

# TRM PILING SYSTEMS FACTSHEET

Bridge construction



## Cycle path bridges from Vrhnika to Ljubljana, Slovenia

- + A total of 64 ductile driven piles using 760 m TRM 170/9.0 and 195 m TRM 118/9.0
- + New building of 6 bridges
- + Foundation depths up to 15 m
- + Ground conditions: loose gravels and soft clay layers on top of varying depths of rock
- + Tested using dynamic load tests (PDA)
- + Construction time: 2 weeks
- + Implementation in 2023

**Fast. Simple. Safe.**

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## The Initial Situation

The local government in **Vrhnika, Slovenia**, just a 15 minute drive from Ljubljana city centre decided to **upgrade the local cycle network**. **New bridge structures over rivers and streams** were required to ensure a safe passage for the cyclists. The project was carried out in several phases, part of a larger cycle network **spanning from Vrhnika** all the way over the scenic route **to Ljubljana**.

The **TRM Piling System** was used because of its **versatility and flexibility in difficult underlying rock conditions**. With varying pile depths up to 15 m, the **non-grouted piles** were tested by means of dynamic load test by SLP d.o.o. and outperformed the requirements significantly.

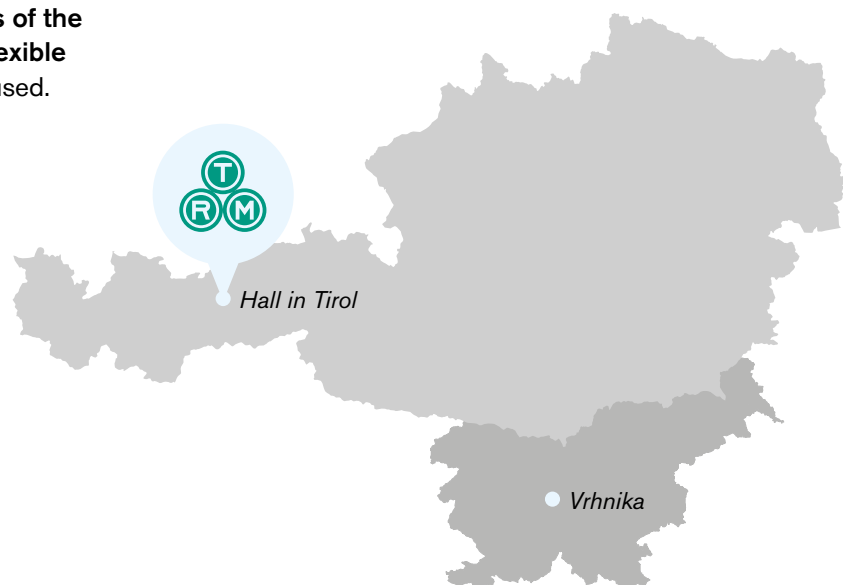


Pile installation



Completed bridge abutments

Due to the **different levels of the load-bearing layer**, the flexible **TRM Piling System** was used.





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## Deep foundation

Part of the construction of important structures such as bridges is the **requirement for testing**. Several **dynamic pile load tests** were carried out on the **TRM 118/9.0 and TRM 170/9.0 piles**, with out-standing results far above the requirements. With the correct soil and pile information, dynamic pile load tests can be carried out very quickly and cheaply. Installation

of the piles and construction of the bridges was carried out by Garnol d.o.o. For more information about dynamic pile load tests on TRM piles, contact **TRM Piling Systems** directly.

See the non-grouted end-bearing TRM Pile being tested on site in Vrhnika below.



Finished steel/timber bridge standing on non-grouted TRM piles



Preparation for dynamic load tests



Test apparatus during testing

**Do you have any questions?** Our experts will be happy to advise you.

