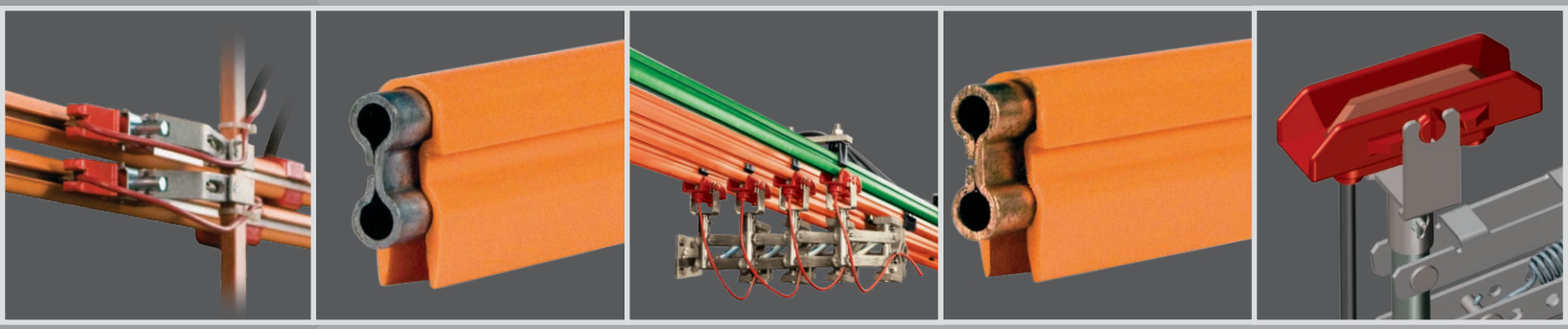
Conductor Bar

8 Bar | Side Contact

INSUL 8

DELACHAUX GROUP



CONDUCTIX wampfler

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Conductor Bar Summary Chart

Conductor Bar Lines Manufactured in the USA

For conductor rails manufactured in Germany but available in the USA, please refer to KAT0800-0001 | Conductor Rail Overview

	Safe-Lec 2 **CAT1003**	**Hevi-Bar II** **CAT1006**	**8 Bar** **CAT1004**	**Side Contact** **CAT1004**
Common Applications	Small to medium overhead cranes, moderate curves	Medium to large overhead cranes, higher speeds	Small to medium overhead cranes, tighter curves	Constrained spaces, slip ring applications, curves
Bar Ampacity Selections	100 125 160 200 250 315 400	500 700 1000 1500	40 90 110 250 350	40 90 110 250 350
Maximum Voltage	600	600[1]	600	600
Maximum Speed[2] *ft./min (m/min)*	1200 (365.7)	2000 (609.6)	900 (274.3)	600 (182.8)
Bar Spacing - *in. (mm)*	1.69 (43)	3.0 (76.2)	3.0 (76.2)	1.375 (34.9)
Cover Temperatures **Low:** *160° F (71° C)* **Medium:** *250° F (121° C)* **Extreme:** *-60° to 280° F (-51.1 to 137.7° C)*	 Low Medium	 Low Medium Extreme *(700 & 1000 Amp only)*	 Low Medium Extreme	 Low Medium
Outdoor Rated	Yes	Yes	Yes	No
Dura-Coat Available?	No	Yes	No	No
Orientation *(collector only)*	Bottom / Side	Bottom / Side	Bottom / Side	Side
Minimum Bend Radius with *Low Temp Cover - in. (mm)*	60.0 (1542)	Consult Factory	18.0 (457)	9.0 (228)
Minimum Bend Radius with *Medium Temp Cover - In. (mm)*	6.0 (1542)	Consult Factory	57.0 (1447)	57.0 (1447)
Heater Wire Available	Yes	500 Amp Only	No	No

[1] Can be configured for 5000 volts or more - contact Factory. [2]For faster speeds - contact Factory

Conductix-Wampfler Germany - Conductor Bar Lines

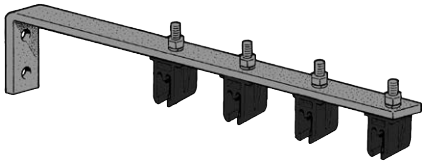
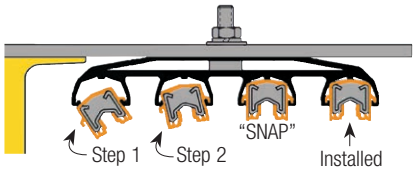
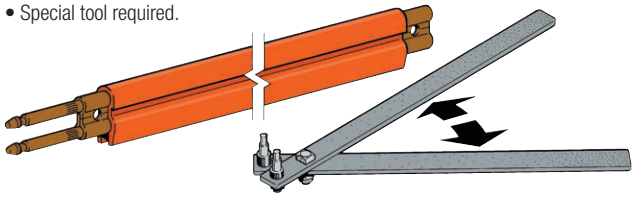
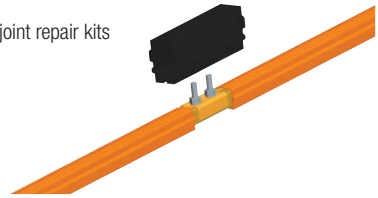
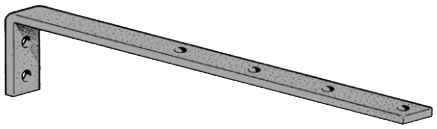
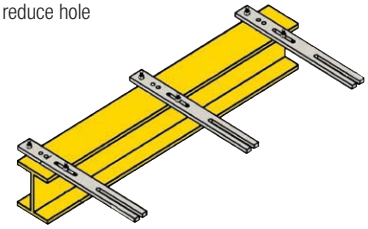
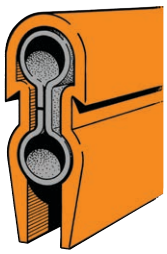
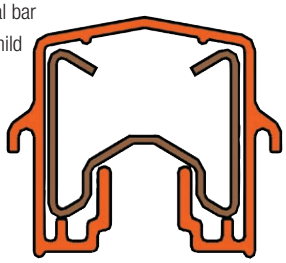
Conductix-Wampfler Germany's high performance conductor rails are stocked and available in the USA. Please contact our sales office at 1 800 521 4888 for more information. See Pg 86 of this catalog for a brief overview of available series.

Don't see what you need? Give us a call. We offer hundreds of special designs and options!

Comparison of 8 Bar and Safe-Lec 2

Comparison of 8 Bar and Safe-Lec 2

The original Insul 8® 8 Bar is the best "figure 8" bar on the market. But, if you are putting in a new installation, there are several reasons you should consider Safe-Lec 2 (CAT1003), the new standard in crane electrification.

8 Bar	Safe-Lec 2
	Quicker and Less Costly Installation
• 10 ft. (3.05 m) bar lengths, more splices required • Hangers hold only one bar each  • Wires must be spliced to collector pigtails	• 14.76 ft. (4.50 m) bar lengths; fewer joints • Multiple pole hangers; a "snap" to install  • Wires connect into lug integrated in the collector arm.
	More Secure Bolted Splice Joint
• Pinned joints, no matter how good, are not as secure as bolts • Special tool required. 	• Bolted joints • No special tools required • No need for "joint keepers" or joint repair kits 
	More Secure Bolted Splice Joint
• 8 Bar can go 300 feet before an expansion section is required (or 200 feet for copper bar.	• Safe-Lec 2 can go further - 492 feet (150 m) - before an expansion section is required.
	Easier System Alignment
• Bracket have round holes, so alignment must be more accurate • Harder to make system alignment adjustments 	• Slotted brackets are available to reduce hole alignment problems • System alignments are easy! 
	Superior Collector Shoe Tracking
• Shoe is guided by a plastic cover • Accurate system alignment is much more critical 	• Shoe is guided by the V-Contact in the metal bar • Collector arm articulates to accommodate mild system misalignments. 

Conductor Bar Specification Data Sheet

Sizing systems for multiple hoists, motors, and/or multiple cranes

Use the information and chart listed below to help you determine the size of conductor bar system needed for the Specificating Data Sheet on the following pages.

For a single crane: Size the conductor bar to handle 100% of the current draw of the largest motor or group of motors, plus 50% of the combined current draw of the other motors on the vehicle.

For multiple cranes or vehicles: Determine the current draw fro each crane/vehicle, using the method above. Sum all the current draws for each crane/vehicle, then multiply the sum by the appropriate demand factor:

Number of Cranes/Vehicles	Demand Factor
2	.95
3	.91
4	.87
5	.84
6	.81
7	.78





8 Bar: An excellent choice for tightly curved systems



Conductor Bar Specification Data Sheet

The following data form must be filled out in order for the system to be designed and perform properly. E-mail to: info.us@conductix.com to get a system quote.

Request Date:		**Sales Person:**	
Company:		**Contact:**	
		Title:	
		Telephone:	
		Fax:	
Company Type:		**E-mail:**	

Application

Application Type: ☐ Runway ☐ Bridge ☐ Monorail ☐ Other

☐ New Approved Installation? ☐ Extended Existing? ☐ Replacement?

System Length: _____ ☐ Feet ☐ Meters

Total Number of Conductors: _____ Will one conductor be designated as a ground: ☐ Yes ☐ No

Does your application require Data Transmission as well as Power Transmission ☐ Yes ☐ No

If yes, describe your requirements: _____

Environmental Data

☐ Indoors ☐ Outdoors ☐ Both Indoors & Outdoors ☐ Outdoor & Ice

Ambient Temperature Range - Min. _____ Max. _____ ☐ °F ☐ °C

Radient Heat Temperature Range - Min. _____ Max. _____ ☐ °F ☐ °C

Will a heater wire need to be included: ☐ Yes ☐ No (if yes, consult factory)

Will there be corrosive materials present ☐ Yes ☐ No If yes, what type (salt, chlorine, steam, acids, etc.) _____

Are there any other environmental considerations for this application? _____

Mechanical Data

Vehicle Speed: _____ ☐ feet/min ☐ meters/min

Duty Cycle: _____ cycles per: _____ (hour, day, minute, etc.)

Number of vehicles or trolleys: _____ Crane Class (if applicable) _____

Will Conductix be supplying mounting brackets: ☐ Yes ☐ No

Does the system have any curves: ☐ Yes ☐ No if yes, Radius _____ ☐ Feet ☐ Meters Angle _ _____°

Mounting position with regards to monorail: ☐ Inside ☐ Outside ☐ Both

Other mechanical Notes: _____

Conductor Bar Specification Data Sheet

Electrical Specifications

Number of power feeds: _____

Location of power feeds (check all that apply): ☐ Center ☐ End ☐ Multiple

☐ Advanced: Distance power feeds will be from end of system: _____ (or attach diagram)

Number of power phases: _____ Operating Voltage: _____ (volts) ☐ AC ☐ DC

Total current draw: (sum of all vehicles) _____ (amps) Demand factor _____(typically .9)

Operating Frequency: _____(Hz - USA is 60 Hz)

If you have specific requirements no t covered in this specification sheet, please contact us at 1 800 521 4888 for assistance.

Insul 8® 8 Bar and Side Contact Overview

Conductix-Wampfler has designed and built state-of-the-art conductor bar systems for over 60 years. Our experienced engineering and sales people are recognized experts in the application of conductor bar in the most demanding applications.

Conductix-Wampfler USA was founded in 1944 as Insul-8 Corporation in San Carlos, CA. Insul-8 developed the first “Figure 8” conductor bar system, which became the standard method for electrifying overhead cranes. In 1991 the company moved it’s manufacturing facility to Harlan, Iowa.

With the merger of Conductix and Wampfler in 2007, **Conductix-Wampfler** is now the world leader in design and manufacture of high-performance conductor bar systems for industry.

Our innovations include the “finger-safe”, V-Contact Safe-Lec 2 system, Hevi-Bar II with optional Dura-Coat corrosion protection, and Hevi-Bar MD for high current mill applications.

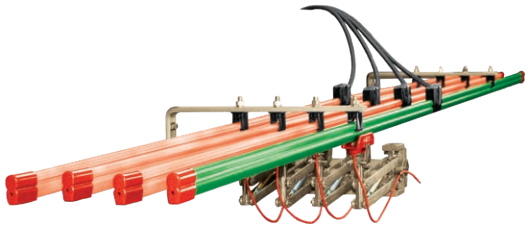
Conductix-Wamfpler 8 Bar and Side Contact systems are manufactured in the USA to provide unsurpassed service and quick delivery. Our plants are ISO9001-2008 certified and adhere to stringent quality standards.

We offer a full complement of other mobile electrification products to include Cable Festoon Systems, Cable Reels (spring and motor driven), Push-Button Pendants, Radio Remote Controls, and Crane Bumpers.

8 Bar

The first insulated conductor system for crane/monorail electrification. If you need 8 Bar, insist on the original! Many accessories available. Able to accommodate small bend radii for curved systems and slip rings. 40A, 90A, 110A, 250A and 350A, capacity bars.

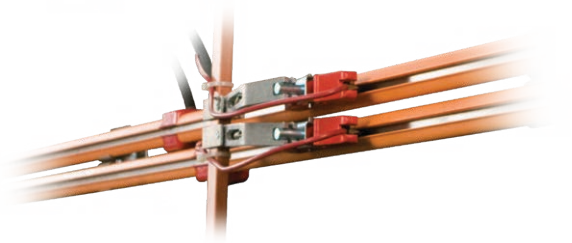
UL / CSA Listed



Side Contact

Similar in construction to 8 Bar, Side Contact is the appropriate system for constrained spaces and difficult installations. Side contact be accommodate very small bend radii for curved systems and slip rings. 40A, 90A, 110A, 250A, and 350A capacity bars.

UL / CSA Listed



Safe-Lec 2 and Hevi-Bar II

For details on Safe-Lec 2 and Hevi-Bar II conductor bar lines, please refer to catalog CAT1003 and CAT1006.

800 Series Conductor Rails

For details on 800 Series conductor bar products manufactured by Conductix-Wampfler, please refer to catalogs:

KAT0811 - 811 Series

KAT0812 - 812 Series

KAT0813 - 813 Series

KAT0815 - 815 Series

KAT0831 - 831 Series, Multiline

KAT0842 - 842 Series, Enclosed “Box Track”

MHI Member Company

CMAA OEM Crane Component Manufacturer

ECMA Electrification and Controls Manufacturers Association Member Company



Insul 8® 8 Bar Design Features

Conductix-Wampfler "Insul 8® 8 Bar" was invented by Insul 8 Corporation over 70 years ago. This is the *original* "figure 8" conductor bar system! This innovative product was the first safe, insulated electrification solution for cranes, monorails, hoists, conveyors, and many other applications. Thousands of miles of 8 bar are in use all around the world. There are many "copy cat" systems around. ***Don't settle for imitations; insist on the original 8 Bar system!***

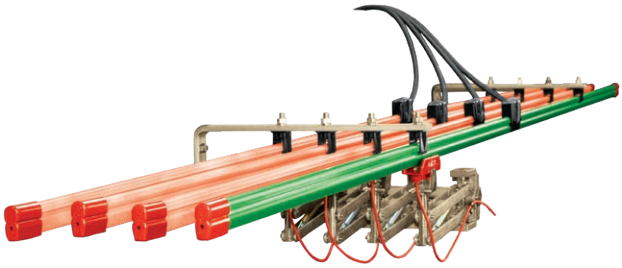
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Insul 8 8 Bar is ideal for...

- Small/Medium sized cranes
- Conveyors
- Monorails
- Hoists
- Tightly curved systems
- Other mobile power applications

Range and Speed

- Current Range: 40A, 90A, 110A, 250A, 350A @600 volts max.
- Maximum Speed: 900 ft/min (274 m/min)



Features

- Designed and built in the USA under stringent ISO 9001:2008 standard
- In stock availability for quick shipment
- A large number of special options and adaptations developed over 70 years of usage to handle numerous industrial situations.
- The ability to be curved into a tighter radius than most other systems.
- Knurled joint pins for secure joints. Won't pull apart under normal conditions when properly installed.
- Backed by the best after-sales services in the industry.

