	1 5/8	12	643	0.432	–	0.367	273	0.183	6,127
B1200	13/16	12	191	0.795	88	0.367	44	0.183	–
C1200	1 3/8	12	470	0.501	344	0.367	172	0.183	4,145
D1200	1	12	280	0.675	129	0.367	65	0.183	1,280
E1200	2 7/16	12	1,210	0.295	–	0.367	753	0.183	9,211
H1200	3 1/4	12	1,924	0.226	–	0.367	–	0.183	11,616
A1400	1 5/8	14	443	0.426	–	0.367	190	0.183	4,311
B1400	13/16	14	155	0.831	68	0.367	35	0.183	–
72 in. beam or column									
A1200	1 5/8	12	589	0.514	459	0.400	299	0.200	5,436
B1200	13/16	12	175	0.946	74	0.400	37	0.200	–
C1200	1 3/8	12	430	0.595	289	0.400	144	0.200	3,485
D1200	1	12	256	0.792	108	0.400	54	0.200	1,084
E1200	2 7/16	12	1,108	0.351	–	0.400	632	0.200	8,509
H1200	3 1/4	12	1,839	0.269	–	0.400	1,313	0.200	10,782
A1400	1 5/8	14	405	0.506	320	0.400	160	0.200	3,809
B1400	13/16	14	141	0.989	57	0.400	29	0.200	–
84 in. beam or column									
A1200	1 5/8	12	505	0.700	337	0.467	168	0.233	4,061
B1200	13/16	12	–	–	54	0.467	27	0.233	–
C1200	1 3/8	12	369	0.811	212	0.467	106	0.233	2,565
D1200	1	12	220	1.079	92	0.467	58	0.233	796
E1200	2 7/16	12	950	0.479	–	0.467	464	0.233	6,991
H1200	3 1/4	12	1,513	0.366	–	0.467	965	0.233	8,988
A1400	1 5/8	14	348	0.691	235	0.467	118	0.233	2,827
B1400	13/16	14	–	–	42	0.467	21	0.233	–

Double channel

Cat. no.	Depth (in.)	Ga.	Maximum uniform Load	Maximum uniform Defl.	1/180 Span Load	1/180 Span Defl.	1/360 Span Load	1/360 Span Defl.	Col. load
60 in. beam or column									
A1202	3 1/4	12	1,944	0.199	–	0.333	–	0.167	14,738
B1202	1 5/8	12	604	0.398	–	0.333	253	0.167	6,100
C1202	2 3/4	12	1,444	0.235	–	0.333	1,023	0.167	13,050
D1202	2	12	257	0.318	–	0.333	449	0.167	7,531
E1202	4 7/8	12	3,904	0.133	–	0.333	–	0.167	19,734
H1202	6 1/2	12	6,434	0.100	–	0.333	–	0.167	24,810
A1402	3 1/4	14	1,370	0.199	–	0.333	–	0.167	10,878
B1402	1 5/8	14	460	0.399	–	0.333	193	0.167	4,640
66 in. beam or column									
A1202	3 1/4	12	1,766	0.240	–	0.367	1,347	0.183	13,646
B1202	1 5/8	12	549	0.481	418	0.367	209	0.183	5,055
C1202	2 3/4	12	1,313	0.285	–	0.367	846	0.183	12,030
D1202	2	12	779	0.377	593	0.367	360	0.183	6,581
E1202	4 7/8	12	3,549	0.180	–	0.367	–	0.183	18,415
H1202	6 1/2	12	5,849	0.120	–	0.367	–	0.183	23,230
A1402	3 1/4	14	1,245	0.241		0.367	949	0.183	10,133
B1402	1 5/8	14	419	0.483	318	0.367	159	0.183	3,840
72 in. beam or column									
A1202	3 1/4	12	1,620	0.286	v	0.400	1,132	0.200	12,500
B1202	1 5/8	12	503	0.574	351	0.400	176	0.200	4,230
C1202	2 3/4	12	1,203	0.339	–	0.400	710	0.200	10,980
D1202	2	12	714	0.457	468	0.400	312	0.200	5,230
E1202	4 7/8	12	3,253	0.191	–	0.400	–	0.200	17,023
H1202	6 1/2	12	5,361	0.143	–	0.400	–	0.200	21,560
A1402	3 1/4	14	1,141	0.286		0.400	798	0.200	9,340
B1402	1 5/8	14	384	0.574	267	0.400	134	0.200	3,220
84 in. beam or column									
A1202	3 1/4	12	1,388	0.390	–	0.467	832	0.233	9,992
B1202	1 5/8	12	431	0.780	258	0.467	129	0.233	3100
C1202	2 3/4	12	1,031	0.461	–	0.467	522	0.233	8,670
D1202	2	12	612	0.623	344	0.467	229	0.233	3,842
E1202	4 7/8	12	2,788	0.260	–	0.467	–	0.233	13,993
H1202	6 1/2	12	4,595	0.195	–	0.467	–	0.233	17,975
A1402	3 1/4	14	979	0.390	–	0.467	586	0.233	7,682
B1402	1 5/8	14	329	0.781	197	0.467	98	0.233	2,370

When no numbers are shown, use the maximum uniform load.
Deflections are given in inches; loads in lb

Engineering data and specifications

Design data – metal framing channel

Table 3 (cont'd)

