

# SHAFT SINKING

## Product description

The Emulsion Charging Unit for Shaft Sinking Operations is one of a range of compact charging systems developed for use with BME's Megapump™ emulsion formulations. BME's Model 2 Mobile Pump utilised on the Shaft Sinking Unit is a positive displacement pump designed to deliver emulsion and sensitising solution simultaneously through the charging lance where it is sensitised to form an explosive on entering the blasthole.

Due to the low energy requirements necessary for the operation of BME's Mobile Pump technology, the Shaft Sinking Unit can be powered through a range of energy sources while maintaining a rate of delivery equal to that of mechanised emulsion technology. This allows the Shaft Sinking Unit to function with an independent hydraulic power pack driven by an electric, air or hydro-power motors.

In order to speed up the rate of charging in the shaft bottom and the possibility of down time at the shaft bottom, BME's Shaft Sinking Unit has been designed to facilitate the operation of four Mobile Pumps on a single charging unit. This development allows shaft sinking operations to load the shaft bottom at a fraction of the time required for the use of cartridged explosives.



## Application

For use in shaft sinking operations.

## Features

- Double Mobile Pump system for rapid charging in the shaft bottom
- Pre-determined emulsion densities for simple operation and maximum performance
- Increased reliability and reduced risk of down time
- Low capital & maintenance costs
- Intrinsically safe pump operation in instances of:
  - Dry running
  - Dead heading
- High flow rate
- Short lead time for manufacture

## Design features

Emulsion tank capacity 1 500 kg  
 Sensitiser tank capacity 55 L  
 Water tank capacity 55 L  
 Pumping rate 45 kg/min  
 Drive systems Electric/Air/Hydro  
 Max. hose length 15 m (¾" – 1")  
 Compatible emulsions Megapump Emulsions  
 Pre-set mass of emulsion/hole  
 ICR – Intelligent Control and Reporting

## Pump safety features

- Intrinsically safe pump technology
  - Safe in instances of dry running
  - Safe in instances of dead heading
- Pressure bursting disk
- Failsafe control system
- Charging lance flushing system