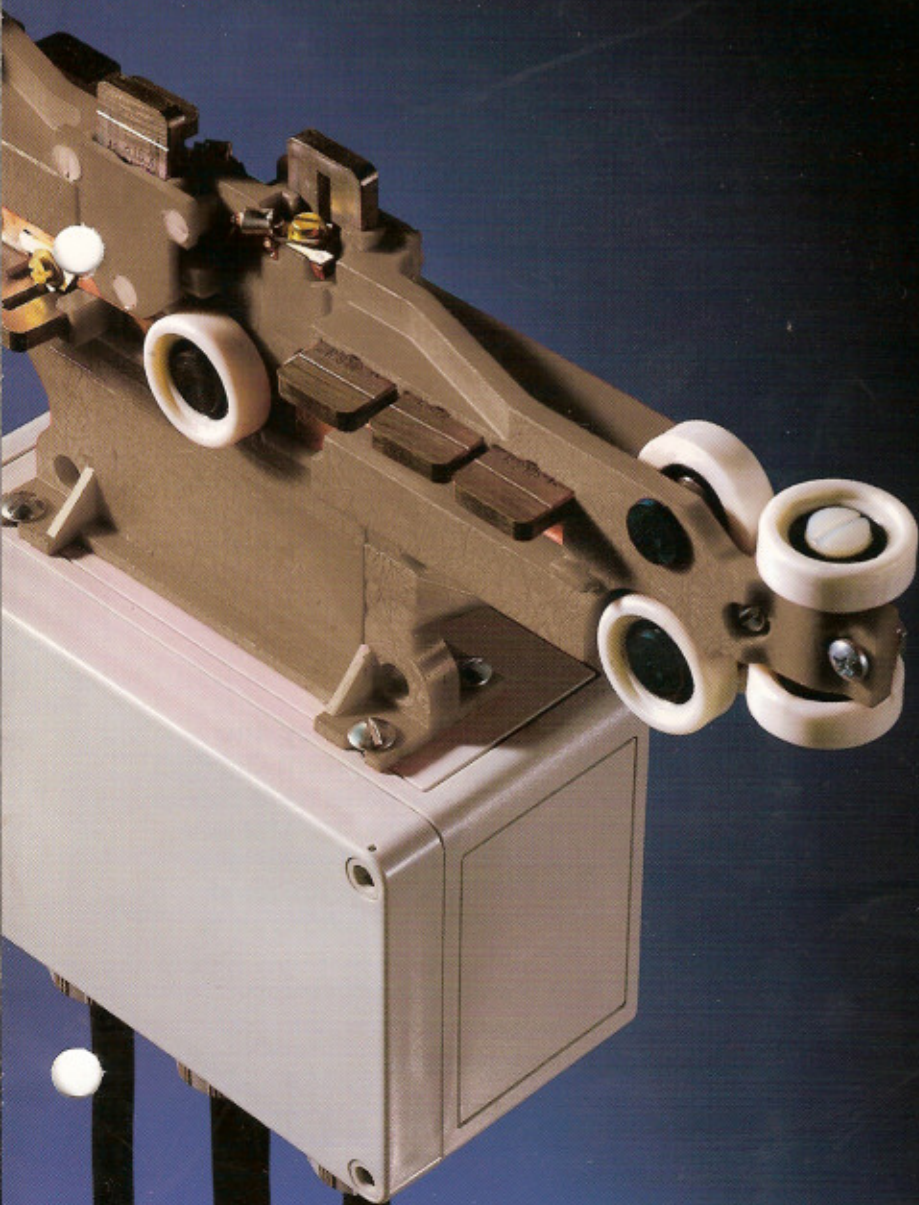


POW-R-FEED A/S

6 CONDUCTOR POWER BAR SYSTEM



HIGH
AMP/HIGH
SPEED
POWER &
CONTROL
FOR MOBILE
EQUIPMENT
& AS/RS
SYSTEMS

Aero-Motive Company



A Woodhead Industries, Inc. Subsidiary

MOBILE ELECTRIFICATION

POW-R-FEED A/S

APPLICATIONS

The Aero-Motive Pow-R-Feed A/S continuous contact, totally enclosed, multi-conductor system was designed specifically for the speed, capacity and reliability requirements of automatic storage and retrieval systems. Many mobile equipment applications including hoists and overhead cranes are also able to take advantage of many of the features of the Pow-R-Feed System. It's built for the speed you need.

Increasing productivity is the goal of most companies today. As companies upgrade their systems efficiency, speed and reliability become important. Pow-R-Feed A/S was designed to meet the heavy duty cycle demands of our customers at speeds up to 1200 fpm



Aero-Motive Pow-R-Feed systems are designed to deliver power quickly, efficiently and dependably every time. Systems can be configured for indoor or outdoor use and extreme environmental conditions.

