



 **TROXLER**[®]
The Leader in Construction Testing Equipment

Since 1958, Troxler Electronic Laboratories, Inc. has been the worldwide leader in precision quality control and measurement equipment and instrumentation for the highway and construction industries. We are dedicated to providing premier service, maintenance, and training for all our products through our international sales and support offices in the United States, Canada, China, and Germany and over forty distributors around the world.

How can we help you?

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Field Equipment

Troxler EGauge Model 4590

Nuclear Soil Density Gauge



A Nuclear Density Gauge Exempt from NRC Licensing

Exempt from the Hassles of Licensing

Maintaining a radioactive materials license can be complicated and time consuming for owners of specifically licensed gauges. In the United States, the EGauge is exempt from licensing requirements—no radiation safety training for operators, TLD badges, special shipping documents, or reciprocity to use it in other states are needed.

Easy to Use

The operation of the EGauge is similar to that of traditional Troxler nuclear density gauges, so an experienced operator can use it with minimal additional training.

Results are Reliable and Repeatable

Data collected by multiple agencies shows excellent correlation between the EGauge and the Troxler Model 3440 Moisture Density Gauge. (R^2 values ranged from 0.93 to 0.98.) The gauge's repeatability is also equal to that of the density gauges currently listed in the applicable ASTM International specification (0.3 lb/ft³ [4.8 kg/m³]).

Complete with Moisture Probe

The Troxler Model 6760 Moisture Probe is provided with each EGauge. This electromagnetic probe measures the moisture of the soil in the same hole that is used for the density measurement. *Bluetooth*[®] wireless technology enables it to communicate data directly to the EGauge, which allows the gauge to display complete results. (Moisture data can also be entered manually using the EGauge keypad if another measurement method is used.)

Additional Features and Options

- An enlarged liquid-crystal display (LCD) with backlighting allows you to easily read results, even in low-light conditions.
- Automatic Depth mode detects the source rod depth during each measurement.
- The gauge stores up to 1,000 test readings under multiple projects for future use or download.
- When enabled, the Auto-Store function automatically stores sample data under the active project.
- A Universal Serial Bus (USB) port allows you to send data to a printer or store it on a flash drive.
- The gauge records Global Positioning System (GPS) data for each measurement using the Wide Area Augmentation System (WAAS) for improved accuracy.



Each EGauge is equipped with a Model 6760 Moisture Probe.

Measurement Specifications	
Depth = 6 in (150 mm) Sample Density = 135 lb/ft ³ (2163 kg/m ³)	Measurement Time = 2 minutes Background Time = 1 minute
Precision	
Repeatability (1 Standard Deviation)	0.3 lb/ft ³ (4.8 kg/m ³)
Reproducibility (1 Standard Deviation)	0.5 lb/ft ³ (8.0 kg/m ³) ¹
Composition Error	Insensitive to material composition
Mechanical Specifications	
EGauge Dimensions (L x W x H)	15.4 x 9.2 x 24.6 in 391 x 234 x 625 mm
Moisture Probe Dimensions (L x W x H)	13.6 x 5.6 x 8.2 in 346 x 142 x 208 mm
Case Dimensions (L x W x H)	20.4 x 15.5 x 31.3 in 518 x 393 x 795 mm
Weight	35 lb (13.8 kg)
Shipping Weight	83 lb (38 kg)
Storage Temperature	-67°F to 185°F (-55°C to 85°C)
Operating Temperature	41°F to 128°F (5°C to 70°C)
Electrical Specifications	
Main Power Source	Nickel-metal hydride (NiMH) rechargeable batteries
Backup Power Source	Five AA alkaline batteries
Charge Source	12 VDC 2 A
Battery Recharge Time	Three hours maximum (may be charged incrementally without damaging the batteries)
Time Before Automatic Shutdown	Five hours of inactivity

¹ Reproducibility as measured is consistent with that stated in ASTM D6938-10.

Troxler Model 3430 and 3440 Moisture Density Gauges

New! Updated!
Simply Better Gauges



- **New look**
 - Rugged, larger display screen; easy to use
- **Updated electronics**
 - Upgradeable and consistently reliable
- **Many user-friendly features**

3430

Troxler nuclear moisture density gauges are used by many contractors, engineers, and highway departments for compaction control of soil, aggregate, concrete, and full-depth asphalt. The operator selects the density mode (backscatter or direct transmission) based on the material type and the thickness of the layer being measured.

The Model 3430 is the simplest and most economical gauge offered by Troxler. The Model 3440 includes a larger keypad and more available features that are needed for some construction projects. Both models meet or exceed ASTM standards D6938, D2950, and C1040 and can be customized to meet your testing needs.

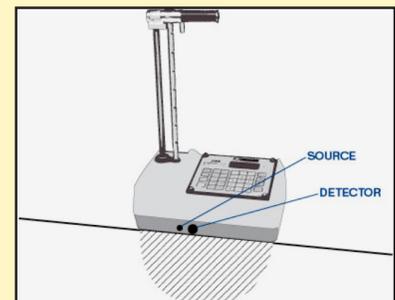
The Model 3430 is a simple gauge for users who don't need many extras.

The enhanced platform offers many updates and advantages.

- Updated electronics
- Nickel-metal hydride (NiMH) batteries with fast recharge
- A larger, backlit display screen (eight-millimeter characters)
- An alkaline battery backup feature
- Optional user-friendly features
 - An external beeper
 - A remote start keypad on the handle
 - Data storage
 - A USB port for data transfer
 - Spanish and French language options



Moisture Measurement



Moisture content is measured in a nondestructive test mode. Moisture is determined through the detection of thermalized neutrons (i.e., "fast" neutrons that have been slowed by the hydrogen present in the material [normally in the form of water]).

Both models offer

- density measurement capability in backscatter or direct transmission mode and moisture measurement in backscatter mode to allow quick, nondestructive testing of soil, asphalt, and concrete materials;
- direct readout of test results (wet density, dry density, moisture, % moisture, % voids, and % compaction);
- multiple count time options (fifteen seconds, one minute, and four minutes);
- moisture, density, and trench offsets;
- user-friendly software menus and keypads; and
- an eighteen-month warranty.

Troxler also offers the enhanced platform for the Model 3440, which includes an updated display screen and updated electronics and batteries. Users can customize the gauge by adding the features that meet their needs.

