Yale® YK™

ELECTRIC WIRE ROPE HOISTS

5 TON

STANDARD
3
WARRANTY
YEARS
STANDARD

For more than a century, Columbus McKinnon has manufactured and supplied high-quality, high-performing hoists to customers for everything from mining operations to metals production. Drawing on this expertise and the technology of **our well-known Yale® and Magnetek® brands**, we designed and built the Yale YK™ electric wire rope hoist for optimal performance, reliability, and long life.

We've made customization easy. The Yale YK is available with a variety of capacities, lifts, and configurations that can be customized with optional features to meet environmental conditions such as spark-resistant wheels for hazardous atmospheres and rain covers for outdoor use. Yale YK hoists are also available in complete crane kit solutions for quick and easy assembly and installation. YK hoists with our most commonly requested options ship directly from our facility in Wadesboro, NC.

Working together with our **network of authorized, crane-builder partners**, Columbus McKinnon provides you with the lifting solutions you need when you need them. We are here to support you before, during, and after the sale with a team of knowledgeable application and product specialists, responsive customer service teams, and professional trainers.

Yale® YK™
ELECTRIC WIRE ROPE HOISTS

WHAT DOES THE YALE YK BRING TO YOUR APPLICATION?

When you need quality and performance in a wire rope hoist, turn to the **Yale YK from Columbus McKinnon**. The Yale YK delivers the industry-leading technology and safety you need for your lifting applications in a compact, easy-to-maintain design. Precision engineered, these hoists are built for reliable operation, high efficiency, and long service life and are competitively priced for the U.S. market. Operators, crane manufacturers, and system manufacturers can benefit from the hoist's modular system design that allows for configuration of the hoist and crane system to meet exact application needs. Complete with a low-headroom trolley, the Yale YK is ideal for applications with space limitations.

WIDE RANGE OF CAPACITIES AND LIFTS
Monorail units up to 30 tons and top-running, double-girder units up to 55 tons. Standard lifts up to 131 ft. Metric rated models also available.

FLEXIBLE CONFIGURATIONS
Hoists can be configured to your unique application needs. Available in 5 frame sizes with 16 load capacity variants.

COMPACT DESIGN
Exceptionally short approach allows for optimal use of work area when space is limited. Paddle limit switch* allows for lowest headroom possible while maintaining safe operation. Low-headroom monorail units are extremely compact due to U-shape design.

LOW MAINTENANCE
High-quality components designed for safety and longevity, providing you with minimal downtime and a low total cost of ownership. Local availability of common spare parts means that your products can be serviced quickly, helping to reduce downtime.

EXTENSIVE SAFETY FEATURES
Standard safety features include paddle limit switch*, adjustable geared limit switch, motor temperature control, and overload protection.

SMOOTH OPERATION
With an integrated motor management module and flywheel trolley motors, the YK features extremely smooth starting and braking with controlled starts and stops for extended brake life.

RELIABLE PERFORMANCE IN HEAVY-DUTY APPLICATIONS
Hoists available with H3, H4, and H4+ duty cycles.

COMPLIANCE WITH INDUSTRY STANDARDS
Hoists meet CMAA and HMI standards. CSA labeled. Explosion-protected models available in compliance with NEC guidelines.

*Currently, paddle limit switch is standard on monorail units with flange widths less than 12" (300mm).

MODELS AND TROLLEY CONFIGURATIONS

The YK wire rope hoist is available with a variety of rope drum and trolley options, providing flexibility and versatility in any application. Whether you need a base-mount, top-running double-girder, or low-headroom monorail model, there is a YK hoist to meet your needs. Trolleys are equipped with two-speed travel motors as standard. Other speeds, as well as variable frequency drives, are available as options.
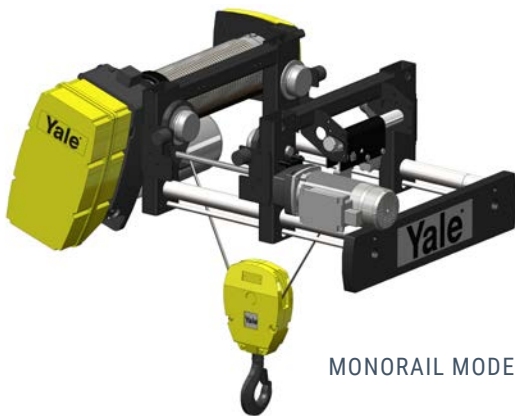
MONORAIL MODEL

