



# All Products Catalogue

Blasting | Ground Support | Shotcrete and Concrete Transport  
Ore Flow Suite | Utility Vehicles

OUR COMMITMENT TO MINING SAFETY AND PRODUCTIVITY RUNS DEEP.

 **MacLean**  
CANADA | USA | MEXICO | PERU | SOUTH AFRICA | AUSTRALIA





# MacLean mining vehicles

## We Mine Solutions.

MacLean specializes in mine vehicle designs that maximize safety and productivity in the underground environment while also reducing total cost of ownership. We build for life underground by understanding the mining cycle and connecting the engineered solution and technology to the right application. This includes modern telematics, online documentation and parts ordering, as well as hands-on training and e-learning. We have built an enduring, valued brand in the mining industry through decades of underground mining experience with our custom manufacturing expertise, supported by a five-factory footprint in North America and a global network of customer service and support.

The global support network is ever expanding as customers find value in MacLean products in new markets. MacLean has international branches in the USA, Peru, South Africa, Mexico, and Australia, along with a trusted dealer network that serves customers across the globe.

### What's New: Expanding our Vision. Rising to the Surface.

#### Commitment Toward Real Zero - Real Impact by 2040

##### Provide Decarbonization Mining Solutions

- Largest Impact we can make
- Help customers transition to battery-electric vehicles both underground and on surface

##### Accountability and Transparency

- Regularly sharing progress updates to keep our customers, partners, and communities informed

##### Industry Leadership

- Partnering with mining companies to deliver sustainable solutions that reduce emissions across the value chain

### Launch of our Surface Mining Division

**Our surface mining electrification begins with a powerful partnership** with **Fortescue**, one of the world's leading energy and resources companies. This partnership not only marks the launch of our battery electric surface grader but also sets the foundation for a portfolio of zero-emissions solutions purpose-built for surface operations.

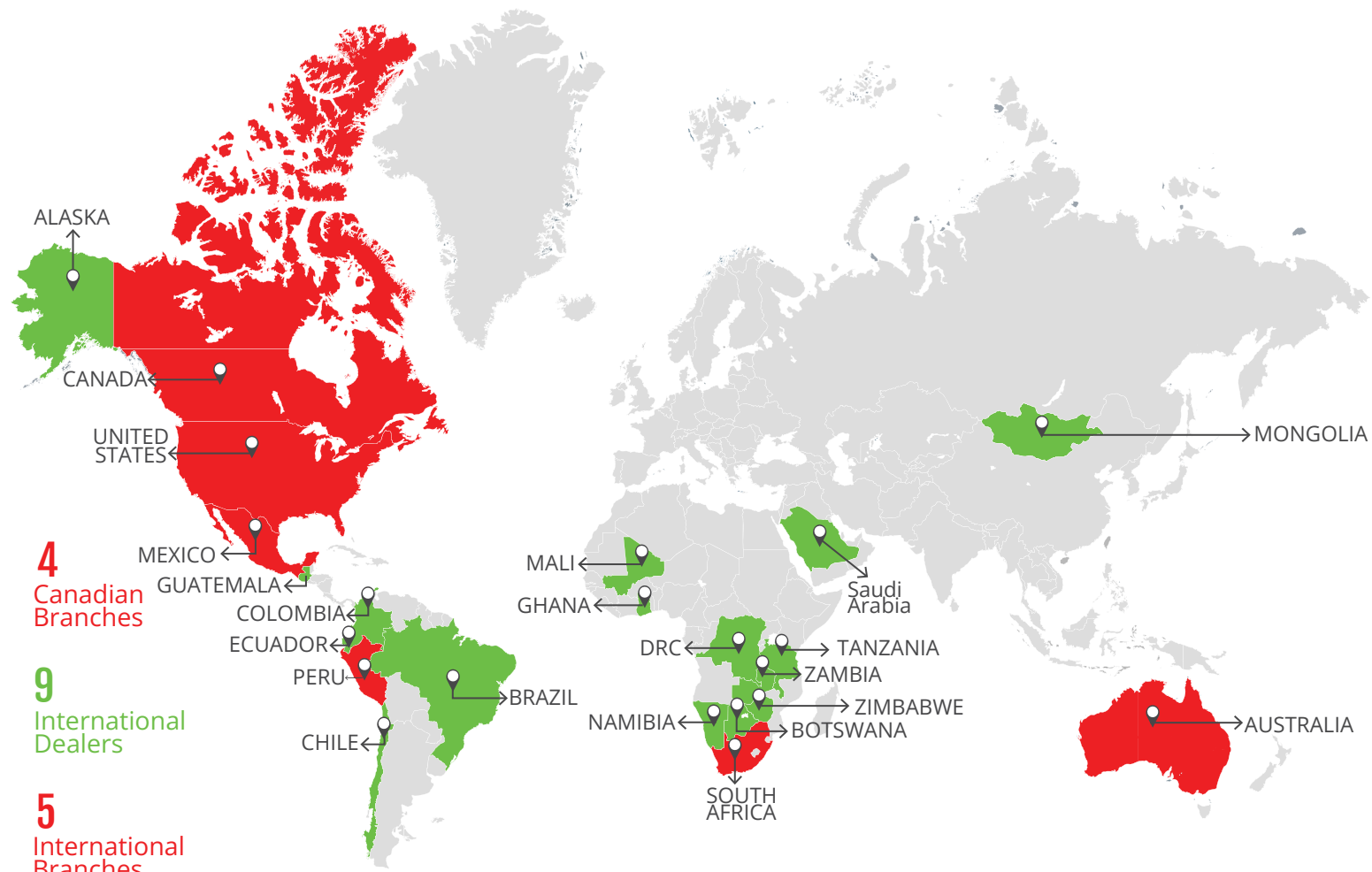
**The first EV grader is expected to be delivered in 2026, with the full battery electric fleet aiming to be operational in 2029, to Fortescue's mining operations in Western Australia.**

