



UNITED EQUIPMENT ACCESSORIES, INC.



**SOLVING  
CHALLENGES  
FROM THE INSIDE OUT.™**





Fast Facts

100,000 sq ft  
MANUFACTURING SPACE

2,729,407.89 ft.  
OF WIRE USED/YEAR

LOCATED IN  
**WAVERLY, IOWA**  
FOR OVER 60 YEARS



IN A GIVEN YEAR, WE SHIP TO ALL



&


OVER

**25** COUNTRIES  
WORLDWIDE



**PROUDLY  
FAMILY OWNED  
FOR OVER  
THREE  
GENERATIONS**

[www.uea-inc.com](http://www.uea-inc.com)

 Aerial view of UEA campus in Waverly, Iowa  
**A: South Plant B: North Plant**





# President's Welcome

.....

Founded in 1952, United Equipment Accessories, Inc. (UEA) began as a small manufacturing operation in the garage of Vern Iserman, my father, in Waverly, Iowa.

Our original product was a component remote control kit that was used to remotely operate truck mounted cranes or excavators from the rear operator cab. An important part of these kits was a collector ring, which is now more commonly referred to as a slip ring. Unable to find reliable slip rings for our remote control kits, we designed and patented our own line of electrical slip rings. Today UEA has become one of the largest slip ring manufacturers in the world.

In the late 1960s, UEA developed electrical transmission controllers for off-highway vehicles. These controllers originally combined electro-pneumatic control of hydraulic spool valves to shift transmissions. Today our controllers are used to electrically energize electro-hydraulic spool valves directly mounted to the transmission. We also offer a line of cable shifters for direct drive applications.

In 1982, UEA introduced cable reels to the market in response to cable reel users needing a product manufactured with a reliable slip ring. Our cable reels can be customized to the specific size, color, electrical characteristics and spring characteristics required by the application. In 2012, we developed hydraulic swivel product line. Like all of our other products, our hydraulic swivels can be completely customized for any application. For additional customer value, these hydraulic swivels can be packaged with our electric slip rings for a complete electro-hydraulic package. These hydraulic swivels are being produced with state of the art production, testing and assembly equipment.

After 65 years of business, we continue to build and maintain a stable base of customers. All products UEA manufactures are customer-specific. We strive to create a "white knight syndrome" where our engineers, sales and customer service teams step in and fix issues competitors can't solve.

We honor our family values and treat our customers like they are part of our UEA family. We pride ourselves on our excellent customer service and look forward to doing business with you.



Regards,

Mark Hanawalt  
President, United Equipment Accessories, Inc.

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**ISO 9001: 2015 Certified**  
United Equipment Accessories has adopted the philosophy of "Total Quality Management." Each employee's commitment to quality improvement and management's further commitment to implementation of supporting managerial and operating systems are essential to our company's success. Through our actions as a unified corporation, we will continually improve the quality of our products.

Cover Photo: UEA North Plant

# Core Values

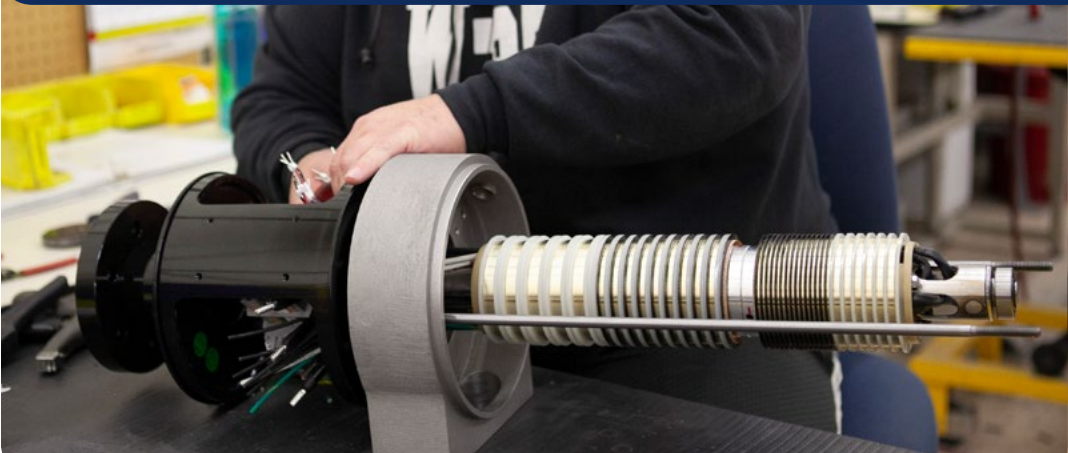
..... UEA's culture is defined by our core values. All UEA employees are hired, fired, rewarded and retained based on their embodiment of our core values.

