

# Taco product tackles hot-water dilemma



## ENERGY & THE ENVIRONMENT

BY JENN SALCIDO

CONTRIBUTING WRITER

With nearly 100 years in operation under its belt, **Taco Inc.** has the enviable position of being both a solid cornerstone of the manufacturing industry in Rhode Island as well as a flexible, innovative company. Its SmartPlus domestic hot water circulator stands as a testament to the way that Taco is able to straddle those two spheres.

Convenience and environmental efficiency are closely aligned with Taco's mission of providing comfort to its customers. According to Vice President of Brand Marketing Mark Chaffee, the SmartPlus system provides an answer to a common problem that affects both convenience and conservation: having to wait for hot water when you turn

on the tap. "It seems like a strange concept that in 2014, we don't get hot water right away," he said.

Chaffee estimates that the average family of four can waste up to 12,000 gallons of water per year waiting for hot water to arrive. This represents an immensely wasteful depletion of resources and time; although it might not seem like such a big deal to stand outside the shower and brush your teeth while the shower heats up, these gallons can quickly add up. There is also a considerable amount of energy involved in the treatment and processing of this wasted water, said Chaffee.

"We're talking hundreds of millions of gallons of water that we've done a lot of work to before we've wasted it," he said. "We want to make people's everyday lives a little more comfortable, and at the same time, we're also able to make a big impact on the environment."

With the SmartPlus system, a home's hot-water usage pattern is recorded and analyzed for the first seven-day period, and calibrates itself to provide pre-heated, instantaneously available hot water accordingly. The system recalibrates itself every seven days, and is also able to sense when it should go into "vacation mode."



PBN PHOTO MICHAEL SALERNO

**SMART WATER:** Taco Inc. says its SmartPlus system provides an answer to a common problem that affects both convenience and conservation: having to wait for hot water when you turn on the tap. Above, Oudome Rajsasombat conducts testing on a SmartPlus pump.

neously available hot water accordingly. The system recalibrates itself every seven days, and is also able to sense when it should go into "vacation mode."

Chaffee said that SmartPlus was an immediate success on the market as its customers recognized how easily it could fulfill this unmet need for comfort, convenience and conservation.

And while the system itself is a recent development that depends on state-of-the-art technology and electronics, it fits well into the overarching, forward-thinking phi-

losophy that has helped this local, family-owned business earn global staying power.

"As a small manufacturing company in Rhode Island, you have to be innovative," he said. "We compete against international, multibillion dollar companies that have a worldwide footprint, so you have to be able to be innovative to compete. And you have to have the new technology to keep pushing forward, but it can't just be technology for technology's sake. You have to use technology for practical solutions for people's problems." ■

# Center tailors teaching to kids as individuals



## EDUCATION

BY MARY HOWE

CONTRIBUTING WRITER

Some people learn well in a lecture hall: seated and washed in a torrent of words, written and spoken. Some people learn with their bodies and hands: taking a motor apart, moving across a stage, building, tinkering, decorating.

The second type – hands-on learners – are at the heart of the **Center for Dynamic Learning**, home-based in Providence and active at many schools and child-centered places – such as YMCAs – across Rhode Island.

Serving mainly city kids from less-privileged neighborhoods, the center sweeps up children who are not thriving in traditional classrooms, as well as youth who have gobbled up all they could learn from books and are eager to use their hands to make things go.

The center was founded in 2003

as the Traveling Theatre. Theater teachers worked with children before and after school and during the summer to create, stage and perform musical plays. Years later along with its name change – the organization added a science, technology and manufacturing component.

In the science and technology component arena, children from kindergarten through high school do chemistry experiments, build rockets, work with hydroponic plants, and even design and build solar- and electric-powered go-carts.

The center's 15,000-square-foot space on Louisa Street includes a wood and metal fabrication shop with design software, a life sciences lab and a black box theater. Cooperating with partners like the Met School in Providence, center teachers work with 300 to 500 children a year at Louisa Street and a total of 1,200 children at year throughout the state.

Elizabeth Cunha, CEO and founder of the center, has a master's of fine arts degree. In developing the idea of for the center, Cunha said, "I wanted it to be something that helps children understand how they learn and to find their own voice."

"Anytime you give a young per-



PBN PHOTO/FRANK MULLIN

**OUTSIDE THE BOX:** Serving mainly city kids from less-privileged neighborhoods, the Center for Dynamic Learning looks to help children who are not thriving in traditional classrooms. Above, U.S. Sen. Jack Reed takes instruction from Samuel Cunha, red shirt, and Krystalee Diaz Nieves prepares to start cart racing at the Center for Dynamic Learning's End-of-Session Celebration at Culcutt Middle School in Central Falls.

son an opportunity to think, to create, to explore, to make mistakes, and to reflect on the process, this expands their knowledge," Cunha said.

A bedrock value of all the activity is hands-on learning, inquiry, and appreciating the value of making mistakes. Another essential value is to work with children as individuals, coaxing accomplishments from them based on their personalities and inborn talents.

Despite their best efforts, it is difficult for teachers in regular classrooms to work with children

as individuals, said several center teachers, because of teaching loads, lack of time or inflexible curriculums and rules.

Jeannine Magliocco observed the center's work as former principal of Lonsdale Elementary School in Lincoln. She said center teachers placed children in production roles that pushed their inherent talents. "Children weren't just plopped into a play," she said. "Children were responsible for growing their part. They are part of the innovation. In a top-down operation, that wouldn't happen." ■