

KNCRANES

# Kinocranes AN Series Seamless Conductor Rail System

Uninterrupted Power for Modern Crane Operations



Website: [www.kinocranes.com](http://www.kinocranes.com)

# The Weak Link in Crane Operations: The Conductor Joint

Traditional power rails rely on joints, which are inherent points of failure. These weaknesses translate directly into operational inefficiency and increased costs.



**Frequent Downtime:** Joints are prone to mechanical failure and electrical arcing, leading to unscheduled maintenance and costly production stops.



**Voltage Instability:** Poor connections at joints cause significant voltage drops, impairing crane performance and shortening motor lifespan.



**Complex Installation:** Aligning and securing numerous short rail sections is time-consuming, labor-intensive, and susceptible to error.

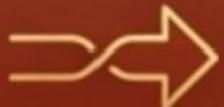


**Reduced Speed & High Noise:** Collectors traversing joints create vibrations and noise, limiting maximum travel speed and contributing to mechanical wear.



# Engineered for Uptime: The AN Series Seamless Solution

With increasing factory automation, the demand for miniaturized, easy-to-install, and highly stable conductor systems is critical. The Kinocranes AN Series delivers a seamless, high-performance solution designed for reliability.



## Continuous Power Delivery

Supplied in continuous lengths up to 1000 meters without a single electrical joint.



## Smooth & Quiet Operation

The seamless surface enables high-speed travel with minimal noise and collector wear.



## Unmatched Reliability

By eliminating joints, the primary point of failure in conventional systems is completely removed.

