

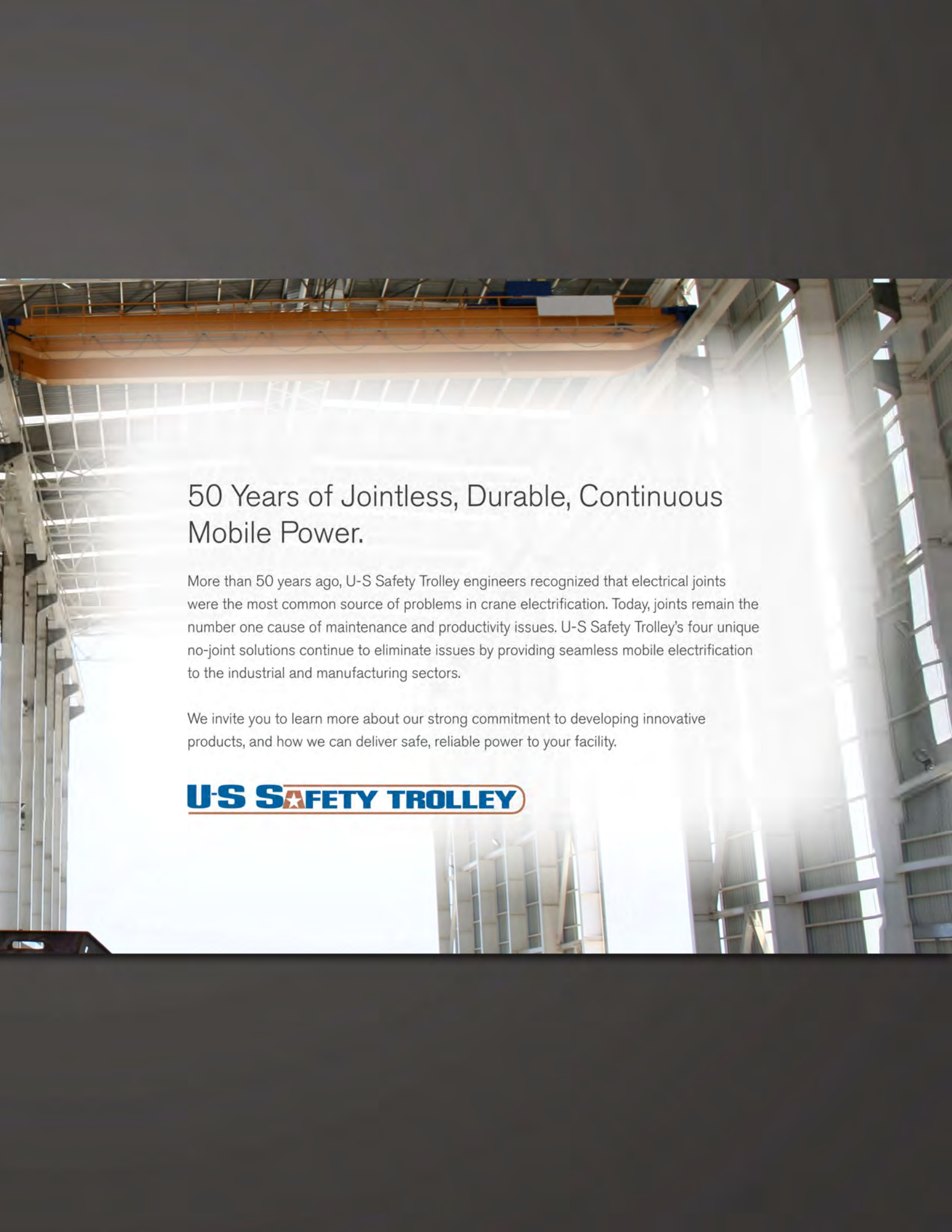


# Industrial and Manufacturing Applications









## 50 Years of Jointless, Durable, Continuous Mobile Power.

More than 50 years ago, U-S Safety Trolley engineers recognized that electrical joints were the most common source of problems in crane electrification. Today, joints remain the number one cause of maintenance and productivity issues. U-S Safety Trolley's four unique no-joint solutions continue to eliminate issues by providing seamless mobile electrification to the industrial and manufacturing sectors.

