DPSI
Remarkable technology. Realistic price.

GKN Sinter Metals in Ontario, Canada, is the world's top producer of powder metal (P/M) components, with a work force of more than 7,500 employees in 13 countries, spanning five continents. Leading the consolidation of the powder metals industry, GKN Sinter Metals has made 14 acquisitions since 1998, and is now the undisputed market champion in an industry that has traditionally been highly fragmented.

The company is concentrating on becoming a truly customer-focused organization, further developing its technological and innovation leadership position within the P/M industry, and refining its capabilities as a full-service supplier to its expanding base of customers.

Sintering gives Powder the Strength of Steel

"We make engine and transmission components for the big three vehicle manufacturers: Ford, Chrysler, and General Motors," says maintenance manager Phil Robinson. "My job is to direct a staff of 25 people who maintain five acres of factory under one roof. I couldn't do this without PMC, our computerized maintenance management system. I'd need a full army of people just shuffling paper around."

Robinson explains that "sintering" is the name of the part of the process used to build vehicle components. "Imagine a bucket filled with wet sand. When you turn the bucket over, the sand stays in place. That's similar to how we build our vehicle parts. We take powered metals and press them together with several hundred tons of force. Then presto — the part is ejected."

But sand castles break easily, unlike engine components. That's where the sintering comes in. Says Robinson, "We put the part in a sintering furnace to make all of the molecules cohesive and take on the rigidity of steel."

PMC Coordinates Maintenance of $5 Million Worth of Equipment

Robinson and his staff handle preventive maintenance for each of the 598 assets he has listed in PMC. All together, he says, he's responsible for five million dollars worth of equipment. The assets include computer-controlled lathes, compacting and sizing presses, air compressors, oil pump components, trucks, batteries, and hoists.
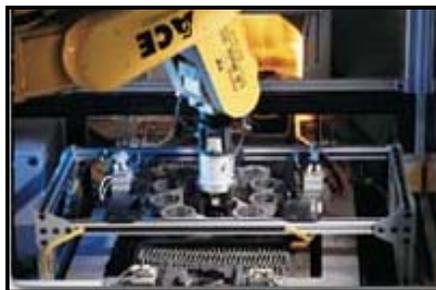
Robinson says the list of preventive maintenance duties is endless, ranging from weekly cleaning of certain items to pulling out all the wires of robots that have been working for four years straight. "The wires get brittle and harden up," explains Robinson. The plant generates about 200 to 300 scheduled work reports per month. "Preventive maintenance is part of our corporate culture," he states.

Breakdowns are fixed right away. "The equipment may be fine, but there's always going to be some operator error," Robinson says. "So the maintenance staff also handles about 30 unscheduled work orders each day. All technicians have been trained to use PMC, and

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terminals are situated at several places within the plant so employees can fill out unscheduled work requests as needed."

Inventory and Reporting Modules make Life Easier

Robinson has 5,608 items in inventory, each with minimum and maximum parameters. When stock reaches the minimum, a member of his staff generates a purchase order using PMC. Then the purchase order is transferred to the purchasing department. "I use PMC to keep track of 841 vendors and their prices," says Robinson. "Ideally, we'd like it all bar-coded, but we're not there yet."

Robinson uses PMC to generate various types of reports. He's found that reporting is easier if he separates his assets into 40 different categories. "It helps me search and gather information by asset number," he explains. He measures and tracks downtime, maintenance costs, asset types, and inventory.

Measurable Savings in Time and Money

Robinson recalls one incident in which PMC saved the company thousands of dollars. "The bearings on the grinders continually needed to be replaced, even though each bearing should have lasted 10 to 20 years," Robinson states. "This was costing the company dearly, since each replacement bearing cost $10,000."

Robinson conducted a search of all 48,000 past work orders and discovered that the

"PMC is a reliable, easy-to-use system."

problem was limited to one particular grinder. "We dug deeper and found out that 10 years ago, a mechanic replaced the bearings the wrong way. When the bearings failed 18 months later, a second team replaced the bearings by copying what the first team had done. And when *they* needed to be replaced, a third team went in and copied the second team, and so on," he says. According to Robinson, so many different people work on so much equipment that he would not have been able to determine the problem without PMC.

"By discovering the problem with PMC, we'll save $64,000 over the next eight years on just this one bearing problem," Robinson claims.

PMC also helps the company save time during inspections. For example, each time the mechanics worked on the electrical system, they would have to log it in a book for possible inspection by the electric company in Ontario. "With six or seven electricians working full-time, the record keeping was a real burden," says Robinson.

Robinson asked the inspector if the company could identify the electrical work using PMC instead, saving a great deal of time. Now all Robinson has to do is search for work orders involving the electrical system, put them in a file, and e-mail the file to the inspector, who determines which jobs to inspect. Hoist inspections are also facilitated by PMC in much the same way.

"PMC has been a great tool for us," concludes Robinson. "It's a reliable, easy-to-use, straightforward system."