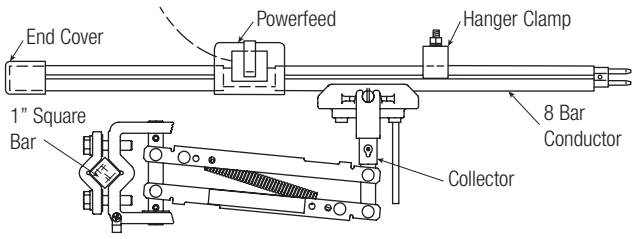
Installs Quickly and Easily

- Minimum number of basic parts
- Quick "pin-style" splice joints
- Bar snaps into mating hanger

Many Options

- Stainless steel hardware
- Green bonding (ground) conductor covers
- Black "UV stable" outdoor covers
- Curved systems with low heat cover; can be curved to 18" minimum radius wtih the bar profile vertical i.e. the "easy way" or 45" the "hard way" (low heat cover)

Basic 8 Bar Components



Power Feed: Conducts the power source to the conductor bar

Collector: Transfers power from the bar to the moving machine. Connects to a 1" mounting staff

Hanger Clamp: Suspends the conductor bar from hanger bracket

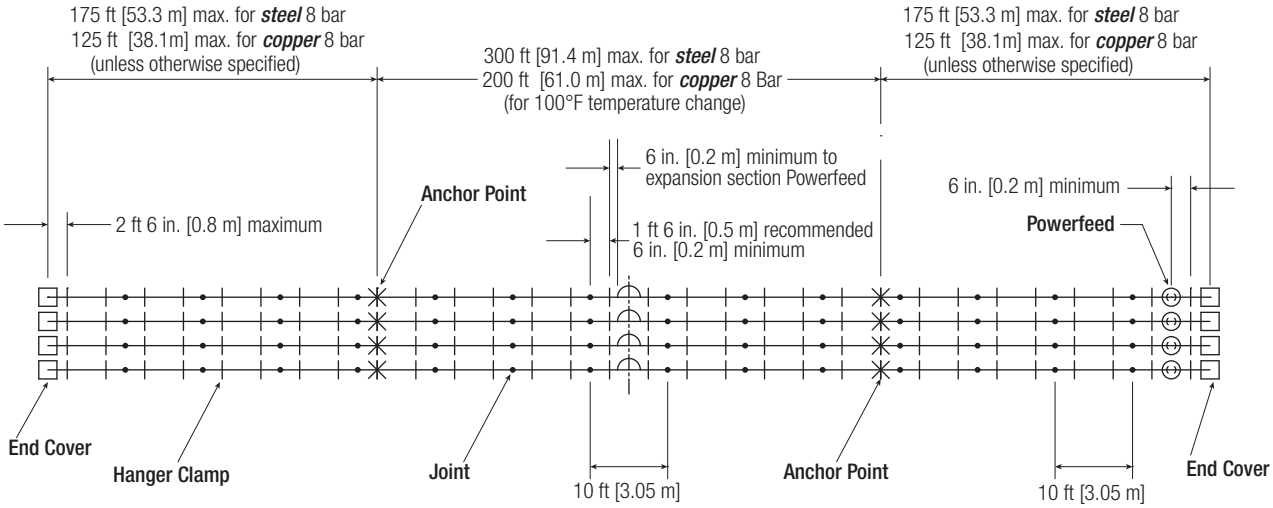
End Cover: Caps off the end of the conductor bar

Hanger Bracket: Attaches to crane beam or other structure to support multiple hangers.

Anchor Clamp: Connects the bar to the structure and directs movement of the conductors during thermal expansion or contraction.

Typical 4-Pole 8 Bar Layout

Typical straight run



Recommended hanger spacing:
Vertical entry: 5 ft [1.5 m]
Lateral entry: 3 ft 4 in. [1.0 m]
Curves: 3 ft [0.9 m]

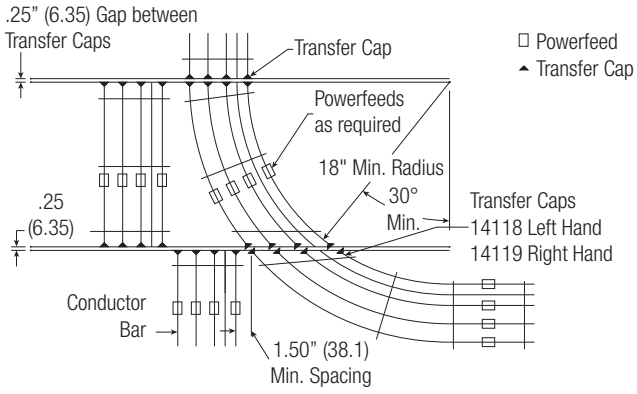
Expansion section is required for runs longer than:
40, 90, & 110 amp bar: 350 ft [106.7 m]
250 & 350, amp bar: 250 ft [76.2 m]
Use anchor clamp at center of system if no expansion sections are needed.

Legend:

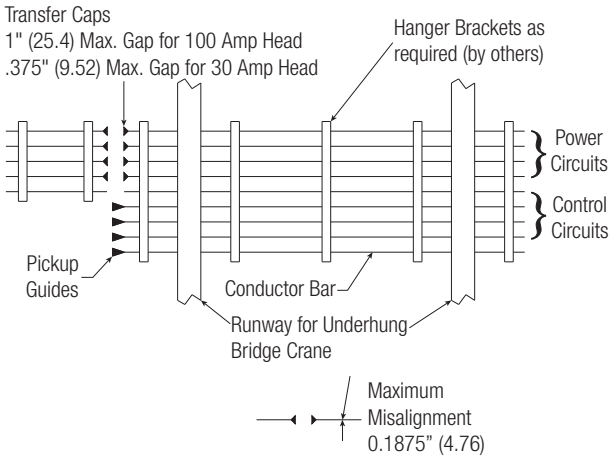
End Cover ⊣□ Hanger | Powerfeed ⊙ Expansion Section ⌓ Anchor Point ✳ Splice Joint •

2-Way Stub Switch and Bridge Crane Interlock

2-WAY STUB SWITCH



BRIDGE CRANE INTERLOCK

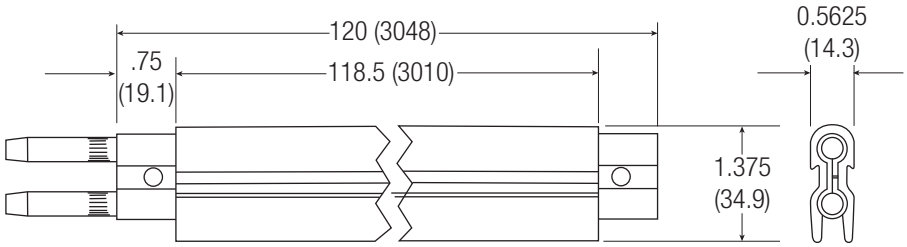


8 Bar Specifications

Conductor Bar Information

NOTE: Please use the Specification Data Sheet on pages 6-7 to determine your conductor bar needs. Contact Conductix-Wampfler Sales (+1 800 521 4888) if you have any questions about the suitability of this product for your application.

Roll formed of 1/16" (1.59 mm) material except laminates which are 1/32" (0.79 mm) copper steel, or stainless steel, and the 90 A galvanized bar. The cross-section area is 188 mcm (95 mm^2). The equivalent rectangle for all conductors is 1.0" x 1/4" (25.4 x 63. mm). Supports are required every 3' (0.91 m) for curves, 3'-4" (1.01 m) for lateral mount, and 5' (1.52 m) standard.



Assembled with Connector Pins and Cover								Micro-ohms per foot*		
		Part Number								
Material	Length ft. (m)	with PVC Cover	with Medium Temp Cover	with Extreme Temp Cover	Expansion Coefficient in./in./°F	Nominal Weight lb/ft (kg/m)	Maximum amps (continuous duty)	Resistance R (DC)	Reactance X (60 Hz, 3-Phase)	Impedance Z (60 Hz)
Stainless Steel	10 (3.05)	**14299**	**24304**	**24307**	.000007	0.72 (0.0995)	40	2310	67	2311
Galvanized Steel	10 (3.05)	**22135**	**22141**	**22147**	.000007	0.46 (0.0636)	90	771	73	774
Galvanized Steel	10 (3.05)	**11000**	**11019**	**11038**	.000007	0.65 (0.0899)	110	500	67	505
Stainless Clad Copper Laminate	10 (3.05)	**11004**	**11023**	**11042**	.000009	0.65 (0.0899)	250	110	73	132
Copper Steel Laminate	10 (3.05)	**11008**	**11027**	**11046**	.000009	0.65 (0.0899)	250	110	77	127
Rolled Copper	10 (3.05)	**11012**	**11031**	**11050**	.000009	0.76 (0.1051)	350	55	66	86

* Example: 0.000060 ohms/ft. X values are calculated at 3 inch center-line spacing, adjusted for three conductors with multiplier 1:26 a nominal Permeability m of 10-12 is used for the steel conductor calculations. For reference, $X = m\ 52.9 \log 10^{3} \times \frac{1.26+34.5}{1250}$ $Z = \sqrt{R^2\ 1\ X^3}$

8 Bar Conductors

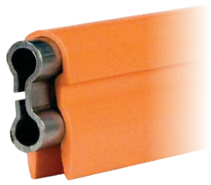
8 Bar conductor bars come with cover and connector pins installed. Bars are available in 40A, 90A, 110A, 250A, 350A, capacities (@ 600 volts maximum). Expansion Sections, listed below are required to compensate for thermal expansion; one every 350' (106.7 m) for 40A, 90A and 100A systems or one every 250' (76.2 m) for 250A systems.

Power feeds are used to bring outside power to the conductor bar.

Factory installed covers are available in:

- **Rigid PVC:** -10°F to 160°F (-23.3°C to 71.1°C)
- **Medium Heat:** -25°F to 250°F (-31.7°C to 121.1°C)
- **Extreme Temp:** -60°F to 280°F (-51.1°C to 137.7°C)

Stainless Steel, 40 amp



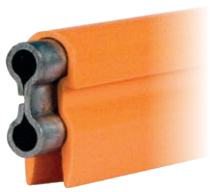
Item	Rigid PVC Cover *		Medium Heat Cover		Extreme Temp. Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**14299**	7.0 (3.18)	**24304**	6.6 (2.29)	**24307**	7.5 (3.40)
Conductor Bar 5' (1.52 m)	**14823**	3.5 (1.59)	**24305**	3.3 (1.50)	**24308**	3.8 (1.72)
Expansion Section 10' (3.05 m)	**24279**	7.5 (3.40)	**24306**	7.0 (3.18)	**24309**	8.2 (3.72)
Power Feed	**11091**	0.4 (0.18)	**11091**	0.4 (0.18)	**11122**	0.4 (0.18)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.1 (0.05)

Galvanized Steel, 90 amp



Item	Rigid PVC Cover *		Medium Heat Cover		Extreme Temp. Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**22135**	4.4 (2.00)	**22141**	4.1 (1.86)	**22147**	4.9 (2.22)
Conductor Bar 5' (1.52 m)	**22136**	2.2 (1.00)	**22142**	2.1 (0.95)	**22148**	2.5 (1.14)
Expansion Section 10' (3.05 m)	**22140**	6.7 (3.31)	**22146**	6.3 (2.86)	**22152**	7.4 (3.36)
Power Feed	**11091**	0.4 (0.18)	**11091**	0.4 (0.18)	**11122**	0.4 (0.18)
End Cover	**22070**	0.1 (0.05)	**22070**	0.1 (0.05)	**11633**	0.1 (0.05)

Galvanized Steel, 110 amp



Item	Rigid PVC Cover *		Medium Heat Cover		Extreme Temp. Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11000**	4.4 (2.00)	**11019**	4.1 (1.86)	**11038**	4.9 (2.22)
Conductor Bar 5' (1.52 m)	**11001**	2.2 (1.00)	**11020**	2.1 (0.95)	**11039**	2.5 (1.13)
Expansion Section 10' (3.05 m)	**11057**	6.7 (3.31)	**11064**	6.3 (2.86)	**11070**	7.4 (3.36)
Power Feed	**11091**	0.4 (0.18)	**11091**	0.4 (0.18)	**11122**	0.4 (0.18)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.1 (0.05)

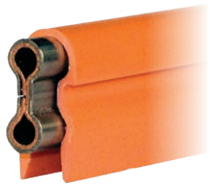
* For Conductor Bar or Expansion Section with green PVC cover, add "G" to part number.

* For Conductor Bar or Expansion Section with black UV resistant PVC, add "B" to the part number.

8 Bar Conductors

Stainless Clad Copper, 250 amp

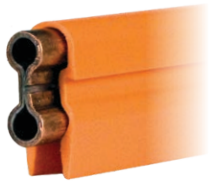
NOTE: **Requires a Joint Keeper with each conductor bar - Order Separately (See Page 15)**



Item	Rigid PVC Cover *		Medium Heat Cover		Extreme Temp. Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11004**	6.6 (2.99)	**11023**	6.2 (2.81)	**11042**	7.1 (3.22)
Conductor Bar 5' (1.52 m)	**11005**	3.3 (1.47)	**11024**	3.1 (1.41)	**11043**	3.6 (1.63)
Expansion Section 10' (3.05 m)	**11059**	8.5 (3.86)	**11065**	8.0 (3.63)	**11071**	9.2 (4.17)
Power Feed	**11092**	0.7 (0.32)	**11093**	0.7 (0.32)	**11093**	0.7 (0.32)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.4 (0.18)

Copper Steel Laminate, 250 amp

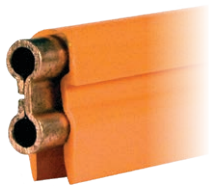
NOTE: **Requires a Joint Keeper with each conductor bar - Order Separately (See Page 15)**



Item	Rigid PVC Cover *		Medium Heat Cover		Extreme Temp. Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11008**	6.2 (2.81)	**11027**	5.8 (2.63)	**11046**	6.7 (3.04)
Conductor Bar 5' (1.52 m)	**11009**	3.1 (1.41)	**11028**	2.9 (1.32)	**11047**	3.4 (1.54)
Expansion Section 10' (3.05 m)	**11060**	10.0 (4.54)	**11066**	9.4 (4.26)	**11072**	10.8 (4.90)
Power Feed	**11092**	0.7 (0.32)	**11093**	0.7 (0.32)	**11093**	0.7 (0.32)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.4 (0.18)

Rolled Copper, 350 amp

NOTE: **Requires a Joint Keeper with each conductor bar - Order Separately (See Page 15)**



Item	Rigid PVC Cover *		Medium Heat Cover		Extreme Temp. Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11012**	7.0 (3.18)	**11031**	6.6 (2.99)	**11050**	7.5 (3.40)
Conductor Bar 5' (1.52 m)	**11013**	3.5 (1.59)	**11032**	3.3 (1.50)	**11051**	3.8 (1.72)
Expansion Section 10' (3.05 m)	**11062**	11.0 (4.99)	**11068**	11.0 (4.99)	**11074**	11.8 (5.35)
Power Feed	**11092**	0.7 (0.32)	**11092**	0.7 (0.32)	**11093**	0.7 (0.32)
End Cover	**11088**	0.1 (0.05)	**11088**	0.1 (0.05)	**11633**	0.4 (0.18)

8 Bar Replacement Covers, Connectors, & Joint Covers

Replacement 8 Bar Covers

Meets all requirements for plastic electrical insulation and may be used indoors or outdoors. Covers are included with conductors listed on pages 12-13.

Material	Color	Temp-Rating	Part Number	Weight lb. (kg)
Rigid PVC	Orange	-10°F to 160°F	**11114**	1.2 (0.54)
Rigid PVC	Green	-10°F to 160°F	**11114G**	1.2 (0.54)
UV Resistant PVC	Black	-10°F to 160°F	**11114B**	1.2 (0.54)
UV Resistant PVC	Green	-10°F to 160°F	**11114C**	1.4 (0.62)
Medium Heat Lexan	Red	-25°F to 250°F	**11115**	0.8 (0.36)
Medium Heat Lexan	Green	-25°F to 250°F	**11115B**	1.1 (0.50)
Extreme Temperature Polyester	Dark Orange	-60°F to 280°F	**11116**	1.7 (0.77)
Extreme Temperature Polyester	Green	-60°F to 280°F	**11116B**	1.2 (0.56)



Replacement Connector Pins

Used to connect two bar sections together. For quick and easy installation. Supplied with conductors listed on pages 12-13. Two required per connection.

Pin Used With:	Material	Pin Length in. (mm)	Part Number
Stainless steel, 40 amp	Stainless steel	2.50 (63.5)	**24196**
Galvanized steel, 90 amp	Zinc plated steel	3.25 (82.55)	**21914**
Galvanized steel 110 amp	Zinc plated steel	2.50 (63.5)	**11120**
Rolled copper and laminated bar	Copper	2.50 (63.5)	**11121**
Transition Pin: To join 90 amp to 110 amp	Zinc plated steel	2.94 (74.67)	**22885**



Part Number: 21914



Part Number: 11120

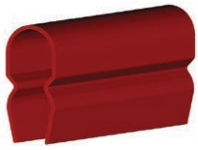
Joint Covers

Insulated protective covers for conductor bar joining parts. Requiring when ordering Conductor Bars from pages 12-13.

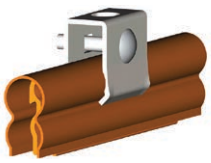
Used with:	Part Number	Weight lb. (kg)
40 amp to 350 amp Rigid PVC Cover (Black)	**13601**	0.1 (0.05)
40 amp to 350 amp Medium Heat Cover	**13600**	0.1 (0.05)
40 amp to 350 amp Extreme Temperature Cover	**11123**	0.4 (0.18)



Part Number: 13601



Part Number: 13600



Part Number: 11123

8 Bar Joint Parts & Tools

Joint Keeper

Required to secure and stabilize the joints for all rolled copper or laminated copper Conductor bar from Page 13.

