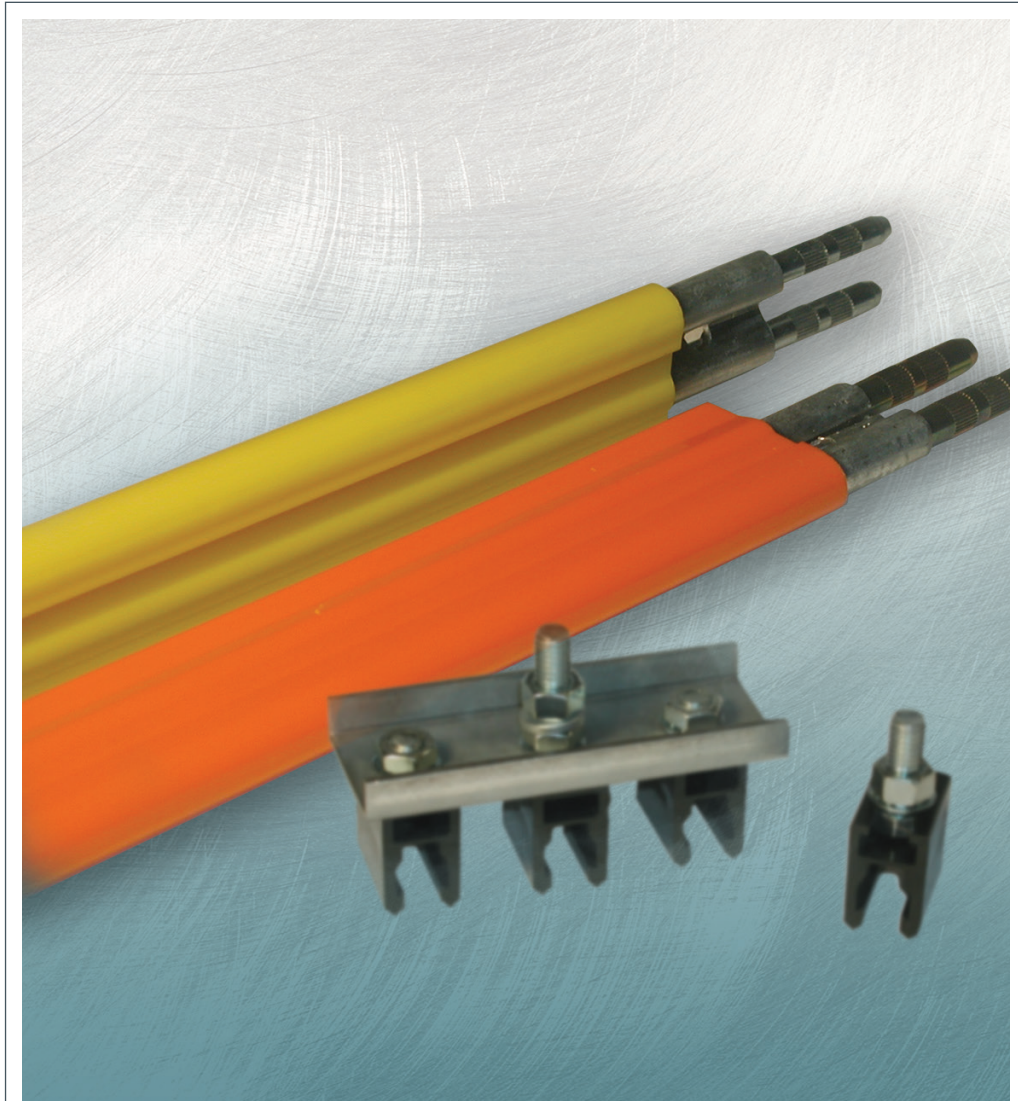


Electromotive Systems

ELECTROBAR® 8-Bar
Conductor Bar System



MAGNETEK
MATERIAL HANDLING

ELECTROMOTIVE SYSTEMS

ELECTROBAR® 8-BAR

CONDUCTOR BAR SYSTEMS

The practical, proven and economical way to deliver electricity to overhead cranes, hoists, monorails and other types of moving equipment.

Whether you need power for a simple top running application or a curved monorail, Magnetek's ELECTROBAR® 8-Bar Conductor Bar System is the solution.

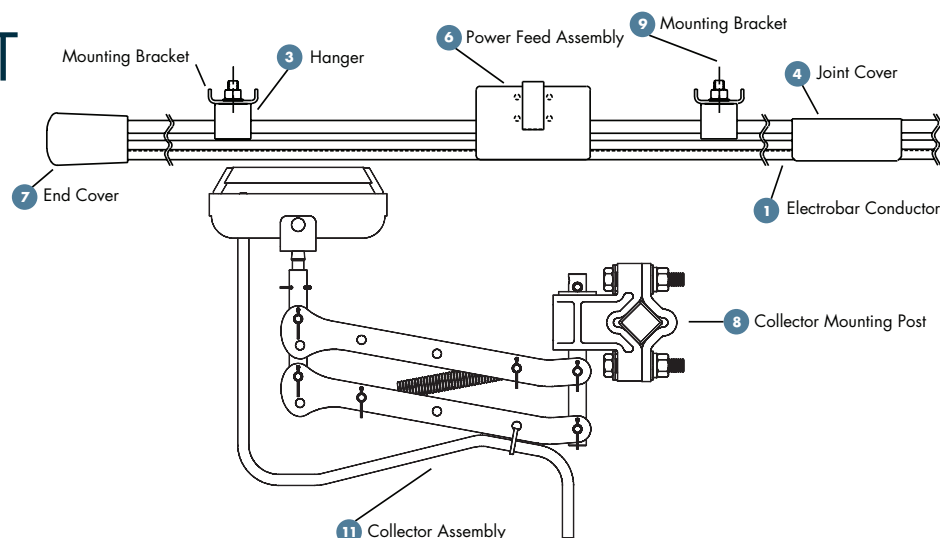
- Assembles easily and can be mounted either vertically or horizontally
- Figure 8 design allows you to use it interchangeably with common bottom-entry 8-bar systems
- Available for 90, 110 and 350 Amp applications
- Cover options available for high temperature environments
- Collector assemblies feature corrosion resistant pivot pins, impact-resistant, universally interchangeable reinforced polyamide arms and electrically insulated collector bodies
- Single and tandem collector assemblies available for smooth, continuous contact along straight runways or curved applications
- Conductor sections are roll-formed galvanized steel in 90 and 110 Amp ratings, and copper in 350 Amp rating
- All systems are designed to carry the specified current rating using a duty cycle of 70% (84 seconds on and 36 seconds off)*
- Most items are available from stock for same day shipment

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*Several critical factors determine the proper and safe sizing of Electrification Conductor Bar. The selection criteria and technical specifications found on pages 4 and 5 will assist you in the selection of a proper conductor size and system type to meet the ampacity and voltage drop criteria, environmental conditions, and expansion locations for your application.

Many parts of the Electrobar 8-Bar system are made from plastic insulating materials. The insulating covers for normal temperature use are made of PVC, the plastic hangers are made from polyamide (nylon) as are the plastic parts of the collectors. If your application uses materials or chemicals that can evaporate or get into the air and onto the conductor bar parts, please consult with Magnetek about the suitability of this product in your environment.