Care	Hardworking & Dedicated	Creative Problem Solver	Knowledge Seeker
Customers	"Can do"	Innovation	Products
Employees	Integrity	What If	Processes
Supplies		Engaged	Attention to details
Community	Go above & beyond	A mistake does not mean failure	
Self			

# Core Focus

..... Our core focus helps us remain open opportunities that are central to what we do.

<b>Why We Exist:</b>	<b>What We Do:</b>
Our passion is solving problems	Manufacture highly engineered customized motion products





# Slip Rings

.....

A slip ring is a continuity device that allows for transfer of power and signal from a stationary object to a rotating object. UEA slip rings are designed to meet the challenges of complex applications. We offer many standard sizes of slip rings—from .50"-14.00" bore—and also customized sizes for the most effective installation. UEA is more vertically integrated than most slip ring manufacturers. We machine and assemble from raw material to ensure the quality of our products.

All slip rings receive a complete inspection and continuity check prior to shipment.

## Typical slip ring applications:

- |                           |                           |
|---------------------------|---------------------------|
| Wind turbines             | Amusement park rides      |
| Cranes                    | Processing machinery      |
| Work platforms            | Service trucks            |
| Irrigation equipment      | Forklifts                 |
| Rotating signs            | Intelligent machinery     |
| Material handling systems | Conveyor systems          |
| Utility equipment         | Fire Truck aerial ladders |
| Agricultural equipment    |                           |



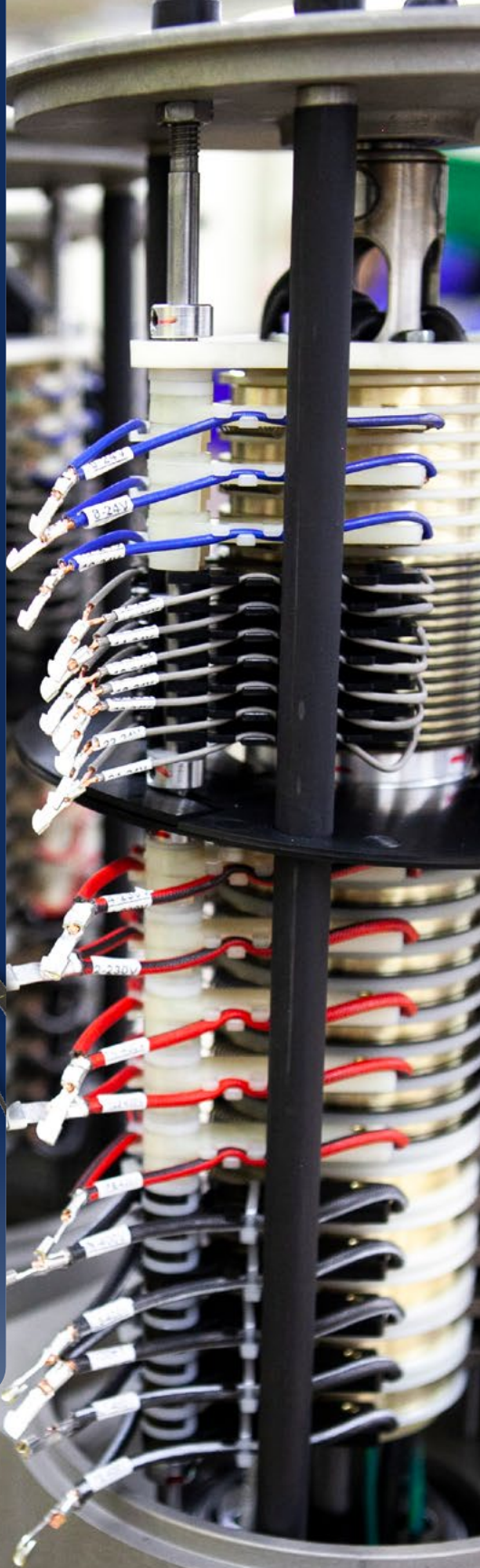
11 conductor slip ring with encoder and spun aluminum cover



