

Solar compactor earns environmental award for Mack Molding



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Chris Glaskim, a metals engineer at Mack Molding in Arlington, tests a wireless monitoring system that signals when a solar compactor is full. Mack recently won the 2010 Environmental Stewardship Award at the Global Plastics Environmental Conference.

By TRICIA N. HAYES

A bright idea by a local company has received recognition on the national stage.

Mack Molding Company of Arlington and its customer, Big Belly Solar of Needham, MA, were awarded top honors at the Global Plastics Environmental Conference (GPEC).

The 2010 Environmental Stewardship Award challenges companies to raise the bar in the areas of sustainability and recycling. Mack Molding and Big Belly Solar won for the Big Belly Solar Compactor, a patented compacting trash receptacle for large-scale, low-cost municipal waste collection programs.

The compactor has a capacity that is five times greater than an ordinary trash receptacle, resulting in fewer trash pickups and cutting fuel costs and greenhouse-gas emissions by 80 percent.

Joan Magrath, vice president of sales and engineering at Mack Molding, presented the case study of experiences in Center City Philadelphia at the conference. That city was able to cut the collection frequency from 16 per week to five for a savings of 71 percent, said Magrath. That has resulted in a reduction in annual operating costs from \$2.3 million to \$720,000.

"We are thrilled to be working with Big Belly Solar on this project," said Jeff Somple, president of Northern operations for Mack Molding. "They have remained steadfast in their conviction to

reduce fossil-fuel consumption and bring this new energy-saving product to market, which is now catching on all over the world. I congratulate them on their efforts and am honored for Mack to share in this recognition."

The solar compactor gets 100 percent of its energy from the sun and uses less than five watt-hours per day. When the unit is ready for collection, a wireless monitoring system sends a text message to signal the need for a pickup.

As part of the development of the project, Mack donated a Big Belly Solar Compactor to the Arlington Recreation Center. Park supervisor Jim Erickson said the solar compactor "works great.

"Before, we needed to collect the trash at the rec two-to-three times a week. Now, it is once every three weeks or once a month," said Erickson. "It is maintenance-friendly."

Town Clerk Robin Wilcox echoed the sentiment. "It is exciting to try," said Wilcox. "What better use for it than at the park?"

The compactor uses Mack injection molds for the solar bubble of high-impact, ultra violet-resistant polycarbonate on a 1,000 ton press. The unit is available as a compactor and a recycler although as the latter, it has less capacity as a compactor.

The Environmental Stewardship Award was presented earlier this year during the Global Plastics Environmental Conference held in Orlando, FL. ❖