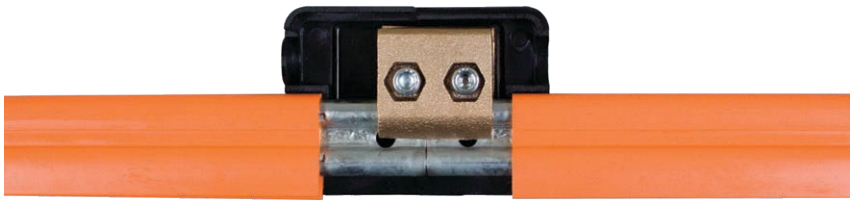
Used With:	Part Number	Weight lb. (kg)
Rolled or laminated copper bar, 250 amp or 350 amp	**11125**	0.01 (0.004)



Joint Repair Kit

To repair joints of damaged conductor bar.

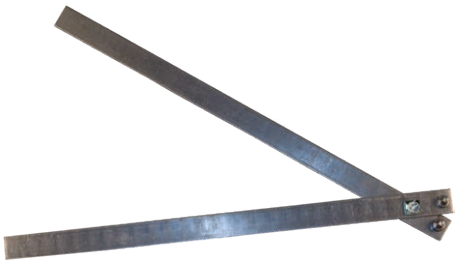
Used For:	Part Number	Weight lb. (kg)
40 amp to 350 amp formed bar	**24632**	0.7 (0.32)
Extreme Temperature Systems	**51666**	0.7 (0.32)



Joint Repair Kit

Inserts into pre-punched holes on the conductor bar to pull conductor sections together securely. Supplied with the appropriate system at a nominal charge.

Used with:	Part Number	Weight lb. (kg)
40 amp to 350 amp conductor bars	**11134**	2.3 (1.04)



8 Bar End Covers & Power Feeds

End Cover

For covering the exposed ends of 8 Bar Conductors.



Part Number: 11088

Used with 8 Bar Conductors:	Maximum Temperature °F (°C)	Part Number	Weight lb. (kg)
40 amp, 100 amp thru 350 amp	300 (149)	**11088**	0.03 (0.02)
90 amp	250 (121)	**22070**	0.03 (0.02)
110 amp thru 350 amp	280 (137.7)	**11633**	0.03 (0.02)

Power Feeds

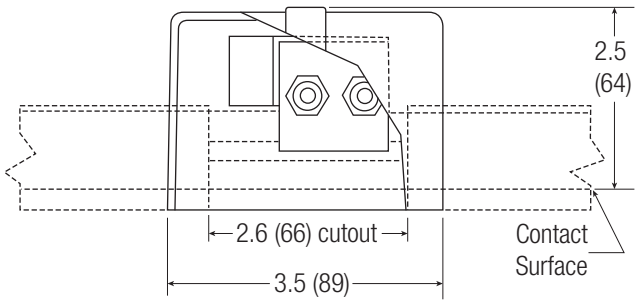
Provides attachment of incoming power to the conductor rails. Fully insulated, simple clamp design for easy installation anywhere on the system.

Current Capacity	Clamp Material	Case Material	Maximum Temperature °F (°C)	Part Number	Weight lb. (kg)
90 or 110 amp	Steel	Rigid PVC	160 (71)	**11091**	0.4 (0.18)
90 or 110 amp	Steel	Polyester	280 (137.7)	**11122**	0.4 (0.18)
250 amp	Copper	Rigid PVC	160 (71)	**11092**	0.7 (0.32)
250 amp	Copper	Polyester	280 (137.7)	**11093**	0.7 (0.32)
250 amp	Copper Clamp with Stainless Steel Hardware	Rigid PVC	160 (71)	**27104**	0.7 (0.32)

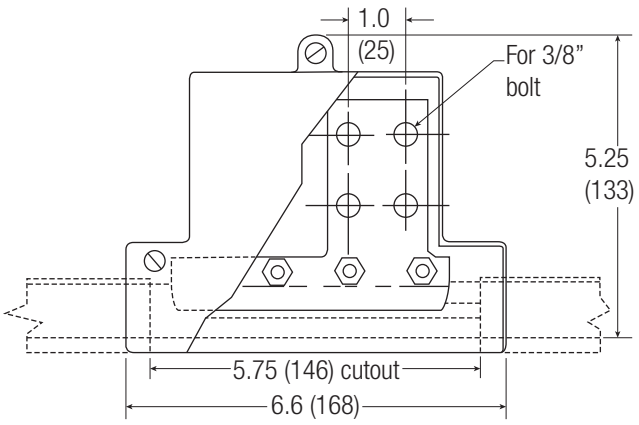


Part Number: 11091

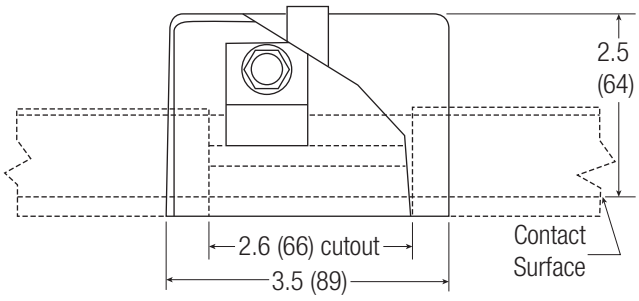
Part Numbers: 11902, 11093, 27104



Part Numbers: 11094, 27106



Part Numbers: 11091, 11122



8 Bar Power Feeds, Expansions & Isolation Sections

Power Feed Parts

Description	Part Number	Weight lb. (kg)
Case & clip only. PVC 90/110, 250 amp	**11131**	0.2 (0.09)
Case & clip only. High heat, 90/110, 250 amp	**11132**	0.3 (0.14)
Power Feed Clamp only. For Galvanized Steel, 90/110 amp	**11128**	0.1 (0.04)
Power Feed Clamp only. For Copper, 250 amp	**11129**	0.4 (0.18)

Expansion Section

Required every 300' (94.1 m) for steel conductors or every 200' (61.0 m) for copper conductors to compensate for thermal expansion. Power feeds and flexible jumpers are factory installed to meet electrical and mechanical requirements of your system.

NOTE: Part numbers are located in the Conductor Bar table on Page 12-13.



Isolation Section

Conductor isolation sections are used to electrically isolate control circuits, maintenance bays, etc. The kit includes part number: 11127 Guide Assembly, PVC Cover, and Isolation Section for 40 amp to 350 amp (not including 90 amp). *Consult factory for proper selection.*



Part No.	Wt lb (kg)
21841	2.3 (1.04)

Isolation Section Parts

Components used for in-field modification.



11427



11618



11127

Description	Part Number	Weight lb. (kg)
Molded plastic insulated piece; only for 21841	**11427**	0.3 (0.14)
Molded plastic 1" (25.4) isolating pin. For 40-350 amp except for 90 amp. Two required per location.	**11615**	0.03 (0.01)
Molded plastic 1" (25.4) isolating pin. For 90 amp only. Two required per location.	**11618**	0.03 (0.01)
Galvanized Steel Guide Assembly. Provides rigid support at isolation areas.	**11127**	1.5 (0.68)

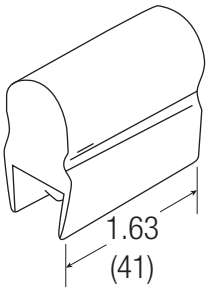
8 Bar Transfer Caps & Pickup Guides

Transfer Caps

Used in switches and interlocks to accomplish smooth collector transfer.

Item Description	Part Number	Weight lb. (kg)
End Transfer Cap for 90 amp bar	**22070**	0.03 (0.01)
Left Transfer Cap for 90 amp bar	**22395**	0.03 (0.01)
Right Transfer Cap for 90 amp bar	**22396**	0.03 (0.01)
End Transfer Cap for 40-350 amp bar	**13161**	0.03 (0.01)
Left Transfer Cap for 40-350 amp bar	**14118**	0.03 (0.01)
Right Transfer Cap for 40-350 amp bar	**14119**	0.03 (0.01)





Pick-up Guides

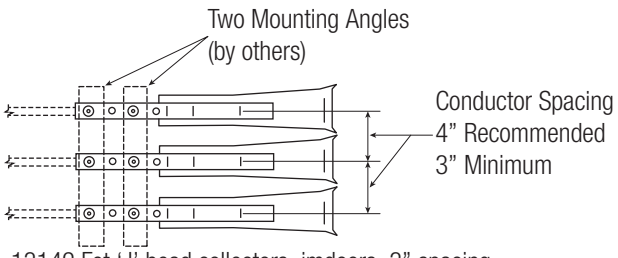
The Pick-up Guide allows the collector to leave the conductor and re-track upon return. Requires use of “Self-Centering” J-Head Collectors, see pages 23-24. Contact factory for selection.

Used:	Part Number	Weight lb. (kg)
Indoors, for 3” bar spacing	**13142**	1.75 (0.79)
Indoors, for 4” bar spacing	**11089**	1.75 (0.79)
Outdoors, for 3” bar spacing	**13143**	2.00 (0.91)
Outdoors, for 4” bar spacing	**11090**	2.00 (0.91)

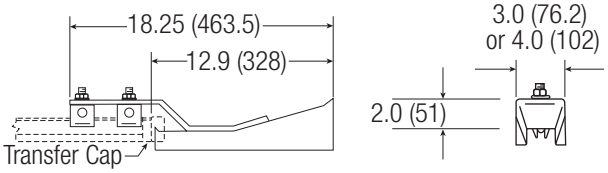
13142

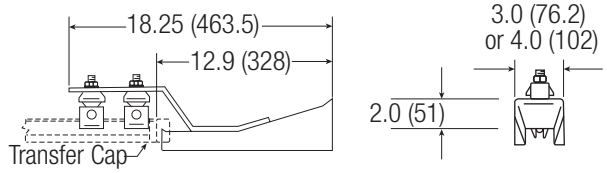






13142 Fot ‘J’ head collectors, imdoors, 3” spacing
11089 For ‘J’ head collectors, indoors, 4” spacing



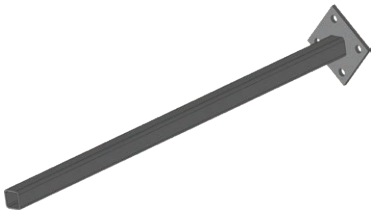


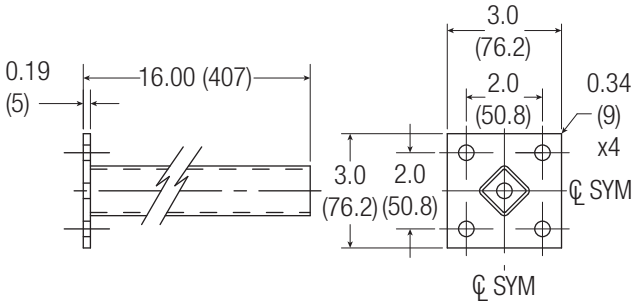
8 Bar Collector Brackets & Polycarbonate Hanger

Collector Brackets

For mounting collectors to the moving vehicle. Applicable for all 8 Bar Collectors. See pages 23 and 24 for Collector Assembly descriptions.

Type	Material Type	Post Size In. (mm)	Part Number	Weight lb (kg)
Single Post	Plated Steel	1.0 (25)	**39617**	1.77 (0.80)
Single Post	Stainless Steel	1.0 (25)	**52336**	1.77 (0.80)



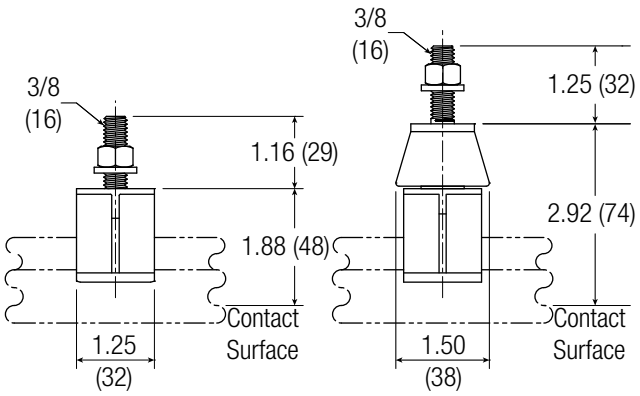


Polycarbonate Snap-in Hanger Clamps

Hanger Clamps are designed to grip 8 Bar Conductors for stable support. Clamps are required every 5' (1.52 m) standard. These Polycarbonate Snap-in Hanger Clamps are recommended for standard mount only; not recommended for curves or lateral mount.

Type	Hardware	Part Number	Weight lb. (kg)
Without Insulator	Zinc Plated	**22800**	0.3 (0.14)
Without Insulator	Stainless Steel	**23370**	0.3 (0.14)
With Insulator	Zinc Plated	**24405**	0.5 (0.23)
With Insulator	Stainless Steel	**28122**	0.5 (0.23)





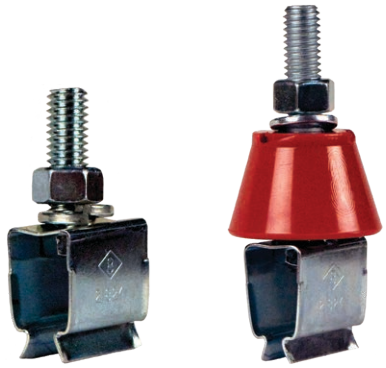
8 Bar Hangers & Cross Bolt Hangers

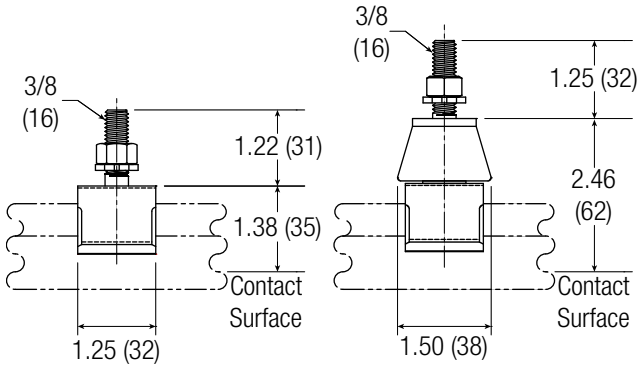
Steel Snap-in Hanger Clamp

The spring-steel Hanger Clamps are designed to grip 8 Bar Conductors for stable support.

Clamps are required ever 5' (1.52 m) standard. Steel Snap-in Hanger Clamps are recommended for standard mounting; not recommended for curves or lateral mount.

Type	Part Number	Weight lb (kg)
Without Insulator	**21600**	0.2 (0.09)
With Insulator	**22000**	0.4 (0.18)





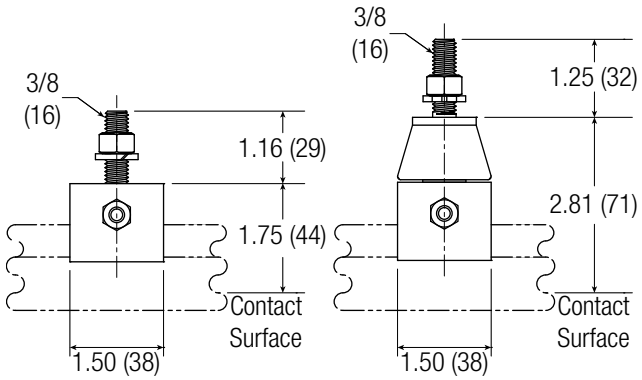
Cross-Bolt Hanger Clamp

Cross-Bolt Hanger Clamps are designed to lock on 8 Bar Conductors for stable support.

Hangers are required ever 5' for vertical entry, 3' for curved systems and every 3'4" for lateral entry. Cross-Bolt Hanger Clamps are recommended for standard mounting, lateral mounting, and curved systems.

Type	Material	Part Number	Weight lb. (kg)
Without Insulator	Plated Steel	**11076**	0.3 (0.14)
Without Insulator	Stainless Steel	**11078**	0.3 (0.14)
With Insulator	Plated Steel	**11082**	0.5 (0.23)
With Insulator	Stainless Steel	**11084**	0.5 (0.23)





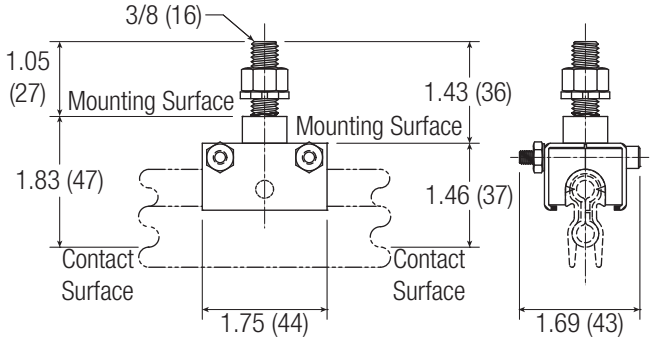
8 Bar Anchor Clamp & Insulator

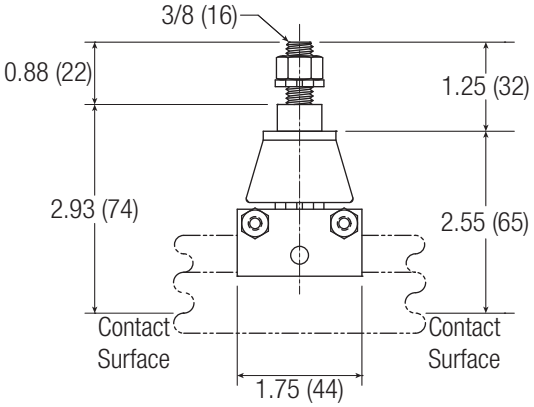
Anchor Clamp

For standard mount, not recommended for curves or lateral mount.