24 conductor slip ring with 6-inch through bore and aluminum wrap cover



4 port swivel with 9 conductor slip ring



# Hydraulic Swivels

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Hydraulic swivels, also known as rotary unions, are precision components designed to transfer fluid from a stationary object to a rotating object. UEA hydraulic swivel design concepts are refined utilizing solid modeling and FEA (Finite Element Analysis) to meet customer specifications. Manufacturing of the hydraulic swivels begins with CAM (Computer-Aided Manufacturing). Swivels are then fabricated by state-of-the-art CNC machines, with seal grooves in either the housing or the spool. Quality assurance of UEA hydraulic swivels includes complete component washing and flushing with fluids that are continuously monitored for cleanliness. The swivels are then clean-room assembled and rigorously tested **under rotation** prior to shipping. UEA can provide a custom designed, engineered, manufactured, rotational solution in a single self-contained, multi-media plug & play assembly.

## Typical Medias:

Hydraulic Oil, Fuels, Engine Coolant, R134A Refrigerant, Air, Ethernet, Mud

## Typical hydraulic swivel applications:

- All types and sizes of lift cranes
- Forestry equipment and handling attachments
- Manlifts
- Scrap handling equipment and attachments
- Recycling handling equipment and attachments
- Excavators and attachments
- Demolition shears and attachments



Combination 13 conductor slip ring and 4-port hydraulic swivel with integrated coolant swivel



6 port swivel



## ...take it from them.



UEA and Clipper Windpower enjoy a long-standing relationship. UEA provides a high quality slip ring coupled with excellent customer service and fast delivery.

**Jason Degroot**  
Supply Chain Dir., Clipper Windpower, Inc.



## ...take it from them.



Now that we have gone to the combination-style assembly, we receive our swivel slip-ring units pre-wired, which speeds up assembly time at the plant. We send these machines out and they work without any glitches right out of the gate.

**Michael Klopp**  
V.P., Southstar



# Cable Reels

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UEA cable reels serve a variety of heavy-duty industrial applications. Our cable reels have mounting versatility that contributes to increased workplace efficiency and safety. While UEA standard cable reel sizes accommodate many situations, custom sizes are also available. Our cable reels are also manufactured with our specially designed slip rings to ensure reliability for various multi-conductor cable.

## UEA offers the following cable reel accessories:

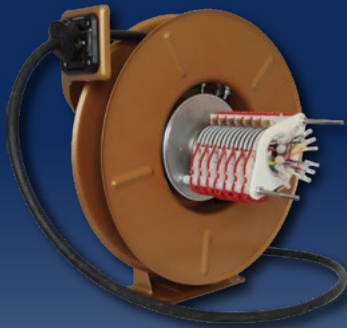
- Work lights
- Wall-mount brackets
- Duplex boxes
- 340° pivot bases
- Top half cover
- Cable guide

## Typical cable reel applications:

- |                       |                              |
|-----------------------|------------------------------|
| Aerial work platforms | Light towers                 |
| Conveyor systems      | Material handling systems    |
| Cranes                | Robotic welding cells        |
| Forklifts             | Teach pendant cable controls |
| Forestry equipment    | Theatrical and stage sets    |
| Hoists                | Service trucks               |



40 series



70 series



# Shift Controls

.....

