

**Article from "Smart Business Cleveland" January 2006**

**By : Abby Cymerman**

## **HOW ABE MILLER IMPLEMENTED A MODULAR MANUFACTURING SYSTEM TO INCREASE GRAFFITI INC.'S EFFICIENCY?**

Abe Miller's company, Graffiti Inc., is one of the last baseball cap manufacturers in the United States, but that doesn't stop him from competing.

"There are a lot of orders where people are looking for 144 to 1,000 caps and they need them in two to three weeks, and they're not going to get that offshore," says Miller.

Since starting the company in 1984, Miller and his wife, Barbara, have grown Graffiti Inc. to 65 employees and \$5 million in annual revenue.

*Smart Business* spoke with Abe Miller about how he adopted a more efficient manufacturing process to grow the business.

### **How does innovation fuel your company's growth?**

The most advanced method available in the textile industry is what's referred to as modular manufacturing. There's a company called Toyota Sewing Systems (TSS), which originally came from how Toyota manufactures its automobiles, and we have that system.

We had (TSS) install this sewing system in our factory with these modular cells where people are standing rather than sitting. The work is always in process, so at the end of the day, instead of having inventories of large parts and pieces going through the line, you have finished product. It's a series of the same machines we've always used, but they're in the standing position.

### **How did that change the way your employees work?**

You train your operators differently. You train them to think differently. They're not just trained on one sewing position, they're trained on up to as many as three. They work it together as a team.

### **How does that differ from your previous process?**

The old style is called batch manufacturing. One operator would sew 1,000 pieces and then push it to the next operator. They would take (those ball cap pieces), add 1,000 pieces and so on. So you have these big mountains of work traveling very slowly through the line.

Before, by 10 or 11 p.m. we would start getting finished product. Now we start at 7:30 a.m., and by 7:40 a.m., we start getting finished product. Right now, we make about 300 caps an hour. So it goes a little bit faster. It's neater, it's cleaner and it's organized.

It's better for the workers. If you're just sitting down all day, it starts to hurt your back and your shoulders, but if you're standing and you're moving, it's easier, and they're not as drained at the end of the day.

### **How have your employees responded to this new system?**

It took a little convincing. When you go to a system like this, one of the things you have to be prepared to do is pay your employees more money by offering them a bonus. We went from paying \$20,000 a year in bonuses to paying about \$47,000. They're giving us more product, so we have to be able to return that.

### **How did you train them to use the new system?**

They had to listen to me talk for 45 minutes, begging them not to walk out. (Laughs). No, I was convinced [it was a good decision.]

You don't (train) the whole factory at one time. We did it in thirds. When we did the first third, the other two-thirds were very interested. Then we did the second group of employees, and by the time we were getting ready to do the third, they wanted to be part of everything.

You have to be willing to make the commitment, because once you start, you can't really stop. A system is only as good as your managers. If you don't have the right managers in place to supervise this, it's not going to work. It's not like you can set the system up, sit back and let the money roll in.

**How do you stay inspired to grow your business?**

You have to be motivated to make money, but that cannot be your only motivation. You have to take pleasure and joy in creating a product and distributing it and in hiring people.

The greatest moment should be every time an employer hires somebody because that's going to have impact on their family and their community.

It's important for us to find ways to become more efficient, which means less people. But every time I get better at something, it seems to make my company grow, and I end up hiring somebody else to do something else.

HOW TO REACH: Graffiti Inc., (216) 881-5550 or <http://www.graffiticaps.com/>