

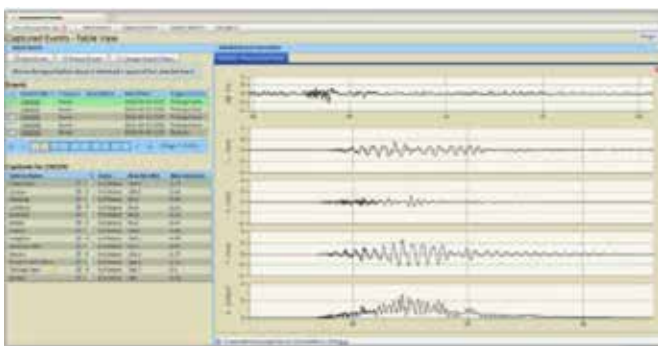
Ecotech Blast Monitoring Specifications

SETTING BLAST MONITORING TO THE NEW INDUSTRY STANDARD

The Ecotech Blast Monitoring System is available as a fully integrated package for long-term rental with our trained staff managing the provision of blast data remotely.

The system consists of remote blast monitoring stations, called Dynamates which are continuously supervised by a remote software package known as Dynamaster on our server at Head Office, Melbourne.

Blast results are automatically collected from the stations, collated and then made available within minutes of the blast. Customers can then view blast results, produce reports and interact with the server software via the Dynamaster web portal.



Sample Waveform

Features

- Fully integrated package
- Easy post mount installation
- Solar powered system with battery
- Remote communication over GPRS, 3G or 4G
- Results and data are available only to authorised users and can be downloaded or viewed anytime at work, home, or on the road. All you need is access to the internet
- Users can be automatically notified of blast results by SMS, email or both within minutes of the blast
- Event-file generation and retrieval
- No minimum time between event captures
- Advanced triggering methods ensure that 100% blast capture can be achieved
- Advanced buffering methods enable the capture of blast results up to 25 weeks after a blast, even if an automatic trigger did not occur
- Ecotech blast monitors are triggered daily to test their recording status and download capability

GROUND VIBRATION MEASUREMENT

Tri-axial 4.5Hz Geophone Assembly (NATA Accredited):

- Range: up to 24 mm/s
- Resolution: 0.01 mm/s
- Uncertainty: +/- 4.7%
- Frequency Range: 5 - 250 Hz

Tri-axial 2Hz Geophone Assembly (NATA Accredited):

- Range: up to 20 mm/s
- Resolution: 0.01 mm/s
- Uncertainty: +/- 9.6%
- Frequency Range: 2 - 250 Hz

Tri-axial Piezo Sensor Assembly:

- Range: up to 173 mm/s
- Resolution: 0.01 mm/s
- Uncertainty: +/- 11%
- Frequency Range: 2 - 250 Hz

AIR OVERPRESSURE MEASUREMENT

Microphone (NATA Accredited):

- Range: 65 - 135 dB (Peak)
- Resolution: 0.1 dB or 0.01 Pa
- Uncertainty: +/- 10% or +/- 0.9 dB, whichever is larger
- Frequency Range: 2 - 250 Hz
- Weighting: Linear

High Range Microphone:

- Range: 65 - 150 dB (Peak)
- Resolution: 0.1 dB or 0.01 Pa
- Uncertainty: +/- 10% or +/- 0.9 dB, whichever is larger
- Frequency Range: 2 - 250 Hz
- Weighting: Linear

WAVEFORM RECORDING

- 8 Gb Compact Flash Memory
- 1 KHz Detailed Waveform Sampling Rate
- Detailed waveform capture with 10 days on-board storage
- Summary waveform capture with up to 25 weeks on-board storage
- Continuous waveform recording uninterrupted by other activities

TRIGGERING & RETRIEVAL

- Automatic vibration triggering and retrieval of data to Dynamaster website
- Proprietary integral triggering technique to prevent false triggers
- Manual triggering of data possible via the Dynamaster website up to 25 weeks after the event

SYSTEM HARDWARE

- Power: 20 Watt Solar Panel
- Battery: 35 Ah Gel Cell: Up to 7 days power with no sun
- Primary communications: GSM/GPRS, UMTS/HSPA (3G).
- GPS & time auto synchronisation (+/-1ms)
- PC interface: RS232
- Electromagnetic compatibility: CISPR-22 (Australia) (PTBRC, FCC Part 15, CE Pending)
- Temperature Range: -10°C - 50°C

100% CAPTURE RATE: 100% CERTAINTY*

* Capture rate as of September 2015