UEA shift controls are built to meet the specific requirements for your heavy-duty, off-road equipment. Our original shift control design has proven over four decades to maintain superb functionality in harsh environmental conditions. Our design engineers work with you to select the shift control model and options that will best meet your specific needs. All UEA shift controls are available in multiple configurations to fit your specifications, and are subjected to rigorous quality control testing prior to permanent installation.

## Typical shift control applications:

- Rough terrain cranes
- Truck mounted cranes
- Front end loader
- All-terrain forklifts
- Ground support equipment
- Logging equipment
- Mining equipment
- Motor graders



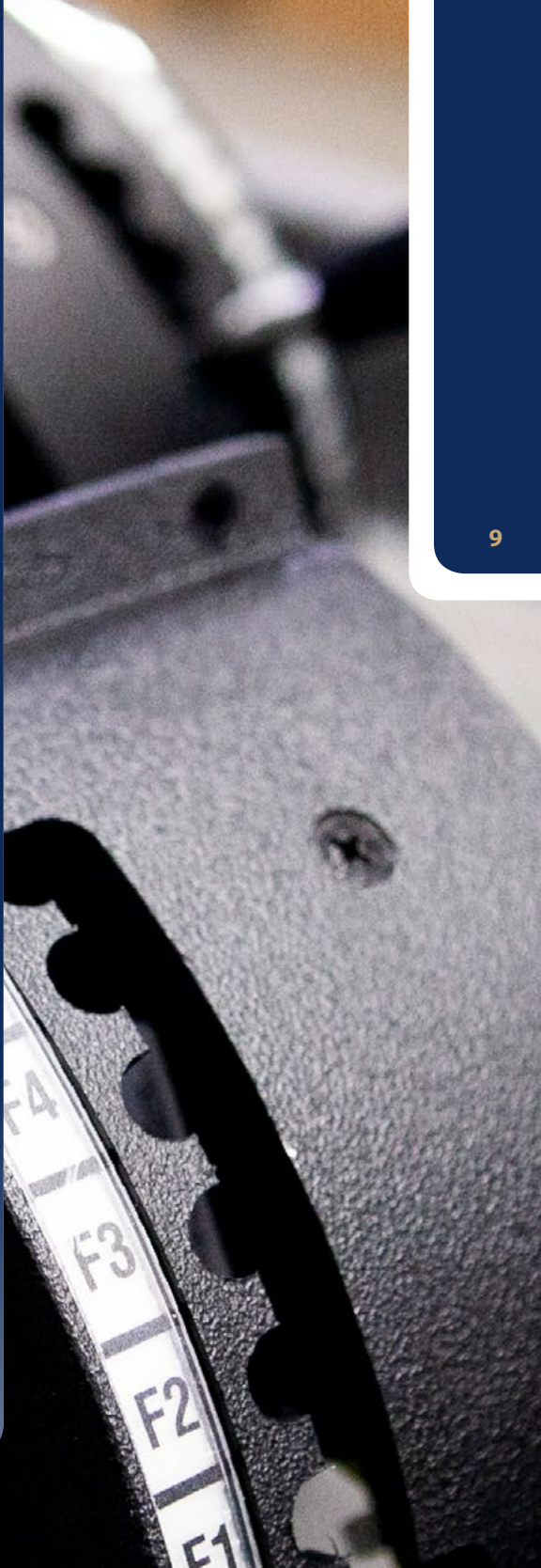
Direct Drive Transmission Controller



LED Fiber Optic Backlit Decal with Spot Gear Indication & Lift-to-Unlock Lever



Column Mount



## ...take it from them.



Sewer Equipment has worked with UEA for a number of years. As our machines are used in a variety of extreme environmental conditions, we worked with the UEA engineering and sales department to develop a heavy duty anti 2 block cable reel. The cable reel design has proven to be a very robust design and has become standard on our Ramvac Hydro Excavation trucks and our 900 ECO Combination sewer cleaner.