We invite you to learn more about our strong commitment to developing innovative products, and how we can deliver safe, reliable power to your facility.

**U-S SAFETY TROLLEY**

# U-S SAFETY TROLLEY

U-S Safety Trolley Solution	Nominal Current Rating	Environment	Common Application	System Profile
<p><b>Span-Guard</b></p>	<p>250 &amp; 520 Amp</p>	<p>Indoor &amp; Outdoor</p>	<p>Lock &amp; dam installations, crane electrification, steel mills, paper mills, etc.</p>	
<p><b>Tri-Bar/Four-Bar</b></p>	<p>100 &amp; 125 Amp</p>	<p>Indoor &amp; Outdoor</p>	<p>Factory assembly lines, monorails, amusement park rides, aircraft hangar doors, crane &amp; hoist electrification, etc.</p>	





**Technical Data & System Ratings**

Specifications	Span-Guard	Tri-Bar/Four-Bar
Ampacity	250/520	100/125
Voltage Up To	480V	600V AC or DC
Rated Short Circuit Capacity	10kAIC	10kAIC
Conductor Type	Copper	Copper
Frequency Ratings	50/60Hz	50/60Hz
Collector Options	100/200/300/400A	35/70/125A
Temperature	5°F (-15°C) to 131°F (55°C)	0°F (-17.7°C) to 130°F (54.4°C)
Housing Material	Flexible insulated PVC	Extruded PVC
System Weight	250A (copper+cover): 1ft (.3m) = 1.2lbs (.54kg) 520A (copper+cover): 1ft (.3m) = 1.5lbs (.68kg)	Tri-Bar: 1ft (.3m) = 1.5lbs (.68kg) Four-Bar: 1ft (.3m) = 1.9lbs (2.82kg)
Support Distance	Every 15-25ft (4.5-7.6m)	Every 5ft (4.5m)
Available Lengths	Up to 2000ft (609m)	Unlimited



## SPAN-GUARD

### Features

Superior design - continuous copper conductor and self-closing cover - NO ELECTRICAL JOINTS!

Available in 250 520 & our new 1050 amp

Most reliable crane electrification system for indoor and outdoor applications

15-25 feet (5-8 meters) hanger spacing, suitable for roof trusses for support

Copper conductor and cover are factory assembled to length specifications, and shipped on a reel

Safe - avoids accidental contact with conductors

Optional green color coded hangers to easily identify ground conductors

### Unsurpassed Durability

Heavy duty design and construction allow it to take abuses that other systems could not

Sustains high-wear applications and outdoor weather and temperatures

### Easy Installation & Maintenance

Fewer parts, allowing for faster installation up-front, and less maintenance in the future

Advanced manufacturing methods make it possible to ship the conductor and cover in coil form to your exact length requirements

Span-Guard was the first continuous, joint-free electric conductor bar introduced. Span-Guard is uniquely designed without joints in the copper conductor. The flexible and fully-enclosed insulated cover provides the most reliable, highest quality conductor system on the market. The jointless conductor is ideal for cranes, hoists, and moving equipment where problems and downtime cannot be tolerated.

Capable of running joint-free at lengths up to 2,000 feet (610 meters), Span-Guard eliminates the power loss and overheating associated with the unreliable electrical joints of other heavy industrial power systems.

