

# Leica Rugby 810, 820, 830 & 840

The toughest construction  
lasers on site



- when it has to be **right**

**Leica**  
Geosystems



# Leica Rugby

## The toughest construction lasers on site

Leica Rugby construction lasers are more than just a product, they are an intelligent, versatile, clever solution that significantly enhance your application performance. The Rugby lasers are an integrated part of the Leica Geosystems intelligent **CON**struction portfolio, providing a comprehensive solution for our customers.



reddot design award  
winner 2013



### Outstanding application performance with Laserman

Perform applications easier and faster than ever before – no mistakes possible!

- **Smart Targeting:** Automatically align your laser plane at the touch of a button – horizontal, vertical and dual axis
- **Smart Lock:** Monitor and correct the laser plane in real-time avoiding costly mistakes, any movement of the laser plane will be detected



### Toughest laser in the market

Site proof design – rugged and robust housing provides reliable application performance even in the harshest jobsite conditions.

- IP 68 protected and the only laser in the market with Military Grade Certification, the highest standard in water and dust protection!
- Quality you can trust – Lifetime manufacturer's warranty, 5 years no cost period and 2 years knockdown warranty
- Maximum Temperature Stability – guaranteed highest accuracy across the entire operating temperature range, providing the perfect solution in all conditions



### Unique power concept

Unbeatable versatility – power and charge anywhere, anytime!

- Intelligent and rugged Li-Ion battery concept
- Interchangeable battery packs throughout the new Leica Rugby family (Alkaline and Li-Ion)
- Run and charge anywhere – in the car, from a 12v battery / generator or out in the sun with the solar panel



### Intelligent, versatile, clever – it's more than just a laser!

Intelligent laser systems combined with unique accessories provide unbeatable application performance.

- Plug and play on site with clever accessories throughout the Leica Rugby family
- Operate and charge your laser at the same time using the solar panel – use the carry case and integrated bag to position the solar panel towards the sun





# Leica Rugby

## Fit, fast, tough – select the best player for your site

Leica Rugby lasers are the toughest rotating lasers in construction. Level, align and square much quicker than ever before, eliminating costly errors and downtime.

### Leica Rugby 810



#### Levelling made easy

- Simple and reliable, one button laser where no mistakes are possible
- Single axis slopes up to 45° with manual slope adapter
- High application performance with Leica Rod Eye 140 – with the built-in 12 cm detection window, you can easily detect the beam over the entire distance



### Leica Rugby 820



#### Tough as concrete – unbeatable with slopes

- Carry out concrete forming, pad placement and framework levelling; setting foundations and footings has never been more efficient
- Automatic slope in single or dual-axis with the Leica Rod Eye 180 RF receiver by using the Smart Targeting and Smart Lock functionality
- Set in manual operation up to 10% in single or dual-axis



### Keeps working when others stop

- Achieve the highest performance and precision, specifically for long range levelling applications in general construction and machine control up to 1.350m (4.430ft) and up to 60°C (140°F)
- No downtime with our solar panel – power and charge anywhere, anytime
- For applications that require a slope, set in manual operation up to 10% in single or dual-axis
- Maximum Temperature Stability – guaranteed highest accuracy across the entire operating temperature range



### Leica Rugby 830



### The laser that tackles it all

- Highest application performance for any levelling, aligning and squaring applications on site
- **Smart Targeting:** Tie-in slopes in single or dual axis and automatically align – fast and easy, at the touch of a button
- **Smart Lock:** Monitor and correct the laser plane in real-time, always ensuring reliable results
- Complete application solution in one case, with Leica Rod Eye 180 RF remote receiver and RC400 remote control



