

# Leica iCON grade

## Intelligent grading systems



**icon**  
intelligent CONstruction

PART OF  
**HEXAGON**

- 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 2 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 environments



### 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 in strong sunlight**
- Integrated SIM card slot for connection to iCONnect services

# Leica iCON grade iGD4<sup>SP</sup>

## High efficiency 3D grading system for dozers with 6 way blade



### iGD4<sup>SP</sup>, iCON grade for dozers 3D with SP technology

The new 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 windrows more effectively
- Operate at full speed with maximum accuracy. Finish your jobs faster with higher profit
- The latest CAN technology lets you easily expand the systems functionality
- Full support of Leica iCON telematics services



### 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 iCONnect services



### Industry standard data Formats

iCON 3D machine software supports standard file formats such as .dxf and LandXML eliminating the need for a proprietary office software package to convert data files.



### SP Technology – Boost productivity and performance of your grading system

- Combining ease-of-use and unrivalled flexibility
  - Highest precision at the fastest speed
  - Faster results without losing accuracy
  - Unmatched productivity that boosts your profitability
- Machines equipped with SP Technology increase uptime during poor GPS/GLONASS coverage or temporarily interrupted availabilities of correction signals. This enhances performance and increases reliability. SP Technology is standard in the iGD4SP solution while it can also be used on iGD3 solutions in combination with TPS or GNSS technology.

# 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 automatic 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 iCON telematics 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 antennas, which calculate blade positions regardless of the way the machine itself is positioned.

### 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

### iCONSult

Leica Geosystems' extensive support network provides clear guidance on intelligent CONstruction benefits to grow your business.

- Worldwide support network
- Professional consultancy
- Personal service
- Customer Care Packages



# 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 iCON telematics services
- Operator-friendly user interface reduces training time and cost

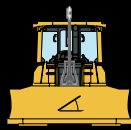
### 2D System Configurations



Laser & Slope Control



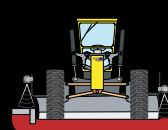
Dual Laser Control



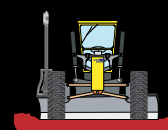
PowerMast Laser & Slope control



Dual PowerMast Laser control

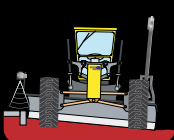


Sonic Tracer System

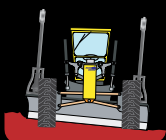


Single PowerMast System

### 3D System Configurations



Sonic Tracer & PowerMast Laser Control System



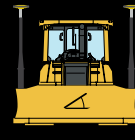
Dual PowerMast System



Total Station Control



Single GPS & Slope Control

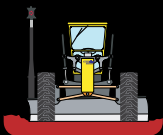


Dual GPS & Slope Control

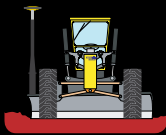


Dual GPS & Slope Control

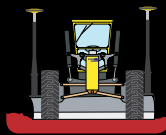
### 2D Sensors



Total Station



GPS System



Dual GPS & Slope Control



Slope Sensor



MLS720 Laser Receiver



TriSonic Tracer

### 3D Sensors



CGA60 GNSS Antenna



iCON gps 80 GNSS Machine Receiver



iCON robot 50



High Accuracy Prism

# 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.

### Key Benefits

#### Increased productivity

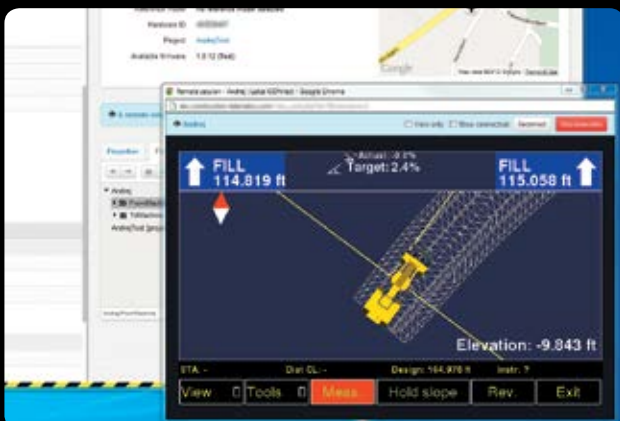
- Maximises your machine utilisation and return-on-investment from day one, by getting right to grade the first time
- Grading at higher speeds – optimised data communication

#### Increased flexibility

- Easy removal of key components for overnight security. One docking station for all panels
- Fully upgradeable from basic 2D entry 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 iCON telematics – Office-to-site connection for maximum productivity

- Less site visits for machine control support from site supervisor to check settings on the machine
- Instant remote support reduces machine down time and maintains productivity
- Easy monitoring by site supervisor if correct data are used on the machine
- Quick design data and firmware updates without having to drive to the site
- Supervisor can monitor the fleet operations remotely and generate reports based on historical data



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 intelligent CONstruction.**

Revolutionising the world of measurement and survey for nearly 200 years, Leica Geosystems creates complete solutions for professionals across the planet. Known for premium products and innovative solution development, professionals in a diverse mix of industries, such as aerospace and defence, safety and security, construction, and manufacturing, trust Leica Geosystems for all their geospatial needs. With precise and accurate instruments, sophisticated software, and dependable 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 technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications.



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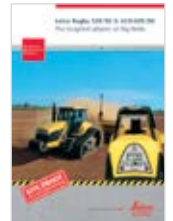
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Leica Rugby 320 SG  
& 410/420 DG  
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