Type	Material	Part Number	Weight lb. (kg)
Without Insulator	Plated Steel	**21833**	0.3 (0.14)
Without Insulator	Stainless Steel	**28123**	0.3 (0.14)
With Insulator	Plated Steel	**21982**	0.5 (0.23)
With Insulator	Stainless Steel	**28124**	0.5 (0.23)





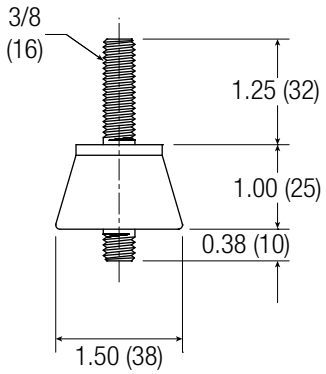


Insulator

Replacement insulators for all hangers and clamps.

Material	Part Number	Weight lb. (kg)
Plated Steel	**11087**	0.1 (0.05)
Stainless Steel	**16424**	0.1 (0.05)

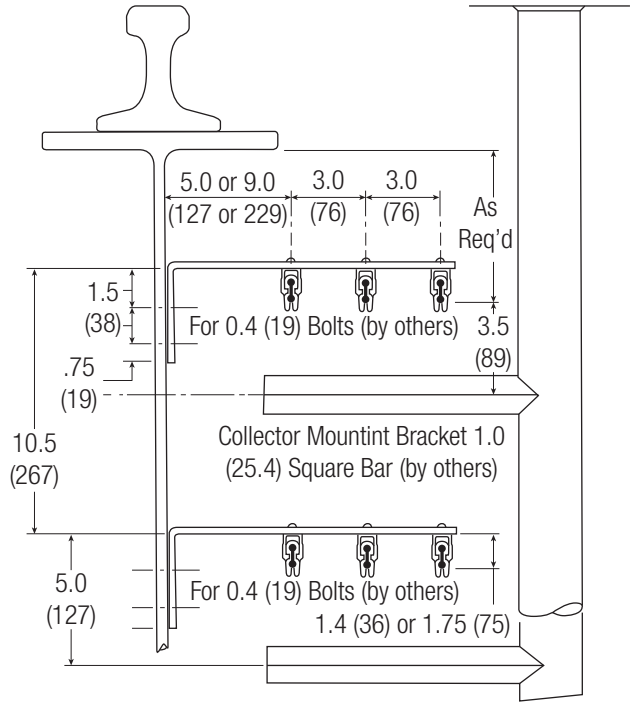




Crane Bridges & Runways

Crane Runway

This represents the total length of the system run.

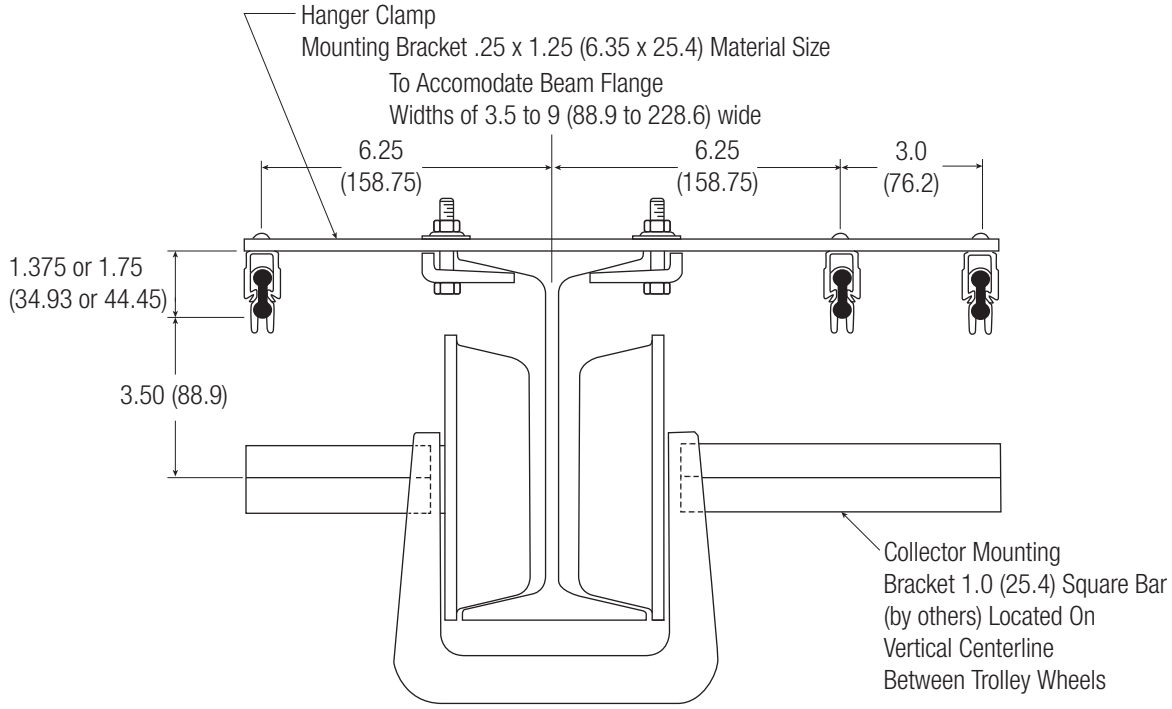


NOTE: 5.0 (127) Web 0.25 x 0.25 (6 x 6) Material Size
9.0 (229) Web 0.4 x 1.25 (10 x 32) Material Size

NOTE: 5.0 (127) Web 0.25 x 0.25 (6 x 6) Material Size
9.0 (229) Web 0.4 x 1.25 (10 x 32) Material Size

Crane Bridge

This represent the distance between the runway beams.



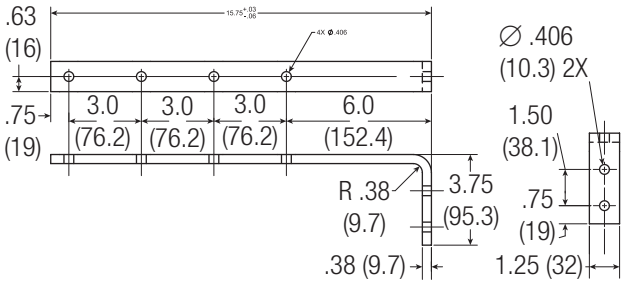
8 Bar Standard Brackets - Without Hangers

Web Bracket

For top running, web-mounted, bottom entry systems. Zinc plated steel. See pages 19-21 for hangers.

Distance to First Hole: In. (mm)	Part Number	Weight lb. (kg)
6.0 (152)	**22014**	2.4 (1.09)
9.0 (229); with three more holes at 12.0 (305), 15 (381), and 18 (457)	**29876**	4.5 (2.04)



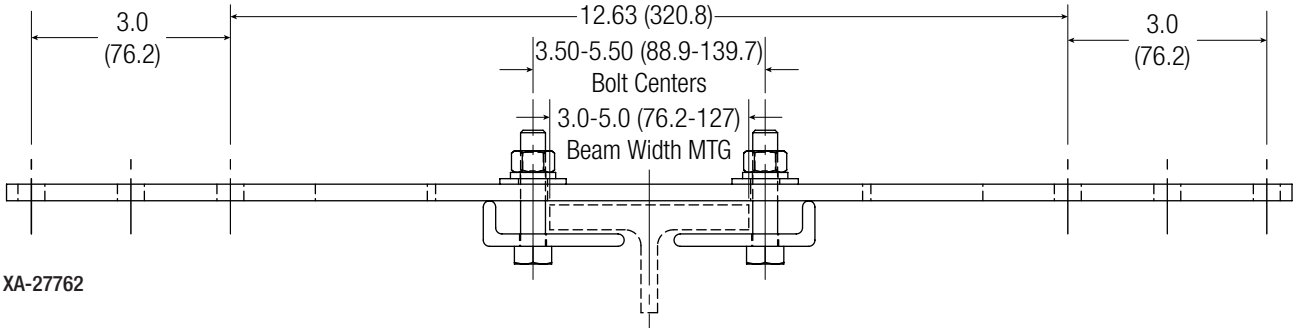


Flange Mount Brackets

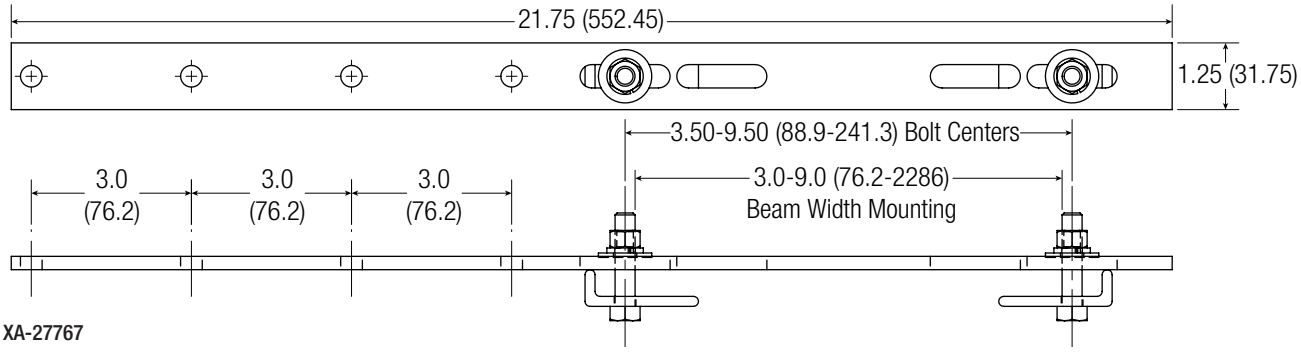
For bottom entry monorail and under-hung systems, flange-mounted. Zinc plated steel. See page 19 for hangers.

Type	Part Number	Weight lb. (kg)
For 2 hangers each side	**27762**	2.5 (1.13)
For 4 hangers on one side	**27767**	2.5 (1.13)





XA-27762



XA-27767

8 Bar Standard Brackets - With Hangers

Brackets with Pre-Assembled Hanger Clamps

The following brackets come with hanger clamps on 3" centers, brackets are zinc plated steel. **Hanger Clamp styles are described on Pages 19-21.**

With Polycarbonate Snap-In Hanger Clamps

	Without Insulators		With Insulators	
Description	**Part Number**	**Weight: lb. (kg)**	**Part Number**	**Weight: lb. (kg)**
Web type 6.0" (152)	**28829**	2.0 (0.91)	**51004**	2.4 (1.09)
Web type 9.0" (229)	**34189**	3.1 (1.40)	**50314**	3.5 (1.59)
Flange type, 2 hangers each side	**51864**	2.6 (1.18)	**51865**	3.1 (1.41)
Flange type, 4 hangers on one side	**51870**	2.6 (1.18)	**51871**	3.1 (1.41)

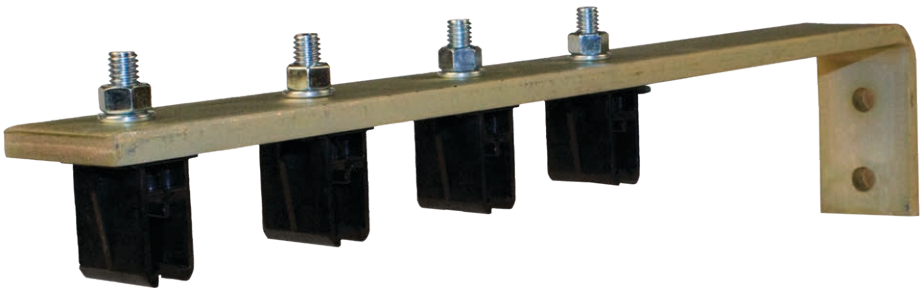
Steel Snap-In Hanger Clamps

	Without Insulators		With Insulators	
Description	**Part Number**	**Weight: lb. (kg)**	**Part Number**	**Weight: lb. (kg)**
Web type 6.0" (152)	**30281**	1.6 (0.73)	**51005**	2.0 (0.91)
Web type 9.0" (229)	**50313**	2.7 (1.23)	**50315**	3.1 (1.41)
Flange type, 2 hangers each side	**51866**	2.1 (0.95)	**51867**	2.5 (1.11)
Flange type, 4 hangers on one side	**51872**	2.1 (0.95)	**51873**	2.5 (1.11)

Cross-Bolt Hanger Clamps

	Without Insulators		With Insulators	
Description	**Part Number**	**Weight: lb. (kg)**	**Part Number**	**Weight: lb. (kg)**
Web type 6.0" (152)	**31762**	2.0 (0.91)	**29534**	2.3 (1.04)
Web type 9.0" (229)	**50312**	3.1 (1.41)	**50316**	3.5 (1.59)
Flange type, 2 hangers each side	**51868**	2.5 (1.11)	**51869**	2.9 (1.32)
Flange type, 4 hangers on one side	**51874**	2.5 (1.11)	**51875**	2.9 (1.32)

Flange Bracket



Web Bracket



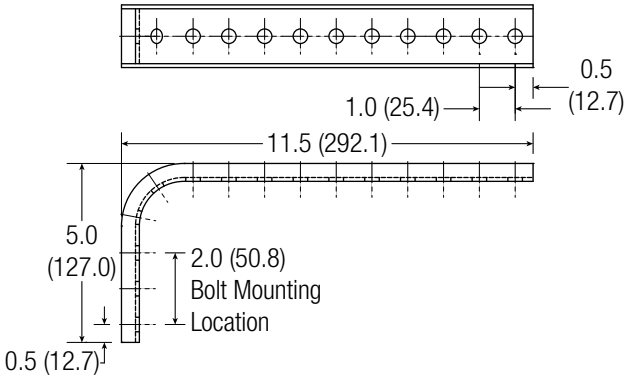
8 Bar Universal Brackets

You can order pre-assembled brackets with your choice of hangers on pages 19-21. Or, if these hanger locations don't work for the application, the "Universal Brackets" shown below should address most special applications. Holes are drilled on 1.0" (25.4) centers.