TOP-RUNNING,
DOUBLE-GIRDER MODEL

SINGLE REEVED
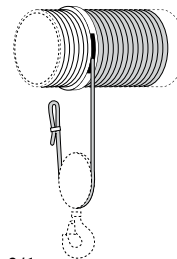2-part single or 4-part single reeving is available, depending on the application.
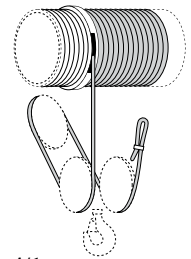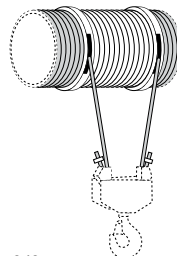
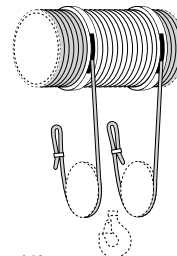**Standard reeving**
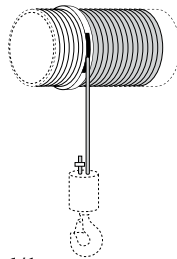
| 1/1 | 2/1 | 4/1 |

DOUBLE REEVED
If true vertical lift is required, we recommend a double-grooved rope drum (right-/left-hand thread). Available in base-mount or trolley configurations. Models with double-grooved rope drums ship from Germany.

True vertical lift

| 2/2 | 4/2 | 8/2 |

BASE-MOUNT

Can be used as stationary hoisting or towing equipment, for example in systems manufacturing. The rope lead-off angle, the hoist mounting, and the mounting position of the hoist motor can be adjusted as needed. Available for 1-55 ton capacities.

TOP-RUNNING, DOUBLE-GIRDER

Extremely compact with minimal hook approach and headroom dimensions. Flexible design ensures all four wheels are in contact with the girder. Available for 1-55 ton capacities.

LOW-HEADROOM MONORAIL (LH)

Low-headroom monorail trolley is used on monorail runways and single-girder overhead traveling cranes. Trolley is easily adjustable for different beam sizes and comes standard with two speed trolley. Available for 1-15 ton capacities.

STANDARD HEADROOM MONORAIL (SH)

Specially designed for small clearances, the monorail trolley has a narrow width. It is used on monorail runways and single-girder overhead traveling cranes. Available for 20-30 ton capacities.

STANDARD HEADROOM SWIVEL (SW)

The standard headroom swivel trolley is designed for applications that require frequent travel around bends and narrow radii. Depending on the radius of the bend, runway flange width, or application, the trolley is equipped with one or two travel motors. Available for capacities up to 30 tons. Models with standard headroom swivel trolleys ship from Germany.

- Standard
- Available as engineered to order

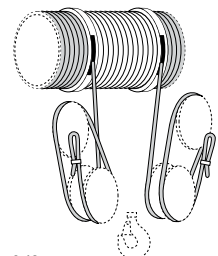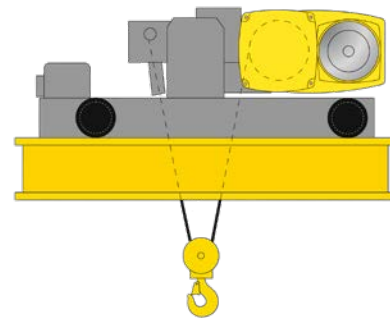| Type	Load Capacity up to [tons]	Base-Mount Trolley	Top-Running Double-Girder Trolley	Monorail Trolleys		
				LH	SH	SW
YK A	3	•	•	•	•	•
YK B	7.5	•	•	•	•	•
YK C	10	•	•	•	•	•
	15	•	•	•	•	•
YK D	15	•	•	•	•	•
YK E	30	•	•	•	•	•
YK F	30	•	•	•	•	•
YK G	55	•	•	N/A	N/A	N/A

HOIST CONTROL
CONFIGURATIONS

Three hoist control configurations are available to fit your exact YK electric wire rope hoist needs. With these control options, you can integrate additional safety features, improve the ability to make system adjustments as needed, and increase overall operation. Control enclosures are indicated in each model below.
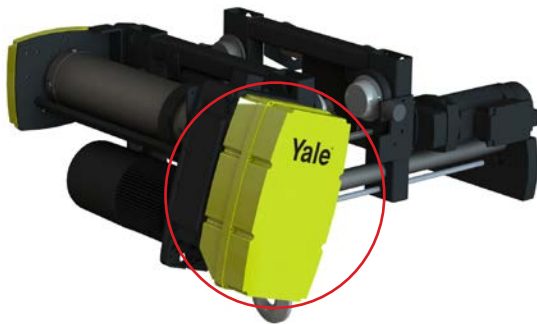
MONORAIL MODEL

TOP-RUNNING,
DOUBLE-GIRDER MODEL

2-SPEED CONTROL
2-speed models come standard with 6:1 turndown, and the control panel is mounted to the gearbox.

