



POLITECNICO DI TORINO
Dipartimento di Georisorse e Territorio



GEORESOURCES AND ENVIRONMENT ASSOCIATION



ITALIAN TUNNELLING ASSOCIATION

INTERNATIONAL CONGRESS

MECHANIZED TUNNELLING: CHALLENGING CASE HISTORIES

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Abstract

In connection with the construction of the Milan Fair's New Complex, which is under way in the area that formerly hosted the Agip refinery in Rho-Pero, it is currently under construction the underground extension of the Milan Tube (line M1) that will link the Fair Complex, and the future High Speed Railway Station, with the center of the city.

The development of this project had to cope with some requirements related with boundary conditions, owed to new Fair infrastructures and because the tunnel is located under populated and built up areas; it had also to cope with extremely difficult geotechnical conditions connected to the presence of non-cohesive soil under water level.

In order to overpass all these aspects, also relating with the good results obtained in the construction of a single track of the "Passante Ferroviario" of Milan in 1995, it was been selected an EPB tunnelling machine.

This paper gives a description of the main parameters influencing the performance of the tunnelling machine, comparing the results obtained in the M1 extension with the case of the "Passante Ferroviario"; this allowed to highlight the characteristic parameters of the performance of an EPB in the Milan subsoil.