Single channel									
			Maximum uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
96 in. beam or column									
A1200	1 5/8	12	441	0.914	258	0.533	129	0.267	3,108
B1200	13/16	12	–	–	42	0.533	21	0.267	–
C1200	1 3/8	12	323	1.059	163	0.533	81	0.267	1,960
D1200	1	12	192	1.400	998	0.533	49	0.267	–
E1200	2 7/16	12	831	0.730	–	0.533	355	0.267	5,423
H1200	3 1/4	12	1,323	0.478	–	0.533	739	0.267	7,059
A1400	1 5/8	14	304	0.903	180	0.533	90	0.267	2,615
B1400	13/16	14	–	–	32	0.533	16	0.267	–
108 in. beam or column									
A1200	1 5/8	12	393	1.156	204	0.600	102	0.300	2,456
B1200	13/16	12	–	–	33	0.600	16	0.300	–
C1200	1 3/8	12	288	1.350	128	0.600	64	0.300	–
D1200	1	12	171	1.783	76	0.600	38	0.300	–
E1200	2 7/16	12	739	0.790	561	0.600	281	0.300	4,291
H1200	3 1/4	12	1,176	0.605	–	0.600	584	0.300	5,579
A1400	1 5/8	14	270	1.141	142	0.600	71	0.300	1,708
B1400	13/16	14	–	–	25	0.600	13	0.300	–
120 in. beam or column									
A1200	1 5/8	12	354	1.425	165	0.667	83	0.333	–
B1200	13/16	12	–	–	27	0.667	13	0.333	–
C1200	1 3/8	12	259	1.663	104	0.667	52	0.333	–
D1200	1	12	154	2.202	62	0.667	31	0.333	–
E1200	2 7/16	12	665	0.976	455	0.667	227	0.333	3,478
H1200	3 1/4	12	1,059	0.746	–	0.667	473	0.333	4,521
A1400	1 5/8	14	244	1.413	114	0.667	57	0.333	–
B1400	13/16	14	–	–	21	0.667	10	0.333	–
144 in. beam or column									
A1200	1 5/8	12	–	–	115	0.800	57	0.400	–
–	–	–	–	–	–	–	–	–	–
C1200	1 3/8	12	–	–	72	0.800	36	0.400	–
E1200	2 7/16	12	554	1.400	315	0.800	158	0.400	–
H1200	3 1/4	12	883	1.075	657	0.800	328	0.400	–
A1400	1 5/8	14	–	–	80	0.800	40	0.400	–

When no numbers are shown, use the maximum uniform load.
Deflections are given in inches; loads in lb

Double channel									
			Maximum uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
96 in. beam or column									
A1202	3 1/4	12	1,215	0.509	–	0.533	637	0.267	7,675
B1202	1 5/8	12	378	1.019	197	0.533	99	0.267	–
C1202	2 3/4	12	903	0.603	–	0.533	400	0.267	6,640
D1202	2	12	535	0.813	263	0.533	176	0.267	2,942
E1202	4 7/8	12	2,440	0.340	–	0.533	1,917	0.267	10,875
H1202	6 1/2	12	4,021	0.255	–	0.533	–	0.267	14,120
A1402	3 1/4	14	856	0.509	–	0.533	449	0.267	5,951
B1402	1 5/8	14	288	1.020	150	0.533	75	0.267	–
108 in. beam or column									
A1202	3 1/4	12	1,080	0.644	–	0.600	503	0.300	6,071
B1202	1 5/8	12	355	1,290	156	0.600	78	0.300	–
C1202	2 3/4	12	801	0.763	632	0.600	316	0.300	5,250
D1202	2	12	476	1.029	208	0.600	139	0.300	2,324
E1202	4 7/8	12	2,169	0.430	–	0.600	1,515	0.300	8,599
H1202	6 1/2	12	3,574	0.323	–	0.600	–	0.300	11,160
A1402	3 1/4	14	761	0.644	–	0.600	355	0.300	4,702
B1402	1 5/8	14	255	1.290	119	0.600	59	0.300	–
120 in. beam or column									
A1202	3 1/4	12	971	0.795	–	0.667	408	0.333	–
B1202	1 5/8	12	301	1.588	126	0.667	63	0.333	–
C1202	2 3/4	12	721	0.941	512	0.667	256	0.333	4,250
D1202	2	12	428	1.271	168	0.667	112	0.333	1,883
E1202	4 7/8	12	1,951	0.531	–	0.667	1,227	0.333	6,946
H1202	6 1/2	12	3,216	0.398	–	0.667	–	0.333	9,040
A1402	3 1/4	14	685	0.796	–	0.667	287	0.333	3,805
B1402	1 5/8	14	230	1.600	96	0.667	48	0.333	–
144 in. beam or column									
A1202	3 1/4	12	810	1.145	566	0.800	283	0.400	–
B1202	1 5/8	12	–	–	88	0.800	44	0.400	–
C1202	2 3/4	12	601	1.350	355	0.800	178	0.400	–
E1202	4 7/8	12	1,626	0.764	–	0.800	852	0.400	–
H1202	6 1/2	12	2,680	0.573	–	0.800	1,873	0.400	–
A1402	3 1/4	14	571	1.146	399	0.800	199	0.400	–
B1402	1 5/8	14	–	–	67	0.800	33	0.400	–

Engineering data and specifications

Design data – metal framing channel

Table 3 (cont'd)

Single channel									
			Maximum uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
168 in. beam or column									
A1200	1⅝	12	–	–	84	0.933	42	0.467	–
–	–	–	–	–	–	–	–	–	–
C1200	1⅜	12	–	–	53	0.933	27	0.467	–
E1200	2 7/16	12	475	1.912	233	0.933	116	0.467	–
H1200	3¼	12	756	1.463	482	0.933	241	0.467	–
A1400	1⅝	14	–	–	60	0.933	30	0.467	–
192 in. beam or column									
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
E1200	2 7/16	12	–	–	178	1.07	89	0.533	–
H1200	3¼	12	661	1.91	369	1.07	185	0.533	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
216 in. beam or column									
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
E1200	2 7/16	12	–	–	140	1.20	70	0.600	–
H1200	3¼	12	–	–	292	1.20	146	0.600	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
240 in. beam or column									
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–
E1200	2 7/16	12	–	–	114	0.334	57	0.667	–
H1200	3¼	12	–	–	236	0.334	118	0.667	–
–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–

When no numbers are shown, use the maximum uniform load.
Deflections are given in inches; loads in lb

