

# A small company makes big gains implementing lean



**Cadco Ltd, a Winsted, Connecticut manufacturer of commercial and institutional food service products tells their story.**

**Y**ou're the owner of a smaller to mid-size manufacturing company. Your business is successful, but you know something is missing. You're convinced there must be other methods you can tap into to help make your operations more efficient, less costly and more productive.

How about going 'lean'? No way. It's not for you. To begin with, you're too small to be trying to learn these complicated and time consuming

practices that go by the names of Kaizen, Kanban and Six Sigma. These strange sounding words can't work for a business like yours. After all (you're thinking) you're not some huge manufacturing operation, and there's no way you can afford the large investment in time, money and resources required ... all in the hopes that these unorthodox methods might bring a few added efficiencies to your business. This stuff is strictly for the

big boys, who can afford to take risks.

Well, let's just say you're in for a surprise. Take a few minutes and read about Mike Shanahan and Cadco Ltd. Mike is president and co-owner of this \$8.5 million business located in Winsted, CT. Cadco produces and markets commercial and institutional food service products, like combination ovens, portable countertop ranges, buffet servers and warming trays. Cadco also sells a line

of high end products to retail markets – including Nieman Marcus, JC Penny and Chef's Catalog – under the well known BroilKing label. Back in 2000, Mike and one of his suppliers, UNOX, were discussing a number of operational problems Cadco was experiencing, including, but certainly not limited to inventory control, old line traditional manufacturing principles, time consuming assembly methods and even inefficient product designs. Mike's supplier introduced him to the process of 'lean thinking' and eventually suggested he look at Productivity Inc, a firm well versed in working with companies to help improve production, distribution and other operational inefficiencies.

Mike Shanahan had an unusual business philosophy; overall, he wanted to increase sales and grow Cadco. But it was more important to him that a very high level of quality be built into every Cadco product. And just as important, Mike wanted each of his customers to recognise that they were special to Cadco and that service and responsiveness were a high priority with him – even if it meant Cadco would work with fewer customers in order to meet these objectives.

Even before recognising a need to tap into industry expertise, Shanahan and his management team first analysed their present status. It was obvious that production flow was poor, they were spending way too much in time, money and resources producing their products, and they were way behind in shipping to customers, even to the point of failing to ship some orders. On top of this, the overall cost of energy was draining profits, and the costs of purchasing material and product from European suppliers was increasing.

#### Expertise

Shanahan called around. He questioned colleagues in the industry, asked his people to attend seminars, and even visited his main European supplier to see first hand how operations could be made to perform more efficiently. What he learned most from his efforts seemed to point to the need to bring in a knowledgeable and experienced outside expert as his 'hands on' guy. And the people to turn to seemed to be Productivity Inc.

"We've all learned so much from our experiences: myself, my management team and our employees," says Shanahan, with the



excitement of his success still obvious. "The concept of lean is nothing like we thought it would be. It doesn't have to be complicated, unruly or expensive. In my eyes, it's all about finding the simplest way to accomplish a task or an operation. And its success can be measured in either small increments, astounding results or something in between. Either way, it can be applied to almost any operation of any size. All

figure out what happened.

Instead, Shanahan and his team got a real surprise. It began when Productivity Inc's management consultant, Fred Flynn was hired by Cadco for one day. That's right, one day. Shanahan contracted a single day's worth of lean expertise.

His theory was if this guy can't impress me after spending a day studying my operations, I don't want him around. As it turned out, one

*Firstly Cadco simplified the assembly line*

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it takes is a commitment and a willingness to look at things a little differently."

#### Let's Simplify Things

Like most smaller businesses, for Cadco the thought of hiring a high priced 'suit' was not on the cards. The last thing the company needed was an expensive consultant coming in, disrupting operations, making demands, changing the way the company worked, then fleeing in the night with Cadco employees trying to

day was all it took.

Flynn arrived in jeans and a golf shirt and quickly studied Cadco's warming tray production line. He immediately saw the bottleneck: inventory intermittently stacked up; people waiting for the next assembly step; no equality in the workload. He visually assessed the process, timed each station, and discussed the line with employees and the plant manager, who knew each step of the operation. The line was producing 150 units per day, when in fact it

needed to produce 240 to simply keep up with customer orders.

"Fred turned to me and said, "Let's simplify the line," noted Sam Grano deOro, Cadco plant manager. "He emphasised that the key was to look over a process – any process, every task – and not necessarily accept the way it is being performed. Rather, the goal is to find ways to make it better; to structure it so that the process is balanced and people aren't waiting for product." A perfect example at Cadco: leave the plastic adhesive paper on the warming tray; it not only continues to protect the product during shipment, but it saves a little assembly time on the line.

Sound like nit-picking? Ask Michael Dell of Dell Computers. With an aggressive goal of generating a 30 per cent increase in production last year, Dell found ways to take seconds off their assembly process, like a slight rerouting of a cable; replacing L-shaped tables with straight workbenches; and even applying one less sticker per machine. This is what lean is about.

