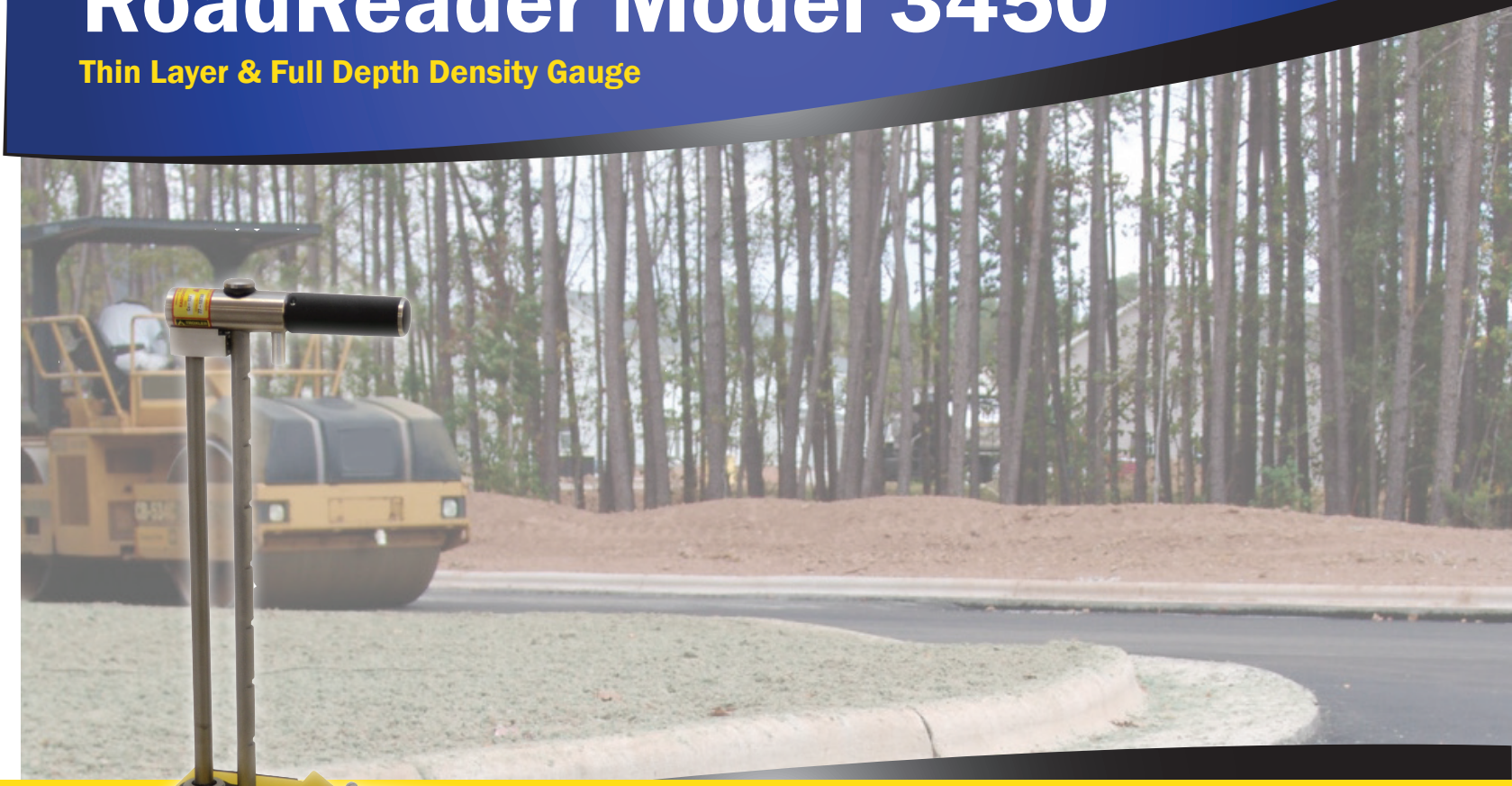
RoadReader Model 3450

Thin Layer & Full Depth Density Gauge



Two Gauges in One

Meets Every Compaction Control Demand

The Model 3450 combines the proven measurement modes of the Troxler 3400 series gauges with a patented method for true thin layer asphalt and concrete bridge deck overlay density measurement.

One Instrument = All Measurement Capabilities

The Model 3450 controls compaction at every stage of your project.

- Thin layer mode measures the density of asphalt and concrete overlays between one and four inches (two-and-a-half and ten centimeters) in thickness without influence from the underlying material.
- Backscatter mode is an ideal nondestructive density measurement method for full depth asphalt and concrete approximately four inches (ten centimeters) thick.
- Direct transmission mode is the density measurement method of choice for lifts of soil, soil aggregate, and stone up to twelve inches (thirty centimeters) in depth.
- The moisture system provides a nondestructive moisture measurement for soil and aggregate materials.

Quick Density and Moisture Measurements

In as little as one minute, the gauge provides both density and moisture measurements—including wet density, dry density, moisture, percent moisture, percent compaction, percent voids, and percent air voids—without time-consuming calculations.

