



"the most efficient system out there"

An aerial photograph of a large industrial facility, likely a hydroelectric power plant. Two tall, narrow concrete towers are the central feature. The surrounding area includes various buildings, piping, and a fenced-in section with large cylindrical tanks. The background shows a flat landscape with some vegetation and distant hills.

MODERN HYDROPOWER DRILLING SYSTEMS

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INTRODUCTION

Headquartered in Potchefstroom, South Africa, HPS is a Level 4 BBBEE-compliant leader in the African mining industry and a proud MEMSA member. Through extensive research, development, and field trials tailored to mining sector needs, we've engineered the innovative HPS drilling system to overcome inefficiencies in conventional centralized drilling.

Our HPS system is a proven, high-performance alternative that boosts production by up to 60% while reducing operational costs by 20% compared to traditional compressed air systems. With a modular design that optimizes drilling and cleaning cycles, HPS delivers unmatched efficiency, reducing water usage by 90% and cutting our clients' carbon footprint by 20% by reducing electricity usage through EOD technology. The system is fully IoT ready.

HPS is a two-time MEMSA Innovation Award winner:

- 2022 Award for Improved Productivity – Special Mention for Data Integration (HV212 EOD Hydrovessel®)
- 2026 Award for Innovation Towards Zero Harm (H80 Long Hole Rig)

Led by a management team with over 150 years of combined expertise in the mining industry, we specialize in designing, manufacturing, supplying, and servicing this cutting-edge system. From our head office in Potchefstroom, we oversee operations across Africa, delivering comprehensive, sustainable mining solutions that drive real-time value and profitability for our clients.

HPS is more than a system—it's a commitment to transforming underground mining into a more efficient, cost-effective, and environmentally responsible industry.



"the most efficient system out there"



MEMSA

MINING EQUIPMENT MANUFACTURERS
OF SOUTH AFRICA



INNOVATION AWARDS



"the most efficient system out there"

**HV212 EOD™ - INNOVATION AWARD WINNER FOR IMPROVED
PRODUCTIVITY IN DEEP LEVEL MINING - SPECIAL MENTION FOR DATA INTEGRATION**



INNOVATION AWARDS



"the most efficient system out there"

2026 Award: Innovation Towards Zero Harm (H80 Long Hole Rig[®])



MEMSA

MIND SHIFT CONFERENCE

INNOVATION, D
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FEATURING THE:





"the most efficient system out there"



