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Nota di contenuto	1. Introduction -- Risk control system for subsea tunnels -- 3. Composite grouting technology and its application -- 4. Water inrush mechanism and evolution characteristics -- 5. Process control theory of construction safety -- 6. Active controlled waterproof-drainage system and its design method.
Sommario/riassunto	This book puts forward a technological system for the construction of subsea tunnel using drilling and blasting method. Taking the water-induced disaster as the core risk, the safety guarantee system for large cross-sectional subsea tunnels is established. The composite grouting technology referred to ground reinforcement and water plugging is established, which breaks through the technical bottleneck of subsea tunnel construction in highly permeable strata. The process control theory based on water inrush mechanism is created, which gets rid of the over-dependence on engineering experience for disaster control of submarine tunnel. An active control waterproof drainage system based on the synergy of reinforcement ring and support system is invented to solve the contradiction between the control of water displacement and water pressure. The above-mentioned achievements have been successfully applied in the first three large cross-sectional subsea

tunnels in China, and have played a key role in the construction safety. The proposed technological system can improve the overall construction level of subsea tunnel, which can provide reference for the design and construction of subsea tunnels, especially for those crossing through weakness zones.

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