

The Top 6 Applications of Shotcrete Machine [Infographic]

THE TOP 6 APPLICATIONS OF SHOTORETE









Application 1

Repair and Restoration:

Shotcrete is a technique for repairing and restoring deteriorated concrete, steel, or wood structures. While it is economical to repair beams of variable depths, caps, columns, abutments, wing walls, and underdecks, it may become expensive to repair a full-thickness of the bridge deck.



Application 2

Ground Support:

In combination with various reinforcements and anchors, shotcrete effectively stabilizes earth and rock excavations and supports the ground during mining and tunnelling. The shotcrete technique is superior to ground-supporting systems like traditional timber and steel shoring. It offers early ground support after excavation or blasting.



Application 3

Bridges:

Shotcrete is likely to be used for bridge deck rehabilitation, but it is very costly for complete thickness repair. However, it is helpful for beam repairs of variable depths, caps, columns, abutments, wing walls, and under decks from the technical point of view.



Application 4

Buildings:

Shotcrete is commonly used to repair buildings for earthquake damage, fire and other deterioration, strengthen walls, and encase structural steel for fireproofing.



There are different fields, where **shotcrete** plays an important role and proves its good workability, compressive strength and bonding where ordinary concreting fails.

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5. Marine:

Most damages occur from the deterioration of concrete and reinforcement in marine structures. The damages resulting from corrosion in steel, freezing and thawing action, abrasion, impact loading, structural distress, abrasion due to waves, gravel, sand, and floating ice, and chemical attack in the presence of sulphates. Shotcrete applications are generally used for the short outage of these damages.

6. Spillways:

The surface of spillways is likely subjected to high-velocity flows, which results in cavitation, erosion or abrasion.

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