



Press Release

HERRENKNECHT AVN machine builds drainage channel in Freudenstadt

February 28, 2018

Freudenstadt, Germany / Schwanau, Germany

Where cities grow, the infrastructure has to keep up. In the Black Forest town Freudenstadt, a drainage channel has been created in the new residential area "Sonnenhalde Süd". A Herrenknecht AVN machine was used to integrate the nearby Manbach stream into the stormwater concept.

_____ In Freudenstadt's new residential area "Sonnenhalde Süd", a drainage channel for excess rainwater has been created using the Herrenknecht machine M-2176M (Ø 1,100 mm). The specialist company Peter + Partner Rohrvortrieb completed the construction project on behalf of the city of Freudenstadt (southern Germany). Over a distance of 146 meters, several tracks had to be crossed under, because the nearby Manbach stream is separated from the new residential area by the main train station. A gradient of 4.5%, was an additional challenge.

The 75kW machine crossed through so-called talus material consisting mainly of layered red sandstone. The AVN800XC tunnel borer with a mixed cutterhead is suitable for heterogeneous soils and, with its slurry-supported excavation concept, can be used for safe tunnelling in ground conditions of all kinds. The tunnel was lined with 3-meter-long reinforced concrete jacking pipes (DN 800, DA 1100). After 3 weeks of tunnelling, the Herrenknecht machine reached its destination at the foot of a slope in late October and was lifted out of the excavation pit by a mobile crane.

Precipitation can now be discharged via the municipal storm sewer system into the Manbach drainage channel. Thereto end the rainwater is first passed into the locally erected stormwater holding tank and released into the channel at a slower pace if necessary. With the completion of the construction project, the sewage network in Freudenstadt was thus expanded appropriately and adapted to the needs of a growing city.

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Project data

AVN machine builds drainage channel in Freudenstadt

MACHINE DATA M-2176M

Machine type: AVN800XC

› Excavation diameter: 1,100 mm

› Max. torque: 90 kNm

PROJECT DATA FREUDENSTADT

› **Tunnel length:** 146 m

› **Lining method:** pipe jacking

› **Application:** storm sewer

› **Geology:** layered red sandstone talus material

› **Customer:** Peter + Partner Rohrvortrieb

› **Client:** City of Freudenstadt

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Photos

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Photo 1

Successful breakthrough of the Herrenknecht AVN800XC after 146 meters of tunnel boring in Freudenstadt (Black Forest).

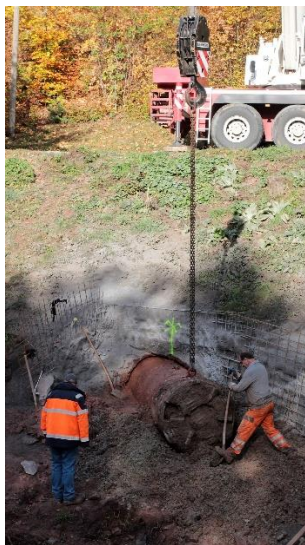


Photo 2

Destination reached: after 3 weeks of tunnelling, a drainage channel now connects the new residential area "Sonnenhalde Süd" with the small Manbach stream, into which stormwater can be discharged in future.

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For further information: Please contact us.

Herrenknecht AG

Herrenknecht AG is the only company worldwide to deliver tunnel boring machines for all geologies and in all diameters – ranging from 0.10 to 19 meters. The product range comprises tailor-made machines for traffic, supply and disposal tunnels, technologies for routing of pipe lines, as well as additional equipment and service packages. Herrenknecht also manufactures drilling equipment for vertical and inclined shafts as well as deep drilling rigs.

The Herrenknecht Group achieved total revenues of 1,208 million euros in 2016. The independent family business employs over 5,000 people worldwide, from which are 180 trainees. With 76 domestic and overseas subsidiaries and associated companies working in related fields, Herrenknecht provides comprehensive fast and targeted services close to each project and customer.

› <http://www.herrenknecht.com/en/references>

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