Pavement Technology Inc. (PTI) was established in 1996 by Dr. Don Brock-Former CEO of ASTEC Industries and Ronald Collins-Former State Materials and Research Engineer with Georgia DOT.

PTI is a manufacturer of Innovative Asphalt and Aggregate Sampling and Testing Equipment for the Hot-Mix Asphalt and Aggregate Industries and is located in Covington, Georgia approximately 35 miles southeast of Atlanta, Georgia.

PTI's long-standing commitment is to provide superior customer service and high quality practical durable products that will serve our customers needs and enhance their business.

This brochure highlights the major components of PTI's full product line. For more information, visit PTI online at www.pavementtechnology.com.

Core Values of PTI

- Respect & Integrity for our Internal & External Customer
- Commitment to Innovation and Excellence
- Reliable, Dependable & Service Oriented
- Honesty & Loyalty in all aspects of Business

PTI Manufacturing Facility, Covington, GA

Located in Covington, Georgia. PTI has an 18,000 square foot building which sits on 6 acres. The engineering department at PTI focuses on creating innovative products to meet customers needs. The manufacturing department manufacturers products that are durable and incorporate a high level of quality.
Asphalt Pavement Analyzer (APA)

The APA is a three wheel multi-functional Loaded Wheel Tester (LWT) used for evaluating permanent deformation (rutting), fatigue cracking and moisture susceptibility of both hot mix and cold mix. The APA meets the provisions of the APA Rut Test, AASHTO-340-10 and Hamburg Test AASHTO–324-14. The APA can test mixes at multiple speeds and multiple rates of loading and has a "High Pressure Feature" that allows a user to perform rut testing at high contact pressures for mixes that are used on airport runways/taxiways. The APA can also be equipped with a Cold Plate that will allow a user to perform Low Temperature Fatigue Testing on Beam Specimens and Low Temperature Studded Wheel Testing on Cylindrical Specimens. The APA can also be equipped to Perform Microsurfacing/Slurry Seal Testing. Solid rubber wheels and pneumatic wheels can also be used with the APA. The APA is operated utilizing a PLC PC Based Control System. The operating system allows a user to perform all calibrations and functions directly with a Laptop Computer.

APA Rut Testing (Beam/Cylindrical Samples)

APA Fatigue Testing (Beam Samples)
Asphalt Pavement Analyzer (APA JR)

APA Jr. is a two wheel multi-functional Loaded Wheel Tester (LWT) used for evaluating permanent deformation (rutting), fatigue cracking and moisture susceptibility of both hot mix and cold mix. The APA Jr. meets the provisions of the APA Jr. Rut Test, AASHTO-340-10 and Hamburg Test AASHTO–324-14. The APA Jr. can test mixes at multiple speeds and multiple rates of loading and has a "High Pressure Feature" that allows a user to perform rut testing at high contact pressures for mixes that are used on airport runways/taxiways. The APA Jr. can also be equipped with a Chiller that will allow a user to perform Low Temperature Fatigue Testing on Beam Specimens and Low Temperature Studded Wheel Testing on Cylindrical Specimens. The APA Jr. can also be equipped to Perform Microsurfacing/Slurry Seal Testing. Solid rubber wheels and pneumatic wheels can also be used with the APA Jr. The APA Jr. is operated utilizing a PLC PC Based Control System. The operating system allows a user to perform all calibrations and functions directly with a Laptop Computer.

APA Jr. Hamburg Testing

APA Jr. with Low Temperature Chiller
Warm Mix Asphalt Laboratory Foaming System

The Warm Mix Asphalt Laboratory Foaming System will allow a user to run foam mix asphalt mixes in their lab and is basically a laboratory version of ASTEC DOUBLE BARREL GREEN SYSTEM. The control system allows a user to preset temperatures, flow rates (water and asphalt), air pressures, etc. The foaming unit can be used in tandem with the Single or Double Pugmill Mixer. The foaming unit has a hi-temp plastic bag that can be discarded at the end of a foaming cycle. The Foamer height is adjustable and can be set to deposit the Foamed Asphalt Directly into a Mixer. In addition to Warm Mix the Foaming System can also be used for Cold Mix applications and as an Asphalt Dispenser.

