

CM[®]

LODESTAR[®] VS

VARIABLE SPEED ELECTRIC CHAIN HOIST



MAGNETEK

**The
Drive
Inside**
™



C O L U M B U S M C K I N N O N C O R P O R A T I O N

The Power of Intelligent Lifting. Generations of users have relied on the Lodestar electric chain hoist for the durability and reliability it provides for lifting applications. With the Lodestar VS, Columbus McKinnon made this iconic hoist better than ever, combining the Lodestar's industry-leading design with the best-in-class features of Magnetek's premier variable frequency drives. The result – a one-of-a-kind, intelligent hoist that puts the power to monitor and adjust the hoist's performance right at your fingertips.

Equipped with the Magnetek IMPULSE® G+ Mini drive, the Lodestar VS features CM HI-Tech™ (Hoist Interface Technology) – one of the easiest to use computer interfaces on the market developed exclusively by Columbus McKinnon. CM HI-Tech gives operators the ability to quickly and easily adjust hoist speed and performance parameters to deliver the precision load control your application demands.



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LODESTAR® VS

VARIABLE SPEED ELECTRIC CHAIN HOIST

CAPACITIES: 1/8 TO 1 TON

STANDARD LIFT: 10 FEET

STANDARD FEATURES

LESS MAINTENANCE & EASY INSPECTION

- Brake location allows for quick access and easy inspection.
- Lifetime grease-lubricated Gear Box means no oil change out is required. Precision gears provide better wear and longer life.
- Clutch located outside the Gear Box allows for easy access which eliminates the need for complete disassembly and reduces downtime.

IMPROVED SERVICEABILITY

Easy access to the Clutch, Motor, Electrical Control Panel and Brake Assembly.

LONG SERVICE LIFE

- Heavy-duty DC brake is designed for a long service life.
- Lifetime grease-lubricated Gear Box and helical gearing ensures better wear and smooth operation.
- Heavy-duty rated motor.

QUIET OPERATION

80% reduction in sound pressure as compared to the classic Lodestar.

IMPROVED LOAD SAFETY

Clutch is located outside the load path, preventing slipping of the load in an overload condition when the brake is not powered.

LONG CHAIN LIFE

5-Pocket Lift Wheel provides excellent chain and lift wheel engagement for smoother lifting and reduced vibration, equating to less wear and a longer chain life. Zinc plating protects chain from environmental conditions.

EASY ACCESS CONTROL PANEL

Finger-safe wiring and plug-and-play connectors on the Control Panel allow for quick voltage change, easy access to terminal strips and simple fuse installation.

ZINC-PLATED LOAD CHAIN

Designed and manufactured in the USA by Columbus McKinnon. Zinc-plated Star Grade load chain protects against corrosion.

EXCEEDS H4 REQUIREMENTS

Lodestar exceeds H4 requirements. Engineered for high duty cycles and the toughest applications.

ECO-FRIENDLY

Lifetime grease-lubricated Gear Box means no changing and disposing of hazardous oil. Documented RoHS compliance. Shipped in boxes made of recycled material.

METRIC RATED

LIFETIME WARRANTY

The industry's best warranty against manufacturing and material defects.

FABRIC CHAIN CONTAINER

Standard up to 20 ft. lift.

RIGID HOOK SUSPENSION

OPTIONAL FEATURES

CM® ROCKET™ PENDANT

Engineered for maximum operator comfort and safety, the CM Rocket delivers precision load control with a unique rocker switch and comfort-fit design. Not available for 3-step infinitely variable hoist models. Pendant with emergency stop not available on the Lodestar VS.

DOUBLE DC BRAKE

Two independent acting DC Brakes for redundant braking. Field Installation Kit available.