Standard features include:

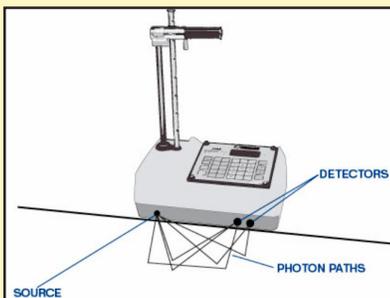
- An Auto-Depth function
- A USB port
- Data storage
- A remote keypad
- An alkaline battery backup

Optional features include:

- An external beeper
- A backlit keypad
- Spanish and French language options
- Global Positioning System (GPS) locations for measurements

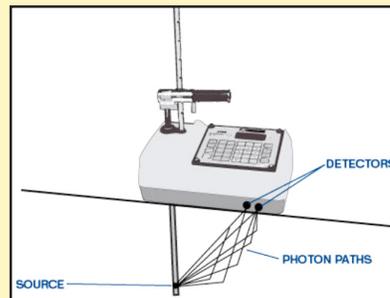


Backscatter Measurement



This is a rapid, nondestructive means of testing materials (usually asphalt and concrete) that are approximately 4 in (10 cm) in depth. The gamma source remains inside the gauge, and the gamma rays that are scattered back toward the detectors are counted to determine the density.

Direct Transmission Measurement



The source rod extends through the base of the gauge into a predrilled hole up to 12 in (30 cm) deep in the material being tested. Gamma rays are transmitted from the density source through the test material and counted by detectors located within the gauge.

3440

	3430	3440	3440 w/ GPS
Keypad	Ten keys (simple)	Thirty keys	Thirty keys
Auto-Depth	NA	✓	✓
Display	Enlarged, Backlit	Enlarged, Backlit	Enlarged, Backlit
Alkaline Battery Backup	✓	✓	✓
Data Storage	Optional (100 readings)	✓ (1,000 readings)	✓ (1,000 readings)
USB Port	Optional	✓	✓
Remote Start Keypad (Near Handle)	Optional	Optional	✓
GPS	NA	NA	✓
External Beeper	Optional	Optional	Optional
Language Options (Spanish or French Software and Manual)	Optional	Optional	Optional
Backlit Keypad	NA	Optional	✓

Troxler Service Center Locations

- North Carolina
- California
- Florida (Fort Myers)
- Florida (Orlando)
- Illinois
- Louisiana
- Texas (Dallas)
- Texas (Houston)

We also provide service and maintenance through our international support offices in Canada, China, and Germany and over forty distributors around the world.

Visit www.troxlerlabs.com for address and contact information.

All gauges offer the option of 12 in/1 in or 8 in/2 in measurement positions.

MEASUREMENT SPECIFICATIONS			
	.25 Minutes	1 Minute	4 Minutes
Direct Transmission (150 mm)			
Precision (kg/m ³) (pcf)	±6.8 (±0.42)	±3.4 (±0.21)	±1.7 (±0.11)
Composition Error (kg/m ³)	±20.0	±20.0	±20.0
Surface Error (kg/m ³) (100% Void)	-17.0	-17.0	-17.0
Backscatter (98%, 100 mm)			
Precision (kg/m ³)	±16.0	±8.00	±4.00
Composition Error (kg/m ³)	±40.0	±40.0	±40.0
Surface Error (kg/m ³) (100% Void)	-75.0	-75.0	-75.0
Surface Error (kg/m ³) (100% Void)	-75.0	-75.0	-75.0
Moisture at 240 kg/m ³			
Precision (kg/m ³)	±10.3	±5.1	±2.6
Surface Error (kg/m ³) (1.25 mm, 100% Void, kg/m ³)	-18.0	-18.0	-18.0

RADIOLOGICAL SPECIFICATIONS	
Gamma Source	0.30 GBq (8 mCi) ±10% Cs-137
Neutron Source	1.48 GBq (40 mCi) ±10% Am-241:Be
Source Housing	Stainless steel, encapsulated
Surface Dose Rate	(5 cm) 19 mrem/hr maximum, neutron and gamma
Case	DOT 7A, Type A, Yellow II label, TI = 0.3

ELECTRICAL SPECIFICATIONS	
Main Power Source	5 C NiMH rechargeable pack
Backup Power Source	Model 3430 = optional Model 3440 = 5 AA alkaline batteries
Stored Power	4 A hours
Battery Recharge Time	3 hours maximum; automatic cutoff
Charge Source	110/220 VAC 50 or 60 Hz or 12 to 14 VDC
Current Consumption Average	35 mA
Time Before Auto Shutdown	Five hours of inactivity
Readout	Four lines, twenty characters per line; alphanumeric
Sealed Membrane Keypad	Model 3430 = ten keys Model 3440 = thirty keys

MECHANICAL SPECIFICATIONS	
Gauge Dimensions (Including Handles) (L x W x H)	12 in = 14.5 x 9 x 23.5 in (36 x 22.9 x 59 cm) 8 in (H) = 19.5 in (49.5 cm)
Case Dimensions (L x W x H)	29.4 x 13.9 x 16.5 in (75 x 35 x 42 cm)
Shipping Weight	83 lb (37.6 kg)
Weight	31 lb (14.1 kg)
Operating Temperature	Ambient = 32°F to 158°F (0°C to 70°C) Surface = 350°F (175°C) for 15 minutes
Storage Temperature	-70°F to 185°F (-55°C to 85°C)

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.

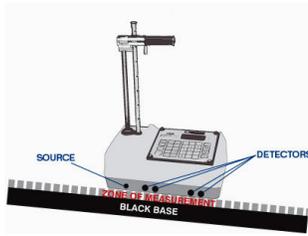
Easy Operation

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.

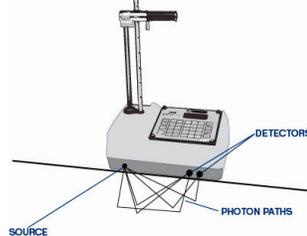
RoadReader Model 3450

Additional Features

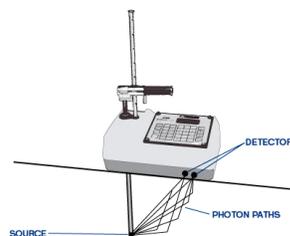
- A backlit screen provides exceptional viewing for low-light and nighttime testing.
- An adjustable beeper signals test completion over the roar of traffic or heavy equipment.
- The gauge stores up to 1,000 test readings under multiple projects for future use and/or download.
- The free Troxler App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



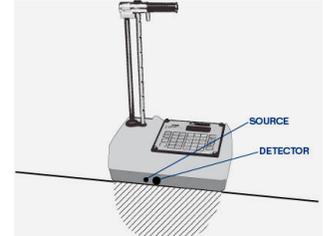
Thin Overlay Asphalt



Backscatter



Direct Transmission



Moisture

Measurement Specifications (pcf [kg/m³])

	15 Seconds	1 Minute	4 Minutes
Direct Transmission Mode (6 in)			
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			
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)			
Precision	0.69 (11)	0.34 (5.5)	0.17 (2.8)
Surface Error (0.05", 100% Void)	-1.2 (-19)	-1.2 (-19)	-1.2 (-19)
Measurement Depth = 8.5 in			

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



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C3450122717

Troxler Model 4640-B

Surface Thin Layer Density Gauge



Measures the Density of Thin Asphalt and Concrete Layers

The Troxler Model 4640-B measures the density of asphalt and concrete layers between one and four inches (two and a half and ten centimeters) without influence from the underlying material.