### Advantages of Span-Guard:

- Eliminates the most common source of crane electrification problems: electrical joints
- Installs faster - 50% less time than jointed conductor bar systems
- Under tension - no expansion joints required
- Virtually maintenance free
- Corrosion resistant in harsh environments



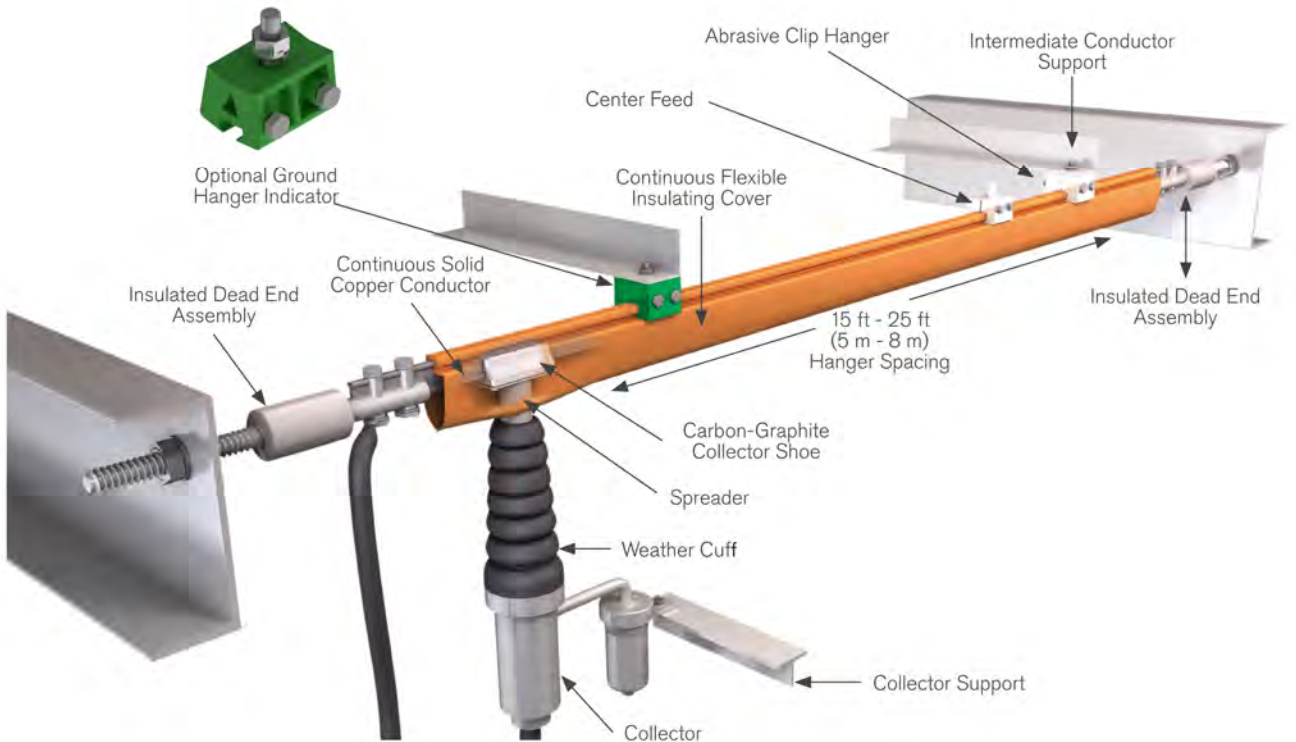
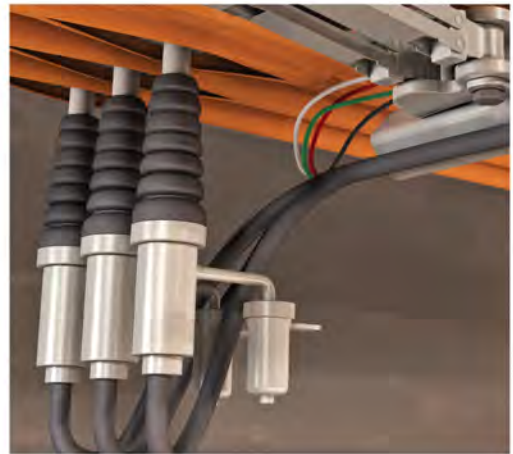
**Span-Guard**