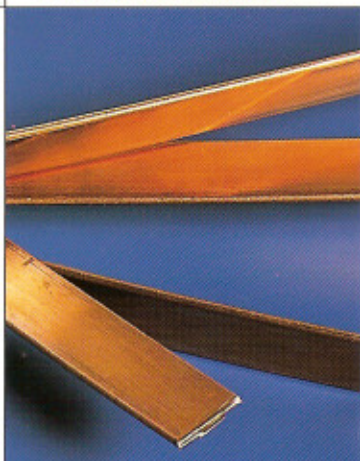
The Pow-R-Feed A/S system can be installed with switches and transfer arrangements to solve complex equipment movement requirements.



POW-R-FEED A/S

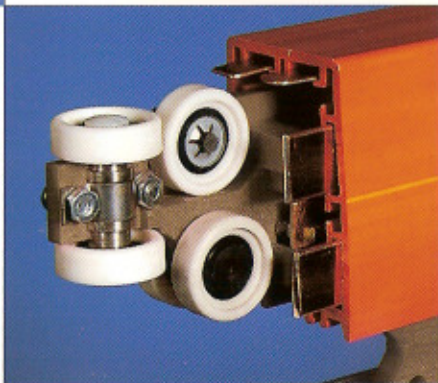
FEATURES

Continuous Conductor Strips Flexible copper conductors deliver reliable, trouble-free power to mobile equipment up to 656 feet. Joint free design ensures longer brush life, reduced signal interference and minimal voltage drop.

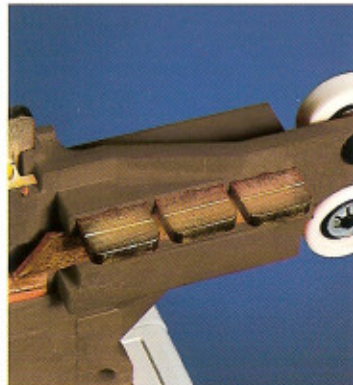


Protected from Corrosion, Dust & Humidity High-impact PVC housing sections keep contaminants and personnel safely away from conductors. Optional sealing strips are available for outdoor and high dust environments.

High Speed Operation Twelve steel ball bearing wheels are strategically positioned to permit running speeds up to 1200 fpm and quick acceleration/deceleration. All wheels—both guide and load bearing are the same for easier maintenance.



Power You Can Count On Three individual brushes per power conductor provide better electrical contact than one larger brush.



Compact Design

At 2" x 3.4" (51.4mm x 6.25mm), The Pow-R-Feed A/S conductor housing can fit almost anywhere you need it to keep your Automatic Storage / Retrieval System or other mobile equipment powered up.

Fast, Simple Installation

Lightweight housings, continuous copper and unique hanger design make for easy installation.

No Expansion Problems

Sliding hangers allow for thermal expansion of the conductor housing from a fixed anchor point.

Wide Operating Environmental Range

Free floating design allows for wide fluctuations in ambient temperature. Epoxy coated galvanized steel mounting hardware and high performance engineered thermoplastic components ensure long term performance, even in difficult environments. Stainless steel components are available for the most severe conditions.

Multiple Trolley and Transfer System Options

Several machines can be powered simultaneously along the same Pow-R-Feed A/S system using multiple trolleys. The use of transfers and switches can be employed to solve many complex application requirements.

POW-R-FEED A/S COMPONENTS

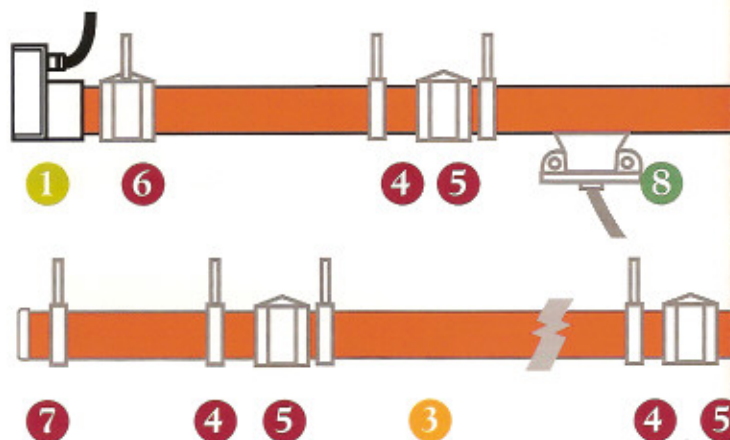
Electrical Feed System

1 End Feed

End feed systems are the easiest and most economical method of connecting the Pow-R-Feed A/S system to the building's power source. The end feed connection box can accommodate a range of input cable sizes.

