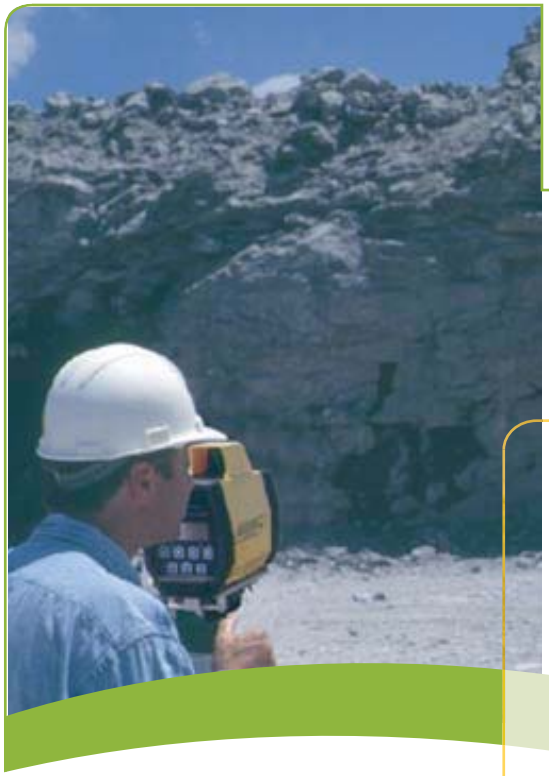
MPH
Measurement Systems for Professionals

# Advantage™ Blasting/Mining/Profiling System



## This Tool Makes Pre-Blast Profiling Fast

**To be used on-site, in real-time, on a daily basis, at virtually all mining production sites.**

- **NEW:** Bluetooth Technology now available
- Simple to use, plain-language menu
- Safely measure out of reach locations from a safe position
- Super-rugged design guards against accidental damage
- Internal compass and inclinometer
- Lightweight, compact system in a portable, durable carrying case
- Variety of data collection methods, Compatible with most GPS, GIS and COGO systems and software
- Measures to a vertical surface 2,000 feet/600 meters away and prisms up to 30,000 feet/9,100 meters
- Perfect for rough, congested terrain or any other inaccessible and dangerous area
- A few moments to get data for accurate shot hole placement
- 8X Monocular Scope Available

Turns tedious, difficult work into a fast and simple task, saving you precious time and expense

### Fast and Accurate Measurements

Drilling and blasting represent 10-16% of the total cost per ton (New Quarry Process Concept). To Maximize Performance and Minimize costs, stop estimating burdens and evaluating manual measurements for best-guess scenarios. The Profiler II laser lets you gather face profiles and instantly display burdens from the pit floor.


Easy to use menu and clearly displayed readings on screen and in head-up display

- Measure before and after blast results
- Perform Geotechnical surveys in inaccessible areas
- Watch for changes in surfaces
- Evaluate tunnels
- Create Blast Plans

- Single-person operation or use
- Displays measurement values in head-up display and on rear LCD screen
- Record values to a data collector, handheld computer or laptop
- Onboard PCMCIA slot for SRAM memory card stores ASCII data of each shot

### Fast, in-field surface evaluations

The **Advantage** Highwall Profiler II System means greater operations efficiency and safety. Precision results lets you reduce hazardous flyrock, optimize fragmentation and monitor results.

#### Internal Compass

- Measures bearing, angles or horizontal distances

#### Internal Inclinometer

- Gathers incline, vertical and elevation measurement data

#### High-precision Encoding Tripods

- Vertical, horizontal or dual encoder bypasses compass and/or inclinometer functions for accuracies of ±.1 degrees

#### External Data Integration

- Tripod and Data Collector brackets provide hands-free field data collection for handheld computers or other data collection devices