Asphalt Vibratory Compactor (AVC)

The AVC is designed to compact hot mix asphalt into cylindrical and beam test specimens. The AVC compacts asphalt at the same amplitude, same frequency, and same relative weight that is experienced with a vibratory roller on the roadway. The AVC controls allow a user to compact specimens at multiple frequencies, amplitudes, and downward pressures. The Beam specimens are used for fatigue testing in the APA/APA Jr. The AVC is also capable of compacting beam specimens for the 4-point bending beam fatigue test.
Asphalt Vibratory Compactor (AVC) Enclosure

The AVC Enclosure is utilized to house the AVC during the compaction process. It is designed to isolate the AVC from adjacent laboratory equipment. The enclosure has front and rear access doors along with observation windows.

Single Pugmill Mixer

The Single Pugmill Mixer combines aggregate and liquid asphalt together utilizing stainless steel augers in a heated chamber. The Mixer replicates in the lab how hot mix asphalt is manufactured at asphalt plants. The chamber is capable of mixing up to 45lbs. Total coating of all aggregates is achieved in approximately 1 minute. The chamber has a pneumatic gate (located at the bottom of the chamber) that allows a user to discharge finished mix into a receiver pan. A frequency drive allows a user to mix at multiple speeds. The Pugmill Mixer can be used for mixing soils. The Pugmill Mixer also has an onboard Amp Meter.
**Double Pugmill Mixer**

The Double Pugmill Mixer combines aggregate and liquid asphalt together utilizing stainless steel augers in two heated chambers. The Mixer replicates in the lab how hot mix asphalt is manufactured at asphalt plants. Each chamber is capable of mixing up to 45lbs. Total coating of all aggregates is achieved in approximately 1 minute. Each chamber has a pneumatic gate (located at the bottom of the chamber) that allows a user to discharge finished mix into a receiver pan. A frequency drive allows a user to mix at multiple speeds. The Double Pugmill Mixer can be used for mixing soils. The Pugmill mixer also has an onboard Amp Meter.

**Automatic Belt Sampler (ABS)**

The ABS is utilized to safely sweep an accurate and representative sample of aggregate off a moving conveyor belt. The ABS deposits the sample into a container or gradation unit in approximately one second. The ABS is an improvement on traditional "stopped-belt" method of sampling, which involves the stopping of a loaded conveyor belt and removing a full cross-sectional sample from the flow. The ABS is available for 24” to 72” wide belts. The ABS utilizes a cutter bucket to sweep samples off the moving conveyor belt. Bucket sizes can be altered to obtain desired sample size.
Laboratory Automatic Gradation Unit (Lab AGU)

The Laboratory Automatic Gradation Unit (AGU) is a particle size analyzer that conducts a complete sieve analysis automatically and transmits the accumulated data to a computer, where the data is saved in an Excel spreadsheet for further manipulation and analysis. The AGU has an Automated Loading System that allows a user to stage up to 7 five-gallon buckets (40-45lbs.) for gradation analysis or material separation. The AGU also has a carousel (mounted below the weigh hopper) that is used as a material separator. The carousel can accommodate 8 five-gallon buckets that rotate underneath the discharge hopper. The AGU allows a user to automate the entire sieve analysis and material separation process and incorporate electronic data transfer.

