

Specialist Press Release

November 30, 2022

Contact:
Ruth Wallner
BAUER Aktiengesellschaft
BAUER-Strasse 1
86529 Schrobenhausen, Germany
Phone: +49 8252 97-1844
public.relations@bauer.de
www.bauer.de

Specialist foundation engineering work on the track: RTG Rammtechnik GmbH and Techne develop track-bound pile driver

Schrobenhausen, Germany – Short shutdown times, demanding geographical conditions and tight spaces: Railway engineering is a challenging area for the use of specialist foundation engineering technology. After all, it is crucial for foundation projects around train stations to block as few tracks as possible in order to maintain operations. Because the use of conventional drilling rigs and pile driving equipment for railway projects often requires considerable expenditure, the company RTG Rammtechnik GmbH, member of the BAUER Maschinen Group, has developed a track-bound drilling rig and pile driver in collaboration with Leipzig-based company Techne and with the assistance of Hering Bau GmbH & Co. KG. In the future, this equipment will make it possible to implement foundation types and depths that previously seemed unviable for the track.

Innovative overall system

The overall system is comprised primarily of the base carrier with leader based on a RTG RG 18 S, one flat carriage to support the leader and another flat carriage for the transport and setup of the attachment parts. When the leader is raised, the equipment reaches a constructional height of approximately 23 m. The leader has a main winch with 170 kN, a pull-down winch with 200 kN and an auxiliary winch with 55 kN. A mast inclination of 5° in all directions is possible during operation to compensate the formation level. In addition, the leader can be swiveled by 90° around the axis of the telescoping arm on either side, so it can always be brought into the desired operating position with respect to the upper carriage. The leader arm can be telescoped up to 2 m. The connection is bolted hydraulically. The telescopic boom allows rapid and precise positioning at the operating point.

Easy transport

The foundation construction machine has a transport length of roughly 15 m and operates on a track width of 1,435 mm. The transport weight is below 110 t, which enables transport without approval. The upper carriage protrudes a maximum of 1.55 m from the track axis, which means that traffic can continue on the adjacent track. Between the leader and the main equipment, only the hydraulic lines are permanently connected in transport position. This concept enables transport as a normal railway vehicle. The connection between the telescopic arm and leader is bolted and then loosened for transport and storing the leader, or tightened for mounting the leader. In transport position, the equipment height is less than 4.30 m.

A range of applications

From pile construction to the installation of sheet pile walls to soil mixing techniques and soil improvement, all methods that are possible with a conventional RG pile driver can be

implemented within a wide work front of more than 9 m from the track axis. The base carrier allows for continuous rotation of 360° around the upper carriage axis. The operator can control all functions of the upper carriage and undercarriage from the operator's cab. In addition, all operating functions of the equipment can be controlled from the outside using wireless remote control. As a result, the operator does not necessarily have to remain in the operator's cab. This facilitates handling under restricted or difficult operating conditions.

At this year's traffic technology trade fair InnoTrans in Berlin, the system was presented to trade professionals. Bernhard Lindermaier, Managing Director of RTG Rammtechnik GmbH, explained: "A track-bound machine with these specific performance characteristics is unique on the world market. In addition, the equipment can be used during shutdowns, as setup and operation is possible with an installed overhead line. The first client-owned equipment will be implemented at a jobsite in March 2023."

Photos: 2022-11_RTG_track-bound pile driver...



(1) The overall system consists of the base carrier with leader based on a RTG RG 18 S.



(2) It can be transported as a normal railway vehicle, because in transport position only the hydraulic lines between the leader and the main equipment are permanently connected.

All images: © BAUER Group

About BAUER Maschinen Group

For almost 60 years, equipment from Bauer has represented the highest performance and quality and constant innovation. The BAUER Maschinen Group is the world market leader in the development and manufacture of specialist foundation engineering equipment. BAUER Maschinen GmbH, which is also the holding company for a number of subsidiaries, designs and builds large-diameter drilling rigs, duty-cycle cranes, trench cutters, grabs and vibrators as well as the related tooling at its plants in Schrobenhausen, Aresing and Edelshausen. The subsidiaries manufacture state-of-the-art mixing and separation equipment as well as rotary drive systems and equipment for drilling small-diameter boreholes and wells. The BAUER Maschinen Group also operates manufacturing facilities in the USA, China, Malaysia, Italy, Singapore and Turkey. Component suppliers within the Group are Schachtbau Nordhausen and Olbersdorfer Guß. The company operates a global sales and service network. More at bma.bauer.de

About Bauer

The BAUER Group is a leading provider of services, equipment and products dealing with ground and groundwater. The Group can rely on a worldwide network on all continents. The Group's operations are divided into three forward-looking segments with high synergy potential: Construction, Equipment and Resources. Bauer profits enormously from the collaboration of its three business segments, enabling the Group to position itself as an innovative, highly specialized provider of products and services for demanding projects in specialist foundation engineering and related markets. Bauer therefore offers suitable solutions to the world's greatest challenges, such as urbanization, the growing infrastructure needs, the environment, as well as water. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2021, it employed about 12,000 people and achieved total Group revenues of EUR 1.5 billion worldwide. BAUER Aktiengesellschaft is listed in the Prime Standard of the German Stock Exchange. More information can be found at www.bauer.de. Follow us on [Facebook](#), [LinkedIn](#) and [YouTube](#)!