



# SHOREBLOCK<sup>®</sup>

## BD SERIES

Concrete Revetment Block

**PROTECTING OUR NATURAL RESOURCES**



**SHOREBLOCK® BD is a flexible, interlocking matrix of concrete blocks of uniform size, shape and weight connected by a series of cables which pass longitudinally and laterally through preformed ducts in each block.** SHOREBLOCK® BD revetment systems combine the favorable aspects of lightweight blankets and meshes, such as porosity, flexibility, vegetation encouragement and habitat enhancement with non-erodible, self-weight and high tractive force resistance of a rigid lining.

SHOREBLOCK® BD has proven to be an aesthetic and functional alternative to rip-rap, poured concrete and other heavy-duty erosion protection systems. SHOREBLOCK® BD is easy to install, therefore, can dramatically reduce overall project costs. More specifically, when compared to other systems, life-cycle costs have been reduced because SHOREBLOCK® BD is a permanent system and saves on subsequent maintenance expenses.

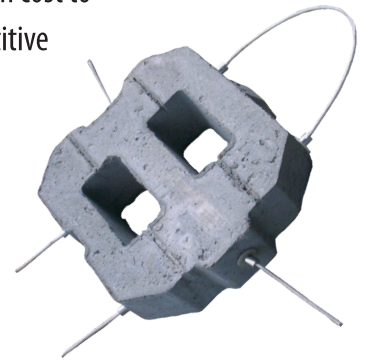
#### SHOREBLOCK® BD PROMOTES MORE COMPLETE NATIVE REVEGETATION THAN TYPICAL REVETMENT SYSTEMS

SHOREBLOCK® not only provides more immediate ground cover, independent testing also proves SHOREBLOCK® provides better long-term control through more reliable and denser materials.

## Research and Design

**SHOREBLOCK® BD is the most durable, effective and environmentally-friendly erosion control revetment method of fighting severe erosion problems.** SHOREBLOCK® BD mats are available in eight foot widths in lengths up to 40 feet. Mats can be joined to achieve greater lengths. Different sizes of SHOREBLOCK® BD are available depending on the severity of the application. In most markets, Articulated Concrete Blocks (ACBs) are competitive in cost to 12" diameter (or greater) rock (or rip-rap) placed in an 18" or greater blanket thickness, are competitive with gabion mattresses and ACBs are typically more economical than poured concrete.

ACBs were successfully tested by the U.S. Bureau of Reclamation and U.S. Federal Highway Administration (FHWA-RD-89-199). The Corps of Engineers has used ACBs on numerous designs for both channel and shoreline stability. Comprehensive wave tank testing was evaluated in 1983 at Oregon State University. ACB installations have been performing successfully since 1980.



#### SHOREBLOCK® BD DESIGN ADVANTAGES

- Each block has an open area up to 20% to allow for superior hydrostatic pressure relief and ecologically pleasing vegetative cover.
- One block style makes up the complete system.
- Interlocking cabling allows greater flexibility through the axes of articulation — conforms better to ground contours and settlement.
- Prefabricated mats offer quick installation even underwater.
- Tests have shown that the force needed to remove a block from a revegetated cover layer may be equal to 20 times the weight of the block.
- The block will not suffer loss of function due to chemical degradation throughout its design life.



SHOREBLOCK® BD has been successfully tested by Colorado State University, in accordance with the hydraulic performance testing protocol established by the U.S. Federal Highway Administration. (FHWA-RD-89-199).