OPEN LOOP VECTOR CONTROL
Open loop vector (OLV) hoist and flux vector hoist configurations come standard with controls housed in a separate NEMA-rated enclosure mounted to underhung hoists. The enclosure is shipped loose for the greatest flexibility in top-running double-girder and base-mount configurations. OLV hoists are also equipped with an encoder mounted to the gearbox for direction and overspeed detection, improving the safe operation of your wire rope hoist.

CLOSED LOOP VECTOR CONTROL
Closed loop vector (CLV) configurations offer the greatest positional accuracy. Using variable speed control, micro-positioning capabilities enable precision load control while decreasing load bounce and swing. In addition, the 10:1 speed control gives operators the ability to "float" the load with full torque at 0 rpm. Encoders for CLV hoists are contained within the motor. CLV control enclosures are mounted in the same manner as OLV hoists.

INTELLI-CONNECT™ MOBILE

The Yale YK is available with Intelli-Connect Mobile: Wireless Drive Monitoring, Analytics, and Configuration as an option. Intelli-Connect Mobile is comprised of a wireless operator module (WOP-20) mounted on the control panel that is connected to a single Magnetek VFD via an Ethernet cable. The wireless operator creates a Wi-Fi network, which is accessible from a personal electronic device (PED), such as a smartphone or tablet via the Intelli-Connect Mobile App. Once linked, Intelli-Connect Mobile enables quick and easy programming, maintenance, monitoring, and troubleshooting of VFDs associated with your hoist or crane motion. The app is available as a free download on Google Play or the Apple® App Store.®*

With Intelli-Connect Mobile, you can continuously monitor the hoist drive and track trends and long-term information over a period of time. By tracking these trends, Intelli-Connect Mobile provides a comprehensive view of your system by monitoring runs, faults, alarms, and VFD status, including fault codes, motor voltage, current, available hoist operating life, and more. Intelli-Connect Mobile is available as an option on new Yale YK units or in a retrofit kit for units already in service.

FEATURES

- Easy setup and installation
- Access to the latest user manuals and quick start guides
- Parameter configuration via Quick Settings
- Parameter configuration via Keypad Emulation
- Ability to store and retrieve parameter sets (compatible with IMPULSE®•Link 5)
- Live monitoring of VFD operation

- Fault and alarm status, description, and corrective action steps
- Quick recovery from faults with built-in Fault Reset button
- Secure Wi-Fi connection and ability to customize network name and password
- Record installation date for reference
- Access to technical support information

ADVANCED FEATURES

By making more VFD information easy to access with the Intelli-Connect Mobile App, you'll be able to keep the hoist operating safely and efficiently to ensure the highest levels of productivity in your facility.

- **Event History:** Comprehensive data logs during fault, alarm, and run events (Event history files are compatible with IMPULSE®•Link 5)
    - 400 alarms
    - 400 faults
    - 5,000 runs
- **Trend History:** Comprehensive data logs recorded before, during, and after run events (Trend history files are compatible with IMPULSE®•Link 5)
    - Up to 120 MB of trending data, which is equivalent to approximately 30 hours of run time
- **Inspection Logging:** Record maintenance activities and keep them stored alongside the equipment
    - 24 logs
- **Remaining Service Life:** Keep track of the remaining estimated operational life of your hoist
    - Calculations based on FEM/ISO standards (FEM9.5111)

Feature Summary
One-to-One Connection from App to IMPULSE•G+/VG+ Series 4 and G+ Mini VFDs
CM HI-TechTech™ PC Interface
Monitoring of VFD Current, Torque, Digital I/Os, etc.
Fault Reset
Read and Write Critical Parameters (Quick Access)
Operator Emulator Mode (LCD and Buttons)
Upload and Download VFD Parameter Files (Compatible with IMPULSE•Link 5)
Documentation Access (User Manuals, Quick Start Guides, Installation Guides, FAQ, etc.)
Secure Wi-Fi Connection: Customize SSID Name and Password
Trending and Event History Log Files (Compatible with IMPULSE•Link 5)
Maintenance and Inspection Log

THE ANATOMY OF THE
YALE YK WIRE ROPE HOIST

You can work with confidence knowing the technology behind the Yale YK is designed to the highest industry standards. Working together, these low-maintenance components provide best-in-class performance, high efficiency, and long service life for any application.

