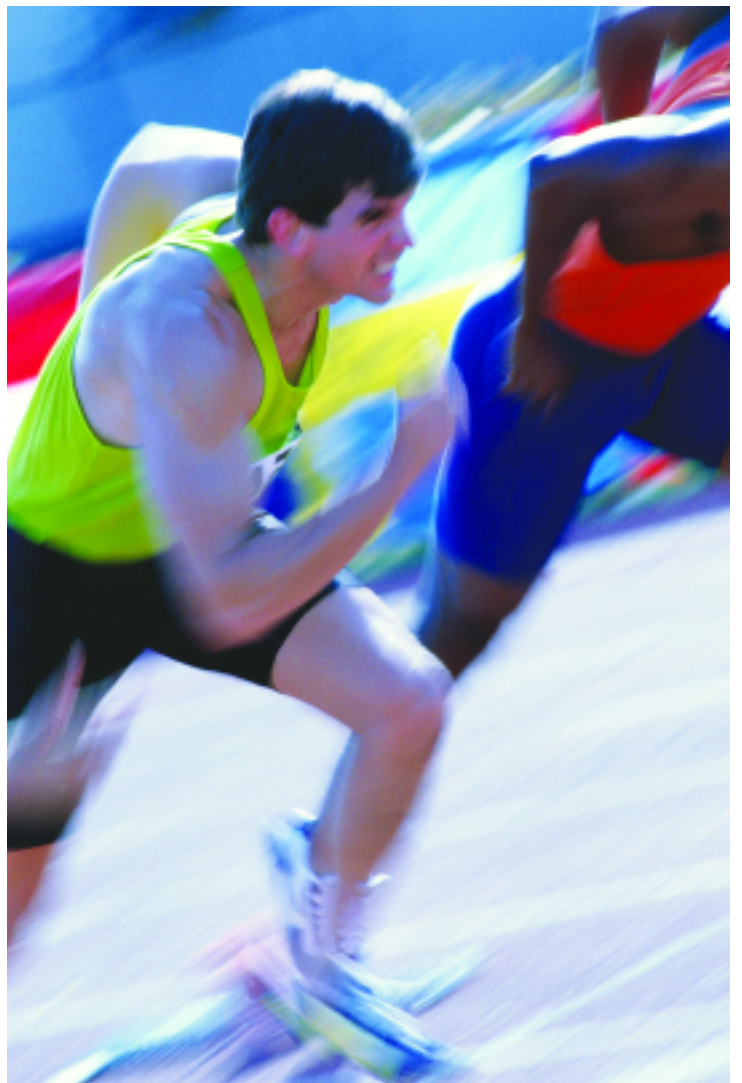


fast start

for new
startup

When Beat Mauer and Raphael Obrecht started their grinding operation, they were well aware of the pitfalls of starting a small business. They had seen their share of small shops in the Dayton, OH area close their doors — especially in the tool, die and mold business. But by offering diverse services and keeping close ties with their previous employer and Swiss machine builder Studer, they're making good headway and keeping very, very busy. ▶▶▶



SPRINGBORO, OH — Beat Mauer and Raphael Obrecht had worked together on Studer grinders for a number of years, just for someone else — United Grinding (Miamisburg, OH). When they started their own business, Complete Grinding Solutions (CGS), in January 2006 in a 1500 sq ft facility with a single Studer S40 universal grinder, unlike others who sever past relationships, CGS has maintained a tightly woven connection to United Grinding.

“We have to emphasize our relationship with United Grinding,” Mauer says. “From training and consulting, to prototyping, to small- to medium-size part runs — none of what we are doing now could have been done without United Grinding and their help. This is very important. Anybody out there can buy a Studer and start grinding parts, but the combination of the backgrounds we have and the grinding knowledge and knowing the machine inside out, these together with our partnership with United Grinding are the keys for our success. We have a partnership that is based on trust, and we would never go to a competitor, like a Kellenberger, and offer them the same services.”

The array of services

Mauer explains there are five areas his company focuses on: training, consulting, process development, prototyping and small- to large-production work. He notes, however, that prototyping is a big market and they focus very heavily on it.



Partner Raphael Obrecht and his PC. Prototyping is another key service, and setting up the grind off-line on a computer is another way to achieve efficiency

“On the one hand,” Mauer says, “there are job shops that run small- to medium-volume production. On the other hand, there are full engineering companies or OEMs, and neither focuses on prototyping. So, it’s a niche — that and process development.”

Mauer says that very often a customer comes to them with a part he needs to have ground but doesn’t know the best way to do it. So, they suggest the best alternatives to making the part, which often can result in production work for them, something they are open to.

“This can start with developing the process on our floor or theirs,” Mauer says. “Then the next step would be grinding trials, tests, run-

offs and analysis of the tests. We establish grinding wheels, dressing tools, workholding, cycle times, cost-per-part evaluations and statistical runs. We define the best methods and parameters to make the part, whether we run the job or the customer runs it himself or has someone else run the job.”

