

## **Jobsite Report for Marino Metro in Moscow**

A TBM operator for an EPB Shield from Herrenknecht was requested for a jobsite in Moscow, Russia. With a diameter of 6.5 meters and a tunnel length of 1200 meters, the tunnel will help to extend the Marino subway line.

We found a perfect candidate who could build up a personal contact with the client in Moscow and could train the local workers in operating the Herrrenknecht EPB Shield. He worked for 12 years as TBM Operator on several TBMs from Herrenknecht and also as Mechanical Supervisor and TBM Foreman.

*“After arriving on the airport in Moscow my driver picked me up and took me to the hotel. There I met the Herrenknecht employees and the next morning they took me to the jobsite. After an introduction with the rest of the Herrenknecht employees we went down to the TBM. On the TBM I met the rest of the shift who are all Russians. The Supervisor from Herrenknecht provided me with a translator who was with me during the my whole stay on the jobsite. Even when I had nightshift, she was there to translate the instructions I gave to the local workers on the TBM.*

*The TBM only had already built the blind rings and not all of the gantries where connected at that time. We had to make some advances to connect the other gantries to make the TBM complete. The Herrenknecht TBM operator and myself worked in two shifts of 12 hours.*

*The cooperation between the crew members of the client, Herrenknecht and GTE was very good. We supported and helped each other in every way possible to satisfy the client and we did this very well. The client also came to us with questions regarding the training of personnel how to operate and. Together with the personnel from Herrenknecht we trained the people from the jobsite to become TBM Mechanics and also TBM Electricians.*

*I trained two local workers how to operate the TBM and made them familiar with the principals of the Earth Pressure Balance Shield. The training was hard in the beginning because my translator didn't understand the technical expressions. “How to operate the TBM” was difficult to translate into Russian. But after some days it was getting better and better. By explaining and showing them my daily work around the control cabin they had to watch for a couple of days how to operate the TBM.*

*After 1,5 weeks I tried to let them operate the TBM themselves. But always stood close behind them watching what they were doing and gave them instructions along the way. In the mean time I also explained to the shift engineers the importance of grouting through the tail skin. The crew learned pretty quick.*

*In my last week on the jobsite I let the crews get their own system and my task was to check excavating and ring building. It's important to watch and take care with some distance in the end of the training. The crew should get the confidence that they can do it by themselves. In those last days I had a function as a TBM supervisor and let the jobsite do their work.*

*At times of shift change and also during the shifts a I was often approached by several colleagues from the client to discuss technical and personnel matters.*

*After 3 weeks the other chosen candidates of GTE and the crew of the clients relieved me and I traveled back home.”*