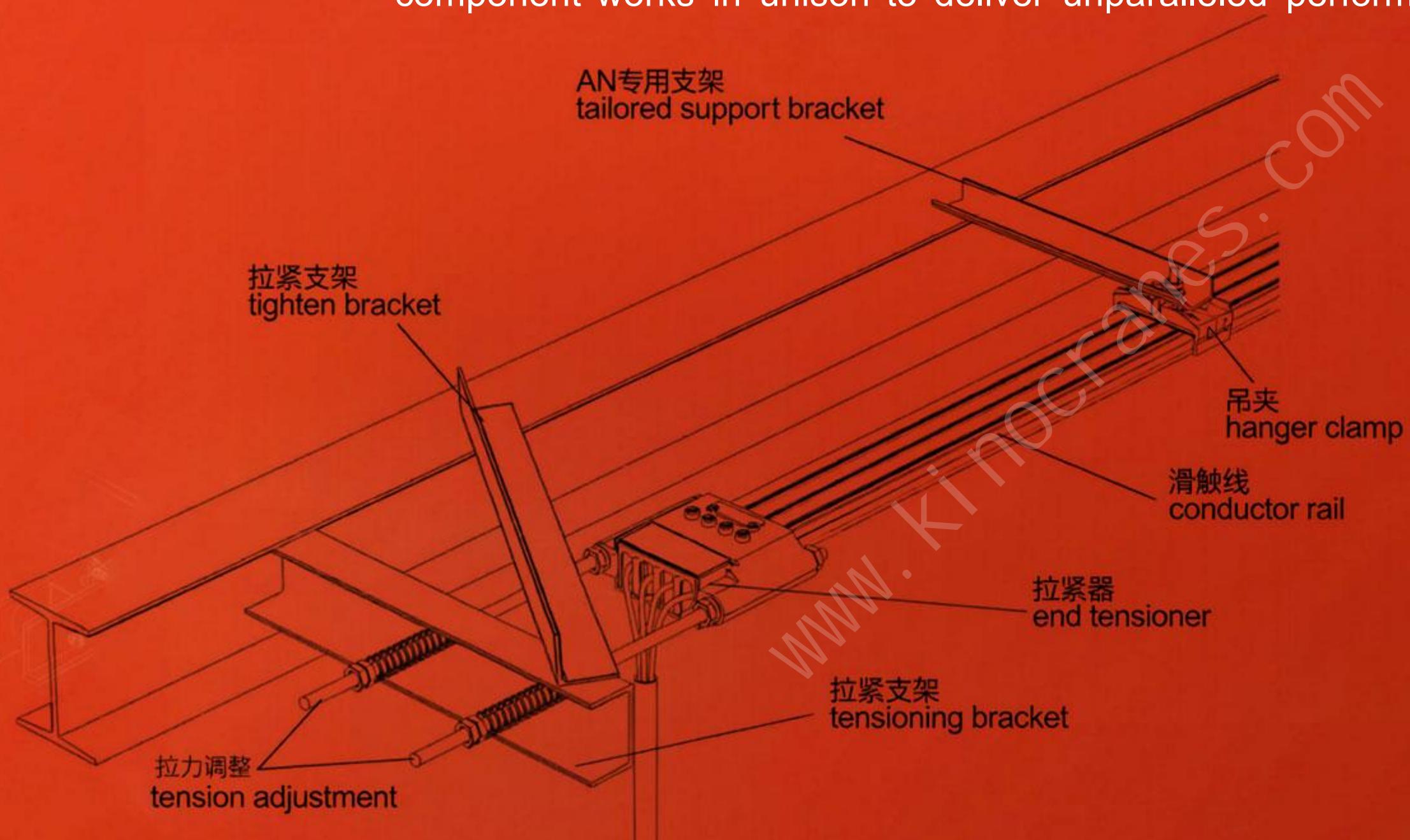


## Simplified Installation

Long, continuous runs drastically reduce installation time and labor costs.

# An Integrated Ecosystem for Flawless Power Transmission

The AN Series is more than a collection of parts; it's a complete, engineered system where every component works in unison to deliver unparalleled performance and reliability.



## 1. The Conductor Backbone

The seamless orange conductor rail, designed for continuous, joint-free power distribution over long distances, ensuring minimal voltage drop and maximum reliability.

## 2. The Power Connection

The advanced collector assembly, featuring multi-contact brushes and a durable towing arm for stable, high-speed power transfer from the rail to the crane.

## 3. The System Framework

The robust support brackets, hanger clamps, and end tensioners that maintain precise alignment and tension, providing a secure and stable foundation for the entire power system.

# Part 1: The Conductor Backbone

## A Flawless Path for Continuous Power



**Core Material:** High-conductivity copper conductors ensure minimal voltage drop and maximum efficiency.



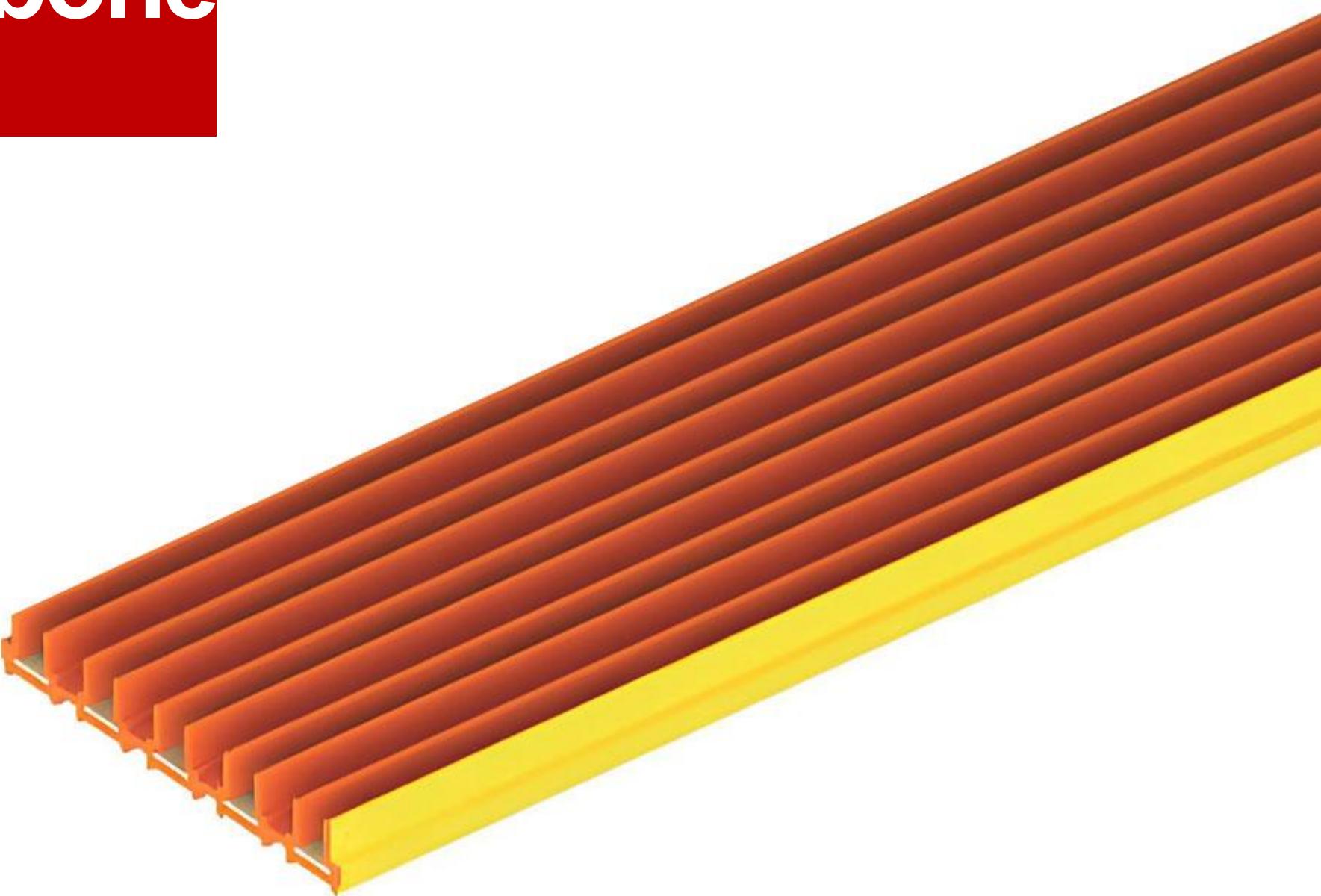
**Safety Insulation:** Encased in a durable, rigid PVC jacket (heat resistance: 75 °C) for superior electrical insulation and operator safety.