Fast and Accurate Results

In as little as one minute, the Model 4640-B measures and displays density results that are reliable and repeatable.

Eliminates the Need for Nomographs

Variations in the density or composition of the base material do not affect the test results. No field calculations are needed.

Operator-Selected Depth of Measurement

The thickness of the top layer is entered into the software by the operator. This allows the gauge to correctly calculate the top layer density without influence from the underlying material.

Meets ASTM and AASHTO Standards

The Model 4640-B meets or exceeds all applicable ASTM and AASHTO standards.

Widely Accepted in the Industry

Many departments of transportation depend on Troxler thin layer gauges for reliable, real-time compaction control of new pavement and asphalt overlays.

Troxler Model 4640-B

Special Functions

- Automatic standard count comparison and storage
- Data storage of 750 records for later viewing, printing, and/or downloading
- Determination of the count time for selected precision
- Field offsets of density and a special calibration function
- Calculator mode
- Diagnostics and self-test modes
- Simple data transfer to a portable device using the free Troxler App

Measurement Specifications

	Time	Thickness	kg/m ³	pcf
Gauge Precision	1 minute	1 in (2.5 cm)	±16	±1.0
		2 in (5.0 cm)	±10	±0.6
	4 minutes	2.5 in (6.3 cm)	±8	±0.5
		1 in (2.5 cm)	±8	±0.5
		2 in (5.0 cm)	±5	±0.3
		2.5 in (6.3 cm)	±4	±0.25
Depth of Measurement	1 to 4 in (25 to 100 mm)			

Mechanical Specifications

Gauge Size (Excluding Handles) (L x W x H)	18.6 x 9.1 x 6.2 in (472 x 231 x 158 mm)
Gauge Height (Including Handles)	9.5 in (240 mm)
Weight	29.7 lb (13.5 kg)
Shipping Weight (Including Case)	90 lb (40.8 kg)

Electrical Specifications

Stored Energy	30 W/h
Battery Recharge Time	14 to 16 hours
Battery Recharge	110/220 VAC 50 to 60 Hz or 12 to 14 VDC
Power Consumption	0.16 W/h

The battery packs are fully protected against overcharge and overdischarge and can operate using D alkaline batteries if necessary.



Thin Layer Asphalt Density without Underlying Material Influence

Environmental Specifications

Operating Temperature	Ambient	14°F to 158°F (-10°C to 70°C)
	Surface	350°F (175°C)
Storage Temperature	-70°F to 185°F (-55°C to 85°C)	

Radiological Specifications

Gamma Source	0.30 GBq (8 mCi) ±10% Cs-137	
Source Type	Sealed source, special form	
Source Housing	Stainless steel, double encapsulated	
Shielding	Tungsten, lead	
Case	DOT 7A, Type A, Yellow II label, TI = 0.2	



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C4640B122717

Troxler PaveTracker 2701-B

Non-Nuclear Asphalt Density Gauge



A Non-Nuclear Device for Asphalt Quality Control Measurements

- **Non-Nuclear** (no license, special training, or paperwork needed)
- **Lightweight** (only eleven pounds [five kilograms])
- **Fast and Accurate** (reliable measurements in two seconds)
- **Easy to Use** (similar to other Troxler gauges)

Hassle Free

The PaveTracker uses electromagnetic sensing technology and therefore eliminates the need for licensing, radiation safety training, and transportation restrictions. Your entire team can be trained and ready to perform quality control measurements very quickly.

No Waiting for Results

Troxler's patented technology provides rapid, reliable pavement measurements in less than two seconds. Areas of segregation, low density, and/or other nonuniformity are easily detected by the PaveTracker, which allows the operator to resolve issues before construction completes.

No Moisture or Temperature Corrections

There is no need to enter potentially inaccurate corrections for moisture and temperature.

Meets Industry Standards

The PaveTracker meets ASTM D7113 and AASHTO T 343 standards.

Troxler Pavetracker Model 2701-B

Additional Features

- A reference test plate built into the case allows the operator to test the gauge as often as desired.
- Two handles come standard with the gauge—an attached bail handle and a detachable L-shaped handle.
- The large backlit display and keypad can easily be seen from a standing position and in dim light.
- The self-adhesive protective sensor cover disc is easily replaceable in the field.
- An optional infrared temperature sensor measures and displays the mat temperature.
- An optional Global Positioning System (GPS) feature records latitude and longitude data for each measurement using the Wide Area Augmentation System (WAAS) for improved accuracy.

MEASUREMENT SPECIFICATIONS	
Measurement Depth	2 in (5.1 cm)
Measurement Time	Less than 2 seconds
Measurement Precision	±0.20 pcf (±3.2 kg/m ³)
Reference Standard	Supplied with case
Calibration Offset	Calibrate to alternative density measurements <ul style="list-style-type: none">• Road core• Nuclear gauge reading
MECHANICAL SPECIFICATIONS	
Gauge Dimensions (L x W x H)	9 x 16 x 6 in (22.9 x 40.6 x 15.2 cm)
Weight	11 lb (5 kg)
Shipping Weight	40 lb (18 kg)
Operating Temperature	Ambient: 32°F to 158°F (0°C to 70°C) Surface: 350°F (175°C) maximum
Storage Temperature	-4°F to 158°F (-20°C to 70°C)
Liquid-Crystal Display (LCD)	Four lines, twenty characters per line
Data Storage	Up to 999 readings
Units	US (pcf) or SI (kg/m ³)
Temperature Sensor (Optional)	32°F to 662°F (0°C to 350°C) operating range
ELECTRICAL SPECIFICATIONS	
Main Power Source	6 V 4,000 mAh nickel-metal hydride (NiMH) rechargeable pack
Battery Run Time	32 hours (typical)
Battery Recharge Time	Approximately 2 hours
Charging Adapters	110 VAC (wall outlet charger) 12 VDC (car charger)