Type	Length: in. (mm)	Part Number	Weight: lb. (kg)
Web Bracket, Short	11.5 (292.1)	**31409**	1.0 (0.45)
Web Bracket, Long	15.5 (393.7)	**31407**	1.3 (0.59)
Flange Bracket	18.0 (457.2)	**31408**	1.2 (0.54)
Flange Bracket with Beam Clamps	18.0 (457.2)	**31418**	1.6 (0.73)
Flange Bracket with Beam Clamps	24.0 (609.6)	**31911**	2.0 (0.91)

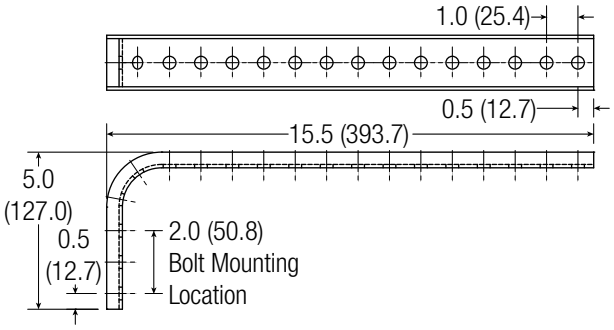
Web Bracket - Short (31409)





Web Bracket - Long (31407)

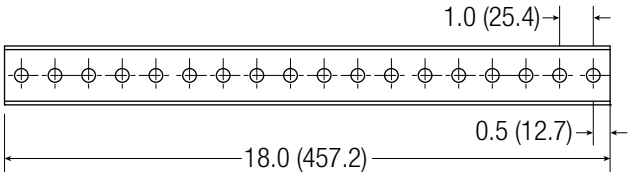




8 Bar Universal Brackets

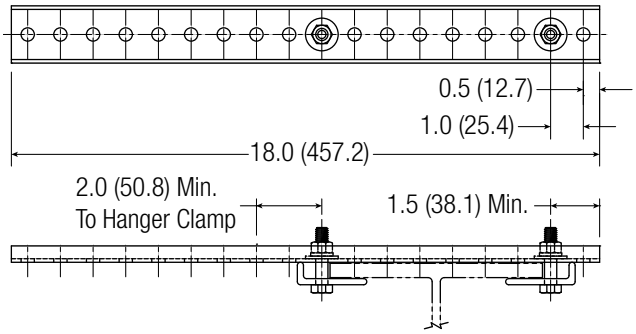
Flange Bracket - (31408)



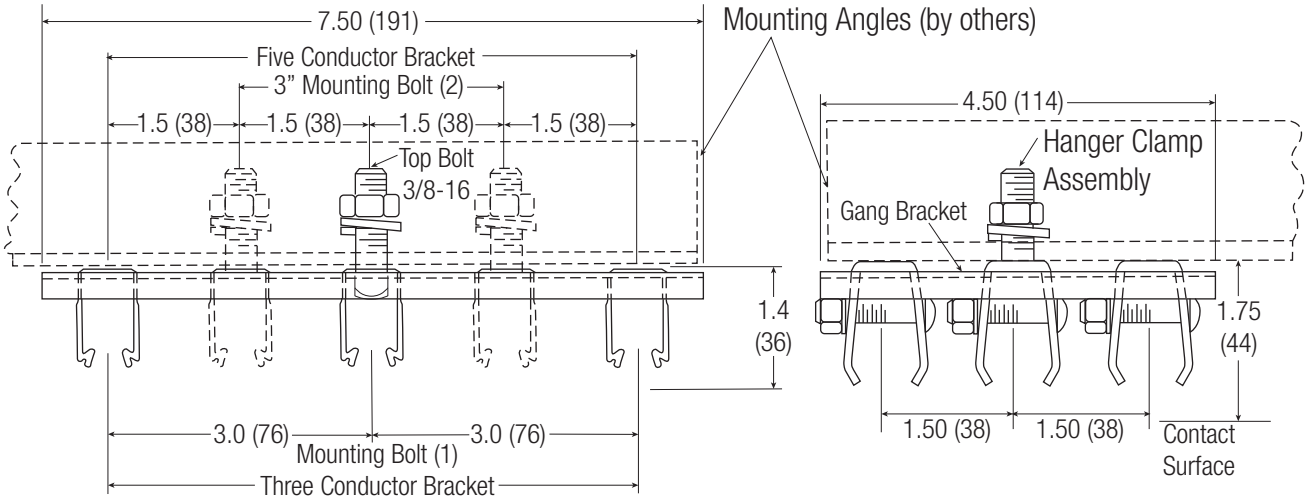


Flange Bracket with Clips - (31418)





Gang Hanger Clamp Bracket



Snap-in Hanger: 22646

Cross-Bolt Hanger: 22649

8 Bar Universal Brackets with Pre-assembled Hangers

Ordering Instructions

1. Choose the part number of the desired bracket from the styles shown below.

2. Referring to the drawings below, choose the hole number locations at which hangers are to be assembled observing the minimum spacing table below.

Recommended Minimum Conductor Bar Spacing

Type	Indoor: In. (mm)	Outdoor: in. (mm)
8 Bar (bottom entry)	2.0 (50.8)	3.0 (76.2)
Side Contact (lateral mount)	3.0 (76.2)	Not for outdoor use

For less than 2.0" (50.8 mm) spacing, consult factory.

3. From pages 19-21, select desired hanger type by part number.

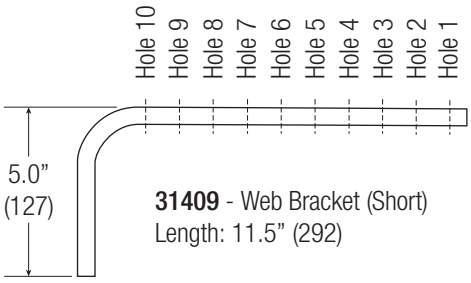
Example: 10 Universal Brackets with four polycarbonate snap-in hangers on each:

Quantity	Part Number: (hole numbers where hangers are to be mounted)	Description
10	31407 (1, 3, 5, 7)	Web Bracket Long (from below)
40	22800	Polycarbonate Snap Hanger (from page 19)

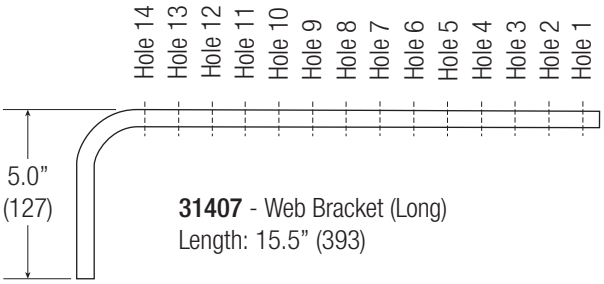
NOTE: When the order is received, a unique part number will be created for the requested bracket and hanger combination.

Bracket Hole Position Numbers

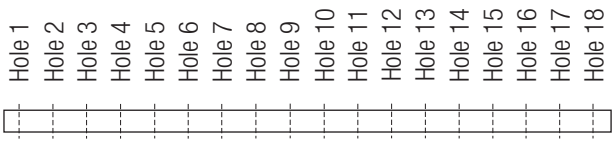
Holes start 0.5" (12.7) from the bracket and are 1.0" (25.4) on-center.



31409 - Web Bracket (Short)
Length: 11.5" (292)



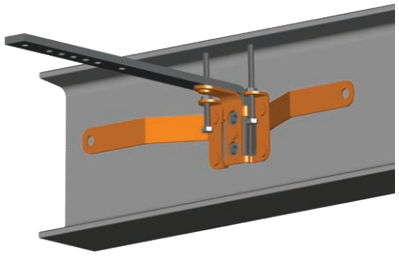
31407 - Web Bracket (Long)
Length: 15.5" (393)



31408 Flange Bracket
31418 Flange Bracket w/clips

Web Bracket Installation Tool

This tool uses six powerful magnets to hold the brackets in the correct location against the web of a steel beam. With the bracket held in place, it is easy to affix the bracket using either self-drilling fasteners or using a welding process. **Compatible with web bracket XA-36197** see page, 29.



Part Number	Compatible with Part Number
XA-Quickbracket	XA-36197

8 Bar Collector Assemblies

Sliding contact Collector Assemblies are offered in either single shoe or tandem shoe configurations. Current capacities range from 30 Amp to 200 Amp depending on the model. The shoes are supported by insulated holders on articulation, spring-loaded collector arms. C-Base collector arms are made from Stainless Steel, H-Base collector arms are cast aluminum. Both types have upgraded riveting for longer life, keeping the wear on the collector assembly is confined to easily replaceable contact shoes.

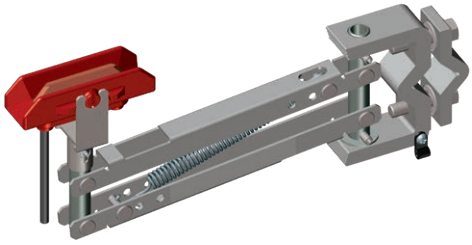
30 Amp and 60 Amp J-Head, C-Base Type

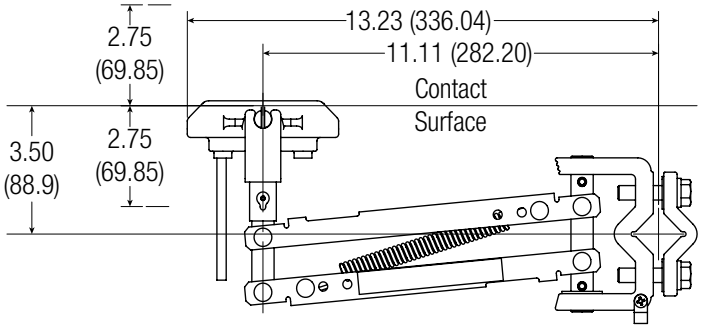
For systems up to 600 volts with straight runs and curves to 18" (457.2) minimum radius. Assemblies have 19" (482.6) pigtails (not shown in illustration). Choose standard bottom entry or lateral-mount versions.

Replacement shoe for these collectors is Part Number: 13136, see page 34.

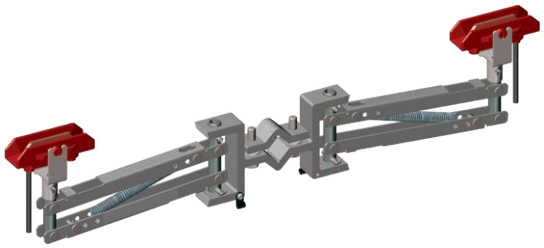
Type	Mounting	Capacity	Part Number	Weight: lb. (kg)
Single	Bottom Entry	30 Amp	**XA-8BC-30S-19-JC**	2.5 (1.13)
Tandem	Bottom Entry	60 Amp	**XA-8BC-60T-19-JT**	4.7 (2.13)
Single	Lateral Mount	30 Amp	**XA-8BC-30S-19-JC-A**	2.5 (1.13)
Tandem	Lateral Mount	60 Amp	**XA-8BC-60T-19-JT-A**	4.7 (2.13)

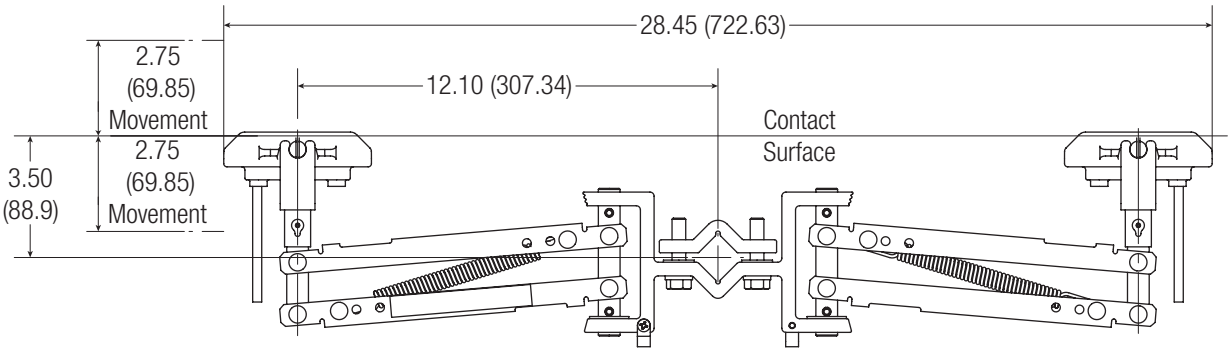
XA-8BC-30S-19-JC





XA-8BC-60T-19-JT





8 Bar Collector Assemblies

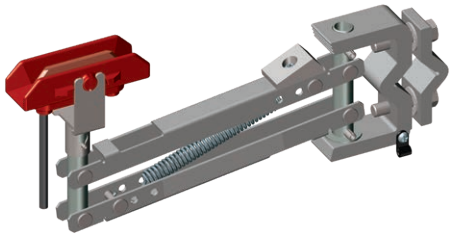
30 Amp and 60 Amp Self-Centering J-Head, C-Base Type

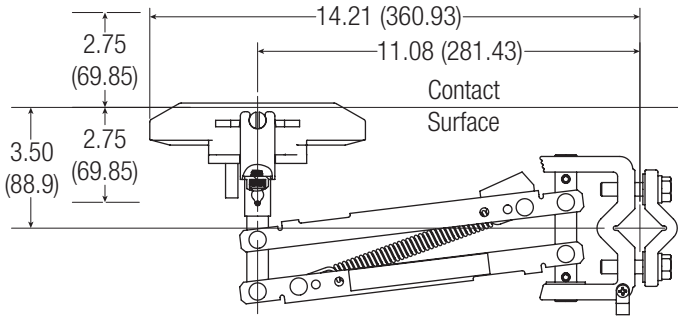
The “Self-Centering” versions below are used with Pick-up Guides, see page 18. These are for bottom entry mounting and have 19” pigtails (not shown in illustration).

Replacement shoe for these collectors are Part Number: 13136, see page 34.

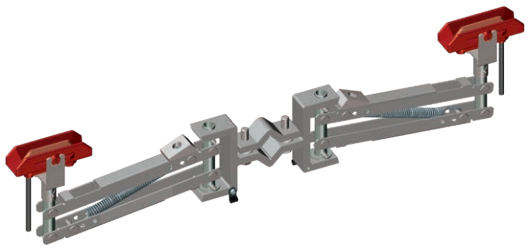
Type	Capacity	Part Number	Weight: lb. (kg)
Self-Centering Single	30 Amp	**XA-8BC-30S-19-JC-E**	2.6 (1.18)
Self-Centering Tandem	60 Amp	**XA-8BC-60T-19-JT-E**	**4.9 (2.22)**

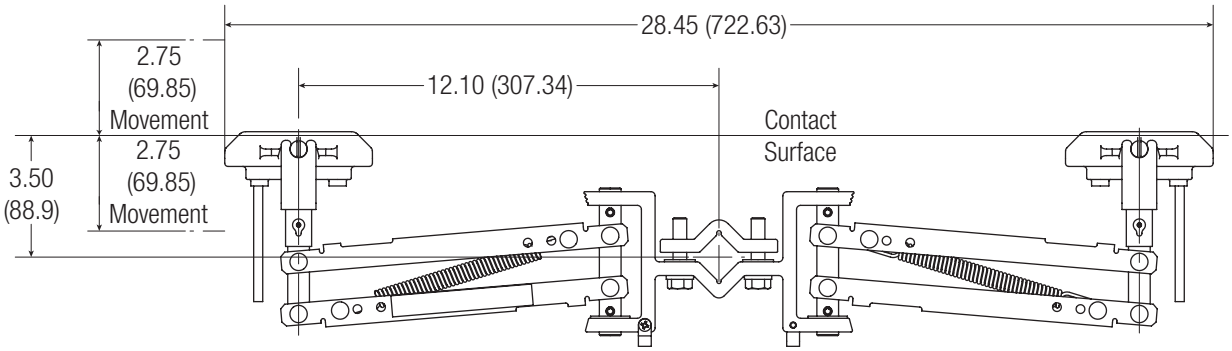
XA-8BC-30S-19-JC-E





XA-8BC-60T-19-JT-E





8 Bar Collector Assemblies

30 Amp j-Head, H-Base Type

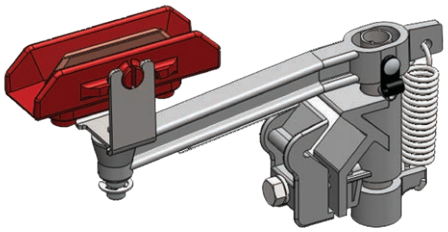
For systems up to 600 volts with straight runs and curves to 18" (457.2) minimum radius. Assemblies have 15" (381) pigtails (not shown in illustration). Choose standard bottom entry or lateral mount versions.

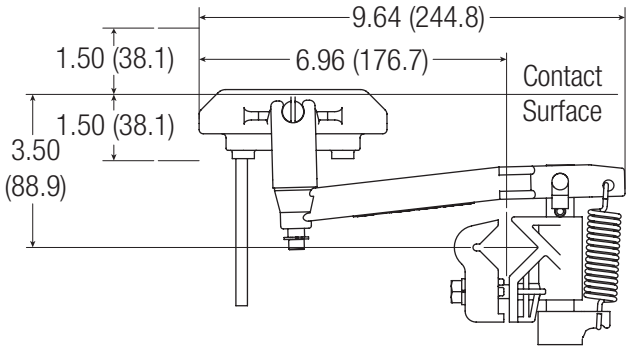
The "Self-Centering" version is used with Pick-up Guides, see page 18.

Replacement shoe for these collectors is Part Number: 13136 see page 34.