**High Visibility:** Finished in a bright orange 'dangerous color' for clear identification in a busy industrial environment.



**System Flexibility:** Available in 2-pole(AN2P) 3-pole(AN3P), 4-pole(AN4P) and 5-pole(AN5P) configurations to match diverse load requirements.



# Conductor Rail Technical Specifications - 1

AN4P Body (Indoor only) | Rating: 660V, 50A-140A

Type	Poles	Conductor Cross Section (mm <sup>2</sup> )	Max. Current (A)	Cat. -No.
AN761004	4	4×10mm <sup>2</sup>	50A	761004
AN761504	4	3×15mm <sup>2</sup> + 1×10mm <sup>2</sup>	80A	761504
AN762004	4	3×20mm <sup>2</sup> + 1×10mm <sup>2</sup>	100A	762004
AN762504	4	3×25mm <sup>2</sup> + 1×10mm <sup>2</sup>	120A	762504
AN763504	4	3×35mm <sup>2</sup> + 1×15mm <sup>2</sup>	140A	763504

AN3P Body (Indoor only) | Rating: 660V, 50A-120A

Type	Poles	Conductor Cross Section (mm <sup>2</sup> )	Max. Current (A)	Cat. -No.
AN761003	3	3×10mm <sup>2</sup>	50A	761003
AN761503	3	3×15mm <sup>2</sup>	80A	761503
AN762003	3	3×20mm <sup>2</sup>	100A	762003
AN762503	3	3×25mm <sup>2</sup>	120A	762503

