

# Design World

October 2008

www.designworldonline.com



## Linear actuators bring flexibility to packaging

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## Custom linear motion design speeds assembly

**S**hopBot, a leading manufacturer of CNC routing machines, selected a Bishop-Wisecarver linear motion device for the PowerStick feature of its second generation "Buddy." For years, ShopBot has used the DualVee® based products because of their ability to operate in environments that are routinely covered in wood chips and sawdust.

For the next generation design, a major objective for Engineering Manager Gordon Bergfors was to reduce assembly time and cost. The previous method took about two hours to assemble and required skilled labor. Bergfors needed to achieve his objective without compromising rigidity, load capacity, or the ability to withstand the harsh environment in which the machines operate.

Said Ted Hall, CEO, ShopBot, "Bishop-Wisecarver, didn't have an off-the-shelf solution to offer, but asked for a couple of days to brainstorm and design. Two days later I had a proof of concept sample in my hands."

Two weeks following the proof of concept sample, a functional prototype was delivered. It features Bishop-Wisecarver's QuickTrak®

clamp extrusion, which requires no drilling or fasteners, reducing assembly time to just minutes and significantly increasing production capacity. More importantly, it integrates the DualVee track, a technology already proven capable of handling the tough conditions created by a CNC machine.

"We are very excited about this new format for CNC woodworking," said Hall. "Buddy is a completely modular robotic tool that can be rapidly configured to the cutting or machining job at hand. With a high-performance motion system and powerful, user-friendly software, we believe we're giving our customer the best tool for the price."

The ShopBot Buddy with PowerStick is one of 20 entries chosen, from a field of over 125, as a finalist for the IWF 2008 Challengers Award®. The Challengers Award is widely recognized as the woodworking industry's highest honor. Final judging will take place at IWF 2008 in Atlanta, August 20-23.

**Bishop-Wisecarver**  
[www.bwc.com](http://www.bwc.com)

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