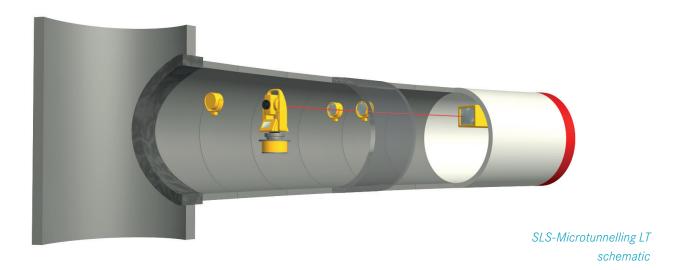
SLS-Microtunnelling LT

The Navigation System SLS-Microtunnelling LT is a Laser Total Station system which continuously determines the exact position of the Tunnel Boring Machine and displays the deviations with respect to the DTA immediately on the monitor at the operator's place.

The SLS-Microtunnelling LT System offers considerable advantages especially at long distance and curved advances. As the complete hardware is installed in the front part of the tunnel (first 100m) refraction will not influence the measurements and calculations for the vertical TBM position. The high content of information of the displayed data guarantees an optimal control of the machine position in order to hold the deviations from the designed tunnel axis to a minimum.

The system measurements are done during the advance process and don't cause any interrupt. The control measurements for system adjustment are done in intervals of 60m -120m, depending on the alignments. This minimizes the maintenance effort of a surveyor during the whole working process.





Benefits

- Optimal control by continuous monitoring of machine movements
- Fast action possible as deviations are quickly recognized
- Minimized effort for control measurements
- No advance interrupts at system measurements
- High advance output power
- Modular expandable by further sensor and navigation systems



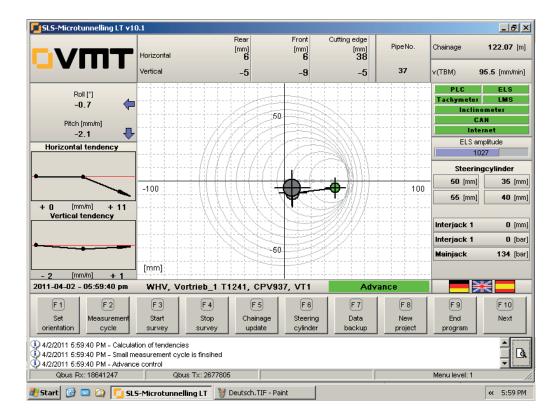
SLS-Microtunnelling LT

The high precision and reduction of down times makes this system extreme efficient especially for quick advances.



Features

- Field of applications: Microtunnelling, for long distance and curved advance from DN1200
- Continuous graphical and numerical display of deviations and tendencies
- Determination of position independent of refraction or drift
- Connection to remote control and internet visualization
- PLC-connection to various types/producers
- All-over reporting according to ATV, customized expandable
- Stand-Alone-System for all types of machine



Upgrade option to SLS-Microtunnelling LT+

- For advances requiring increased vertical accuracy
- SLS-Microtunnelling L drives longer than usual and a required high vertical accuracy
- When used with an SLS-Microtunnelling LT used as a precise redundant height determination
- Accomplished by adding an electronic water level