



Shaping New Dimensions

THE LITTLE LASER BOOK

Your guide to 4/4 Painfree laser
level selection



Shaping New Dimensions

This selling manual belongs

to: _____

From: _____

Objective



Your Position Partners rep is _____

Rep Ph# is _____

Position Partners 1300 965 273

Q1.

What is your trade?

	Go to Page
Builder	3-6
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Landscaper/Pool Builder - see concretor/earthmover	
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Plumbing or Draining	19-20
Options for Machines - see concretor/earthmover	
General Laser Information	21-30

Options for Builder

Q2

So you are a builder/
chippy. What is the main
application to want to
use a laser for?

General levels/site layout

Bit of everything, from site
layout to fix-out

Mainly partitioning, squaring
of frames, door, jambs etc
reno work

Construction site set-out

Mainly small jobs, like pergolas,
squaring up posts etc. a bit of
reno work

HOT TIP

If you get a left field
question... remember
your Position Partners
rep is only a phone call
away

Q3

Recommendation is a rotating laser. Do you think you would ever do a grade or slope?

[Go to next page](#)

Q3

I would recommend a green beam unit. Do you do mostly indoors or outdoors more?

[Go to next page](#)

Q3

A line laser should be all you require. Would you ever use a 90° set-out?

[Go to next page](#)

Q3

Do you have up to 500 points to set out and or multiple floors?

[Go to next page](#)



LX3DG or LX3DGD
with detector



Tip 1 for #builder

Because of the diversity of tasks performed by the average builder it is a good idea to look at investing in both a rotating and a line/dot laser

From previous page

Options for Builder P2



or i77R
i88R



Commercial or both

LX25P
LX25GP



or



LX3DG

Residential only

LX22
LX22G



Commercial or both

LX25P
LX25GP



LX3DG

Residential only

Tip 2 for #builder

If you work mainly outdoors invest in a rotating laser then a line laser later,
If mainly indoors invest in a line laser and a rotating laser later.

Options for Concretor

NO



i66R

or
RL-H5B



Q2

Would you ever need to set a slope or grade?

Q3

Manual Slope or Dial-in grade

YES

Q4

Will you be using a laser in conjunction with a machine?



MR-360



RD-100W



LS-B200 or
LS-B200W



MR240



LS-B10

**Manual
Single grade**



RL-H5A



i77R

**Manual
Dual grade**



i88R

**Dial-in
Single grade**



RL-SV1S



RL-2001S

**Dial-in
Dual grade**



RL-SV2S



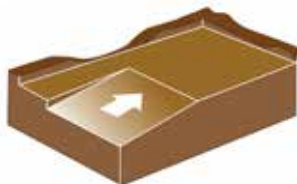
RL-2002S



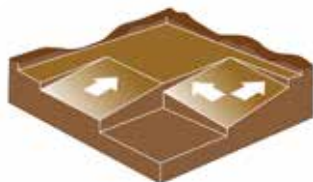
i99R

Slope Grade

You may get asked what slope or grade is. It is when the laser is set on a slope for a gradient into pits, or a fall is needed on concrete. Manual setting takes longer to set up.



Single grade



Dual Grade

Options for Earthmovers

Q2

Whats your main type or earth moving?

Q3

House and Shed Pads
Would you need a slope or grade?

Q4

Would you need a slope or grade?

NO
YES

Manual or
grad

NO

YES

Q4

Manual or
grad

Compatible Products

Machine Control Receivers



MR-360



RD-100W



LS-B200 or
LS-B200W



MR240



LS-B10

Slope Modes



Single Grade



Dual Grade



i66R

or



RL-H5B

**Manual
Single grade**



RL-H5A



i88R or i77R
Dual Slope Single Slope

**Dial-in
Single grade**



RL-SV2S



RL-2002S



i99R



i66R

or



RL-H5B

**Manual
grade**



i88R or i77R
Dual Slope Single Slope



RL-H5A

**Dial-in
Dual grade**



RL-SV2S



RL-2002S



i99R

Options for Electricians

Q2

Often use
or seldom

Seldom use



LX22 Red Beam
LX22G Green Beam

Often use



LX25P Red Beam
LX25GP Green Beam

HOT TIP

Both LX22 and LX25P models have dots and lines for ceiling light set-up

Alternative product

LX3D
Range



Options for Glaziers

HOT TIP

The LX25P has 4 dots and 2 lines, with the dots @90° horizontal it's the best laser for shop fronts

Easy Choice



LX25P Red Beam
LX25GP Green Beam

Associated Products

Bullseye Laser
Measurers



Angle Guage



Options for Kitchen Fitout/Shopfitter

Accessories



EV18 Tripod



Laser Pole

Q2

What would be the main application that you require a laser for?