He further notes that CGS focuses on high-end work, by which he means high-accuracy, very difficult and complex parts due to size or tolerances or surface finishes. Basically, he says, things that not everybody can, or wants, to do.

Steeped in Studer

Mauer says he’s been with Studer for 25 years (both he and Obrecht were born in Switzerland). He began with Studer in Switzerland as an apprentice. He went on to acquire an



Beat Mauer as grinding professor. Training is just one of the many services offered by Complete Grinding Solutions

engineering degree while still working for Studer. Then he was transferred to Studer Inc. in Connecticut and worked there for about three years until the company was bought by the Schleifring Group, after which he was transferred to Miamisburg, working for United Grinding for 13 years. Obrecht has worked at United Grinding on Studer products for 4-1/2 years.

“There is absolutely no better product out there for the kind of work we do. Studer is the best in technology, software and reliability,” says Mauer. “The effort Studer has put in for the last 20 years to make the product the best there is — the leader in the grinding world — has really paid off. We can grind better than anyone can even measure, and when you reach those levels, there’s just no question about the accuracy of the machine. We have no downtime at all. We’re really fortunate in that we have a product that we can confidently stand behind.

We know where it’s coming from. It’s built in Switzerland, and so are we.”

Studer S40 universal grinder

The machine CGS has is a fully loaded Studer S40 universal grinder, which, Mauer notes, is capable of doing prototype work or production work with equal facility. “It’s very precise and accurate,” he says. “We can do form grinding, which means we can do cam grinding, any type of out-of-round grinding, cylindrical, ID/OD grinding — the whole spectrum of cylindrical grinding. The machine combines operations very easily. We can do a form on a cam, thread on the other side, OD/IDs — all in one

shot. We don’t know anybody out there that can do anything like that: multiple features, multiple operations in a single setup.”

Mauer also points out that the S40 will pretty much grind

“We have to emphasize our relationship with United Grinding,” Mauer says. “From training and consulting, to prototyping, to small-to medium-size part runs — none of what we are doing now could have been done without United Grinding and their help.”

Beat Mauer
Complete Grinding Solutions



One example of the close relationship between United Grinding and CGS: Beat Maurer and two of United Grinding’s Cylindrical Applications experts, Mathias Gerber and Tom Vieira, jointly develop a complex grinding process

anything: ceramics, carbide, silicon carbide, exotic materials, glass, rubber. "We're pretty much capable to grinding any material that's out there that is grindable. If we can get it on the machine, we can grind it," he says.

One of the beauties of running a Studer S40, Mauer says, is its great flexibility. "Today," he says, "we might be running a shaft, next week an aerospace component and in the same week we'll do a spindle for a machine tool builder in Taiwan, and the following week we will start grinding tool holders. Obviously, we'd like to get more heavily involved in automotive because that's a very big niche, especially in the area of prototyping, and that's the kind of work the auto companies farm out."

A shift in industry toward smaller suppliers

Something substantial has happened since 9/11, says Mauer. "I believe that one thing is that the big companies have shifted everything down to the smaller companies, the Tier Ones and Tier Twos. And that means these Tier suppliers have done the same things to their suppliers, the smaller job shops. And all these companies at all levels have let people go, from engineers to process development people. So the larger companies are relying more and more on the OEMs to provide the support they used to have internally. A customer may come to United Grinding and say, we want to buy a machine from you, but we need to have

you do the prototyping and process development and so forth, and this is where we can step in with our partnership and do some of this work for them, and we do this parallel to the machine sale."

CGS also serves United Grinding as a short-term job shop. Mauer says that occasionally a customer may have a Studer that is temporarily down, and while that's being worked on, United Grinding may ask them to run production for the customer, which they gladly do. In other cases, a machine may come in that's bound for China. "We will do development work here and then follow the machine to China, where we'll do development work and process prove out and consulting and training there," Mauer says. "Basically we can run with ball from A to Z."

Spreading the word

Mauer notes that they do Studer training for on behalf of United Grinding, either on their floor or at the customer site. "We do quite a bit of field training," he says. "But one of the sad things is that grinding isn't taught at any college or vocational schools. We're trying to change that by hooking up with schools and offering grinding seminars. It's very important to spread the grinding word, to try to get young people interested in this technology. Grinding can be, and is, a very rewarding career." ■

INFO grinding.com

Ed Sinkora • 540.710.2408
edward.sinkora@grinding.com

Now Hiring....

We manufacture custom crankshafts for the international motorsport industry and supply a variety of customers (including Nascar, Formula 1, MotoGP) with premium quality, high performance products. At our Irvine, CA location we have established a brand new "state of the art" LEAN manufacturing facility, and we now offer exciting opportunities for experienced grinding and manufacturing people with a passion for precision and high performance.

SP is seeking to fill the following positions immediately:

- Grinding Technicians
- CNC Machinists
- Manufacturing Engineer

Submit resumes to:

Ms. Sabine Fidler
careers@spcrankshaft.com

More info at: www.spcrankshaft.com

