



WINCHES, WINDERS AND MOBILE RESCUE HOISTS



INNOVATION. MOBILITY. SAFETY. TOUGHNESS.

Our truck-mounted Mobile Mine Rescue Hoists (MMRHs) are designed to address the urgent need for rapid response and resolution to underground mining emergencies and safety incidents. Engineered with safety and operators in mind, our MMRWs are fully roadworthy and self-powered, with patented hydraulics and hoist technology, allowing rescue teams to respond faster, mitigate risk of death, and reduce mine downtime.

HOW OUR **MOBILE MINE RESCUE HOISTS** CAN BENEFIT YOUR MINING OPERATION:



Drastically reduce emergency response time

Rough-terrain vehicles designed for immediate deployment and rapid setup at incident location.



Improved critical event resolution

Self-contained power, controls, winder, sheave wheel and conveyance. Rescue depth down to 3,000 m (9,800 ft).



Increased safety outcomes

Patented technology and monitoring designed for underground rescue teams and supply delivery.



Leverage adaptable, multi-purpose utility

Our MMRHs can be used in life-saving rescue operations as well as for shaft inspections and pre-sink operations.



Lead the way in Technology and Safety

Strengthen the association of your company as one that invests in new solutions that safeguard the lives and well-being of your employees.

ULTRA DEEP LEVEL MMRH: FEATURES

VEHICLE

- Mercedes Benz Axor 3535 8x4 truck with rough terrain capability
- Vehicle is fully roadworthy - no public escort required for public roads
- Self-powered electrical drive system
- Hydraulic outriggers for stabilisation



OPERATOR CABIN

- Hydraulically raised to operating position
- Critical system information on touch screen Human Machine Interface (HMI)
- Dual audio/visual two-way communications
- CO2 and methane conveyance monitoring
- Load cell weight measurement



CONVEYANCE

- Patented sheave wheel deployment mechanism
- 5 people to/from a depth of 3,000m
- 10 people to/from a depth of 2,000m
- 15 people to/from a depth of 1,000m
- Rear mounted hydraulic crane for deployment

SPECIFICATIONS:

| | | |
|--|---|--|
| Deployable sheave wheel | : | 630 mm Diameter Cast Steel construction |
| Winding speed | : | 1.5 m/s |
| Satic rope pull | : | 70kN |
| Speed indicator and tachograph | : | Human Machine Interface (HMI) – Digital Speed indication with electronic events recorder (Safe Wind System) |
| Speed control device | : | Vacon VSD with braking resistors |
| Depth indicator warning | : | Electronic Sounder Activated by PLC / E-Lilly |
| Overwind prevention devices | : | E-Lilly safety PLC / Control PLC / ultimate overwind limit switch |
| Winder motor | : | Single AC motor. 110kW, A/B, W22 IE3 4 pole |
| Power supply | : | 3/Ph mine supply or 250 kVA generator |
| Winder Drum | : | Single Drum with coiling sleeve. 1.4 m Diameter. One Sheave |
| Gearbox | : | Four motion Tech Edge helical gearbox. Ratio 1:83 |
| Brakes | : | Four disc brake units on drum. High pressure, hydraulically released, spring-applied braking. Automatic application through tripping of safety circuit or manual proportional control through brake lever. |
| Winding rope | : | 19 mm diameter, 34LR non-spin steel wire rope |
| Distance from sheave to lowest winding point | : | 3 000 m / 9,800 ft |
| Corresponding mass load of rope | : | 53 kN |
| Breaking force of rope | : | 360 kN |

| Capacity | Type of conveyance | Conveyance & attachments | Persons | Rescue equipment | Rope end load |
|----------|--------------------|--------------------------|--------------------|------------------|----------------------|
| | Cage | 900 kg / 1,984 lbs | 500 kg / 1,102 lbs | 100 kg / 220 lbs | 1,500 kg / 3,306 lbs |



TECH EDGE GROUP

HISTORY AND OFFERINGS

**90 YEARS MANUFACTURING WINDERS, HOISTS AND
RESCUE EQUIPMENT FOR THE GLOBAL MINING INDUSTRY**

BESPOKE DESIGN AND TURNKEY PROJECT SERVICES

Specialised, internationally accredited, end-to-end engineering management covering all aspects of winder and hoist projects; design, manufacturing, civils and installation.