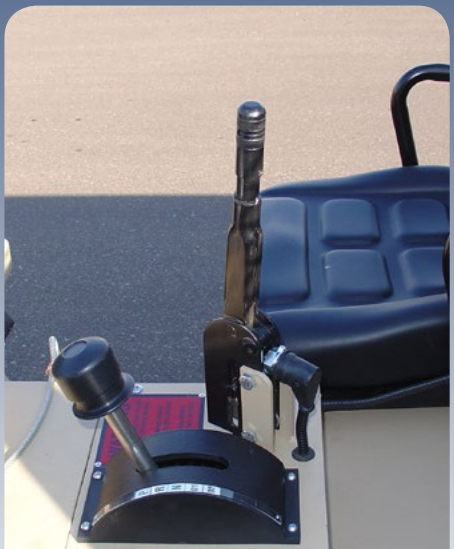
**Jim Shrink**  
Engineering Manager, Sewer Equipment

## ...take it from them.



We came to UEA to discuss a design update to a cable shifter for Airport ground support equipment. Both teams worked well together to define and provide a solution. I was impressed with their attention to detail and willingness to listen to our specific needs. We are now investigating additional components with UEA.

**Michael Bloomfield**  
Executive VP, Sage Parts





# Custom Solutions

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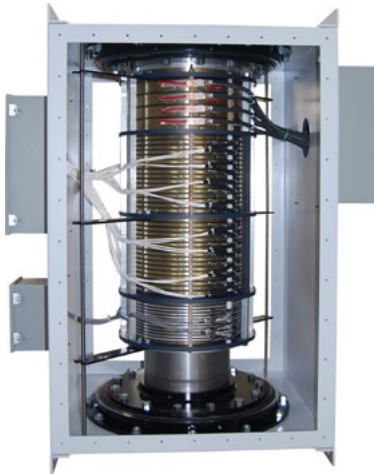
UEA prides ourselves in building customized solutions for challenging applications. It is the foundation of our business as most of our products are made for a single customer. To that end, nearly every aspect of our products can be customized. Individuals and companies with application challenges are able to interact directly with UEA Engineers which helps to speed up the process and insure they are getting exactly what they want. Some examples of product features that can be customized are:

- Slip Rings:**  
Enclosures, number of circuit and circuit ratings, mounting, wire harnesses, position sensing
- Hydraulic Swivels:**  
Pressure and size of ports, media, retention/mounting, shape (rectangular vs. round)
- Cable Reels:**  
Mounting, spring force, extension length, cover/enclosure, position sensing, types of media in combination hose/cable reels
- Shift Controls:**  
Gate Pattern, mounting, back lit gear indication, number of levers, transmission type.

At UEA, our engineers enjoy tackling application challenges, even when it is outside of what has been done before. If you're unsure whether or not UEA can help with your particular application, please get in touch with us directly to let us help you find the solution. If an application is not a good fit for UEA, we'll gladly make a recommendation to another source.



3.0" bore slip ring with combination of 400amp, 600volt and 15amp, 120volt circuits. Used on a large dock crane.



Large 10" bore slip ring with a combination of 225amp, 600volt power circuits as well as silver circuits for communication and data transfer.



Combination 13 conductor slip ring and 4-port hydraulic swivel with integrated coolant swivel



Single reel with both air and electric.

# Industries

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**Wind**  
Sustainable energy is our future. We've been providing smart and innovative products for the wind industry since 2005. Whether its a kilowatt or megawatt turbine with control circuits for a hydraulic or control and power circuits for an all-electric pitch system, we have the experience and a product to meet your need. Our products are tested for scenarios from extreme weather to normal wear and tear, ensuring reliability, quality and efficiency.  
**Common applications:** Pitch control slip rings in MW Turbines and Yaw slip rings in kW turbines.