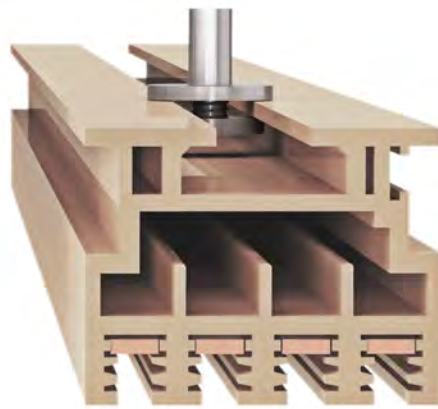
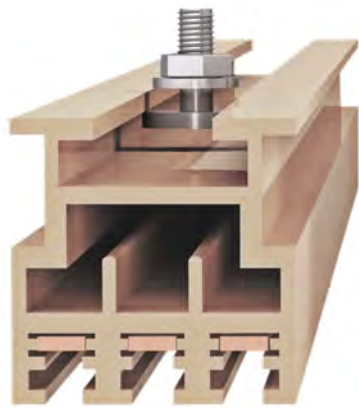
PERFECT FOR
Crane Electrification
Lock & Dam Installations
Steel Mills & Paper Mills
Chemical Plants
Industrial/Manufacturing Environments



**100, 200, 300 & 400 Amp Collector**

Spring-loaded collectors use a carbon-graphite shoe, making them more reliable and less costly to maintain than wheel-based trolley systems. The collectors automatically compensate for up-and-down and side-to-side misalignments between the trolley electrification bars and the crane runway.





## **TRI-BAR/FOUR-BAR**

### **Features**

Joint-free with the ability to be factory shaped into curves, ovals, and loops

Available in 100 & 125 Amp sizes

Rated to withstand both inside and outside environments

Custom systems are shipped for simple assembly and installation

Simple and straightforward installation and maintenance

Reduced hang-ups and derailments

### **Joint-Free Design**

Continuous, joint-free electrical conductors for the entire length of the run - NO ELECTRICAL JOINTS

One-piece copper conductors are cut to each job requirement and shipped in a coil

### **Hassle-Free Crane Electrification**

Can extend for hundreds of feet or meters using continuous copper conductors

Can be shaped to specifications and modified with switches, isolated zones, and disengagable trolleys

Eliminates issues related to loose joints, expansion, misalignment, fitted steel bars, etc.

Tri-Bar/Four-Bar continuous conductor bar systems have been a long-time favorite among our customers. The joint-free construction, easy installation and maintenance, and custom fabrications make this system the sensible choice in electric trolley bar systems.

When U-S Safety Trolley set out to design an electric trolley system, we kept two things in mind. *First* - most problems with mobile electrification arise at the conductor joints. *Second* - on trolley systems those problems, and even extended routine maintenance, create downtime. That costs customers money. We eliminated the conductor joints, simplified installation, and created the Tri-Bar/Four-Bar electric trolley product line.

### **Advantages of Tri-Bar/Four-Bar:**

- Eliminates the threats that come with jointed systems, including loose, expanding and overheating joints
- Installs faster - 50% less time than jointed conductor bar systems
- Virtually maintenance free
- UL listed



**Tri-Bar/Four-Bar**

**PERFECT FOR**

- Crane Electrification
- Assembly Lines (with hipot testing)
- Cutting Tables and Sewing Lines (garment industry)
- Hangar Doors
- Monorails and Amusement Park Rides



