

Stretching the boundaries with a ‘slalom’ alignment in the German Saarland region

The municipality of Illingen (D) planned to renovate the ‘Illingen-Wustweiler’ wastewater plant, responsible for the treatment of mixed water in the area of the Illingen town hall. This resulted in the following ‘Project 30: RÜB 8 - 1.0’. A significant part of this overhaul was the construction of the new sewer itself, whereby microtunneling was chosen as the desired construction method.

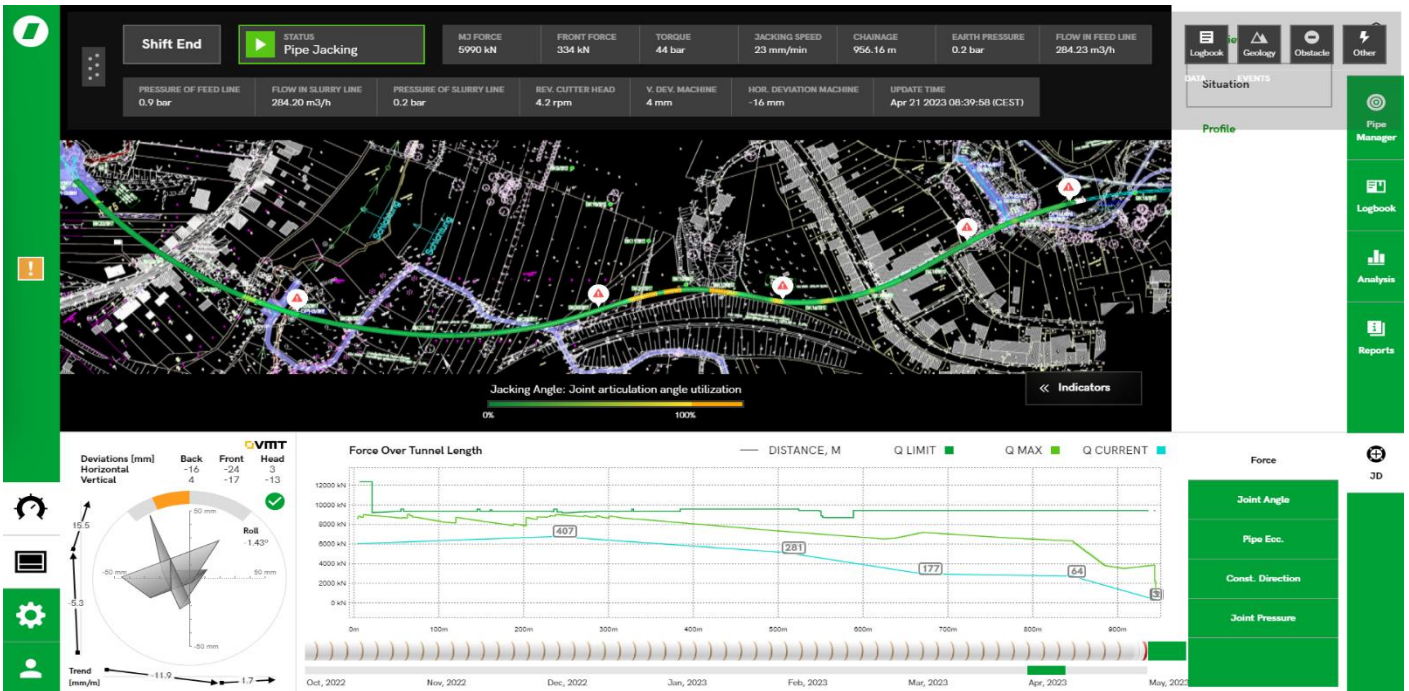


Once the Belgian contractor K-Boringen got awarded with the execution, the long-distance drive decided to throw many challenges at them such as extremely tight curve radii in alternating directions, sticky geology in combination with high and low overburden, high skin friction which resulted in high jacking forces, and many more...

While the experience and knowledge of the contractor was crucial to overcome all the hurdles and should not be underestimated, receiving the feedback that MSS paid a key role in the success as well as a compliment our company received with great gratitude. Additionally, the project was also a worldwide first for the newly developed MSS^{TUNIS}, whereby the navigation system runs imbedded in MSS and saves the user a screen in the control cabin.

AT A GLANCE

Project name	Abwasseranlage Illingen (120) Projekt 30 – Mischwasserbehandlung RÜB 8-1.0
Project location	Illingen, Baden-Württemberg, Germany
Time of completion	2023
Specialties	Low + High overburden [1.5 m; 50 m] Long distance Double s-curve Diverse ground conditions
Total length	1079 m / 3540 ft.
Pipe ID	2000 mm / 78.74 in.
Pipe OD	2500 mm / 98.43 in.
Alignment	Double S-Curved
Min. curve radius	180 m / 590 ft.
Pipe material	Reinforced Concrete
Pipe length	1.5 & 3.0 m / 4.92 & 9.84 ft.
Geology & groundwater	Rock, Fractured Rock, Silt, Clay, Mixed ground Groundwater present (up to 1.4 bar)
Monitoring system	MSS [®] (Microtunneling Support System)
Guidance system	VMT ^{UNIS} Navigation MTLaser ^{Totalstation}
TBM	Herrenknecht AVND2000
Owner	AVI – Illingen (Gemeinde Illingen)
Designer	Dipl.-Ing. Rudolf Kopper Ingenieurbüro GmbH
Contractor	K-Boringen nv



Jackcontrol AG

Buchholzstrasse 50 | 8750 Glarus | Switzerland
 Phone +41 (0)55 650 20 20 | Fax +41 (0)55 650 20 30
 info@jackcontrol.com | www.jackcontrol.com