Made in USA



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C2701B122717

Plant Equipment

Troxler Moisture Measurement System (MMS™)

(Model 3630)

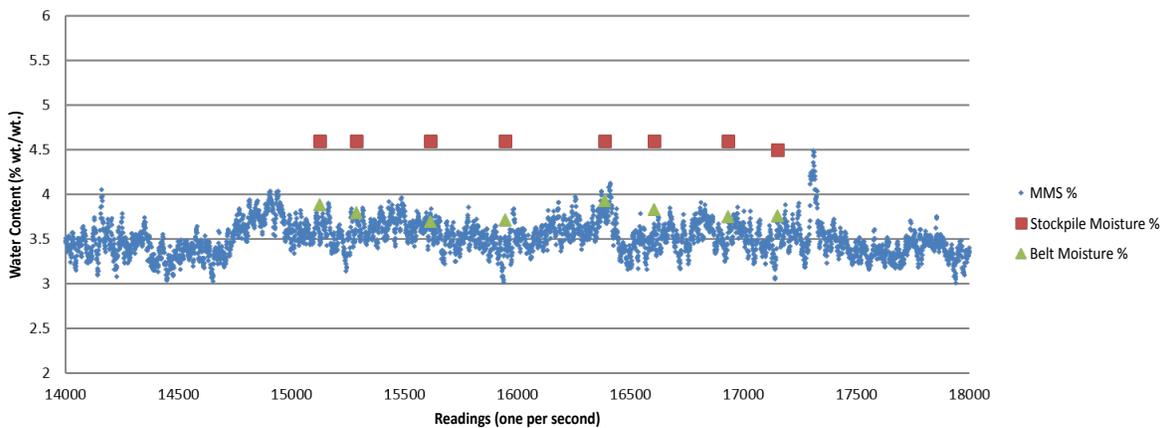


Measure Aggregate Moisture Content in Real Time An Industry First from Troxler

Features	Benefits
Measures moisture accurately with less than ± 0.5 percent weight precision for a five-second measurement	<ul style="list-style-type: none">• Provides improved binder control and product quality/pavement performance (<i>more like the mix design</i>)• Allows for better burner temperature control during drying, saving energy and reducing greenhouse gas emissions• Increases bonus potential
Measures the moisture content of any virgin aggregate	Allows an asphalt plant to measure the moisture content of all its mixes, regardless of their aggregate composition
Measures the moisture content of a large volume of aggregate at once (<i>85 percent of a conveyor belt</i>)	Presents a more holistic snapshot of the aggregate going into the drum
Measures moisture continuously in real time (<i>every second/4,000 data points per hour by default</i>)	<ul style="list-style-type: none">• Depicts moisture fluctuations throughout the day• Shortens downtimes, especially after rain• Saves labor and technician time (<i>fewer stockpile measurements are required</i>)
Has no physical contact with the aggregate mix or the belt	Doesn't break or wear easily
Uses proven nuclear moisture and density measurement technology and is a generally licensed system	<ul style="list-style-type: none">• Delivers a direct moisture measurement and eliminates potential mistakes in calculation/issues to do with rounding• Places minimal regulatory burden on a US plant
Is calibrated annually using materials on site (<i>a single calibration for all of a plant's mixes</i>)	Reduces calibration complexity significantly
Is compatible with most widely used control systems (<i>sends data directly to a system or displays it on a monitor in a control station</i>)	Provides full automation and traceable data

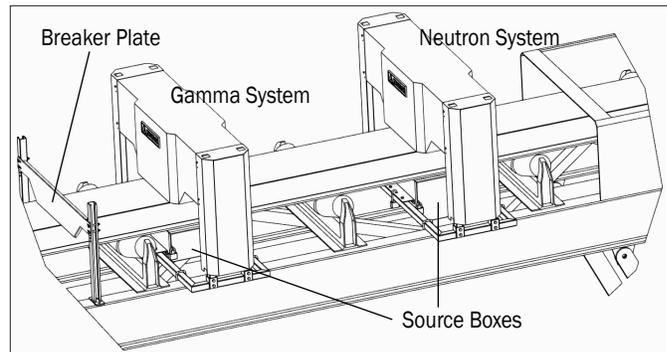
Measurement Sample

The following graph compares MMS data with belt samples and the percent moisture calculated by the plant (based on stockpile measurements) over a four-and-a-half-hour production period.



System Configuration

- The system is mounted on the virgin aggregate conveyor belt after the shaker.
- The two subsystems are six to ten feet apart.
- Within each subsystem, the detector is situated above the belt and the source below it. There is no physical contact with the belt.
- A breaker plate in front of the first subsystem levels off the aggregate, ensuring that there is no physical contact between it and the system.



Measurement Specifications

Precision (Expressed As 1 Standard Deviation) @ 3% wt./wt. Moisture and 2.2 g/cm³ Density

	5 Seconds	10 Seconds
3 in Thick Sample	±0.4% to ±0.5% wt./wt.	±0.3% to ±0.4% wt./wt.
4 in Thick Sample	±0.32% to ±0.4% wt./wt.	±0.25% to ±0.32% wt./wt.
5 in Thick Sample	±0.28% to ±0.35% wt./wt.	±0.22% to ±0.28% wt./wt.

Electrical Specifications

Supply Voltage	120 VAC (±10%) 1 A 60 Hz
Standard Signal Output for Automation	0 to 20 mA, 4 to 20 mA, or 0 to 10 V isolated analog output
User Interface (Human Machine Interface [HMI] for Maintenance)	8.0 in fanless industrial touch panel PC, IP65-rated front panel, 1024 x 600 (WSVGA [Wide Super VGA]) native resolution



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C3630122717

Lab Equipment

Troxler Model 5850v2

Superpave Gyrotory Compactor



The Most User-Friendly Gyrotory Compactor on the Market

Prepare and Compact Specimens Faster

The Model 5850v2 combines the largest workspace of any gyrotory compactor with an integrated specimen cooling rack and built-in extruder into an easy-to-operate machine. With the ability to compact a specimen while another is being extruded and no complicated system of latches and levers to secure the specimen mold, it allows the operator to prepare and compact a specimen faster than any other piece of equipment on the market.

No Lifting of Loaded Molds Required

A built-in specimen extruder eliminates the need to lift heavy loaded molds. Samples are prepared, extruded, and cooled right on the gyrotory compactor.

