

Single Shield Tunnel Boring Machine

This single shield TBM is designed for tunneling in complex rock conditions, including uneven stratum and fracture zones. It utilizes segmental lining for rock support and is propelled forward by thrust cylinders.



Product Overview



A single shield TBM designed for efficient excavation and segment lining in complex geological conditions.

High-Efficiency Tunneling Solution

This Single Shield Tunnel Boring Machine is engineered for fast and safe excavation in challenging rock conditions, including fracture zones and areas with varying geological strata. It utilizes a rotating cutterhead with advanced wear-resistant bits to bore through rock, while a reliable segment installation system ensures structural support during the advance. Designed for urban metro and infrastructure projects, the machine offers high-performance throughput with real-time monitoring capabilities to ensure precision in complex underground environments.

Technical Specifications

Excavation Diameter	6880 mm
Total Power	2260 kW
Main Drive Power	1540 kW
Total Length (Shield + Backup)	104 m

Key Features

Performance Features

- Wear-resistant cutterhead with carbide bits
- Double row cylindrical roller thrust bearing
- Advanced PLC control system for real-time monitoring
- Integrated water spray, dust removal, and air cooling systems
- Dedicated rock reinforcement drilling and grouting system

Operational Performance

30 m

Max Daily Advance Rate

546 m

Max Monthly Advance Rate