COMPONENT SELECTION GUIDE



STANDARD SYSTEM COMPONENTS

#	Ampere Rating	Standard Cover			High Temperature Cover			Page Number
		90	110	350	90	110	350	
1	Conductor	8-90A	8-110A	8-350A	8-90AH	8-110AH	8-350AH	4
2*	Expansion	8-90E	8-110E	8-350E	8-90EH	8-110EH	8-350EH	5
4	Joint Cover	8-JC			8-JCH			5
5*	Joint Keeper	N/A			N/A			6
6	Power Feed	8-90CF	8-110CF	8-350CF-N	8-90CF	8-110CF	8-350CF-N	6
7	End Cover	8-EC						6
8	Collector Mounting Post	C-CMP						6-8
10*	Connecting Tool	8-T						6

* Not shown

HANGER ASSEMBLIES

#	Options	Snap-In			Steel with Cross Bolt		Single Steel Snap-In with Hardware	Stainless Steel with Cross Bolt	Anchor	Page Number
		Single	3-Pole	4-Pole	Single	Triple				
3		8-H	8-H3	8-H4	8-SH	8-SH3	8-SPH	8-SSH	8-HA	5

COLLECTOR ASSEMBLIES

#	Description	100 Amp Single Arm	200 Amp Tandem Arm	Page Number
11	Collector	PC-100PC, PC-100C, PC-100PCL PC-100SPC, PC-100SC, PC-100SPCL	PC-200PTC, PC-200TC, PC-200PTCL PC-200SPTC, PC-200STC, PC-200SPTCL	7-8
	Replacement Shoe Assembly	C-100CH, C-100SCH		

MOUNTING BRACKETS

#	Length in Inches	Galvanized			Page Number
		15"	18"	24"	
9	Web Mount	BKS-W15-G	BKS-W18-G	BKS-W24-G	6
	Flange Mount	BKS-F15-G	BKS-F18-G	BKS-F24-G	
	Flange Mount with Clips	N/A	BKS-F18A-G	BKS-F24A-G	
		4-Conductor			
	Vertical Mount Web	BK-L4			

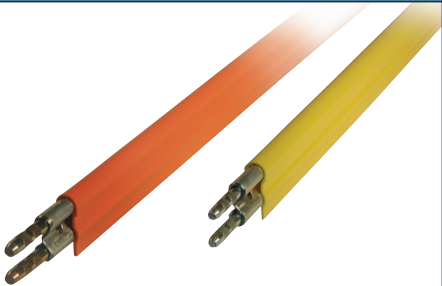
ELECTROBAR® 8-BAR

CONDUCTOR BAR SYSTEMS

Conductor bar sections are easily installed in the field using a connecting tool and joint cover, or joint keeper, to join each 10 foot bar or expansion section. Expansion sections accommodate the expected temperature variance and ambient temperature considerations of the installation, and when used with the proper anchoring, control the expansion and contraction of the conductor bar. Electrobar figure 8 systems on straight runways are to be supported every 5 feet for horizontal applications, and every 4 feet for vertical mount applications (consult the factory for curved system requirements). Hanger assemblies are available in several different styles, from single steel clamp to 4-Pole arrangements, and are easily installed in our slotted web or flange mount brackets. Electrobar components can be selected to complete electrification systems for main line/top-running, monorail/underhung, and bottom-entry applications, operating at speeds of up to 900 feet per minute.

1. CONDUCTOR BAR SECTIONS

Available in 10 foot sections or cut to whole foot lengths (conductor bar sections include cover, connecting pins and joint covers). Multiply the number of conductors required by the total length of the runway to be electrified, and divide the result by 10 to arrive at the proper number of conductor bar sections.



Description	Catalog Number		
	90 Amp	110 Amp	350 Amp
Standard Orange Cover	8-90A	8-110A	8-350A
Standard Green Cover	8-90A-G	8-110A-G	8-350A-G
High Temperature Yellow Cover Rated to 280° F	8-90AH	8-110AH	8-350AH
Approximate Shipping Weight	4.5 lbs.	5.50 lbs.	7.10 lbs.

NOTE: It is permissible to use the smallest rated bar as the ground. Example: 90, 110 or 350 Amp Electrobar 8-Bar system - use the 90 Amp 8-Bar as the ground.

VOLTAGE DROP CALCULATIONS

Single Phase-A.C.	2 x Amps x Zac x distance (feet from power feed)
Three Phase-A.C.	1.732 x Amps x Zac x distance (feet from power feed)
Direct Current	2 x Amps x Rdc x distance (feet from power feed)

$$\text{Voltage Drop} = (\text{voltage drop} \times 100) / 460 \text{ (voltage)}$$

System	A.C. Impedance (Zac)	D.C. Resistance (Rdc)
90 Amp	.0011 Ohms/Ft.	.00073 Ohms/Ft.
110 Amp	.0008 Ohms/Ft.	.0005 Ohms/Ft.
350 Amp	.00008 Ohms/Ft.	.00005 Ohms/Ft.

The Voltage Drop for most installations should not exceed 3%.

CONDUCTOR APPLICATION

Minimum spacing between conductor is 1.75" with standard collectors, and 1.50" with narrow collectors. Minimum spacing between conductor is 3" if an expansion section is utilized.

2. CONDUCTOR BAR EXPANSION SECTIONS

Expansion sections are complete 10 foot assemblies, shipped with power feed and two anchor hangers. Expansions should be used at all building expansion joints, and compensate for ambient and environmental temperature variations.

EXPANSION CONSIDERATIONS/ANCHOR LOCATIONS

Expansion Locations: 90 and 110 Amp Steel Conductor Bar Systems

- Mid-Span for straight systems 300 feet long
- Every 150 feet for straight systems over 300 feet long

350 Amp Rolled Copper and Copper/Steel Conductor Bar Systems

- Mid-Span for straight systems 200 feet long
- Every 100 feet for straight systems over 200 feet long

All Systems

- At all building expansion joints



Description	Catalog Number		
	90 Amp	110 Amp	350 Amp
Standard Orange Cover	8-90E	8-110E	8-350E
Standard Green Cover	8-90E-G	8-110E-G	8-350E-G
High Temperature Yellow Cover Rated to 280° F	8-90EH	8-110EH	8-350EH
Approximate Shipping Weight	6.80 lbs.	9.50 lbs.	12.00 lbs.

3. NYLON HANGER ASSEMBLIES

90, 110 and 350 Amp Snap-In Single 3-Pole and 4-Pole

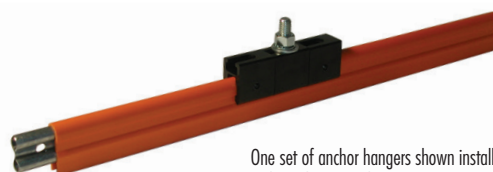


Description	Catalog Number	Approx. Shipping Wt.
Single Hanger	8-H	0.11 lbs.
3-Pole Hanger	8-H3	0.80 lbs.
4-Pole Hanger	8-H4	0.90 lbs.

3. ANCHOR HANGERS

90, 110 and 350 Amp

Anchor hangers should be used on all systems to restrict conductor movement. They are also to be used at mid-points between expansion sections and ends.



One set of anchor hangers shown installed with single snap-in hanger.

Description	Catalog Number	Approx. Shipping Wt.
Anchor Hanger	8-HA	0.12 lbs.

3. STEEL HANGER ASSEMBLIES



Description	Catalog Number	Approx. Shipping Wt.
Hanger with Cross Bolt	8-SH	0.20 lbs.
Steel Snap-In with Hardware	8-SPH	0.24 lbs.

4. JOINT COVERS

90, 110 and 350 Amp



Insulating joint covers are installed over each juncture of conductor bar to guard against accidental contact. One joint cover is included with each conductor section purchased.