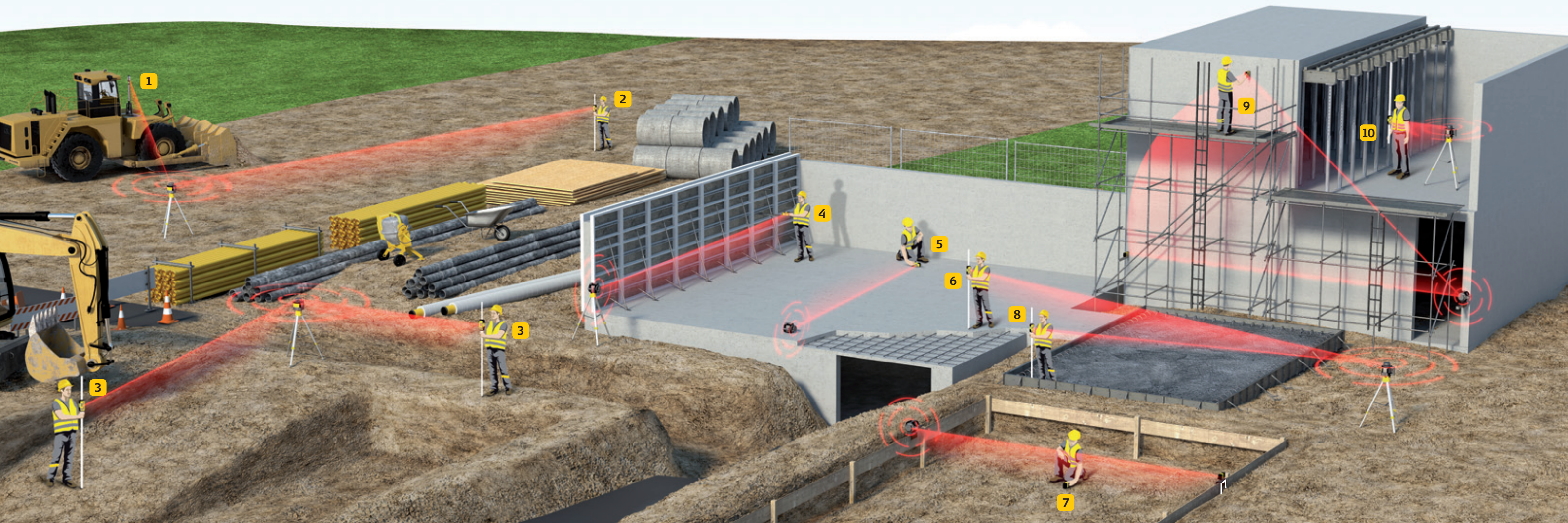
### Leica Rugby 840





# Leica Rugby

## The right team for every application on site



- 1 Land levelling**  
Full system for agricultural land levelling operating dozers with the best results.



- 2 Grade checking**  
Easy and reliable grade checks over long distances.



- 3 Slopes for ramps and driveways**  
Automatically tie-in slopes in single and dual axis using Smart Targeting.



- 4 Vertical alignment of formwork**  
Automatically align parallel to the reference with Smart Targeting and check plumb of formwork.



- 5 Set-out walls**  
Automatically align two points with Smart Targeting and mark position of wall/formwork.



- 6 Concrete pouring**  
Check height of concrete and use digital readout for clear indication of offset.



- 7 Batter board**  
Align batter board markings and set-out building axis.



- 8 Formwork levelling**  
Transfer reference height and level formwork.



- 9 Facade alignment**  
Align fixings for facade over the entire plane.



- 10 Level decks and slabs**  
Level decks and slabs easily and efficiently. Digital readout provides clear indication of offset.





# Leica Rugby Accessories

The Leica Rod Eye family of receivers and accessories offers solutions for any general construction and interior application. They are engineered to the highest standard and work seamlessly with the Leica Rugby laser portfolio.

## Leica Rod Eye 180 Digital RF



- Top of the range receiver with integrated radio remote functionality, digital readout, half millimetre accuracy and strobe rejection
- Intelligence inside with Laserman:
  - Automatically align your laser plane at the touch of a button - horizontal, vertical and dual axis
  - Monitor and correct the laser plane in real-time using Smart Lock functionality



## Leica Rod Eye 160 Digital



- Professional receiver with digital readout, half millimetre accuracy and strobe rejection
- Capture digital readout for convenient height readings

## Leica Rod Eye 140 Classic



- High application performance with Leica Rod Eye 140 - with the built-in 12 cm detection window you can easily detect the beam over the entire distance

## Plug and play – perfect application set-up with clever accessories



**A220 Batter Board clamp and adapter:** provides a simple, string free set-up on batter boards. When not in use, the 90° receiver adapter attaches to the main clamp for easy storage.














**A240 Manual Slope adapter:** up to 90° slope possibility in one axis using the Leica Rugby in manual mode.






**A280 Facade adapter:** enables an easy and practical set-up for all facade installations. The kit consists of two adapter brackets and a batter board clamp with the 90° receiver adapter.

# Technical Specifications

				
Technical data	Rugby 810	Rugby 820	Rugby 830	Rugby 840
Functionality	Self-levelling horizontal, single manual slope (with slope adapter)	Self-levelling horizontal & manual slope in dual axis	Self-levelling horizontal & manual slope in dual axis	Self-levelling horizontal, vertical, 90° and manual slope in dual axis
Smart Targeting	-		-	
Smart Lock	-		-	
Maximum Temperature Stability	-	-		-
Operating range (diameter)	800 m (2.600 ft)	800 m (2.600 ft)	1.350 m (4.430 ft)	700 m (2.300 ft)
Self-levelling accuracy*	± 1.5 mm at 30 m (± 1/16" at 100 ft)			
Self-levelling range	± 6°			
Rotation speed	10 rps	10 rps	10 rps	0, 2, 5, 10 rps
Scanning modes	-	-	-	10°, 45°, 90°
Laser diode type /class	635 nm (visible) / Class 2			
Dimensions (H x W x D)	235 x 238 x 190 mm (9.2 x 9.4 x 7.5 in)			
Weight with batteries	3.0 kg (6.6 lbs)			
Batteries (alkaline/rechargeable)	Four D-cells / Li-Ion pack			
Battery life** (alkaline/rechargeable)	60 hours / 45 hours @ 20°C			
Extended operating temperature	-20° to +50° C (-4° to +122° F)	-20° to +50° C (-4° to +122° F)	-20° to +60° C (-4° to +122° F)	-20° to +50° C (-4° to +122° F)
Storage temperature	-40° to +70° C (-40° to +158° F)			
Environmental standard	IP68			
RC400 remote control				
Operating range (diameter)	-	-	-	 200 m (650 ft)