ROTATABLE LIMIT SWITCH

Designed for quick reset of limit position



AC ELECTRIC BRAKE

TRADITIONAL 2 SPEEDS

PRIMARY & SECONDARY TRANSFORMER FUSING

BLACK PHOSPHATE OR STAINLESS STEEL LOAD CHAIN

METAL & STAINLESS STEEL CHAIN CONTAINERS



LOOK WHAT'S DRIVING YOUR HOIST

If you're looking unsurpassed VFD performance, look no further than the Lodestar VS featuring the Magnetek IMPULSE® G+ Mini drive. Modern in design, Magnetek drives provide reliable, user-friendly controls and come equipped with industry-leading safety features to keep you working safely. Paired with our user-friendly interface, operators can easily adjust and monitor hoist performance and conduct on-the-spot troubleshooting, increasing efficiency and reducing downtime.

PRECISION LOAD CONTROL FOR MICRO-POSITIONING

20:1 speed ratio allows for a wide range of hoist lifting speeds, giving the operator unsurpassed micro-positioning capabilities while decreasing load bounce.

Modified open-loop vector control with gearbox-mounted speed sensor protects against over-speed and speed deviation.

Quick-stop feature allows the hoist to stop within 3" at high speeds.

LONGER HOIST, BRAKE & MOTOR SERVICE LIFE

Electronically programmable upper and lower limit switches (EPLS) allow for soft start and ramp-down-to-stop capabilities, decreasing load bounce and increasing brake life. No jogging necessary. Limits can be easily set and modified with the user-friendly Lodestar VS interface.

Frequency drive offers built-in thermal overload and overcurrent protection for the hoist motor.

INCREASED EFFICIENCY WITH SWIFTLIFT™

New SwiftLift™ feature increases operator efficiency, allowing the hook to move 200% faster when the hoist is not under load.

For example, if a hoist is programmed for 60 fpm, the hook will move at 120 fpm not under load (any load that is less than or equal to 20% of the hoist's capacity).

OVERLOAD & OVER-SPEED PROTECTION

Load Check II™ feature monitors capacity and prevents overloading if capacity is exceeded. Modified open-loop vector control with gearbox-mounted speed sensor protects against over-speed and speed deviation.

EASILY ADJUST & MONITOR HOIST PERFORMANCE

With one of the easiest to use interfaces available, the Lodestar VS puts performance and status information you need right at your fingertips.

Simply plug the hoist into a computer or tablet to change or access performance data. The interface is designed for ease of use, allowing you to choose the control method of the hoist as well as the maximum, minimum and, if applicable, medium speed of the hoist. It also allows you to easily set upper and lower limits as well as SwiftLift parameters.

HIGHER DUTY CYCLES

Heat sink and brake resistor (mounted inside of the hoist) allow for maximum heat dissipation and uninterrupted drive service at high-duty cycles. Hoists are not equipped with load brakes, reducing heat generation in high-duty-cycle applications.

FLEXIBLE CONFIGURATIONS

Standard 2-step infinitely variable control with acceleration and deceleration control. Optional 3-step infinitely variable control as well as 2 and 3 speed multi-step controls. Multiple power supply options also available.



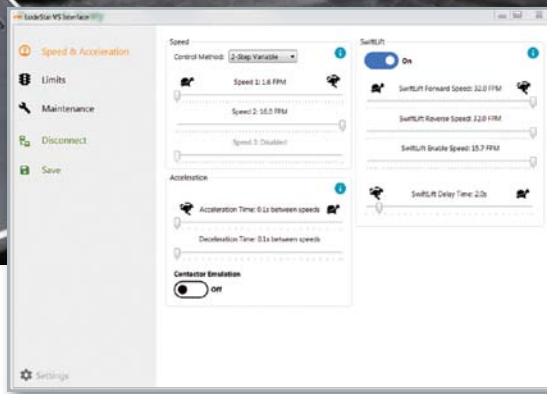
THE **CM** ADVANTAGE

Only Columbus McKinnon can offer the legendary durability of the CM Lodestar together with Magnetek, the premier name in drive controls. For unsurpassed performance, look for "The Drive Inside" emblem on your next variable frequency drive hoist.