Description	Catalog Number
Standard Black Cover	8-JC
High Temperature Yellow Cover Rated to 290° F	8-JCH
Approximate Shipping Weight	0.2 lbs.

ACCESSORIES

5. JOINT KEEPERS

For Copper 350 Amp

Joint Keepers are used over each juncture of copper bar to guard against accidental contact and to secure the joint. One joint keeper is included with each copper conductor section purchased.



Description	Catalog Number
Standard and High Temperature 350 Amp Systems	8-JK
Approximate Shipping Weight	0.2 lbs.

6. POWER FEED ASSEMBLY



Power feed assembly has special insulating cover and is installed at the conductor bar joint.

Description	Catalog Number	Approx. Shipping Wt.
90 Amp Power Feed	8-90CF	0.33 lbs.
110 Amp Power Feed	8-110CF	0.34 lbs.
350 Amp Power Feed	8-350CF-N	1.40 lbs.

7. END COVER



Vinyl cover for protecting ends of conductor bar at the beginning and the end of a system.

Description	Catalog Number	Approx. Shipping Wt.
End Cover	8-EC	0.05 lbs.

9. MOUNTING BRACKETS



Vertical Web Mount Brackets



Horizontal Mounting Brackets

Mounting Brackets for all systems are comprised of roll-formed steel and are available with galvanized finish. Hanger assemblies sold separately.

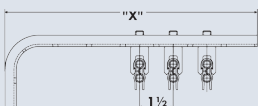
- Web Mount brackets are for bottom-entry, main line/top-running applications.
- Flange Mount brackets are for bottom-entry, monorail/underhung applications and are available with or without mounting clips.
- Vertical Mount brackets for web mount, side-entry systems.

Length in Inches	Galvanized		
	15"	18"	24"
Web Mount	BKS-W15-G	BKS-W18-G	BKS-W24-G
Flange Mount	BKS-F15-G	BKS-F18-G	BKS-F24-G
Flange Mount with Clips	N/A	BKS-F18A-G	BKS-F24A-G
Ship Weight	1.50 lbs.	2.15 lbs.	2.65 lbs.
4-Conductor			
Vertical Mount Web	BK-L4		
Ship Weight	2.00 lbs.		

SUPPORT SPACING
Standard 8-Bar 90, 110 and 350 Amp Systems:

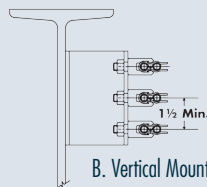
- Horizontal Mounting Applications—support every 5 feet
- Vertical Mounting Applications—support every 4 feet

TYPICAL INSTALLATIONS

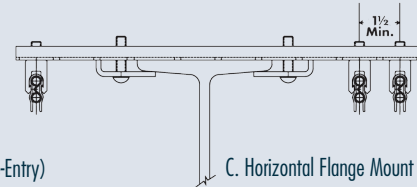


A. Horizontal Web Mount (Bottom-Entry)

Bracket	"X"
BKS-W15	11"
BKS-W18	14"
BKS-W24	20"



B. Vertical Mount (Side-Entry)



C. Horizontal Flange Mount (Bottom-Entry)

8. COLLECTOR MOUNTING POST

1" square bar welded to mounting plate.

Post for mounting collectors. One required for each crane running on the system.



Description	Catalog Number	Approx. Shipping Wt.
Collector Mounting Post	C-CMP	2 lbs.

10. CONNECTING TOOL

Connecting tool for joining conductor bar sections during installation.



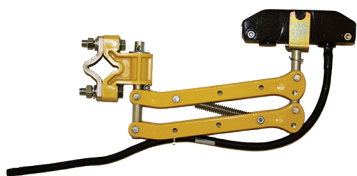
Description	Catalog Number	Approx. Shipping Wt.
Connecting Tool	8-T	2.80 lbs.

COLLECTOR ASSEMBLIES

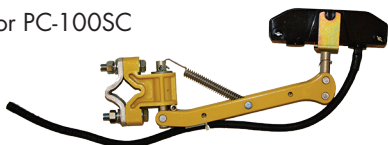
Collector assemblies are designed to travel at speeds up to 900 ft. per minute using standardized components. Electrobar 8-Bar collectors feature an easy to install shoe assembly—simply insert the shoe and cotter pin and make the electrical connection. Our graphite impregnated copper contact shoes are designed for long life and minimal drag. Standard Electrobar 8-Bar collectors have a 100 or 200 Amp continuous current rating. Single or tandem collector shoe assemblies are available.

11. COLLECTOR ASSEMBLIES WITH STANDARD SHOE HOLDERS

Pantograph Collector PC-100SPC



Collector PC-100SC



Lateral Collector PC-100SPCL



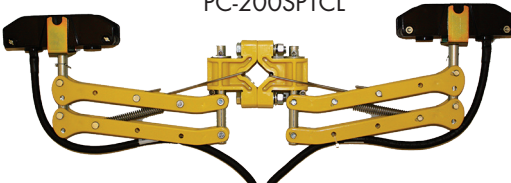
Pantograph Tandem Collector PC-200SPTC



Tandem Collector PC-200STC



Tandem Lateral Collector PC-200SPTCL



Single Arm

Amps	Catalog Number	Description	Weight	
			Lbs.	Kgs.
100 Amp	PC-100SPC	Pantograph Collector	2.0	0.91
100 Amp	PC-100SC	Collector	1.8	0.8
100 Amp	PC-100SPCL	Lateral Collector	2.0	0.91

Tandem Arm

Amps	Catalog Number	Description	Weight	
			Lbs.	Kgs.
200 Amp	PC-200SPTC	Pantograph Collector	4.0	1.8
200 Amp	PC-200STC	Collector	3.6	1.6
200 Amp	PC-200SPTCL	Lateral Collector	4.0	1.8

For fixed mounting posts 3.50" — 4.50" from conductor bar running surface. Minimum spacing between conductors is 1.75".

REPLACEMENT SHOE ASSEMBLY



Single collector shoe for quick and easy replacement. Used on all collector assemblies above.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
C-100SCH	Replacement Collector Shoe Assembly Standard	0.24	0.11

8. COLLECTOR MOUNTING POST



1" square bar welded to mounting plate.
Post for mounting collectors. One required for each crane running on the system.

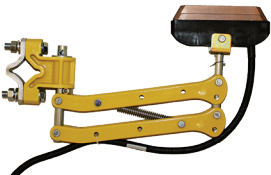
Catalog Number	Description	Weight	
		Lbs.	Kgs.
C-CMP	Collector Mounting Post	4	1.8

COLLECTOR ASSEMBLIES

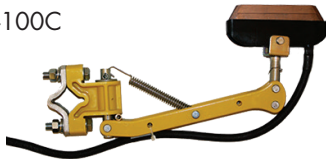
Collector assemblies are designed to travel at speeds up to 900 ft. per minute using standardized components. Electrobar 8-Bar collectors feature an easy to install shoe assembly—simply insert the shoe and cotter pin and make the electrical connection. Our graphite impregnated copper contact shoes are designed for long life and minimal drag. Standard Electrobar 8-Bar collectors have a 100 or 200 Amp continuous current rating. Single or tandem collector shoe assemblies are available.