- New ancillary EV product
- Launched with Fortescue
- 18 ft moldboard
- Fortescue Zero battery
- MCS/CCS compatibility
- 3-4 Hour runtime
- <30 Minute charge (MCS)
- Higher drawbar pull
- Larger cab
- Improved ergonomics
- Best-in-class visibility

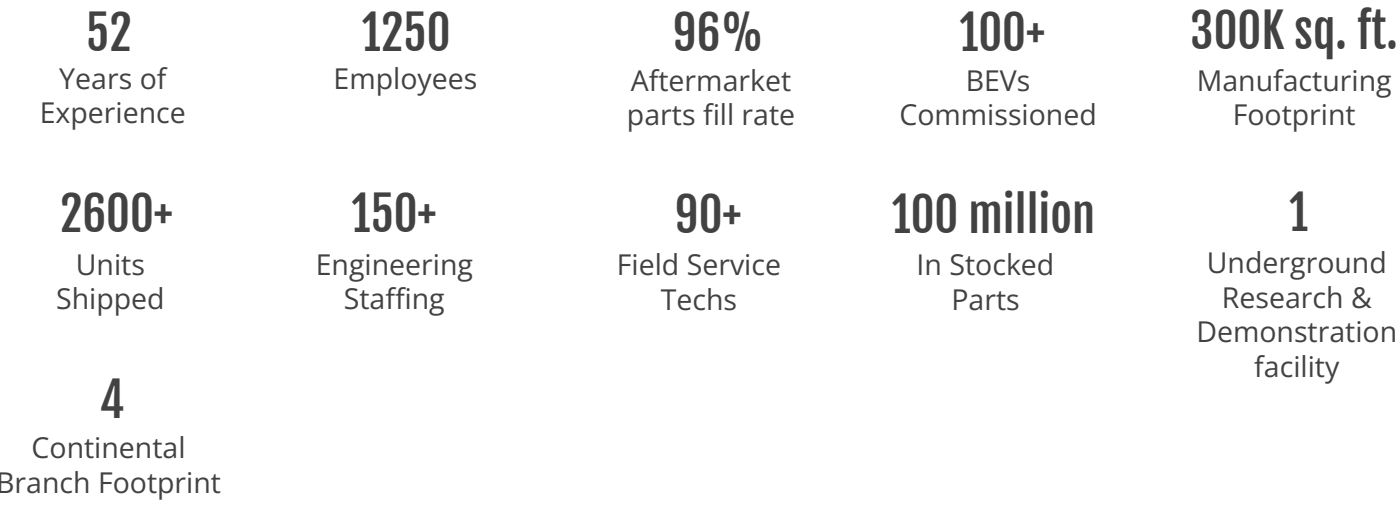


# MacLean Global Footprint

Representing our branch and dealer network. MacLean global service and support delivers expert assistance and reliable parts turnaround to keep your equipment running, day in and day out.