Q3

Setting up kickboards and bench tops

Mainly partitioning and wall framing

Do you need reference point dots or only lines?

General set-out and shopfitting

Green beam lasers are visible over larger distances. For all commercial work a green beam model will be best.

Tip 1 for Kitchen Fitout/Shopfitter

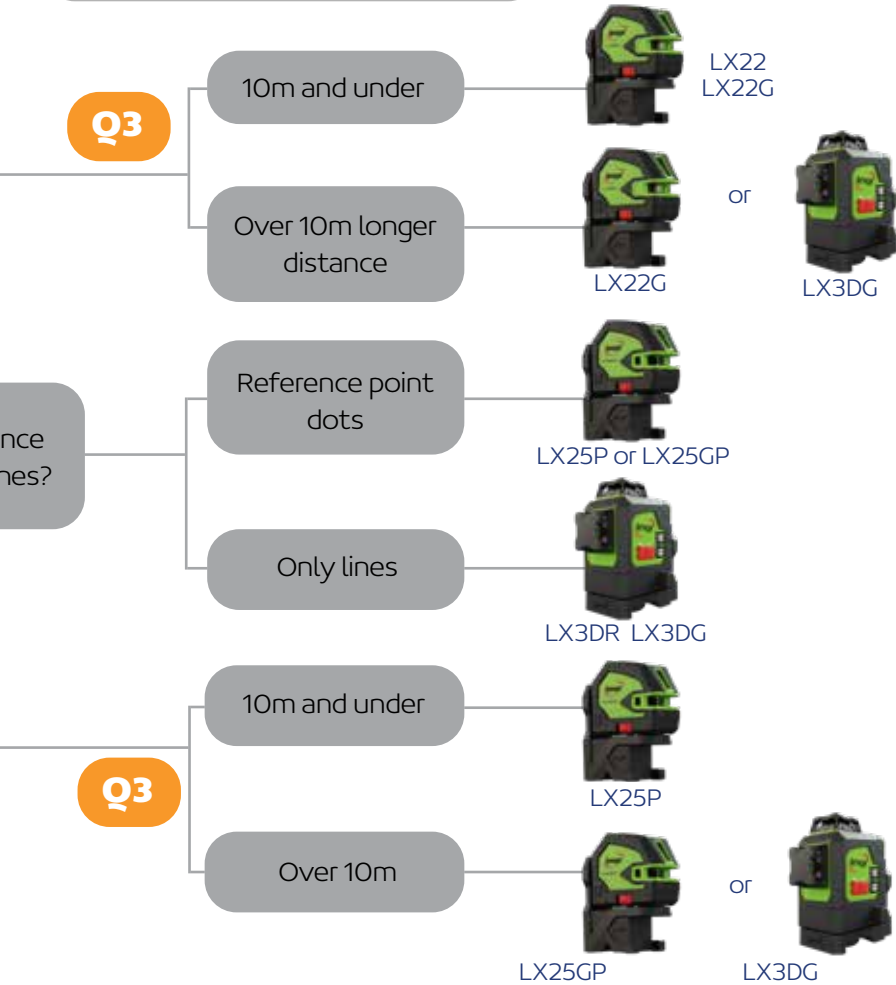
Where an LX25P or LX3D is nominated either will do the job.
LX25P - has dots at 90° for pinpoint reference points + horizontal lines
LX3D - has 3 full 360° uninterrupted lines for full up and down

Accessory



LD100 Detector

works with any red or green beam line laser up to 50m



ask. The main difference is:

horizontal and vertical lines that only cover 200°

over full 360° horizontal line and 2 full 360° vertical lines at 90°

Options for Plasterer/Ceiling fixer

Q2

General plastering
or mostly ceiling
fixing?

