

Sisson runs a specialized shop hidden in the woods

Finds right balance for local precision machining operation

By RICHIE DAVIS Recorder Staff November 27, 2013

NORTHFIELD — Even in Franklin County, the last thing you'd expect to find in the middle of a wooded setting on top of a mountain is a factory that churns out thousands of parts for satellite telecommunication systems or for diagnostic medical equipment.

But it's all there at Sisson Engineering, in some ways a symbol for the small-scale manufacturers who have found a niche in the state's most rural county by adapting to shifting markets. The business started at Turners Falls Airport after the crash of ultralight aircraft manufacturer Aerodyne, where Cody Sisson worked briefly as an engineer in 1981 and 1982.

After the company folded, Sisson bought back all his equipment, which he had originally set up at his Acton home and then a Boxboro workspace. Originally, he planned to put the machinery in storage and travel around the country with his girlfriend, Jeanne, who's since become his wife.

But then, driving around on the backroads of Northfield, he stumbled on an abandoned farm and an idea clicked: Why not set up a factory here in a barn next to his house? Franklin County's giant machine shops were shedding jobs or moving to the sunbelt, but in this bucolic setting across the road from a small pond, Sisson — a self-described "gearhead" who'd started out building speedboats as a teenager and still tinkers with motorcycles and builds iceboats in a workshop in the basement of the factory — would supply precision tools to an array of specialized industries.



Recorder/Paul Franz **Cody Sisson of Sisson Engineering in Northfield.**

Beginning in 1985, he says, "We hit the medical industry heavy," building components for diagnostic and surgical equipment. "It was the right thing to do at the time. It was fairly lucrative back then."

But by the end of the '90s, that manufacturing work began moving overseas.

“The handwriting was on the wall,” Sisson says. “The lucrative work was leaving, and we decided to branch out.”

Today, with 20 employees — down from a peak of 35 working two shifts in 1999 and 2000 — Sisson Manufacturing makes hundreds of products for 40 to 45 manufacturers, some of which go into assemblies put together overseas and returned for final manufacturing in this country. The business has had as few as eight workers, but Sisson says he’s now hiring four more employees, mostly to replace workers who are retiring or going on leave. There’s a lot of competition for those jobs, coming from neighboring states as well as other parts of western Massachusetts.

But he also sees modest growth ahead, thanks to what he believes is a re-shoring of work that had gone abroad.

“Some of the more technical things had gone overseas, but it’s starting to get expensive, so it’s coming back,” says the 57-year-old entrepreneur, relaxing in jeans and an unbuttoned shirt in a cavernous office dominated by a large wooden propeller over the large-window double doors that look out on the reception area. Keeping a small precision manufacturing shop busy but not too busy is a fine balance, he says of the business with about \$2.5 million in sales.

Only about 10 percent of the company’s business now is in medical equipment, such as parts for ultrasound devices. Another 30 percent of its work is used in millimeter microwave equipment, used for high-frequency telecommunication and high-resolution imaging for surveillance but also for crash detection in vehicles and to deliver television and radio to Navy ships and submarines.

Roughly 30 percent of its work is in robotics, including parts for prostheses that it’s producing with a couple of universities, says Sisson.

The remainder of the work is on petrochemical analyzer equipment, as well as aerospace and electronics.

Sisson’s parts are used in the guidance systems for Blackhawk helicopters and submarines, in equipment that tests the atomization for medical applicators like asthma inhalers, and in the surgical robots for knee replacement and other surgery.

“It’s a nice balance of industries,” says Sisson, who says the firm has recently bid for some high-volume contracts that would require set up of a fully automated, “lights-out” section that would operate round-the-clock with full pallets of raw materials.

But hardly any of the work the company now does, turning out tiny, precision parts that are used in hundreds of kinds of equipment, can be automated.

“There is tremendous amount of low volume, high-quality, high-end work,” Sisson says. “It takes really high-skilled labor, but there’s a lot of it. You need to balance the different types of industries,

different types of processes where there's a little bit of high volume, a little bit of very low volume prototyping, with mid to large runs and small runs, cherrypicking your jobs, so that if one industry drops off, you have another that may be able to fit in."

Sisson, who was one of the area manufacturers who contributed recently to equip the Franklin County Technical School with updated equipment to better train its manufacturing students, says he has a Tech School intern working in his shop and also a former student who is being trained at the Northfield business.

Business at the mountaintop machine shop has been humming ever since mid-2009, says Sisson, who says that he depends on high-end "enterprise resource planning" software to put together as many as 150 quotes a month for new jobs and to coordinate shop scheduling, materials and all of the deadlines for the hundreds of parts being produced by the shop. But he also credits his workers, many of whom have been there for him for years.



Cody Sisson of Sisson Engineering stands with CNC machinist Lawrence Attesi in Northfield.

Dave Burnett inspects a milled component
Recorder/Paul Franz

And he credits the work environment at the machine shop a few hundred feet away from his house.

"I'd be making gobs more money if this was in some industrial park, in a state-of-the-art facility closer to my vendors and some of my customers. But I'd never change my lifestyle. I watched my three kids grow up right here, next door."

And best of all, when he gets hung up tackling a problem, Sisson says it helps to head down to his cellar workshop and clear his head.

"It all helps," he says. "It's part of the balance."

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