

ROOTPILOT

SANY

supported by **Putzmeister**



SANY ROOTPILOT

**DIG SMARTER.
DIG FASTER.
FINISH SOONER.**

3D CONTROL THAT DELIVERS PRECISION AND
EFFICIENCY ON EVERY EARTHMOVING JOB

ROOTPILOT





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INNOVATIVE MACHINE-CONTROL-SYSTEM

SMART PRECISION. REAL RETURNS.

Let's be honest: whether the job is small or large, only two things matter at the end of the day – is the work done right, and was it profitable? But reality on site often looks different: digging too deep, missing marks, unclear levels, and waiting around for the surveyor all burn time and cash. When you're trimming, cutting or working on batters, precision is everything.

From everyday excavator to high-performance tool

Digital workflows solve exactly these recurring problems. ROOTPILOT brings a fully connected, data-driven way of working to your site – from the terrain model all the way to the final bucket cut. Turn your excavator into a smarter machine. ROOTPILOT shows the operator in real time exactly where the bucket, boom and stick sit in relation to the design. No more guessing, no more pegs, no more constant re-checking.

ADDITIONAL EQUIPMENT

ADDED-FEATURES

- + BASE STATION
- + SURVEYOR SCOPE
- + LASERS
- + REFLECTORS
- + GPS POLES
- + PRISM

YOUR CHOICE

Two versions – One system that grows with your needs.

ROOTPILOT is built for more than road construction – it's ideal for foundations, long pipeline trenches, waterworks and a wide range of earthmoving tasks.

 **Standard Version – 2D Fundamental** covers everyday operations like small-scale grading, sloping & trenching,

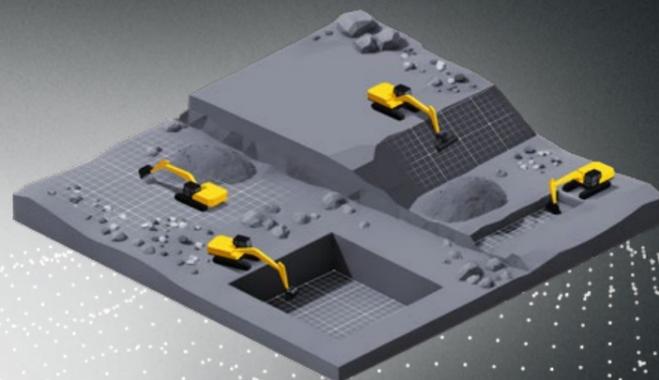
 **Premium Version – 3D Advanced** adds modelling, analysis and documentation tools for larger infrastructure and specialised projects such as extensive sloping, pit & foundation works, grading, ridge shaping, roadworks, dredging & canals.

WHAT IS ROOTPILOT

LESS MATERIAL. LESS REWORK. FULL CONTROL.

ROOTPILOT integrates high-precision GNSS and IMU sensing with advanced algorithms to track your excavator's spatial movements in real time. Based on the design's terrain data, it generates intuitive 3D visual guidance to help operators achieve high-precision excavation – efficiently, accurately, and safely.

- 1. Trimming & Modelling:** Your excavator handles the final trim itself. Batters and profiles follow the model with precision – often completed in one go.
- 2. Excavation & Trenches:** Over-cutting is over. ROOTPILOT avoids unnecessary material use and shows exact bucket position even when visibility is blocked.
- 3. Safety & Speed:** No one in the danger zone, no waiting for surveyors. Operators see all levels and design points live on screen.



EASY TO USE

HOW ROOTPILOT WORKS

1. Site measurement and coordinate setup
2. Capture all relevant terrain points
3. Process and modify the 3D model in the system
4. Simple, tool-free hardware installation
5. Guided calibration via total station or digital survey tool
6. Real-time machine guidance during operation
7. Automatic quality check and final as-built measurement



SMART DIGGING – GET THE ROOTPILOT ADVANTAGE NOW!

EFFICIENT

Turn design into reality with DTM-based 3D modelling – works with simple 2D sketches through to major 3D road and infrastructure projects.

ACCURATE

Achieve ± 3 cm vertical and horizontal accuracy – dust, dusk or rain, the operator always sees the exact bucket position.

MATERIAL-SAVING

Over- and under-cutting are drastically reduced – often eliminated.

DIRECT PLAN UPLOAD, USER-FRIENDLY & COST-EFFECTIVE

Excellent value for money. Site engineers can upload project plans directly into ROOTPILOT without the need for 3rd-party software integrations. Operators can be trained to complete site calibration, reducing reliance on surveyors, minimising setup times and lowering overall project costs.

SAFE

No one needs to stand in the trench to check levels. Reduce the risk of hitting utilities or hidden obstacles.

FAST INSTALLATIONS

Magnetic sensor mounts, pre-configured profiles and guided calibration. Machine geometry, joints and IMU offsets are calculated automatically.

WIDE COVERAGE – NO BASE STATION NEEDED

With 5G network coverage, ROOTPILOT eliminates the need for local base stations. Operators can get satellite access wherever CORS is available, reducing equipment requirements. Built-in Wi-Fi capability allows operators to even hotspot via mobile phones when required - ideal for contractors moving between multiple sites.

BUILT TOUGH

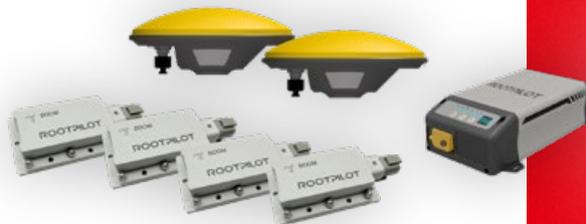
Designed for rough environments. Sensors protected by 26 mm steel, shockproof and waterproof.

COMPATIBLE

Works with SANY excavators and all other brands. Compatible with XML format designs. Supports various attachments and all major GNSS systems (GPS, Galileo, GLONASS, BeiDou). Understands local coordinate systems like WGS84 and UTM.

SUPPORT

The SANY Oceania capable dealer network provides fast support and on-site training.



EASY TO GET

YOUR NEXT STEPS

1. Confirm your excavator model
2. Select ROOTPILOT Standard or Premium
3. Book a quick demo with your local dealer

Now's the perfect time to upgrade your machines. Talk to your local dealer and get your ROOTPILOT advantage today!

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