Space-Saving Design

Given the variety and number of tests run in busy asphalt laboratories, the amount of space a piece of equipment occupies and its mobility are important features. The Model 5850v2's 4.5-square foot footprint is 38 percent smaller than that of its leading competitor. This and its durable caster wheels make it a versatile and unobtrusive asset to any work space.

Significant Return on Investment

The Model 5850v2's rugged, unique design provides a significant return on your investment. Its low-maintenance hydraulic power unit greatly simplifies its maintenance (when compared with that required by electromechanically driven compactors).

Troxler Model 5850v2

Standard Accessories

- An integrated specimen extruder
- A mold
- A Universal Serial Bus (USB) printer and cable
- A height-standard block
- Magnalube® lubricant and an applicator

Optional Accessories

- Extra molds
- Emulsion molds
- A drain kit for cold-mix asphalt, warm-mix asphalt, emulsions, roller-compacted concrete (RCC), and soils
- A pressure verification kit
- An integrated shear measurement kit
- A Dynamic Angle Verification (DAV) II with Hot Mixed Simulator (HMS) internal angle measurement kit

Measurement Specifications	
Angle of Gyration	0 to 3 degrees \pm 0.02 degrees via software
Consolidation Pressure	90 to 1,000 kPa
Speed of Gyration	30 \pm 0.5 rotations/minute (fixed)
Specimen Height	1.97 to 10.83 in (50 to 275 mm)
Operation Modes	Compact to gyrations Compact to target height
Mold Sizes	3.94 in (100 mm), 5.91 in (150 mm)
US Standards	AASHTO T 312, ASTM D6925
International Standards	EN 12697-31
Mechanical Specifications	
Length	28 in (71.12 cm)
Width	26.5 in (67.31 cm)
Height	64 in (162.56 cm)
Weight	500 lb (226.8 kg)
Portability	Four EZ Roll industrial casters
Data Acquisition and Output	
Data Acquisition	Gyration number, specimen height, angle of gyration
Data Output	GyroPave™ software (Microsoft® Windows® compatible), RS-232 serial port, USB flash drive, USB printer
Internal Storage	Results from twenty tests in memory
Electrical Specifications	
Power Requirements	115/230 VAC (\pm 10%) 15 A 60 Hz



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C5850v2121618

Troxler Dual WheelTracker

(Standard or Premium)



***The Most Widely Used Hamburg
Wheel-Track Tester in the World***

Features	Benefits
Balluff Linear Variable Differential Transformer (LVDT) Transducer	<ul style="list-style-type: none">• Supplies robust and accurate rut depth measurements• Works with the index plate to generate root-mean-square error (RMSE) values significantly below AASHTO standards for rut depth measurements
Index Plate	<ul style="list-style-type: none">• Provides laser accuracy for location of rut depth measurements• Works with the Balluff LVDT transducer to generate RMSE values significantly below AASHTO standards for rut depth measurement
Variable-Speed Motor and Slider-Crank Mechanism	<ul style="list-style-type: none">• Generates RMSE values significantly below AASHTO standards for sinusoidal motion• Lasts longer than a Scotch yoke mechanism
Temperature Control from 77°F to 158°F (25°C to 70°C)	Allows testing at a variety of temperatures
TroxLift™	<ul style="list-style-type: none">• Is easy to use• Provides a compact lifting method
TroxSafe™	<ul style="list-style-type: none">• Stops the machine quickly to prevent injury• Rapidly resets and allows testing to continue

Dual WheelTracker

Additional Features

- The machine's stainless steel construction is durable and noncorrosive.
- Its double heating units warm up quickly (saving time) and successfully maintain the test's temperature.
- The laptop computer is easy to use for data retrieval.
- The unit operates quietly and doesn't add excess noise to high-stress working environments.
- The easy-access tank and trays allow for trouble-free cleaning.

Measurement Information		
US Standards	AASHTO T324 (current and proposed)	
Rut Depth Measurement	0 to 1.57 in (0 to 40 mm)	
Water Temperature	59°F to 158°F (15°C to 70°C)	
Wheel Dimensions (D x W)	7.99 x 1.85 in (203 x 47 mm)	
Wheel Weight	158.5 lb (71.89 kg) ±1	
Wheel Speed	36 to 60 passes per minute (PPM)	
Measurement Location	Eleven equally spaced positions over 9 in (228.6 mm)	
Measurement Frequency	<4,000 passes = every 20 passes ≥4,000 passes = every 50 passes	
Real-Time Display	Temperature, maximum rut depth, speed, test duration, rut profile	
Data Output	<ul style="list-style-type: none"> • Rut depth profiles at eleven positions • Maximum rut depth (single location or average of center five positions) • Stripping inflection point (SIP) creep slope • Stripping slope • Temperature • Customizable test reports • Failure depths • Number of passes at failure 	
Model Options		
	Standard	Premium
Dimensions (L x W x H)	57 x 45.25 x 40.5 in (144.78 x 114.94 x 102.87 cm)	64 x 54 x 56.5 in (162.56 x 137.16 x 143.51 cm)
Weight	1,450 lb (657.71 kg)	1,500 lb (680.39 kg)
Motor	1 hp	2 hp
Electrical	Single-phase	Three-phase
Operational Requirements		
Water	Must comply with US Environmental Protection Agency (EPA) drinking water standards	
Drain	≤14 in (355.6 mm) from floor	
Air	90 to 120 psi	
Electrical	208/230 VAC 50 to 60 Hz	



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CWHEELTRACKER121618

Troxler NCAT NTO

Advanced Asphalt Ignition Oven Models 4730 and 4731



Advanced Asphalt Ignition Oven for Determining Asphalt Content

Introducing Troxler's patented infrared-based advanced NCAT oven for determining asphalt content in hot-mix asphalt

ASTM and AASHTO Compliant

The NCAT NTO Models 4730 and 4731 fully meet and comply with ASTM D6307 and AASHTO T-308 standards and are accepted by State DOTs.

Integrated Weighing System

The NCAT NTO features an integrated weighing system that continuously measures the bituminous weight loss during combustion and automatically displays the percent of asphalt in the mix. The remaining aggregate can be sieved for gradation analysis.

Simple Procedures

The NCAT NTO is simple to use. Just follow these steps: 1. Heat the asphalt sample to be used, 2. Weigh the sample, 3. Spread the asphalt across two sample baskets, 4. Place the baskets into the heated NTO chamber, 5. Enter the sample mass, 6. Close the door and press START to begin the test. The built-in scale continuously weighs the sample so the NTO can report mass loss and %loss.

