Amberg IMS Family
Tailored for rail professionals

Why choose Amberg IMS family for your highest demanding tasks?

- Half the staff needed
- Double your production output
- Double measurement accuracy
- Technology pioneers
**AMBERG IMS – an incredible success story**

High-Speed Rail
- Design speed up to 400 km/h
- Highest mechanical stress on infrastructure demands
- Frequent inspections (e.g. settlements detection)

Final Track Acceptance and Inspection requires highest accuracy in absolute and relative positioning.

**Specifications AMU 2030**

<table>
<thead>
<tr>
<th>Repeat accuracy (1 sigma)</th>
<th>Control point interval</th>
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<tbody>
<tr>
<td>+/- 1 mm</td>
<td>&lt; 60 m</td>
</tr>
<tr>
<td>+/- 2 mm</td>
<td>&lt; 120 m</td>
</tr>
<tr>
<td>+/- 5 mm</td>
<td>&lt; 300 m</td>
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**Continuous developments for better scalability of demands**

Conventional and Urban Rail
- Design speed up to 200 km/h
- Continuously increasing track occupation
- Mixed traffic – passenger and freight trains

Limited track access times require fast and reliable data collection in shortest time slots.

**Specifications AMU 2020** (upgradable to AMU 2030)

<table>
<thead>
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<tbody>
<tr>
<td>+/- 2 mm</td>
<td>&lt; 60 m</td>
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<tr>
<td>+/- 4 mm</td>
<td>&lt; 120 m</td>
</tr>
<tr>
<td>+/- 12 mm</td>
<td>&lt; 300 m</td>
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**AMBERG IMS EVOLUTION**

- **2012**: Development and integration of Amberg IMU Technology for Track Surveying Applications
- **2015**: Worldwide launch of Amberg Tamping IMS 1000/3000 for Ballast Track Maintenance
- **2017**: Upgrade of Amberg Survey IMS 1000/3000 for as-built survey without a need for control points
- **2018**: Enhancement of Amberg Survey IMS 1000/3000 and Amberg Clearance IMS 5000 with GNSS option for applications with no design data
- **2019**: Availability of AMU 2010 - with maximum ease of use for industrial rail and branch lines

**SOLD IMS SYSTEMS**

- **2014**: 2
  - China
  - Germany
  - USA
- **2015**: 20
  - France
  - Germany
  - Italy
- **2016**: 35
  - Spain
  - France
  - Germany
  - UK

**Industrial Rail and Branch Lines**

- Design speed up to 120 km/h
- Moderate budgets for regular maintenance

Achieve track quality with best possible cost-benefit ratio.

**Specifications AMU 2010**

<table>
<thead>
<tr>
<th>Repeat accuracy (1 sigma)</th>
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<tbody>
<tr>
<td>+/- 3 mm</td>
<td>&lt; 60 m</td>
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<tr>
<td>+/- 6 mm</td>
<td>&lt; 120 m</td>
</tr>
<tr>
<td>+/- 20 mm</td>
<td>&lt; 300 m</td>
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</tbody>
</table>

**The right IMS for your requirements**

- Full scalability on three quality levels
- Appropriate and attractive pricing for each configuration
- Interesting upgrading possibilities

Based on well-tried technology introduced 6 years ago.

**Benefit from**

- Surveyors all over the world trust in our IMS technology
- No environmental limitations like refractions
- Minimising the time on the track means maximising safety
- Prepare track maintenance for peanuts

Amberg IMS – the only IMS that works!
AMBERG IMS: faster, more efficient and more accurate.

Amberg IMS provides reliable and highly precise geometry information during the construction, maintenance and inspection of railway track systems – while achieving unparalleled productivity. Take a look at our Amberg IMS solutions and its fields of application.

**Amberg Survey**

Highly efficient system for as-built survey of existing railway lines for documentation and future planning purposes

- Global 3D topographic track survey with given 3D control points
- Local 3D topographic track survey in case no control points are available – creation of re-usable control points during initial survey
- Relative track geometry survey with stationing as reference system
- GNSS as option for absolute survey

**Amberg Tamping**

High-performance system solution for track alignment data or control-point-based tamping survey

- High-speed system for preparation of correction data for tamping machine
- Well-tried long-chord measurement mode only with one trolley
- Data acquisition in shortest time slots

**Amberg Slabtrack**

Integrated surveying solution optimised for the typical requirements during construction, monitoring and maintenance of slab track lines

- Fast and high accuracy acceptance measurement
- Frequent track geometry control
- Correction data based on sleeper number

**Amberg Clearance**

Modular system solution for manual and automatic clearance survey including sophisticated engine for static and dynamic clearance analysis

- Comprehensive scan data for clearance analysis and design purposes
- Combined survey of relative and absolute track geometry
- 3D point clouds and track data for transfer to BIM or CAD system

More than 140 IMS systems sold worldwide – Amberg, track pioneer in IMU technology!