

# 'Turning' Powdered Metal Into Profit



To handle the machining characteristics of powdered metal, Eurotech-Famar CNC Pronto 5 turning cells feature Siemens controls, drive, and spindle packages.

"The machines had been put into action almost immediately after delivery, to meet current customer production schedules, so we'd had less time than expected to test run the cells. What we learned was that the Siemens control package allowed us to add separate sets of electronic pushbuttons at the operators' worktables, each wired into the machine, to make offset changes by the push of a button, rather than keying in the change on the control panel's offset page. Within the cutting program, each pushbutton controls a tool offset and is assigned a specific positive or negative numerical value," according to Gerlach.

"Then, each time a button is pushed by the operator while the

## New turning cells and control help a shop deal with the unusual characteristics of powdered metal.

Using new Eurotech-Famar Pronto 5 turning cells, as well as CNC lathes and various machining centers, Charles Gerlach, president of Gerlach Machine & Tool, (St. Henry, OH) is literally turning powdered metal into profit. This 30-year-old machine shop, does high-volume machining (annual volumes range from 50,000-1,000,000 pieces), plus bead blasting, and honing of various powdered metal and cast aluminum parts for major suppliers of automotive components such as timing sprockets, engine/drive line components and auto body parts.

Gerlach frequently does the final machining on near net shape products for subsequent delivery to Tier One automotive vendors.

The purchase of two Eurotech-Famar Pronto 5 Turning Cells with a Siemens CNC control, drive and spindle package onboard each, was necessitated by the unique machining characteristics inherent in powdered metal work.

"We're machining very high quantities of powdered metal automotive components, which causes excessive tool wear and therefore requires constant offset adjustments. The Eurotech-Famar representative trained us on the set-up, programming, and the time-saving features for our particular operation," explained Gerlach



Charlie Gerlach (right) and General Manager Terry Fisher of Gerlach Machine & Tool, Inc. review the results of "turning" powdered metal into gears on the company's new turning cells.

machine is running," he continued, "the offset assigned to that particular button will change by the given numerical value. This basic capabil-

ity saves time and simplifies tool adjusting, which in turn increases our productivity substantially.”

Elaborating on the controls of the Eurotech-Famar Pronto 5 turning cells, Gerlach pointed out, “The machine does not need zero returned or referenced. Passwords can be selected to protect the program and the tool geometry from being accidentally altered, while still allowing the operator to change tool offsets.”

**The machine does  
not need zero  
returned or  
referenced.**

Additionally, he cited other benefits of the machines, including the capability of assigning offsets a maximum value the control will accept per adjustment, thereby preventing machine “crashes” that occur when an offset value is changed to an incorrect, large number.

He also noted the programming of sub-programs within a program as an added upside of the machine control package, which features the Siemens Sinumerik 840D CNC, Simodrive 611D and spindle as original equipment on the Eurotech-Famar Pronto 5 Turning Cells. Axis and spindle motion are all controlled by the Siemens CNC, with Gerlach storing all data/programs on the hard drive with floppy disk back-up. *Siemens Energy & Automation, Inc.* ■

Reprinted from *Modern Applications News*, April 2003

Copyright © 2003 by Nelson Publishing Inc. • [www.modernapplicationsnews.com](http://www.modernapplicationsnews.com)