

"Our business is when someone tools up for new manufacturing processes," said AeroGo CEO John Massenberg. "As SpaceX and Orbital expand, as well as Blue Origin and Virgin Galactic, as they move to the stage where they'll actually be manufacturing, that will increase our business."

All of these companies are making launch vehicles to reach outer space. What AeroGo makes that's so important to them is equipment that moves extremely heavy loads across very flat floors, with those loads being held up by a cushion of air.

AeroGo's products all feature several inflatable rings that are mounted under whatever is being moved, creating a cushion and a seal with the floor while air under high pressure lifts the load just a few inches. When the system is powered up, thousands of pounds suddenly are suspended on air, and can be moved in any direction with a push of a finger.

"Just like an air hockey puck, it will move in any direction just as easy," Massenberg said.

The idea may sound simple but the implementation isn't, which is why AeroGo has only a few competitors and sells to customers around the world. About half of the company's production is custom work, and half is a standard line of products.

The \$16 million company, spun off from Boeing Co. (NYSE: BA) in 1967, keeps its edge by making nearly everything in-house.

This includes fabricating the inflatable rings from six to eight layers of rubber and fabric, bonded together with a special glue mixed at the factory. All the metal frameworks also are welded together at the factory; some of them are massive structures capable of supporting hundreds of tons. While Chinese companies have tried to copy the AeroGo products, those competitors haven't survived because companies are willing to pay a little more to know that

their extremely precious cargoes - \$100 million satellites or casks of spent uranium fuel - won't be dropped. "We're not a big percent of the cost; it's absolutely essential that it functions properly," Massenberg said.

Currently the company employs 75 people in the same 55,000-square-foot Tukwila factory it's inhabited for years. It's been able to stay the same size despite growing sales by implementing lean manufacturing techniques, Massenberg said.

"We've been able to lower costs, raise the quality of our products, and shorten build cycles. That's something that's required, nowadays, if you want to stay in business," he said.

Currently the space launch business is just 15 percent of the company's total, with similar percentages of sales in the power generation and electrical motor businesses, both of which involve moving heavy items such as generators and motors. About 5 percent of sales are to Boeing.

In addition to current contracts with Orbital Sciences, AeroGo also is working on a contract to build an extra-strong air caster machine for Hitachi in Japan to be used in the nuclear fuel industry.

This machine will be able to lift canisters of spent fuel of up to 143 tons, so they can be positioned very precisely to be bolted to the floor of a storage facility. While AeroGo hasn't yet landed contracts with Jeff Bezos' Blue Origin or Richard Branson's Virgin Galactic, AeroGo representatives have been talking to both companies, and Massenberg thinks it's only a matter of time before those talks yield work.

"I expect (sales) to go up," he said, adding that as those companies increase production, "We're going to be able to help them."

Steve Wilhelm covers manufacturing, aerospace and trade for the Puget Sound Business Journal.