12. COLLECTOR ASSEMBLIES WITH NARROW SHOE HOLDERS

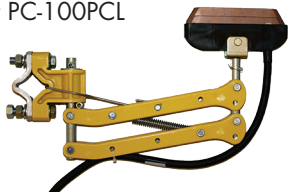
Pantograph Collector PC-100PC



Collector PC-100C



Lateral Collector PC-100PCL



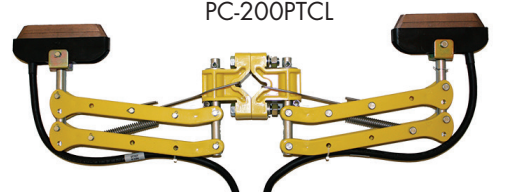
Pantograph Tandem Collector PC-200PTC



Tandem Collector PC-200TC



Tandem Lateral Collector PC-200PTCL



Single Arm

Amps	Catalog Number	Description	Weight	
			Lbs.	Kgs.
100 Amp	PC-100PC	Pantograph Collector	2.0	0.91
100 Amp	PC-100C	Collector	1.8	0.8
100 Amp	PC-100PCL	Lateral Collector	2.0	0.91

Tandem Arm

Amps	Catalog Number	Description	Weight	
			Lbs.	Kgs.
200 Amp	PC-200PTC	Pantograph Collector	4.0	1.8
200 Amp	PC-200TC	Collector	3.6	1.6
200 Amp	PC-200PTCL	Lateral Collector	4.0	1.8

For fixed mounting posts 3.50" – 4.50" from conductor bar running surface. Minimum spacing between conductors is 1.50".

REPLACEMENT SHOE ASSEMBLY

C-100CH



Single collector shoe for quick and easy replacement. Used on all collector assemblies above.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
C-100CH	Replacement Collector Shoe Assembly - Narrow	0.24	0.11

8. COLLECTOR MOUNTING POST

C-CMP

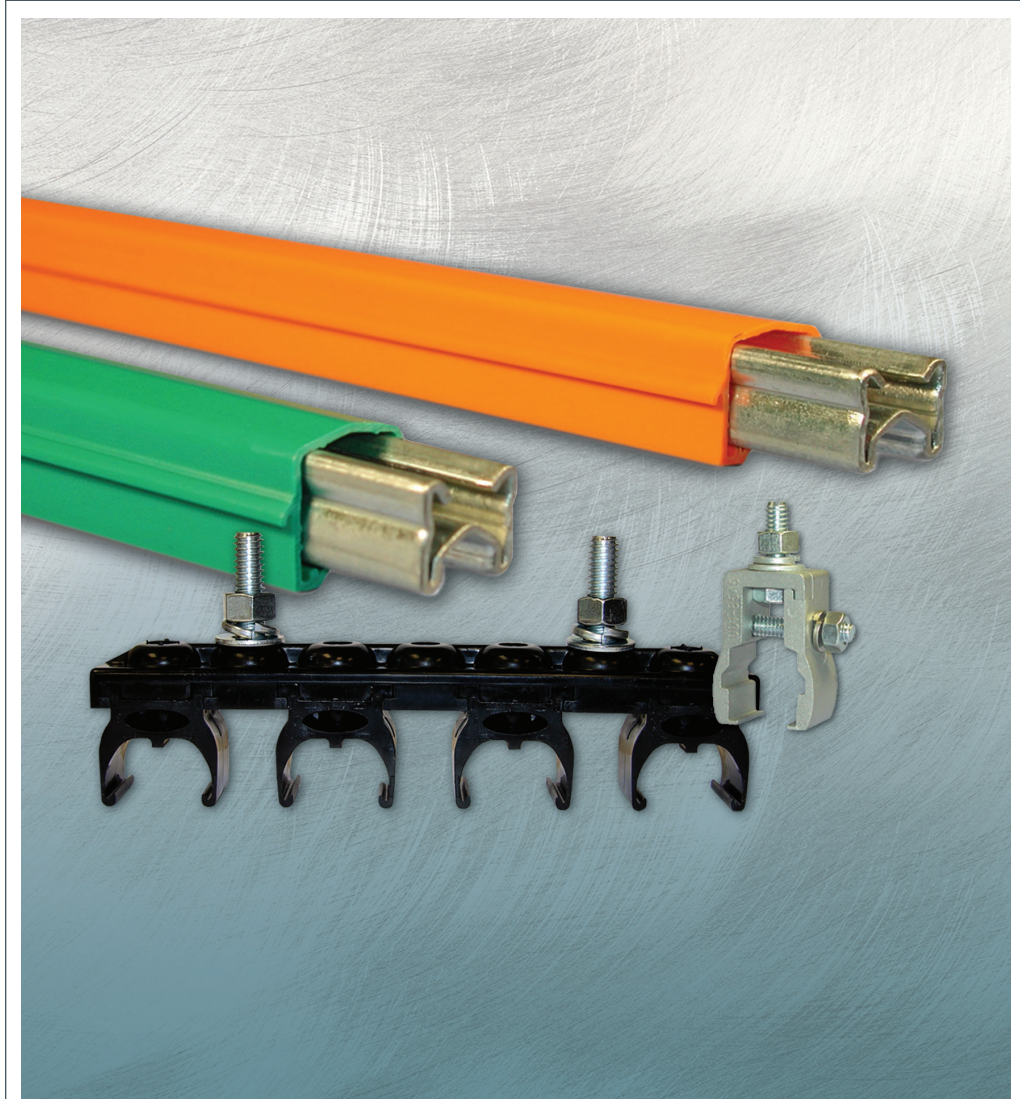


1" square bar welded to mounting plate.

Post for mounting collectors. One required for each crane running on the system.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
C-CMP	Collector Mounting Post	4	1.8

Magnetek
ELECTROBAR® FINGER SAFE (FS)
Conductor Bar System



MAGNETEK
MATERIAL HANDLING

ELECTROMOTIVE SYSTEMS

ELECTROBAR® FINGER SAFE (FS)

CONDUCTOR BAR SYSTEM

Magnetek knows the safety and performance of your overhead material handling system are top priorities. That's why we proudly offer the Electromotive Systems Electrobar FS Conductor Bar System for the electrification of cranes, monorails and automated storage and retrieval systems.

CONDUCTOR BAR SHAPE ENHANCES PERFORMANCE

- Bar profile design ensures good electrical contact between the collector shoe and conductor bar.
- Wear of the conductor bar cover is minimized because the profile guides the shoe towards the center.
- Potential loss of electrical contact at joints is significantly reduced.
- Rigid conductor bar design minimizes deflection between hangers.

EASY TO INSTALL AND MAINTAIN

- Modular, snap-in multi-pole conductor bar hangers reduce installation and maintenance time.
- Compression-type anchor hangers (US Patent #6588713) eliminate field drilling.
- Expansion line elements come completely pre-assembled.
- Minimal system maintenance required—just periodically replace collector brush assemblies.

VALUE-PACKED SYSTEM

- Systems up to 490 feet in length can be installed without expansion assemblies.
- Standard 15' bar lengths mean fewer joints to purchase.
- Common hangers and joint assemblies.
- System design reduces installation labor costs.