2 Line Feed

Power can be connected to the Pow-R-Feed A/S anywhere along the housing with the line feed system.



Multi-Conductor Bar

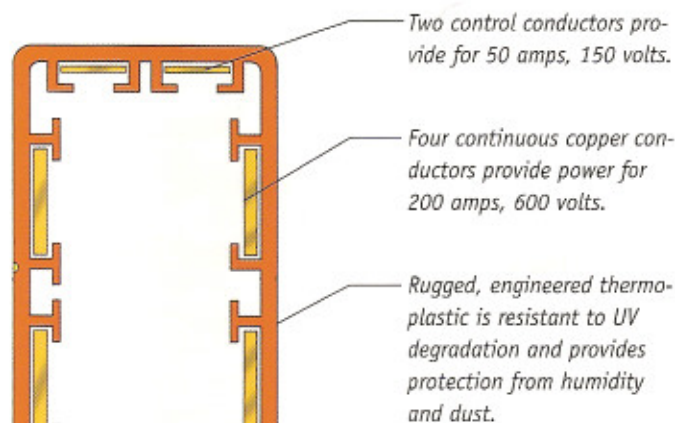
3 Conductors and Housing

The housing is made of high-impact, self-extinguishing PVC material. Six interior slots accommodate power and control conductor strips. Copper conductors are installed to provide up to 656 ft (200 m) of continuous contact. The continuous conductor design provides for longer brush life, reduced voltage drop and signal interference. Corrosion that can occur around joints is eliminated.

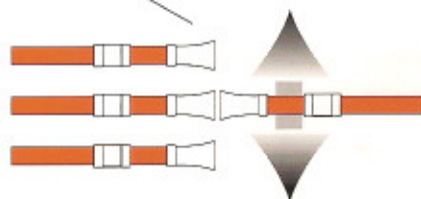
Optional Sealing Strips are recommended for outdoor use and for applications where corrosive dusts are present.

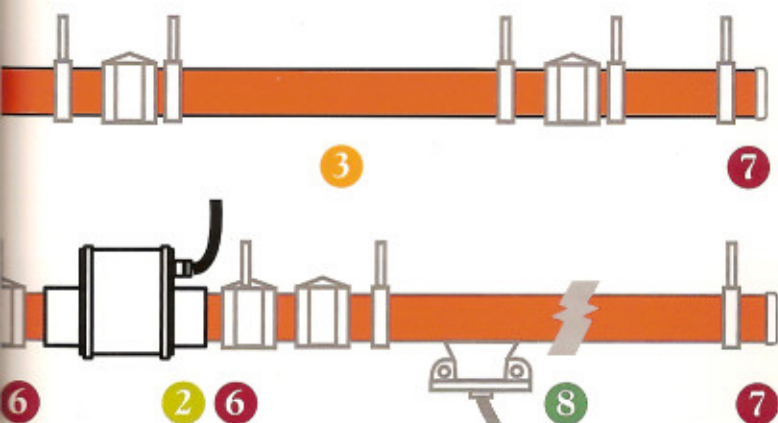
Transfer and Switch Arrangements

can be employed to allow Pow-R-Feed A/S trolleys to jump from one housing section to another. Complex application solutions and expanded machine mobility can be designed using this flexible system solution.



Universal housing design is interchangeable with all Aero-Motive Pow-R-Feed hardware for easy system upgrades.





Joints & Hanging Components

4 Sliding Hanger Brackets

Sliding hangers support the conductor housing while allowing for thermal expansion. Generally, 3 brackets are required for each four meter section.

5 Joint Clamp

Secure joints between housing sections are accomplished using these epoxy coated galvanized steel clamps.

6 Fixed Point Clamp

Fixed point clamps are used to secure the housing adjacent to electrical feed points. One clamp is used on end feed systems and two on line feed systems.

7 End Cap

End cap sections are used on all open ends. A joint clamp is used to attach the cap.

A/S Collector Trolley

8 Trolley

Current is fed from the conductors in the Pow-R-Feed A/S housing to the mobile equipment by way of the collector trolleys. Multiple spring loaded copper graphite brushes maintain positive contact with the flat conductor strips as the machine and trolley move along the system. Tow arms and chains are used to prevent stress on the lead cables.

The trolley body is made of glass filled polyester for long term performance. Twelve steel ball bearing wheels with nylon tires support and guide the trolley at high speeds and through rapid starts and stops.