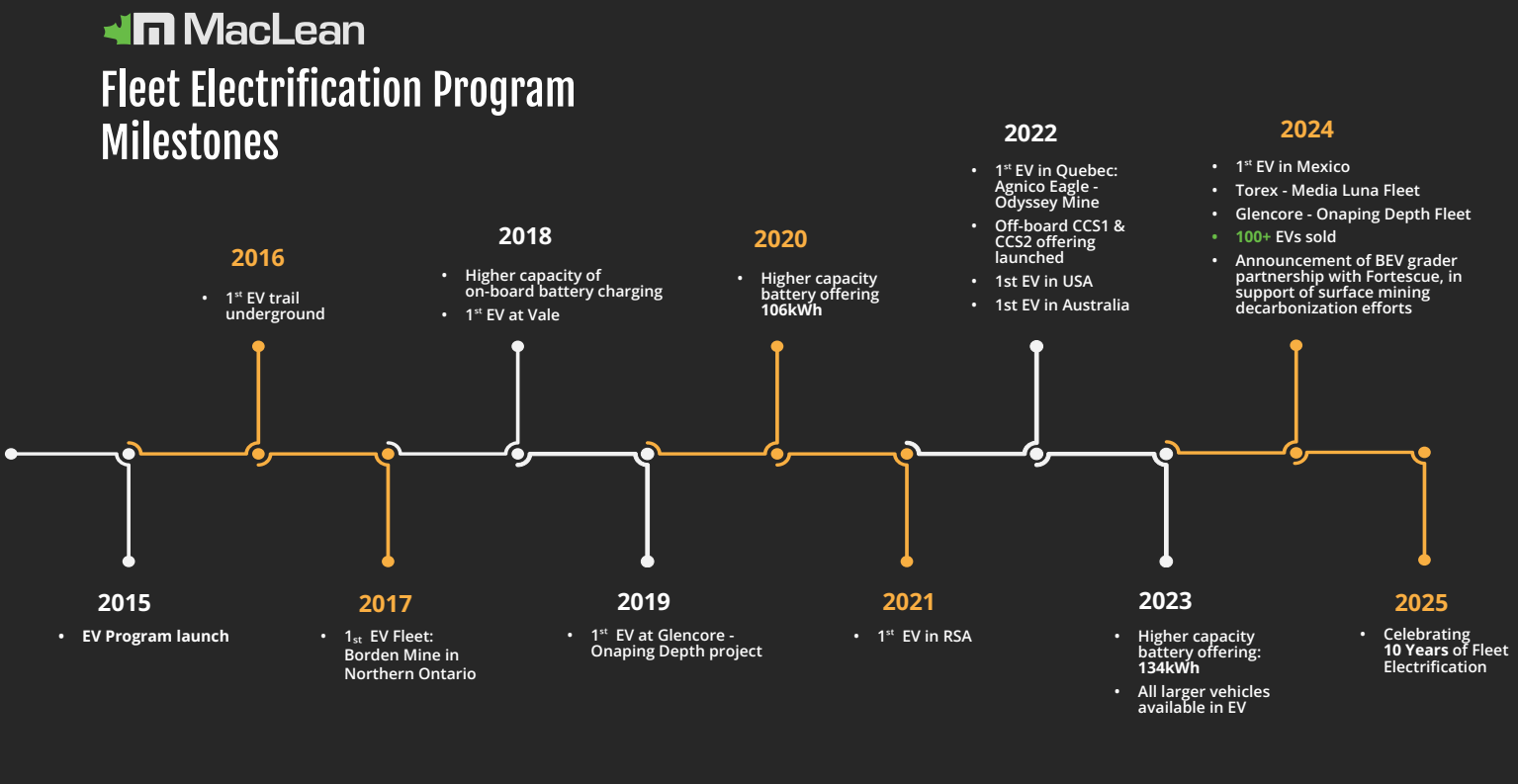


## We Take Pride in Our Numbers



# Technology Innovation

MacLean EV Series :Full-Fleet Electrification | EV-proven, EV-ready



The 2016 introduction of the MacLean Battery Electric Vehicles (BEVs) was a product development milestone for the company. Since then, MacLean is building on this BEV 'network effect' as the push for diesel-free underground mobile fleets continues to gain momentum. This BEV shift in the industry is driven by mines' need to increase safety and productivity while also bringing down production costs.