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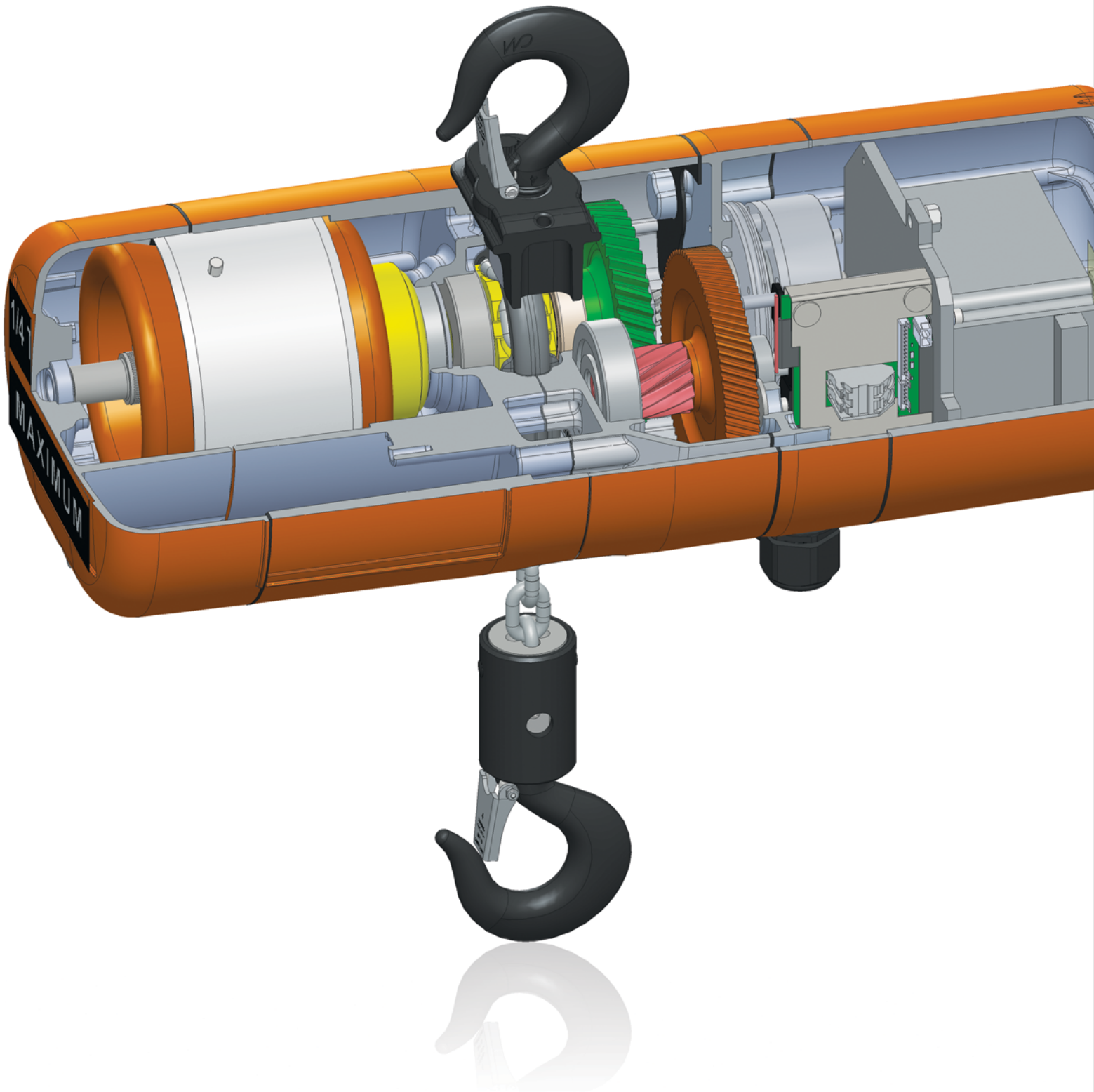
ADJUST & MONITOR HOIST PERFORMANCE WITH EASY-TO-USE INTERFACE

Whether you need to adjust your hoist operating speeds or check motor run time and over-current events, the Lodestar VS puts the information you need at your fingertips. With convenient USB connectivity, the operator can simply plug the hoist into a computer or tablet to change or access performance information.