General
Plastering



LX3DR Red Beam
LX3DG Green Beam

i88G



Plastering +
Ceiling fixing

or

LX3DG
Green Beam



Basic Set out



LX22/LX22G

Associated Products

Laser Support Pole



for LX3D



WBT
Wall Bracket
for i88G

Options for Brick layer

Q2

2 man or one man operation

2 man



LAR28 Set
LAR32 Set
Dumpy level

or



AT-B3A
AT-B4A

Seldom use



Imex E60K

1 man



i66R



RL-H5B

Compliment with a Storm Professional Spirit level 30yr via guarantee



Options for a Tiler

Q2

Would you be using a laser mainly for wall or floor tiling?

Wall

Floor

Both

Q3

Floor levelling or tile set-out

Q3

Commercial/Residential or only on Residential?

Associated Products

Laser Support Pole

Elevating tripod EV15 or EV18





LX22 Red Beam
LX22G Green Beam

Both



LX3DG Green Beam

Floor tile set-out only



LX11P Red Beam
LX11GP Green Beam

Commercial/Residential



LX3DG Green Beam

Residential



LX25P Red Beam
LX25GP Green Beam

or



LX3DG Green Beam

Options for a Plumber

Q2

General plumbing or primarily civil and drainage?

Q3

Plumbers require a general manual or drainage manual or drainage manual?

Variation Q3

Mainly Sprinkler or Bathroom set-out

Drainage and pipe laying



RL-SV2S

Associated Products

Machine Control Receivers



MR-30



RD-100W



LS-B200 or

LS-B200W



MR240



LS-B10

is usually
grade laser,
dial-in grade?

Manual



i77R

or



RL-H5A

Dial-in



RL-SV2S

or



i99R



LX25P Red Beam
or LX25GP Green Beam
line and dot laser

HOT TIP

Grade Slope

Go to concetors page
to see Hot Tip re Slope
modes.



i99R



RL-2002S



TP-L6



IPL3TR Red Beam Pipe Laser
or IPL3TG Green Beam Pipe Laser

HOT TIP

Commerial drainage
would benefit from
both grade and pipe
laser

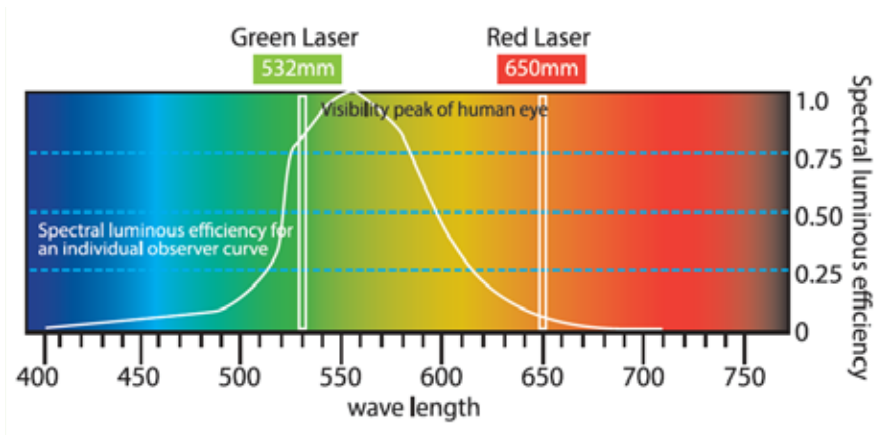
General Laser Level Information

Red Beam V Green Beam

A question asked frequently by customers is what is the difference between a red beam and a green beam laser, and which should I choose.

The answer is that the human eye responds to green light four times better than red so the light from a green beam seems brighter and can be seen over a longer distance. This is especially beneficial in larger interior work and where the surrounding light is brighter.

The green beam is not usually any advantage outdoors unless working very close to the laser and most lasers outdoors will still need a detector for a frequency pick-up.



Warrantys

Topcon and Imex have long warranties which reflect the quality and workmanship of the instruments.

Immediately after purchase the instrument should be registered for warranty on www.positionpartners.com.au

Rotating Lasers



Line and Dot Lasers



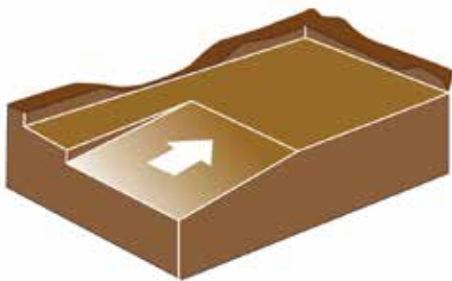
A laser that is dropped, bumped or knocked off a tripod is not covered by warranty and a calibration and repair charge will apply.