DESIGNED WITH SAFETY IN MIND

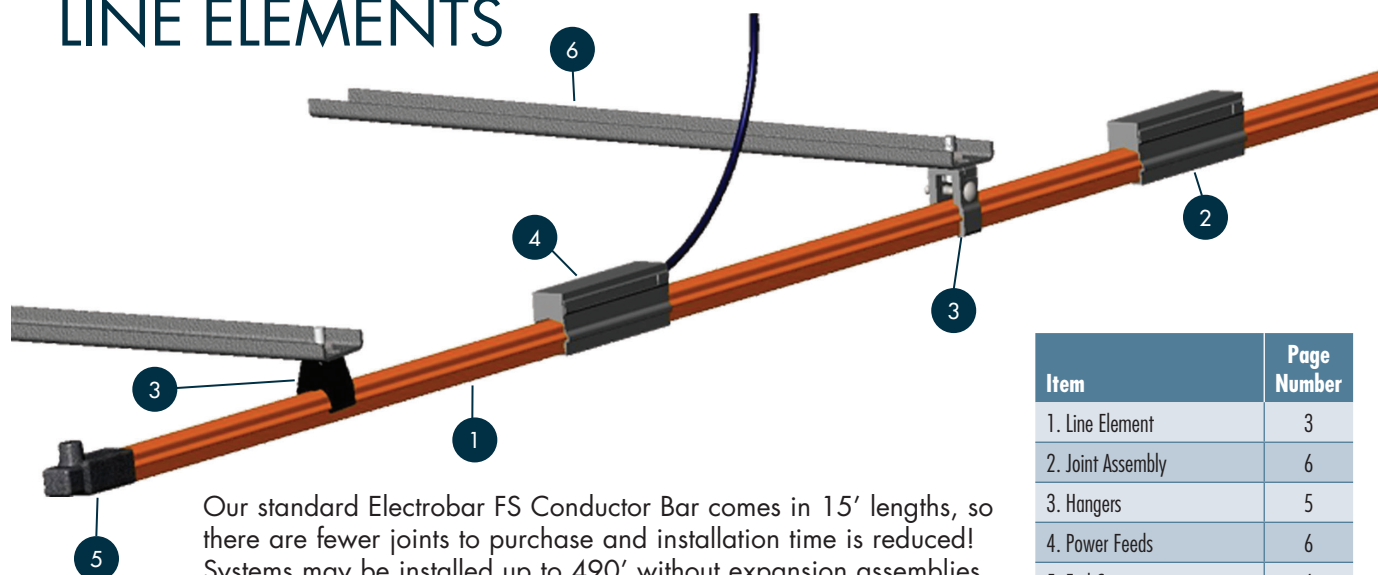
- Finger safe design minimizes the potential for electrical contact.
- Grounding conductor bar available with green cover for ease of identification.

AVAILABLE IN A VARIETY OF CONFIGURATIONS

- Single and tandem shoe collector assemblies.
- 90, 110, 125, 250 and 400 Amp ratings.
- Snap-in hanger kits available for 2, 3 and 4 pole applications.
- Single hangers also available for special configurations.
- Many collector styles available.
- Can be used in horizontal or vertical mount applications.

Many parts of the Electrobar FS system are made from plastic insulating materials. The insulating covers for normal temperature use are made of PVC, the plastic hangers are made from polyamide (nylon) as are the plastic parts of the collectors. If your application uses materials or chemicals that can evaporate or get into the air and onto the conductor bar parts, please consult with Magnetek about the suitability of this product in your environment.

LINE ELEMENTS

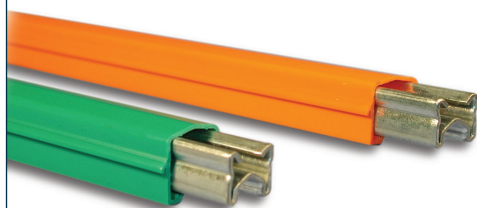


Our standard Electrobar FS Conductor Bar comes in 15' lengths, so there are fewer joints to purchase and installation time is reduced! Systems may be installed up to 490' without expansion assemblies, and in operating environments up to 160 degrees Fahrenheit. We include a green PVC conductor bar cover to provide electrical protection and easy identification of the grounding conductor.

Note: It is permissible to use the smallest rated bar as the ground. 90, 110, and 125 Amp Electrobar FS systems may use the 90 Amp FS Bar as the ground. On 400A systems, a 250A bar may be used as the grounding conductor.

Item	Page Number
1. Line Element	3
2. Joint Assembly	6
3. Hangers	5
4. Power Feeds	6
5. End Cover	6
6. Mounting Bracket	5
7. Expansions (not shown)	4
8. Transfer Cap (not shown)	6
9. Collectors (not shown)	7

1. ELECTROBAR FS GALVANIZED STEEL LINE ELEMENTS



Catalog Number	Description	Standard Length	Weight	
			Lbs.	Kgs.
FS-90P15	90 Amp Electrobar FS Phase (Orange)	15' - 0"	7.4	3.4
FS-110P15	110 Amp Electrobar FS Phase (Orange)	15' - 0"	9.0	4.0
FS-125P15	125 Amp Electrobar FS Phase (Orange)	15' - 0"	9.0	4.0
FS-90G15	90 Amp Electrobar FS Ground (Green)	15' - 0"	7.4	3.4
FS-110G15	110 Amp Electrobar FS Ground (Green)	15' - 0"	9.0	4.0
FS-125G15	125 Amp Electrobar FS Ground (Green)	15' - 0"	9.0	4.0

Special length line elements are available from 1' to 14' in 1' increments designated by FS-(Amp Rating)(Phase or Ground)X, where X is equal to the length in feet.

Example: FS-90P5 is a 90 Amp Electrobar FS Phase X 5'-0".

1. ELECTROBAR FS COPPER LINE ELEMENTS



Catalog Number	Description	Standard Length	Weight	
			Lbs.	Kgs.
FS-250P15	250 Amp Electrobar FS Phase (Orange)	15' - 0"	7.5	3.4
FS-400P15	400 Amp Electrobar FS Phase (Orange)	15' - 0"	10.0	4.5
FS-250G15	250 Amp Electrobar FS Phase (Green)	15' - 0"	7.5	3.4
FS-400G15	400 Amp Electrobar FS Ground (Green)	15' - 0"	10.0	4.5

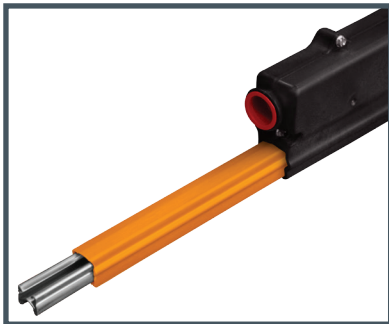
Special length line elements are available from 1' to 14' in 1' increments designated by FS-(Amp Rating)(Phase or Ground)X, where X is equal to the length in feet.

Example: FS-250P5 is a 250 Amp Electrobar FS Phase X 5'-0".

EXPANSION ELEMENTS

Our standard Electrobar FS expansion elements come in 15' lengths and include our PVC conductor bar cover and power feed covers. Expansions are completely pre-assembled, requiring only proper gap setting by the installer (refer to technical bulletin for gap setting data). Expansions may be installed in operating environments up to 160 degrees Fahrenheit.

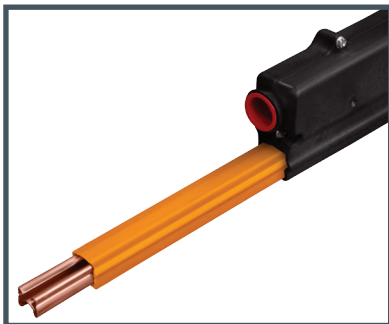
7. ELECTROBAR FS GALVANIZED STEEL EXPANSION ELEMENTS



Systems at 490' or less do not require expansion elements when installed with anchor hangers at the center of the line. In systems longer than 490', expansions are needed every 240' based on a 100 degree Fahrenheit range in ambient temperature through the year.