MISSION, VISION & CULTURE



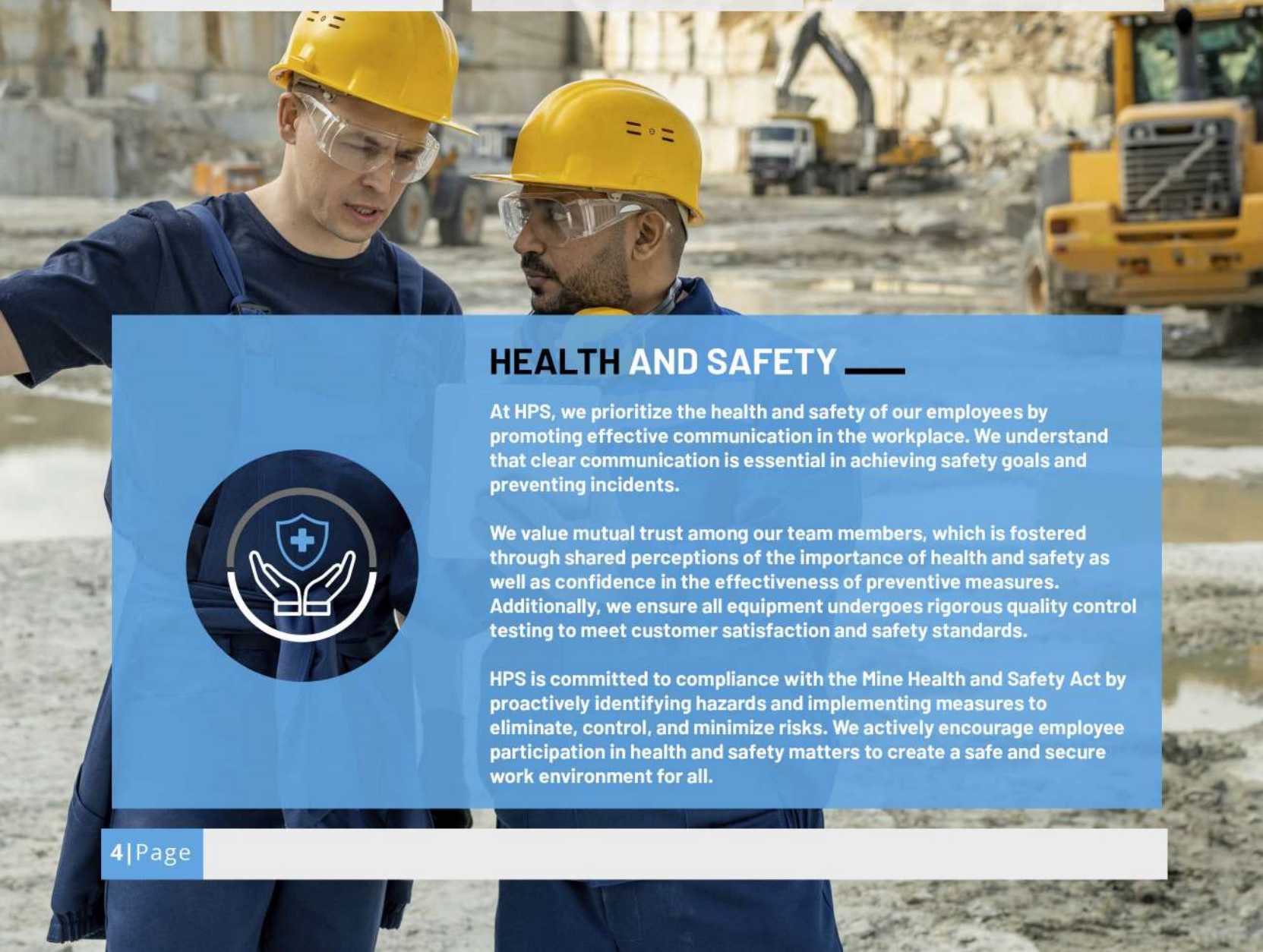
Our **mission** is to enhance the viability of underground mining across the African continent.



Our **vision** is to create a footprint into the African continent establishing centers of excellence in close proximity to mining areas to explore the lucrative ore reserves sustainably.



At HPS, we foster a hardworking **culture** rooted in authenticity and trust. Our company support involvement and provide positive, fun ways for their employees to get together for personal and professional development activities, both within and outside normal company hours.



HEALTH AND SAFETY



At HPS, we prioritize the health and safety of our employees by promoting effective communication in the workplace. We understand that clear communication is essential in achieving safety goals and preventing incidents.

We value mutual trust among our team members, which is fostered through shared perceptions of the importance of health and safety as well as confidence in the effectiveness of preventive measures. Additionally, we ensure all equipment undergoes rigorous quality control testing to meet customer satisfaction and safety standards.

HPS is committed to compliance with the Mine Health and Safety Act by proactively identifying hazards and implementing measures to eliminate, control, and minimize risks. We actively encourage employee participation in health and safety matters to create a safe and secure work environment for all.

INDUSTRY 4.0

HPS embraces the principles of Industry 4.0 by incorporating cutting-edge technology such as remote drilling and remote user monitoring. We are leading the way in digital transformation and modernization, utilizing world-class technology in the manufacturing process of our HPS systems.

Our systems are designed to adapt to various underground mining conditions, with the Hydrovessel being a modular drilling system that offers exceptional positional efficiency through its modular design. By connecting HPS systems and users via the Internet of Things (IoT), we are able to provide real-time data and results to enhance decision-making, operations, and control in mining operations.

This seamless integration of information between underground and surface environments enables smarter decision-making, ultimately improving the efficiency and safety of mining operations.

WHY HPS?

At HPS, we specialize in mining technology and prioritize your economic and strategic objectives above all else. Each missed blast represents a lost opportunity for your business to progress. With our commitment to 100% system availability through turnkey solutions, you can rely on us to keep your operations running smoothly.

Don't leave your business plan to chance – trust HPS as your dedicated mining partner. We collaborate with your team to help you achieve your business goals, fostering long-term relationships and providing the necessary resources for success.

