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smoothroad.com

Custom Test Equipment • Mobile Technology Solutions • FF/FL • Road Profilers • Panasonic Toughbooks

▼ **Walking Profiler** ▼





CS8800 Walking Profiler: A precision surface profiling device for roads, bridges, airports and floors. The CS8800 has the proven ability to generate 98% repeatable data on same surface data collections. The CS8800 reports numerous profile indexes (IRI, MRI, HRI, PRI, RN, and FF/FL) and also outputs precise dimensions of localized roughness. With a default sampling interval of 1 inch (25 mm), the CS8800 generates a high resolution surface profile through an optimized combination of sensors, electronics, and advanced data filtering algorithms. With technology and experience drawn from SSI's other profiling devices, the CS8800 is the only walking profiler with feature rich Windows software onboard the device. A Toughbook computer with a touch-screen is standard. The CS8800 hardware is professionally engineered, durable, and designed for extended testing with a long live lithium-ion battery. Raw data exports to many formats [ERD/PPF (for

ProVal), , ]. The CS8800 collapses into a reusable container for storage and transit.

New: CS8900 configuration tests sidewalks for ADA access compliance.

High Speed Profiling Systems: SSI produces several configurations of high speed profiling systems, all of which are Class I devices under ASTM E-950. SSI's systems collect true 1 inch (25 mm) data at all speeds from 5 to 70 mph (8-112 kph). Guaranteed compliance with industry specifications, including AASHTO M328, R054 and R056-057, and State DOT requirements). SSI's profiling systems generate data with a proven degree of accuracy above competing systems in preserving the short and long wavelength features on the surface. As a result, SSI's unmatched ability to output the exact dimensions of localized roughness. The SSI high speed system is available in several configurations: (1) the CS9300 Portable Profiler, (2) the unique CS9100 mid-mount, and (3) the low cost single track CS9400 Simple Profiler. The systems install onto industry standard trucks, vans or sport-utility vehicles. SSI offers onsite technical assistance worldwide for first-time setup and operator training. Feature rich Windows software programs are supplied for operating the system on a rugged Toughbook computer. A detailed, vivid display of data collection is shown in real-time, and test results are instantaneous.

Profile data can be output in PDF images, ERD/PPF (compatible with ) and  spreadsheets. Several GPS configurations are available finding features of interest, such as localized roughness, or with corrected GPS, using the profiler a survey tool for road design and machine control applications.

▼ **Lightweight & Hybrid Profilers** ▼



▲ **CS8700 Lightweight Profiler** ▲

Lightweight and Multiple Purpose Profilers: The CS8700 Lightweight Profiler and CS9200 Multiple Purpose Profiling System can access green concrete or hot asphalt quicker than profiling systems mounted on full size vehicles. The CS9200 system works as a lightweight or high speed profiler. Like SSI's other profiling systems, the CS8700 and CS9200 are ASTM E950 Class I devices that are guaranteed to comply with agency specifications. For testing grooved concrete or coarse textured pavements, a wide footprint Gocator laser is used for lower ride values and fewer areas of localized roughness as compared to single point lasers. The CS8700 and CS9200 have the same proven capabilities as SSI's high speed profilers, as the collection system is the same—only the vehicle platform is different. SSI's systems have been designed with support in mind—all core components are portable, replaceable in the field, and are available for express shipment.



▲ **CS9200 Trailer Profiler** ▲

PRODUCT OVERVIEW

▼ **High Speed Profiling Systems** ▼



▲ **CS9300 Portable Profiler** ▲



▲ **CS9100 Mid-Mount Profiler** ▲



▲ **CS9350 GeoProfiler** ▲

Mobile Surveying Systems for High Resolution 3-D Topographies: SSI's GeoProfiler™ systems combine multiple tracks of laser profile data with cross-slope and corrected GPS. The result is a higher resolution surface topography generated in fraction of the time required under conventional surveying methods. The surface data exports into standard survey formats (PNEZD, PLLHD, GPGGA) for use in road design and machine control applications. The system also serves as a QA/QC testing device under agency ride quality specifications.

▼ **Pavement Management Solutions** ▼



Pavement Management Solutions: SSI offers customized equipment and testing services for pavement management applications. The instrumentation installed onto the test vehicle is scalable to provide the roadbed and roadside data sets specified by the agency or end user. Supported measurements include International Roughness Index (IRI), GPS, rut-depth, transverse profile, surface distresses (cracking, faulting, lane edge drop-off, etc.), texture, ground penetrating radar (GPR), HD camera imagery for asset inventory and more. Pavement condition and distress ratings can be generated in compliance with AASHTO, DOT or PMS criteria. Export data to work with existing PMS software or GIS applications. A web portal for managing and viewing data is available through SSI's technology partners.

▼ **CS8500 Computerized Profilograph:** The

CS8500 profilograph is widely used worldwide for road, bridge and airport smoothness testing. The original California profilograph, the CS8500 complies with industry specifications, including ASTM E-1274, USACE, and State DOT requirements. The CS8500 features patented technology with reversible data collection and dual wheel track reports. The easy Windows software runs on a Toughbook, touchscreen computer. The CS8500 is supplied with a GPS system that correlates GPS positions with profilograph stations, areas of localized roughness, and supports Google Earth overhead images. In addition to Profile Ride Index (PRI), the CS8500 also reports International Ride Index (IRI). Raw

surface profile data is encrypted and can be infinitely re-analyzed with different analysis parameters. Profile data exports to formats including PDF, Excel, ProScan, and ERD/PPF (compatible with ProVal). The detachable operator control housing runs on AC or DC power supplies for use in the field or office. In addition the CS8500 for road testing.

▼ **CS8500 Computerized Profilograph** ▼



▼ **Profilograph Upgrade** ▼



CS8500 Operating System Upgrade for Existing Profilographs: The features of the CS8500 profilograph system are available as a field installable retrofit kit for older profilograph frame hardware. All CS8500 features are quickly available, including Windows collection and analysis software routines, IRI results, dual wheel track reports, GPS functionality, Excel exports, images and rugged Toughbook computer with touch screen controls.

CS8550 Bridge Profilograph: For testing bridge surfaces, SSI offers the specialty CS8550 bridge profilograph. With a 12' (3.6m) frame, the CS8550 complies with specifications for bridge structure testing (e.g. California DOT TM547).

▼ **Panasonic Toughbooks** ▼

Panasonic Toughbook Computers and In-Vehicle Workstations: SSI offers the full line of Panasonic Toughbook® computers at discounted prices. Toughbook mobile computers are engineered to withstand drops, spills, dust and grime, and to perform in the harshest environments. Toughbooks have a long history of rugged reliability, low cost of ownership are highly acclaimed. Many models and configurations are offered, including custom features such as touch screens, backlit keyboards, Wireless (LAN and WAN), GPS and more. SSI also offers in-vehicle mounting solutions for creating in-vehicle work stations to securely mount Toughbook computers and peripherals into industry standard vehicles.



▲ **Panasonic CF-19** ▲



▼ **Rentals & Services** ▼



Equipment Rentals and Testing Services: SSI's surface profiling system devices are available for rental or hire. Rent equipment only with delivery and on-site training. Or hire SSI to provide certified equipment and technicians for your project testing requirements. Discounts on equipment purchases are offered to customers who rent equipment or use SSI for project testing. Rentals and testing services have been provided worldwide.

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