Catalog Number	Description	Standard Length	Weight	
			Lbs.	Kgs.
FS-90EP15	90 Amp Electrobar FS Expansion Phase	15' - 0"	9.5	4.3
FS-110EP15	110 Amp Electrobar FS Expansion Phase	15' - 0"	11.5	5.2
FS-125EP15	125 Amp Electrobar FS Expansion Phase	15' - 0"	11.5	5.2
FS-90EG15	90 Amp Electrobar FS Expansion Ground	15' - 0"	9.5	4.3
FS-110EG15	110 Amp Electrobar FS Expansion Ground	15' - 0"	11.5	5.2
FS-125EG15	125 Amp Electrobar FS Expansion Ground	15' - 0"	11.5	5.2

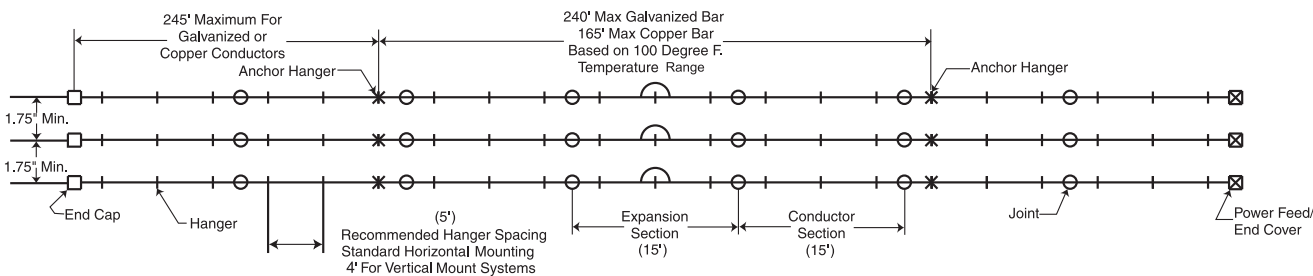
7. ELECTROBAR FS COPPER EXPANSION ELEMENTS



Systems at 490' or less do not require expansion elements when installed with anchor hangers at the center of the line. In systems longer than 490', expansions are needed every 165' based on a 100 degree Fahrenheit range in ambient temperature through the year.

Catalog Number	Description	Standard Length	Weight	
			Lbs.	Kgs.
FS-250EP15	250 Amp Electrobar FS Expansion Phase	15' - 0"	14.5	6.6
FS-400EP15	400 Amp Electrobar FS Expansion Phase	15' - 0"	17.0	7.7
FS-250EG15	250 Amp Electrobar FS Expansion Ground	15' - 0"	14.5	6.6
FS-400EG15	400 Amp Electrobar FS Expansion Ground	15' - 0"	17.0	7.7

TYPICAL SYSTEM LAYOUT



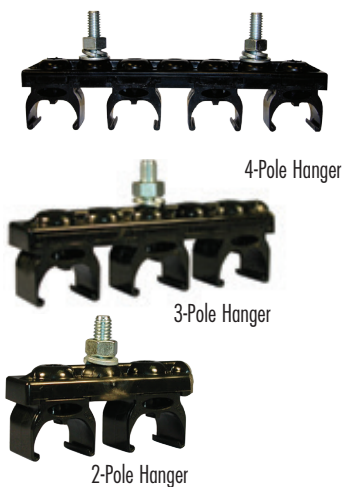
HANGERS

Electrobar FS multi-pole line element hangers have a modular, snap-in design for quick installation and ease of maintenance. Compression anchor hangers (US Patent #6588713) are available, eliminating the need for drilling.

A variety of configurations are available:

- Horizontal mount
- Vertical mount
- Modular hanger base for 2, 3 and 4 pole configurations
- Single plastic and steel hangers for special applications

3. HANGERS

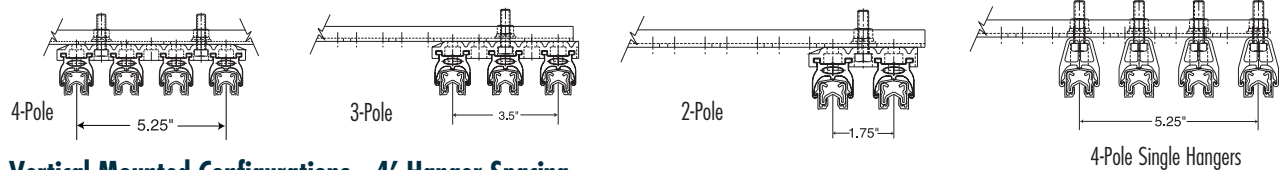


Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-H4	4-Pole with 4 Snap-in Hangers	0.30	0.14
FS-H3	3-Pole with 3 Snap-in Hangers	0.18	0.08
FS-H3L	3-Pole with 3 Snap-in Hangers (Vertical Mount Only)	0.18	0.08
FS-H2	2-Pole with 2 Snap-in Hangers	0.13	0.06
FS-SH	Single Hanger	0.10	0.05
FS-AH	Anchor Hanger	0.14	0.05
FS-HST	Steel Single Hanger	0.10	0.05
FS-H	Snap-in Hanger (Replacement)	0.03	0.01

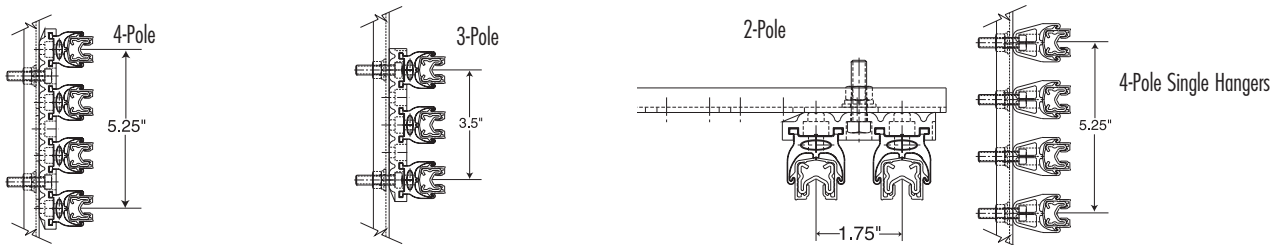


MOUNTING CONFIGURATIONS

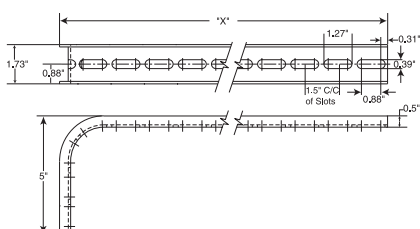
Horizontal Mounted Configurations - 5' Hanger Spacing



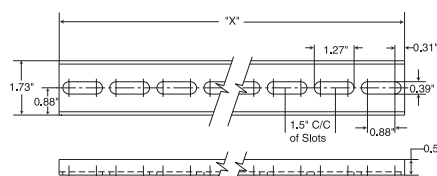
Vertical Mounted Configurations - 4' Hanger Spacing



6. MOUNTING BRACKETS



Bracket Catalog #	"X" Dimension
BKS-W15-G	11"
BKS-W18-G	14"
BKS-W24-G	20"



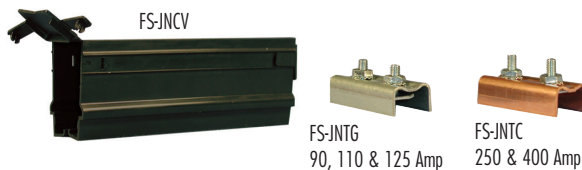
Bracket Catalog #	"X" Dimension
BKS-F18-G	18"
BKS-F24-G	24"

(Add an "A" after the F18 or F24 when ordering flange mount brackets including two mounting clamps.)

