

9. Simultaneous Execution of Excavating and Segment Lining with Honey-Comb Segment

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It has been necessary to develop the technology of rapid construction in order to shorten term of the work in long distance shield tunneling projects. To reduce the project time, we need the method to excavating and segment lining at the same time because usual method has limits.

We developed two types of shield-tunneling machine for simultaneous execution with a hexagonal shaped honey-comb segment. The one is equipped full-automatic segment assembling system and the other is equipped semi-automatic segment assembling system. We applied the machines to actual shield tunneling works and shortened cycle time by 50% compared with the current method.

Key words : shield-tunnel, shorten term of the work, simultaneous execution, honey-comb segment