# Technology Innovation

Remote Control Systems



The first package of commercialized products from our Advanced Vehicle Technology group, under the product line banner, consists of three levels of remote-control technology. From basic line-of-sight to surface operation packages, MacLean can deliver and support the appropriate remote-control solution

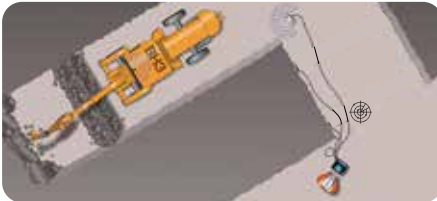
for your unique underground mining environment. These remote-control systems are an excellent addition to the MacLean Ore Flow product line, to safely bring down draw-point hang-ups and make block caving operations, in particular, safer and more productive.

## Line of Sight Operation



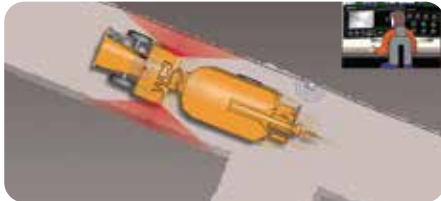
- Increased Operator Safety

## Tele-Remote Underground



- Enhanced Health and Safety
- Radar Tele-Remote Barriers
- Single and dual entry modes available

## Surface Tele-Operation



- Highest Safety, Utilization, Operator Comfort and Production
- Interoperability in production automation

# Control System

MacLean control systems deliver dependable control and ease of maintenance underground.



Category	MacLean Operating System (MOS) – “Smart Vehicle” (Digital Control)	Relay Logic / Hardwired Relay Circuit
Control and Interface Method	Modern, software-based interface featuring an intuitive screen layout that supports graphical user interaction for efficient control.	Hard-wired operation using physical components such as relays and switches; known for simplicity and familiarity
Troubleshooting	Live diagnostics enable real-time system monitoring, allowing for efficient identification and resolution	Troubleshooting is performed using electrical schematics and manual tools
Maintenance	Enables predictive, usage-based maintenance strategies for operational planning	Suited for scheduled maintenance intervals; aligns well with fixed maintenance routines
Future Adaptability	Designed to support remote, tele-operational, and automated control, providing flexible integration across various operational needs.	Expansions or changes typically require physical modifications to wiring and components
Safety Features	Ready for software-managed features like collision avoidance and operator assistance Integrated documentation and interlock management	Safe from cyber threats
Field Updates	Software-based updates allow for adding new features and refinements without hardware changes	New functionality generally requires hardware changes
Overall Approach	Dependable, Reliable,and Simple	Dependable, Reliable,and Simple





# Blasting

Safe and effective explosive solutions for your underground mining needs.



## Product Lines

The MacLean mining vehicle product lines span a broad range of applications across the underground mining cycle, including bolting, shotcrete spraying and mobile concrete transport, explosives charging, secondary reduction, remote control operations, as well as utility vehicles, cassettes, and attachments.

### EXPLOSIVES CHARGING



#### EC5, EC3 & EC2 Emulsion Charger

A cost effective and highly productive solution for delivering high-explosive emulsion to blast holes.



#### AC5, AC3 & AC2 ANFO Charger

Safe, reliable and cost-effective solutions for quality explosives charging of bulk ANFO in underground mining.



#### MC5 Explosives Charger

Introducing MacLean's latest, Mine-Mate™ Series MC5, a safe and versatile explosive charging solution for development and production charging of Emulsion or ANFO Loading in underground trackless mines and tunnels.



# Ground Support

We've got your back when it comes to ground support installation quality, productivity, and versatility.

## BOLTING



### 975 Omnia Bolter

The paradigm-changer in ground support installation – safety, versatility, productivity, and quality, equipped with the face bolting option.



### SSB Small Section Bolter

The MacLean bolting solution for mines with smaller openings, equipped with the face bolting option.



### RS3 & RS5 Rock Scaler

Ruggedness and performance combined with industry leading ergonomics and all-round operator visibility.