# Conductor Rail Technical Specifications - 2

AN5P Body (Indoor only) | Rating: 660V, 50A–140A

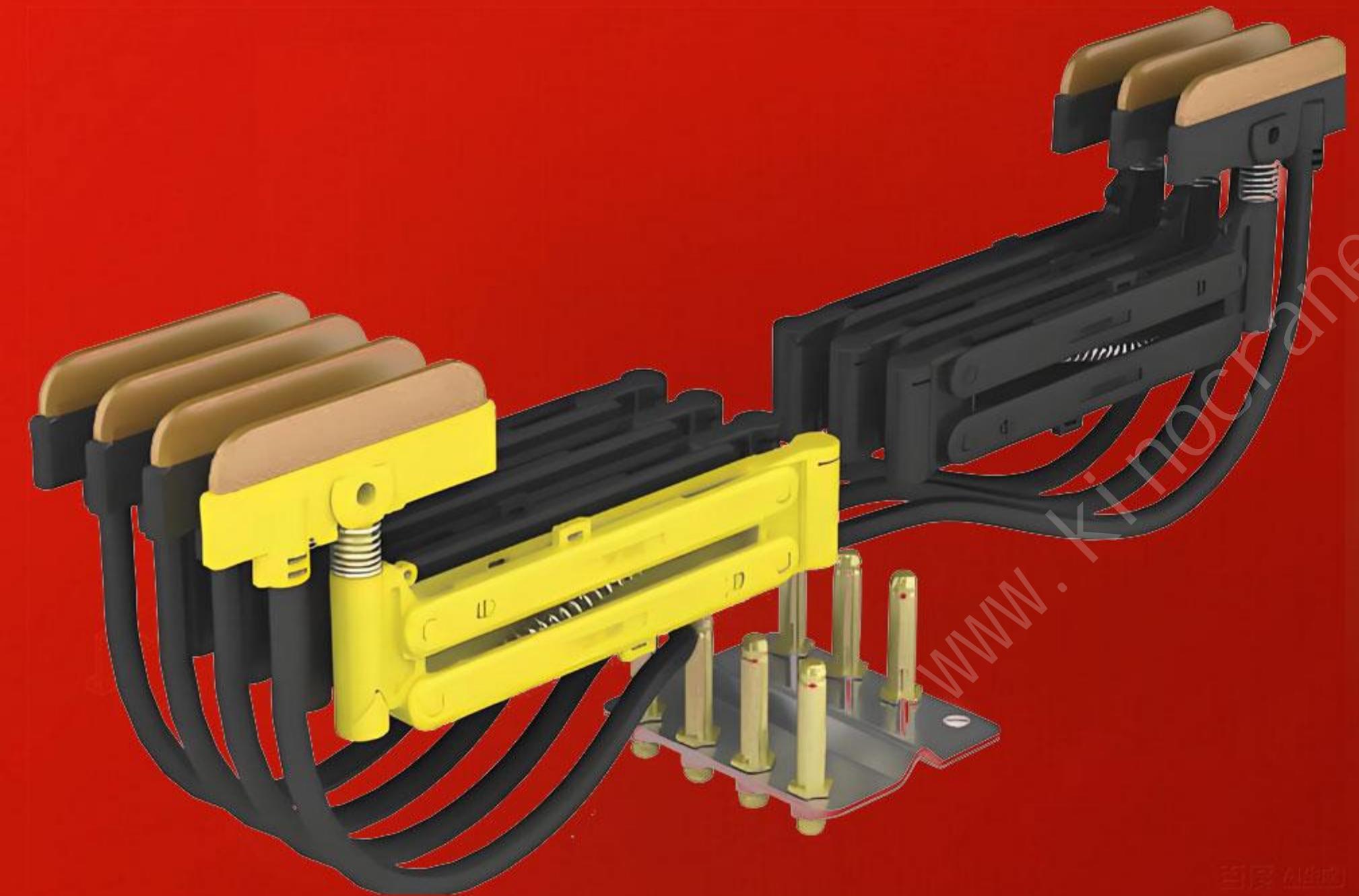
Type	Poles	Conductor Cross Section (mm <sup>2</sup> )	Max. Current (A)	Cat. -No.
AN761005	5	5×10mm <sup>2</sup>	50A	761005
AN761505	5	5×15mm <sup>2</sup> or 3×15mm <sup>2</sup> + 2×10mm <sup>2</sup>	80A	761505
AN762005	5	5×20mm <sup>2</sup> or 3×20mm <sup>2</sup> + 2×10mm <sup>2</sup>	100A	762005
AN762505	5	5×25mm <sup>2</sup> or 3×25mm <sup>2</sup> + 2×10mm <sup>2</sup>	120A	762505

AN2P Body (Indoor only) | Rating: 660V, 50A–120A

Type	Poles	Conductor Cross Section (mm <sup>2</sup> )	Max. Current (A)	Cat. -No.
AN761002	2	3×10mm <sup>2</sup>	50A	761002
AN761502	2	3×15mm <sup>2</sup>	80A	761502

# Part 2: The Power Connection

## Constant, Reliable Contact at Any Speed



**Robust Design:** Engineered for stable, continuous contact with the conductor rail, ensuring uninterrupted power flow.



**Durable Materials:** Utilizes a combination of high-grade plastic and long-life carbon brushes for excellent conductivity and low friction.



**Configuration Options:** Available in Single and Double Collector models to accommodate standard and high-amperage applications.



**Towing System:** A dedicated steel Towing Bracket ensures the collector assembly tracks perfectly with the crane.

# Collector Assembly Component Specifications

**Collector**



Type	Rating	Weight (kg)	Material	Cat. -No.	Remark
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AN769060	660V60A	0.17	Plastic &Carbon	769060	Phase
AN769065	660V60A	0.17	Plastic &Carbon	769065	Neutral
AN769080	660V120A	0.34	Plastic &Carbon	769080	Phase
AN769085	660V120A	0.34	Plastic &Carbon	769085	Neutral

**Towing Bracket**



Type	Model	Weight (kg)	Material	Cat. -No.
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AN769103	3P	0.122	Steel	769103
AN769104	4P	0.168	Steel	769104

**Carbon Brush**



Model	Weight (kg)	Material	Cat. -No.	Remark
For collector	0.075	Plastic & Carbon	769010	Phase
For collector	0.075	Plastic & Carbon	769015	Neutral