**Defense and Communication**  
Nothing has to be more dependable than the equipment serving military and aviation applications. Our products have been tested to the highest standards to ensure safety and durability. Our products are engineered to precision to withstand various climates, extreme pressure changes and the unexpected. We also offer a range of High Frequency Rotary Joints (HFRJ) in combination with slip rings for Industrial and Defense Radar systems  
**Common applications:** Observation balloon, Maritime defense and Ammunition manufacturing. Industiral and Surveillance radars and SATCOM (Combination HFRJ and slip rings.)

**Mining**  
Wear and tear from heavy drilling and lifts can wreak havoc and shorten equipment life span. Make sure your equipment is built to stand the elements with UEA products that are tested to withstand the harshest conditions.  
**Common applications:** Mining lifts, Battery charging, Land drilling and Transmission controls for mining vehicles.

For more information about other applications of our products, please visit [www.uea-inc.com](http://www.uea-inc.com)

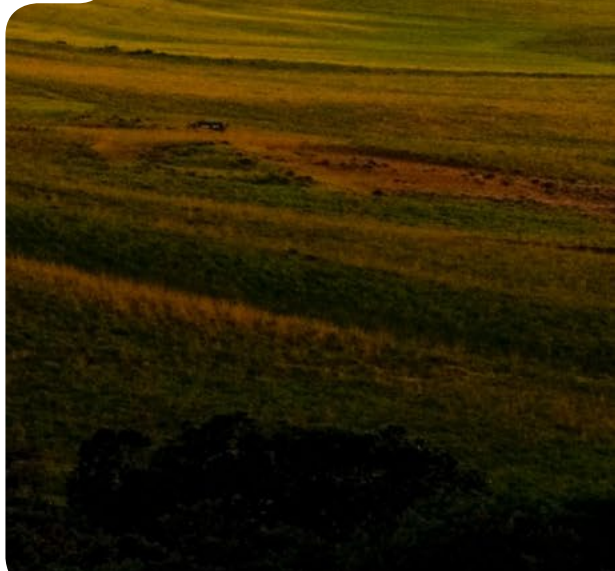
**Construction**  
When you need dependability to get the job done on time, look no further that UEA's vast line of construction and utility products. From extreme weather conditions, to harsh work conditions including dust, dirt and other particles, our slip rings, shift controls, cable reels and hydraulic swivels have proven to provide durability and longevity at an affordable price.  
**Common applications:** Aerial lifts, Demolition, Railroad maintenance, Cranes and Service trucks.

**Agriculture**  
Since 1952, UEA has been designing and engineering agricultural products that withstand the test of time. Our products take all needs into consideration, including efficiency, inclement weather and wear and tear, to provide you with the highest-quality product that will last for future farming generations.  
**Common applications:** Center pivot irrigation, Grain bins, Silo unloader, Combine and Rotary dairy barns.

**Medical**  
Precision is key in the medical field and UEA can provide custom solutions to fit any need and at a competitive price. Contact us for a custom quote.  
**Common applications:** CT Scanners, Examination lights and Mobility equipment.

**Oil/Gas**  
Our oil and gas products are reliable, safe and state-of-the-art to get your projects done effectively and efficiently without fear of downtime, spills or other on-the-job hazards.  
**Common applications:** Large hose reels, Fracking and drilling trucks and Drilling equipment.

★ Do you know that a UEA Slip Ring can be found on one of the world's tallest flagpole?  
A UEA Slip Ring is sitting at the top of a 123 meters high flagpole on Flag Island, UAE.







**United Equipment Accessories, Inc.**  
**Solving Challenges from the Inside Out.™**

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Connect with Us!



United Equipment Accessories

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