SYSTEM COMPONENTS

2. JOINT ASSEMBLY/JOINT COVER

90, 110, 125, 250 and 400 Amp

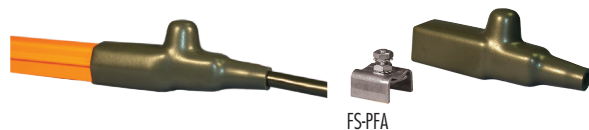


One joint cover and one joint assembly are required between each line element.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-JNTG	FS Joint Assembly Galvanized	0.10	0.05
FS-JNTC	FS Joint Assembly Copper	0.08	0.04
FS-JNCV	FS Joint Cover	0.05	0.02
FS-JNJC	FS Joint Compound	0.30	0.14

4. END POWER FEED

90, 110, 125 Amp



Power feed may be installed at the end of conductor bar line to feed power from one end of the conductor bar.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-PFA	End Power Feed	0.11	0.05

5. END COVER

90, 110, 125, 250 and 400 Amp



Required for installation at each end of the conductor bar system (required at only one end when end power feeds are used).

Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-END	FS End Cover	0.10	0.05

2. ISOLATION JOINT ASSEMBLY/JOINT COVER

90, 110, 125, 250 and 400 Amp

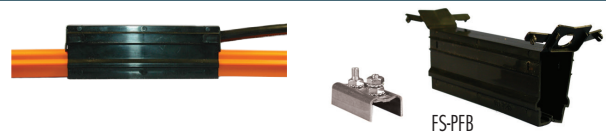


One joint cover and one joint assembly are required between each element.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-JNIS	FS Isolation joint	0.09	0.04
FS-JNCV	FS Joint Cover	0.05	0.02

4. JOINT POWER FEED

90, 110 and 125 Amp



May be installed between any two line elements along the length of the system.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-PFB	FS Joint Power Feed	0.15	0.07

4. JOINT POWER FEED

250 and 400 Amp



May be installed between any two line elements along the length of the system.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-PFC	FS Joint Power Feed	1.25	0.57

8. TRANSFER CAP

90, 110, 125, 250 and 400 Amp



May be installed at switches or other breaks along the line where the collector shoe needs to transition between two conductor bar lines.

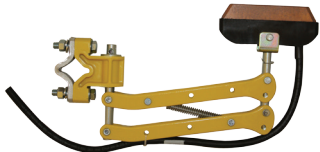
Catalog Number	Description	Weight	
		Lbs.	Kgs.
FS-TCAP	FS Transfer Cap	0.08	0.04

COLLECTOR ASSEMBLIES

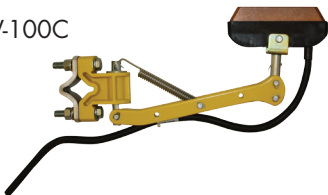
Collector assemblies are designed to travel at speeds up to 900 ft. per minute using standardized components. Electrobar FS collectors feature an easy to install shoe assembly—simply insert the shoe and cotter pin and make the electrical connection. Our graphite impregnated copper contact shoes are designed for long life and minimal drag. Standard Electrobar FS collectors have a 100 or 200 Amp continuous current rating. Single or tandem collector shoe assemblies are available.

9. PANTOGRAPH/TANDEM ARM COLLECTOR ASSEMBLIES

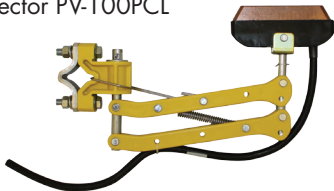
Pantograph Collector PV-100PC



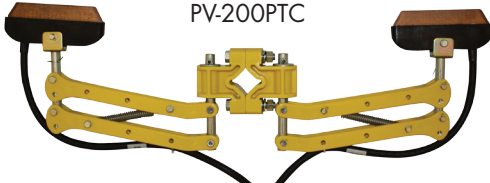
Collector PV-100C



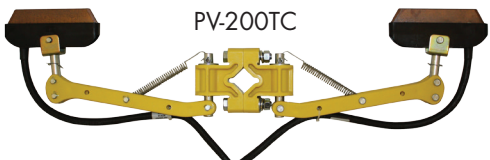
Lateral Collector PV-100PCL



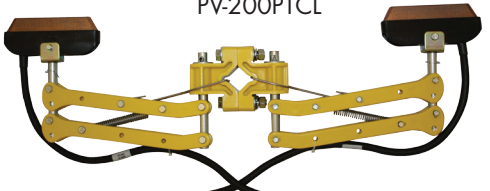
Pantograph Tandem Collector PV-200PTC



Tandem Collector PV-200TC



Tandem Lateral Collector PV-200PTCL



Single Arm

Amps	Catalog Number	Description	Weight	
			Lbs.	Kgs.
100 Amp	PV-100PC	Pantograph Collector	2.0	0.91
100 Amp	PV-100C	Collector	1.8	0.8
100 Amp	PV-100PCL	Lateral Collector	2.0	0.91

Tandem Arm

Amps	Catalog Number	Description	Weight	
			Lbs.	Kgs.
200 Amp	PV-200PTC	Pantograph Collector	4.0	1.8
200 Amp	PV-200TC	Collector	3.6	1.6
200 Amp	PV-200PTCL	Lateral Collector	4.0	1.8

For fixed mounting posts 3.50" – 4.50" from conductor bar running surface.

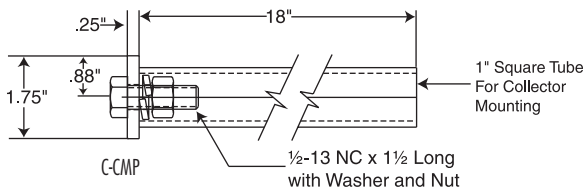
REPLACEMENT SHOE ASSEMBLY



Single collector shoe for quick and easy replacement. Used on all collector assemblies above.

Catalog Number	Description	Weight	
		Lbs.	Kgs.
V-100CH	Replacement Collector Shoe Assembly	0.24	0.11

COLLECTOR MOUNTING POST



Catalog Number	Description	Weight	
		Lbs.	Kgs.
C-CMP	Collector Mounting Post	4	1.8



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TELEMOTIVE
ENRANGE
MONDEL**

YOUR ONE-STOP SOURCE FOR MATERIAL HANDLING CONTROL SOLUTIONS



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POWER DELIVERY SYSTEMS

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FABA® Conductor Bar Systems — 100 Amps
ELECTROBAR® HX — 400, 700, 1000 Amps
ELECTROBAR® FS — 90, 110, 125, 250, 400 Amps
ELECTROBAR® 8-Bar — 90, 110, 350 Amps

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Standard Duty
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PENDANT PUSHBUTTON STATIONS

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MONDEL BRAKES

200S Industrial Shoe Brakes
4"–19" Diameter
6–2,250 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion Proof Actuators

AIST-NEMA 300M Mill Duty Shoe Brakes

5"–30" Diameter
10–11,000 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
AC Explosion Proof Actuators

400D Heavy Duty Disc Brakes

8"–50" Diameter
50–30,000 Lb. Ft. Torque
AC, DC, Hydraulic Actuators
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MH318_FS Brochure