# Part 3: The System Framework

## The Foundation for Precision and Reliability



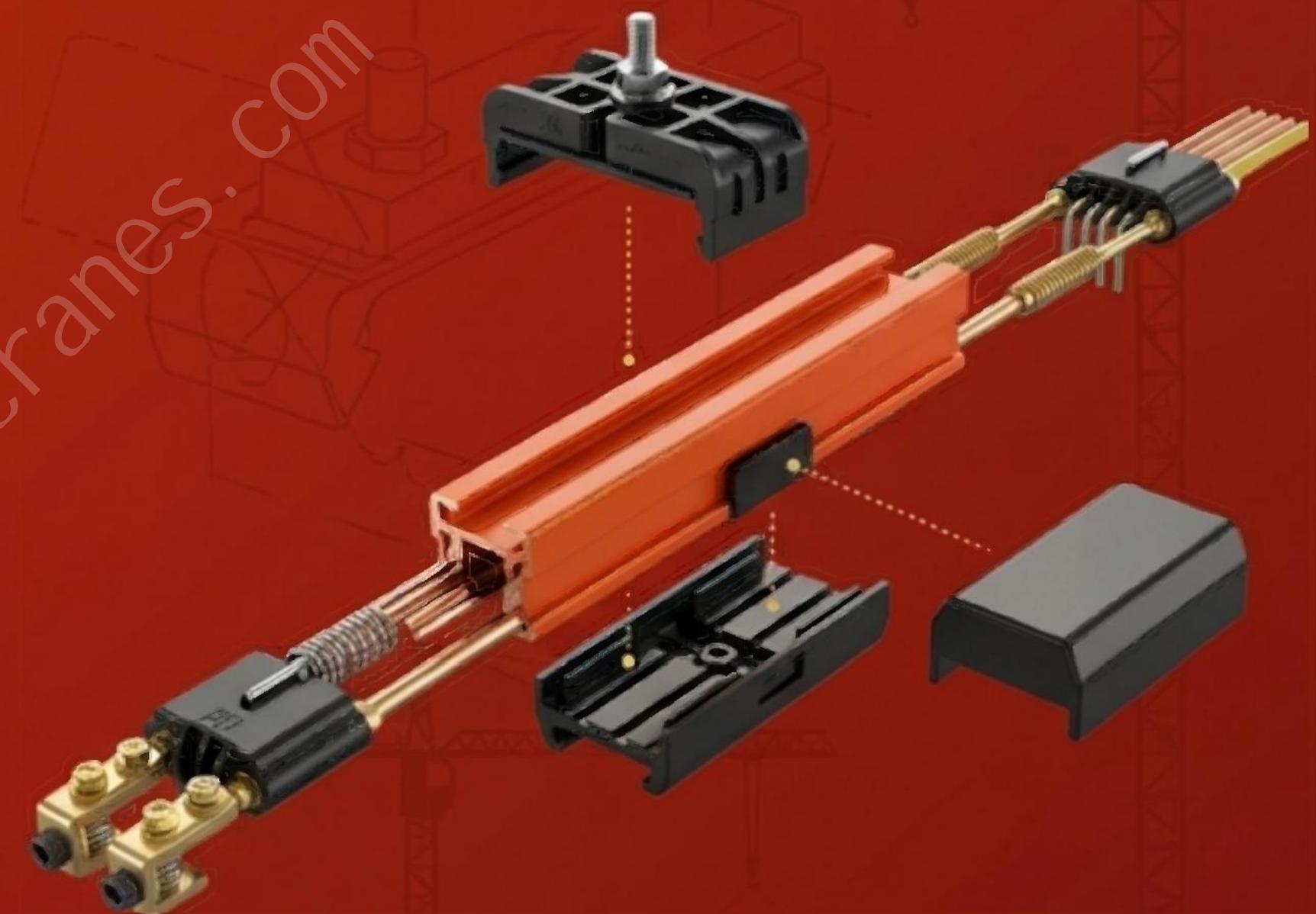
**Secure Mounting:** A system of Hanger Clamps and tailored Support Brackets ensures rigid, precise alignment. Standard installation distance is 1.2m (max 2.0m).



**Versatile Power Input:** The system supports both End Feeding via the End Tensioner and Line Feeding via a Jointing Box, allowing for flexible power input points.



**Automatic Tensioning:** The spring-loaded End Tensioner maintains optimal conductor tension across varying ambient temperatures, preventing sagging and ensuring perfect collector contact.



