



EQUIPMENT AUTOMATION: 3D-MC

TOPCON



3D-MC

Automatic, Stakeless Grading



With over 70 years in the precision measuring business, Topcon knows what contractors expect from the equipment they purchase: Performance - will it do the job, Reliability - will it survive, Simplicity - can my operators use it, and Compatibility - will it be obsolete tomorrow. Topcon leaves the competition behind in each of these areas.

performance

- GPS+ (GPS + GLONASS): More satellites keep you working when other GPS only systems cannot
- Paradigm chip: allows receiver to track up to 20 satellites when the competition can only track 9
- Co-op tracking: grade in and around trees where others can't
- Laser communication for LPS is faster and more accurate than radio
- Continue to work when waiting for a 3D model or change orders by instantly switching to sonic, laser or slope control

simplicity

- Color "touch screen" control box that can be used by any operator
- Smart Knobs provide full control to the operator right at his fingertips
- Completely automatic to eliminate guesswork

reliability

- A history of over a quarter century providing equipment automation to contractors
- Slope sensors and connectors are filled with epoxy to keep out dust, moisture and vibration
- Extra heavy duty cables and simple rugged bracket design

compatibility

- System Five-3D control box will run Laser, Sonic, Slope, 3D-GPS+ and 3D-LPS "Plug n Play"
- Modular "building block" design: Add options as your business grows
- Digital technology allows for forward and backward compatibility from 1989

System Five-3D

The new System Five-3D Control Box reduces the clutter of the operator's compartment by combining Operator controls and a powerful field computer in one small package. System Five-3D displays grade indication, machine set-up, system status, and provides job site position information. And it's touch sensitive for easy operation.

Use System Five-3D for your Topcon 3D-LPS or 3D-GPS+. Zoom in on the site, make grade changes, or check system status at the touch of a finger. And it's fully compatible with your current Topcon 2D system.

3D-GPS+

Forget about waiting for stakes to begin grading. With Topcon's 3D-GPS+ machine control system, an operator knows where he is on the jobsite and how far away the cutting edge of his machine is from final grade. By triangulating distance measurements to satellites orbiting 12,000 miles in the sky, we can locate any point on the earth. Add a base station to correct for errors and GPS can accurately control the grading on your jobsite to within 1/10' or less. Imagine cutting or placing material within spec over your entire site without stakes. With Topcon's 3D-GPS+ not only do you move the material quicker and with less stakes, but also eliminate the costly process of moving material twice.

A distinct advantage of Topcon 3D machine control is our ability to track more satellites than anyone else. 3D-GPS+ (GPS + GLONASS) insures you will not have equipment downtime due to too few satellites found in GPS only systems. No one can deny when using GPS, "the more satellites the greater the solution quality and integrity."

Another unique feature available only from Topcon is our "Co-op Tracking". This technological advancement allows you to stay locked on satellites while grading in or around trees. The ability to track satellites in these adverse conditions guarantees your grading production will stay on or ahead of schedule.

If you are looking for a way to be more competitive and improve your profits, Topcon's 3D-GPS+ for your equipment is all the control you need.

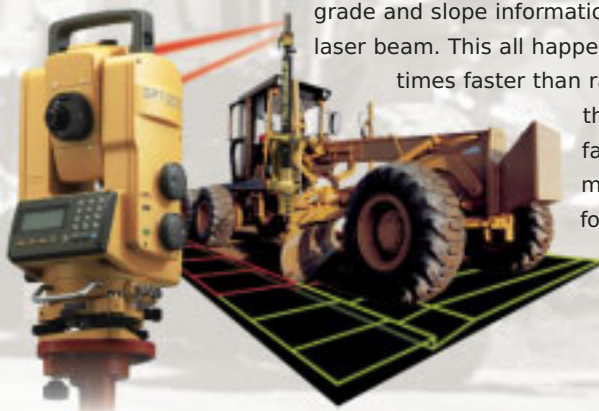
- Increase production by making fewer passes with fewer machines
- Increase production by eliminating downtime waiting for surveyors and cutting out rework
- Control materials to your advantage and reduce overages
- Significantly decrease surveying cost by reducing staking on base and sub-base

3D-MC

3D-LPS

Topcon's 3D-LPS (Local Positioning System) is the World's first and only laser based 3D machine control system. Instead of adding more stakes to finish to those tighter tolerances, you can now significantly reduce or eliminate the stakes all together with Topcon's patented 3D-LPS system.

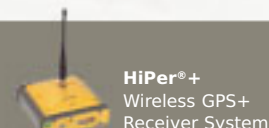
How does it work? As the equipment moves across the site, a robotic total station tracks the LPS receiver to determine its location (X, Y). The system then looks to the DTM (digital terrain model) to calculate the elevation and cross slope of the cutting edge at that exact point. This grade and slope information is sent to the machine through a fan laser beam. This all happens 50 times per second! That's almost 10 times faster than radio based systems. More information to the machine allows the operator to finish faster and make fewer passes while still maintaining tight tolerances. It's the ideal system for high accuracy and expensive material projects.



- Laser communication vs radio provides more information which results in higher finish speeds
- Laser communicating w/LS-2000 Receiver means fewer passes to get to final grade



General Construction, Surveying, Earthmoving, Mapping.
No matter what type of work you do, Topcon has a tool that will help you get the job done right. the first time.



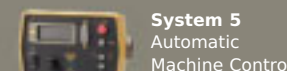
HiPer+
Wireless GPS+
Receiver System



GTS-230W
Wireless
Total Station



FC-1000
Advanced Field
Data Collection



System 5
Automatic
Machine Control



TP-L4 Series
GreenBeam®
Pipe Laser



Legacy Series
GPS+
Receivers



RL-H25a
Dual Slope
Laser



Pocket 3D

Topcon has combined its Pocket 3D field software with its HiPer® receivers to offer a compact, yet powerful jobsite management tool for contractors. This lightweight and cable-free system is perfect for:

- Quickly checking cuts/fills anywhere on the jobsite
- Topoing existing ground to verify accuracy of plans prior to moving dirt
- Monthly, weekly or daily topos to check work progress
- Topoing stockpiles for instant and accurate quantities
- Mark manholes, utilities or lot corners to locate after grading or paving
- Stakeout roadways and top or toe of slopes

Pocket 3D will cut out delays waiting for surveyors and grade stakes providing you more control of your jobsite and profits. Best of all it is so simple, any of your grade foreman or checkers will be able to use it.



System Five-3D

- Windows CE® based operating system
- 300 MHz computing speed
- Simple touch screen operation: the industry's easiest-to-use, operator friendly alternative
- High-resolution, high-visibility display: System Five-3D makes it easy to see information all day long, from bright mornings to dusk. Automatically changes for light conditions
- Select from multiple views of your job, anytime: choose from plan, cross-section, or profile view or a combination of the two
- USB and Compact Flash ports: Updating control box software or project files can be completed in the field
- Built in light bars for grade and steering indication
- Projects stored in the computer and not on the flashcard. Update multiple machines from one card

For more info on this or any other
Topcon product log onto:

www.topcon.com



Phone: (800) 443-4567

Specifications subject to change without notice

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