The Lodestar VS features CM HI-Tech™ (Hoist Interface Technology) – one of the easiest to use computer interfaces on the market developed exclusively by Columbus McKinnon. CM HI-Tech is designed for ease of use, allowing you to choose the control method of the hoist as well as the maximum, minimum and, if applicable, medium speed of the hoist. Compatible with Windows XP SP3, Windows Vista and Windows 7, 8 and 10, the Lodestar VS interface also provides:

- Built-in error prevention that ensures the hoist is programmed correctly, rejecting incorrect parameters and prompting the operator to make corrections before programming is complete.
- Acceleration and deceleration rates automatically calculated based on control methods and speed selections.
- Comprehensive hoist status information, including start/stop cycles, motor run time, over temp and over current events, as well as temperatures. Hoist fault information is also available.

THE ANATOMY OF THE LODESTAR VS



KEY COMPONENTS

Working together, these key components provide best-in-class performance for any application in a wide variety of industries.



Gear Box

Precision helical gearing is grease lubricated for quiet, smooth operation and long service life.



Lift Wheel

5-pocket wheel increases engagement of the chain to provide smooth lifting with less vibration and reduced chain wear when properly maintained – extending the life of the chain.



Clutch

Located outside the gear box for easy access, the Clutch is designed to prevent lifting loads greater than rated capacity.



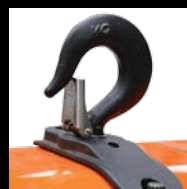
Internal Chain Guide

The stamped steel Chain Guide, coated for corrosion resistance and quiet operation, keeps the load chain and liftwheel aligned during operation.



Cast Aluminum Housing

Acid-resistant, powder-coated finish for superior durability and protection against elements. Sealed drive shaft and standard weather-proofing gasket and seals for a NEMA 3R rating — suitable for outdoor use. Highly visible and recognizable CM orange color.



Hook Suspension

Rigid upper hook is standard on every Lodestar. Swivel hook, as well as push, hand-gear and motorized trolley suspensions are optional.



Brake

Heavy-Duty DC Brake is standard. AC Brake and Double DC Brake are also available.



Load Chain & Hook

Hoist alloy[®] load chain and forged steel hook are manufactured in the USA by CMCO – ensuring the highest quality standards are met at all times. Chain is zinc plated for protection against corrosion and is 100% proof tested.



Fabric Chain Container

Standard on every Lodestar. Recommended for applications where slack chain would interfere with the load or drag on the floor.



Motor

Both heavy duty and efficient, the motor is designed to operate on power supplies worldwide. Standard Class F insulation and thermal motor protection.

CM LODESTAR VS

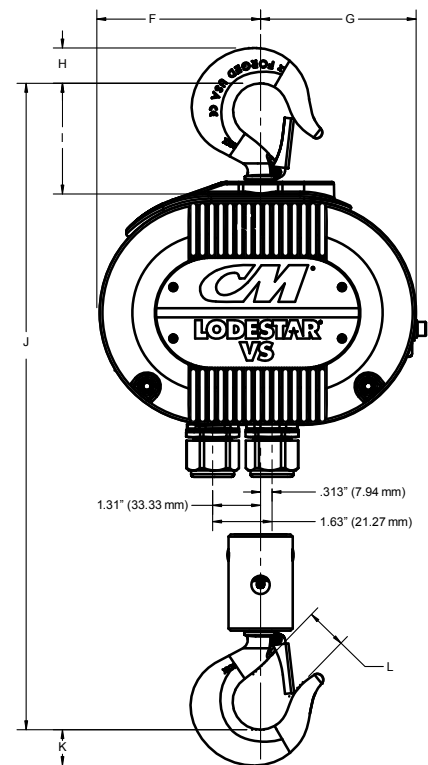
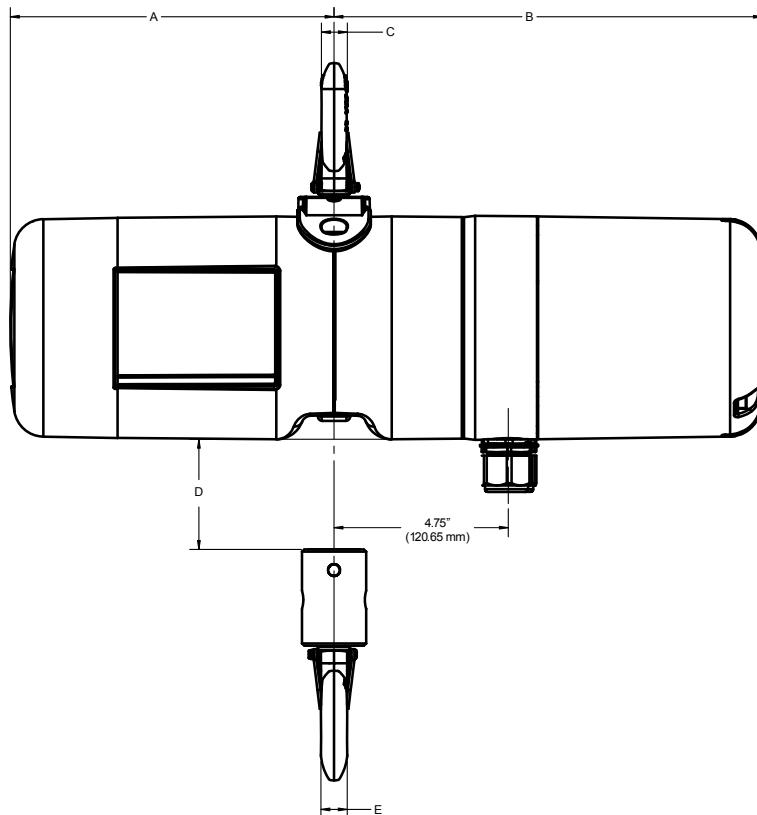
SPECIFICATIONS & DIMENSIONS