Special Burn Profiles

The NCAT NTO has the ability to control the burn sequence during every minute of a burn cycle. By testing a broad cross section of asphalt mixes, Troxler has developed a series of burn profiles which allow the operator to fine-tune each burn based on aggregate types of mixtures.

No Temperature Correction Factors Needed

The NCAT NTO uses a proprietary design that eliminates the need for a temperature correction factor.

Additional Features

- Low Emissions without the necessity of an afterburner or filters
- Infrared technology provides a more efficient and complete mixture burns
- Portable: weighing only 63.5 kg (140 pounds) with a small foot print, ideal for on-site labs
- Upgradeable software provides you with a future proof solution
- Easy to clean
- No solvents necessary
- Lowest power consumption in the industry
- Delivered fully assembled

TECHNICAL SPECIFICATIONS		
Maximum Sample Size	2500 g per sample pan (5000 g total)	
Integrated Scale Resolution	0.1 g	
Burn Time for 1200 g	120 VAC unit (Model 4730): Approximately 25 minutes 240 VAC unit (Model 4731): Approximately 20 minutes	
Internal Memory Capacity	Sample Data: 300 Samples Project IDs: 20 Aggregate Correction Factors: 20	
Standards	ASTM D6307, AASHTO T308	
MECHANICAL SPECIFICATIONS		
Outside Dimensions	66 W x 68.6 D x 54 H cm (26 W x 27 D x 21.7 H in.)	
Chamber dimensions	28 W x 43.2 D x 20.3 H cm (11 W x 17 D x 8 H in.)	
Sample Pan Dimensions (each)	20.3 W x 36.8 D x 5.0 H cm (8 W x 14.5 D x 2 H in.)	
Complete Pan Assembly	23.8 W x 39.4 D x 12.2 H cm (9.4 W x 15.5 D x 4.8 H in.)	
Weight	63.5 kg (140 lbs)	
ELECTRICAL SPECIFICATIONS		
	Model 4730	Model 4731
Power Source	120 VAC 50/60 Hz	208/240 VAC 50/60 Hz
Current	12 Amps	12/13 Amps
Peak Power Consumption	1400 W	2496/3120 W
OTHER		
RS-232 C Configuration	Data Terminal Equipment (DTE)	
Serial Data Format	8 data bits, 2 stop bits, no parity	
Baud Rate Range	600 to 9,600 baud	
Liquid Crystal Display	4 Line x 20 Character	
Keypad	25-Key Sealed Membrane	

Made in USA



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C47304731122717

Troxler ICO™ NCAT Oven

Asphalt Ignition Oven



***The Fastest Burns in the Industry
Complete, Clean Burns—Every Time***

Simple to Use

Just follow these five easy steps: (1) heat the asphalt sample, (2) weigh the sample and divide it across two sample baskets, (3) enter the sample mass, (4) place the baskets in the chamber, and (5) close the door and press a button to begin the test.

Efficient

Extremely fast warm-up (only twenty minutes) and recovery times ensure quick, complete burns. The typical burn time for a 1200 gram sample is twenty minutes or less (at 240 VAC).

Instant Results

An integrated weighing system continuously measures the bituminous loss during combustion, and the oven displays the percent of asphalt in the mix when the burn is complete. You can then sieve the remaining aggregate for gradation analysis.

ASTM and AASHTO Compliant

The oven uses the NCAT ignition method and fully meets and complies with ASTM D6307 and AASHTO T 308.

Superior Serviceability

Maintenance is simple and straightforward. Removable panels allow easy access to all components and assemblies.

*“ Troxler’s ICO NCAT Oven performs at a high level of quality,
and we are very satisfied with our investment. ”*

McClelland Consulting Engineers, Inc.

Troxler ICO™ NCAT Oven

Additional Features

- A small footprint makes the oven portable and ideal for on-site labs.
- The unit's sturdy construction includes an unbreakable steel hearth plate.
- You can use up to three nested sample baskets for high-mass samples.
- Low emissions eliminate the need for an afterburner or filters.
- No solvents are necessary.
- An internal printer provides printing capability.
- Upgradeable software ensures a future-proof solution.
- The oven is delivered fully assembled.

Technical Specifications	
Maximum Sample Size	2500 g per sample pan (5000 g total)
Integrated Scale Resolution	0.1 g
Burn Time for 1200 g	Approximately twenty minutes (at 240 VAC)
Internal Memory Capacity	Sample data: 200 samples Project IDs: twenty Aggregate correction factors: twenty
US Standards	ASTM D6307, AASHTO T 308
Mechanical Specifications	
Outside Dimensions (L x W x H)	24 x 31.5 x 35 in (60 x 80 x 89 cm)
Chamber Dimensions (L x W x H)	13 x 19.7 x 12 in (33 x 50 x 30.5 cm)
Sample Pan Dimensions (L x W x H)	8 x 14.5 x 2.5 in (20.3 x 36.8 x 6.3 cm)
Complete Pan Assembly Dimensions (L x W x H)	9.4 x 15.5 x 6.5 in (23.8 x 39.4 x 16.5 cm)
Weight	160 lb (72.7 kg)
Electrical Specifications	
Power Source	208/240 VAC 50 to 60 Hz
Current	26/30 A
Peak Power Consumption	5408/7200 W
Other	
RS-232 C Configuration	Data Terminal Equipment (DTE)
Serial Data Format	Eight data bits, two stop bits, no parity
Baud Rate Range	600 to 9,600 baud
Liquid Crystal Display	Four lines, twenty characters per line
Keypad	Twenty-five-key sealed membrane

Made in USA



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CIC0122717

Troxler Model 3241-D

Nuclear Asphalt Content Gauge



Measures Asphalt Content Without Toxic Chemicals

Measures Asphalt Content without Toxic Chemicals or High Temperature Burns

The Microlab provides the asphalt content measurement without the hazard and expense of the toxic chemicals employed in the solvent extraction method. This method is also beneficial when analysing material that may be lost in a high temperature burn oven.

Simplifies Reporting of Results

The Microlab downloads test data directly to a printer or computer, simplifying the reporting of results.

Reduces Calibration Time for Field Sites

Calibration transfer from a centrally located 3241 gauge greatly reduces calibration time for field sites.

Compatible with the Optional Universal Sample System

Compatibility with the optional Universal Sample System, provides the added convenience of measuring either the commonly used 100 mm (4 inch) or 150 mm (6 inch) laboratory compacted samples.

Meets or Exceeds ASTM Standard Test Method D-4125

Troxler's asphalt content measurement equipment is used as the standard test method by more than 25 states and federal transportation agencies. Hundreds of highway construction contractors and testing authorities use the 3241-D for quality control and acceptance testing.