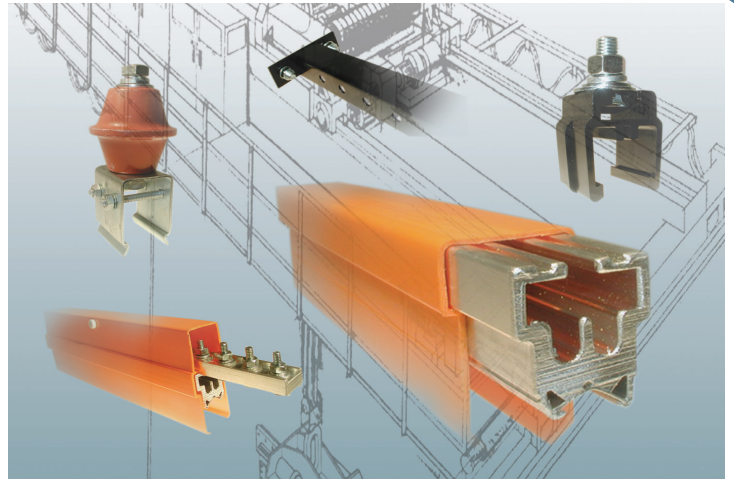
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ELECTROBAR® HX SERIES

INSULATED CONDUCTOR BAR SYSTEM

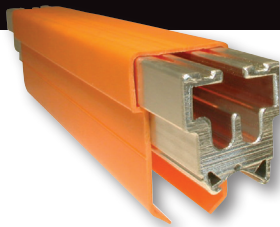
When you need high amperage power delivery for a heavy duty application, ELECTROBAR® HX Series Insulated Conductor Bar System is the solution.

- Accommodates up to 600 Volt AC and 250 Volt DC applications
- Line elements are available to carry 400, 700, and 1000 amps continuous current
- Rated for use in environments up to 160° F ambient temperature
- Aluminum alloy extruded line elements with stainless steel lined contact surface provide better performance and increased durability
- Inverted V contact surface for positive tracking of collector shoes
- Grounding conductor bar available with green cover for ease of identification
- HX Systems are designed for bottom entry only, and are not intended for lateral (side entry) applications.



LINE ELEMENT SECTIONS

Line elements are constructed of an aluminum alloy extrusion with integral stainless steel contact surfaces. They are available in convenient 10 or 20 foot sections. All line elements are designed to carry the specified current rating continuously without overheating.



Description	Catalog Number		
	400 Amp	700 Amp	1000 Amp
Line Element Section, 20 Feet Long, Orange Cover	HX-400A	HX-700A	HX-1000A
Line Element Section, 20 Feet Long, Green Cover	HX-400A-G	HX-700A-G	HX-1000A-G
Line Element Section, 10 Feet Long, Orange Cover	HX-400A10	HX-700A10	HX-1000A10
Line Element Section, 10 Feet Long, Green Cover	HX-400A10-G	HX-700A10-G	HX-1000A10-G
Approximate Shipping Weight	1.5 lbs./ft.	2.5 lbs./ft.	3.5 lbs./ft.

Many parts of the Electrobar HX system are made from plastic insulating materials. The insulating covers for normal temperature use are made of PVC, the plastic hangers are made from polyamide (nylon) as are the plastic parts of the collectors. If your

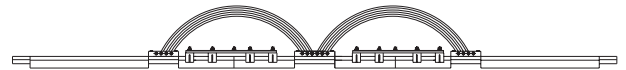
EXPANSION ELEMENTS

Expansion sections are used for long runways to allow for thermal expansion of the conductor bar. They are also used at expansion joints in the supporting structure.

A 10 foot long expansion section is required for every 300 feet of conductor run.

For example, a 600 foot long installation would require an expansion section only in the center of the run.

Anchor pins are included with each expansion section.



Description	Catalog Number		
	400 Amp	700 Amp	1000 Amp
Expansion Section, 10 Feet Long, Orange Cover	HX-400E	HX-700E	HX-1000E
Expansion Section, 10 Feet Long, Green Cover	HX-400E-G	HX-700E-G	HX-1000E-G
Approximate Shipping Weight	15 lbs.	25 lbs.	35 lbs.

application uses materials or chemicals that can evaporate or get into the air and onto the conductor bar parts, please consult with Magnetek about the suitability of this product in your environment.



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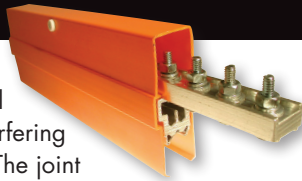
ELECTROMOTIVE SYSTEMS

YOUR ONE-STOP SOURCE FOR MATERIAL HANDLING CONTROL SOLUTIONS

With our combination of extensive application experience and leading-edge products, Magnetek provides the ultimate solution for overhead motion control.

JOINT ASSEMBLY KIT

Joint Assembly Kit connection assemblies are available to assure full current carrying capacity without interfering with free travel of collector contacts. The joint assembly is designed to automatically align conductor bar sections during installation. Fastening hardware ensures a good, tight electrical and mechanical joint between conductor sections. The joint assembly kit includes the insulating joint cover.



Description	Catalog Number		
	400 Amp	700 Amp	1000 Amp
Joint Assembly Kit	HX-400JK	HX-700JK	HX-1000JK
Approximate Shipping Weight	1.5 lbs.	2.0 lbs	3.0 lbs.

POWER FEED KIT

The Power Feed Kit includes a cover and cable lug terminals for power connection.



System Rating	Catalog Number	Approximate Shipping Weight
400 Amp	HX-400FK	.8 lbs.
700 Amp	HX-700FK	2.4 lbs.
1000 Amp	HX-1000FK	3.2 lbs

MOUNTING BRACKET

Web mounting brackets are available in 24 inch lengths with mounting holes punched every two inches. Mounting hardware is included.



Description	Catalog Number	Approximate Shipping Weight
Web Mounting Bracket, 24 inch	BK-HX24	3.7 lbs.

HANGER ASSEMBLY

To provide support of conductor sections, choose from polymer snap-in, steel, or insulated steel hanger assemblies. Hanger assemblies accommodate a minimum conductor spacing of 4 inches.



Line Element Rating	Catalog Number		
	Polymer Snap-In Type	Steel Clamp Type	Insulated Steel Type
400 Amp	HX-400H	N/A	N/A
700 & 1000 Amp	HX-1000H	HX-1000SH	HX-1000SHI
Approximate Shipping Weight	.2 lbs./ .3 lbs.	.6 lbs.	1.20 lbs.

END COVER

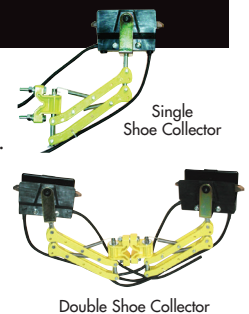
This vinyl cover insulates the conductor bar at each end of a system.



Description	Catalog Number	Approximate Shipping Weight
End Cover for 400 Amp	HX-400EC	.7 lbs.
End Cover for 700 & 1000 Amp	HX-1000EC	1.0 lbs.

COLLECTOR ASSEMBLIES

Collector assemblies are offered in single or double shoe designs. They provide continuous current pick up from 200 through 400 amperes. The contact shoes are mechanically supported by an insulating support assembly that is spring loaded by an arm and body mechanism. Collectors are furnished with copper graphite contacts for speeds up to 900 feet per minute.



Collector Type	Catalog Number	Approximate Shipping Weight
200 Amp Single Shoe	PHX-200SPC-A	.7 lbs.
400 Amp Double Shoe	PHX-400STPC-A	1.0 lbs.