

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

Wi-Fi enables point clouds to be transmitted wirelessly

Proven robotic total station design, integrated with a scanner

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

Scan density tailored to minimize software processing time

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

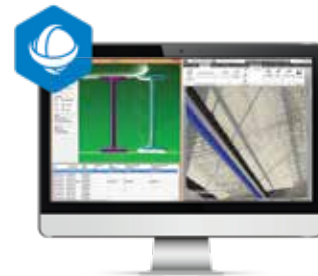


Point Cloud Processing

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®

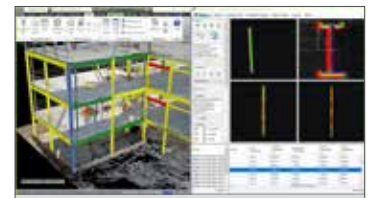
Verify construction quality in a fraction of the time by comparing as-built scans to BIM design and fabrication models.

- Reduce risks to budgets and schedules
- Clear indication of whether as-builts 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

● ● ● ● **FINISH**

10%

TOPCON CONSTRUCTION VERIFICATION WORKFLOW

TRADITIONAL VERIFICATION WORKFLOWS

○ START

● FINISH



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



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