Hard Rock Mine
Mine Rescue Vehicle

The MineARC MineSAFE Rescue Vehicle

Combining safety and manoeuvrability for remote and rescue operations.
MineARC Systems is the global leader in the manufacture and supply of emergency safe refuge solutions for the mining, tunnelling, chemical processing and disaster relief industries. With 20 years’ experience, our dedication to ongoing research and development is driven by our key focus to continually offer the best and most advanced safety solutions on the market. Our team of qualified engineers, electrical designers and technical experts form a global network across seven international locations including:

- Perth, Western Australia
- Johannesburg, South Africa
- Dallas, Texas
- Santiago, Chile
- Beijing, China
- Barcelona, Spain
- Guanajuato, Mexico

This allows MineARC to provide 24 hour service and engineering support to our expanding list of clients in over 60 countries across the globe.

All MineARC Refuge Chambers and Safe Havens comply with the highest international regulations and recognised ‘world’s best practice’ industry guidelines. Our key focus on quality control and product advancement has meant that MineARC Refuge Chambers have successfully saved lives in multiple real life industrial emergencies around the globe.

www.minearc.com

The MineSAFE Rescue Vehicle combines the safety and security of a high-quality refuge chamber with the manoeuvrability of a modern mine transport vehicle. Engineered specifically for underground mining environments, this rugged vehicle gives emergency response teams the flexibility to safely extract injured personnel from the mine. Its 4-person occupancy, along with an integrated stretcher compartment, means that Emergency Rescue Teams (ERTs) can be dropped into emergency zones, while general personnel can be ferried to the surface.

MineARC Refuge Chambers have been successfully used around the world in multiple mine and tunnelling emergencies to save lives.

- Purpose-designed vehicle for the underground mining environment
- Advanced braking and tramping, with hydraulic wheel drive
- 4-person carrier plus secure stretcher compartment
- Pressurised control system
- Aura-FX digital gas monitoring
- CO2 scrubbing system and automated oxygen delivery system
- Split system air conditioning
- Positive pressure cabin filtration system
Unlike other emergency transport, the MineSAFE Rescue Vehicle has been specifically designed with the harsh conditions of underground mining in mind. The reinforced exterior and airtight carrier make it perfect for fast and effective emergency response missions.

The base vehicle, designed and manufactured by Breaker Technology Inc., boasts more power, less maintenance and a lower emissions footprint. Advanced braking and hydraulic wheel drive (HWD) ensure that the vehicle will perform in any tough condition.

The rear carrier features MineARC System’s proprietary life support equipment; from the latest in gas monitoring technology to advanced breathable air management. A sealed, positive pressure environment prevents the ingress of toxins and smoke during rescue operations.

Custom seating and overhead storage provide space for rebreathers (SCSRs), while a purpose-designed stretcher compartment allows for the safe, secure transportation of injured personnel.
A compact Carbon Dioxide Scrubbing System uses pre-packaged MARCISORB chemical absorber cartridges. The custom designed, single-tray scrubber fits neatly into the rear carrier, steadily removing carbon dioxide from the air. MineARC’s MARCISORB CO₂ cartridges provide superior scrubbing capacity, are easy to load, safe to handle, and can store for long periods.

An Automated Oxygen Delivery System (AODS) within the cabin is utilized in conjunction with the scrubbing system to replenish breathable air.

MineARC’s Aura-FX Digital Gas Monitoring System is a proprietary fixed gas monitoring unit, designed specifically for use in MineARC refuge chambers. The inbuilt Aura-FX has the ability to individually monitor up to three gases as well as ambient temperature via a series of user-friendly, digital screens. Audible voice alarms will prompt occupants to replace scrubbing chemicals or adjust oxygen supply levels in the cabin as required.

The Pressurised Control System (PCS) is centrally located within the vehicle’s carrier for ease of access and simple monitoring. The PCS maintains internal positive pressure in the carrier to prevent the ingress of smoke and other hazardous gases during transport. Additionally, the carrier can be over-pressurised manually to allow for the rapid removal of gases that may enter during entry or exit.

The under-vehicle compressed air cassette supplies the PCS with enough positive pressure for a 4-hour rescue mission. Light weight and easy to handle, the cassette can be replaced in less than 10 minutes without any special tools.