Grade Slopes

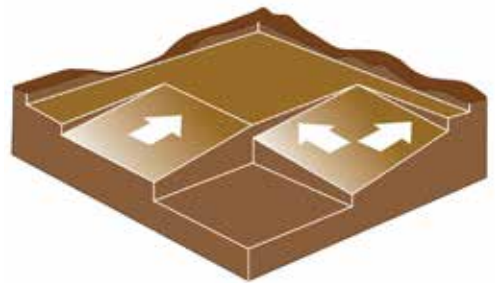
Some rotating lasers have the ability to set the light beam on a slope or gradient so that the whole laser plane is set to a predetermined slope. This is great for falls on driveways, slopes to pits and anywhere that water needs to be shed. There are models that slope in one direction, single grade or models that slope in X or Y directions.

Mostly grade lasers have a manual set-up which involves measuring a fixed amount out from the laser - usually 10m for ease of calculation and set at that point to fall % or angle of degree.

Higher end grade lasers have automatic dial-in grade for fast grade set-up.



Single Grade



Dual Grade

Grade Slope Table

Degrees °	% grade
0.1	0.17
0.2	0.35
0.3	0.52
0.4	0.70
0.5	0.87
0.57	1
0.6	1.05
0.7	1.22
0.8	1.40
0.9	1.57
1	1.75
2	3.49
3	5.24
4	6.99
5	8.75
5.74	10

Laser Light Beam Classes

Care must be taken with laser levels on construction sites due to potential eye damage from laser levels.

Most Topcon and Imex lasers are Class 2 and are able to be used unrestricted on any work site. The table below sets out the classification system

AS 2397:1993 - Safe use of lasers in the building and construction industry

Laser Class	Description	For use in building and construction industry
Class 1	Safe for use under all conditions of exposure.	✓
Class 2	Low-powered lasers that may require some administrative controls but present little hazard (for example, eye protection is usually provided by normal blink and aversion responses).	✓
Class 3A	These lasers emit higher levels of light and their use requires more stringent engineering and administrative precautions in order to ensure they are not used with optical instruments (for example, a builder's level or theodolite) which would concentrate the beam so that it would all enter the eye.	✓
Class 3B (Restricted)	These lasers operate at the same power levels as Class 3A but have higher levels of irradiance (power density). These lasers can be used for building or construction applications but should not be used in dimly lit building or construction applications (that is less than approximately 100 lux).	✓
Class 3B	These lasers emit either invisible or visible radiation potentially hazardous to the eye and skin. These lasers must not be used for building or construction tasks.	X
Class 4	These lasers are high-power devices capable of producing diffuse reflections hazardous to the eye. Skin exposure to the direct beam of a Class 4 laser is also hazardous. These lasers must not be used for building or construction tasks.	X

IP Code - Ingress Protection

For all tools including laser levels there is an industry standard classification for dust proofing, shock proofing and water proofing. The higher the score, the better the unit is able to withstand the elements. Most line and dot lasers are IP54, most rotating lasers are IP66 and pipe lasers fully submersible at IP68.

SOLID OBJECT

1	Protected against a solid object greater than 50mm such as a hand.
2	Protected against a solid object greater than 12.5mm such as a finger.
3	Protected against a solid object greater than 2.5mm such as a screwdriver.
4	Protected against a solid object greater than 1mm such as a wire.
5	Dust protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment.
6	Dust tight. No ingress of dust.

MOISTURE

1	Protected against vertical falling drops of water. Limited ingress permitted.
2	Protected against vertical falling drops of water with enclosure tilted up to 15 degrees from the vertical. Limited ingress permitted.
3	Protected against sprays of water up to 60 degrees from the vertical. Limited ingress permitted.
4	Protected against water splashes from all directions. Limited ingress permitted.
5	Protected against jets of water. Limited ingress permitted.
6	Protected against powerful jets of water. Limited ingress permitted.
7	Watertight against the effects of immersion in water between 15cm and 1m for 30 minutes.
8	Watertight against the effects of immersion in water under pressure for long periods.

IP65
Ingress protection

Calibration and Service

All Position Partners lasers are calibrated and control checked prior to final despatch and issued with a calibration certificate.