## SCALING

# Shotcrete and Concrete Transport

Total shotcrete solutions, delivering unmatched on-vehicle technology for superior material quality, enhanced efficiency, and uncompromising safety.

## SHOTCRETE SPRAYING AND CONCRETE MIXERS



### SS5 Shotcrete Sprayer

Re-designed from the wheels up: This includes a new carrier and an ergonomically designed operator's cab with enhanced visibility and noise attenuation to support in-cab spraying. In addition, new dosing control and real-time thickness measurement technologies have been integrated into the design to reduce the amount of process chemicals used and to improve the quality and reduce the quantity of the shotcrete applied.



### SS2 Shotcrete Sprayer

Ruggedized, mechanized shotcrete spraying system developed specifically for underground ground support applications in smaller-opening mines.



### TM5, TM3 & TM2 Transmixer

High capacity, high speed transport of wet shotcrete/concrete in a fit-for-purpose package.



### AG3 & AG5 Incline Agitator

Purpose-designed for underground mining applications where turning dry-mix into wet or adding additional mix components, such as fibers, is required in the mining cycle.



### IA3 & IA5 Incline Agitator

The IA3 Incline Agitator is an integral part of the wet shotcrete process and provides the ability to mix concrete with a high capacity, high speed transporter that is designed for the underground mining environment. It's also available in 7m<sup>3</sup>.



### BP5 Mobile Batch Plant

The BP5 provides a solution for high-capacity, high-speed transport of dry mix, while experiencing the material benefits of wet shotcrete.



# Ore Flow Suite

For trapped reserves... let the ore flow! Secondary reduction drilling, drawpoint hangup removal, oversize breaking, all supported by remote control technology.

## SECONDARY REDUCTION



### SB8 & SB12 Secondary Breaker

The solution for attacking high boulder hang-ups without endangering mine workers. Built for the tough underground environment, equipped with radio and video systems.



### BH5, BH3 & BH2 Blockholer

Designed to eliminate ore flow blockages and release trapped reserves in draw-points and beyond draw point brows, without endangering mine workers. MacLean remote control technology allows tramming, drilling, and blasting operations to be conducted from safe distances.



### Auto Explosives Charger

Engineered design for the BH5 'No boots on the ground' mining philosophy. An innovative combination of loading carousel, control package, and Human-Machine Interface (HMI) for the loading of multiple wireless explosive charges. It also includes option for traditional wired explosives.



### RB5 Rockbreaker

Combining MacLean-quality ruggedness and performance with industry-leading ergonomics and all-round operator visibility, the RB3 is truly a groundbreaker.



### WC5, & WC2 Water Cannon

Harnessing water power to increase ore recovery. Washing out loose fines between oversized blocks by pumping 10 to 12,000 liters at high pressure to bring down hang-ups.





# Utility Vehicles

MINE-MATE Utility Vehicles for tough underground environments – ruggedized design, parts commonality, and maintenance efficiencies.

## MINE-MATE UTILITY VEHICLE



### SL5, SL3 & SL2 Scissor Lift

Underground multi-tasker for mine services installation and rehab.



### BT5, BT3 & BT2 Boom Truck

The MacLean-engineered solution for high-capacity transportation of materials and equipment in underground mines.



### PC5, PC3 & PC2 Personnel Carrier

Where time is at a premium and travel distances long – a comfortable, rapid transportation system for workers and materials in underground mines.



### LR3 & LR5 Boom Lift

Designed to provide a safe work platform for installation of services in tunnel headings. Certified elevated work platform with Remote Drive System (RDS), high reach and payload capacity; quick attach system with a versatile range of work baskets and attachments for mine service installation, construction, and maintenance.



### FL5, FL3 & FL2 Fuel/Lube Truck

For timely supply of diesel fuel, oils and lubricants in underground mining - an integral member of the MacLean bulk materials transfer system. A fuel lube can also be configured to haul as a fuel tanker.



### WS5, WS3 & WS2 Water Sprayer

Ruggedized design for dust control in the underground work environment.



### FT3 & FT5 Fuel Truck

Fuel Truck - The Fuel Tanker Truck is rugged, dependable and an integral part of the bulk materials transfer systems.