# Support & Feeding Component Specifications



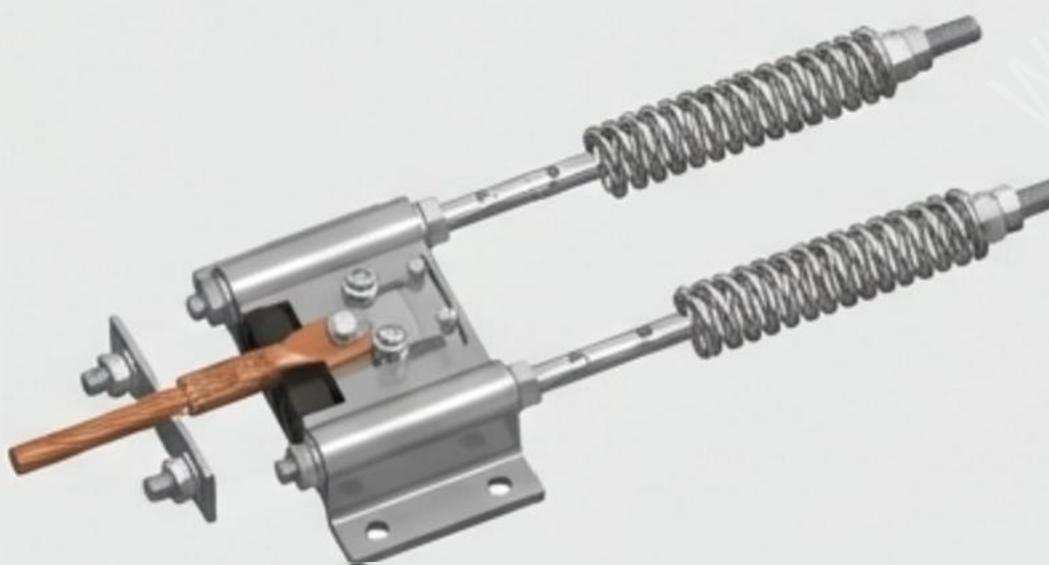
## Hanger Clamp

Type	Model	Weight (kg)	Material	Cat. -No.
AN768503	3P 50A-120A	0.070	Plastic	768503
AN768513	3P 140A	0.068	Plastic	768513
AN768504	4P 50A-120A	0.080	Plastic	768504
AN768514	4P 140A	0.078	Plastic	768514



## Jointing Box (Line Feeding)

Type	Model	Rating	Weight (kg)	Cat. -No.
AN768303	3P	660V100A	0.20	768303
AN768304	4P	660V100A	0.25	768304



## End Tensioner (End Feeding)

Type	Model	Rating	Weight (kg)	Cat. -No.
AN768003	3P	660V120A	1.60	768003
AN768013	3P	660V120A	1.75	768013
AN768004	4P	660V120A	2.05	768004
AN768014	4P	660V120A	2.25	768014
AN768023	3P	660V140A	1.75	768023
AN768033	3P	660V140A	2.10	768033
AN768024	4P	660V140A	2.25	768024
AN768034	4P	660V140A	2.45	768034

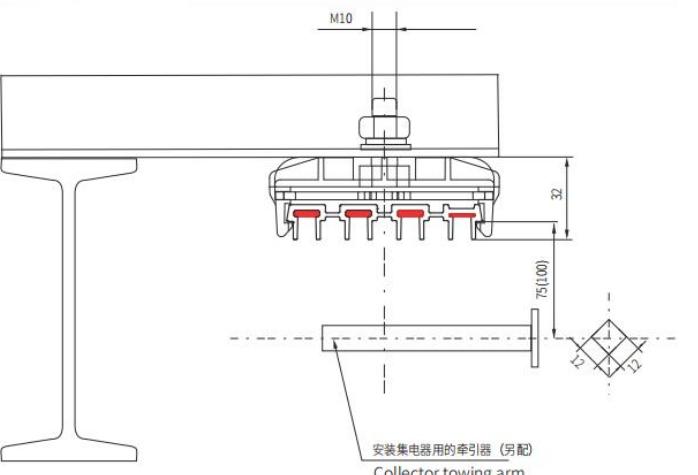
# Precision Installation for Peak Performance

The AN Series is designed for straightforward installation while allowing for the flexibility needed in complex industrial environments.

