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Leadership Jam 2006: The Lean Principles of 5S

Most business owners and managers have heard the principle of “running lean,” that is, doing more work with fewer people. A great way to boost bottom lines, this principle is part of a larger concept known as “Lean Management” – an in-depth, but quite logical approach to cutting wasted time out of a company’s workday, thereby increasing profit

Six years ago, **Ariens Co.** adopted “Lean,” as it’s known, in full. In that time – and without eliminating any positions, believe it or not – the equipment manufacturer has doubled its productivity in five years, not to mention moving from being in a position of debt to becoming a cash-flow based company last year. Things are going so well for Ariens with regard to Lean that the company announced earlier this year a \$6.5 million cash investment in itself to boost efficiencies and training even further.



Hard to believe this is the same shop! With a great amount of teamwork, the owner of this dealership was able to clear out the clutter, eliminate the waste and watch the dollars start rolling in. After implementing 5S, mechanics and other employees using this shop are able to find tools quickly and easily and know where to put them back when they’re finished. Also, shining up the room let the light pour in, creating a much better work environment.



Unfortunately, the truck pictured above is a messy reality for some companies. Using 5S crewmembers, took all the junk out of the truck bed and interior compartments, stored it onto the shop floor, and eliminated what they didn't need. The result was a like-new vehicle ready to be loaded with tools and equipment appropriate to the job.



The mechanic in dealership (same as pictured at top) found himself wiggling into a too-tight space to use the red and blue worktable in this picture. After 5S, the table was moved to a more suitable location, the tool chest was labeled and tucked away to save floor space, and areas of the floor were labeled with yellow tape to mark off boundaries. Now, the mechanic and his colleagues are able to find and use tools easily without everything spreading around the space at the risk of being damaged or misplaced. All photos: Ariens.

Loren Richmond, Lean manufacturing manager for Ariens, Brillion, Wis., made presentations on several aspects of Lean during the JP Horizons 2006 Leadership Jam held in Columbus, Ohio last week. Among Richmond's topics were the benefit of Kaizen events, identifying the seven types of waste, and 5S – a relatively easy place for many business owners and managers to start implementing Lean by identifying the prime places where time and money are wasted in their businesses.

5S DEFINED. "5S is one of the first tools you need to learn when it comes to lean because it focuses on workplace organization," Richmond told attendees. "This is the foundation for everything else you learn about Lean."

Originally coming from the Japanese words Seiri, Seiton, Seiso, Seiketsu and Shitsuke, Ariens – and other Western companies using lean management – translated the five S's into the following English equivalents: Sort, Set in order, Shine, Standardize, and Sustain. Together, Richmond says these five principles help increase workplace safety, productivity, quality, morale, sales potential, customer appeal and boost the company's professional image, all with an ultimate goal of making more money.

"5S requires the full commitment of any company's top management, as well as employee involvement," Richmond said. "If employees see that management isn't taking the process seriously, the whole system will fail, so it's really important to get everyone on board and stick to the process."

Focusing on the fact that 5s is about workplace organization, Richmond says some preparation is necessary to get the process off the ground. First, the company must pick an area they want to shape up, then outline measures and targets for how that area of the company should operate. From there, communication among all involved is essential

and employees should be invited to write down their ideas of how operations with a certain area could be improved to get things going.

GETTING YOUR SHOP SHIP-SHAPE. Most lawn and landscape contractors have a shop or garage of some sort where equipment and tools are stored, which makes this area a great example of how 5S works. Richmond shared photos of shop areas from a number of different companies that had implemented Lean and used 5S to get started – and the results were impressive.

Considering the shop space in particular, here are the steps that Ariens and other Lean companies have taken to cut out the waste:

- **Sort:** Live by the mantra “when in doubt, throw it out,” Richmond says. Keep only the tools that are needed and eliminate those that aren’t. If you have five hammers in the shop that are basically the same, get rid of the ones you don’t need to eliminate the clutter and make the tool you actually use easy to find. Additionally, remember the 80/20 rule: 20 percent of your tools accomplish 80 percent of your work. That is, there will be specific tools you’ll use over and over again and other that will rarely be needed. Consider how important those rarely-used items are and eliminate them from your shop whenever possible.
- **Set in Order:** Once you’re down to just the essentials, you can change your mantra to “A place for everything and everything in its place.” This step is where you’d hang tools on peg boards or place nuts and bolts in their respective drawers. Everything should be labeled, shadowed and/or color-coded as necessary, and tools that are used the most should be stored near the operator. Also, Richmond notes that this is the time to get things off the floor – use vertical space to hang items in plain sight to make tools easy to find. Additionally, use paint, tape or other techniques to create boundaries for where equipment is stored, so mowers and other items that must be stored on the floor don’t spread out and take up more space than necessary.
- **Shine:** There’s something invigorating about working in a clean and orderly office space, so once everything’s been set in order, take the time to bring the shine back to your shop. Get the right cleaning supplies in order to scrub down work surfaces, clean equipment – even wash the windows to let a little more light into your shop, if you can. As for equipment, replace any wires, tubes or hoses that need to be fixed, identify other damage on machines and determine what needs to be painted. Remember, the best color to paint is white because it shows dirt and will help you and your staff recognize when it’s time to clean up again.

“Even if you’re just talking about your shop area, cleaning improves employee morale by giving staff a light, bright, clean area to work in,” Richmond says.

- **Standardize:** With the first three S’s taken care of, it’s time to establish processes that will keep things in good working order. “Standardization is what we’ll hold people accountable for,” Richmond explains. “This step involves creating ‘standard work’ processes to maintain the first three S’s.” For example, during the Standardize step, create layouts for where things in your shop are now housed and who’s responsible for keeping them there. Write up checklists where necessary and establish minimum or maximum quantities for certain tools or supplies. For instance, if you always want to keep seven to 10 bags of mulch on hand, write down those minimum/maximum numbers and post them where they’ll be easy to see. If you start to get low, the person responsible for that area will know that more needs to be ordered, and setting a maximum will keep him or her from wasting time, money and space on over-ordering. Also, make sure cleaning supplies are available and easy to access so that equipment you just “Shined” will stay clean.
- **Sustain.** “In order to keep this going, you have to have the fifth S – ‘Sustain,’” Richmond says. “Develop a management system with the discipline to make all of your new standard work a habit; set goals and expect results.” People don’t want to fail, Richmond says, so having regular reviews will help them succeed by holding them accountable to the new practices.

Altogether, Richmond says 5s helps businesses quantify gains in efficiency and productivity, which can add up to a bigger bottom line.

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