

# CONFOUNDED BY COMPRESSORS

*Software and hardware provide solutions only when the human aspects are in place.*

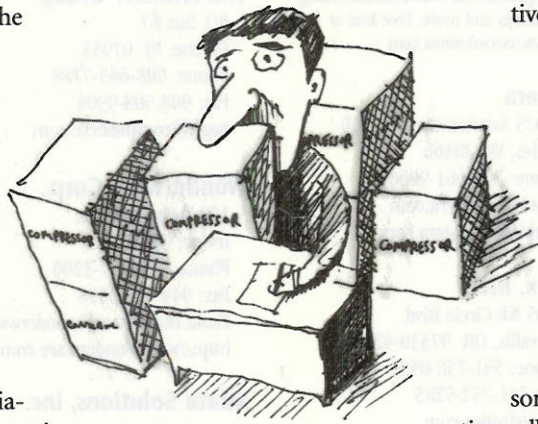
BY MATHUR RAVIKUMAR

At a refrigerator manufacturer where I once worked, the warehouse manager and accounting manager tried to reconcile the inventory levels at the end of each month. This process required long nights, several pots of coffee, and countless headaches as the pair sought to resolve one or more of the several inventory nightmares that victimized us each month. The company had the necessary software and hardware tools to manage its inventory effectively, but without equally effective material transactions disciplines, these tools only served to quantify the degree of failure. As head of planning and warehousing, I suffered through these end-of-month trials.

The heart of a refrigerator is the compressor, a high-cost component that attracted more management attention than we could tolerate. To get the best price, the company purchased the compressor overseas. But the cost of these savings was accepting shipments in large batches that were stored on any bare spot on the floor while we slowly used them.

Because both our routine cycle counting and our month-end reconciliation revealed small but growing discrepancies, I devoted two weeks to this part. First, I checked the system design to learn how the compressor was supposed to be managed. Next, I followed the parts around the factory to learn how they were really managed. Here's what I found:

- Compressors were properly issued to work orders but rejects were never removed from the total. Worse yet, when work orders were closed short, the compressors were physically returned to the warehouse and the computer files weren't updated, effectively trashing the work-in-progress records.
- From each newly arrived batch, quality control took samples, which disappeared into a lab, perhaps never to be seen again. No record of this was ever generated. After several cycle counts and month-end reconciliations, these missing quantities were written off. This tended to coincide with the quality assurance lab realizing it had lots of compressors under foot. The lab filled myriad containers with the compressors, then abandoned them in the warehouse. Again, no record was generated, which may have been a blessing because many of the parts were destroyed in the inspection process.



- Senior managers took samples for marketing or vendor development—as many as two units per week—and never bothered to relieve them from inventory.
- The forklift operator was busier in the morning. When directed to deliver X number of compressors to assembly, he often delivered many extra to avoid having to deliver more during his busy period. But only the quantity requested was transferred from warehouse to work in progress.

- Our cycle count results were suspect. Compressors were stored anywhere and everywhere. And they were stacked too high for a cycle counter to effectively count them. As production needed floor space, stacks of compressors were broken down and moved around. The more compressors we had, the more creative everyone became in storing them. Some became hidden until physical inventory.

As a result of my findings, we created enough floor space to store all the compressors in the assembly area. Upon arrival, compressors went into work in progress. In addition, all issue transactions were eliminated, which also eliminated the potential to lose parts via chaotic storage practices. Senior managers and quality assurance people still could take samples, but strict controls were enforced. The numbers began to match at month end.

I have since moved into the world of consulting and continue to face similar problems. And I tell my clients the same thing I once told my refrigerator company: A proper software/hardware system simply provides the opportunity to control inventory effectively. It's the human systems and disciplines that should be in place before implementing MRP, ERP, or APS software solutions. ♦

*Mathur Ravikumar has nearly 20 years of manufacturing and ERP consulting experience and is a senior consultant with JD Edwards & Co., Beaverton, Ore. He can be reached at [mathur\\_ravikumar@jdedwards.com](mailto:mathur_ravikumar@jdedwards.com).*

If you have an 800-word anecdote that teaches, enlightens, or amuses, fax it to Randall Schaefer at 616/698-2927 or e-mail him at [rschaefer@magimfg.com](mailto:rschaefer@magimfg.com).