We think outside the box and our projects are delivered on time, within budget and to the highest standards.



**Design of equipment
Structural design
Inspection**



**Manufacturing
Testing
Civil Works**



**Project Management
Quality Control**



**Installation
Training**

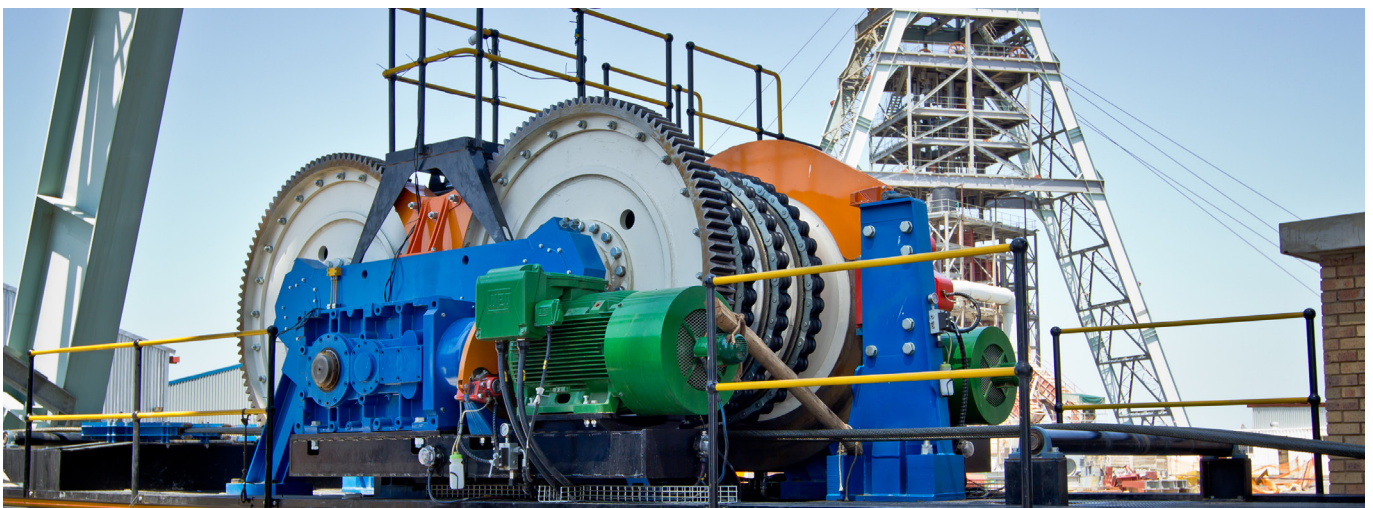


BARBERTON MINES, TURNKEY 500KW DOUBLE DRUM WINDER: DESIGN, MANUFACTURE, CIVILS, COMMISSIONING

RECENT PROJECTS

WESIZWE PLATINUM 400KW ROPE HANDLING SYSTEM

- 400kW four rope friction winch with segmented liners
- Horizontal deflection sheaves, mounted on friction winch trailer
- Four messenger rope winches acting via deflection sheaves





For more information about our mine safety products and other services visit: **www.techedge.co.za**

CONTACT US



+27 11 976 3063



techedge@techedge.co.za



www.techedge.co.za



19 Boomkruiper St, Birch Acres
Kempton Park, South Africa

The information provided in this brochure contains descriptions or aspects of performance that are under constant development and are subject to improvement and change. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of a contract.

All product designations may be trademarks or product names of Tech Edge (Pty) Ltd.