Leica iCON grade
Intelligent grading solutions

iCON
intelligent **CON**struction

leica-geosystems.com

- when it has to be **right**

Leica
Geosystems

Leica iCON grade iGD2 and iGD3
Complete 2D and 3D solutions for all large earth moving projects

iGD2, iCON grade for dozers 2D

Provides automatic control of both slope and elevation. When using two masts and laser sensors you can work independent of slope direction.

- Maximise your machine utilisation and return on investment
- PowerSnap for easy exchange of panels and removal of key components for overnight security
- Easy to operate and upgrade
- Robust – designed for harsh construction enviroment.

Key features

- Dedicated grade and slope adjustment keys
- Crisp, intuitive graphics show the blade's actual position relative to desired grade and slope
- Quick and easy setup for operator preferences
- Auto/Manual control mode selection, with optional lever-mounted controls available

iGD3, iCON grade for dozers 3D

The iGD3 3D dozer system opens new dimensions in earthmoving and fine grading. It brings the design surfaces and alignments inside the cab. You are no longer dependent on stakes or hubs. Work independently, and accurately, anywhere on the project design guided by GNSS or total station

Key features

- User selectable views such as Plan View and Cut & Fill View
- Clear screen display that can be easily read even in strong sunlight
- Integrated SIM card slot for connection to Leica ConX services

Leica iGD2/iGD3 with CoPilot – Improved functionality of iCON grade 2D/3D for dozers

Keeping track of multiple parameters when grading is a thing of the past. With Leica Geosystems' iGD CoPilot, the dozer operator only needs to concentrate on the speed and direction of the machine. The critical factors, cross slope and height of the blade, are adjusted automatically by iGD CoPilot. The iGD CoPilot eliminates the creation of washboard surfaces and incorrect cross slope of the blade. As a result, beginner operators are able to deliver professional results, leading to reduced costs caused by rework and wear and tear.

Key benefits

- Reduce the complexity of controlling multiple parameters on a dozer while the iGD CoPilot automatically adjusts critical parameters
- Ensure correct grades without washboard surfaces or incorrect cross slopes of the blade
- Get accurate results even when working without a rotating laser, total station or GPS correction source
- Enhance efficiency on your construction site due to less rework, wear and tear and training effort
- Increase focus on the area you are grading, making it a safer working environment

Leica iCON grade iGD4^{SP}
High efficiency 3D grading solution for dozers with 6 way blade

iGD4^{SP}, iCON grade for dozers 3D with SP technology
The dual GNSS antenna solution for dozers with 6 way blades (PAT) offers you maximum speed, precision and flexibility. Exact calculation of the blade tilt and angle allows you to move dirt from pass to pass precisely, minimising rework.

- Maximise your dozer's performance by angling the blade and control windows more effectively
- Operate at full speed with maximum accuracy thanks to SP Technology
- Finish your jobs faster with higher profit

Key features

- Auto/manual information directly on the screen
- User definable views such as "Plan View" and "Cut/Fill View"
- Crisp, clear, high-resolution daylight readable display
- Integrated SIM card slot for connection to Leica ConX services

On-cab configuration
The iGD4^{SP} solution is optionally available with on-cab mounted antennae for advanced personnel safety and reduced wear and tear of the equipment. Benefit from increased versatility with customer-focused mounting options.

- No need to climb onto the blade for installation
- Increased field of view for the operator
- Eliminated risk of damage on masts, cables and antennae
- Enhanced versatility – mount the antennae on the blade or onto the cab

Leica iCON grade iGG2/iGG3
Advanced grading systems

iGG2, iCON grade for graders 2D

The iGG2 system is easy to upgrade. Start with a height control solution using laser receivers or an ultrasonic tracer and upgrade your system on the basis of your needs. You can step from a laser-based 2D solution to a complete 3D solution with a robotic total station by just adding the iCP42 panel and the iCON robotic station.

Key features
- Easy-to-use graphical display – the same panel is used on your dozer and grader, giving you the ultimate in equipment flexibility
- Short learning curve thanks to intuitive software
- The wireless cradle makes it easy to place and remove the panel from the cabin

iGG3, iCON grade for graders 3D

Most efficient and flexible solution for complete automatic motorgrader control. Delivers millimetre accurate control of the blade, ideal for all fine grading applications
- Increased productivity and results on complex sites
- Fully atuomatic control using 3D design data and GNSS system or robotic total station
- Optional sideshift automation
- Unique mast tilt compensation
- Hold slope feature allowing precise crown cuts and extending past breaklines when needed
- Supports Leica ConX for remote access to machines and site

Key Features
- Auto/Manual information directly on the screen
- Fully customisable 3D views of your machine and jobsite
- Design and actual slope always displayed
- Multiple run screens to choose from

Leica iCON grade iGG4
Dual GNSS motor grader solution

iGG4, iCON grade for graders 3D, dual GNSS
- Maximise the potential of your motor grader for a wider range of applications with higher accuracy.
- Run your machine in automatic mode, while moving with precision in any direction.
- Increase productivity and efficiency with your grader. The dual antenna configuration enhances accuracy, resulting in less rework.
- Difficult tasks are now easily done. Crab walk your motor grader to properly handle material windrows and precisely grade side slopes or create ditches.
- The scalable iCON grade solution lets you expand your grader's system as your projects grow in scope and size. You only invest in what you need.
- PowerSnap: same panel for any functionality level on any machine supported by iCON 3D.

Ultimate grade control for motor graders
To get the most out of a motor grader means using it as it is intended to be used. The Leica iGG4 for graders lets operators boost their productivity by using the latest GNSS technology to incorporate dual antennae, which calculate blade positions regardless of the way the machine itself is positioned.

