

Machine shop develops new security, old keys

By Keri Brenner, IJ reporter

A Novato machine shop is the force behind two widely disparate North Bay security mechanisms - one for creating hard bodies, and the other for doing hard time.

Protofab Inc., the five-year-old, 4,000-square-foot computer-aided machining and manufacturing plant at 21 Pamaron Way, has developed for Security People, Inc. Maker of Digilock a working prototype for a brass-plated keypad locking system that uses a four-digit code to open and close. The prototype, created by Mike Maendl, Protofab founder and president, is now in use in the locker rooms at Mill Valley Health Club & Spa on East Blithedale.

Maendl also is responsible for the design, prototype and manufacture of a replica of a key used to lock the cells at Alcatraz. The souvenir keys, which sell for about \$9 at Alcatraz, San Francisco International Airport and several other tourist stops, have so far raised more than \$800,000 for the Golden Gate National Parks Conservancy, which commissioned the project.

The Alcatraz cell keys and the keypad locks are just two of Maendl's portfolio of unusual custom devices and machined products.

His company, which custom-designed and machined light fixtures for Oracle founder Larry Ellison's home, specializes in quick turnaround of engineering projects - often with very short notice.

"We find a lot of excitement in being able to turn over things quickly," said Maendl of his five-person operation. "We're never doing the same thing, and it's very creative.

"We're always working by the seat of our pants," he said.

Several years ago, for example, computer networking giant Cisco Systems needed a heat sink mechanism - a device that disperses heat created within a computer - to be designed and produced in prototype form in very short order due to a backlog within Cisco's in-house engineering department. They outsourced the project to Protofab, which was able to do the work promptly, Maendl said.

"We're often the last chance for engineers," said Maendl, 39, who honed his craft during 15 years working in the tool and die shop at Schlage Lock Co. in San Francisco, now a subsidiary of Ingersoll Rand. Maendl founded Protofab in 1998, after Schlage moved its operation to Colorado.

The company, now grossing revenues of just under \$1 million annually, is preparing to grow, he said. Maendl said his goal is to take in revenues of \$2.5 million to \$3 million annually within the next three to five years, and double his staff to about eight to 10 people.

"I'm working on building a solid (business) model that works really well," he said. "Things are definitely picking up, and I have a good feeling about building the business."

At the Mill Valley Health Club & Spa, the key pad lock by Security People Inc. (www.securitypeople.com) of Petaluma under the brand name Digilock - is easy to use because the four-digit code is newly entered each time the locker is opened, and cleared when the gym member leaves.

The user only has to remember what number he or she entered that day - instead of a complex series of numbers and turns as with a combination lock.

"It's cool," said Tony Musselle of Mill Valley, a trainer at the health club. "You come in, put in your own code - something you'll remember, like your birthdate.

"It's real simple and very effective," Musselle added.

Maendl said the keypad lock, which has a small electronic motor inside its zinc housing, can also be wired into a company's computer system to set up layers of security access as needed.

For example, if a janitor needed to clean only the men's locker room, all the men's locks could be programmed with one code, and that code given to the janitor for that day.

In an emergency, health club or other company officials can still open the locks without knowing any individual codes, he said.

"A master code can override" the other temporary codes, Maendl added.

On the Alcatraz cell keys, Maendl said Protofab is able to turn out short runs of 10,000 or 20,000 keys at a time by casting the rough form in brass himself, and then sending it out for final machining to a plant in San Francisco.

Other frequent customers are Agilent Technologies, which produces electronics and other high-tech products, and medical device producer TriVascular Inc., both in Santa Rosa.

"It's a great business," Maendl said. "We get to work with highly trained, incredibly sharp people with very high energy.

"They have a big drive to produce cutting-edge technology," he added. "It's fun to be a part of that."

Contact Keri Brenner via e-mail at kbrenner@marinij.com