All Topcon and Imex lasers that are registered for warranty are eligible for the first service and calibration free of charge, if done within 12 months of purchase. Subsequent calibrations are valued at around \$90-\$100 for a line and dot laser and \$120-\$140 for a rotating laser based on whether any extra work is required.

All lasers should be re-calibrated once every 12 months or if used on a daily basis at 6 months intervals

Loan Tool Program - A loan tool is available under some circumstances; contact Position Partners for details.

Imex has calibrations and service centres in most capital cities or a pick-up service back to head office.

Phone 1300 965 273 for details

Local Service Agents

For warranty repairs, calibration or service contact your local agent listed above or
Position Partners.

1300 965 273

What's the Difference between a dot laser and a rotating laser?

Dot Laser:

A dot laser emits only a dot, usually a dot laser has a plumb down, plumb up, and a horizontal dot at 90° to plumb up and down. Sometimes they have 3 horizontal dots at 90°, usually used indoors for partition fit-out, electrical light placement, sprinkler system layout, kitchen & cabinetry set-out and equipment set-up.

Line Laser:

Typically used indoors, a line laser emits a line beam, usually one horizontal and a minimum of one vertical - sometimes four at 90°. With a beam of light transmitted to a surface (i.e. a wall) these are highly visible over distances to approximately 10 metres. With a line laser that has a pulse setting to pick up a line detector, these lasers can be used outdoors to 50 metres in some instances. Used for tiling, kitchen or cabinet set-out, electrical drywall setup, partitioning etc. Some indoor lasers can be a combination of a line and dot laser.

Rotating Laser:

A laser with a diode prism that spins at faster speeds, these are typically used indoors or outdoors over longer distances up to 1000 metres diameter, dependant on the size of the laser diode. a detector picks up the beam and is usually mounted on a measuring staff. The rotating laser units mounts on a standard tripod. Some models can be turned on their side and emit a vertical rotating line. Some models allow either manually or automatically, a gradient or slope and some do this in two directions. This allows for an even slope over the entire workplace within the laser working diameter. Used for concreting, excavation, suspended ceiling set-up, landscaping, general building, levelling, earthworks etc. Generally the higher the unit cost, the more added features like gradient, scan, vertical etc. the unit will have.

Notes

For Individual Laser model specifications:
www.topconlaser.com.au
www.imexlasers.com.au

2022 Details correct at time of printing. Due to ongoing product development Position Partners reserves the right to change or modify the products and their operational functions at any time

Imex Models Quick Reference

Line and Dot Lasers

LX11GP



- Green Beam Laser square
- 2 -90° lines

LX22 Crossliner



- Self levelling
- Horizontal, Vertical Line
- Plumb spot
- Magnetic bracket
- Red beam - 3x Alkaline
- Green beam - 5.4Ah lithium

LX3D Multi-line laser



- Self levelling
- 3 -360° lines,
1 horizontal lines
- Uninterrupted lines
- Red or Green Beam
- Magnetic wall and ceiling bracket
- 5.4Ah lithium - longest run time
- 1m Drop test winner



LX25P

- Crossliner/Dot Laser
- Self levelling
- Horizontal, vertical line
- Plumb up, plumb down plus 2 dots at 90°
- Magnetic bracket - heavy duty
- Lines bisect dots
- Red beam - 3x Alkaline
- Green beam - 5.4Ah lithium

LD 100 Detector



- Optional extra for LX22, LX25P and LX3D
- Up to 80m range outdoors
- Picks up red or green beam



All line or dot Lasers

Rotating Lasers

i66R



- Self levelling
- Horizontal only
- 400m dia range
- 1 button function
- Battery indicator
- LRX6 Detector

On all Rotating Lasers

i77R



- Self levelling
- Horizontal only
- 600m dia range
- Manual Slope mode to 8° 8%, one direction
- 4 speeds
- LRX10 Detector



LITHIUM BATTERY

lithium battery up to 40hrs run time



DIGITAL DETECTOR

mm reading Digital Detector

i88R / i88G



- Red or green beam
- Self levelling
- Horizontal/Vertical
- 600m dia range
- Manual dual slope mode to 8° 8% - both directions
- 4 speeds
- Scan modes
- LRX10 Detector



QUICK CHARGE

USB Charging port and vehicle adaptor

i99R



- Red beam
- Self levelling
- Horizontal/Vertical
- 600m dia range
- Auto dial in dual grade slope to 10%
- 4 speeds
- Scan modes
- LRX10 Detector