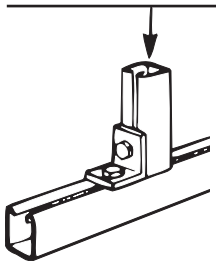
Double channel									
			Maximum uniform		1/180 Span		1/360 Span		
Cat. no.	Depth (in.)	Ga.	Load	Defl.	Load	Defl.	Load	Defl.	Col. load
168 in. beam or column									
A1202	3¼	12	694	1.563	916	0.933	208	0.467	–
B1202	1⅝	12	–	–	64	0.933	32	0.467	–
C1202	2¾	12	515	1.850	261	0.933	130	0.467	–
E1202	4⅞	12	1,394	1.040	1,255	0.933	626	0.467	–
H1202	6½	12	2,298	0.780	–	0.933	1,326	0.467	–
A1402	3¼	14	489	1.563	293	0.933	147	0.467	–
B1402	1⅝	14	–	–	49	0.933	25	0.467	–
192 in. beam or column									
A1202	3¼	12	–	–	318	1.07	159	0.533	–
–	–	–	–	–	–	–	–	–	–
C1202	2¾	12	–	–	200	1.07	100	0.533	–
E1202	4⅞	12	1,220	1.363	958	1.07	479	0.533	–
H1202	6½	12	2,010	1.019	–	1.07	1,053	0.533	–
A1402	3¼	14			224	1.07	112	0.533	–
–	–	–	–	–	–	–	–	–	–
216 in. beam or column									
A1202	3¼	12			252	1.20	126	0.600	–
–	–	–	–	–	–	–	–	–	
C1202	2¾	12	–	–	158	1.20	79	0.600	–
E1202	4⅞	12	1,084	1.725	757	1.20	379	0.600	–
H1202	6½	12	1,788	1.288	–	1.20	832	0.600	–
A1402	3¼	14	–	–	177	1.20	89	0.600	–
–	–	–	–	–	–	–	–	–	–
240 in. beam or column									
A1202	3¼	12	–	–	204	1.33	102	0.667	–
–	–	–	–	–	–	–	–	–	–
C1202	2¾	12	–	–	128	1.33	64	0.667	–
E1202	4⅞	12	–	–	613	1.33	307	0.667	–
H1202	6½	12	1,609	1.588	–	1.33	674	0.667	–
A1402	3¼	14	–	–	144	1.33	72	.667	–
–	–	–	–	–	–	–	–	–	–

Engineering data and specifications

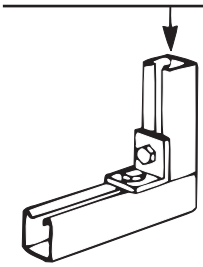
Design data – metal framing channel

Table 4

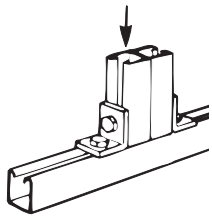
Safe bearing loads for 1⅝ in. channel and combinations.
Safety factor of 2½



Section	Recommended load in lb
A1200	5,000
A1400	3,500
B1200	6,000
B1400	3,400
C1200	5,000
E1200	5,000
H1200	4,000



Section	Recommended load in lb
A1200	3,500
A1400	2,500
B1200	4,000
B1400	2,600
C1200	3,500
E1200	3,500
H1200	2,000

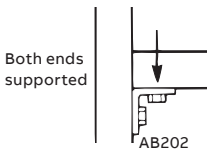


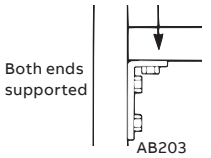
Section	Recommended load in lb
A1200	8,000
A1400	5,500
B1200	9,000
B1400	4,800
C1200	8,000
E1200	8,000
H1200	5,500

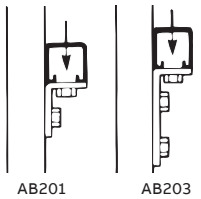
Table 5

Design load table for typical channel connections.
Safety factor of 2½ based on ultimate strength of the connection.
Load diagrams indicate up to three design loads, for 12 gauge and 14 gauge channel applications.

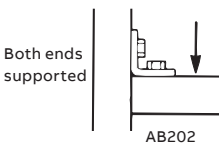
90˚ Fittings (when used in position shown)

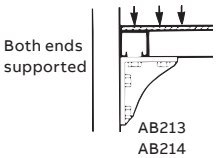


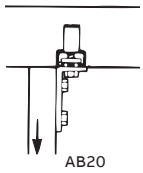




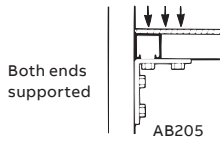
Cat. no.	Section	Recommended load in lb
AB202	A1200	1,500
	A1400	1,000
AB203	A1200	2,000
	A1400	1,500
AB201		700
AB203		700

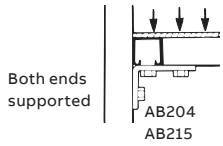






Cat. no.	Section	Recommended load in lb
AB202	A1200	1,000
	A1400	650
AB213	A1200	3,000
AB214	A1400	2,000
AB20		1,500



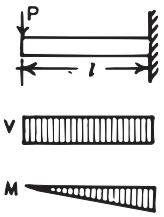


Cat. no.	Section	Recommended load in lb
AB205	A1200	2,000
AB216	A1400	2,000
AB204	A1200	1,500
AB215	A1400	1,000
Flat plate fittings		
AB206	A1200	1,000
	A1400	800