Our experienced professionals take a personalized approach to understand your unique needs and objectives, offering tailored products and services to support your operations.

Let HPS empower your business with the most efficient systems available. Contact us today to optimize your mining operations and drive profitability forward with confidence.



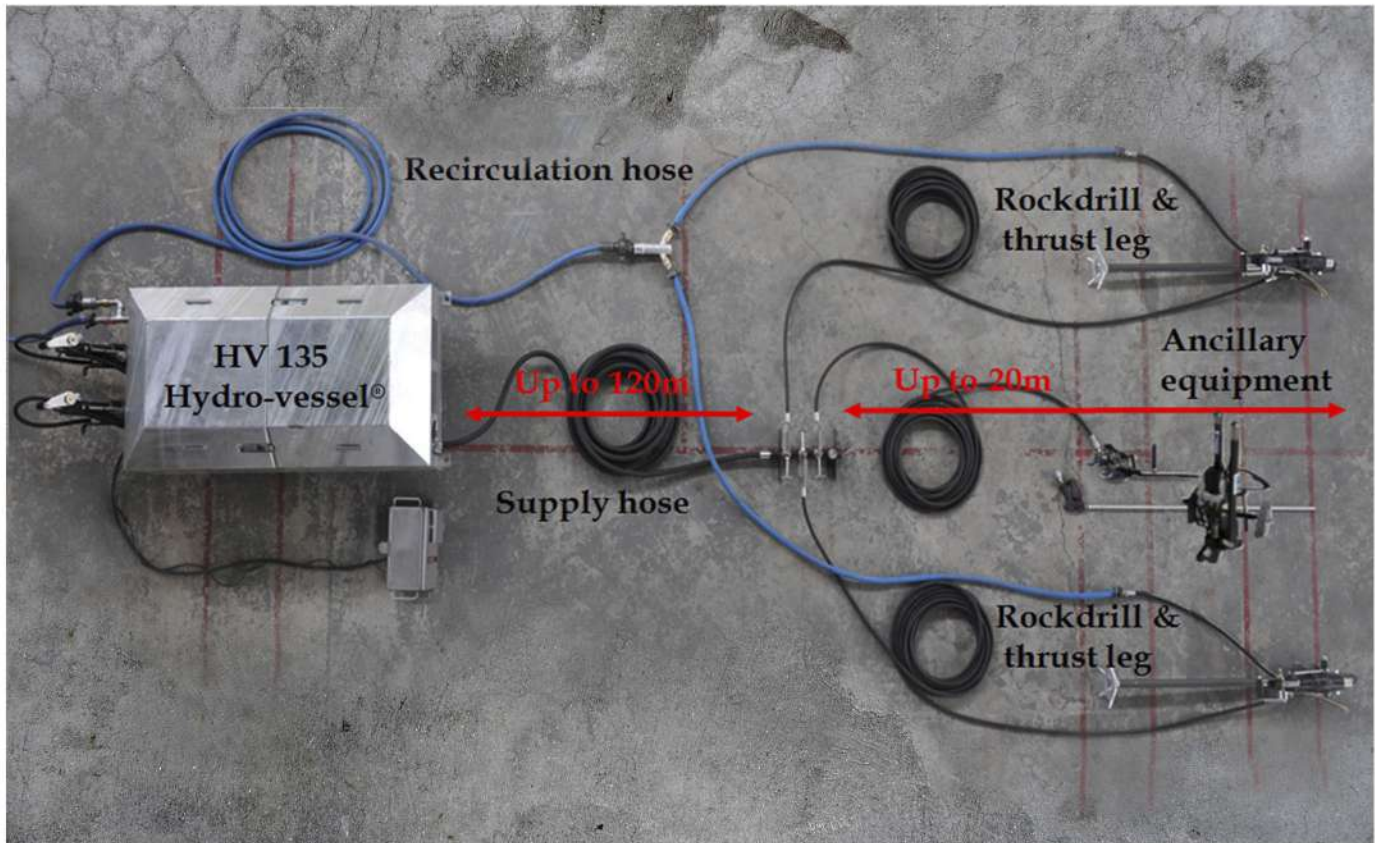
APPLICATIONS

Narrow reef Gold / Platinum / Chrome deposits in small to large scale operations.