5 YEARS

WARRANTY

All Rotating Lasers

Imex Models Quick Reference

LRX6 Detector



- 1mm accuracy/reading
- 60mm pick up
- Double sided
- Fine, medium coarse setting
- Standard on i66R



LRX Detectors
Made in Germany

LRX10 Detector



- .5mm accuracy/reading
- 90mm pick up
- Double sided
- 5 settings
- Standard on i77R, i88R/G i99G

Machine Control Receivers

Fits skid steers, excavators, graders



MR360

- 360° pick up range
- In cab display
- Picks up all red beam lasers
- Clamp or magnet mounting to machine



MR240

- 240° pick-up
- Picks up all red beam lasers
- Magnetic mount
- Use as standard detector on staff

Pipe Lasers



IPL 300 Red and Green Beam

- 300m range
- Pipes from 100-500mm
- 20% to 40% gradient, auto set
- Fully submersible in water

Topcon Models Quick Reference

Rotating Lasers



RL-H5B

- Self levelling
- 400m range
- Horizontal only
- 100 hrs run with “D” cell alkaline
- L5-80L receiver



RL-SV2S

- Self levelling
- 800m range
- Dual grade dial-in Slope mode
- Grade to 15%
- 120 hrs with “D” cell batteries or 65 hrs with Ni-MH batteries option
- 2 rotation speeds
- L5-80L receiver or LS-100D option



RL-H5A

- Self levelling
- 800m range
- Horizontal only
- Manual slope mode
- 100 hrs with “D” cell alkaline or 60hrs with Ni-MH batteries option
- LS-80L or LS-100D option



RL-2001S

- Self levelling
- 1100m range
- Single grade dial-in
- Grade to 25%
- 100 hrs with “D” cell batteries, 90 hrs with Ni-MH option
- 3 rotation speeds
- LS-100D receiver



RL-SV1S

- Self levelling
- 800m range
- Single grade dial-in slope mode to 15%
- 120 hrs with “D” cell alkaline or 65 hrs with Ni-MH batteries option
- 2 rotation speeds
- LS-80L receiver or LS-100D option



RL-2002S

- Self levelling
- 1100m range
- Dual grade dial-in
- Grade to 25%
- 100 hrs with “D” cell batteries, 90 hrs with Ni-MH option
- 3 rotation speeds
- LS-100D receiver

Rotary Laser Detectors



LS-80L

- Standard hand held detector for all red beam lasers
- Long range detection
- 5 levels of LCD display precision
- Auto shut down after 30 mins



LS-100D

- mm reading digital detector
- 800m dia working range
- 90mm vertical detecting range
- magnet mount option
- Large LCD front and back

Machine Control Receivers



LS-B200

- Range 800m (diameter)
- Adjustable “on grade” accuracy
- Power save/auto cut-off

LS-B10

- Versatile receiver for mini excavator, skid steer
- Heavy duty magnet
- 270° pick-up
- 120mm pick-up band
- Wireless in cab option



LS-B200W

- Includes slope and plumb indicator
- Compatible with Topcon’s Control Boxes for “automatic” mode applications
- One-touch “On Grade” matching
- Offset the “On Grade” position



RD-100W

- Remote for W model to suit LS-B200W

Theodolites



DT-300 Series

- 30x magnification
- Available in 3 models
- Up to 300hrs run time from Li-ion battery
- Absolute circle reading
- IP66 waterproof and dust proof

Also available - Astor DT-10

Electronic Theodolite

Pipe Lasers



TP-L6

- Red beam or green beam models
- Compact design
- 5m-150m range
- -15% to +40% slope range
- Remote control
- IPX8 fully submersible
- Li-ion battery

3D Laser Construction Total Station



LN-150

- Full construction total station
- Single operator for precise 3D layout
- Seamless cloud connected to Autodesk, Bentley and MAGNET
- Easy to use with MAGNET or Pocket 3D software
- Easy one-button, self-levelling
- Wireless controller

Real Time Grade Control



2D iDig

The advanced excavator grade system works with all the models of machines

- Get live update on slope, distance and distance to grade
- Quick install with solar powered sensors
- Large in cab easy read display
- Quick swap between machines









Shaping New Dimensions

Position Partners

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