Flexible solution for your profiling needs

LASER ATLANTA®

Measurement Systems for Professionals

## Advantage™ Profiler II Specifications

| | |
|---|---|
| Dimensions: | w4.5 x h7.5 x l8.4 in. *(w11.5 x h19.0 x l21.5 cm)* |
| Weight: | 4.8 pounds with battery *(2.2kg)* |
| Temperature: | Operating: -22°F to 140°F *(-30°c to 60°c)* Storage: -40°F to 176°F *(-40°c to 80°c)* |
| Humidity: | 90% non-condensing |
| Environmental: | Water and dust resistant |
| Head-up display: | LED aiming sights and 1 line x 4 character readout |
| Rear panel display: | 4 line x 20 character LCD |
| Keyboard: | Membrane keypad |
| Data: | RS-232 serial port PCMCIA slot for SRAM Type 2 card |
| Power source: | Rechargeable battery handles, Nickel Metal Hydride (NiMh) |
| Recharge time: | Standard: 10-12 hours Smart charging station: 2 hours for 2 batteries |
| Light source: | Semiconductor pulsed laser 904nm |
| Laser: | FDA Class 1 eye-safe (21 CFR 1040) |
| Divergence: | 3 milliradians *(30cm/100m)* |
| Measurement type: | Time of flight, averaged across at least 72 pulses |
| Measurement time: | 0.33 seconds minimum |
| Range: | 2,000 ft *(600m)* passive 30,000 ft *(9,100m)* to prism |
| Accuracy: | +/- 0.50 feet ( 15.2 cm) 3 sigma +/- 0.25 feet ( 7.6 cm) 1 sigma |
| Resolution: | 0.1 ft *(1cm)* |

**Compass**

| | |
|---|---|
| Type: | Triaxial magnetometer |
| Range: | 0.0° to 359.9° |
| Accuracy: | ± 1° RMS when level |
| Resolution: | 0.1° |
| Repeatability: | ± 0.3° |

**Inclinometer**

| | |
|---|---|
| Type: | Dual Axis Liquid |
| Range: | ± 50° from level |
| Accuracy: | ± 0.4° |
| Resolution: | 0.1° |
| Repeatability: | ± 0.3° |

## Advantage System Description

The Laser Atlanta **Advantage** laser Profiler II system has GE Lexan ABS alloy housing constructed with space between outer case and inner components for shock resistance. Rubber bumpers guard against damage if dropped.

The head-up display LED has aiming sights and the user can select to view readings for range/ distance, inclination, bearing or rotate between all three values. The rear LCD screen also displays these continually updated measurement values and presents a plain-language system menu.

Inclinometer and compass functions are internal and can be augmented with an encoding tripod. Onboard PCMCIA slot for memory card captures shot data simultaneously with the RS232 port to which a data collection device can be attached. Unit is compatible with most GPS systems and RS232 devices. Power is supplied by a rechargeable nickel metal hydride battery handle. The unit includes a one-year warranty.

## Encoding Tripod Specifications

**Horizontal Encoder**

Immune to magnetic influence

| | |
|---|---|
| Type: | 8,000 count optical |
| Range: | 0.00° to 359.95° |
| Accuracy: | ± 0.1° |
| Resolution: | 0.01° |
| Repeatability: | ± 0.05° |

**Vertical Encoder**

| | |
|---|---|
| Type: | 8,000 count optical |
| Range: | limited to tripod movement |
| Accuracy: | ± 0.08° |
| Resolution: | 0.01° |
| Repeatability: | ± 0.05° |

## Ordering

**Advantage CI Base Package**
p/n 3RC1
Includes Advantage CI Laser, One Battery Handle, 120VAC Charger, Advantage Manual

**Profiler II**
p/n 6P00
Includes Handheld PC, Bogen Tripod, Profiler Field Data Collector Software, Flat Plate Cradle Assembly, Data Collector Level Bracket, Handheld to Laser Cable and Profiler II Users Manual

## Options

**Horizontal encoding tripod**
Part Number: 5TH0

**Vertical encoding tripod**
Part Number: 5TV0

**Dual encoding tripod**
Part Number: 5TD0

**Smart charging battery station**
Part Number: 5CS0
Includes 120VAC and 12VDC cigarette lighter power cords.

**Battery handle**
Part Number: 5HT0
Spare battery for extended use.

**8x monocular**
Part Number: 5MR0
Scope on tip-off mount.

**Hardshell Caser**
Part Number: **5PS0**


**MPH Industries, Inc.**
Owensboro, KY 42303 USA
Phone: 1-888-689-9222
Fax: 1-270-685-6288
E-mail: info@mphindustries.com
**www.LaserAtlanta.com**