



# PortaMetrics™

## Portable Rock Fragmentation Analysis

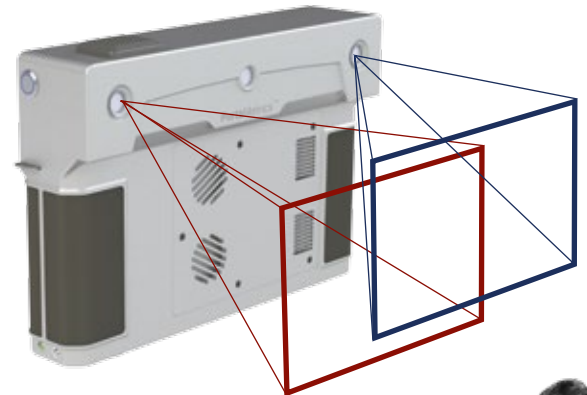
PortaMetrics™ is a patented point and shoot portable tablet which provides fragmentation analysis of your desired scene without the need for any reference scaling objects.



Point and Shoot Portable Tablet

## Why PortaMetrics™ ?

Efficient blasting is an integral part of any mining operation. Ineffective blasting results in excessive energy consumption, high explosive expenses and shortened lifetimes of downstream equipment. With an effective fragmentation analysis solution in place, mines can optimize fragmentation and realize significant time and cost savings. This powerful tool provides needed feedback to blast engineers, allowing them not only to validate the accuracy of their blast simulations but also to provide a good indication of digability



" Using PortaMetrics™, we perform daily fragmentation analysis on stock piles, crusher piles, and at the plant, as well as on gravel that produces stoppage in the production wells."

*Christian Aliaga, Enaex Technical Representative  
Los Pelambres Mine*

## What can PortaMetrics™ do?

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### Safety

PortaMetrics™ moves safety to the forefront of mining operations by accurately calculating rock fragmentation from a distance. Utilizing stereo imaging, mine personnel no longer need to approach the bench face or climb it to place scaling objects. Bench face stability can be assessed through on-board slope sensing.

### Easy to Use

With three high resolution cameras integrated into a rugged industrial package and complete with a glove friendly touch screen, PortaMetrics™ is capable of capturing and processing images in any mining environment. Mine personnel no longer need to return to the office and upload images to computer software to obtain fragmentation results. Users can easily select their region of interest, capture an image and display results instantly on an intuitive graphical user interface. PortaMetrics™ includes manual correction capabilities to fine-tune images and make adjustments if necessary.



Point + Shoot Operation

### Fragmentation Analysis in Seconds

PortaMetrics™ captures, analyzes and produces fragmentation results in seconds - all on the portable device. Reports include rock size distribution graphs, size range statistics, slope measurements and more. Integrated GPS ensures that captured images can be quickly associated to specific blasts, while Cloud connectivity allows fragmentation results to be shared remotely.



Fragmentation Analysis  
at the click of a button

Easily select your  
region of interest

# MetricsManager™ Pro

MetricsManager™ Pro for PortaMetrics™ is an online platform that allows users to access data and generate valuable reports from multiple images. Each report contains rock fragmentation results including a rock size distribution graph, p-values with associated rock sizes, as well as accurate slope and range measurements - and with date and time stamps, each image can be associated to a specific blast. With MetricsManager™ Pro, drilling and blasting engineers can analyze valuable fragmentation data from any blast quickly and easily.



## Critical Information at Your Fingertips

Key Features :

- Rock size distribution
- Real-time range measurement
- Individual rock size and distance
- Instantaneous slope measurement
- Custom region of interest adjustment
- Manual correction
- Cloud Server connection
- GPS
- Fragmentation analysis report generation
- Industry standard fragmentation models (Swebrec + Rosin Rammler)

## Specifications

Working Distance	0.5-30.0 m	3D Imaging Sensor Dimensions	1280x960 CCD (x3)
Field of View (at 10m)	8x6 m	Dimensions	30.8x20.3x7.0 cm
Smallest Rock Size Measured (at 10m)	3 cm	Weight	2.9 kg
Slope Measurement Accuracy	+/- 0.5 deg	Network Connectivity	Wi-Fi / GPS
LCD Screen Resolution	800x600 pixels		