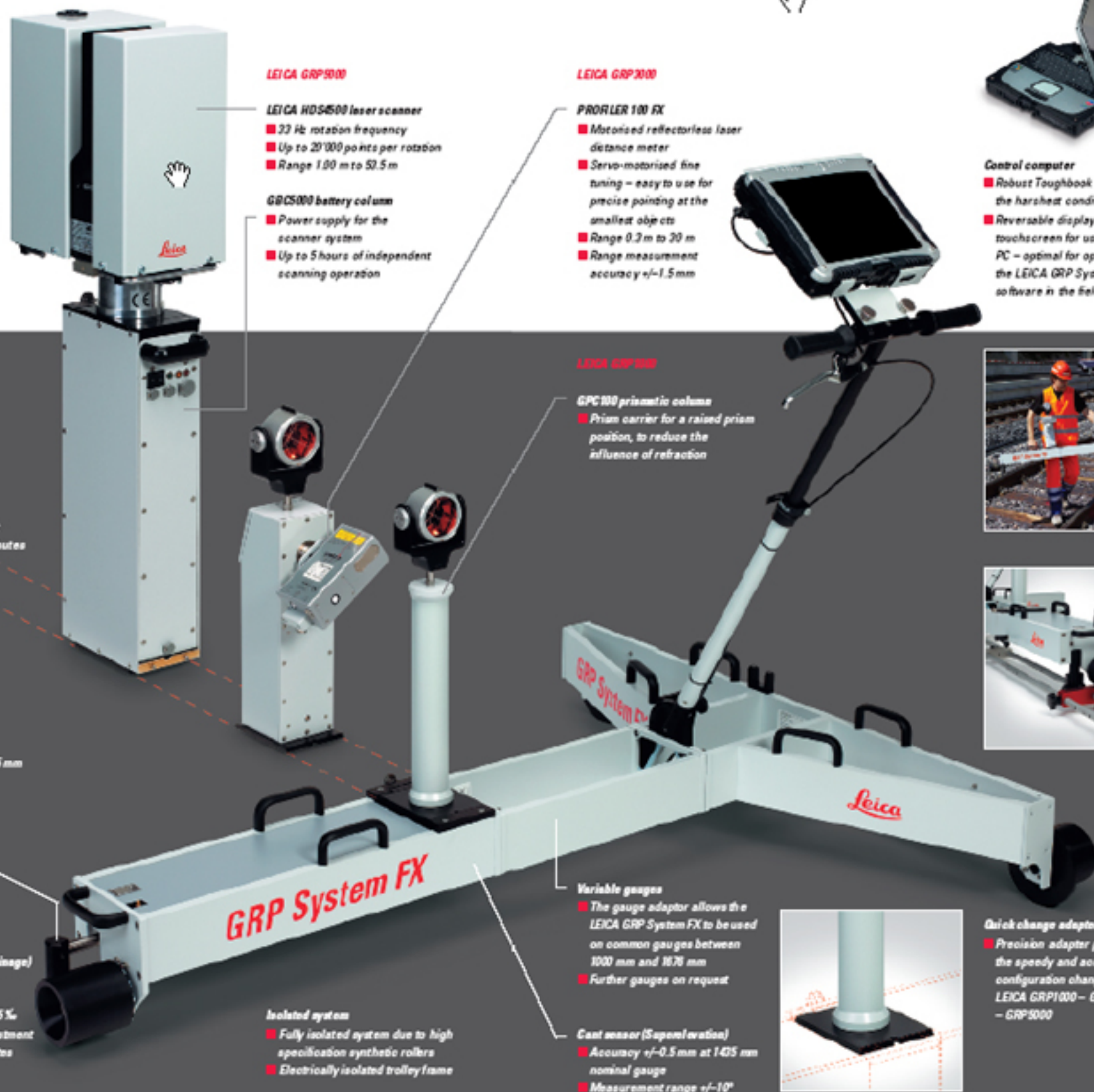


# LEICA GRP system FX hardware

## Portable, precise, modular

The platform of the LEICA GRP System FX is the TGS FX track gauging trolley. Manufactured to the highest engineering standards, it combines precision sensors with practical design, making the LEICA GRP System FX a reliable partner in the challenging railway survey environment.



### LEICA GRP5000

- LEICA HD54500 laser scanner**
- 33 Hz rotation frequency
  - Up to 20'000 points per rotation
  - Range 100 m to 52.5 m

### GBCS000 battery column

- Power supply for the scanner system
- Up to 5 hours of independent scanning operation

### LEICA GRP2000

#### PROFLER 100 FX

- Motorized reflectorless laser distance meter
- Servo-motorized fine tuning – easy to use for precise pointing at the smallest objects
- Range 0.2 m to 20 m
- Range measurement accuracy  $\pm 1.5$  mm

### LEICA GRP1000

#### GPC100 prismatic column

- Prism carrier for a raised prism position, to reduce the influence of refraction



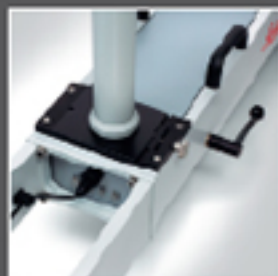
### Control computer

- Robust Toughbook for use in the harshest conditions
- Reversible display with touchscreen for use as a tablet PC – optimal for operation of the LEICA GRP System FX software in the field



### Positioning with

- Leica TPS Total Station**
- LEICA GRP System FX is fully compatible with Total Stations LEICA TPS 1100 / TPS 1200 / TPS 2000



### Lightweight system

- Light, high-precision frame construction
- System can be easily dismantled for transport
- Ready to measure in minutes



### Gauge sensor

- Accuracy  $\pm 0.2$  mm
- Measurement range  $-25$  mm to  $+65$  mm in relation to nominal gauge

### Odometer (stationing / chaining)

- Relative stationing with 5 mm resolution
- Accuracy better than 0.5%
- Optional stationing adjustment with 3-D track coordinates

### Isolated system

- Fully isolated system due to high specification synthetic rollers
- Electrically isolated trolley frame

### Variable gauges

- The gauge adaptor allows the LEICA GRP System FX to be used on common gauges between 1000 mm and 1676 mm
- Further gauges on request

### Cast sensor (Supernova)

- Accuracy  $\pm 0.5$  mm at 1405 mm nominal gauge
- Measurement range  $\pm 10^\circ$



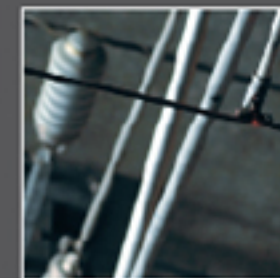
### User ergonomics

- Trolley design for optimal handling in the field
- Fully adjustable push handle
- Balance device for safe "one man" operation
- Dead-man's brake to prevent unintentional movement of the trolley



### Calibration set

- Gauge frame for calibrating and checking the inner system accuracy



### LEICA GRP3000

### Visible laser dot

- Enables rapid targeting of specific object points
- Use of the BFT4 Disto telescopic viewer for easy targeting of the overhead wire – even in bright sunlight

### Quick change adaptor

- Precision adapter plate for the speedy and accurate configuration change between LEICA GRP1000 – GRP2000 – GRP5000

