LMGS-P Used in Expansion of the Zurich Airport

3D System on Roadmill at the Zurich Airport

The expansion at Zurich Airport continues, and the Leica Geosystems 3D LMGS-P system for Roadmills is another solution being used on this project. (The Leica Geosystems LMGS-S system is being used for precision slip form paving on the project.)

The new section of the Zurich Airport will consist of about 50 hectares or new runways, parking lots, docking areas and facilities. The engineers decided on the 3D roadmill for a number of reasons. Among them, all the design files are available, and the location and time of paving is flexible. The cross and longitudinal slopes are very marginal, and unified data is used for the entire new construction site. All the necessary information existed because the project engineers incorporated the entire area to be renovated into their design files.

The 3D roadmill uses the Leica Geosystems LMGS-P system that includes the Leica robotic total station model TCA1103. How does our 3D Roadmill work? First, the stabilizing layer is paved layer-by-layer, then the last layer is paved to 2 cm over the design height, then painted in black. After the last stabilizing layer has hardened, it is milled down to zero using the Roadmill. The cross and longitudinal slopes and the absolute height are checked and documented by check measurements.

Check measurements show that the roadmill has an accuracy of approximately ±7mm. Plus, the milling performance of approximately 15 meters per minute is very high.

What does all this mean to the project engineers? It means that the very high accuracy attained by the roadmill optimizes the use of concrete required for the 36 cm thick concrete slabs laid by the slipform paver. Quicker, easier, and more profitable—just the way we like it.