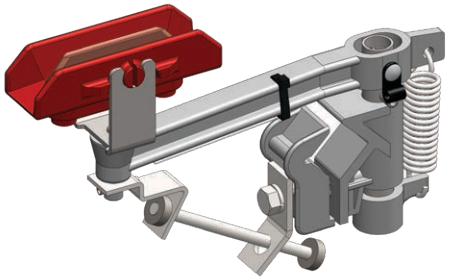
Type	Capacity	Part Number	Weight: lb. (kg)
Single	30 Amp	**13131**	1.4 (0.64)
Self-Centering Single	30 Amp	**13132**	1.7 (0.77)
Lateral-Mount Single	30 Amp	**13133**	1.4 (0.64)

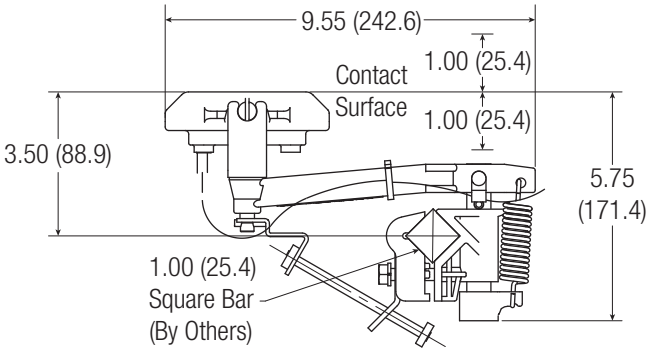
Part Number: 13131





Part Number: 13132





8 Bar Collector Assemblies

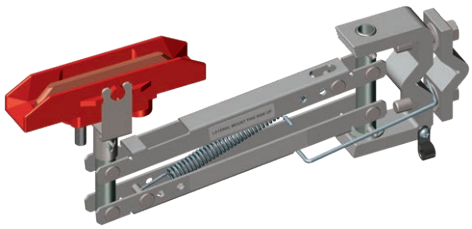
100 Amp and 200 Amp J-Head, C-Base Type

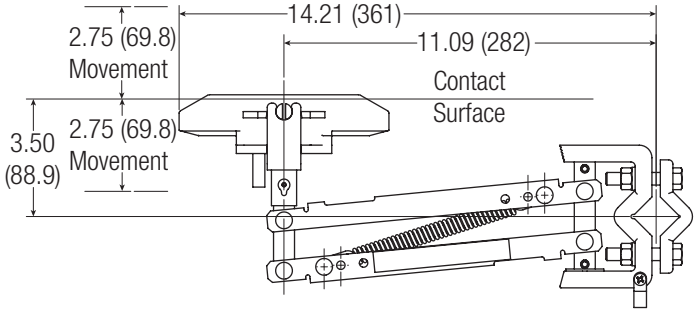
For straight system runs of 600V or less. Assemblies have 21" pigtails (not shown in illustration). Choose standard "bottom entry" or lateral-mount versions.

Replacement shoe for these collectors is Part Number: 11157, see page 34.

Type	Mounting	Capacity	Part Number	Weight: lb. (kg)
Single	Bottom Entry	100 Amp	**XA-8BC-100S-21-JC**	3.1 (1.41)
Tandem	Bottom Entry	200 Amp	**XA-8BC-200T-21-JT**	5.8 (6.23)
Single	Lateral Mount	100 Amp	**XA-8BC-100S-21-JC-A**	3.1 (1.41)
Tandem	Lateral Mount	200 Amp	**XA-8BC-200T-21-JT-A**	5.8 (6.23)

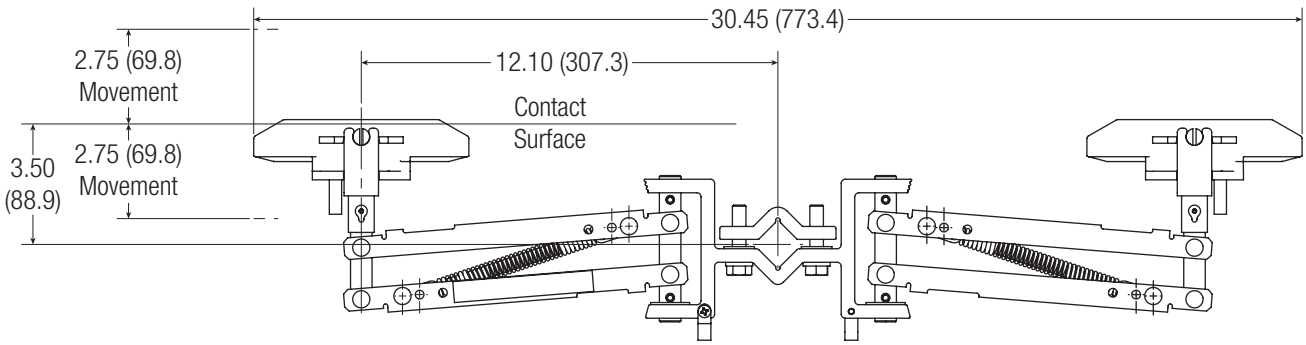
XA-8BC-100S-21-JC





XA-8BC-200T-21-JT





8 Bar Collector Assemblies

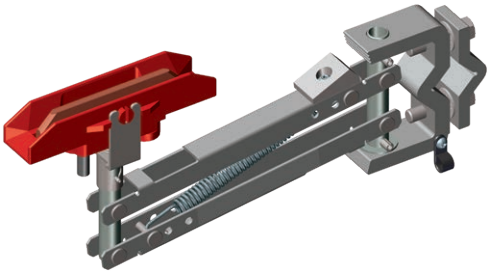
100 Amp and 200 Amp Self-Centering J-Head, C-Base Type Self-Centering

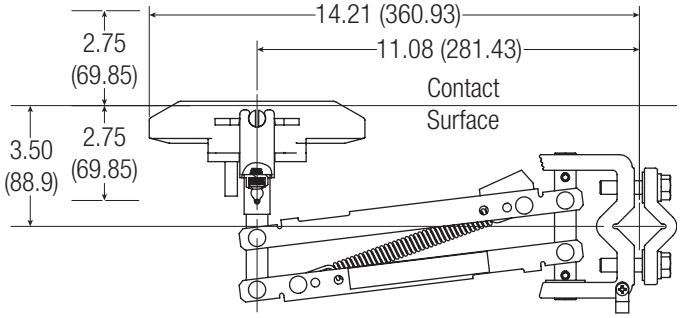
The “Self-Centering” versions are used with Pick-up Guides - See page 18. For straight system runs of 600V or less. These are for bottom entry mounting and have 21” pigtails (not shown in the illustration).

Replacement shoe for these collectors are Part Number: 11157, see page 34.

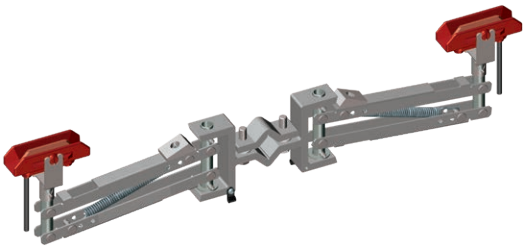
Type	Capacity	Part Number	Weight: lb. (kg)
Self-Centering Single	100 Amp	**XA-8BC-100S-21-JC-E**	3.2 (1.45)
Self-Centering Tandem	200 Amp	**XA-8BC-200T-21-JT-E**	6.0 (2.72)

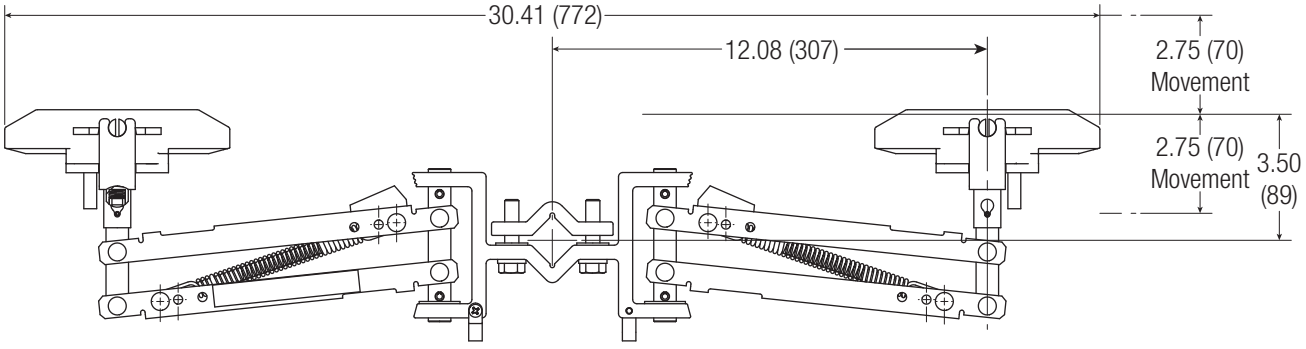
XA-8BC-100S-21-JC-E





XA-8BC-200T-21-JT-E





8 Bar Collector Assemblies

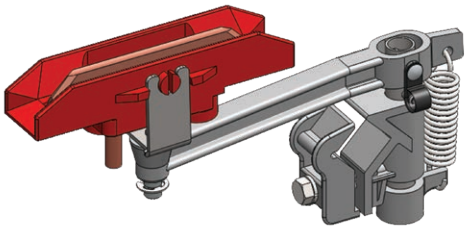
100 Amp J-Head, H-Base Type

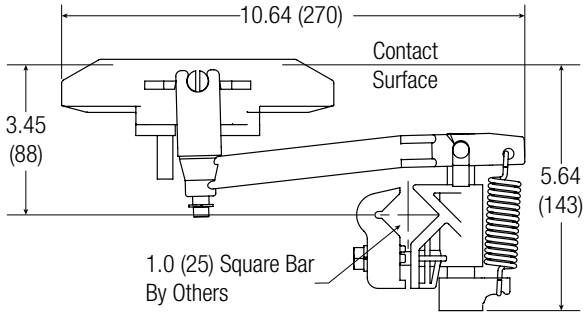
For stright system runs of 600 Volts or less, and curves to a minimum of 48" radius. Assemblies have 21" tails (not shown in the illustration). Choose standard bottom entry or lateral-mount versions. The "Self-Centering" version is used with Pick-up Guides - See page 18 - and are for bottom-entry mounting.

Replacement shoe for these collectors are Part Number: 11157, see page 34.

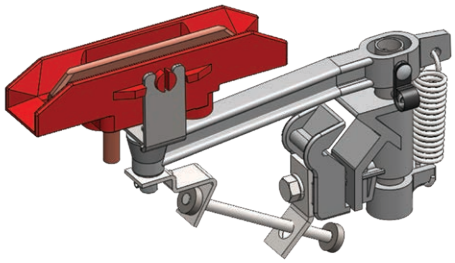
Type	Capacity	Part Number	Weight: lb. (kg)
Single	100 Amp	**13629**	1.4 (0.65)
Self-Centering Single	100 Amp	**13630**	1.7 (0.77)
Lateral-Mount Single	100 Amp	**13631**	1.4 (0.65)

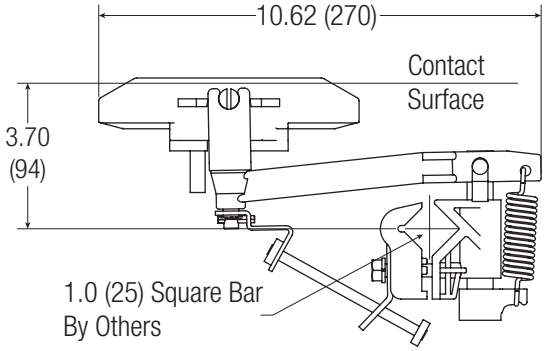
13629 - Single & 13631 - Lateral Mount - Single





13630 - Self-Centering

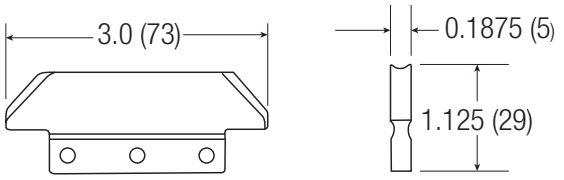




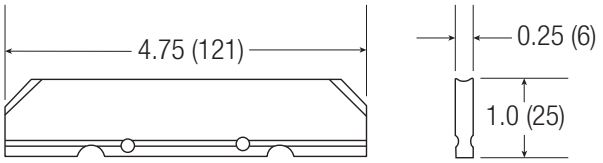
8 Bar Shoes, Curves and Slip Rings

Replacement Collector Shoes

Standard shoe material is copper graphite. The optional cast iron shoe is to be used temporarily to clean the bar. “Insuloy” has self-cleaning properties, but will cause more wear on the bar versus the copper graphite.



30 Amps - Contoured Shoe: 18.0 (457) Minimum Radius



100 Amps - Contoured Shoe: 48.0 (1219) Minimum Radius

Capacity	Material	Application	Part Number	Weight: lb (kg)
30Amp	Copper Graphite	Standard	**13136**	0.12 (0.05)
30Amp	Cast Iron	Cleaning Shoe	**13138**	0.12 (0.05)
30Amp	Insuloy	Self-Cleaning	**19678**	0.12 (0.05)
60Amp	Copper Graphite	Standard	**11154**	0.13 (0.06)
100Amp	Copper Graphite	Standard	**11157**	0.23 (0.10)
100Amp	Cast Iron	Cleaning Shoe	**11159**	0.25 (0.11)
100Amp	Insuloy	Self-Cleaning	**19347**	0.23 (0.10)

Curved Bar

Factory curved conductors. Refer to page 35 to specify your curve requirements. Contact factory for assistance. Maximum length: 10 feet (3.05 meters).
Minimum bend radius: PVC - 18.0” (457mm); Lexan Medium Heat or Polyester High Heat - 57” (1447mm)

		Part Number		
Conductor Bar	**Current Capacity**	**PVC Cover**	**Lexan Cover**	**Polyester Cover**
Galvanized Steel	110 Amp	**11003**	**11022**	**11041**
Stainless Clad Copper Laminate	250 Amp	**11007**	**11026**	**11045**
Copper Steel Laminate	250 Amp	**11011**	**11030**	**11049**
Rolled Copper	350 Amp	**11015**	**11034**	**11053**

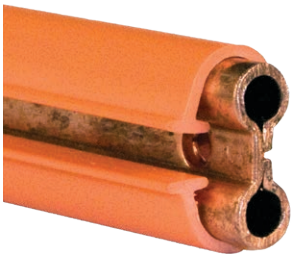
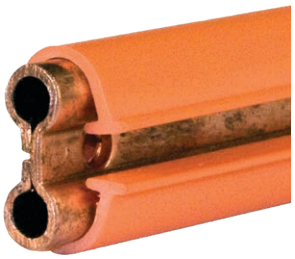
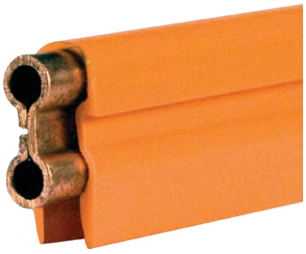
Slip Rings

Factory manufactured curved segments for slip ring use. Contact factory for assistance.

				Part Number	
Conductor Bar	**Current Capacity**	**Ring Radius Range: in. (mm)**	**Pieces**	**PVC Cover**	**Lexan Cover**
Galvanized Steel	110 Amp	18-35 (457-889)	2-180°	**23626**	**n/a**
Stainless Clad Copper Laminate	250 Amp	18-35 (457-889)	2-180°	**23627**	**n/a**
Copper Steel Laminate	250 Amp	18-35 (457-889)	2-180°	**23628**	**n/a**
Rolled Copper	350 Amp	18-35 (457-889)	2-180°	**23629**	**n/a**
Galvanized Steel	110 Amp	35-54 (892-1371)	3-120°	**23630**	**n/a**
Stainless Clad Copper Laminate	250 Amp	35-54 (892-1371)	3-120°	**23631**	**n/a**
Copper Steel Laminate	250 Amp	35-54 (892-1371)	3-120°	**23632**	**n/a**
Rolled Copper	350 Amp	35-54 (892-1371)	3-120°	**23633**	**n/a**
Galvanized Steel	110 Amp	54-72 (1374-1828)	4-90°	**23634**	**23638**
Stainless Clad Copper Laminate	250 Amp	54-72 (1374-1828)	4-90°	**23635**	**23639**
Copper Steel Laminate	250 Amp	54-72 (1374-1828)	4-90°	**23636**	**23640**
Rolled Copper	350 Amp	54-72 (1374-1828)	4-90°	**23637**	**23641**

8 Bar Curves & Slip Ring Specification Data

This worksheet is designed to help you choose the correct curved section for your application. Contact factory for assistance.