DURABLE WHEELS FOR LONG LIFE
- Wheels have high indentation hardness and self-lubricating bearings
- YKA suitable for patented track as standard and YKB as optional

FINE-MACHINED ROPE DRUM TO REDUCE ROPE WEAR
40% groove depth to ensure correct rope positioning

SLACK ROPE PREVENTION
High-resistance, cast-iron, spheroidal graphite rope guide encircles entire drum and is suitable for high-temperature environments

CONTROL PANEL WITH ADVANCED SAFETY FEATURES
- Improved inching operation for reduced jogging
- Oversized contactors for added safety
- Hoist performance monitoring and temperature monitoring for hoist and travel motors

LONG-LASTING WIRE ROPE
Specialized wire rope is highly flexible and features a long service life

HOIST MOTOR MANAGEMENT FOR SUPERIOR SAFETY
- Continuous electronic load monitoring when load is suspended to avoid overload operations
- Temperature control to avoid downtime

NEMA 4/12 ENCLOSURE
- Larger sized OLV panels enable easier accessibility
- UL508A certified as standard

6-POSITION ELECTRONIC LIMIT AND BLOCK-OPERATED LIMIT SWITCH
Meets CMAA requirements for upper block limit switch as standard*

EASILY ADJUSTABLE TROLLEY
- Allows for quick beam assembly
- Also available for patented track (up to 7.5 tons)

STATE-OF-THE-ART ENCLOSED GEARBOX
- Lifetime oil-lubricated so no oil changeout is required
- Precision, all-helical gearing for quiet operation
- Enclosed housing for maximum accuracy and stability

SUPERIOR FRAME
Laser cut, stamped, and automatically welded for excellent performance on hoist beam

- Standard VFD programmed for 2-step infinitely variable control
- High-performance duty motor with brake

HIGH-PERFORMANCE HOIST MOTOR
- Safe and reliable lifting operation
- High enclosure protection for harsh environments
- Directly assembled to gearbox (no coupling)
- VFDs improve lives of wear items
- Motor outside rope drum ensures highly efficient motor cooling and easy maintenance

HIGH-QUALITY SURFACE FINISH PAINT
- Powder coat paint on trolley frame for harsh environments
- No use of solvents
- High-quality primer and top coats available standard

LOW-HEADROOM BOTTOM BLOCK
Robust bottom hook block with low-headroom design for use in tight spaces

LOW-MAINTENANCE BRAKE DESIGN
- Brake requires no adjustment and is easily accessible from the outside for ease of maintenance and inspection
- Oversized and heavy duty for long life
- TEFC fan-cooled housing
- IP65 rating with IP66 option

*Currently, paddle limit switch is standard on monorail units with flange widths less than 12" (300mm).

INTELLIGENCE
COMES STANDARD

Combining reliable, high-tech control and monitoring technology with the Yale YK's industry-leading design creates a one-of-a-kind, intelligent hoist for all your lifting applications. **The Yale YK comes standard with SLE/SMC control and motor management.** This system monitors the temperature of the hoist and travel motor to prevent overheating, while also monitoring the overall condition of the hoist to aid in preventative maintenance planning. The SLE/SMC also suppresses hoist inching operation to reduce wear and tear on the brake.

Optional on Yale YK hoists, **Magnetek IMPULSE® Variable Frequency Drives** continuously monitor many environmental and functional components of a hoist, such as motor temperature, end of travel and slow down limits, brake functionality, motor speed, and more. The drives also maintain safe functional thresholds, which decreases mechanical fatigue and increases reliability and uptime.

The functionality of the YK hoist can also be integrated with a variety of Magnetek-brand technology systems to provide hoist synchronization, anti-sway control, and faster lifting speeds when the hook is not under load. The YK can also be combined with our **Intelli-Crane™ family of automated systems**, including Intelli-Protect® No-Fly Zone Technology, Intelli-Lift® Off-Center Pick Snag Detection and Correction, and Intelli-Connect Mobile: Wireless Drive Monitoring, Analytics, and Configuration.

TRAINING &
AFTERMARKET SUPPORT

Columbus McKinnon and its network of authorized Channel Partners are committed to supporting you long after the sale. Whether you need replacement parts for your hoists, quick response on a warranty claim, or simply have a question about the operation or maintenance of your hoist, we are here to help.

We are dedicated to promoting the safe and efficient use of overhead cranes, hoists, and rigging equipment to keep your business running and increase your workers' safety. With a team of expert trainers, comprehensive and challenging curriculum, and state-of-the-art training centers, we bring you professionally developed courses that highlight safe operation and installation as well as accurate and timely product maintenance.

- Overhead Crane & Hoist Inspection Certification
- Overhead Crane & Hoist Frequent Inspection
- Rigging & Crane Operator Safety Training
- Static Stepless Crane Controls Training
- IMPULSE® AC Drive Training
- OmniPulse™/MagnePulse™ DC Drive Training
- Radio Remote Control Training
- Application-specific training available upon request

For more information on our training programs, visit training.cmco.com.

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INTELLIGENT MOTION

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WR2998_YK Sales Brochure
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