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Legendary Integrity.
Responsiveness
& Flexibility.



**ELECTRONIC
SYSTEMS, INC.**

An ISO 9001:2008 and ISO 13485:2003 Firm

POSITIVE SIGNS

By **Gary Larson, President**, glarson@electronicssi.com

After months of economic news that revolves around doom and gloom, it's nice to be able to report that at Electronic Systems, we're in the midst of what seems to be a positive trend. Business is definitely picking up. We began experiencing better numbers in the third quarter of 2010, and it has improved each successive quarter. This isn't a huge rebound, and we can't guarantee it will last, but it appears people—primarily those in the commercial and industrial sectors—have confidence again in both the market and the economy and are replenishing their inventory levels. We're talking about real demand for products. That's good.

At Electronic Systems, there's more positive news. As you will read in this issue of our newsletter, we've recently acquired both new equipment and additional warehouse space adjoining our main office/production facility. In other words, we are reinvesting in the company while enhancing our service and capability. That's no small matter following a very tough economic climate that took its toll on many in the EMS business.

Business ethics count

We can attribute our ability to maneuver safely through the rough economic waters to several factors,

including the fact that we produce quality products at competitive pricing. Just as important is our focus on business ethics. In fact, it isn't simply a focus. It's an integral part of who we are as a company.

At its core, this company is about integrity and building long-lasting relationships with our customers and suppliers. Too often in today's society, the focus is on winning at any cost, whether on TV reality shows or in the boardroom. It's not how we operate, and I'll tell you why. The old adage—nice guys finish last—simply isn't true. Businesses can fail for many reasons—some beyond their control. But they won't fail because they treated their customers, partners, and employees with dignity and respect. It's essential to treat people right. At Electronic Systems, we will continue to focus on building long-time relationships by following our mission statement: Legendary Integrity, Responsiveness, & Flexibility. That characteristic continues to serve us—and our partners—well. ♦



OUR CUSTOMERS SAY . . .

"All the time and effort you put in to organize our inventory did not go unnoticed and was very much appreciated."

Inventory Control Accountant
Large Industrial OEM



BEHIND THE WAREHOUSE DOOR

Visitors to an EMS business are often taken to the production floor, where impressive machines and skilled staff are putting together complex builds. Their tour may never venture into the warehouse. After all, shelving full of boxes and packages rarely entice. However, anyone in the EMS industry understands that the warehouse, and its receiving and shipping department, is truly the hub of the EMS wheel.

“The large majority of our costs are in materials,” says Electronic Systems President Gary Larson. “Inventory control and accuracy is critical, as is shipping a quality product on time.” That reality is Warehouse Manager Ron Fuerstenberg’s daily responsibility. “It’s very important that what our computer system says we have on hand is truly what we have on the shelf,” says Ron, explaining that many parts have, for example, a 26-week lead time. “If we go to build a product and find we’re short a part and have to sit 26 weeks, we’ve got a problem.” Too much inventory, on the other hand, deals a blow to cost control.

When it comes to shipping, a key capability that differentiates Electronic Systems is the ability to do order fulfillment. “We ship product directly to our customer’s customer,” says Gary. “Our customer may never see the product we ship, and that takes a lot of trust on their part.” It also takes coordination, since one product may ship to multiple locations. In addition, the company, which averages over 25 shipments per day, must deal with a variety of carriers, depending on customer choice.

Proof in the details

Each day, Electronic Systems receives approximately 125 different part numbers in quantities from one to



thousands. At delivery, each box is checked to make certain the receipt matches the purchase order. They are labeled, identified in the computer system, and stored in the warehouse by customer location so that, when needed, they can be pulled quickly and accurately. There are approximately 8,700 parts stored in the company’s two warehouses. Ron and his staff issue about 750 different type parts to the production floor daily.

Technology, the MRP (Material Replenishment) Share Program and other efforts geared toward streamlining the receiving and inventory process have led to greater efficiencies and accuracy, says Ron. And efforts to improve the process continue (see Materials Manager Randy Bathke’s column on page four).

Warehouse space expands

One of the biggest impacts on material handling at Electronic Systems, Ron explains, was the floor plan change in 2009 that moved all production to the main building and all warehousing to an adjoining building. This past December, Electronic Systems leased an additional building right next to the company’s existing warehouse—increasing on-site storage space three-fold and eliminating traveling to an off-site warehouse some four miles away. “We’ve gained the efficiencies of having another warehouse facility right next door,” says Gary, “and it’s given us more capability and control in our inventory process and order fulfillment business.” ♦

Checking invoices against purchasing orders is part of the Quality Assurance process in receiving materials.



WAREHOUSE WIZARD



Ron Fuerstenberg has been keeping track of inventory in one form or another for some time now. Electronic System's Warehouse Manager joined the EMS firm 12 years ago. But not until he earned a Business Management degree and then spent several years in inventory control and management for Sather's Candy Company out of Round Lake, MN.

There's an obvious difference, says Ron, between candy and electronics. Candy has a shelf life of anywhere from three months to a year—versus an electronic part that can last a very long time. However, the fact that timing meant everything at his former job is an advantage when it comes to managing inventory and a warehouse for an electronic manufacturing firm. However, Ron says the inventory you deal with really doesn't change the basic equation.