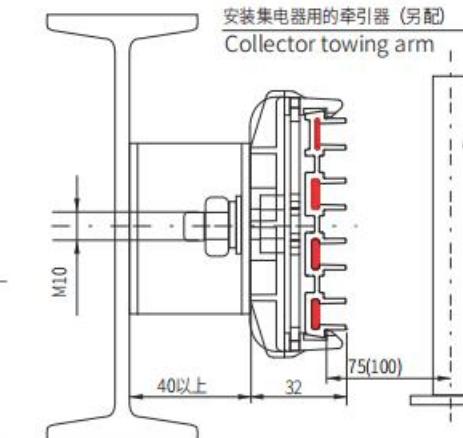


# Mounting Versatility

**Supports both standard horizontal and vertical installation to accommodate any facility's structural design.**



## Horizontal Installation

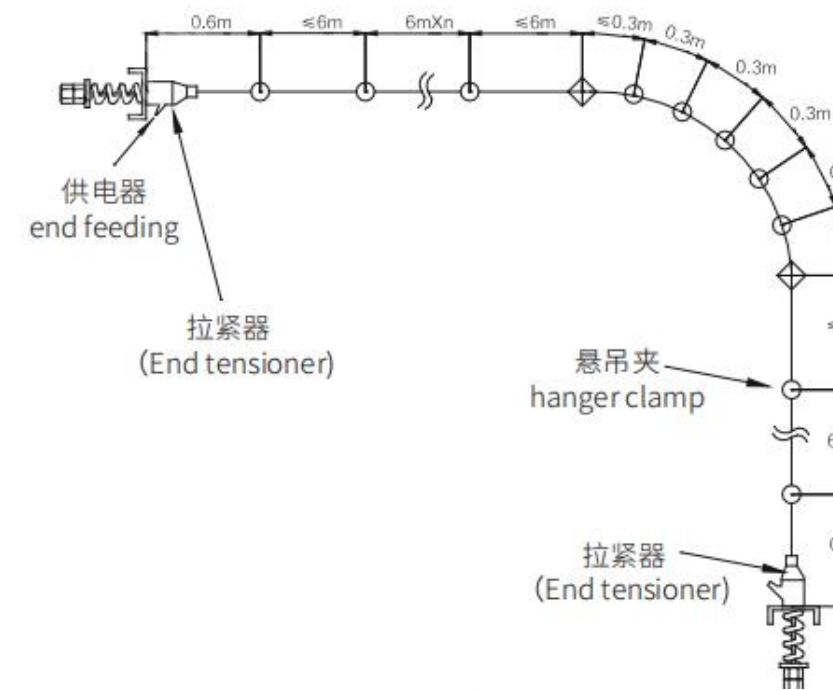


## Vertical Installation



# Curved Applications

The system is fully engineered for curved track layouts, providing continuous, reliable power through complex paths.

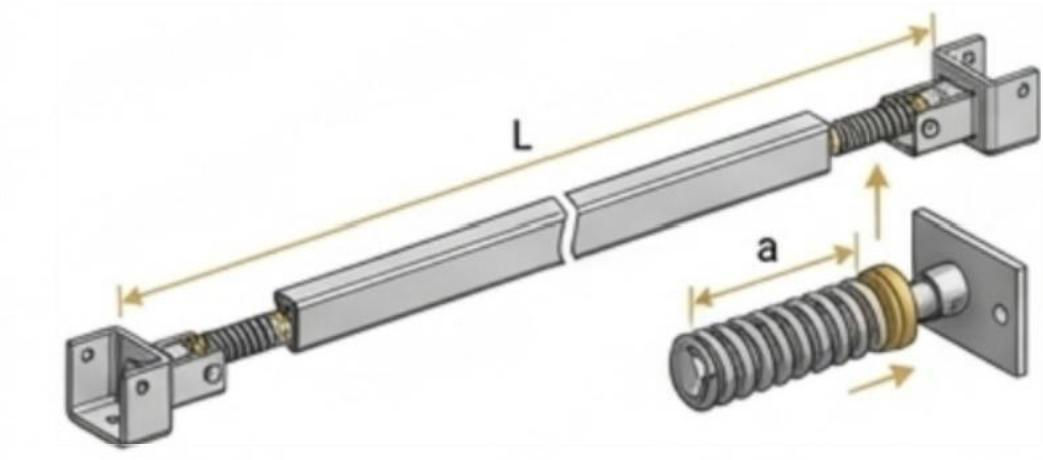




# Tensioning Science

A precise formula ensures correct spring tension is applied based on rail length and ambient temperature, maximizing system life and performance.

$$a = 140 + 16.6 \times 10^{-3} \times (T - 10) \times L \pm 15 \text{ mm}$$



# Advanced Capability: All-Weather Operation

## Optional Heating System for Unstoppable Performance



### The Challenge

Icy or freezing conditions can disrupt collector contact, leading to power failure and operational shutdowns.



