About the Troxler Automatic Drying Unit
The Automatic Drying Unit provides a rapid drying method for compacted asphalt road cores that come from the jobsite wet and must be quickly analyzed for density. This equipment is ideal for quick analysis of road cores to acquire same-day data for correlation purposes or to know if the asphalt placed that day meets specifications. The Automatic Drying Unit (ADU) complies with ASTM standard D-7227 and AASHTO standard PP75.

Save Hours of Drying Time
The Automatic Drying Unit takes the place of slowly drying the core samples by placing them in front of a fan or in a low temperature drying oven for several hours while weighing intermittently until the weight loss stabilizes, indicating a dry sample. The typical drying time is between 15 and 20 minutes, saving you hours of waiting. The core density can easily be determined within 30 minutes of arriving in the laboratory!

One Button Operation
The Automatic Drying Unit is simple to use and self driven. Simply place the sample into the chamber, press the Start button, and wait for the beep to indicate that the sample is finished. The chamber is large enough to fit a 150 mm-diameter sample that is up to 8” tall (for one sample) or 8 1/2” tall (for multiple samples placed together).

Once the Start button is pressed, the vacuum pump draws the air out of the sample chamber. After the air is evacuated, the water is then drawn out of the sample. The attached heating mechanism keeps the sample close to room temperature. The ADU can also be used to dry loose aggregate or asphalt mix. This process is very similar to drying a compacted core sample, but the loose sample is first placed inside the aggregate bag provided with the unit.

Winner of the 2003 IRF Global Road Achievement Award
Technology, Equipment & Manufacturing Category
Summary
Troxler Electronic Laboratories introduces the Automatic Drying Unit to help make the laboratory technician’s job simpler and to allow them to be more productive in their daily duties. The asphalt core samples brought in to the lab from the jobsite can be dried and analyzed for density in as little as 30 minutes. Additionally, aggregate samples can be dried in this unit speeding up yet another test procedure that once took the technician hours to complete. The days of waiting overnight for a sample to be dried are over. The Automatic Drying Unit is a necessity for today’s busy asphalt lab.

Specifications

- **Size (WxDxH)**: 25” W x 10” D x 12” H (63.5 x 25.4 x 30.5 cm)
- **Shipping Dimensions**: 20” W x 20” D x 30” H (50.8 x 50.8 x 76.2 cm)
- **Weight**: 23 lbs (10.4 kg)
- **Shipping Weight**: 50 lbs (22.7 kg)
- **Storage Temperature**: -55 to 85 C (-67 to 185 F)
- **Operating temperature**: 12 to 38 C (55 to 101 F)
- **Measure Units**: Pressure reported in RVQ
- **Drying time**: Moisture content dependant; 10 - 20 minutes average
- **Power**: 120 VAC
- **Calibration**: Internal pressure calibration performed daily (minimum)
- **Serial Port**: 9-pin male RS232
- **Connector**: 8 data bit, 1 stop bit, no parity
- **Baud Rate**: 9600