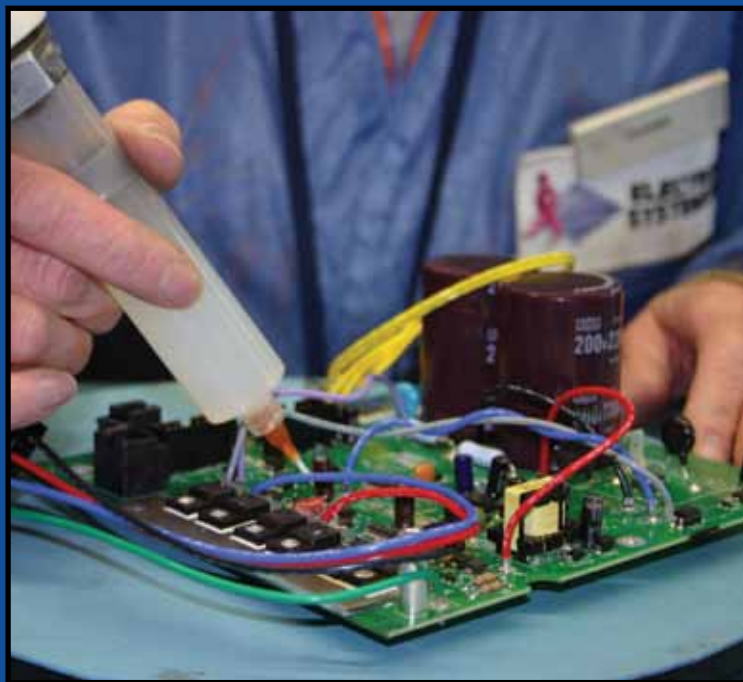
"In inventory control, you're dealing with a part number," says this Wilmont, MN native. "It doesn't make any difference if it's candy or electronics. You still have to control inventory. You receive it in and monitor it. It's all based on first-in, first-out practices."

With experience in all aspects of the materials area—including as a buyer, inventory cost analyst, and inventory cost accountant—Ron says he's able to interact effectively with

many of the other departments at Electronic Systems. "I understand how what we do in this department impacts the buyers and the planners and production," says Ron. "I'm dealing with the other departments constantly throughout the day." It's the part of the job he enjoys most. "I like interacting with the other people in the company," says Ron. "They are a great bunch of people."

Ron's on-job responsibility revolves around the accurate and efficient management of small parts. However, at the home he shares with wife Kris and their college-age son and high school-age daughter, he pursues his creative side. He enjoys woodworking, including making furniture and carving small figures and walking sticks with embellished handles. He even made a 1/64th scale replica of the farm where he grew up—complete with wood siding on the tiny buildings.

But his penchant for inventory management remains intact—even at home. Active in his son's Boy Scout troop for 14 years, he says when boys and parents were working on projects in his garage and someone asked for a tool or part, he'd always know right where to find it. "They'd ask, 'How did you find that so quickly?'" That ability doesn't surprise anyone at Electronic Systems. ♦



INVESTING IN IMPROVEMENT

This **DYMAX® epoxy dispensing machine** and a **UV cure oven** are just two of the recent investments Electronic Systems has made on the production floor. "The recent investment in new equipment is part of our continuous process improvement mentality at Electronic Systems," says Fred Ledwell, Director of Manufacturing. Combined, the automatic dispenser and UV oven provide an ergonomic alternative for operators, reduce material waste, and speed up the curing process. Additional purchases include a new **Heller surface mount reflow oven** that duplicates an existing oven on the production floor. Oven recipes are now interchangeable, meaning products can more easily move from line to line, providing greater flexibility. An **Ashby Cross potting meter mix system** replaces the mixing of potting by hand, eliminating waste and reducing labor. A **nitrogen generator**, which attaches to the selective soldering machine, is part of cost-cutting efforts at Electronic Systems. Nitrogen gas is utilized to reduce contamination in solder joints. The generator pulls nitrogen out of the air on demand, eliminating the constant need to fill nitrogen tanks.

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June 9
Sheraton Hotel, Bloomington, MN

WAREHOUSE CHANGES THAT COUNT

By **Randy Bathke, Materials Manager**, rbathke@electroniccsi.com



As Electronic Systems prepared to expand its warehouse space this past December with an additional building on our main campus, it was time to evaluate how we could improve efficiencies and accuracy in our existing warehouse. We had already doubled warehouse capacity with new shelving, allowing us to store all part numbers for specific customers in dedicated areas. What more could we do to

enhance a system that already worked quite well?

We began with an evaluation of our part-pull frequency, resulting in relocating those parts that are pulled more frequently to shelving at eye-level. That step helps eliminate the need for employees to bend over or reach up to pull a part. To improve safety conditions, we also evaluated sizes and weights of boxes and packages, moving heavier material to lower shelves. Utilizing 5S methods, the shelving areas were cleaned up, eliminating excess trays, boxes, bags, and other items that could get in the way.

The process also considered how we store customer-owned parts. In the past, customer-owned inventory was mixed in with our inventory which was used in their products. After evaluation, we isolated customer-owned parts on separate shelves, making it easier for customers to conduct inventory audits. The system seems to be working well. One of our customers has been able to reduce audits from a quarterly to an annual schedule.

Additional changes focused on increasing efficiencies run the gamut from physically changing the location of a process to making software changes. For example, we moved the parts' Quality Assurance inspection area to a location adjacent to the receiving area, which sped up the QA process. We streamlined the receiving process by issuing just one purchase order per week per supplier and assigning each supplier a designated delivery date. With the assistance of Information Systems, we reduced the amount of key strokes in the computer system used in receiving product.

Future plans to continue to improve efficiencies include: redesign of the kit-pulling area; performing a LEAN Kaizen event on the kit-pulling process; an evaluation of requisitions from production along with efforts to reduce the rate of requisitions; and investment in a new scale system to more accurately weigh smaller and lighter-weight parts, resulting in a reduction of requisitions. ♦