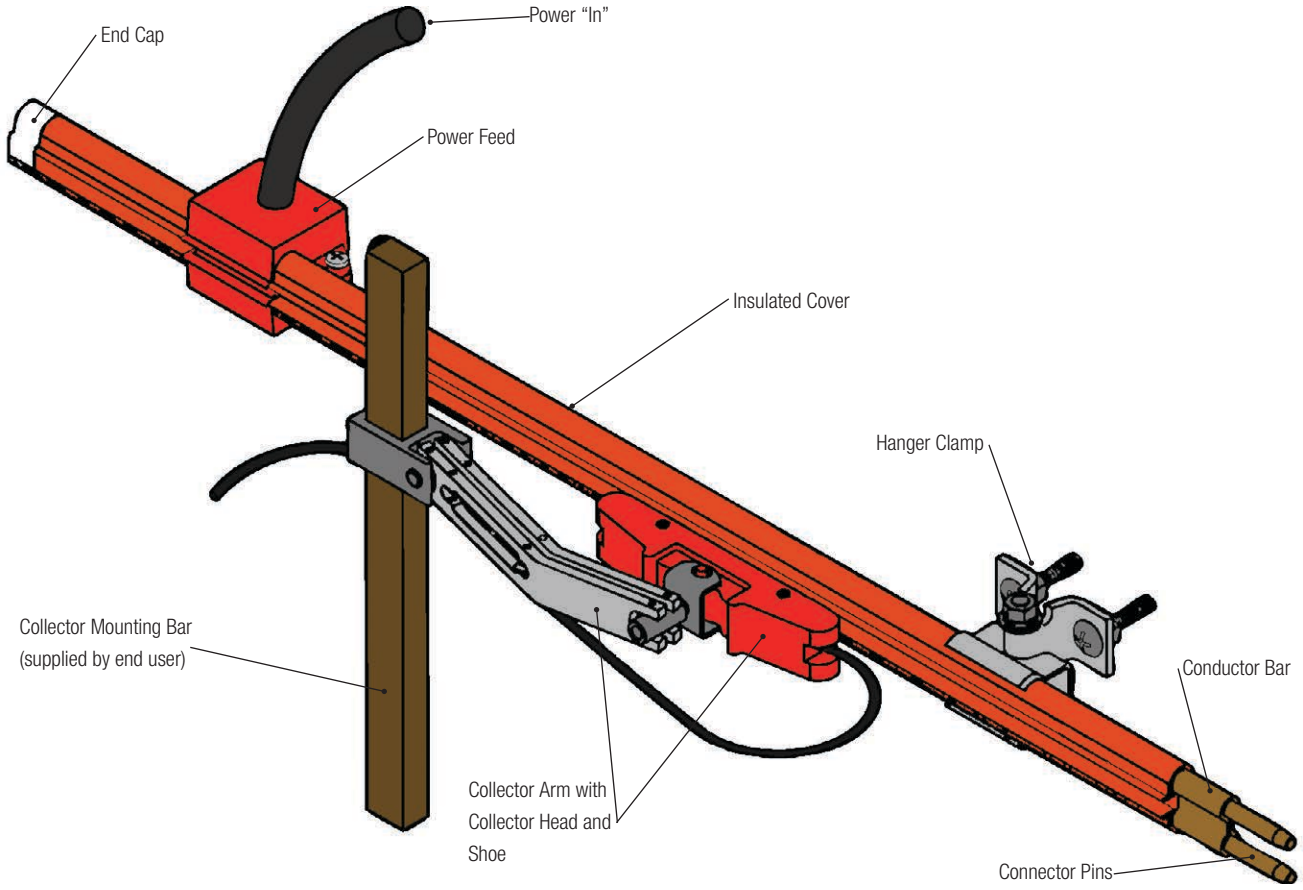
Customer:			
Project Number:		**Item Number:**	**Date:**
1. Bar type, Rating (Amps/Volts):			
2. Environment / Ambient Temp:			
3. Fill in			
Angle of curve:			
Left tangent: 6” (152mm) standard:			
Right tangent: 6” (152mm) standard:			
Radius to contact surface: see page 34 for minimum bend radius			
4. Select style of bar:			
	◯ **Outside Contact**	◯ **Inside Contact**	◯ **Bottom Contact**
5. For systems with parallel curves, sketch layout below and indicate the radius, angle and tangent for each.			

Insul-8® Side Contact Design Features

Conductix-Wampfler Side Contact Conductor Bar is a variation of the 8 Bar system designed for lateral (side) entry of the collector. UL/CSA listed.

Side Contact is Ideal When

- **There is insufficient room for standard "bottom entry" mounting**
- **Conductors must be closely spaced than standard 8 Bar allows**



Component Descriptions

Conductor Bar: The supply of incoming power

Power Feed: Attachment of incoming power

Collector: Collects the incoming power and transfers it to the moving machine

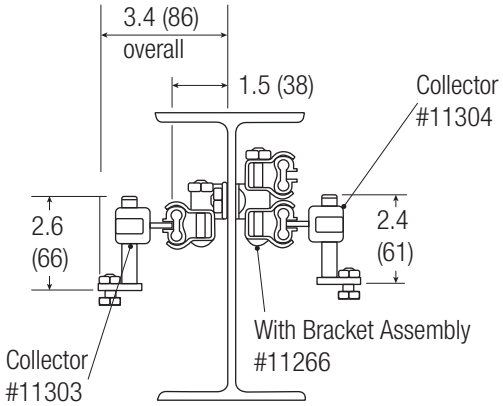
Hangers: Supports the conductor bar, may also be used as an anchor to direct movement due to expansion and contraction

End Cover: Safety protection at the end of conductor bar system

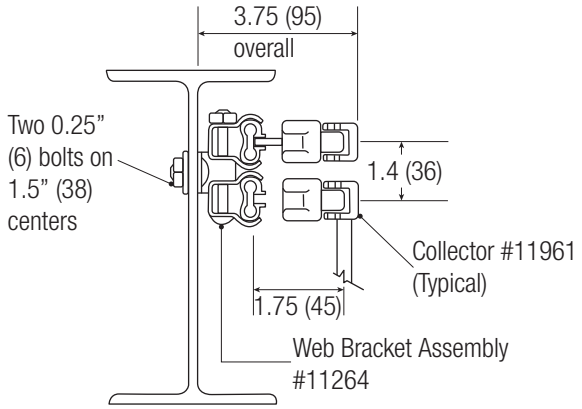
Typical Side Contact Mounting Arrangements

Shown below are some typical mounting arrangements for Side Contact. Trolleys on which collectors are mounted must be stabilized, particularly in systems involving discontinuous circuits. One acceptable way is to use guide rollers on the end for the track flange.

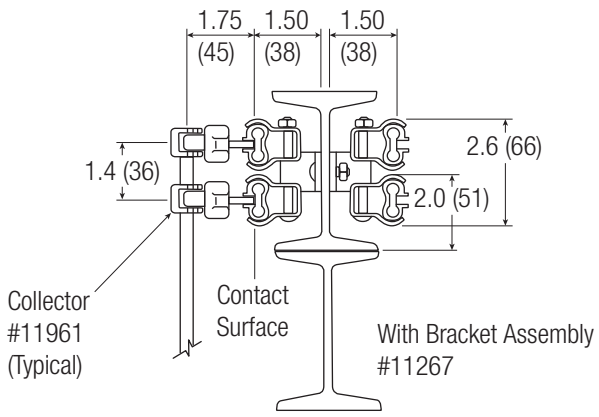
One Conductor Left and Two Right



Two Conductors on the Right



Two Conductor on the Right, Two on the Left



Side Contact Conductor Bar, Components

Side Contact Conductor Bar comes with cover and connector pins installed. Joint Keepers are required when ordering copper or laminated bar. Bars are available in 40A, 90A, 110A, 250A, and 350A capacities @ 600 volts maximum. Expansion Sections listed below are required every 350 feet (106.7) for 40A, 90A, and 110A systems or 250 feet (76.2m) for 250A and 350A systems to compensate for thermal expansion. Power Feeds bring outside power to the conductor bar.

Factory installed covers are available in:

- **Rigid PVC:** -10°F to 160°F (-23.3°C to 71.1°C)
- **Medium Heat:** -25°F to 250°F (-31.7°C to 121.1°C)

Stainless Steel, 40 amp



Item	Rigid PVC Cover *		Medium Heat Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**24273**	7.0 (3.18)	**24298**	6.6 (2.99)
Conductor Bar 5' (1.52 m)	**24274**	3.5 (1.59)	**24299**	3.3 (1.50)
Expansion Section 10' (3.05 m)	**24277**	10.0 (4.57)	**24302**	10.3 (4.67)
Power Feed	**11289**	0.34 (0.15)	**11289**	0.34 (0.15)
End Cover	**11295**	0.03 (0.01)	**11295**	0.03 (0.01)

Galvanized Steel, 90A



Item	Rigid PVC Cover *		Medium Heat Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**24275**	4.5 (2.04)	**24300**	4.5 (2.04)
Conductor Bar 5' (1.52 m)	**24276**	3.5 (1.59)	**24301**	3.3 (1.59)
Expansion Section 10' (3.05 m)	**24278**	6.7 (3.04)	**24303**	6.7 (3.04)
Power Feed	**11289**	0.34 (0.15)	**11289**	0.34 (0.15)
End Cover	**24424**	0.03 (0.01)	**24424**	0.03 (0.01)

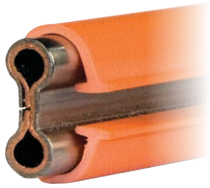
Galvanized Steel, 110 amp



Item	Rigid PVC Cover *		Medium Heat Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11223**	7.0 (3.18)	**11239**	6.6 (2.99)
Conductor Bar 5' (1.52 m)	**11224**	3.5 (1.59)	**11240**	3.3 (1.50)
Expansion Section 10' (3.05 m)	**11255**	10.0 (4.57)	**11259**	10.3 (4.67)
Power Feed	**11289**	0.34 (0.15)	**11289**	0.4 (0.15)
End Cover	**11295**	0.03 (0.0)	**11295**	0.03 (0.01)

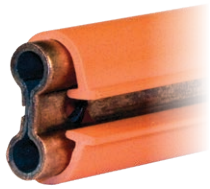
Side Contact Conductor Bar, Components

Stainless Clad Copper 250A



Item	Rigid PVC Cover *		Medium Heat Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11227**	7.0 (3.18)	**11243**	6.6 (2.99)
Conductor Bar 5' (1.52 m)	**11228**	3.5 (1.59)	**11244**	3.3 (1.50)
Expansion Section 10' (3.05 m)	**11256**	11.0 (5.00)	**11260**	10.3 (4.67)
Power Feed	**11289**	0.34 (0.15)	**11289**	0.34 (0.15)
End Cover	**11295**	0.03 (0.01)	**11295**	0.03 (0.01)

Copper Steel Laminate 250A



Item	Rigid PVC Cover *		Medium Heat Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11231**	7.0 (3.18)	**11247**	6.6 (2.99)
Conductor Bar 5' (1.52 m)	**11232**	3.5 (1.59)	**11248**	3.3 (1.50)
Expansion Section 10' (3.05 m)	**11257**	11.0 (4.99)	**11261**	10.3 (4.67)
Power Feed	**11289**	034 (0.15)	**11289**	0.34 (0.15)
End Cover	**11295**	0.03 (0.01)	**11295**	0.03 (0.01)

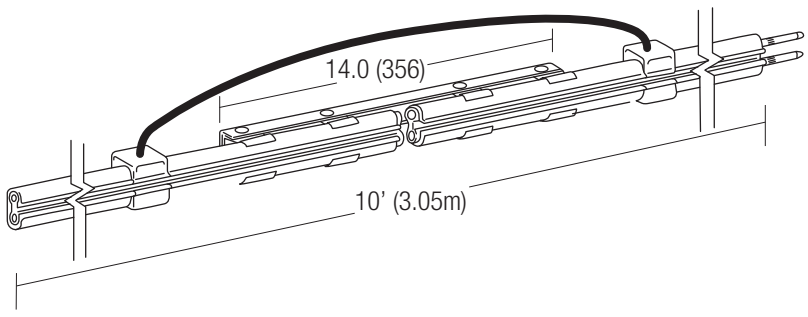
Electrolytic Copper 350A



Item	Rigid PVC Cover *		Medium Heat Cover	
	Part Number	Weight lb. (kg)	Part Number	Weight lb. (kg)
Conductor Bar 10' (3.05 m)	**11235**	7.0 (3.18)	**11251**	6.6 (2.99)
Conductor Bar 5' (1.52 m)	**11236**	3.5 (1.59)	**11252**	3.3 (1.50)
Expansion Section 10' (3.05 m)	**11258**	11.0 (4.99)	**11262**	10.3 (4.67)
Power Feed	**11289**	0.4 (0.12)	**11289**	0.4 (0.12)
End Cover	**11295**	0.03 (0.01)	**11295**	0.03 (0.01)

Expansion Section

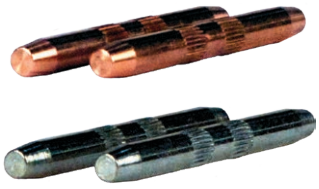
Expansion Sections compensate for the thermal expansion that occurs from a combination of ambient heat and electrical heat. Power feeds and flexible jumpers are factory installed to meet electrical and mechanical requirements of each system. Part numbers are located in the conductor tables - see pages 38 & 39



Side Contact Connectors & Covers

Connector Pins

Used to join conductor bar together.

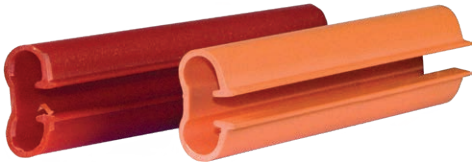


Description	Part Number	Weight: lb (kg)
Galvanized Steel for 110 Amp	**11120**	0.8 (0.36)
Copper for 250 and 350 Amp	**11121**	0.8 (0.36)
Galvanized Steel for 90 Amp	**21914**	0.8 (0.36)
Stainless Steel for 40 Amp	**24196**	0.8 (0.36)

Insulating Cover

Replacement part in th event the original supplied cover becomes damaged or cracked.

Available in PVC or Lexan cover. The cover is designed for indoor use.



Description	Part Number	Length: ft (m)	Weight: lb (kg)
Rigid PVC to 160°F	**34579**	10.0 (3.05)	1.5 (6.80)
Medium Heat to 250°F	**11294**	10.0 (3.05)	1.5 (6.80)

End Cover

Used to close the end of the conductors to cover exposed conductor and avoid accidental contact. Also used as a transfer cap for switch applications.

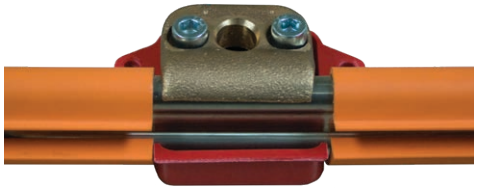


Description	Part Number	Weight: lb (kg)
For 40, 110, 250 and 350 Amp	**11295**	0.03 (0.01)
For 90 Amp	**24424**	0.03 (0.01)

Side Contact Power Feed & Pick-up Guide

Power Feed

Fully insulated clamp is easily installed anywhere on the system for feeding power to the conductor bar.



Shown with only half cover

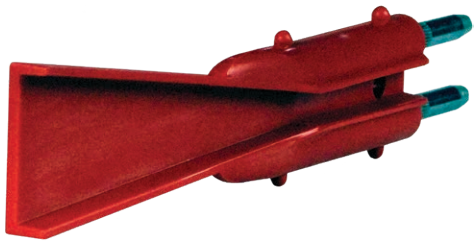
Description	Part Number	Weight: lb (kg)
Complete assembly, Clamp & Case	**11289**	0.34 (0.15)
Power feed case with hardware	**11290**	0.20 (0.09)
Clamp Assembly	**11291**	0.10 (0.05)

Pick-up Guides

Used at the end of conductors to guide collectors that completely leave the conductors (Discontinuous Systems) then re-engage.

Requires use of self-centering collectors, see page 39-40.

NOT TO BE USED FOR SWITCH APPLICATIONS



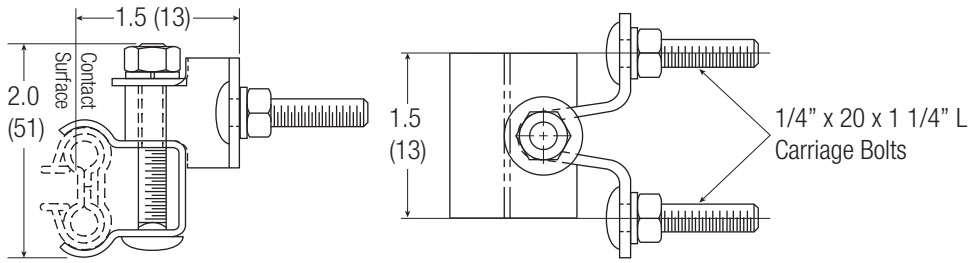
Description	Part Number	Weight: lb (kg)
For all systems (except 90 Amp)	**11292**	1.25 (0.57)

Side Contact Hanger Brackets & Clamps

Provides a simple method for installing Side Contact Conductors on conveyors, monorails, bridges, crane runways and switches. These supports secure and separate the insulated conductors uniformly with a minimal amount of installation time. Hanger clamps are all stainless steel with 1/4" zinc plated hardware.

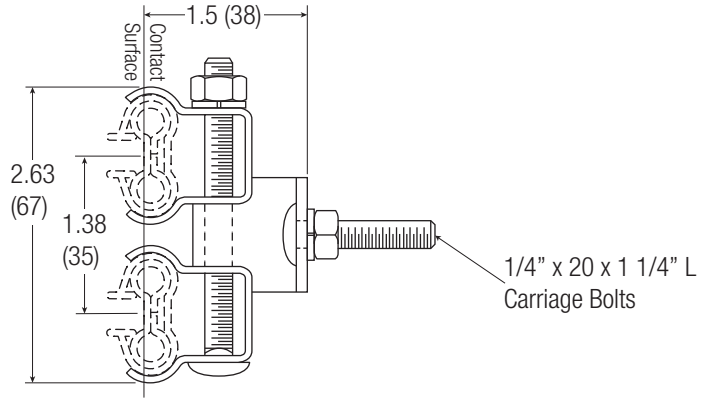
Contact factory is you configurations not shown.

