

OMNIA INVESTMENT CASES

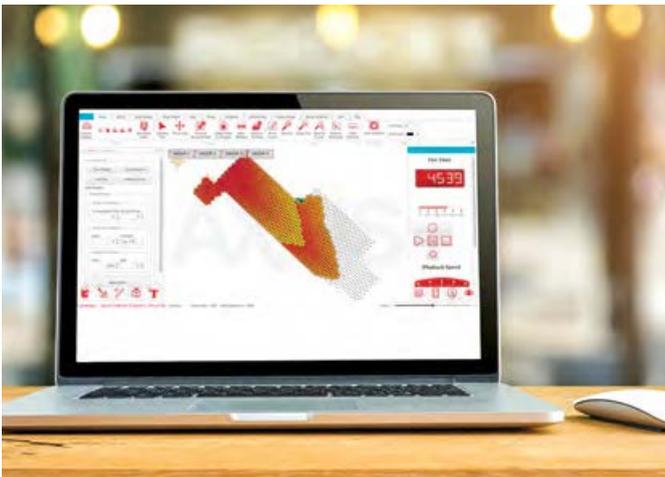
A SPOTLIGHT ON THE BME BUSINESS WITHIN THE MINING DIVISION

RESEARCH AND DEVELOPMENT



AXXIS™ DIGITAL INITIATION SYSTEM

The AXXIS™ Digital Initiation System is experiencing increased demand as clients understand the financial and operational benefits in the accuracy and flexibility of electronic detonators in the blasting cycle. The largest demand for AXXIS™ products has come from international clients, and based on the nature of the product, contributes to the global expansion of the BME business.



WORLD-CLASS SOFTWARE PRODUCTS FOR BLAST OPTIMISATION

BME has leading edge blast design and optimisation software, such as, BlastMapIII™ that blasting engineers and mining clients use for achieving the best possible results in blasting operations. BME's innovation team continuously develops improved products to enhance its technical capability, product sales and customer service. The introduction of smartphone technology and computer based learning using Big Data, facilitates faster feedback of operational data to clients at site, enabling better planning, management and control of blasting operations.



UNDERGROUND ADVANCES IN PUMPING TECHNOLOGY

BME has developed a lightweight, reliable portable emulsion pumping system for the effective use of blasting emulsions underground. This is a highly effective unit that facilitates the safe and efficient use of emulsions underground. The portable emulsion pumping system is part of an integrated solution that has also been successfully adapted to small utility vehicles that facilitate the storage and pumping of explosives for underground mining operations, civil blasting and operations. The improved security, improved rock breakage, and enhanced safety and reliability of the system has resulted in the growth of BME's underground business in South Africa. operational data to clients at site, enabling better planning, management and control of blasting operations. Additionally, interest from international underground mining operations creates scope to expand the target market for the portable emulsion pumping system and to facilitate the further expansion of BME's business beyond South Africa.

ADVANCED MANUFACTURING PLANTS USING ROBOTICS

Over the past 24 months, BME has invested in four automated robotic assembly machines that were installed at the Losberg production facility, 70km west of Johannesburg, for the assembly of BME's AXXIS™ electronic detonators and the BME range of non-electric detonators. The efficiency and reliability of these robotic machines have resulted in significant improvements in quality and capacity, thus helping to meet sales demand in local and global markets. The automated robotic assembly machines are manufactured and commissioned abroad and can be installed in facilities anywhere in the world, subject to obtaining the necessary operating licenses. This gives the ability to expand production capacity outside South Africa, with limited capital expenditure and significant operating flexibility.



USED OIL TECHNOLOGY

BME is a world leader in applying used oil as a major raw material in the production of bulk explosives. As much as 75% of the fuel phase in BME's emulsion products is comprised of used oil which is often obtained from mining clients requiring used oil disposal on remote mine sites. This provides a major environmental benefit, as there is minimal consumption of new oils and the safe and efficient use of used or recycled oil.

INNOVATION CENTRE

BME's innovation centre has a team of engineers and scientists who concentrate on developing new and improved products and services for a superior client experience and blasting results. Continuous improvement through their knowledge in mining and blasting is a major driver in the business.