Easy Operation

For all its sophistication, the Model 3450 is simple to use. An expanded keypad and easy-to-follow prompts provide access to all major gauge functions.

TROXLER®
The Leader in Construction Testing Equipment

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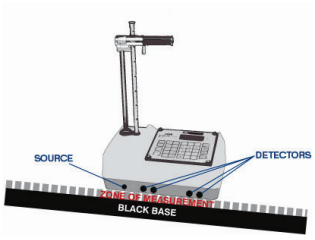
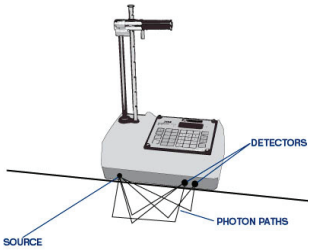
Additional Features

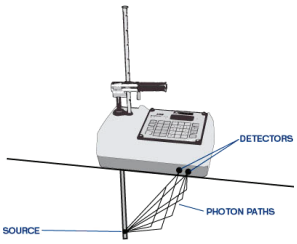
- A backlit screen provides exceptional viewing for low-light and nighttime testing.
- An adjustable beeper signals test completion over the roar of traffic or heavy equipment.
- The gauge stores up to 1,000 test readings under multiple projects for future use and/or download.
- The free Troxler App makes data transfer to a portable device simple.



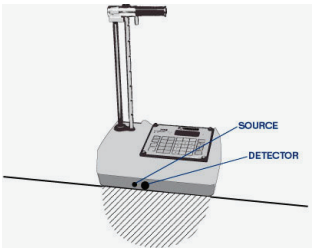
Thin Overlay Asphalt



Backscatter



Direct Transmission



Moisture

Measurement Specifications (pcf [kg/m³])

Direct Transmission Mode (6 in)	15 Seconds	1 Minute	4 Minutes
Precision	0.32 (5.2)	0.15 (2.6)	0.08 (1.3)
Composition Error	0.5 (8)	0.5 (8)	0.5 (8)
Surface Error (0.05", 100% Void)	-1.1 (-18)	-1.1 (-18)	-1.1 (-18)
Backscatter Mode	**15 Seconds**	**1 Minute**	**4 Minutes**
Precision	1.0 (16.0)	0.50 (8.0)	0.25 (4.0)
Composition Error	0.87 (14.0)	0.87 (14.0)	0.87 (14.0)
Surface Error (0.05", 100% Void)	-5 (-80)	-5 (-80)	-5 (-80)
Moisture at 15 pcf (240 kg/m³)	**15 Seconds**	**1 Minute**	**4 Minutes**
Precision	0.69 (11)	0.34 (5.5)	0.17 (2.8)
Surface Error (0.05", 100% Void) Measurement Depth = 8.5 in	-1.2 (-19)	-1.2 (-19)	-1.2 (-19)

Thin Overlay Mode
Precision at 15 pcf (240 kg/m³)

Time (Minutes)	Thickness 1 in (2.5 cm)	2 in (5 cm)	2.5 in (6.3 cm)	4 in (10 cm)
1	±1 (±16)	±0.6 (±10)	±0.5 (±8)	±0.5 (±8)
4	±0.50 (±8)	±0.30 (±5)	±0.25 (±4)	±0.25 (±4)

Radiological Specifications

Gamma Source	0.30 GBq (8 mCi) ±10% Cs-137
Neutron Source	1.48 GBq (40 mCi) ±10% Am-241:Be
Source Type	Sealed source, special form
Source Housing	Stainless steel, double encapsulated
Case	DOT 7A, Type A, Yellow II label, TI = 0.3

Electrical Specifications

Average Power Consumption	Idle Mode Measurement Mode	0.12 W 0.17 W
Stored Power		32 W/h
Time Before Automatic Shutdown		5 hours of complete inactivity
Power Sources		NiCad and AA alkaline batteries
Charge Source		12 VDC nominal, 800 mA minimum
Battery Recharge Time		4 hours maximum (automatic cutoff)
Liquid-Crystal Display (LCD)		Four lines, twenty characters per line; alphanumeric; backlit
Keypad		Thirty-three-key sealed membrane

Mechanical Specifications

Gauge Dimensions (L x W x H)	8 in rod = 16.2 x 9.0 x 19.8 in (411 x 229 x 503 mm)	12 in rod = 16.2 x 9.0 x 23.8 in (411 x 229 x 604 mm)
Case Dimensions (L x W x H)	13.9 x 17.9 x 30.8 in (353 x 455 x 782 mm)	
Weight	37.5 lb (17 kg)	
Shipping Weight	96 lb (43 kg)	

Environmental Specifications

Operating Temperature	32°F to 158°F (0°C to 70°C)
Storage Temperature	-67°F to 185°F (-55°C to 85°C)
Maximum Test Material at Surface Temperature	350°F (175°C) for 15 minutes
Humidity	98%, noncondensing

Made in USA

TROXLER®
The Leader in Construction Testing Equipment

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