Grano deOro and Flynn worked closely with the employees to carefully evaluate what each person was required to do along each step on the line. Through trial and error, improvements became obvious. People's positions were altered, delivery of inventory was better timed, and workers were literally

*Each step of the line was carefully evaluated*



shown how to work smarter, not necessarily faster. In fact, the supervisor was pulled off the line to allow her to truly supervise rather than be a part of the work process. Smaller tables replaced larger ones so extraneous parts and material had no place to be left lying around. Things began to hum.

Shanahan was so impressed with the improved efficiencies, that he extended Fred's contract ... by one day. And that's all it took. By the end of day two, the dramatic improvements were easily

recognisable. Soon, the Cadco production line was producing 240 units in an eight hour day. Before that, it was taking them 10 hours to produce 150 units.

"That's what I call lean," Grano deOro happily states. "We experienced a 60 per cent improvement in productivity – from two days in May working closely with Productivity Inc. The little things truly add up, and that's why lean can have such a significant impact on smaller businesses." Even after Flynn's two day contract was up, the experience left the Cadco team with the motivation and confidence to become creative on their own.

"That's the fun challenge of lean," continues Shanahan, "especially for smaller businesses. Now that we understand its real meaning, we're constantly searching on our own for better and smarter ways to improve all our processes, from inventory control and assembly line work to material handling and distribution. The process is never ending, because you can always improve an operation ... always."

#### **Flexing Muscles ... and the Production Schedule**

Fred Flynn returned a couple of months later for a quick review session and found the production lines working well and Cadco having made additional positive changes on its own. At that point, Cadco felt very comfortable working with Productivity Inc in tackling a few other areas. For instance, now that production was flowing significantly better, it was critical that Cadco adopt a flexible production schedule, a planning tool to help control





inventory and better manage assembly operations. Flynn and the Cadco team mapped out a strategy that enabled the company to take customer orders and efficiently schedule production requirements. With task visualisation another important aspect of a lean process, the schedules were printed out and posted within the facility for employees to see and work from.

The result has been a flexible build plan that accurately meets customer demands, while creating the proper buffer inventory to meet any spikes in orders. As it turned out, within a couple of months, Cadco was meeting its production schedules an amazing 98 per cent of the time.

However, the lean process was just

**To truly buy into this program and be an active participant, everyone has to benefit**

beginning. Cadco and Productivity next turned to the plant layout, quickly sketching a revised factory floor plan that opened up an entire bay for Cadco that was the equivalent of two assembly line areas. Sheet metal press operations were too far from the assembly line. They were moved. This eliminated inventory that had been stored in racks next to the line. With the press steps incorporated into the more efficient production lines, the additional work was easily absorbed by the assembly employees. And all of this meant

*A flexible production tool controls inventory and assembly operations*

increased efficiencies in others areas as well. It allowed for a better inspection area for purchased material and customer returns, and the opportunity to add new production lines that wouldn't interfere with existing ones.

#### **Incentives Pay Off**

Yet for every action, there's a reaction. The dramatically increased productivity meant Cadco employees were achieving production goals in eight-hour days compared to what had once taken 10 hours and weekends. That meant the end of overtime pay. What to do?

Mike Shanahan: "It was important that the entire Cadco team – and that means everyone who works here – play a part in this significant improvement in productivity without bearing any financial burdens. To truly buy into this programme and be an active participant, everyone has to benefit."

Shanahan and Flynn sat down and developed an employee incentive program that pays bonuses for the production of quality-finished products. Employees are earning extra pay, and the additional business costs have easily been absorbed by the savings directly attributed to implementing lean methods and practices.

So what's next for Cadco? "We've already mapped out a revised distribution area and developed a more efficient finished goods inventory plan," continues Shanahan. "And we're starting to incorporate lean thinking into our administrative office work, cutting customer order lead times from an average of four weeks to what is expected to be just

five days by June of this year." In the distribution area, Cadco's director of operations, Gary Schutz, has been redesigning bins and stocking shelves to make parts, materials and product more accessible and the pull process much more efficient. "From improved lighting to utilising fatigue mats for workers," Shanahan goes on, "our people are making terrific suggestions that are good for them and for the company."

Did all this really come from just a couple of days with Productivity Inc? Shanahan responds. "I was in awe of what we learned in that very brief period of time. Major improvements were made immediately, saving time and money. I was so pleased, that after the first go around, I asked for – no, demanded – a one year contract with Fred and Productivity Inc. As it turned out, I recouped these costs in just 60 days of operation."

Shanahan sums it all up by saying that smaller companies, rather than being intimidated by the thought of lean and what they perceive it to be, should embrace this amazing process. "It's nothing more than identifying simple ways to improve everything you do. Come to think of it, we can all use a little of that."

**Productivity Inc is a leading consulting and training firm delivering leading-edge lean implementation strategies throughout the Global 1000. For over 25 years, its proven waste elimination and culture change methodologies have helped companies worldwide improve their operational effectiveness and get results. The team-based approach to implementation ensures a transfer of ownership of the improvement process to clients enabling them to sustain the improvements gained. Productivity Inc have been researching and helping companies implement World Class Manufacturing approaches since 1981. A European office was set up in 1989, and there are now offices in the UK and France. Productivity Europe in the UK may be contacted via their website [www.productivityeurope.org](http://www.productivityeurope.org).**

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