

# Leica iCON grade

## Intelligent grading systems

**NEW**

**iGD4<sup>SP</sup>  
System**



**icon**  
intelligent **CON**struction

# 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.



**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 iGx2

## Intelligent grading system



### iCON grade iGx2

Provides automatic control of both slope and elevation. When using 2 masts and laser sensors you can work independent of slope direction.

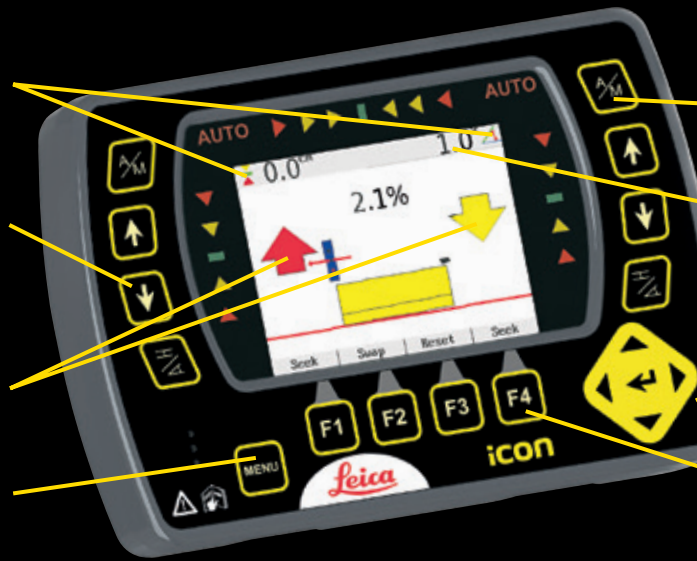
- Maximise your machine utilisation and return on investment
- PowerSnap for easy exchange of panels and removal of key components for overnight security
- Easy to operate and upgrade
- Robust, fully waterproof system – designed for harsh construction environments

These symbols indicate the sensors that are reference for the left and right side

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



### 2D System Configurations



Laser & Slope Control



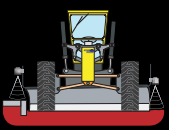
Dual Laser Control



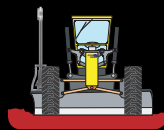
PowerMast Laser & Slope control



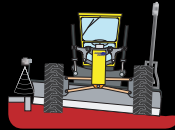
Dual PowerMast Laser control



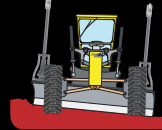
Sonic Tracer System



Single PowerMast System



Sonic Tracer & PowerMast Laser Control System



Dual PowerMast System



# Leica iCON grade iGx3

## Advanced 3D grading system



### iCON grade iGG3

Most efficient and flexible solution for complete automatic motorgrader control. Allows 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 from GNSS system or robotic total station
- With optional sideshift technology
- 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

Auto/Manual control mode selection, with optional lever-mounted controls available

Design cross slope

Easy navigation through menus. Adjust sensor settings, access special functions and more with the intuitive keypad

Function keys for instant access to important functions

Auto/Manual information directly on the screen

Fully customisable 3D views of your machine and jobsite – see the job exactly how you want to



### 2D Sensors



Slope Sensor



MLS700 Laser Receiver



TriSonic Tracer

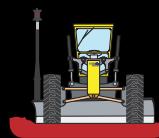
### 3D System Configurations



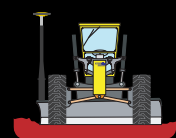
Total Station Control



Single GPS & Slope Control



Total Station



GPS System

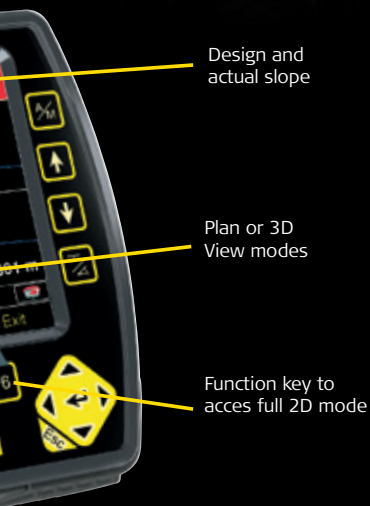




### iCON grade iGW3

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



Design and actual slope

Plan or 3D View modes

Function key to access full 2D mode

### 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

By using inertial guidance with the most responsive hydraulic control on the market, GPS performance is significantly enhanced. Machines equipped with SP Technology have reduced need for rework and increased uptime during poor GPS/GLONASS coverage or temporarily interrupted availabilities of correction signals.



### 3D Sensors



Dual GPS & Slope Control



Dual GPS & Slope Control



CGA60 GNSS Antenna



iCON gps 80 GNSS Machine Receiver



iCON robot 50



High Accuracy Prism

Understanding construction.

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

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



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

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

Auto/Manual information directly on the screen

Crisp, clear, high resolution daylight readable display



User definable views such as Plan View and Cut/Fill View

Integrated SIM card slot for connection to iCONnect services



### iCONsult

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

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



## 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 – 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





Pushing dirt or laying down concrete or asphalt, we've got the solution you need. Whether you need simple laser height detection for excavators or need to control a concrete slipform paver to millimeters, Leica Geosystems can help you optimise site productivity with a complete range of machine control solutions. Plan your own upgrade path to full 3D machine control incorporating GPS navigation, terrain modelling software and automatic blade control.

Dozers, graders, excavators, concrete pavers and asphalt finishers are just some of the construction machines that can be fitted with scalable, tough and reliable Leica Geosystems construction machine control systems. With a wide range of support services to choose from, Leica Geosystems helps you master your site.

**When it has to be right.**



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iCONtrol  
Brochure



Leica iCON site  
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Leica iCON excavate  
iXE3  
Brochure



Leica Rugby 320 SG  
& 410/420 DG  
Brochure