

# Partners **IN** PROGRESS

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## Riding the wave of new technologies

# GO ON THE OFFENSE



**W**hen it comes to improving performance within the sheet metal industry, an offensive blitz—also known as a Kaizen Blitz—is no trick play. According to a New Horizons Foundation report, one such blitz to implement lean principles can “significantly improve performance in a week or less.”

It seems a bold claim, but those who have tried it have seen positive results. Ted Angelo, executive vice president of Grunau Company, Inc., a SMACNA contractor in Wisconsin, is one of those converts.

Lean—maximizing value for customers while eliminating waste—was an idea that Angelo knew he wanted to adopt, but resources for applying the principles to construction were hard to come by.

He ended up attending Milwaukee School of Engineering, spending a year studying lean manufacturing, and adapting what he learned to his business.

“It’s not difficult to translate lean into the sheet metal construction industry,” Angelo says. “After all, just like manufacturing, we have customers and we need to waste fewer materials and less time.”

Angelo and the steering committee at Grunau developed a vision of where they wanted to go and a seven-year timetable that would touch every department and the field operations. Then they rolled it out to the employees with a four-hour training program.

“You have to do these sorts of things *with* your people, not to your people,” agrees Dennis Sowards, consultant on lean production and president of Quality Support Services, Inc. “Otherwise, it won’t work...It’s about changing a culture, listening to each other, and collaborating with each other.”

Improve your game  
with lean practices  
and a Kaizen Blitz

By Cairine Caughill

Running a Kaizen Blitz was one of the first things on the agenda. Kaizen is a Japanese word meaning “continuous improvement.” It’s a way to make going lean quicker, easier, and less expensive.

Grunau’s poorly organized and dimly lit tool room—where the tools are repaired, maintained, and racked—was the target of that first blitz. Two months of planning and a five-day-event involving 15 people from various departments made a drastic change. Angelo says it was well worth the effort. “We were looking for a ‘wow factor,’ and we got it.”

After the blitz, the tool room had new lights, along with reflective metal on the walls and ceiling, and it was laid out like a supermarket. Tools that were ready to go out were located in the front half, and more frequently used items positioned closer to the center of the room. Furthermore, when tools

came back from the job site, they would go into the stockroom for inspection and repair before being returned to the front.

“We reduced the number of steps required to fill a toolbox from 525 to 260,” says Bob Stich, a member of local 18 and superintendent at Grunau. “When a job comes up, the service group calls in an order to the tool room, the staff there fills it, and the tech picks up the toolbox on his way out. It’s a smooth process.”

Sowards stresses that making it quicker and more intuitive to fill a toolbox is no gimmick. “During apprenticeship, we don’t teach our craftspersons how to do ‘treasure hunts’ or wait. We teach them how to weld and fabricate—the value-added skills that a customer pays for.

“But then when they get on the job site, they only spend a small percentage of time using those skills because they are busy finding tools, sorting materials, and the like. When you take care of all that other stuff, they can go back to doing the things they are trained to do—and remembering why they got into the trade in the first place,” he adds.

Angelo says that the room still looks as good as it did the day it was finished, seven years ago. He attributes this accomplishment to a solid process that includes monthly audits, good management, and employee pride.

It’s not only in the tool room where Angelo has noticed a difference. Grunau has blitzed all of the shops, 50 vehicles, job sites, and offices around the country. The contractor also applied the principles for a sister company in Scotland last year.

In one instance, staff examined how materials were delivered to job sites. Rather than sorting an entire truckload of material on site, Grunau’s team decided to tag everything in the shop based on area, floor, and system, and deliver it in smaller packages that were easier to identify and distribute to the appropriate work area.

“The goal is to only move the materials once and to install them within a day or two of delivery—a just-in-time system,” Stich says. “Without lean principles, it wouldn’t be possible to build as quickly as the current economy requires. You either have to get on board or you can’t stay in business.”

Changing a mindset is one of the challenges of implementing lean processes, particularly the Kaizen Blitz.