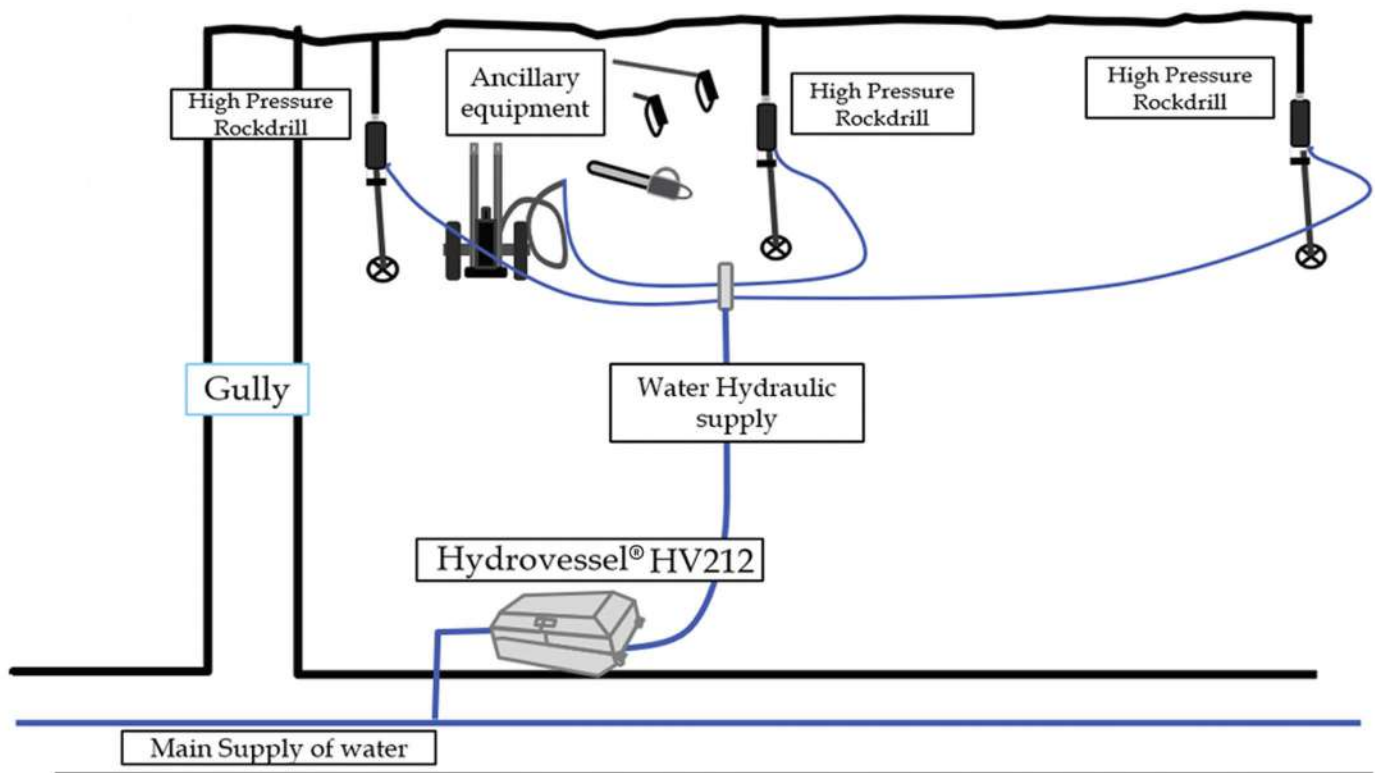
All areas where the mine needs to improve production and crew efficiency.

All areas where poor compressed air negatively impacts Production.

HPS SYSTEM LAYOUT



STOPE RETICULATION LAYOUT



OUR PRODUCTS



"the most efficient system out there"



HYDROVESSEL® RANGE

The Award winning Hydrovessel®

The Hydrovessel® is the industry's only system proven to deliver superior production gains while significantly reducing energy and water consumption. Powered by cutting-edge EOD technology, it supplies electricity and water strictly on demand, optimizing resource use and minimizing waste. With seamless IoT integration, the HV212 EOD enables real-time monitoring from anywhere in the world. This allows our team to swiftly detect and resolve service interruptions, preventing lost blasts and minimizing downtime. Coupled with advanced condition monitoring, our system supports proactive maintenance through preventative and predictive strategies, ensuring peak performance and reliability.