Engineering data and specifications

Design applications

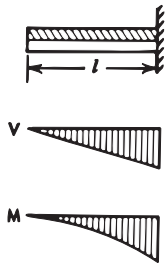
Cantilever beams



$V_{max.} = P$

$M_{max.} = Pl$

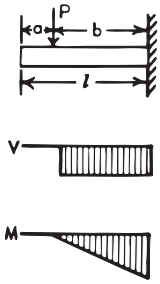
$\Delta_{max.} = \frac{Pl^3}{3EI}$



$V_{max.} = W$

$M_{max.} = \frac{Wl}{2}$

$\Delta_{max.} = \frac{Wl^3}{8EI}$

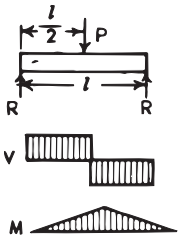


$V_{max.} = P$

$M_{max.} = Pb$

$\Delta_{max.} = \frac{Pb^2(3l-b)}{6EI}$

Simple beams

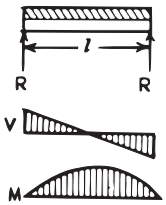


$R = \frac{P}{2}$

$V_{max.} = \frac{P}{2}$

$M_{max.} = \frac{Pl}{4}$

$\Delta_{max.} = \frac{Pl^3}{48EI}$

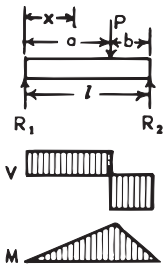


$R = \frac{W}{2}$

$V_{max.} = \frac{W}{2}$

$M_{max.} = \frac{Wl}{8}$

$\Delta_{max.} = \frac{5Wl^3}{384EI}$



$R_1 = \frac{Pb}{l}$

$R_2 = \frac{Pa}{l}$

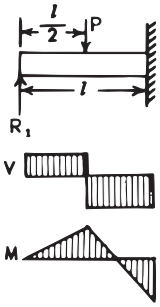
$V_{max.} = \frac{Pa}{l}$

$M_{max.} = \frac{Pab}{l}$

$\Delta_{max.}$ at $x = \sqrt{\frac{a(a+2b)}{3}}$

$\Delta_{max.} = \frac{Pab(a+2b)\sqrt{3a(a+2b)}}{27EIl}$

Beams fixed on one end, supported at the other end



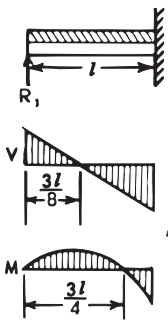
$R_1 = \frac{5P}{16}$

$V_{max.} = \frac{11P}{16}$

$M_{max.} = \frac{3Pl}{16}$

$\Delta_{max.}$ at $x = 0.447l$

$\Delta_{max.} = 0.009317\frac{Pl^3}{EI}$



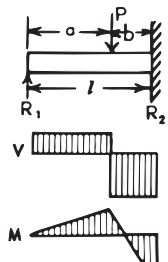
$R_1 = \frac{3W}{8}$

$V_{max.} = \frac{5W}{8}$

$M_{max.} = \frac{Wl}{8}$

$\Delta_{max.}$ at $x = 0.4215l$

$\Delta_{max.} = \frac{Wl^3}{185EI}$



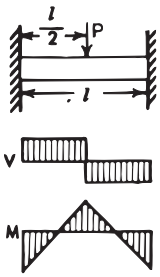
$R_1 = \frac{Pb^2}{2l^3}(a+2l)$

$R_2 = \frac{Pa}{2l^3}(3l^2-a^2)$

M at point of load $= R_1 a$

M at fixed end $= \frac{Pab}{2l^2}(a+l)$

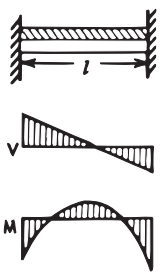
Beams fixed at both ends



$V_{max.} = \frac{P}{2}$

$M_{max.} = \frac{Pl}{8}$

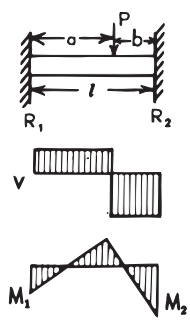
$\Delta_{max.} = \frac{Pl^3}{192EI}$



$V_{max.} = \frac{W}{2}$

$M_{max.} = \frac{Wl}{12}$

$\Delta_{max.} = \frac{Wl^3}{384EI}$



$R_1 = \frac{Pb^2}{l^3}(3a+b)$

$R_2 = \frac{Pa^2}{l^3}(a+3b)$

$M_1 = \frac{Pab^2}{l^2}$

$M_2 = \frac{Pa^2b}{l^2}$

R – Reaction
M – Moment
P – Concentrated load

W – Total uniform load
V – Shear

Δ – Deflection
E – Modulus of Elasticity
I – Moment of Inertia

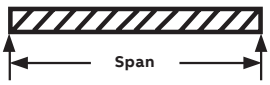
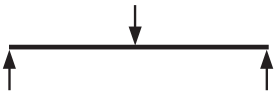
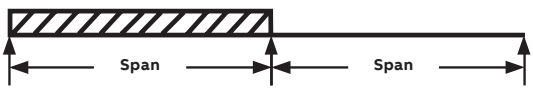
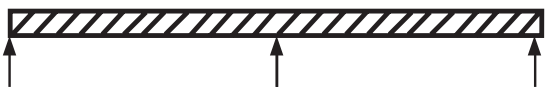
Engineering data and specifications

Design applications

Table 6

Conversion factors for beams with various static loading conditions

Load tables on pages A68 through A72 for A, B, C, E, and H series channel are for single span beams supported at the ends. These can be used in the majority of cases. There are times when it is necessary to know what happens with other loading and support conditions. Some common arrangements are shown in Table 6. Simply multiply the loads from the design load tables times the factors given in Table 6.

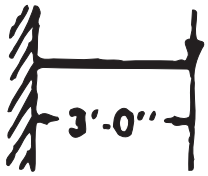
	Load and support condition	Load factor	Deflection factor
	1. Simple beam – Uniform load	1.00	1.00
	2. Simple beam – Concentrated load at center	0.50	1.25
	3. Simple beam – Two equal concentrated loads at ¼ points	1.00	1.10
	4. Beam fixed at both ends – Uniform load	1.50	0.30
	5. Beam fixed at both ends – Concentrated load at center	1.00	0.40
	6. Cantilever beam – Uniform load	0.25	2.40
	7. Cantilever beam – Concentrated load at end	0.12	3.20
	8. Continuous beam – Two equal spans – Uniform load on one span	1.30	0.92
	9. Continuous beam – Two equal spans – Uniform load on both ends	1.00	0.42
	10. Continuous beam – Two equal spans – Concentrated load at center of one span	0.62	0.71
	11. Continuous beam – Two Equal Spans – Concentrated load at center of both spans	0.67	0.48

Engineering data and specifications

Design applications

Example I
Problem:
Determine the load and deflection of an A1200 beam continuous over one support and loaded uniformly on one span.
Solution:
A. From load table 3 for A1200 the load for a 5 ft. 0 in. span is 706 lb and deflection is 0.358 in.
B. Multiply by factors from Table 6.
Load = 706 lb x 1.30 = 917.8 lb
Deflection = 0.358 in. x 0.92 = 0.329 in.

Example II
Problem:
Determine load and deflection of an E1200 cantilever beam with a concentrated load on the end.
Solution:
A. From load table 3 for E1200 the load for a 3 ft. 0 in. span is 2,216 lb and deflection is 0.088 in.
B. Multiply by factors from Table 6.
Load = 2,216 lb x 0.12 = 265.9 lb
Deflection = 0.088 in. x 3.20 = 0.282 in.



