Portable Road Surface Profiler Mark IV

The Dynatest Portable Road Surface Profiler (RSP) is designed to provide advanced, automated, high quality pavement roughness measurements for engineers and construction managers, that can be fitted easily to most vehicles. The Portable RSP is capable of real time continuous highway-speed measurements of longitudinal profile elevations, International Roughness Index (IRI), Ride Number (RN), and (optionally) macro texture, GPS Data and Digital Photo Logging.

Measuring Principle:

The longitudinal profile measurement is based on the "South Dakota" method. An accelerometer is used to obtain vertical vehicle body movement, and a laser sensor is used for measuring the displacement between the vehicle body and the pavement. Road profile measurements are obtained by summing the body movement with the appropriate body-road displacements. IRI is calculated in accordance with Word Bank Specifications. The measured longitudinal profile meets the Class 1 precision and bias specifications as defined by ASTM E-950.

THE DYNATEST PORTABLE RSP MARK IV IS DESIGNED TO CONNECT TO MANY STANDARD VEHICLES AND IS EASILY REMOVED FOR STORAGE.

For further information please contact EquipmentSales@dynatest.com

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Advantages:

- The "**Stop & Go"** feature allows IRI measurements to be taken at all traffic speeds, allowing testing at junctions, traffic lights, roundabouts and testing of short sections where it is difficult to gain enough speed, or when it is not possible to do a pre-section.
- Profile elevations can be collected at a speed range of 22 to 110 km/h (14 to 70 mph).
- Graphical display of the laser and profile data, allowing for easy identification of dropouts.
- Easy step by step calibration procedures displayed on screen.
- Post analysis software can locate bumps/dips, scallops/ must-grinds, calculate IRI, PI, RN and is ideal for detailed analysis and reporting.
- The vehicle independent test system can be quickly mounted to a vehicle's standard 5.08cm x5.08cm (2"x 2") square receiver tube opening and to heavy duty European trailer hitch receivers and is easily removed from the vehicle for storage or shipping.
- The test system can be powered from a vehicles standard 12V trailer wiring connection.
- Ethernet communication between portable profiler electronics and the data storage laptop PC inside the vehicle.
- Guaranteed high accuracy. Meets ASTM E950 Class I, Tex-1001-S specifications and State DOT certification requirements.
- Dynatest Worldwide support

Key Features:

- Unique **"Stop & Go"** feature permits IRI & RN data to be collected in urban areas.
- Laser sensors are transversely adjustable to any width of 1.50m to 2.00m (60" to 79") via telescopic arms.
- Measurements referenced to linear chainage and/ or Differential Geographical Position System (DGPS).
- Real-time profile data calculation and storage in two wheelpaths.
- Compact embedded PC processing unit connects the profiler to Laptop PC via Ethernet.
- The RSP Mark IV uses the proven RspWin Field Program.
- Optional GPS Data and digital photo logging can be stored with profiler measurement data.
- Optional Texture Laser Sensors can be used to collect real-time MPD macro texture.

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