Field Gradation Unit (AGU)

The Field AGU is used to automatically run gradations at aggregate or asphalt plants. The Field AGU receives a sample from the Automatic Belt Sampler (ABS), shakes the sample, grades the sample, and provides a user with a gradation report (Percent Passing, Percent Cumulative, Percent Retained, and Weights of all Sieves). Users can analyze gradation data to make changes to the close side setting of their crusher and produce their aggregates closer to specification. A Sample can be shaken and a report generated in approximately 10 minutes.
Remote Truck Sampling Device (RTSD)

The Remote Truck Sampling Device (RTSD) safely captures a representative, repeatable, non-segregated sample of asphalt from a haul vehicle and deposits the sample into a specimen container. The RTSD incorporates a “Telescopic Probe” which captures the sample inside the hump of Hot Mix Asphalt. The probe can traverse forwards and backwards and up and down. The angle of the probe can also be changed. The probe has (2) 1100-watt cartridge heaters which heat the probe and maintain the preset temperature of the probe while capturing a sample. The probe also utilizes a “Stainless Steel” gate that opens and closes inside the hump of mix. The RTSD can extract a sample from a fully loaded truck as well as a partially loaded truck. An elevator (mounted to the steel upright) is used to transport the sample from the probe head to ground height. Typical sample size is 50 to 60 lbs and can be captured in approximately 1 minute. A sample splitter can also be mounted on the elevator.

Mobile Testing Laboratories

The Mobile Labs can be used for Superpave Design and QC/QA Testing, Soils testing, and Concrete testing. The Labs are available in 3 basic sizes 65' x 10', 50' x 10', and 35' x 10'. Additional sizes are available upon request. The labs are constructed with large structural members and solid steel floors. The labs are designed to last 25-30 years. The labs include wood cabinets with stainless steel tops, an HVAC Unit, a 200-AMP load center, and all needed receptacles for testing equipment. The lab can be equipped, delivered, setup and ready to go.
**Skid Mounted Testing Laboratories**

The Skid Mounted Labs are typically mounted on concrete pads or concrete block foundations. Skid Mounted Labs can be used for Superpave Design and QC/QA Testing, Soils testing, and Concrete testing. The labs are available in 3 basic sizes 65' x 10', 50' x 10', and 35' x 10'. Additional sizes are available upon request. The labs are constructed with large structural members and solid steel floors. The labs are designed to last 25-30 years. The labs include wood cabinets with stainless steel tops, an HVAC Unit, a 200-AMP load center, and all needed receptacles for testing equipment. The lab can be equipped, delivered, setup and ready to go.

**Automatic Quality Control for Asphalt Plants**

The Automatic Quality Control System for Asphalt Plants utilizes the Remote Truck Sampling Device (RTSD) to safely capture a representative sample from a haul vehicle. The sample is deposited into a Field Ignition Oven (FIO) where the sample is weighed, burned, and re-weighed. A test report produces the asphalt content of the sample. The burned sample is deposited into the Field Gradation Unit which perform a complete sieve analysis of the sample. All test data is displayed on an excel spread sheet and sent to the Asphalt Plant Control House.
Real-Time Quality Control for Asphalt Plants

The Real-Time Quality Control System for Asphalt Plants utilizes Automatic Belt Sampler (ABS) which sweeps a representative sample off a moving conveyor belt and deposits it into a Drying Oven. The drying oven receives the sample, weighs the sample, dries the sample, and reweighs the sample. A test report is produced which shows the moisture content of the sample. The dried sample is then deposited into the Field Gradation Unit which performs a complete sieve analysis of the sample. All test data is displayed on an excel spread sheet and sent to the Asphalt Plant Control House.

Customer Base World Wide

Information

Departments of Transportation
Ministries of Transportation
Civil Engineering Research Universities
City & County Municipalities
Hot Mix Asphalt Contractors
Private Construction Materials Testing Laboratories
Federal Highway Administrations
Federal Aviation Administrations
Aggregate Contractors
The primary focus of Pavement Technology (PTI) is developing products that provide solutions to meet customers’ needs.

Predicting pavement performance represents a new and innovative addition to conventional and superpave hot mix design protocols. PTI and its employees are dedicated to the pursuit of excellence in customer service, quality, and satisfaction.

PTI’s commitment is to continue providing innovative testing equipment and technical expertise to the hot mix industry. By improving testing equipment and test procedures, PTI believes the quality of asphalt pavements will continue to improve in the United States and around the World.

LET US MAKE YOUR WORK A LITTLE SMOOTHER

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