The HV80 Hydrovessel® drilling system is suitable for secondary support, raise development and special installations delivering more than 20 holes per hour by a single operator using only 15kW/h.

The HV135 Hydrovessel® drilling system is suitable for flat end development, stoping and water jetting applications delivering more than 40 holes per hour only using 30kW/h.

Performance:

13 Square meters mined per hour - Gold.

20 Square meters mined per hour - Chrome. Waterjet cleaning - 50 tons per hour.

HPS SYSTEM BENEFITS!!!

- Reduced time in the "Red zone"
- 100% system availability.
- Improved penetration rates.
- Reduced operator fatigue.
- Improved environmental conditions for the operators.
- Reduced water usage.
- Reduced electricity usage.
- Improved ergonomics.

HPS Modular systems ensures complete water control and condition monitoring per crew. This is not achievable with a centralized or crosscut systems. HPS drilling systems for a smarter, more sustainable, and highly efficient mining operation that drives productivity and profitability like never before.

Specifications:

- Dimensions: L 1.5m x W 0.8m x H 0.8m. Weight: 450Kg.
- Water quality: Mine service water
- Water requirement: 80 litres per minute @ 5 Bar, 50mm supply.
- Electricity usage: 525Volt, 43 Amps.
- Installation Position: As required.
- Operating distance: up to 120m.



HV 135 Hydrovessel®

ANCILLARY EQUIPMENT



"the most efficient system out there"





T18 MK3 Rockdrill & T19 Rockdrill

Features:

- Noise level – 99 dB.
- Penetration rate – 1m per minute.
- Water usage – 0.2 ton water per ton ore.
- Electricity – 1 kW per hole drilled.
- Reduce exposure to vibration
- Ergonomically friendly
- Lighter than conventional air rock drills
- Lighter than conventional rock drill's – 18.2kg
- Woman in mining
- Less facetime
- Reduced time in redzone
- Improved production
- Fall of ground reduction

T18 MK3 & T19 Rock Drills

Rockdrills are used to drill blastholes, roofbolt holes and holes for support and rigging in underground mining.

Its simplicity and robust construction makes it more reliable, resulting in reduced maintenance and expenses.

Drilling with water powered drills and using rudimentary hearing protection ensures that drill operators always remain below the legislated equivalent noise exposure.

The health and safety of underground staff is enhanced and this results in higher productivity levels and less facetime.

Chainsaw

The HPS chainsaw uses a light weight chassis, blade and chain, powered by a Pelton motor and lubrication system. It is designed for cutting of timber supports in working areas.

Features:

- Automatic levelling and aligning: Cuts are done in parallel precision cuts, no need to hold up the timber.
- Spring loaded chain guard: Hold timber prop up firmly and needs only one operator to work, lowering the danger factor of cutting hands.
- Mechanical latch hold saw open: keeps it open to make loading timber easier.
- The Pelton motor provides a simple and powerful drive for quick cutting and water flushing of woodchips. The lubricator automatically applies chain lubrication at the start of each cut.
- The motor is controlled via a simple trigger grip – operated with one hand while the other hand is used to feed the saw into the cut.



Chainsaw

POD Setting Tool

The POD setting pistol is used to supply the correct pressure to the hydraulic pre-stressing device for underground mine elongate support products.

Features:

- Remote energizing of the support component (4 meters).
- Fast operation.



POD Setting Tool

Waterjetting System

HPS offer the high-pressure low flow waterjet system, typically used in underground mines with face scraper assistance. This is powered by the HV212 or HV135, and is the most efficient waterjet cleaning system for underground mining operations.

It operates at 180 bar with a flow of 130 l/m. This unit is also used for sweepings and vamping, backfill pipe cleaning, shaft bottom cleaning, dam cleaning, silo cleaning etc.

The water jetting gun is powered by high pressure water and is used to clean blasted rock from the working area using a focused high velocity water jet.

