

rolling profiler

ICC's new **rolling surface profiler**, the **SurPRO 2000** is an accurate and effective device for measuring surface profile and roughness characteristics of a placed surface. The device is considered to be a Class 1 profiling unit and uses patented inertial technology.

The SurPRO 2000 is a fully automated, portable unit that weighs only 42 pounds. It can be brought onto a jobsite and be collecting data in a matter of minutes. It collects true elevation profiles, displays the results, stores the data in flash memory and executes user selectable algorithms to print numeric and graphical representation of several roughness indices.

The SP2000 accurately reports IRI (International Roughness Index), RN (Ride Number), PI (Profilograph Index) and FN (Flatness Number).



In addition to printing roughness reports and graphical representations, the SP2000 will produce a profilograph simulation (California or Rainhart) with bump/dip identifications and must grind lines.

This device collects both longitudinal and transverse profiles as well as elevation and grade information for any placed surface.

It's typically used for roads, bridges, sidewalks, floors, and sporting event surfaces; however, it can be used on just about any placed surface.

The information collected with the system has a number of applications:

- 1) Calibration site verification,
- 2) New pavement inspection, including bridges before approach or leave pavements are in place,
- 3) Sidewalk inventory,
- 4) Checking the cross slope of a road,
- 5) Checking the slope in a drainage system,
- 6) Checking the flatness of floors.

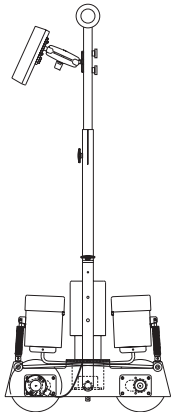
**CERTIFIED AS AN APPROVED EQUAL FOR THE
PROFILOGPAPH & FULL SIZED PROFILER**



INTERNATIONAL CYBERNETICS CORPORATION

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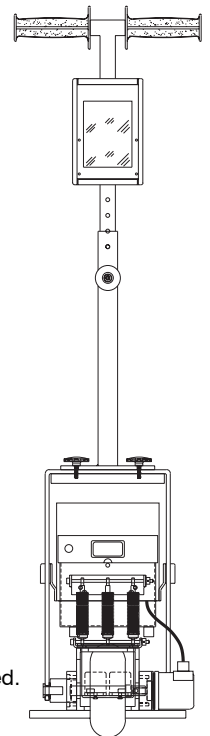
System Features



- Class 1 profiling performance
- Fully automated data collection for longitudinal and transverse profiles
- Produces accurate, repeatable data for 12", 250 mm + 300 mm intervals
- Provides unfiltered true elevation profiles
- Provides profilograph equivalent output
- Report multiple roughness indexes (IRI, PI, RN)
- Prints profile and roughness information on-site without a notebook computer
- Patent-pending rolling inclinometer with loaded suspension to ensure stability and accuracy for all speeds and surface conditions
- Sealed ball-bearing construction, permanently lubricated, requires minimal maintenance
- Highly visible LED marker lights
- Optional FM radio remote control drive enables data collection at 2.4 MPH
- Can be checked on a commercial aircraft as passenger luggage
- Permanent factory calibration

Specifications

Model#	SP2000
Instrument Rating	World Bank Standard Class1
Method	Automated rolling, operator walks behind unit and pushes it
Transducers	2 inclinometers; 1 optical encoder; 1 temperature
Sampling Interval	.25 m Normal (Optional 12" and 300 mm)
Samples/Interval	64 samples per .25 m interval
Data Collect Rate	<i>Nominal:</i> 1.2 mile/hr, <i>Max:</i> 2.4 mile/hr
Static Resolution	<i>Incline</i> 0.0019 mm (0.0001")
Profile Accuracy	+/- 2 mm / 50 m (+/- 0.01" / 25 ft) plus level error for non closed loop surveys.
Distance Accuracy	+/- 0.1 %
Max Bump Height	+/- 65 mm (+/- 2.5")
Max Incline Angle	+/- 14.5°
Operating Temp.	0 to 50° C
Temp. Accuracy	+/- 2° C
Weight	42 lbs.
Size (footprint)	254 mm (10") W x 482 mm (19") L (add handle length for full length)
Battery	Air transport IATA approved gel-cell, 2 x 12 Ahr (12Vdc). External charger supplied. Low battery warning. Battery life 20 hrs w/o motor drive connected.
On-Board Computer	100MHz 586 32 bit single chip PC, 16M RAM, 8M DiskOnChip non-volatile storage
Real Time Clock	Battery backed. Set from notebook computer.
Data Storage Media	DiskOnChip on-board nonvolatile storage holds 136 lane miles of data (download all files simultaneously to notebook computer)
Computed Indices	IRI, RMSVA, PSI, CPI, RN, FN
Units	Metric & Imperial for all displays and output.
Tools & Simulations	California Profilograph or User selectable Digital Filters
Data Formats	Raw data, roughness indices, tabular elevation data and graphical profiles
Data Output	Download raw data using 19.2 kbaud serial port (RS-232C) Print graphic and tabular profile and roughness reports using on board parallel port or using an external notebook computer. Analyze and filter data with desktop SurPRO Utility software.



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