

3D-MC-- Three Dimensional Automatic Control Of Construction Machinery

3D-MC is a laser control system for construction machinery that has been developed by Topcon Laser Systems, Inc. X, Y, and Z coordinates from a design are downloaded to 3D-MC software installed in a PC attached to a GRT-2000 Tracking Total Station. The GRT-2000 sends the processed data over a high-speed laser fan-beam to a machine-mounted smart receiver. The coded information, which contains elevation data, cross slope data, and position data, is received by the receiver which decodes and transmits pulses to the machine's hydraulic control valves. This patented method eliminates the need for slow and interference-prone radio transmission. The system permits the construction of vertical or superelevated curves and complex domes without the use of stakes. The system's one-way laser communication feature eliminates the need for radio communication between the tracking total station and the machine and results in much faster communication because it is a strictly infrared technology. 3D-MC has the ability to track machines, such as motorized graders and scrapers, that are traveling at speeds that enhance productivity while maintaining required accuracy.

Contact: Charles J. Haas
Organization: Topcon Laser Systems, Inc.
Address: 5758 West Las Positas Blvd.
City: Pleasanton
State/Province: CA
Postal Code: 94583
Country: USA
Phone No: 925-460-1300
FAX: 925-460-1320
URL:
Email: