

# Leica Rugby 320 SG & 410/420 DG

The toughest players on big fields



- Construction
- Machine Control
- Agriculture



**SITE PROOF**  
by Leica Geosystems

- when it has to be **right**

**Leica**  
Geosystems

# Leica Rugby 320 SG & 410/420 DG

## When accuracy is the goal, Leica Rugby makes the grade

Making the grade is what the Leica Rugby is all about. Whether your work requires level, single or dual grades and high accuracy over a long distance range, the Leica Rugby's extensive features will ensure both material and labor savings, keeping you on target to increase your bottom line.

The Leica Rugby Grade Lasers are automatic and self-leveling for jobs of any size, large or small. They can be used for any application involving precise grade control such as:

- Building pads, parking lots and runways
- Precise depth control for sub-base and fine grade excavation
- Agricultural applications such as land leveling or tiling
- Concrete forming and framework
- Retention ponds and batters
- Setting foundations and footings
- Machine control with the Leica Depthmaster, Power-Grade, Power-Blade and PowerDigger systems

### Why Leica Rugby is the toughest player on the field

- Waterproof and dustproof to work reliably in all weather and job site conditions
- High-impact composite housing with protective rubber overmolding
- Cast aluminum base withstands rough handling and creates a stable platform
- Enclosed head for maximum internal component protection
- Long-range two-way remote control, optional with the Leica Rugby 400 Series
- Superior battery concept (alkaline or NiMH rechargeable)



### Long-range remote control

- Controls all Leica Rugby functions
- Change your settings "on-the-fly"
- Large display with backlight
- Water, dust and shockproof
- Superior radio performance
- Simplify workflow and reduce costs

#### Remote Control Specifications

Instrument	Leica Rugby 410/420 DG
Distance	225 m / 750 ft typical
Battery Type	four AAA alkaline
Size (HxWxD)	155x70x45 mm 6.1x2.8x1.8 inch
Weight	410g / 14.4oz
Frequency	2405 - 2480 MHz



## Reliable in General Construction



The Leica Rugby 320 SG/410 DG suits perfectly into General Construction work

- Easy foundation setting because of 5-button keypad
- Superior power management for working without interruptions (up to 130 hours)
- Full-function long-range two way remote control saves time and reduces communication errors from inside or outside the cab of the machine (Leica Rugby 410/420 DG only)
- High-power laser beam provides enhanced distance performance
- Rugged and reliable, works when you need it

## Tough in Machine Control



The Leica Rugby 320 SG & 410/420 DG are designed specifically for complete compatibility with Leica Geosystems' machine control solutions, e.g.



# Highest Accuracy in Agriculture



The Leica Rugby 420 DG is perfectly suited for the agriculture market, where accuracy over a long-range is required.

- Designed for agriculture applications, such as land leveling and tiling
- Highest accuracy over long distances
- Align the laser with a simple one-person operation using the manual-axis-alignment feature
- Eliminate communication errors using the long-range remote control
- Stable laser plane over the whole temperature range
- High performance for all day use

User-friendly features give you the competitive edge for precise grade control



**Feature access control**  
using the 5-button concept



**High speed variable rotation**  
for precise operations



**Manual mode**  
for special applications



**Direct grade entry**  
for ease of use



**Power management**  
monitors battery status



**Axis alignment**  
to increase grade accuracy over long distances



**Elevation alert**  
monitors the height to prevent elevation errors



**Your personalized identification**  
to support theft protection



**Wind sensitivity settings**  
allows to work under adverse conditions



**Long-range two-way remote control**  
to reduce communication errors



**Beam masking**  
electronically shuts the beam for multiple laser usage



**Power-saving mode**  
enables longer operation times



## 750 ft

Leica Rugby Series Specifications	Leica Rugby 320 SG	Leica Rugby 410 DG	Leica Rugby 420 DG
Operating Range (Diameter)	900 m / 3000 ft*	800 m / 2600 ft*	1100 m / 3600 ft*
Self-Leveling Accuracy	±1.6 mm per 30 m** / ±1/16 inch per 100 ft**		
Self-Leveling Range	±5°		
Grade Capability	-5 to +25%	-5 to +25% in either axis (-5 to +15% in both axes)	-5 to +25% in either axis (-5 to +15% in both axes)
Grade Resolution	0.001%		
Rotating Speeds	5, 10, 15, 20RPS		
Laser Diode	635 nm visible red laser	780 nm invisible (IR)	635 nm visible red laser
Size (H x W x D)	265x260x200 mm / 10.4x10.2x7.9 inch		
Weight	5 kg / 11.1 lbs without batteries		
Operating Temperature	-20° to +50°C / -4° to +122° F		
Battery Type	alkaline or NiMH		
Battery Life	up to 130 hours with alkaline; up to 100 hours with rechargeable***		
Environmental	watertight to IPX-7 standard		
Warranty	2 years factory warranty / additional 3 years optional		

\*Tested with Leica receivers (CAB Sensor, MLS700, Rod-Eye Pro/Classic) / \*\*Accuracy is defined at +25°C / +77°F / \*\*\*Battery life is dependent upon environmental conditions



**5**  
Years Warranty

2 years standard  
+3 years extension  
optional\*

\*For terms and conditions please refer to your sales person.

Leica Rugby Series Features by Model	Leica Rugby 320 SG	Leica Rugby 410 DG	Leica Rugby 420 DG
Simple to use 5-Button Key-Pad	✓	✓	✓
Real-Time Grade Matching	✓	✓	✓
Superior Dual Battery Concept	✓	✓	✓
Scope Mount in Both Axes	✓	✓	✓
Laser Beam Visible (Red)	✓	-	✓
Laser Beam Invisible (IR)	-	✓	-
Grade Capability X (or Y)-Axis -5 to +25 %	✓	✓	✓
Grade Capability in Both Axes -5 to +15 %	-	✓	✓
Long Range Remote Control	-	✓	✓
Axis Alignment	-	✓	✓
Laser Plane Stabilization	-	-	✓
Enhanced Operating Range	-	-	✓

Whether you have to precisely lay out 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.**

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

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

**Leica Rugby 410 DG:**  
 Laser class 1 in accordance with IEC 60825-1 resp. EN60825-1

**Leica Rugby 320 SG and 420 DG:**  
 Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1



**Leica Sprinter**  
 Quick, easy and efficient digital leveling



**Leica Piper 100/200**  
 The world's most versatile pipe laser



**Leica Rugby 100LR**  
 Accurate and reliable self-leveling laser



**Leica PowerBlade**  
 Automated grading system



**Leica Builder M/RM power**  
 The theodolite built for builders