The main reason for using a jet gun:

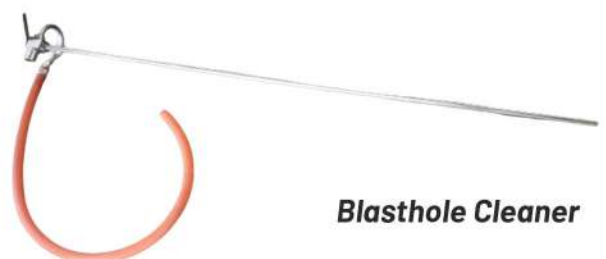
- Faster and safer cleaning compared to scraper cleaning.
- Reduce time in red zone
- Panel cleaned to footwall daily



Jetting Gun

Blasthole Cleaner

The HPS blasthole cleaner is used to remove drill cuttings and water from drilled blastholes before charging with explosives.



Blasthole Cleaner

Roofbolter

HPS roofbolters are designed for drilling and installation of roofbolts in narrow stopes (up to 2m width) and in dips up to 35 deg using rock drills.

Features:

- Drill and feed movement: Remote Operation or controls mounted on carriage.
- Fast Penetration.
- Staking against hanging wall: Remote control or controls mounted on carriage.
- Height: 1.6m.
- Mass (Carriage): 50kg.

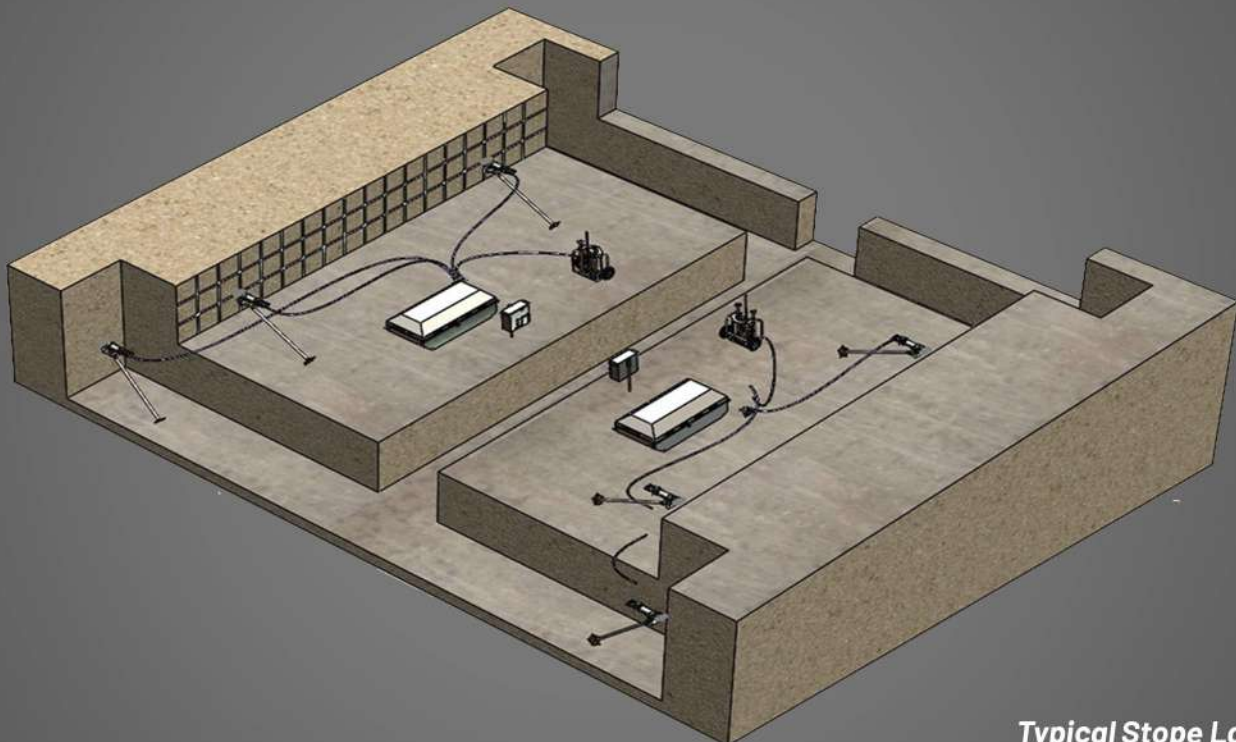


Roofbolter

Other Equipment Available from HPS:

