

MARS-2

Blasting Machine with Digital Line Tester



MARS-2 is a medium energy blasting machine that comes with a built-in digital line tester. The blasting machine is portable, compact and lightweight, and can easily be operated by a single person.

The integrated line tester measures the detonator line resistance to identify short circuits, breaks in the blasting line or circuits with excessive resistance prior to the blast. For safety reasons, the line tester current is limited to 1mA.

MARS-2 includes output pulse tail cutting to limit the output pulse to 4ms and quench the remaining capacitor charge. These safety features are necessary to eliminate potential secondary explosions of the flammable dust generated during the blast.

The device comes in an ABS enclosure and includes pushbutton switches, terminals for connecting electric detonator line, digital LCD screen for line testing and LEDs showing the state of the capacitor charge and the battery level.

For safety reasons there are two FIRE buttons. The operator has to push both buttons simultaneously for detonation.

MARS-2 is rated IP65 under the international IEC 60529 standard and is splash and dust proof.

MARS-2 Features and Benefits:

- Medium energy blasting machine
- Built-in line tester with digital 0-1999 Ω reader
- Battery level indicator LED
- Short 4ms output pulse

Parameter	Units	Value
Permitted line resistance	Ω	380 (for Class 1 detonators)
Firing voltage	V	435
Firing energy	J	6.5
Capacitor nominal value	μF	68
Capacitor loading time	s	4 - 8
Blasts per battery charge		500 - 1000, depending on battery quality
Capacity (2 Ω , Class 1 detonators)	caps	180
Line resistance measuring range	Ω	1 - 1999
Power supply	V	2x 9V batteries
Protection level		IP65
Operating temperature	$^{\circ}\text{C}$	-20 to +50, 100% relative humidity
Weight	kg	0.36
Dimensions	mm	220 x 100 x 50