





epec system EXTREME PERFORMANCE EROSION CONTROL



What is EPEC Revetment System?

EPEC is a patented multi-layer revetment system used to reinforce and protect a surface exposed to possible high water velocities, wave attack and/or potential hydraulic jump from super critical flows.

The system includes both a cellular confinement layer and an articulated block layer. Each of these layers are separately known and deployed in various environmental applications. Here, they are deployed together to provide enhanced protection of a ground surface.

- **Cellular Confinement Layer:** this layer is placed on the ground surface and is a matrix of open cells with rigid walls that are designed to be filled with aggregate or sand.
- **Block Layer:** this layer is mounted on top of the cellular confinement layer and includes a mat of blocks connected by cables.
- **Geosynthetic Layers**: These are mounted under the cellular confinement layer on top of the ground surface as well as in between the block layer and cellular confinement layer.

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TESTING AND DESIGN



Testing & Design

TESTING RESULTS

When testing results were compared to similar systems with unconfined drainage layers, EPEC showed the following improvements:

- 250% performance improvement in Factor of Safety (FOS) on a 3:1 slope
- 366% performance improvement in hydraulic jump stability on a 2:1 slope
- Test reports available upon request.

DESIGN ASSISTANCE - Webinars for design assistance available upon request.

Through trial and testing, it has been shown that stabilizing the stone under ACBs leads to dramatic improvements in hydraulic jump stability with 2.5 - 3x better hydraulic performance when compared to systems with unstabilized stone.

The system meets all requirements of the NEH Part 628 Dans Chapter 54 ACB Armored Spillways design document, as it has been tested to ASTM 7276 and 7277 Standards as well as having undergone Hydraulic Jump Performance Testing on a 2:1 slope.

APPLICATIONS

- Dam Overtopping
- Auxiliary Spillways
- Levees
- Diversion Beams





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EPEC SYSTEM IS A PATENTED SYSTEM. PATENT NUMBER: US 10113285 B2

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