



Cell leader Alfonso Banuelos adds tools to the 494-tool magazine on the company's new Toyota FMS. The system has 44 pallets serving 3 Toyota FH450S III 4-axis horizontal machining centers purchased from Selway Machine Tool Company.

## Target: Zero Setup Time

*This Highly Successful Aerospace  
Job Shop Says Zero Setup Time  
Is a Realistic Goal.*

*Story and photos  
by C. H. Bush, editor*

**W**hen most young men decide to found a machining job shop, they tend to follow a typical path toward growth. They start in a garage or a small hole in the wall. They often keep their day jobs and work their own business at night until they gain enough momentum to go at it full time. Frequently they don't have a clear vision of where they want to take the business. They'll accept any kind of job that walks in the door just to stay alive. Eventually, though, if things go right, they find some kind of niche and a business formula that allows them to succeed.

Allen Sumian, on the other hand, founder-president of Valencia, CA's highly successful True Position Technologies, Inc., broke with this mold right from the beginning.

"When I started my business in 1990, I knew exactly what kind of work I wanted to do," he says. "Prior to jumping out on my own, I had worked for my father, Victor Sumian, as production manager in a manual machine shop he founded. Even though all the work was done on manual machines, my dad's company specialized in producing highly complex, very close-tolerance parts. So, when I started True Position Technologies, I knew that's what I wanted to do, too, and that's what we've done ever since. Our niche is producing very complex, close-tolerance parts in volume increments ranging from one to 100 pieces, usually with ten-page drawings and the tolerances as tight as a tenth. For us a large order might be 50 parts a month."



*True Position founder-president Allen Sumian (left) and Tim Meade, company sales, discuss a new order just received.*

## A Profitable Niche

Sumian broke with the normal start-up pattern in other ways, too.

“With help from my father and another close family friend, we started in an 8,500 square foot building,” he says. “We had a couple of Fadal CNCs, a couple of Bridgeport manual mills and a couple of Hardinge lathes. Several employees came along with me from my dad’s previous business, so we had some experienced people right out of the box. From that first building we moved to a 20,000 square foot facility and we just recently moved again, this time into a modern, 44,000 square-foot facility. Things have gone very well for us.”

To get started, the fledgling company inherited a couple of customers from the old business.

“What really helped us was that a couple of major customers followed us,” Sumian says. “There was an aerospace engineering company, Sterer Engineering, which later became Eaton Aerospace. Today Eaton is still one of our very best customers. They came with us because they knew what we could do, and we told them we were going to go with CNC equipment. They knew that was the wave of the future, and apparently liked that.”

Since his early days, Sumian has stuck with original goal: build highly complex, close-tolerance parts.

“So far I’ve seen no reason to change,” he says. “We have just under a hundred very experienced employees, we have a beautiful new ISO/AS/EN certified facility, and we have an equipment list that makes a machine-tool salesman’s mouth water. Our productivity per employee is outstanding. I’m not sure what else I could want.”

When Sumian talks about a “beautiful” building, it’s not just casual talk.

“I guess I got my ideas about workplace aesthetics from my dad,” he says. “Dad always said, ‘If you’re making complex products you have to have an environment that’s conducive to that.’ He was trained in the old school in Armenia, and part of that training was to keep a clean, well-ordered shop. I knew he was right, which is why we keep our shop that way, too.”

## The Quest for Efficiency

From the beginning, Sumian was eager to find ways to increase production, improve quality and stay competitive.

“We started out with what I call a standalone philosophy,” he says. “As time went on, we added people and equipment, but mostly the equipment was Fadals, Haas and standard 2-axis lathes. But eventually we came to realize that if we wanted to sustain our growth and become globally competitive, we had to do more than that.”

For Sumian, the “more” at first was to shift to manufacturing cells made up of standalone machines.

*Cell manager Tony Argueta punches in his ID to retrieve a cutting tool from True Position’s new AutoCrib tool crib.*



“We grouped our machines into logical cells producing families of parts,” he says. “Then we created dedicated teams with a lead man in each cell, who pretty much runs the cell. Our basic idea was to create small factories within the factory. That means each cell is responsible for a variety of products. Recently, with our last move, we incorporated inspection and deburring points right in the cell. That makes each cell a standalone manufacturing center. We don’t have any kind of set rule about a one-to-one relationship, you know, like one man to a cell. If it’s one-to-one or one man to three machines, it doesn’t matter. It’s whatever the job requires. At this point we have a tier of employees for every cell, which has worked out very well for us.”

## Going Horizontal

In spite of the efficiency he had achieved with the factory-in-a-factory cell approach, Sumian knew he needed to do still more, if he wanted to stay competitive. So, about 5 years ago, he decided to give a palletized horizontal machining center a try.

“We had both verticals and horizontals over the years,” he says, “but making the move to a multiple-pallet machine was a bit of struggle. When you start doing the analysis, you’re looking at it and saying, well, what about spindle time? You may have 40 pallets, but only one spindle. You can have all those pallets, but if the cycle times aren’t a lot faster, the gain may not be there. With only one spindle the pallets are just going to sit. The question for us was: which is better, more



