

About Mining Measurement Solutions

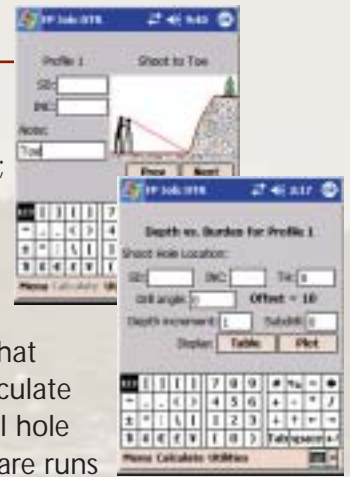
face pro•fil•ing (fays proh-fil-ĭng) v. The act of accurately measuring an irregular rock face for the purpose of designing a blast to fragment the material in appropriate sizes for loading and processing.

sur•face mod•el•ing (sur-fĭs mŏd'l-ĭng) v. The act of mapping any geological area for the purpose of positioning features, calculating volumes or assessing the efficiency of a blast.



Rock Face Profiling

Design a blast the NEW fashioned way! Let's face it; old traditional methods of obtaining profile measurements for blasting are becoming unacceptable due to today's demands for increased worker safety and mine productivity. That's why we have developed a laser-based Face Profiler System that takes extremely accurate measurements and will calculate bench heights, minimum and optimum burdens, drill hole angles and offsets, and hole depths. The field software runs on a touch-screen activated, rugged data collector providing plenty of safe storage for your data. The process begins with 3 easy steps: shoot the floor, toe and crest – then begin profiling the rock face. Our patented measurement technology outperforms the competition because it's able to measure darker, more difficult surfaces from longer distances while maintaining a typical accuracy level of 3 to 5 centimeters.



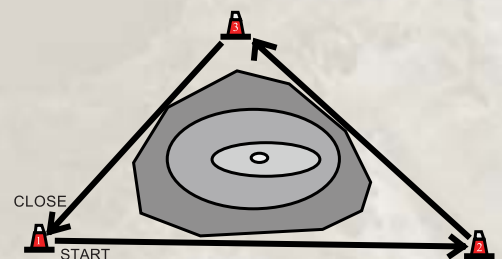
"After using Laser Technology's Face Profiler, I found it to be extremely useful for quickly determining the exact burden at any point along the depth of the face-holes, significantly reducing the risk of any dangerous fly rock incidents caused by insufficient burden. I have also experienced improved vibration results and decreased loading time."

Andrew Williams, Explosives Engineer at Terra Dinamica, LLC.

Stockpile Measurements

Requiring a member of your crew to scramble over a large pile of loose material to hold a prism or GPS pole for volume measurements can be time consuming and dangerous. Arranging for an aerial fly-over is not only expensive but you'll usually wait days, even weeks for the results. Imagine a single operator quickly gathering and recording data from a safe distance and reporting results in a matter of hours. It's possible with our reflectorless MapStar Laser Positioning System in conjunction with

our new MapSmart software program that calculates volumes. Simply walk around the pile, temporarily marking instrument points that will afford full coverage of the surface. Aim and shoot all necessary points on the pile from the starting location, then shoot to the next instrument location. Continue shooting the pile from each new location until the entire surface has been measured. Whether the material is wood chips, coal, sand or any other aggregate, you can obtain highly accurate stockpile measurements faster and safer than ever before.



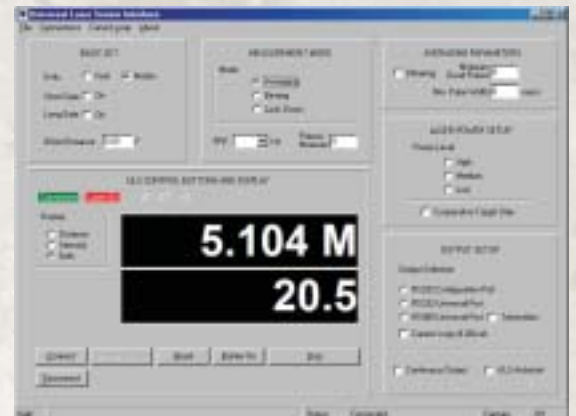
Exploration/Geological Mapping

Precise, up-to-date geologic data can be the difference between making a poor decision and making the correct one about future plans at your mine site. With our long range measurement technology, you can quickly and safely map the entire surface of your mine; even measuring unreachable visible structures on high walls, inclines and otherwise inaccessible or dangerous areas. Our MapStar Laser Positioning System provides unmatched versatility, allowing you to tailor your setup to best serve your specific needs. For additional productivity, it can be partnered with your GPS, expanding its capabilities by measuring a laser offset to points of interest without physically occupying them. Even if you're a novice, you'll be mapping like an expert in minutes and saving money by increasing your efficiency in the field.



Industrial Processing

For applications such as in-line positioning, collision avoidance and liquid or solid level monitoring, LTI has the perfect solution. The Universal Laser Sensor (ULS) is a fully programmable pulsed-laser sensor that gives you the ability to obtain highly accurate measurements in some of the most challenging conditions. Considering all the variables in material characteristics, environmental conditions and physical space confinements in industrial processing, the ULS was designed to be easily configured to optimize its performance to a variety of targets within several applications. Where other measurement technologies fall short in performance, our sensor executes with precision and reliability, increasing your efficiency. It easily recognizes small targets at long distances, within narrow openings and from sharp angles. The ULS is unaffected by temperature variations, background noises, vapor pressure, low dielectric and acoustically absorbing materials. The compact housing and narrow beam of the sensor allows for strategic placement in restricted areas.



(GPS antenna not included)

Impulse 200
(#7002700)



MapStar LPS Package #4
Includes:
Impulse 200 LR
with Zoom Scope,
Angle Encoder,
Brackets and Cables
(#7034739)



MapSmart Recon Software Solution
(#7034757)

Face Profiler iPAQ Software Solution
(#7034747)



Impulse Hardware Support Package
Includes: Staff and Mounting Brackets
(#7034748)



MapStar AE Staff Hardware Package
Includes: Staff, Bipod Legs and Brackets
(#7034753)



TruPulse 200 Laser
Range Accuracy: ± 1 ft.
Inclination Accuracy: $\pm 0.25^\circ$
(#7005025)



Impulse 200 LR Laser
Range Accuracy: ± 0.1 ft.
Inclination Accuracy: $\pm 0.1^\circ$
(#7003824)



Universal Laser Sensor
(#7005000)

NOTES _____



Reliability. Consistency. Versatility. Accuracy.
Measurably Superior.

7070 S. Tucson Way
Centennial, CO 80112 USA

Local: 1 (303) 649-1000
Toll Free: 1 (800) 280-6113

Fax: 1 (303) 649-9710
Web: www.lasertech.com