



Using the 5S's to Transform the Parts Storeroom

It's easy to overlook the positive impact that a well-run parts storeroom can have on factory performance. Despite their humble status, parts storerooms are not attics, nor are they insurance policies against a recurrence of some infamous downtime incident from five years ago. When properly stocked, organized, and maintained, parts cribs are an invaluable aid to continuous improvement initiatives. They can save a manufacturer thousands, if not millions, of dollars over time.

Getting the most out of any parts storeroom requires commitment. Storeroom management is a science—one well worth pursuing. It leverages a combination of useful, data-based factors including equipment performance, repair schedules, parts availabilities, and critical need analysis. Before the science of storeroom management can be applied, however, a much more basic task is in order—implementation of the “5S's”: Sort, Straighten, Shine, Standardize, and Sustain.

The 5S's are the foundation to effective storeroom management. Why? Because before you can put any tool to work effectively, it has to be in working order. And in many factories, parts storerooms are simply not ready for more advanced benefits because they are cluttered, poorly organized, and in need of upkeep.

Many plant managers are not fully acquainted with the components of 5S methodology. So, let's review what's involved with each element:

Sort: More than separating and cataloging, “Sort” is the process of removing unwanted or unnecessary items. Every item that remains is evaluated and organized according to priority and cost.

• **Straighten:** Possibly the most mundane and yet empowering of all the S's. “Straighten” is a thorough housecleaning and reorganization during which work spaces are scrubbed and polished, obstacles are removed, and enclosures are upgraded and painted. As a starting point for the layout of the crib, thought is given to where the most used parts should be located.

• **Shine:** As a follow-on to “Straighten,” “Shine” establishes maintenance as a permanent fixture to better storeroom management. Crib maintenance must be done regularly, on a defined schedule, to be effective. Moreover, cleaning and trash removal inevitably leads to inspection, enabling staff to uncover repair and performance issues down the road.

• **Standardize:** This element moves the storeroom into best practices—not only for maintenance and operations, but also for standardized parts management. Everything from naming conventions for parts inventories to inventory and purchasing should be scrutinized.

• **Sustain:** As the final 5S component, “Sustain” includes those initiatives that turn 5S methodology into a cultural shift. Spanning training, record keeping, oversight, and audits, “Sustain” ensures that regular attention is paid to every aspect of the 5S's.

It's estimated that effective implementation of 5S methodology produces gains in equipment maintenance efficiency on the order of 10% to 30%. Considering that spare parts and related services account for 50% of all maintenance costs, it's clear that proper parts crib management practices will significantly impact the performance of maintenance technicians, as well as the entire factory.

Putting the 5S's into practice maximizes use of available space and reduces overall inventory cost, since the system facilitates the task of stocking only those parts that have the greatest impact on operations. Even more noticeably, 5S implementation makes it possible for clerks and technicians to find parts quickly. Maintenance techs are on the clock—and so is the factory, when a critical piece of equipment goes down. A well-organized, clean and well-stocked parts crib accelerates the entire Maintenance, Repair and Operations (MRO) process.

The first and most important step in implementing the 5S's in a parts storeroom is assigning responsibility. Whether employee or contractor, there must be a 5S champion in your facility; someone who has the support of both management and storeroom participants. Once the champion is assigned, each of the 5S steps can be implemented:

Customer Storeroom Before



After 5S Implementation by ATS



STEP 1: Sort. You can't clean the garage without pulling everything out into the driveway—and the same goes with parts storerooms. Remove everything, sort and organize by part, and perform a review of how recently individual parts have been put into use. The sorting process is also an ideal time for disposing of obsolete parts.

STEP 2: Straighten. Scrubbing, painting and upgrading fixtures in the storeroom is pretty standard stuff—but many times, companies also believe they have to make expensive investments in new racks and bin systems. In actuality, simple shelves and inexpensive bins can work fine; the main thing is to clean thoroughly and organize well.

STEP 3: Shine. Factories typically aren't the filthy places they once were. Nevertheless, parts cribs—and the parts they contain—still need routine cleaning. Without a firm schedule of routine (e.g., weekly or biweekly) cleaning, standards will eventually drop and the larger benefits of the 5S's will be lost.

STEP 4: Standardize. Consistent and easily understood parts nomenclature is vital. Begin by establishing a logical hierarchy based on increasingly granular classifications; then, to make tracking and inventory tasks easier, consider barcoding bins and/or individual parts.

STEP 5: Sustain. The effectiveness of the 5S's is maximized when each of the previous steps are repeated, in order. It's one thing to "clean up," but another to create long-lasting change. To make sure there is a cultural shift, institute simple structures (e.g., assigning one specific task to be completed each day of the week, or making different employees responsible for different tasks). Supervisors need to review checklists weekly, to ensure tasks are being completed. Without systems and follow-up, the facility will not feel the benefits.

Improving parts storeroom performance requires a shift in perception. The crib must be viewed as a place of proactivity, not reactivity. Good storerooms are used often—and they are continually being tweaked to become more efficient. The 5S process needs to transcend equipment, maintenance strategies, and changes in staffing. It must become a part of the MRO culture, and not simply a one-time event.

Remember that the 5S's are a journey, not a destination. Their advantages are felt when each step is accomplished fully and reinforced continually. A good storeroom management partner can help; not only by implementing the 5S's, but also by advising on data-driven inventory strategies that ensure only the exact parts are purchased, in the quantities that minimize spending and optimize factory uptime. When implemented properly, 5S methodology can transform any factory storeroom—and in so doing, provide the kind of operational and financial boost manufacturers are looking for.



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