- Watering down gun
- Grout Pump
- Jet-Pump
- Hydraulic Hoses
- Manifold's
- Fuses

TYPICAL INSTALLATION



Typical Stope Layout

SUSTAINABLE LONG HOLE DRILLING

H80 LHR

AWARD WINNING H80 LONG HOLE RIG® –
INNOVATION TOWARDS ZERO HARM



Hydropower – DTH Drilling in a Complete Package

Replacing and Outperforming any compressed air drill rig out there!
Tough enough to complete any task while maintaining the maneuverability,
enabling flexibility in operations! Easy implementation and adoption enables
effortless operation for Women in Mining!

MINING APPLICATIONS

- Drop Raising
- Inverted Drilling
- Drain Holes
- Cable Hole Drilling
- Cover Drilling
- Manless orepass development
- Destressing
- Core drilling

Introducing the HPS Smart Compact Rig

Designed from the success achieved by the H80 LHR and consultations with end users. The compact rig is designed to use W50 supplied hammer and can drill hole 64mm in diameter up to 60m in length with DTH, 120m using the core drilling option. This rig is multi-purpose to allow for in stope core drilling applications as well as percussion drilling from the same rig.

▶ Highly Affordable

▶ High rate of penetration (ROP)

▶ Accurate drilling up to 100m

▶ Low Energy Consumption

▶ Extremely Mobile

▶ Safe Drilling in sensitive formations

THE AWARD WINNING HV212 EOD HYDROVESSEL®

WINNERS OF THE INNOVATION AWARDS FOR IMPROVE PRODUCTIVITY
IN DEEP LEVEL MINING - SPECIAL MENTION FOR DATA INTEGRATION

- Open closed mines.
- Open new mines.
- Extend life of mine.
- Increase production.
- Reduce water usage.
- Reduce electricity usage.
- Connect to the IOT.
- Generic modular design.



DIGITALIZATION

The generic, modular system called the Hydrovessel[®], allows for the integration of underground activities to the IOT, offering engineering and mining related activities and predictions to be interpreted in real time.

FEATURES

- Carbon footprints can be reduced through improving energy efficiency – electricity and water is supplied on a “on demand” only basis, using EOD technology.
- System condition and operational performance monitoring are measured per crew.
- Identify service interruptions causing lost blasts, allowing less down time.
- Condition monitoring of the mining system allows for preventative and predictive maintenance to improve.
- Because now we have a computer in the stopes, it is possible to integrate various sensors and activities within the stoping environment with the Hydrovessel to improve safety and production.



HPS – MODERN HYBRID DRILL RIG[®]

Performance Driven Innovation.



Application

- Rail-bound flat-end development

Key Features:

- All-in one compact rig with water and oil hydraulics
- Smart drill rig
- Operates on electricity and water only
- Remote drilling
- IoT ready
- Water powered drilling

Benefits:

- 20% reduction in carbon footprint
- 90% reduction in water usage
- Up to 50% production improvement
- Increased safety and sustainable implementation
- Lower operating costs, less maintenance, higher uptime

**BUILT FOR PRUDUCTIVITY. SMART ENERGY. SAVE OPERATIONS.
ENGINEERED FOR ENDURANCE. SUSTAINABLE GROWTH.**

AWARD-WINNING H80 LHR[®] X3

H80 LHR X3

First-of-its-Kind Low-Profile Long Hole Rig

The ultimate 2-in-1 solution for percussion and core drilling.

Key Features:

- Percussion (DTH) + Core drilling
- Low profile design
- W50 & W80 Wassara hammers
- Wireless remote control (60 m)
- Award-winning Zero Harm technology

Performance:

- 1m per minute – DTH
- 99.5% accuracy
- Drill up to 100m in all directions
- Hole diameter 63 – 180mm
- Higher production and highly profitable
- Reduced carbon footprint
- Low energy consumption – no compressed air

Applications:

- Manless obstruction removal (Avoid Mud Rush)
- Manless ore-pass development
- Drop raising
- Destressing / Preconditioning
- Cover, drain and cable holes
- Core drilling
- Box-hole clearing

GET INTOUCH —



"the most efficient system out there"



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