Single Bar, One Side of Beam



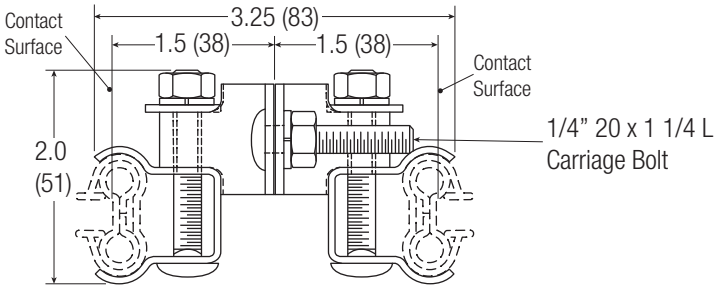
For	Part Number.
One bar, one side of beam	**11263**

Two Bars, One Side of Beam



For	Part Number.
Two bars, one side of beam	**11264**

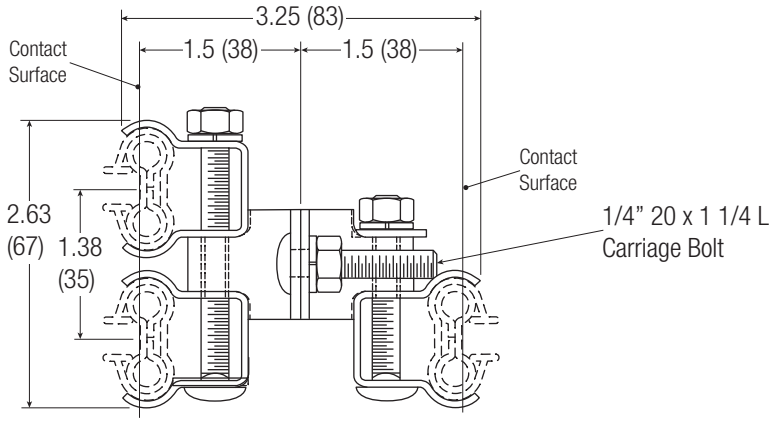
One Bar, Each Side of Beam



For	Part Number.
One Bar, each side of beam	**11265**

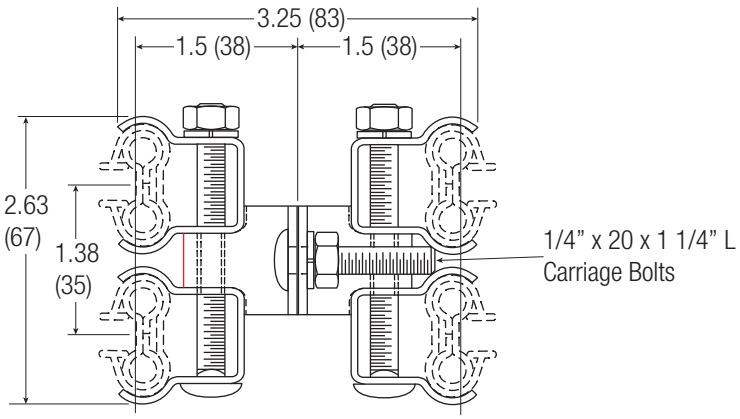
Side Contact Hanger Brackets & Clamps

Two Bars One Side of Beam, One on The Other Side



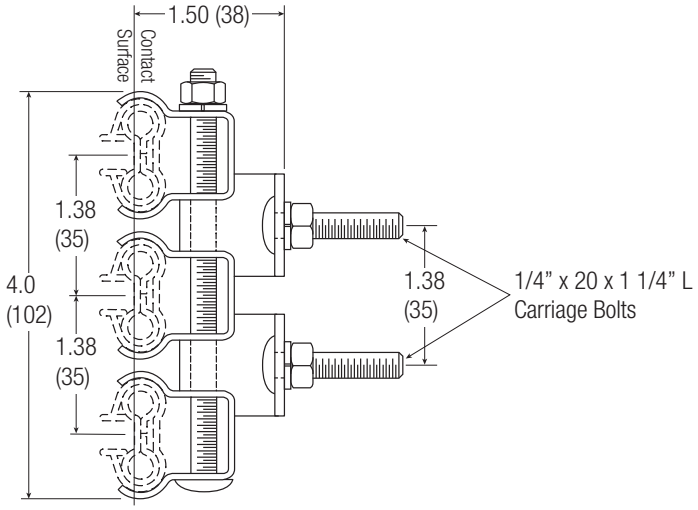
For	Part Number.
Two Bars One Side of Beam, One on The Other Side	**11266**

Two Bars, On Each Side of Beam



For	Part Number.
Two Bars On Each Side of Beam	**11267**

Three Bars, On Each Side of Beam



For	Part Number.
Three Bars On Each Side of Beam	**31844**

Side Contact Hangers & Collectors

Single Conductor Hangers

Standard hanger spacing should be every 4 feet for straight runs or every 3 feet for curves.



Description	Part Number
Stainless Steel hanger with 1/4" zinc plated hardware	**27927**
Stainless Steel hanger with 1/4" stainless steel hardware	**27926**
Stainless Steel hanger with insulator and 1/4" stainless steel hardware	**17690**

Side Contact Collectors

Side Contact Collectors are available in numerous configurations to match the application. Note that collectors should not be used as power switching devices. The resultant arcing may cause rapid deterioration of both contact shoes and conductor bars. Ampere capacity of conductor bars, power feeds, jumpers, etc. should be greater than or equal to that of the system. Contact factory for systems using tandem mounted collectors and special requirements. For mechanically discontinuous systems only collectors designed as "self-centering" should be used. Contact shoe pressure: Between 4 and 6 pounds (1.81 kg to 2.72 kg) for all collector styles.

M-Head, L-Base Type, 40 Amp

For conveyor, monorail systems, and crane bridges. Operates through curves at a minimum radius of 9.0 (228).

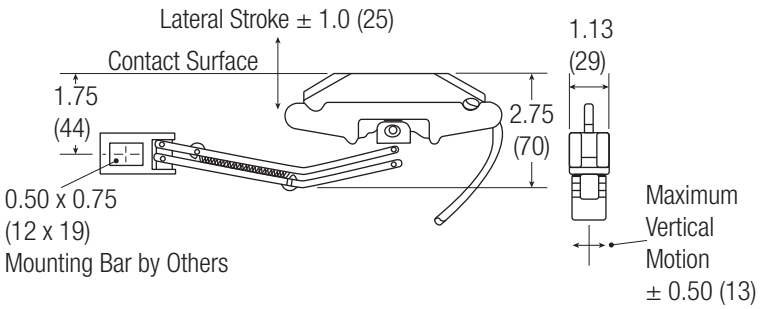
Standard pigtail length: 15.0 (381)



11961



12295



Description	Part Number
Standard Collector, for continuous systems	**11961**
Self Centering Collector, for discontinuous systems that are equipped with pickup guide 11292	**12295**

M-Head, L-Base Type, 80 Amp

For conveyor, monorail systems, and crane bridges. Operates through curves at a minimum radius of 9.0 (228). Includes an additional pigtail for extra current capacity.

Standard pigtail length: 15.0 (381)



11517

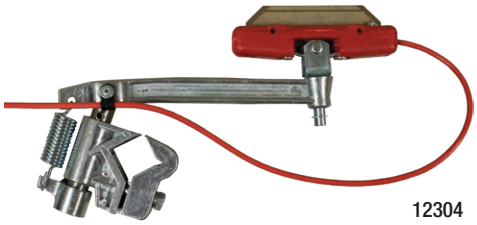
Description	Part Number
Standard Collector, for continuous systems	**11517**
Self Centering Collector, for discontinuous systems that are equipped with pickup guide 11292	**11518**

Side Contact Collectors

M-Head, H-Base Type, 40 Amp

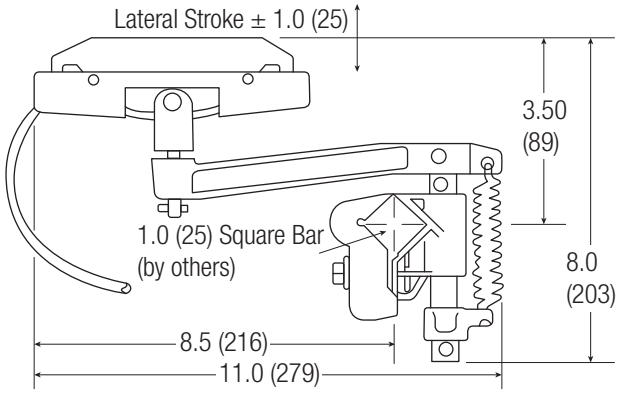
This rugged collector provides a long stroke for continuous systems where clearance is not restricted.

Standard pigtail length: 15.0 (381)



12304

Maximum Vertical Motion ± 2.0 (51)
1.13 (29) Maximum Width



Description	Part Number
Standard Collector, for continuous systems	**11517**
Self Centering Collector, for discontinuous systems that are equipped with pickup guide 11292	**11518**

M-Head, L-Base Type, 80 Amp

Continuous systems that require 80 Amp capacity. Operates through curves to minimum radii of 24.0 (610). Has tandem collectors.

Standard pigtail length: 15.0 (381)



Description	Part Number
Standard Collector	**11955**
Self Centering tandem. For discontinued systems that require 80 Amp capacity.	**11954**

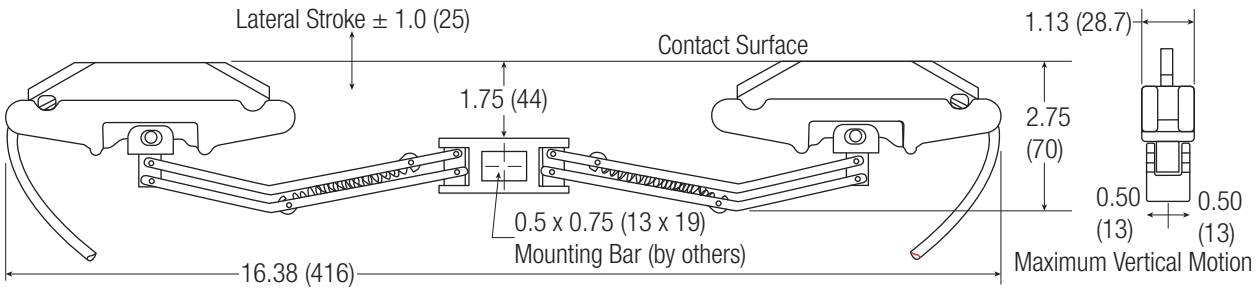
M-Head, L-Base Type, 160 Amp

For systems that require 160 Amp capacity. Operates through curves for minimum radii of 24.0 (610). Has tandem collectors and additional pigtails for added current capacity.

Standard pigtail length: 15.0 (381)



Description	Part Number
Standard Collector	**11519**
Self Centering tandem. For discontinued systems equiped with pickup guide 11292 that require 160 Amp capacity.	**15046**



Side Contact Collector Parts, Slip Rings & Curves

Side Contact Collector Parts

Description	Part Number
Case only, for M-Head, H-Base Collectors	**11307**
Case only, for M-Head, L-Base Collectors	**11300**
Contact Shoe (copper graphite) for all M-Head Collectors	**14104**
Head Assembly for M-Head, H-Base Collectors	**12296**
Head Assembly for M-Head, L-Base Collectors	**11930**

Side Contact Curves

Side Contact can be set up to handle curves, horizontally or vertically, with standard 6.0 (152) tangents on each end. The systems are specially designed for curves, switches, interlocks, gaps, and continuous control circuits. They are readily adaptable for most operating conditions. Both conductor bar and insulated cover are sufficiently flexible to permit bending to any desired radius up to the noted minimums. Hanger spacing is every 3 feet (0.91 meters) on curves. Maximum bar length is 10 feet (3.05 meters). Information required for curves are:

- Radius for each conductor bar
- Angle
- Inside or Outside contact

Conductor Type	Cover	Current Capacity (Amps)	Minimum Radius	Part Number
Galvanized Steel	PVC (standard heat)	110	9.0 (229)	**11226**
Stainless Clad Copper Laminate	PVC (standard heat)	250	9.0 (229)	**11230**
Copper Steel Laminate	PVC (standard heat)	250	9.0 (229)	**11234**
Roller Copper	PVC (standard heat)	350	9.0 (229)	**11238**
Galvanized Steel	Lexan (medium heat)	110	57.0 (1448)	**11242**
Stainless Clad Copper Laminate	Lexan (medium heat)	250	57.0 (1448)	**11246**
Copper Steel Laminate	Lexan (medium heat)	250	57.0 (1448)	**11250**
Rolled Copper	Lexan (medium heat)	350	57.0 (1448)	**11254**

Slip Rings, PVC Standard Heat Covers

Conductor Type	Current Capacity (Amps)	Radius Range - in. (mm)	Pieces	Part Number
Galvanized Steel	110	9.0 to 34.0 (229 to 864)	2 - 180° pieces	**23642**
Stainless Clad Copper Laminate	250	9.0 to 34.0 (229 to 864)	2 - 180° pieces	**23643**
Copper Steel Laminate	250	9.0 to 34.0 (229 to 864)	2 - 180° pieces	**23644**
Rolled Copper	350	9.0 to 34.0 (229 to 864)	2 - 180° pieces	**23645**
Galvanized Steel	110	34.5 to 51.0 (876 to 1295)	3 - 120° pieces	**23646**
Stainless Clad Copper Laminate	250	34.5 to 51.0 (876 to 1295)	3 - 120° pieces	**23647**
Copper Steel Laminate	250	34.5 to 51.0 (876 to 1295)	3 - 120° pieces	**23648**
Rolled Copper	350	34.5 to 51.0 (876 to 1295)	3 - 120° pieces	**23649**
Galvanized Steel	110	51.1 to 69.0 (1298 to 1753)	4 - 90° pieces	**23650**
Stainless Clad Copper Laminate	250	51.1 to 69.0 (1298 to 1753)	4 - 90° pieces	**23651**
Copper Steel Laminate	250	51.1 to 69.0 (1298 to 1753)	4 - 90° pieces	**23652**
Rolled Copper	350	51.1 to 69.0 (1298 to 1753)	4 - 90° pieces	**23653**

Other Products from Conductix-Wampfler

The products described in the this catalog represent a few of the products from the broad spectrum of Conductix-Wampfler components and systems for the transfer of energy, data, gases, and fluids. The solutions we deliver for your applications are based on your specific requirements. In many cases, a combination of several different Conductix-Wampfler products are needed to fill the application. You can count on all of Conductix-Wampfler's business units for hands-on engineering support - coupled with the perfect solution to meet your energy management and control needs.



Motor driven cable reels

Motor driven reels by Conductix-Wampfler are the perfect solution for managing long lengths of heavy cable and hoses in very demanding industrial applications. Monospiral, level wind, and random wind spools.



Slip ring assemblies

Whenever powered machinery needs to rotate 360º, field proven slip ring assemblies by Conductix-Wampfler can flawlessly transfer energy and data. Here, everything revolves around flexibility and reliability.



Conductor bar

Whether they are enclosed conductor rails, expandable single-pole bar systems, or high amperage bar for demanding steel mill use up to 6000 amps. Conductix-Wampfler's conductor bar is the proven solution to reliably move people and material.



Spring driven cable reels

We have 60 years experience and trusted brands such as Insul-8, Wampfler, and IER. We offer small cord reels all the way to large multi-motor units, a wide range of accessories, and hazardous location reels.



Cable Festoon systems

It's hard to imagine Conductix-Wampfler cable trolleys not being used in virtually every industrial application. They are reliable and robust and available in an enormous variety of sizes and models.



Push Button Pendants

Our ergonomic pendants are ideally suited for industrial control applications. They are available in a wide range of configurations for overhead cranes and other machinery.



Radio remote controls

Safe, secure, and reliable radios use the latest in microprocessor technology. Available in several models for overhead crane control and other types of machinery.



Inductive Power Transfer IPT®

The contact-less system for transferring energy and data. For all tasks that depend on high speeds and absolute resistance to wear.



Data Transfer: ProfiDAT® I Nexus

Safe & reliable wireless communication using slotted waveguide technology that's PROFIsafe compatible.

Nexus NB for narrow band signal transfer over power conductors



LJU Automation EMS Controller

Specialized controllers Programmable by parameters, Ideal for Electrified Monorails at automotive plants, with over 1500 in service worldwide. Adaptable for other applications



BridgeGuard™

Prevents crane to crane and crane to end collisions. IP69K rated for indoor and outdoor use, with a 3 ft to 150 ft range. Compliant with IEC 60068-2-6:2007



Air & Spring balancers I Air hoists

Conductix-Wampfler offers the full line of ENDO positioning devices. Rugged, reliable steel construction increasing safety and decreasing fatigue and body stress.

www.conductix.us

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Conductix-Wampfler

has just one critical mission: To provide you with energy and data transmission systems that will keep your operations up and running 24/7/365.

To contact your nearest sales office, please refer to:

www.conductix.contact

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