Leica iCON grade iGW3
Swift accurate grading in soft material

iGW3, iCON grade for wheel loaders 3D
Intelligent system for wheel loaders using 3D design (CAD) models and state-of-the art GNSS technology to guide the operator.
- Maximise your machine utilisation and investment from day one – get the grade right from the start
- Eliminate over excavations and material overruns
- Save time and money by reducing rework and eliminating' grade checks
- Full support of Leica ConX services
- Operator-friendly user interface reduces training time and cost

Leica iCON grade – Customised Configurations
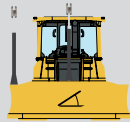## Huge range of configurations to fulfil any customer need
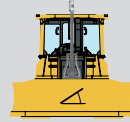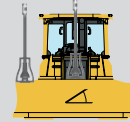
2D System Configurations

iDG CoPilot
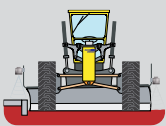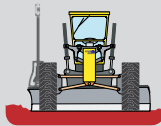
Laser & Slope Control

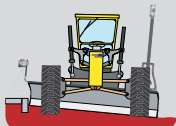Dual Laser Control

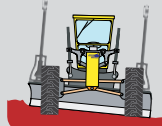PowerMast Laser & Slope Control

Dual PowerMast Laser Control
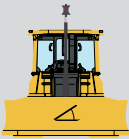
Sonic Tracer System

Sonic PowerMast System
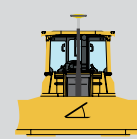
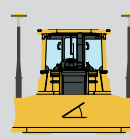Sonic Tracer & PowerMast Laser Control System

Dual PowerMast System

3D System Configurations
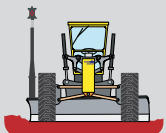
Total Station Control

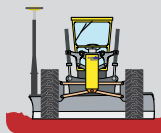Single GPS & Slope Control
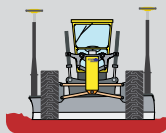
Dual GPS & Slope Control

On-Cab Configuration

Dual GPS & Slope Control

Total Station

GPS System

Dual GPS & Slope Control

2D Sensors

Slope Sensor / SP14 Sensor

MLS720 Laser Receiver

TriSonic Tracer

UltraSonic Single Head Sensor

3D Sensors

CGA60 GNSS Antenna

iCON gps 80 GNSS Machine Receiver

iCON iCR 80

High Accuracy Prism

PowerSnap – Providing a new level of flexibility and user convenience

- System is up and running in no time
- Rapid interchange of control panels between machines, giving you extra flexibility on site
- One PowerSnap cradle for all iCON excavate and iCON grade panels
- Easy removal of core components for overnight security
- Contact and cable free connection to control panel
- Safety shut down feature protects system and data
- Unique patented Snap on/Snap off capability

Leica iCON grade
Maximise productivity, speed & flexibility

The Leica iCON grade solutions can revolutionise your construction process. They not only boost your productivity and performance, they also offer a level of flexibility and upgradeability not available in other systems on the market today.

Leica iCON grade can dramatically increase machine utilisation, productivity and optimise material usage on any earthmoving and fine-grading project.

Leica iCON grade is scalable to customer needs from simple cross slope control to advanced total station or GNSS guidance.

Delivering industry-standard data formats, iCON 3D machine software supports standard file formats such as .dxf and LandXML. This eliminates the need for a proprietary office software package to convert data files.

Key benefits

Increased productivity
- Maximises your machine utilisation and return-on-investment from day one, by getting right to grade the first time
- Grading at higher speeds – optimised data communication

Increased flexibility
- Easy removal of key components for overnight security. One docking station for all panels
- Fully upgradeable from basic 2D entry-level system to full 3D capability in the same control panel. Laser, slope, sonic, GPS and total station control options
- Simple upgrade step to 3D – buy a 3D-ready panel and upgrade later or rent the GPS/Tracker and 3D software

Reduced costs
- Reduced fuel costs
- Faster job cycles reduce operating costs
- Reduce labor costs by reducing or eliminating grade checks, and getting to grade faster and more accurately

Leica ConX –
Digitise your construction process
ConX is a cloud solution and web interface to manage, visualise, aggregate and share 3D construction and survey data in real time for heavy construction projects.

Key benefits:
- Visualise and validate data used and generated on-site in 2D and 3D localised on interactive maps to collaborate and communicate with everyone on site
- Share updates and corrections to reference model data in real time across the project to guarantee transparency and quick reaction to design updates
- Monitor machine control operations remotely by assigning work and providing positioning and reference data to operators and grade checkers ensuring you avoid costly rework and errors

iCON
intelligent CONstruction

Leica iCON is more than a new product line or software package, it enables you to enhance your performance and increase your profitability through perfecting your construction workflow.

Leica Geosystems – when it has to be right

Revolutionising the world of measurement and survey for nearly 200 years, Leica Geosystems is the industry leader in measurement and information technologies. We create complete solutions for professionals across the planet. Known for innovative product and solution development, professionals in a diverse mix of industries, such as surveying and engineering, building and heavy construction, safety and security, and power and plant trust Leica Geosystems for all their geospatial needs. With precise and accurate instruments, sophisticated software, and trusted services, Leica Geosystems delivers value every day to those shaping the future of our world.

Leica Geosystems is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon. com), a leading global provider of information technology solutions that drive productivity and quality across geospatial and industrial landscapes.

Leica iCONtrol Brochure

Leica iCON site Brochure

Leica iCON excavate iXE3 Brochure

Leica Rugby CLA CLH Brochure

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