Topcon Introduces GTL-1000 Total Station for Vertical Construction

Topcon Positioning Group has introduced a scanning robotic total station – the GTL-1000. A compact scanner integrated with a fully featured robotic total station, the system is designed to offer a powerful instrument for single-operator layout and scan on a single set up. Combined with ClearEdge3D Verity, it offers a new standard of construction verification workflows.

The instrument includes a complete robotic total station that provides full-featured layout functionality with single operator control. The system is designed to build upon proven prism tracking and accuracy that allows operators to layout points in challenging construction environments. With the press of a single button, operators can then initiate a scan.

The instrument is designed to enable significantly faster speeds than comparative site scanning workflows. “Operators can conduct a full-dome 360-degree scan in just a few minutes. More traditional systems and methods take considerably longer,” said Ray Kerwin, director of global product planning.

After processing with MAGNET Collage, the workflow is completed with ClearEdge3D Verity, an advanced software tool that automates construction verification.

“The seamless integration of the GTL-1000 and Verity creates a complete package that is perfect for construction verification using 3D modelling techniques,” said Kerwin. “The result is a system that offers ultra-powerful full-dome scanning to quickly capture duct work, columns, beams, girders, flaps, penetrations and structural steel. It helps to improve quality assurance, providing clear visual indication of construction quality heat maps to minimize the effects of mistakes before they become expensive problems.”

Nick Salmons, principal laser scanning surveyor at Balfour Beatty, said, “At Balfour Beatty, we are dedicated to driving innovative new working practices across our business as part of our 25% by 2025 initiative. The new Topcon robotic scanning solution will increase productivity on site by accelerating the construction process and identifying design challenges more efficiently than traditional methods.

Additionally, the instrument includes onboard MAGNET Field software designed to offer real-time field-to-office connectivity, and TSshield for investment protection and maintenance.

For more information, visit www.topconpositioning.com.