# Specifications

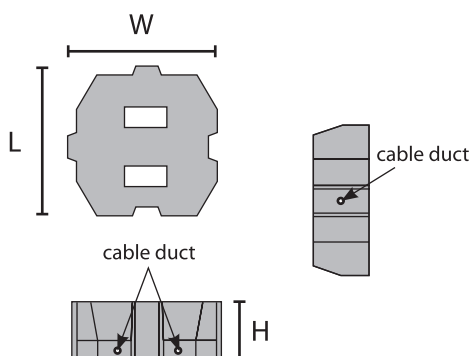


SHOREBLOCK® BD mattresses are pre-assembled to the size specified for the project. Fabrication of a SHOREBLOCK® BD mat is accomplished by threading polyester cable in both directions through a series of blocks. Cables are sized to provide a 5 to 1 cable strength to mat weight ratio to ensure safe handling while providing extraordinary strength in the system. Polyester cables used in brackish water applications for over a decade have shown a strength loss of less than 2%. SHOREBLOCK® BD concrete units are manufactured with tapered sides and a notch and key unit interlocking system. SHOREBLOCK® BD can be installed on virtually any slope angle; however, each case should be evaluated to account for site soil conditions and anchoring requirements.

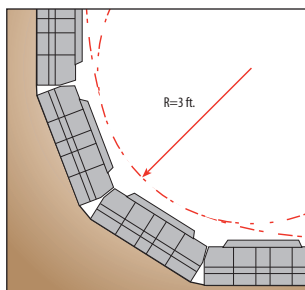
OPEN CELL							
BLOCK CLASS	DIMENSIONS IN.			BLOCK		UNIT COVERAGE Sq. Ft.	OPEN AREA
	H	W	L	Unit Weight Lbs.	System Weight Lbs./Sq. Ft.		
BD-400 OC	4.00	15.875	15.875	56-62	32-35	1.78	20%
BD-500 OC	5.00	15.875	15.875	71-76	40-44	1.78	20%
BD-600 OC	6.00	15.875	15.875	86-93	50-54	1.78	20%
BD-750 OC	7.50	15.875	15.875	107-122		1.78	20%
BD-800 OC	8.00	15.875	15.875	114-130	66-72	1.78	20%
BD-900 OC	9.00	15.875	15.875	127-146	73-82	1.78	20%

CLOSED CELL							
BLOCK CLASS	DIMENSIONS IN.			BLOCK		UNIT COVERAGE Sq. Ft.	OPEN AREA
	H	W	L	Unit Weight Lbs.	System Weight Lbs./Sq. Ft.		
BD-400 CC	4.00	15.875	15.875	66-72	37-40	1.78	7%
BD-500 CC	5.00	15.875	15.875	82-88	46-51	1.78	7%
BD-600 CC	6.00	15.875	15.875	101-108	58-62	1.78	7%
BD-750 CC	7.50	15.875	15.875	122-141		1.78	7%
BD-800 CC	8.00	15.875	15.875	130-150	74-83	1.78	7%
BD-900 CC	9.00	15.875	15.875	148-170	84-97	1.78	7%

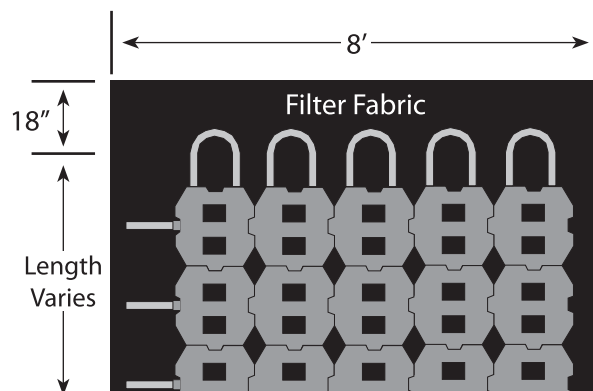
\*The BD Series denotes Bi-Directional Cable System. Note: Additional block styles and sizes may be available in some areas. Check with your local SHORETEC® representative for product availability.



SHOREBLOCK® BD units are manufactured in accordance with ASTM C90, C140 and D6684-04 and the following criteria: concrete unit weight 130-150 lbs./CF, minimum compression strength 4,000 PSI, Maximum Absorption 7% and dimensional tolerance + 1/8".



Each block is interconnected by flexible cables, providing articulation between adjacent blocks.



Woven monofilaments are preferred over nonwoven geotextiles because of their high hydraulic conductivity and durability. The soil's particle size (among other factors) will ultimately determine the fabric selection.

## Quality Product



## Easy Transportation



## Easy Handling





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