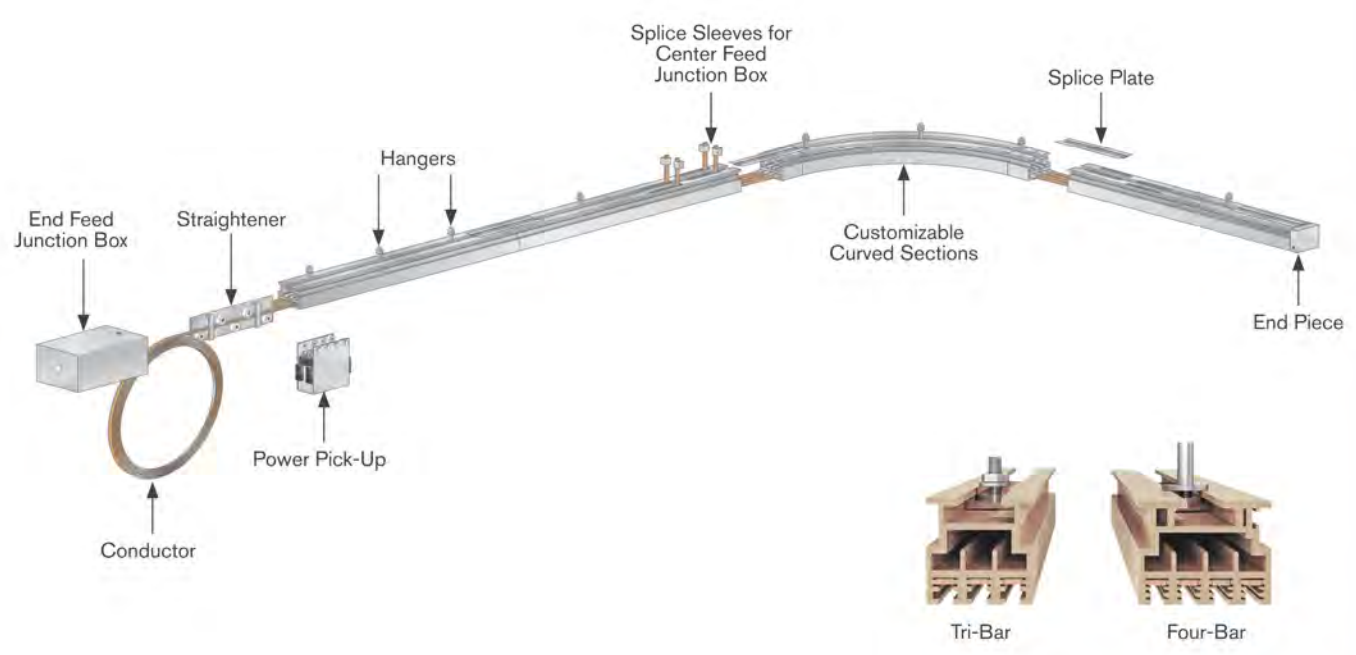
**35, 70 & 125 Amp Collectors**

The spring loaded durable design is optimal for moving trolleys.



**15, 30 & 50 Amp Power Pickups**

This self-supported design has a built-in internal wiring box area. The unit rolls on bearings captive on the track. It also has fused J-Box options available.



U-S Safety Trolley certified technicians have the knowledge and expertise to ensure that your system is functioning at a best-in-class level.