Column loading
The load bearing capacity of column or compression members is a function of the inherent configurational strength, the unbraced length and design of the end connections.

Values of axial column loading given in Table 3 were calculated using a rotationally free and translation fixed correction at each end (see Illustration I). This gives an end condition constant (K) of 1.

If other end conditions are used, axial loading should be calculated using procedures in the AISI specification for the design of cold formed steel structural members (SG671) and the engineering values for Superstrut channel given in Table 1.

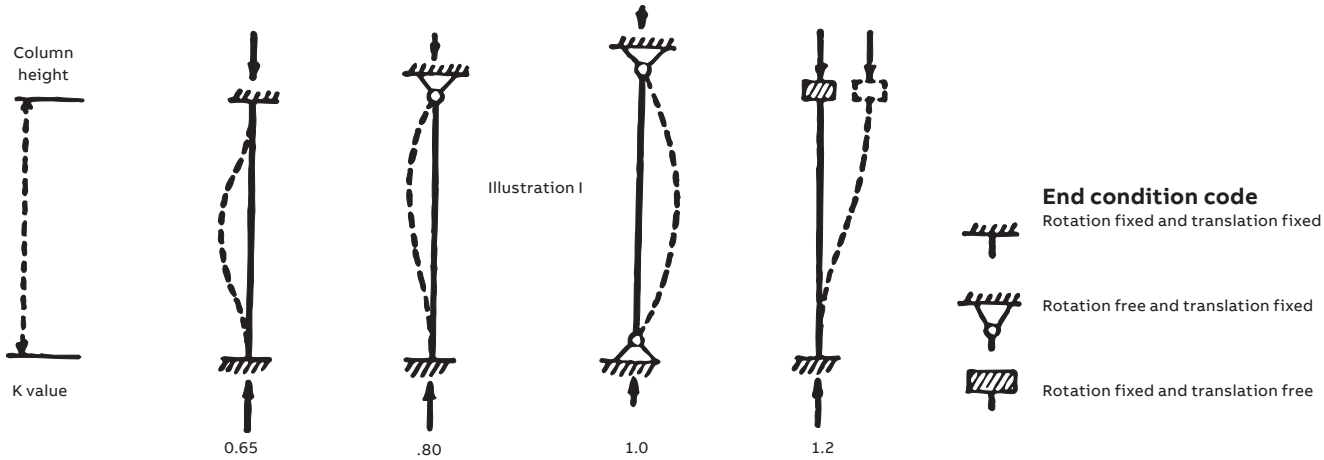


Table 7

Load carrying capacities of hot-rolled steel rod

Nominal rod dia. (in.)	Root area thread (in.)	Design load lb for serv. temperature 343 °C (650 °F)	399 °C (750 °F)
⅜	0.068	610	540
½	0.126	1,130	1,010
⅝	0.202	1,810	1,610
¾	0.302	2,710	2,420
⅞	0.419	3,770	3,360

Safety factor of 5.

Table 8

Rod size determined by pipe size for fire protection

Pipe size (in.)	Rod size (in.)
¾ to 2	⅜
2½ to 3½	½
4 to 5	⅝
6	¾
8 to 12	⅞

Engineering data and specifications

Design applications

Table 9

Maximum spacing between pipe supports

Steel pipe																			
Nom. pipe size (in.)	½	¾	1		1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20
Max. spacing (ft.)	5	6	7		9	10	11	12	13	14	16	17	19	22	23	25	27	28	30
Copper pipe																			
Nom. pipe size (in.)	½	¾	1	1¼	1½	2	2½	3	3½	4									
Max. spacing (ft.)	5	6	6	7	8	9	10	10	11	12									

Table 10

Minimum spacing (inches) between centers of standard pipe when using Superstrut #702 pipe straps

Nom. pipe size (in.)	**½**	**¾**	**1**	**1¼**	**1½**	**2**	**2½**	**3**	**3½**	**4**	**5**	**6**	**8**
½	1 3/16	–	–	–	–	–	–	–	–	–	–	–	–
¾	1 5/16	1 7/16	–	–	–	–	–	–	–	–	–	–	–
1	1½	1⅝	1¾	–	–	–	–	–	–	–	–	–	–
1¼	1¾	1⅞	2	2¼	–	–	–	–	–	–	–	–	–
1½	1 15/16	2 1/16	2 3/16	2 7/16	2 9/16	–	–	–	–	–	–	–	–
2	2 3/16	2 5/16	2½	2¾	2⅞	3⅛	–	–	–	–	–	–	–
2½	2 7/16	2 9/16	2¾	3	3⅛	3⅜	3⅝	–	–	–	–	–	–
3	2 13/16	2 15/16	3 1/16	3 5/16	3 7/16	3¾	4	4 5/16	–	–	–	–	–
3½	3⅛	3¼	3⅜	3⅝	3¾	4 1/16	4 5/16	4⅝	4 15/16	–	–	–	–
4	3 7/16	3 9/16	3 15/16	4 1/16	4⅜	4⅝	4 15/16	5¼	5 9/16	–	–	–	–
6	4¾	4⅞	5	5¼	5⅜	5⅝	5⅞	6 3/16	6½	6 13/16	7 1/16	8⅛	–
8	5 7/16	6	6⅛	6⅜	6½	6¾	7	7 5/16	7⅝	8	8 9/16	9¼	10⅜

Engineering data and specifications

Design applications

Table 11

Standard dimensions and weights of piping materials and conduit

Mechanical (ANSI & API standard, Schedule 40)

Nominal std. pipe size (in.)	Pipe O.D. (in.)	Coupling O.D. (in.)	Weight of pipe lb/ft.	Weight of pipe filled w/water lb/ft.
½	.84	1.06	0.85	0.98
¾	1.05	1.31	1.13	1.36
1	1.32	1.58	1.68	2.05
1¼	1.66	1.90	2.27	2.92
1½	1.90	2.20	2.72	3.60
2	2.38	2.75	3.65	5.11
2½	2.88	3.25	5.79	7.87
3	3.50	4.00	7.58	10.78
3½	4.00	4.63	9.11	13.39
4	4.50	5.00	10.79	16.30
5	5.56	6.30	14.62	23.28
6	6.63	7.39	18.97	31.48
8	8.63	9.23	28.56	50.24
10	10.75	–	41.00	74.00
12	12.75	–	50.00	99.00
14	14.00	–	64.00	122.00
16	16.00	–	63.00	142.00
18	18.00	–	71.00	172.00
20	20.00	–	79.00	205.00
22	22.00	–	87.00	240.00
24	24.00	–	95.00	277.00
26	26.00	–	103.00	322.00
28	28.00	–	111.00	364.00
30	30.00	–	119.00	410.00