Troxler Model 3241-D

Additional Features

- *Automatic Shutdown* after five hours of non-use.
- *Statistical Stability Test* validates normal gauge operation.
- *Drift Test* determines long-term drift of the gauge readings
- *Samples Routine* prompts and helps operators in preparing 7000g samples
- *Automatic Sample Temperature Compensation* automatically adjusts gauge to varying sample temperatures
- *Automatic Data Storage Option* automatically stores gauge readings by identification number after count is completed
- *Automatic Data Printing Option* automatically configures gauge to print readings after count is completed
- Supplied with four stainless steel pans and hardshell case for transport

Precision					
Precision at 6% asphalt					
	Sample	1 min.	4 min.	8 min.	16 min.
	7000 grams (3241-C)	±0.084%	±0.042%	±0.029%	±0.021%
	7000 grams (3241-D)	±0.22%	±0.11%	±0.08%	±0.05%
Operator can select desired precision Range of control mix is 0 to 14% asphalt. Meets or exceeds the requirements of ASTM-D-4125					
Electrical					
Power Source			110/220 VAC, 50/60 Hz, 12V vehicle battery or Alkaline Batteries (Dcell)		
Power Consumption			1 Watt (nominal)		
Data Storage and Transfer					
Test Data Storage			Up to 99 tests		
Calibration Storage			Up to 64 calibrations		
Interface			RS-232C for transfer to printer or computer		
Mechanical and Environmental					
Gauge			Control Unit		
Length	14.25" (36.2 cm)		Length	8.62" (21.9 cm)	
Width	11.00" (27.9 cm)		Width	11.00" (27.9 cm)	
Height	10.50" (26.7 cm)		Height	3.60" (9.2 cm)	
Weight	30.0 lbs. (13.62 kg)		Weight	2.75 lbs. (1.25 kg)	
Operational Temperature Range			0 to 140 °F (-18 to 60 °C)		
Sample Temperature Range			0 to 350 °F (-18 to 177 °C)		
Radiological					
Neutron Source (3241-C)			100 mCi ±10mCi (3.7 ± 0.37 GBq) Am-241:Be		
Neutron Source (3241-D)			80 mCi ±8mCi (3.0 ± 0.3 GBq) Am-241:Be (contains two 40 mCi (1.48 GBq) sealed sources)		
Source Form			Encapsulation in stainless steel, Special form		
Shielding			Polyethylene and Cadmium		



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C3241D122717

Troxler Model 3242

Additional Features

- *Automatic Shutdown* after five hours of non-use.
- *Statistical Stability Test* validates normal gauge operation.
- *Drift Test* determines long-term drift of the gauge readings
- *Samples Routine* prompts and helps operators in preparing 7000g samples
- *Automatic Sample Temperature Compensation* automatically adjusts gauge to varying sample temperatures
- *Automatic Data Storage Option* automatically stores gauge readings by identification number after count is completed
- *Automatic Data Printing Option* automatically configures gauge to print readings after count is completed
- Supplied with four stainless steel pans and hardshell case for transport

Precision

Precision at 6% asphalt					
	Sample	1 min.	4 min.	8 min.	16 min.
	7000 grams	±0.084%	±0.042%	±0.029%	±0.021%
	4" compacted	±0.36%	±0.18%	±0.13%	±0.09%
	6" compacted	±0.28%	±0.14%	±0.10%	±0.07%

Operator can select desired precision
Range of control mix is 0 to 14% asphalt.
Meets or exceeds the requirements of ASTM-D-4125

Electrical

Power Source	110/220 VAC, 50/60 Hz, 12V vehicle battery
Power Consumption	1 Watt (nominal)

Data Storage and Transfer

Baud Rate Range	300 - 2400 baud
Test Data Storage	Up to 99 tests
Calibration Storage	Up to 64 calibrations
Interface	RS-232C for transfer to printer or computer

Mechanical and Environmental

Gauge		Control Unit	
Length	14.25" (36.2 cm)	Length	8.62" (21.9 cm)
Width	11.00" (27.9 cm)	Width	11.00" (27.9 cm)
Height	10.50" (26.7 cm)	Height	3.60" (9.2 cm)
Weight	30.0 lbs. (13.62 kg)	Weight	2.75 lbs. (1.25 kg)
Operational Temperature Range		0 to 140 °F (-18 to 60 °C)	
Sample Temperature Range		0 to 350 °F (-18 to 177 °C)	

Radiological

Neutron Source	100 µCi ±10% Cf-252
Source Form	Encapsulation in stainless steel, Special form
Shielding	Polyethylene and Cadmium
Shipping Case:	DOT 7A, Type A



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C3242122717

Troxler ADU Model 5151

Automatic Drying Unit



Rapid Drying of Compacted Asphalt Cores

- **Saves hours of drying time** — dries core samples in as little as 10 minutes
- **Small footprint** — small and lightweight design requires less table space
- **Simple one button operation** — just place the sample into the chamber, press the button and wait for the beep

Essential for the Busy Lab

The ADU is ideal for drying compacted asphalt road cores that come from the jobsite wet and must be quickly analyzed for density. When many cores need to be dried quickly, the ADU is a lifesaver.

No More Waiting

The ADU takes the place of slowly drying the core samples by placing them in front of a fan or in a low temperature drying oven. Both of these methods require waiting several hours while weighing intermittently until the weight loss stabilizes, indicating a dry sample. The typical drying time using the ADU is between 10 and 20 minutes, saving you hours of waiting. The core density can easily be determined within 30 minutes of arriving in the laboratory.

User Friendly Interface

The ADU is user friendly with an easy to read large display and an audible alert that indicates when sample drying is finished. The menu driven operation provides clear concise instructions from device setup to sample drying.

Meets Industry Standards

The Model 5151 complies with ASTM standard D7227 and AASHTO PP75.