Model	Reeving	Suspension	Dimensions inches (mm)											
			A	B	C	D	E	F	G	H	I	J	K	L
A, AA, C, B & F	Single	Latch-Type Hooks (Upper/Lower)	8.82 (223.84)	11.69 (296.86)	.69 (17.46)	3 (76.2)	.69 (17.46)	4.44 (112.71)	4.25 (107.95)	.94 (23.81)	3.00 (76.20)	17.63 (447.68)	1 (25.4)	1.13 (28.58)
E & H	Double	Latch-Type Hooks (Upper/Lower)	8.82 (223.84)	11.69 (296.86)	.81 (20.64)	1.5 (38.1)	.81 (20.64)	3.44 (87.31)	5.25 (133.35)	1.13 (28.58)	—	19.56 (496.89)	1.13 (28.58)	1.25 (31.75)
A, AA, C, B & F	Single	Latchlok Hooks (Upper/Lower)	8.82 (223.84)	11.69 (296.86)	1.19 (30.16)	3 (76.2)	1.19 (30.16)	4.44 (112.71)	4.25 (107.95)	.94 (23.81)	—	19.75 (501.65)	.94 (23.81)	1.38 (34.93)
E & H	Double	Latch-Type Hook (Upper) Latchlok Hook (Lower)	8.82 (223.84)	11.69 (296.86)	.81 (20.64)	1.5 (38.1)	1.19 (30.16)	3.44 (87.31)	5.25 (133.35)	1.13 (28.58)	—	19.88 (504.83)	.94 (23.81)	1.38 (34.93)
A, AA, C, B & F	Single	Latch-Type Hook (Upper) Bullard Hook (Lower)	8.82 (223.84)	11.69 (296.86)	.69 (17.46)	3 (76.2)	.81 (20.64)	4.44 (112.71)	4.25 (107.95)	.94 (23.81)	3 (76.2)	18.75 (476.25)	1 (25.4)	1 (25.4)
E & H	Double	Latch-Type Hook (Upper) Bullard Hook (Lower)	8.82 (223.84)	11.69 (296.86)	.81 (20.64)	1.5 (38.1)	.81 (20.64)	3.44 (87.31)	5.25 (133.35)	1.13 (28.58)	—	20.56 (522.29)	1.13 (28.58)	1.25 (31.75)
A, AA, C, B & F	Single	Universal Trolley Latch-Type Hook (Lower)	8.82 (223.84)	11.69 (296.86)	1.25 (31.75)	3 (76.2)	.69 (17.46)	4.44 (112.71)	4.25 (107.95)	.63 (15.88)	—	16.13 (409.58)	1 (25.4)	1.13 (28.58)
E & H	Double	Universal Trolley Latch-Type Hook (Lower)	8.82 (223.84)	11.69 (296.86)	1.25 (31.75)	1.5 (38.1)	.81 (20.64)	3.38 (85.73)	5.25 (133.35)	.63 (15.88)	—	17.75 (450.85)	1.13 (28.58)	1.25 (31.75)

MAXIMUM CONTROL. MINIMAL EFFORT.

The CM® Rocket™ pendant is available as a standard option on the CM Lodestar VS. At the heart of the CM Rocket is a unique rocker switch that is ergonomically designed to reduce thumb strain and fatigue. The rocker switch gives the operator ultimate load control for micro-positioning applications, as well as increased safety and efficiency for hoist operators. Its curved, well-balanced shape and ribbed grip help ensure the operator maintains a secure and comfortable hold.





THE IDEAL WORKSTATION HOIST.

The CM Lodestar VS is ideal for applications in the automotive, heavy OEM, utility and energy industries. Choose this reliable hoist for assembly workstations that require high speed and precision control lifting with light rail or trolley systems.

In addition, the Lodestar VS is perfect for maintenance and repair applications demanding accurate load control or long lifts.



THE POWER OF INTELLIGENT LIFTING

Since 1875, Columbus McKinnon has helped to make material handling easier and safer, and, today, is your single source for complete floor-to-ceiling lifting systems.

From below-the-hook attachments, chain, rigging products, manual and powered chain hoists to electric wire rope hoists, cranes, enclosed track systems and specially engineered products, Columbus McKinnon has the engineering expertise to meet the most demanding applications.



KNOW HOW. KNOW WHY.

Columbus McKinnon is committed to providing expert safety training on the proper use and inspection of rigging and overhead lifting equipment. Our company offers comprehensive programs at our national training centers as well as on-site at your facility. Courses include:

- Hoist Maintenance
- Safe Hoisting
- Rigging Gear Inspection
- Crane & Hoist Inspection
- Load Securement
- Crane Operator Training
- Rigging

Win in the marketplace with **CMCO University™**. This three-day program is designed to give Channel Partners intimate product and application knowledge that they can use to advise their end-user customers during the product selection and sales processes.



Columbus McKinnon's corporate headquarters in Getzville, New York, is home to our state-of-the-art **Niagara Training Center**. The 3,000-square-foot facility is dedicated to training Channel Partners and end users on the safe and proper use of hoist and rigging products. The Center offers a one-of-a-kind training experience on chain and rigging equipment with more than 75 manual and powered hoists, enclosed track systems and our 50-foot-wide crane system with 3-ton Yale Global King wire rope hoist.



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