Electrical conduit

			Rigid steel		Thin wall (EMT)
Nominal conduit size (in.)	Conduit O.D. (in.)	Weight of conduit lb/ft.	Weight of conduit w/non-lead covered conductor lb/ft.	Conduit O.D. (in.)	Weight of conduit lb/ft.
½	0.84	0.85	1.04	0.71	0.29
¾	1.05	1.13	1.40	0.92	0.44
1	1.32	1.68	2.35	1.16	0.64
1¼	1.66	2.28	3.58	1.51	0.95
2	2.38	3.68	7.21	2.20	1.40
2½	2.88	5.82	10.22	2.88	2.30
3	3.50	7.62	14.51	3.50	2.70
4	4.50	10.89	21.48	4.50	4.00

Includes weight of heaviest conductor combination.

Engineering data and specifications

Design applications

Table 12

Extra strong pipe (ANSI & API standard, Schedule 80)

A.S.A. B36.10 Schedule nos. and nominal wall thickness designations						
Nominal pipe size (in.)	**O.D. (in.)**	**Wall thickness (in.)**	**I.D. (in.)**	**Weight of pipe lb/ft.**	**Water weight per ft. of pipe lb**	**Weight of pipe filled w/Water lb/ft.**
Extra strong pipe and Schedule 80 pipe (through 8 in.)						
⅜	0.675	0.126	0.423	0.74	0.061	0.801
½	0.840	0.147	0.546	1.09	0.101	1.191
¾	1.050	0.154	0.742	1.47	0.188	1.668
1	1.315	0.179	0.957	2.17	0.311	2.481
1¼	1.660	0.191	1.278	3.00	0.555	3.555
1½	1.900	0.200	1.500	3.63	0.765	4.395
2	2.375	0.218	1.939	5.03	1.279	6.309
2½	2.875	0.276	2.323	7.66	1.834	9.497
3	3.500	0.300	2.900	10.30	2.860	13.16
3½	4.000	0.318	3.364	12.55	3.850	16.35
4	4.500	0.337	3.826	15.00	4.98	19.98
5	5.563	0.375	4.813	20.80	7.89	28.69
6	6.625	0.432	5.761	28.60	11.29	39.89
8	8.625	0.500	7.625	43.40	19.79	63.20
Extra strong pipe (10 in. through 24 in. OD)						
10	10.750	0.500	9.750	54.70	32.30	87.00
12	12.750	0.500	11.750	65.40	47.00	112.40
14 OD	14.000	0.500	13.000	72.10	57.50	129.60
16 OD	16.000	0.500	15.000	82.80	76.50	159.30
18 OD	18.000	0.500	17.000	93.50	98.40	191.90
20 OD	20.000	0.500	19.000	104.10	122.80	226.90
24 OD	24.000	0.500	23.000	125.50	180.10	305.60
Schedule 80 pipe (10 in. through 24 in. OD)						
10	10.750	0.593	9.564	64.300	31.10	95.40
12	12.750	0.687	11.376	88.50	44.00	132.50
14 OD	14.000	0.750	12.500	106.10	53.20	159.30
16 OD	16.000	0.842	14.314	136.50	69.70	206.20
18 OD	18.000	0.937	16.126	170.80	88.50	259.30
20 OD	20.000	1.031	17.938	208.90	109.40	318.30
24 OD	24.000	1.218	21.564	296.40	158.30	454.70

Engineering data and specifications

Design applications

Table 13

Pipe covering weights (thickness intended as guide, only)

Nominal pipe size (in.)	260°		360°		440°		525°		600°		700°		800°	
	Thick. (in.)	lb/ft.	Thick. (in.)	lb/ft.	Thick. (in.)	lb/ft.	Thick. (in.)	lb/ft.	Thick. (in.)	lb/ft.	Thick. (in.)	lb/ft.	Thick. (in.)	lb/ft.
1	1	0.68	1	0.68	1	0.68	1	0.68	1½	1.19	1½	1.19	1½	1.19
1¼	1	0.75	1	0.75	1	0.75	1	0.75	1½	1.27	1½	1.27	2	1.82
1½	1	0.88	1	0.88	1	0.88	1	0.88	1½	1.45	1½	1.45	2	1.87
2	1	1.01	1	1.01	1	1.01	1½	1.53	1½	1.53	2	2.50	2	2.50
2½	1	1.15	1	1.15	1	1.15	1½	1.69	1½	1.69	2	2.50	2½	3.22
3	1	1.28	1	1.28	1	1.28	1½	2.09	1½	2.09	2	2.98	2½	3.98
3½	1	1.44	1	1.44	1½	2.29	1½	2.29	2	3.00	2	3.12	2½	4.30
4	1	1.60	1	1.60	1½	2.49	1½	2.49	2	3.49	2	3.49	2½	4.62
5	1	1.84	1	1.84	1½	2.84	1½	2.84	2	3.97	2	3.97	2½	5.92
6	1½	3.13	1½	3.13	1½	3.13	1½	3.13	2	4.54	2	4.54	2½	6.75
8	1½	4.06	1½	4.06	1½	4.06	1½	4.06	2	5.56	2	5.56	2½	7.61

Thickness and weight of calcium silicate covering.