**AVAILABLE SERVICES**

On-site system training

On-site U-S Safety Trolley installation support

System startup and certification

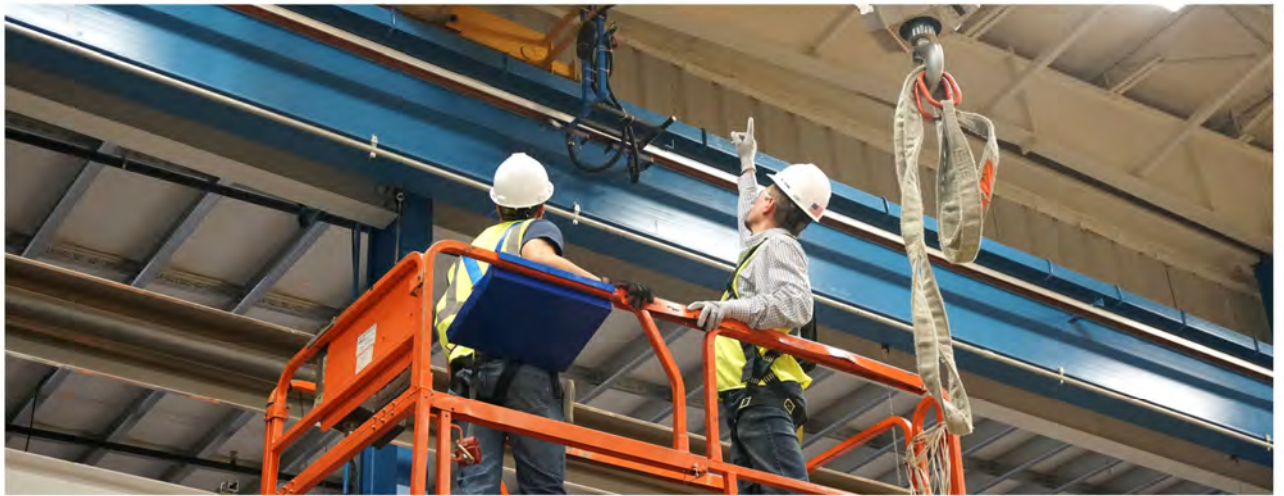
Extended warranties and enhanced service plans

Arch flash engineering studies

Thermal imaging and reporting



For more information on service offerings, ask your U-S Safety Trolley Sales Representative





**Special Applications & Added Value**

U-S Safety Trolley Parts & Accessories		
Application	Description	Part Drawings
<p><b>Customized Systems</b> Engineering and manufacturing expertise to design and build complex curvatures and shapes, according to customer specifications.</p>	<p><b>Curved Systems</b> Factory designed and installed components to enable easy field installation of any length and degree: 90 and 180 degree, radius of 18" (450 mm) or more, "S" curves, curve-straight, horizontal/vertical, angle cut.</p>	
<p><b>Installation Tools</b> Proprietary and unique installation tools designed to assist you to perform a faster, proper installation.</p>	<p><b>Straightener Tool</b> Tri-Bar/Four-Bar systems: recommended for 100 ft (40 m) or longer conductors.</p> <p><b>Installation Tool</b> PowerGlide: Used to snap the insulator-copper into the housing for easy installation.</p> <p><b>Cable Grip</b> Spanguard: Used to grip and pull each conductor into tension.</p>	<p>Straightener Tool</p>  <p>Installation Tool</p>  <p>Cable Grip</p> 
<p><b>Deposit Items</b> Facilitate seamless transportation and shipping, and easier installation. Items are fully refundable upon return.</p>	<p><b>Conductor Coil Cross</b> Tri-Bar/Four-Bar</p> <p><b>Shipping Reel</b> Span-Guard</p> <p><b>Cable Pulley</b> Span-Guard: to allow easier positioning and displacement of conductor and insulated cover.</p>	<p>Shipping Reel</p>   <p>Conductor Coil Cross</p>  <p>Cable Pulley</p>
<p><b>Repair Kits</b> Designed to easily repair a damaged insulation section and/or to add an additional section to an existing system.</p>	<p><b>Repair Kit</b> Includes all necessary components to easily field repair and/or replace an insulation cover section and to splice (2) conductors.</p>	

\*All accessories may not be available for all U-S Safety Trolley systems.

Spanguard, the manufacturer of U-SafetyTrolley, has been a leader in power distribution since 1924. The company's founders led the way for many new technologies in the power distribution equipment industry. Today, this family tradition of innovation continues to pave the way for safer, more innovative and more reliable electrical power distribution systems. Visit [www.USSafetyTrolley.com](http://www.USSafetyTrolley.com) for your flexible power solutions.

**U-S SAFETY TROLLEY**

**SPAN-GUARD**  
CORPORATION

North American Headquarters

14 N Main Street | Tioga, PA 16946 | USA | 570-948-2627

