

Leica PavSmart 3D for Milling Machines



Precise Machine Control without stringlines

Increasingly, roads are being re-engineered to meet higher traffic speed and axle-load demands. Providing a precise, smooth, accurate foundation surface for new asphalt is crucial for the quality, rideability, service life and costs of the new road surface. High-precision milling is also highly desirable, to minimise the cost of laying new asphalt.

With Leica PavSmart 3D, the design height and cross slope are automatically controlled. Leica PavSmart 3D improves operational safety on the site and increases productivity, accuracy and efficiency.

Benefits of Leica PavSmart 3D

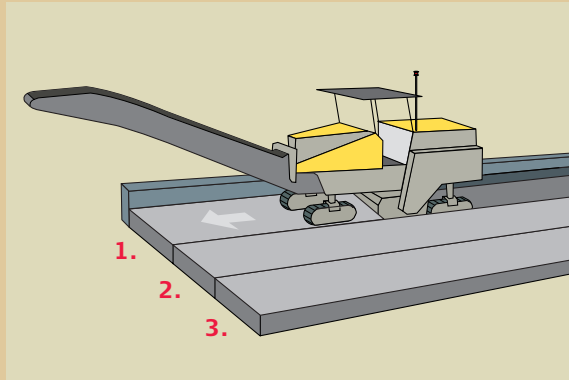
- With the machine under automatic elevation and slope control, the operator can concentrate fully on the production process
- Better operational safety and reliability result in greater paving speed and productivity
- Major cost savings – no installation and maintenance of stringlines required
- High-precision milling (up to ± 3 mm in height and ± 10 mm in position accuracy)
- Project data from almost any CAD system
- Continuous milling if multiple total stations are used
- The result of 10 years research, development knowledge and experience from the world's first provider of stringless concrete paving technology
- Compatible with Wirtgen, Dynapac, Bitelli, Marini, RoadTec, CAT®, Volvo and other brands of milling machines



- when it has to be **right**

Leica
Geosystems

Leica PavSmart 3D for Milling Machines



Sample Project

- | | | |
|----|-------------|---------------------------------|
| 1. | Left Side: | 3D Height |
| | Right Side: | 3D Slope (from 3D design model) |
| 2. | Left Side: | 3D Height |
| | Right Side: | Sideplate sensing off Lane 1 |
| 3. | Left Side: | 3D Height |
| | Right Side: | Sideplate sensing off Lane 2 |

System Concept

With Leica Geosystems' unique PavSmart 3D control system, your milling machine is controlled without stringlines or any other local references.

Starting from the project data, the actual 3D position is measured by a Total station or a GNSS receiver and transmitted to the Leica Machine Computer (MPC). Precision machine-mounted slope sensors regulate mainfall and cross-slope.

Leica PavSmart 3D transmits corrections to the onboard control system (e.g. Wirtgen LevelPro, DLS controllers or MOBAmatic), which regulates the

hydraulics, in a similar way to controlling with the conventional sensors – meaning your crew needs only minimal retraining to work with 3D.

Depending on project conditions, the machine is maintained to design grade within an accuracy of up to ± 3 mm (with total station).



| Feature | Leica PavSmart 3D |
|---|-------------------|
| One platform for all paving machines | ✓ |
| No hubs, stringlines or stakes required | ✓ |
| Modular system design – choose Leica Geosystems sensor options depending on your project requirements and budget | ✓ |
| Simple 3D project design data format, Leica X-Function compatible | ✓ |
| Multiple language support | ✓ |
| Simple and cost-effective upgrade path – 3D control for trimmers, mainline concrete pavers, asphalt pavers and milling machines all with one system | ✓ |
| Low light and night time operation | ✓ |
| Designed to survive the harshest jobsite conditions | ✓ |
| Supports Leica Redline, TPS1200 and GPS sensors | ✓ |

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