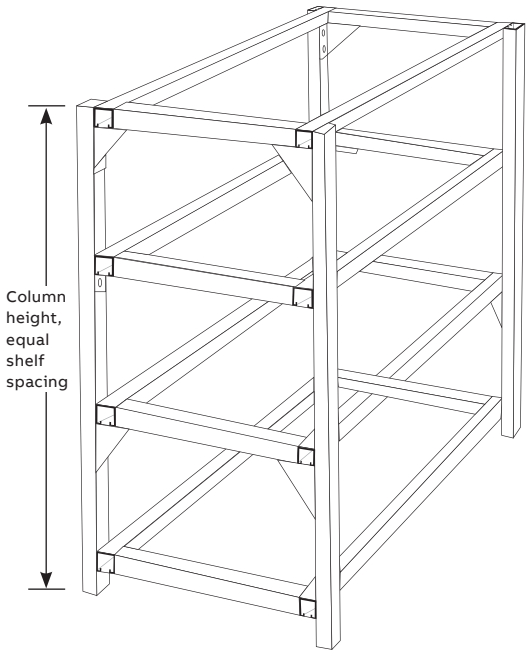
Engineering data and specifications

Design applications – mechanical support

Table 14

Column loading for rack construction

Typical general storage rack for use with plywood or other decking.



General storage racks
Pallet racks
Barrel racks
Bulk furniture racks
Cable racks
Bar stock racks
Display racks
Special purpose racks

For uniform loads on horizontal members, see Table 3

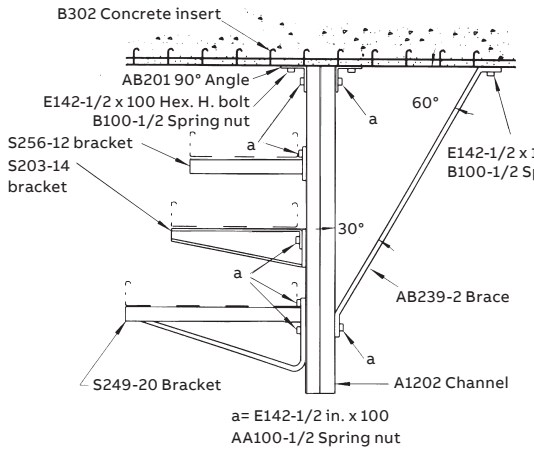
Allowable load in lb per upright

Column height	Cat. no.	Number of shelves per upright 2	3	4	5	6	7	8	9	10
6'	A1200	2,237	1,925	1,650	1,437	1,290	–	–	–	–
	A1202	4,170	3,580	3,100	2,730	2,450	–	–	–	–
	B1400	800	820	790	700	630	–	–	–	–
	B1402	1,930	1,700	1,500	1,300	1,190	–	–	–	–
7'	A1200	2,150	1,850	1,630	1,425	1,280	1,150	–	–	–
	A1202	4,000	3,525	3,000	2,700	2,430	2,200	–	–	–
	B1400	650	790	760	685	615	550	–	–	–
	B1402	1800	1,650	1,450	1,300	1,180	750	–	–	–
8'	A1200	2,000	1,820	1,600	1,400	1,250	1,150	1,050	–	–
	A1202	3,900	3,475	3,000	2,700	2,400	2,185	2,000	–	–
	B1400	580	750	730	660	610	540	510	–	–
	B1402	1,650	1,610	1,450	1,300	1,160	940	970	–	–
9'	A1200	1,950	1,780	1,575	1,400	1,250	1,130	1,030	950	–
	A1202	3,800	3,400	3,020	2,675	2,400	2,180	1,975	1,800	–
	B1400		600	665	600	580	540	500	475	–
	B1402	1,500	1,500	1,430	1,275	1,160	1,000	900	800	–
10'	A1200	1,870	1,700	1,500	1,300	1,200	1,100	1,000	900	800
	A1202	3,600	3,300	3,000	2,650	2,350	2,000	1,975	1,800	1,650
	B1400		550	650	625	580	535	490	450	425
	B1402	1,450	1,480	1,400	1,250	1,140	1,040	960	885	825

Engineering data and specifications

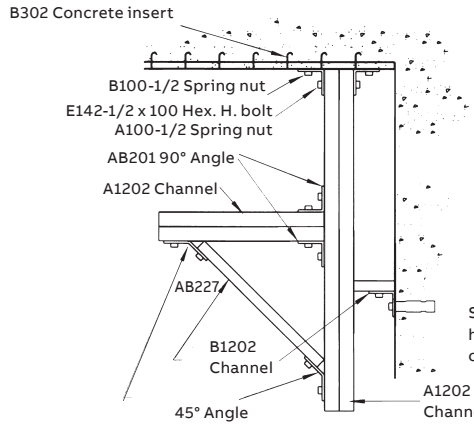
Design applications – mechanical support

Example 1



Suspended column, carrying brackets, braced to the ceiling.

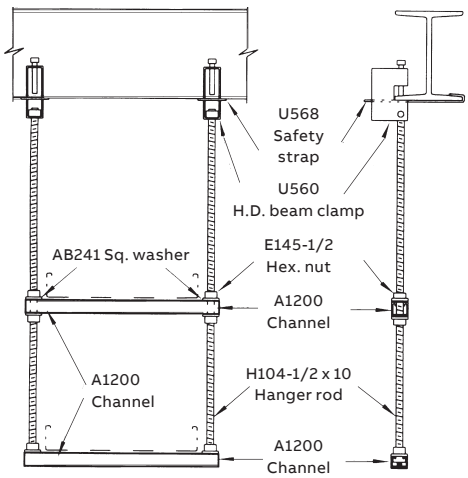
Example 2



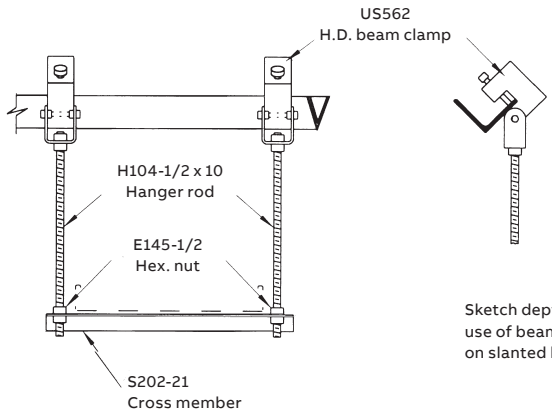
Suspended column, holding bracket and console braced to wall.

Example 3

Trapeze with channels as cross members using beam clamps and hanger rods.

