

# AMES 8300

## Portable High-Speed Profiler

## About the AMES 8300 High-Speed Profiler

The Model 8300 High Speed Profiler is designed as a portable system that can be used on multiple vehicles. The system can be front or rear mounted and can easily install onto any vehicle using the vehicle's standard 2" receiver hitch. The Ames High Speed Profiler meets or exceeds the following requirements: ASTM E950 Class 1 profiler specifications, AASHTO PP 51-02 and Texas test method TEX 1001-S.



### *The Standard for Accurate Pavement Profile*

**Comprehensive** – Capacity for multiple profile and texture lasers. Capable of collecting measurements at speeds up to 70 mph.

**Proven** – Independently tested and certified by the Federal Highway Administration Long-Term Pavement Performance Program and other state testing agencies.

**Powerful** – Panasonic Toughbook mounted in vehicle monitors multiple profile and texture through an Ethernet data line, displaying continuous IRI in real time while data is being collected.

**Innovative** – The first profiling system that does not require use of a wheel encoder, cones, or external markings to start/stop data collection.



### System Overview

- **Portable system attaches to the front or rear of any vehicle using a 2" receiver hitch.**
- **Ames 6.0 Windows software powers data collection, including "Windows Profile Viewer" allowing the user to zoom and scroll through profile data.**
- **GPS receiver allows user to reference profile data to GPS location and Google Earth mapping of IRI profile.**
- **GPS coordinates automatically start/stop data collection**



*The leader in profiling technology*

1293 XE Place  
Ames, Iowa 50014

Call Jon Klatt at 1-800-205-6355  
for pricing & availability

[www.amesengineering.com](http://www.amesengineering.com)

## Specifications:

- High-Speed system can be on front or rear mount using the vehicle's standard 2" hitch receiver
- Single or dual track systems available
- Uses LMI GoCator laser line sensors or single point laser sensors
- Frame is adjustable to accommodate different vehicles
- Capable of collecting measurements at speeds between 25 and 70 mph
- Laser height sensor with a range of eight inches
- Horizontal distance measured with an optical encoder or GPS
- Pavement elevation sample storage: software selectable 1-16 samples/foot
- Profile wavelength range: 0.5 to 6,400 feet
- Accelerometer resolution: 0.0001g
- Data storage: 70,000 miles

## Computer Hardware:

- Panasonic Toughbook laptop
- Color SVGA anti-reflective, outdoor readable touch display screen
- Ethernet connectivity from system devices to data acquisition unit and laptop

## Data Acquisition Unit



## Computer Software:

- Microsoft Windows operating system
- Display profile in real time while data is being collected
- Calculates Profile Index (PI), International Roughness Index (IRI), Half-car Roughness Index (HRI), Ride Quality Index (RQI), and Ride Number (RN)
- Plots true profile, California profilograph profile, and rolling straightedge profile
- Equipped with variable high and low pass filter options
- Contains automatic bump detection software
- Identifies location of "out-of-specification" bumps and dips and areas of localized roughness
- Equipped with the following export file options: profile elevation points, ProVal PPF, Texas PRO format, comma separated variable (CSV) format and generated report tables format (HTML), Google Earth KML

[www.amesengineering.com](http://www.amesengineering.com)

