TBR at a glance

Tailor Made Solutions for Steel Industry by an Austrian Innovative and Creative Team
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<th><strong>Activities</strong></th>
<th>Development, design and realisation of tailor-made and innovative engineering solutions for the metallurgical industry.</th>
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| **History**   | 1988: “TB Rumpler” was founded in Leoben  
2001: TÜV Certification according to ISO 9001  
2003: TBR Engineering Metalltechnologie und Planungs GmbH  
2009: Partnership with INTECO special melting technologies |

Our group has gained its experience, the novel technology and know-how in the design and operation of advanced steelmaking equipment by continuous research and development. And by cooperation with world class steelmaking companies in Austria and Germany as well as by utilizing the experience of our experts that have worked more than 20 to 30 years in advanced Austrian and international steelmaking plants.

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<th>The company benefits from its vicinity to regional and well-known steel-makers such as voestalpine Donawitz, Böhler Edelstahl, Breitenfeld Edelstahl, Marienhütte Graz.</th>
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Our market presence in Europe and Overseas:  
Italy, Germany, Spain, Poland, Czech Republic, England, USA, Brazil, Chile, Argentina, Mexico, China, Korea, Japan, India, Iran, South Africa, Australia
Engineering

- 3D and 2D CAD systems for engineering
- FEM-analysis and simulation programs
- Planning and feasibility studies
- Plant automation
- Project management & technical assistance

Partners

- INTECO Special Melting Technologies
- Highly qualified manufacturing plants
- Montanuniversität Leoben
- Experts for process modelling and simulation
- Technological experts and metallurgical consultants

Expertise

Since founding TBR has developed and implemented projects in the area of special engineering and metallurgical plants.
With the great commitment of our employees and the longstanding cooperation with our partners and customers we have acquired and are applying expert knowledge in:

- Continuous casting technology
- The treatment, logistics, transport and manipulation of liquid steel and rolled products.
Our Team
of professional designers in Austria have a great history of engagements in the development and design of equipment for high quality steelmaking.

Our Identity
In our daily work we live:

• Innovation as the heart of our process.
• Fostering our resources to be a creative company in servicing the steel industry worldwide.
• The creation of solutions with economic value for our customers.
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<td>Gunning manipulator for BOF &amp; EAF, Tapping car</td>
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<td>Secondary</td>
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<td>Ladle shroud manipulator, Stopper rod mechanism,</td>
<td>Tundish car, Mould oscillator, Withdrawal &amp; straightener, Transport and weighing systems, Inline profile measurement</td>
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<td>Hot area servo drive, Mould level master, Emergency slide gate</td>
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<td>Rolling mill</td>
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<td>Hot profile measurement, Rail end bending press, Rail turn-over manipulator</td>
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Standard components for secondary metallurgy (LF, VD/VOD, EAF, BOF)

Application:
EAF & BOF tapping, ladle deslagging, LF, VD/VOD, CCM ladle turret

Automatic Stirring gas coupling system
Overview of special equipment for oxygen converters (BOF & AOD)

- Temperature & sample manipulator
- Vessel relining machine
- Bottom stirring equipment
- Gunning manipulator
Equipment for BOF converter, EAF and secondary metallurgy

- Converter gunning manipulator, Vessel bottom stirring
- EAF gunning manipulator
- Tapping car, Ladle deslagging, Ladle design optimization
Billet & Bloom Continuous Casting

Selected References

Marienhütte Graz, Austria
2 strand billet

VOEST Alpine Stahl Donawitz, Austria
3 strand bloom

Lechstahlwerke Meitingen, Germany
4 strand billet / bloom

Severstal Lucchini Piombino, Italy
4 stand bloom
TBR at a glance

Billet & Bloom Caster

- Modular design
- Operators-friendly casting floor
- Cantilever-typ tundish car
- Advanced stopper control
- Quick change of mould and segments
- Precise mould oszillator
- External mould stirrer
- Dynamic spray cooling
- Continuous unbending/straightening
- Customized runout system
- Rigid cooling bed
- Hot charging facilities on demand

Technological Control Packages

- Tundish Level Control
- Mold Level Control
- Oscillator Dynamic Control
- Withdrawal Drive Control
- Full automatic Cross Transfer Manipulator
Process Setpoints
- Steel temperature
- Ladle fill level
- Tundish Level
- Mold Level
- Oscillation
- Electromagnetic Stirring (Mould, Strand, Final)
- Primary & Secondary Cooling
- Cast speed
Process Optimization System

- Cast speed recommendation for sequence casting based on ETA of next ladle
- Strand close time optimization
- Dynamic Secondary Cooling
- Cut Length Optimization
- Quality Supervision (or Quality Evaluation)
- Quality rating
- Billet / Bloom marking
- Production Tracking and Reporting
- Historical database down to single billet/bloom segments
- Data mining with statistical evaluation and metallurgical and quality improvement tools
Special components for Continuous Casting Machines

- Ladle shroud manipulator
- Stopper rod mechanism Mould level control
- Emergency slide gate
Special equipment for ingot casting, rolling mill and maintenance

- Ingot mould cleaning system
- Ingot mould transport system
- Hot profile measurement system
- Roller welding unit
Contact

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