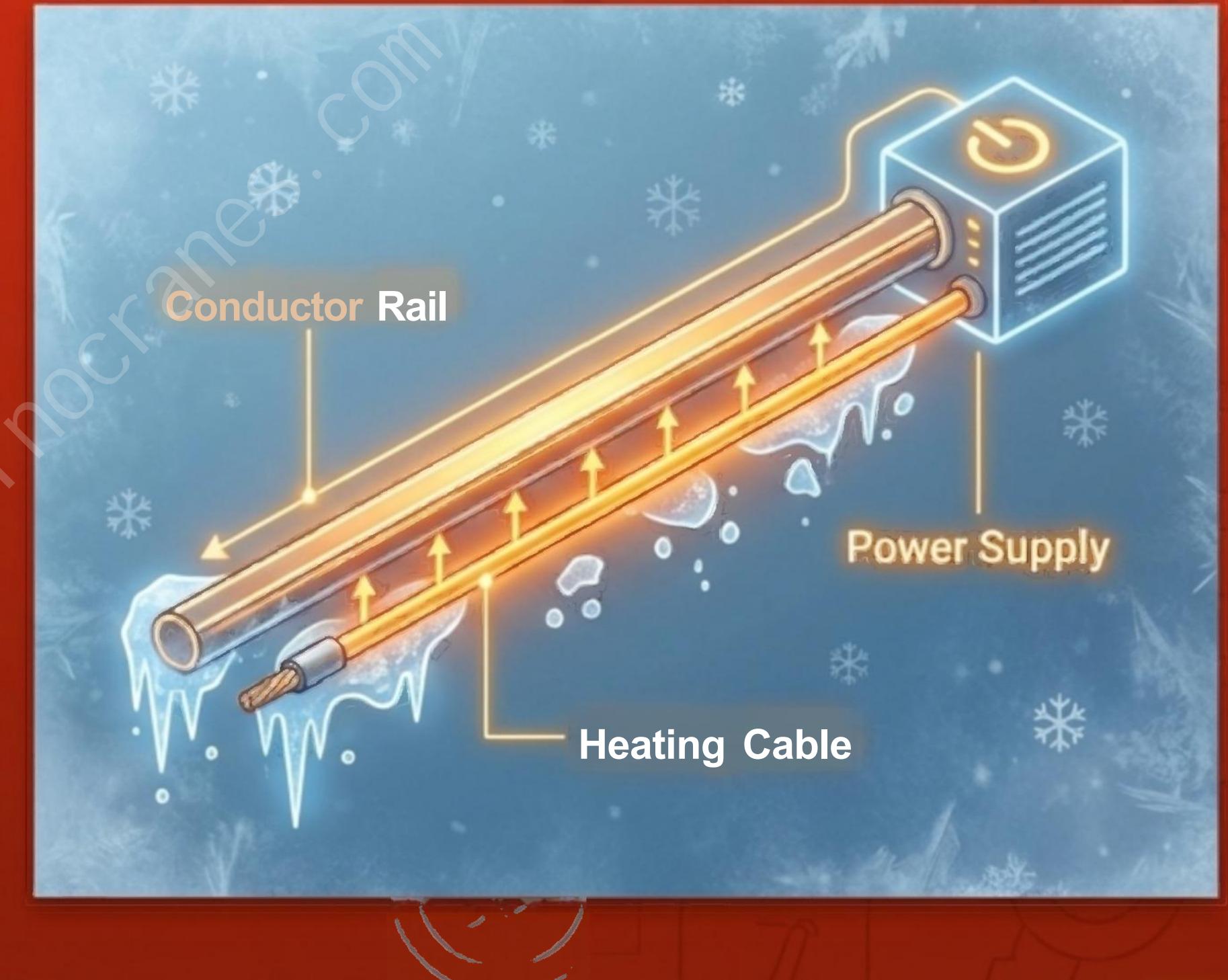
### The Solution

An optional, fully integrated heating cable system runs alongside the conductors, preventing ice buildup and ensuring flawless operation in cold environments.



### System Details

- **Conductor:** Cr20Ni80 stranded
- **Insulation:** Teflon-insulated with a natural color glass silk sheath



# The Hallmarks of Kinocranes: Power, Precision, and Partnership



## High-End Manufacturing

The AN Series system embodies the power and precision of China's advanced manufacturing sector, built with premium materials under strict quality control.



## Certified Reliability

Engineered and tested to meet rigorous international standards for safety and performance.



## Expert Partnership

We provide comprehensive technical support to ensure your system is specified, installed, and maintained for maximum uptime.



# Let's Engineer Your Ideal Power Supply Solution

To provide you with the most accurate and efficient solution, our engineering team is ready to assist. Please have the following details about your application ready when you contact us.



Type of crane or machinery



Required voltage and phases



Total length of the conductor system



Number of cranes/machines on the system



Operating Environment  
(Indoor/Outdoor, temperature, dust, etc.)

The logo consists of the word "KNCRANES" in a bold, sans-serif font. The letters are primarily red, with the "K", "N", "R", and "E" featuring a yellow rectangular highlight on their left side. The "C" and "A" are partially obscured by a diagonal watermark.

KNCRANES

The tagline is displayed in a large, bold, yellow sans-serif font. It reads "Kinocranes. Powering Your Productivity." with a period at the end.

Kinocranes. Powering Your Productivity.

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