mmGPS Paving - Only from Topcon!

The next generation of asphalt paver control – and Paver System Five and Smoothtrac® are fully upgradeable. mmGPS - from the innovators in asphalt paver automation!...

Imagine controlling your paver right from digital site plans. As you pave you’re producing exact thickness at exact slope automatically. No following stringlines, curbs, or other surface references.

At the heart of Millimeter GPS™ is Topcon’s Lazer Zone™ technology. This revolutionary technology brings together the simplicity of a rotating laser, the accuracy of a robotic total station, and the flexibility and multiple uses capabilities of GPS into one complete solution. Topcon combines this revolutionary new technology with the PZS-MC receiver and Topcon’s 9168 Control Box and slope sensor to create a system that’s changing the face of paver automation.

Here’s how it works:

PZL-1

Positioning Zone Laser transmitter operates similar to a standard rotating laser, but transmits a unique Lazer Zone™ signal to provide a working range of 2000ft! Instead of a traditional flat plane, the PZL-1 provides an incredible measuring area of 538m in height. You can even link up to four laser transmitters on large sites to cover a distance of nearly 8000ft with elevation changes of over 130ft! No more taking time out to reposition your laser! With the PZL-1, multiple machines can use the same transmitter, even at different elevations for continuous production!

PZS-MC

The Positioning Zone Sensor – Machine Control mounts to your paver in the same manner as traditional laser receivers. Unlike traditional laser receivers, the PZS-MC knows its exact position within the 33ft vertical working range of the PZL-1 at every moment. With its integrated GPS antenna, the PZS-MC system continuously and accurately provides elevation and horizontal position information to the Control Box containing the digital site plan.

Knowing where the paver is located within the digital site plan, and knowing the grade required at that exact position, the control box sends correction signals to the screed to precisely maintain mat thickness and slope for that position on the site. And mmGPS is fast, continuously updating position and grade information so you work as fast as you want.

Ask your local Topcon Dealer for more information on mmGPS.

Topcon offers a full range of Machine Automation systems, Construction Lasers, Survey Optical Instruments, and GPS Instruments for all of your positioning needs. Contact your local Topcon Dealer for more information.

Topcon. It’s time.

www.topconpositioning
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Paver System Five
Topcon’s System Five is the industries premier grade automation for asphalt pavers. No more cranking, System Five takes care of it automatically.

Paver System Five is easy to configure to best fit each job, chosen from sonic elevation control and slope control for roads, or laser and slope for airport runways and parking lots. Or use dual sonic-trackers or laser sensors to match an existing surface in road maintenance or widening applications.

Installation is fast. Brackets for two Control Boxes, a slope-sensor plate, and Sonic Tracker Laser have been mounting brackets are all that is required, and interfacing to the paver is as simple as connecting a cable to a manufacturer provided interface.

Smoothtrac® Sonic Averaging System
Get the best of both worlds... the superior resolution of averaging ski, the flexibility of sonics.

Smoothtrac utilizes four Sonic Tracker II® non-contacting sensors working in unison to provide superior averaging results while eliminating the cleaning and repair inherent in traditional skis. And unlike traditional contact skis that can only average based on their mechanical contact with the ground, Smoothtrac adds additional electronic averaging for a super smooth ride. Plus with Smoothtrac, you can back up, turn around, even pave around curves without removing the ski. And when not in use it kids up and out of the way.

Simple, fast, and economical, that’s System Five, that’s Smoothtrac, and that’s Topcon. It’s time.

The World’s most advanced, easy-to-use operator interface, and durable, time-tested components. No wonder it’s the industry standard...

**System Five Control Box**
- Large, backlit grade LCD
- Bright, multi-color LEDs display continuous grade information
- Simple push button switches and grade knob operation
- Performance settings with secure access allows custom value response tailoring for optimum performance for your paver
- Upgradable Flash memory from a PC or laptop, in the office or in the field

**9130 Laser receiver**
- 360°感激 receiving
- Motorized transducer gets receiver on grade quickly and “locks on” to keep it there
- Bright grade indication LEDs display continuous grade information
- Compatible with all Topcon lasers and most other lasers

**Slope sensor**
- 100% slope capable
- Exclusive anti-vibration sonic technology
- Completely sealed internal electronics
- Easy to attach and position over reference
- Bright grade indication LEDs display continuous grade information

System Five consists of...
- 3 Sonic Trackers
- 1 System Five Control Box

Paver System Five/Smoothtrac®
Advanced Sonic Control for Asphalt Pavers

System Five with Smoothtrac® consists of...
- 1-Slope Sensor
- 1 Sonic Tracker II
- 4 Sonic Averaging Ski
- System Five Control Boxes

Topcon’s Smoothtrac® sonic averaging system incorporates four Sonic Tracker IIs with a 24” aluminum ski to create superior averaging over traditional skis measuring 40’ or more. The Sonic Tracker II, working together, continuously measure the elevation over a surface, automatically averaging the high points against the low points and adjusting the screed to a mid-point.

Sound travels through warm air faster than cooler air, so a “bail” is used to create a distance “constant” so the Sonic Tracker II can adjust for temperature fluctuations common in the vicinity of a hot screed.

To go to work, simply place the Sonic Tracker II over your reference and pave. The Sonic Tracker II will maintain a consistent distance over a reference sending signals to the hydraulic valves creating a perfectly smooth mat based on your reference.

9130 Laser Receiver
The 9130 Laser Receiver locks on to the beam of your laser to maintain grade. Simply place the 9130 on the trackjack pole and center on the beam. When you begin paving, the 9130 will work with the paver hydraulic system to move the screed up or down to keep the beam “on grade” and delivering a smooth, consistent mat.

Versatility beyond any ski you’ve ever used...
For the first time, enjoy the advantages of a ski without sacrificing speed and maneuverability, in a tight spot! Remove Smoothtrac then re-attach, it only takes a few minutes. Or better yet, simply fold the Sonic Tracker II’s up and out of the way. You can even fold the front and rear Smoothtrac arms to reduce the length to 1/3 size. Then when you’re ready to pave again, simply unfold and go.

Smoothtrac performance: We’ve got proof!
Here’s a portion of a state certified longitudinal section profilograph. Though milling was recommended (shown in red), none took place.

Superior material control
Calculated exactly the amount of material you’ll need. Because of System Five’s consistency, calculate compaction and the number of lifts to reach final mat thickness to extreme accuracies.

Increase production rates
System Five’s accuracy and reliability means you can work at higher speeds, reduce starts and stops, and get the job done on time and within budget.

Superior compatibility
Paver System Five is compatible with all major models of asphalt pavers – no hydraulic or electrical modifications necessary.

Smoothtrac® Sonic Averaging System – the best of both world’s – superior averaging, maneuverability, and productivity - without the drag of a traditional ski

Topcon’s Smoothtrac® Sonic Averaging System: The 39 times per second. Upon striking a reference (stringline, curb, existing surface, etc) these sound pulses produce an echo that travels back to the Sonic Tracker II. By calculating the time it takes for the sound wave to leave and the echo to bounce back, the Sonic Tracker II calculates the distance to the object.

Cost is effective
Topcon’s Sonic Feeder Sensors feature an Feeder control that makes sense
Topcon’s Sonic Feeder Sensors feature an environmentally sealed body and field replaceable transducer. Two models to choose from, auto controlled for machines with auxiliar control interfaces and switch controlled for pavers without interface boxes.

Make the next time you replace a feeder sensor due to fouling the last time, switch to Topcon’s Sonic Feeders. Experience cost effective feeder control that makes sense.

Feeder control that makes sense