

## MINICHARGER PCU Model PP-4

### PRODUCT DESCRIPTION

BME's MiniCharger PCU represents the forefront of pumpable emulsion technology available for use in narrow reef mining operations. BME's PCU is designed in house for the delivery of BME's range of INNOVEX™ UG emulsion formulations, increasing the safety of daily blasting practices through their UN 5.1 classification. The PCU is a positive displacement pump designed to work with BME's patented 'Closed Emulsion System'. The system eliminates waste while simultaneously delivering a predetermined mass of double salt emulsion and sensitising agent to each blasthole, sensitising the emulsion as it enters the blasthole. The PCU is manufactured for rough underground conditions but is also light and compact enough to be carried and operated by mining personnel.

## PRODUCT FEATURES

### APPLICATION

BME's PCU is designed primarily for use in the confined narrow reef mining environment, but is compatible with BME's mechanised emulsion systems for confined blasting practices. In order to optimize the use of the PCU in confined environments the PCU can be operated by a single operator minimising labour requirements.

### FEATURES

- Portable and light weight
- Intrinsically safe design
- Simple and fail-safe pump control mechanism
- Reduced charging time
- Low energy consumption
- Simplified logistics through UN 5.1 classification
- Low operating and maintenance costs
- Short lead time for manufacture

### DESIGN SPECIFICATIONS

- Remote pump activation
- Pre-set mass of explosive per hole 820 g
- Emulsion flow rate 20 kg/min
- Charging hose length – min 2.5 m (1.5 + 1)
- Charging hose length – max 5.5 m (1.5 + 4)
- PCU dimensions:
  - Length 700 mm
  - Width 420 mm
  - Height 290 mm
- Dry weight 14 kg
- Drive systems Air/Hydropower
- Power requirements < 0.4 Kw
- Minimum operating pressure 3.2 Bar (320 Kpa)
- Maximum operating pressure 8.0 Bar (800 Kpa)
- Compressed air requirements < 36 L/min
- High pressure water requirement < 3 L/min
- Pre-set mass of explosive per blasthole

### SPECIAL FEATURES

Supply of emulsion to the PCU is maintained through the use of BME's patented 'Closed Emulsion System'. The patented automatic valve system in the re-useable emulsion bag prevents spillage, contamination of emulsion and maximises the service interval of the PCU.

### SAFETY FEATURES

- Intrinsically Safe Pump Technology
  - Safe in instances of dry running
  - Safe in instances of dead heading
- Bursting Disk Pressure
- Failsafe Control System

