



## MIZUSUMASHI SOLAR WATER ENHANCER



### INSPIRED BY NATURE

ENVEC's revolutionary Mizusumashi "Mini Water Beetle" portable water enhancer uses solar energy to generate a spontaneously re-circulating water column that restores water quality and ecological balance to ornamental water systems.

Mini Water Beetle's design and construction are based on hydrodynamic technology developed for oceangoing vessels in Nagasaki, Japan, a worldwide center for shipbuilding. Our screw propeller and modified impeller expose lower water layers to heat and UV light at the surface while sending upper layers to the oxygen-poor bottom, retarding algal growth. Over time, this gentle, continuous top-to-bottom mixing can completely revitalize degraded or turbid water bodies.

### SUPERIOR TECHNOLOGY

#### 100 PERCENT SOLAR

Mini Water Beetle's highly efficient design requires 17 percent less energy than conventional air or water pump systems. This performance advantage permits the unit to run exclusively on solar power. Mini Water Beetle is a zero carbon emission product. (Flow rate: 32 tons/hour. Effective capacity: 1500 tons at 1.6-9.8 foot depth.)

#### NATURALLY CLEAN

ENVEC's advanced technology harmonizes with nature to filter water features without chemicals. Hypoxic water at the pool bottom is carried to the surface, where exposure to UV radiation and oxygen slow the growth of harmful bacteria and encourage the growth of aerobic microorganisms that consume impurities. Algae-contaminated surface layers are sent below, where the oxygen-poor environment slows—and ultimately stops—algal build-up.

#### CONVENIENT AND COST-EFFECTIVE

Mini Water Beetle is compact, lightweight and requires no external power. It can be transported and installed virtually anywhere with minimal upkeep, reducing both logistics and operating costs. (Dimensions: 27.56 x 14.37 inches. Weight: 44 pounds.)



### HISTORY OF SUCCESS

ENVEC has nurtured a reputation for smart green design throughout its history, earning wide press coverage and numerous commendations throughout Japan. We regularly present sustainable technology solutions to international bodies such as the World Water Forum and the United Nations Human Settlements Program (UN-HABITAT).

- **1999:** ENVEC receives the New Energy Foundation Chairman Award.
- **2000:** The Japanese government's New Energy and Industrial Technology Development Organization (NEDO) promotes ENVEC in the US and Europe as a pioneer of advanced sustainable technology.
- **2001:** The World Federation of Engineering Organizations invites ENVEC to present at the USCSD technology forum at United Nations headquarters.

### PARTNERSHIP OPPORTUNITIES

ENVEC is actively seeking manufacturing and distribution partners for the Mini Water Beetle solar water enhancer in North America and additional overseas territories.