\* Accuracy is defined at 25 °C (77 °F) \*\* Battery life is dependent upon environmental conditions

## Laser Receivers

			
Technical data	Rod Eye 140 Classic	Rod Eye 160 Digital	Rod Eye 180 Digital RF
Working diameter	1.350 m (4.430 ft)	1.350 m (4.430 ft)	1.350 m (4.430 ft)
Extended detection window	120 mm / 5 in	120 mm / 5 in	120 mm / 5 in
Numeric readout height	-	90 mm / 3.5 in	90 mm / 3.5 in
Detectable spectrum	600 nm to 800 nm	600 nm to 800 nm	600 nm to 800 nm
Detection accuracies			
Ultra fine	-	± 0.5 mm / ± 0.02 in	± 0.5 mm / ± 0.02 in
Super fine	± 1.0 mm / ± 0.04 in	± 1.0 mm / ± 0.04 in	± 1.0 mm / ± 0.04 in
Fine	± 2.0 mm / ± 0.08 in	± 2.0 mm / ± 0.08 in	± 2.0 mm / ± 0.08 in
Medium	± 3.0 mm / ± 0.12 in	± 3.0 mm / ± 0.12 in	± 3.0 mm / ± 0.12 in
Coarse	-	± 5.0 mm / ± 0.20 in	± 5.0 mm / ± 0.20 in

# PROTECT by Leica Geosystems

Guaranteed reliability for the toughest construction lasers



**Lifetime** Warranty  
**5 Years** No Cost  
**2 Years** Knockdown

Leica Rugby construction lasers get the job done, anywhere, anytime, providing reliability and accuracy even in harshest jobsite conditions. Our products are built to last. We offer a Lifetime Manufacturer's Warranty, 5 Years No Cost Period\* and a 2 Year Knockdown Warranty.

Register your product within 8 weeks from the purchase date at: [www.leica-geosystems.com/registration](http://www.leica-geosystems.com/registration) and extend your no cost period to 5 years\*.

\* 5 Year No Cost applies to Leica Rugby 810, Leica Rugby 820, Leica Rugby 830, Leica Rugby 840, Leica Rugby 260SG, Leica Rugby 270SG & Leica Rugby 280DG.



Lifetime Warranty	5 Years No Cost	Certified Quality	Swiss Technology
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# Leica Geosystems intelligent CONstruction

Enhancing your performance

Fully understanding construction carried us beyond the ordinary. The Leica Rugby products are an integrated part of the Leica Geosystems intelligent CONstruction portfolio, enabling you to enhance your performance and increase your profitability through perfecting your construction workflow.

## iCONstruct

Intelligent rotating lasers combined with unique accessories provide unbeatable application performance.

- Rugged and robust
- Versatile
- Reliable
- Interchangeable



## iCONtrol

Providing you with an efficient portfolio of rotating lasers that communicate with your machine receivers.

- High performance and precision for long range levelling
- Reliable and seamless receiver communication



**icon**  
 intelligent construction

## iCONSult

A global sales and support network, providing advice on intelligent CONstruction solutions to grow your business.

- Offering a best-in-class service with PROTECT by Leica Geosystems
- Personal service
- Professional consultancy



## iCONnect

Seamlessly integrate your rotating lasers with other intelligent construction products and solutions.

- Monitor and correct the laser plane in real-time
- Real-time data guarantees accurate jobs
- Reduced downtime
- High productivity







Whether you have to precisely layout a construction site, perform control measurements, collect height and angle data, align concrete forms, install ceilings and partitions, lay gravity flow pipe, locate underground services or complete site preparation and earthworks – Leica Geosystems offers the right instrument, construction laser or machine control installation specifically designed for your construction application.

Easy-to-use, jobsite-tough, accurate and reliable – Leica Geosystems instruments and lasers ensure the efficient use of your materials and resources. High-quality products, such as optical and electronic levels, construction lasers, total stations and machine automation systems, provide fast results, keep you working and increase your profitability.

**When it has to be right.**

**SWISS Technology**  
by Leica Geosystems



**Total Quality Management –**  
our commitment to total  
customer satisfaction.

Ask your local Leica Geosystems  
dealer for more information  
about our TQM program.

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build**  
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**PROTECT by  
Leica Geosystems**  
Brochure



**Leica Piper  
100/200**  
Brochure



**Leica Builder**  
Brochure



Leica Rugby 810, 820, 830 & 840:  
Laser class 2 in accordance  
with IEC 60825-1  
resp. EN 60825-1

For more information on Leica Rugby products and services, please visit:  
[www.leica-geosystems.com](http://www.leica-geosystems.com)