Top guide wheels prevent lifting during acceleration.

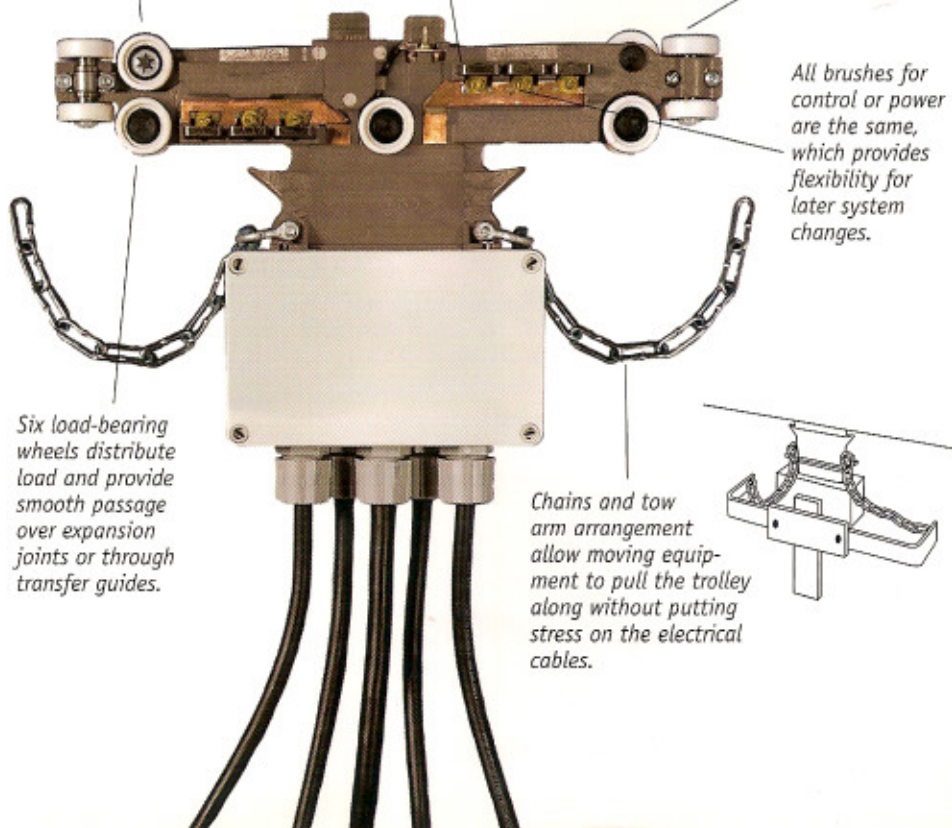
Three brushes on each power circuit provides better contact than one larger brush.

Side guide wheels prevent misalignment, wear between trolley and housing and uneven brush pressure.

All brushes for control or power are the same, which provides flexibility for later system changes.

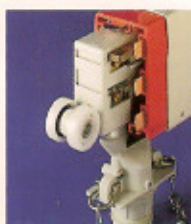
Six load-bearing wheels distribute load and provide smooth passage over expansion joints or through transfer guides.

Chains and tow arm arrangement allow moving equipment to pull the trolley along without putting stress on the electrical cables.



POW-R-FEED A/S

MULTI-CONDUCTOR BAR SYSTEMS



FOURDUCTOR SYSTEMS

For simplified systems requiring no more than four conductors, the Aero-Motive FourDuctor system may be the most economical solution. The FourDuctor is limited to 125 amps and speeds of less than 200 fpm.

POW-R-FEED

The standard Pow-R-Feed system offers a full range of options including curved housings, transfer guides, isolation sections, up to 7 conductors and up to 160 amps.

POW-R-FEED A/S

The Pow-R-Feed A/S was designed for system speed up to 1200 fpm and amp capacity of up to 200 amps. The completely redesigned trolley includes 12 high speed wheels for flawless traversing, even with abrupt acceleration changes. Three brushes for each conductor ensures positive contact at all times.

Contact your Aero-Motive distributor for information on FourDuctor, the standard Pow-R-Feed or the advanced Pow-R-Feed A/S system.

OTHER COMPONENTS AND OPTIONS

After Pow-R-Feed Housing is installed, the flat conductor strips are easily pulled from rolls into the appropriate conductor slots. The copper conductor strips are supplied with a cassette which simplifies installation.



A conductor straightener is available to straighten heavy amperage (200 amp) copper conductors, ensuring easy travel when they are pull through the housing. A pulling block is also available to assist pulling conductors through longer systems.



Two types of insulating tape can be used to seal conductor housing joints in various environmental conditions.

Stainless steel hanging components are available for extreme environments.