“Sometimes people are unwilling to try something new simply because it’s new and they’ve always done it another way,” says Larry Swanson, president of manufacturing for World Competition Consultants, experts on training and implementation of lean concepts. “They have to admit there is something wrong with the current process.”

Angelo has been pleased to see the transformation among his employees as the company has taken steps to become more lean. “We—management—don’t have all the answers to age-old problems. We want employees to help come up with the answers. When they see that we mean it, they blossom.”

Stich has noticed a positive change in his team since a Kaizen Blitz in the sheet metal shop. “Now the guys are always coming up with better ideas and looking for ways to improve,” he says.

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Photos courtesy Grunau Company

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He thinks the process has encouraged his apprentices and journeymen to listen to each other—whether they have been around for 30 years or are brand new to the shop. “Some of the new people bring in some really good ideas, and it’s great to see how everyone has a chance to be heard, and a lot of times their ideas are implemented.”

Stich considers the blitz to be a team-building exercise that has helped the shop be more productive.

“When I first started, some guys didn’t want to tell you anything because they were afraid you’d end up knowing more than them and put their jobs in danger. Now everyone throws in ideas, and we try to build upon them.”

“Going lean” is really another way to say investing in people. “It’s worth the price to train people in these processes,” Angelo says. “I would unequivocally say it’s not a cost. It’s an investment that allows your company—and our industry—to be the best it can be...and save thousands of dollars, and that’s good for the bottom line.” ■

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*Caughill is a freelance writer based in Ontario, Canada. For additional information on the New Horizons Foundation publication, Kaizen Blitz: Significantly Improving Performance in a Week or Less, visit [newhorizonsfoundation.org](http://newhorizonsfoundation.org) and select Store. New Horizons is an HVAC and Sheet Metal Industry Initiative funded by SMACNA National, SMACNA chapters, and SMACNA-member contractors.*

## CAN LEAN APPLY TO SERVICE WORK?

The Blitz may not seem like it would work in the service portion of the industry, but it’s all about the mindset. “Every service call that you make is a one-off manufacturing process,” says Larry Swanson, president of manufacturing for World Competition Consultants, experts on training and implementation of Lean concepts. Like any process, it requires proper manpower, tools, and materials.

Whereas in manufacturing you have blueprints or operator instructions, in service, there’s a service ticket. The first opportunity for improvement is when the service ticket is opened. Is the address correct? Is the extent and type of work clearly defined?

The second comes when the service mechanic goes to the service call. Does the tech have the right material and tools?

When the job is finished, there’s another opportunity for improvement. Does the customer know the work is done? Is the customer happy?

Contractors that learn how to use Lean effectively will have a definite competitive advantage in their productivity and in meeting customer needs and expectations, and that’s good for the bottom line.

## START WITH THE BASICS

Let’s face it. To someone who doesn’t know what the X’s and O’s mean, a playbook is pretty useless. What does “lean” mean in the context of the sheet metal industry?

Lean principles involve two basic concepts: eliminating waste and adding value for the customer.

- “Waste” can come in many forms, from extra motion, inventory, or production to defects, wait time, transportation, and over-processing.

- Finding ways to “add value” means looking at a job from the client’s perspective, starting with the moment a contractor receives some sheet metal until it is installed.

Steps such as receiving materials are necessary, but they don’t add value for the customer because the sheet metal is no different after it is received than it was before.

Basic tools of lean are the 5 S’s, also known as sorting, simplifying, sweeping, standardizing, and sustaining.

- “Sorting” involves going through an area and separating the necessary from the unnecessary.

- “Simplifying” means designating a spot for everything, thereby cutting down on the amount of time required to find an item.

- “Sweeping” means keeping an area clean and putting items back in their place when they are no longer being used.

- “Standardizing” means doing everything the same way. That could mean putting tools in the same location in each of the company’s trucks or using color coding to reduce the need to learn new systems.

- “Sustaining” means continuing to do all of these things.

*For additional ideas on Lean production, order New Horizons Foundation’s report Thinking Lean—Tools for Decreasing Costs and Increasing Profits. It is available on [newhorizonsfoundation.org](http://newhorizonsfoundation.org). Select Store.*