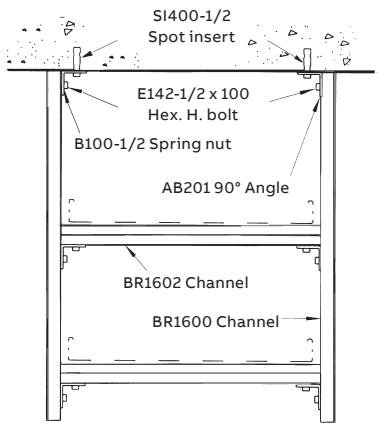


Example 4



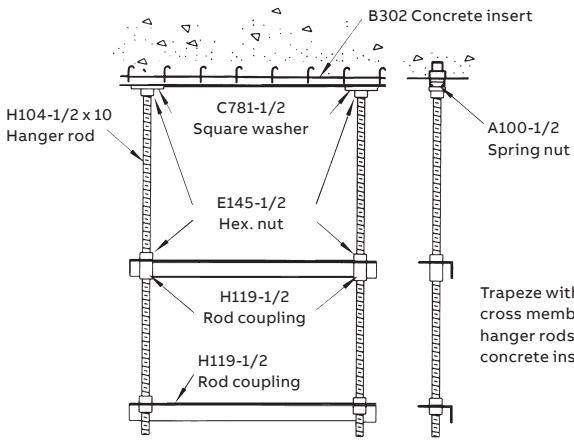
Sketch depicts the use of beam clamps on slanted beams.

Example 5



Trapeze, constructed from channels, fittings. The use of spot inserts is shown (SI400-1/2).

Example 6

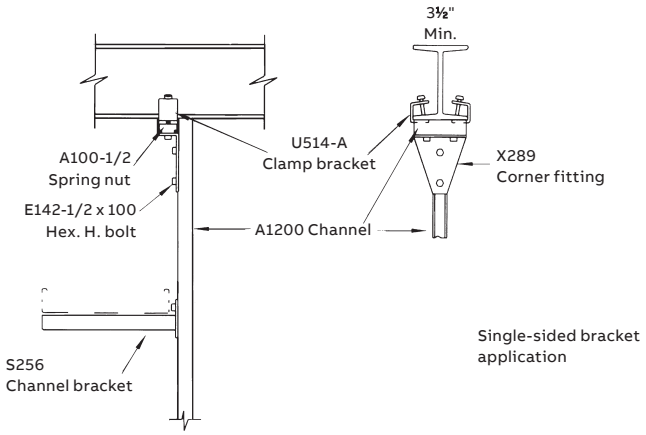


Trapeze with S202 cross members using hanger rods and concrete inserts.

Engineering data and specifications

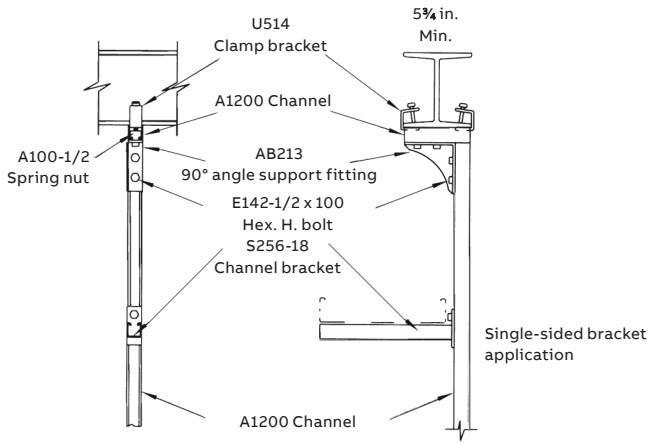
Design applications – mechanical support

Example 7

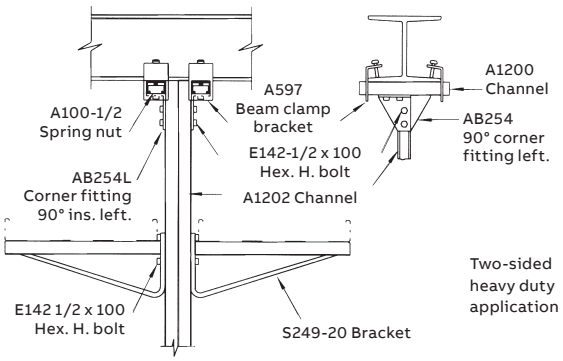


*Note: Brace should be used for lengths greater than 30 in.

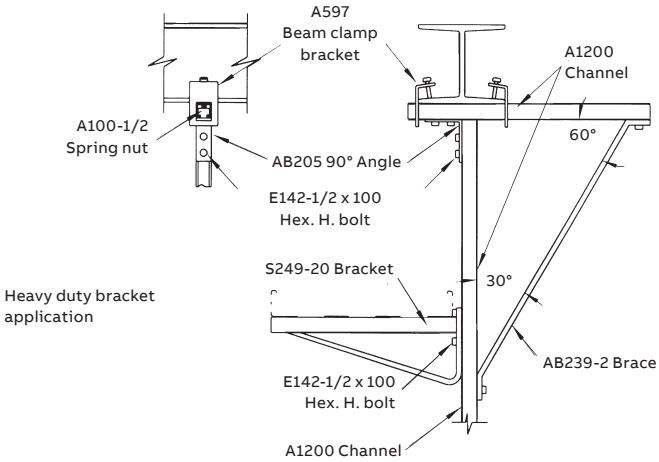
Example 8



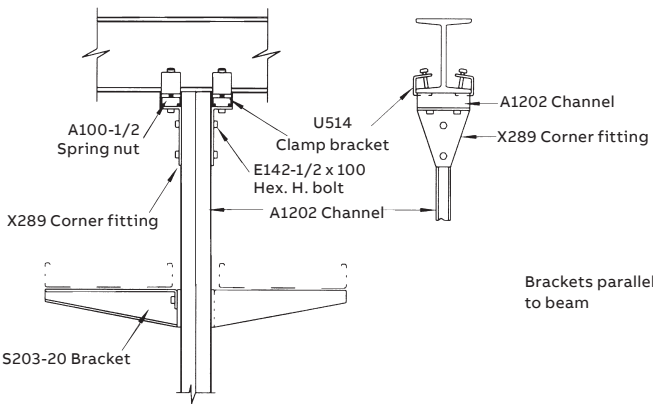
Example 9



Example 10



Example 11



Example 12