Real-Time Reality Capture Solution

GTL-1200

Scanning Robotic Total Station
Construction Verification Every Day
Construction Verification Every Day

GTL-1200

Quick layout and scanning with a single instrument

Full dome scan in seconds, now with 2x point cloud resolution

Wi-Fi enables point clouds to be transmitted wirelessly

Scan density tailored to minimize software processing time

Proven robotic total station design, integrated with a scanner

Point clouds accurately matched to BIM model coordinates

With this new instrument, one person can cut the time of a conventional topo in half and we no longer have to do the extra day of time and labor for that floor flatness and floor levelness report. That translates to a savings of around 60% in labor costs per pour.

Edgar Valenzuela
TAS Concrete engineer

Point Cloud Processing

MAGNET® Collage, Collage Web and Collage Site
Collect, process, and analyze point cloud data from the GTL-1200.

• Effortless point cloud registration process
• Web-based sharing of point clouds and meshes
• Faster processing with true GPU utilization
• Integration with construction verification workflows
• Visualize scan data directly from a computer tablet

Construction Verification

ClearEdge3D Verity for Navisworks®
Verify construction quality in a fraction of the time by comparing as-built scans to BIM design and fabrication models.

• Reduce risks to budgets and schedules
• Clear indication of whether as-buils are within tolerance
• Increase project profitability by avoiding rework
• Fully integrated with Autodesk® Navisworks
• Quickly update coordination model to as-built conditions
Simplified Construction Verification Workflows

Our scanning solutions help you work more productively, more efficiently, and keep teams better informed. Together with ClearEdge3D Verity, the simplified verification workflows cover a range of applications, including documenting job site as-built conditions and performing construction verification to ensure project accuracy is built 100% to plan.

**LAYOUT/SCAN**
- Quickly layout and scan with the GTL-1200
- Take full-dome scans and panoramic photos at every set up

**PROCESS**
- Collect, process, and analyze 3D points clouds with MAGNET Collage or Collage Site
- Streamlined export to Autodesk Navisworks software with native .RCS files

**VERIFY**
- Rapidly compare BIM design against as-built elements with Verity for Navisworks
- Quickly resolve critical project issues

TOPCON CONSTRUCTION VERIFICATION WORKFLOW
Increase Productivity and Reduce Costs

Current construction industry estimates show rework and delays bring about 20% higher costs versus budget. Traditional spot checking of completed work leaves verification gaps that result in significant cost overruns and lost profits.

The Topcon real-time construction verification workflow:
- Offers complete scan versus BIM construction verification that’s 10 times faster than traditional methods
- Transforms spot checking to a digital real-time reality capture solution to layout, scan, and verify every day
- Provides digital reports with visual heat maps combined with numerical offset data for as-built confirmation

Applications include:

- Mechanical / Plumbing
- Structural Steel
- Structural Concrete
- Plant / Equipment Installation
- Layout
- Prefabricated / Modular