Troxler ADU Model 5151

Additional Features

- *Cold Moisture Trap* - collects moisture to prevent damage to the pump.
- *Data Storage and Output* - automatically stores 20 data records and 4 calibration records.
- *Regulates Chamber/Sample Temperature* - prevents degrading of sample due to low or high drying temperature
- *Large Sample Chamber* - accommodates large samples up to 150 mm diameter and 8.5" height
- *Aggregate and Loose Asphalt Drying* - with provided sample holder, loose samples can be dried quickly
- *Service Alerts* - automatically notifies when routine maintenance is required
- *Takes Up Less Lab Space* - pump can be placed on a shelf or in a cabinet, out of the way

SPECIFICATIONS

Size (WxDxH)	25" W x 10" D x 12" H (63.5 x 25.4 x 30.5 cm)
Weight	23 lbs (10.4 kg)
Shipping Weight	ADU - 50 lbs (22.7 kg) Pump - 35 lbs (15.9 kg)
Shipping Dimensions	ADU - 30" W x 20" D x 20" H (76.2 x 50.5 x 50.8 cm) Pump - 22" W x 16" D x 16" D (55.9 x 40.6 x 40.6 cm)
Operating Temperature	2° to 38° C (55° to 101° F)
Storage Temperature	- 55° to 85° C (-67° to 185° F)
Measure Units	Pressure reported in RVQ
Drying Time	Moisture content dependant: 10 to 20 minutes average
Power Source	120 VAC
Calibration	Internal pressure calibration performed daily (minimum)
Serial Port	9 pin male RS232
Connector	8 bit, 1 stop bit, no parity

Made in USA



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Accessories

Troxler Brovold DAV II - HMS

Dynamic Angle Validator with Hot Mixed Simulator



Measure the angle with or without hot mixed asphalt on any brand gyratory compactor

A Critical Factor with Superpave Gyratory Compactors is the Angle of Gyration

A critical factor with the Superpave Gyratory Compactors is the angle of gyration during the compaction cycle. The DAV II - HMS is making the process of checking and adjusting the angle much easier and more reliable.

Works With or Without Mix

The DAV II - HMS can work without mix using the Hot Mixed Simulator (HMS), simulating mix properties. The HMS replaces hot mixed asphalt to simulate the forces applied directly inside the compaction mold. An asphalt mix has a shear factor that is different for the type and size of aggregate being used. The HMS measured angle needs to be compared to the angle measured with the actual hot mixed asphalt that will be produced to ensure the compactor is set with the appropriate angle of gyration.

The DAV II is the only internal-angle-measuring device that gives you the option of measuring angle with or without hot mixed asphalt.

Years of Service Life

A single replaceable battery, powers the DAV II combined with circuitry and mechanical parts designed for the elevated temperatures encountered with hot mixed asphalt provides the user with years of service life. The DAV II - HMS can be used in either a cold gyratory mold or, better yet, in a hot mold. Since you do not use a cold mold when you compact specimens, go ahead and use a hot mold, the DAV II can take it.

Troxler Brovold DAV II - HMS

Additional Features

- Works in any brand of gyratory compactor
- Measures the angle with or without hot mixed asphalt
- Lightweight and compact
- Calibrates at 115mm, same as your gyro specimen heights - no data extrapolation required
- Takes less than 30 minutes to measure the internal-mold angle
- No disassembly required to change eccentricity plates
- Stores measurement data as a permanent record
- Extended data collection time in the DAV II memory
- DAV II - HMS package includes a NIST traceable verification device

Standard Equipment

- 150 mm sample end plate
- Magnet (35 lb capability)
- 18°, 21°, and 24° cone plates
- 3.6 VDC high temperature battery with connector
- 6 foot serial cable
- Carrying case
- Calibration block with certified gauge blocks (0.020" and 0.031")

Electrical		
Power Requirements		
Power Source	3.6 VDC battery	
Serial Port		
Connector	9-pin male RS-232	
Baud rate	57,600	
Cable Type	Custom RS-232	
Mechanical		
Shipping dimensions	43.2 W x 35.6 D x 17.8 H cm (17 W x 14 D x 7 H inches)	
Weight with 3 Cone Plates	12 kg (26 lb)	
Shipping weight with 3 Cone Plates and Calibration Device	19 kg (42 lb)	
Environmental		
Operating Temperature	Safe in 149° C (300° F) mold for 60 minutes	
DAV II Internal Operating Temperature	80° C (176° F)	



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TROX^ALER_T

Radiation Survey Meter



An Inexpensive way to Fulfill Survey Requirements

Fulfill Survey Requirements for ALARA Program

The TroxAlert Radiation Survey Meter serves as an inexpensive way to fulfill survey requirements for an ALARA (As Low As Reasonably Achievable) program. TroxAlert provides the basic tool to survey both storage areas and work sites to ensure your employees have a safe working environment.

Detects Alpha, Beta, Gamma, and X-ray radiation

TroxAlert detects alpha, beta, gamma, and X-ray radiation with a calibration based on the gamma emissions from a Cesium-137 source, traceable to NIST. Neutron sources can also be located with the TroxAlert by detecting the photon radiation given off from these sources. The TroxAlert meets guidelines established by the US Nuclear Regulatory Commission.

Features

Display Ranges: 0-1 mrem/hr 0-10 μ Sv/hr 0-10 mrem/hr 0-100 μ Sv/hr 0-100 mrem/hr 0-1000 μ Sv/hr

Calibration Services All survey meters should be calibrated at least annually. Troxler provides calibration services for the TroxAlert Radiation Survey Meter.

The TroxAlert is powered by a 9-volt battery and is furnished with a padded case and NIST traceable calibration certificate.

Measurement Specifications	
Detector	Geiger-Mueller tube, halogen quenched
Window Thickness	1.5 to 2.0 mg/cm ²
Detectable Radiation	Alpha, beta, gamma, and x-ray
Display Range	0 - 1 mrem/hr (0 - 10 μ Sv/hr) 0 - 10 mrem/hr (0 - 100 μ Sv/hr) 0 - 100 mrem/hr (0 - 1000 μ Sv/hr)
Accuracy	\pm 20% of indicated reading, CS-137 gamma
Calibration	Two points per range using CS-137 gamma source traceable to the U.S. National Institute of Standards and Technology (NIST), Washington, DC.
Electrical Specifications	
Power Requirements	9V alkaline battery (NEDA 1604A; included)
Battery Life	Up to 2000 hours (normal operational conditions)
Mechanical Specifications	
Case Size	5.75 L x 3.25 W x 1.5 D inches (14.6 L x 8.26 W x 3.8 D cm)
Weight	7.68 oz. (0.22 kg) with battery 6.08 oz. (0.17 kg) without battery
Environmental	
Temperature Range	68° to 122° F (-20° to 50° C)
Humidity	20 - 95% (non-condensing)



Information provided herein is based on test data believed to be reliable. In as much as Troxler Electronic Laboratories, Inc. has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, Troxler does not make any express or implied warranty of merchantability or fitness for a particular purpose other than that for which the equipment is originally intended.

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1-919-549-8661 (International)
www.troxlerlabs.com

CTROXALERT122717

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How can we help you?

**Call us at 1-877-TROXLER or
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