



TALOS

CONVENTIONAL TUNNELING GUIDANCE

HIGHLIGHTS:

- Robust Hardware and Easy Setup
- Provides As-built tunneling with High Accuracy
- Can be Operated by Tunnel Personnel
- Office Software for Data Management (Tunnel Alignment, Profiles, System Settings)
- Clear and Intuitive User Interface with Touchscreen Operation

GENERAL DESCRIPTION

TALOS is GEODATA's latest iteration of the successful mobile motor laser system.

The system consists of tunnel proof hardware and intuitive software and enables a quick and easy setup anywhere inside the tunnel.

The fundamental idea is to provide a system which only requires minimal knowledge of basic surveying principles and therefore can be used by tunnel personnel without the presence of a surveyor.

TALOS can be used for stake out operations to adjust supporting girders and pipe umbrellas, for

quick and easy profile checks and several additional operations.

All functions are controlled by the state of the art software which allows touchscreen operation and data analysis on the fly.

The tunnel system is complemented by the office software TunnelEditor which enables data management, alignment and profile management and import/export of data.

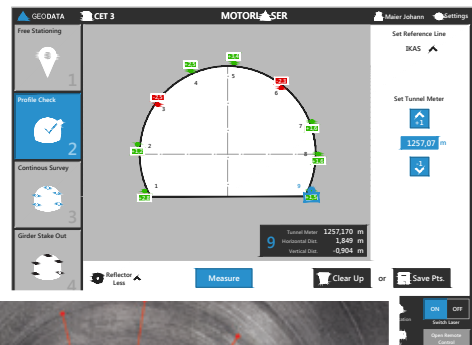
The system itself consists of a robotic total station, an interface box for wireless data transmission and power supply and a tablet PC.



FUNCTIONAL PRINCIPLE

As the basis for profile recording, project-specific data such as axis geometry, standard profile and fixed points must be made available to the EUPALINOS control software. Generally, the survey is carried out using a tripod in accordance with the free stationing principle. Free stationing and orientation of the total station must be carried

out in preparation for, and immediately preceding, the measurement. All remaining measurements are carried out automatically after brief training of the tunnel staff, without involving the surveyor. Identification of the measured points of the profile is performed using the integrated laser pointer of the total station.



FEATURES

- Guided Setup of the Total Station
- Positioning of Girders
- Stake out of Tunnel Profile
- Stake out of the Tunnel Face
- Stake out of Pipe Umbrellas
- Setting out of Reference Lines
- Data Management and Management of General Project Information
- Automatic Generation of PDF Reports
- Automatic Observation of Thresholds



TUNNEL EDITOR

TALOS works in combination with data generated by EUPALINOS. Additionally, it can be used as a standalone system together with Tunnel Editor.

Tunnel Editor is GEODATA'S office software for the management of project-relevant data such

as alignments and profiles.

Tunnel Editor supports the latest iterations of Windows and only requires minimum hardware resources.

The software provides the following features:

- ▲ Input of alignments via elements (line, curve, spiral line)
- ▲ Automatic consistency check of the introduced information
- ▲ Input and management of profiles with several layers
- ▲ Interpolation of profile-offsets and inclinations
- ▲ LandXML import
- ▲ Interpolation between symmetric and asymmetric profiles with a variable number of elements
- ▲ Management of project-specific data (Scale factor, height reduction, ...)



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