### FR3 & FR5 Fork Lift

Designed to handle heavy loads on rough terrain. The FR3 Fork Lift provides material handling capabilities in tight confinements and on steep grades. The FR3 can lift loads as high as 6,000 kg (13,200 lbs) and operate on grades as steep as 20%. It is built specifically for today's underground trackless mining environment.



### DT3 & DT5 Deck Truck

The Deck Trucks are highly customizable to your material handling needs, with a range of deck sizes and options, a power train that can be matched to meet load requirements, and an enclosed cab option for heating and air conditioning.





# Grader

The MacLean grader is capable of withstanding the most extreme conditions with its rugged, durable, and ergonomic design.



## GR5 Underground Grader

The Grader GR5 is a durable, rugged, purpose-built machine capable of withstanding the most extreme conditions. By utilizing MacLean reliability and valuable industry knowledge, the MacLean Grader ensures your road bed is smooth and consistent.

### Features

- CANBUS control system
- Enclosed, isolation-mounted, certified ROPS/FOPS cab
- Control joysticks on armrests
- Purpose designed cab for maximum blade visibility
- Hydrostatic drive for maximum torque at low speeds
- Full-time 6WD for a machine that lives on a 20% grade
- Beat incumbent CAT120 on weight and drawbar pull
- Rugged gear driven axle sourced from the forestry industry, eliminating cumbersome chain drive
- Additional safety from including brakes on all wheels versus rear wheels only
- Beefed up circle drive and draw bar. Eliminated worm gear drive and replaced with push/pull cylinders to withstand bedrock scraping better; and can turn blade under load

# Multi-Lift

The MacLean Multi-Lift is fully equipped as standard for the multi-tasking required in today's underground trackless mining environment.



## ML5 Multi-Lift

The ML5 Multi-Lift is designed to provide a safe, certified mobile elevating work platform (MEWP) for installation of services up to 6.5m (21 ft) with a safe working load (SWL) of 2,260 kg (5,000 lbs) for the MEWP. It represents an enhanced version of the widely recognized integrated tool carrier (ITC) commonly used in the industry, featuring additional capabilities specifically optimized for underground MEWP applications.

### Applications

- Fan installation
- Pipe installation
- Cable bolt installation, grouting and tensioning
- Electrical cable installation
- Material handling
- General construction and maintenance

### Features

- 2-person cab
- In basket controls
- Remote drive system (RDS) from the basket
- +/- 30° boom slew



# Cassette System

The CS3 Cassette Truck is designed for full utilization of the carrier by its ability to continuously adjust from one configuration to another.



## CS3 & CS5 Cassette System

The CS3 Cassette Truck offers versatile, interchangeable cassettes, enabling multiple tasks with a single vehicle. Its adaptable design reduces fleet size and capital costs. Configurations include: ANFO Charger, Crane, Fuel Lube, Deck, Dump Box, Personnel Carrier, Emulsion Charger, Lift Hook/Bin (RORO), Transmixer, Mechanics, Water Sprayer, Fuel Tanker, Scissor Lift, and Man Basket.

<p>Water Sprayer</p> 	<p>Personnel Cassette</p> 	<p>Mechanics Cassette</p> 	<p>Transmixer Cassette</p> 
<p>Fuel Tanker Cassette</p> 	<p>Man Basket Cassette</p> 	<p>Fuel or Lube Cassette</p> 	<p>Flat Deck Cassette</p> 
<p>Crane Cassette</p> 	<p>Scissor Lift Cassette</p> 	<p>Auto Charger Cassette</p> 	<p>Dump Box Cassette</p> 
<p>Roll-On / Roll-Off Cassette</p> 			

# Attachments

Purpose-built, interchangeable attachments that effectively perform installations of ventilationfans & ducting, air & water pipes, mine services, and cable bolts for ground support.

FHA Fan Handler



PHA Pipe Handler



CRA Cable Reeler



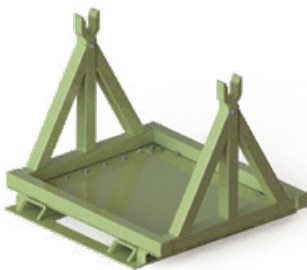
FCA Fan Cradle



CPA Cable Pusher



CSA Cable Spool






# WHEN YOU BUY A MACLEAN MINING VEHICLE, YOU ARE FAMILY.



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 To learn more: [info@macleanengineering.com](mailto:info@macleanengineering.com)



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