# AMBERG SLAB TRACK GRP 1000

## PRECISE CONTROL FOR SLAB TRACK ADJUSTMENT

**The Amberg Slab Track GRP 1000 system provides precise control for slab track installation and adjustment. A fully integrated workflow links real-time field measurement with dedicated slab track reporting in the office. Proven on major high-speed projects, including extensive use across China's high-speed network, it delivers actionable correction values for on-site adjustment and dependable compliance with design.**

### Hardware Configurations

- **GRP 1000:** Total Station + Prism on Trolley. Total station on tripod, resected to control. Tracks prism on trolley for absolute 3D position, combined with trolley sensor data: gauge, cant, and odometer.
- *Note: For fast slab track acceptance workflows, refer to the Amberg Slab Track IMS 1000 / 3000 datasheet.*

### Slab Track Adjustment Workflow

- **Setup & Positioning:** Total station resected into control points, tracking prism on trolley.
- **Real-Time Guidance:** Immediate display of horizontal, vertical, gauge, and cant deviations against design.
- **Rough to Fine Adjustment:** Intuitive on-screen feedback supports fast rough positioning and precise fine adjustment of slabs.
- **Correction Output:** Generate tabular values for adjustment plates/shims to bring slab track into tolerance.

### Amberg Rail Software – Slab Track Module

- Integrated field and office workflow for slab track adjustment
- Real-time deviation display with intuitive, sleeper-based feedback
- Automatic error compensation for smooth tie-ins
- Correction plate/shim values generated per sleeper for direct application
- Dedicated slab track reporting tools in Amberg Rail support both adjustment and acceptance workflows


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# SYSTEM PERFORMANCE AND TECHNICAL DATA

| System [1] [2] | |
|---|---|
| | **GRP 1000** |
| Gauge [mm] | 1000, 1067, 1220, 1372, 1435, 1495, 1520/1524, 1600, 1668/1676 |
| Weight [kg] (re 1435 mm gauge) | 27 |
| **Gauge measurement** | |
| Range [mm] (re nominal gauges) | -25 to +65 |
| Accuracy [mm] | ±0.3 |
| **Cant measurement** | |
| Range [mm] (re 1435 mm gauge, range ±10°) | ±260 |
| Accuracy [mm] | ±0.5 |
| **Track position measurement** | |
| Track position accuracy [mm] (single measurement mode) | ±1 |
| Track position accuracy [mm] (tracking mode) | ±3 |
| **Trolley battery** | |
| Type | Amberg GBS 1010 Li-Ion, rechargeable |
| Operating time [h] | >8 |
| **Field computer battery** | |
| Type | Panasonic FZ-G2 compatible |
| Operating time [h] | >4 |
| **Environmental specifications** | |
| Working temperature range [°C] | -10 to +50 |
| Humidity [%] (non-condensing) | <80 |

| Performance on track [1] | |
|---|---|
| | **GRP 1000** |
| Typical track adjustment productivity [m/day] | >400 |
| Typical track documentation and acceptance productivity [m/h] | >100 |

| Positioning sensors & accessories | | | |
|---|---|---|---|
| | **Leica** | **Topcon** | **Sokkia** |
| Total station (≤1") | TS15/16, TS30, TS50/60, MS50/60 | GT-1500/1200, MS AXII | iX-1500/1200, NET AXII |
| Prism | AP20, Round, Mini, 360, 360 Mini, Mini Zero, Tape | Prism-2, ATP1 | AP01, ATP1 |

| Slab track operations | |
|---|---|
| Typical track applications | High-speed lines, light rail, metro/urban lines, tunnel refurbishment projects, industrial tracks |
| Slab track installation | Compatible with construction methods such as Rheda 2000, Iron-Horse, and others |
| Tunout installation | Suitable for turnout systems, including solutions with structural gauge enlargement (e.g. FA-KOP®). Compatible with systems from BWG, Cogifer, and others |
| Documentation & acceptance | Supports acceptance and documentation of common slab track systems, including Bögl System, J-Slab, Rheda 2000, Iron-Horse, Züblin, and more |

| System approvals |
|---|
| **CE Conformity** |
| EN 61326-1:2013, EN 61000-6-2:2005, EN 61000-6-4:2007/A1:2011, EN 60825-1:2014, EN 13848-4, EN 13977:2011, Directives 2014/30/EU, Directives 2014/35/EU, Directives 2011/65/EU |
| **GRP System FX approvals from** |
| Network Rail / London Underground (UK), Deutsche Bahn (DE), SBB (CH), SNCF (FR), ÖBB (AT), RFI (IT), Adif (ES), ProRail (NL), Infrabel (BE) |

1) Typical performance may vary depending on project conditions.
2) Results depend on factors such as control point density, control point quality, and overall project conditions



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