



SUMMARY

## OmegaFlex

**Customer**  
OmegaFlex

**Partner**  
Integrated Productivity Systems (IPSi)

**Industry**  
Manufacturing

**Challenge**  
Create a new labeling system to improve accuracy and efficiency

**Solution**

- Zebra ZD400 Series Desktop Printers
- Seagull Scientific's BarTender Barcode Labeling Software
- IPSi Custom Database, Label Design and Integration Services

**Results**

- 12 new workstations to decentralize printers from the standalone computer
- 20%-50% increase in quality testing speeds
- 20% increase in throughput in the inspection department
- Better productivity as operators spend less time waiting on centralized printer
- Supervisors reduce time scanning paperwork for errors
- Centralized Audit Trail of units tested directly

# Zebra Printers Help OmegaFlex® Improve Product Quality Testing Process

Zebra's printing solution is part of a warehouse labeling system that enables a leading manufacturer of flexible metal hose products to improve accuracy and efficiency during product inspection and shelving.

OmegaFlex® is an international producer of flexible metallic piping products. Established in 1975, the company supplies proprietary products for many applications and markets, including primary steel production, semi-conductor, medical, pharmaceutical, petrochemical, residential and commercial construction and power generation. OmegaFlex sells its products internationally, with operating facilities in Exton, Pennsylvania and Banbury, England.

## Quality Control

As part of its quality control procedure, OmegaFlex conducts a pressure test to help ensure there are no defects or leaks in its products. The operator visually identifies the product size and length and then uses a chart to select the proper test program for that reel. Inspection requires the operator to go to a central workstation and print multiple product labels for the reels they plan to test, up to 30 at a time. Once a reel passes the pressure test, it is labeled and placed into inventory.

Before implementing the current solution, staff members found the old system cumbersome. Only one workstation was in operation, which was shared by multiple workers. Operators would often waste valuable time waiting in line for their turn. The company wanted to speed up the process and reduce data input errors.

Long lines weren't the only drawback to the previous system. Operators could create labels before testing the products. If the labels were not used, they had to be deleted from the tracking database. The testing systems were operator-controlled, meaning the operator could select the wrong testing parameters for the product. Enterprise Output Management (EOM) inventories were often incorrect as operators had to self-monitor their work. Also, the tracking database had limited storage capabilities. Each year, the database had to be moved to a separate storage method and then cleared out to start fresh.

## A Compatible Solution

Omegaflex was able to decentralize its labeling system with the help of Integrated Product Systems (IPSi), Seagull Scientific's BarTender Barcode Labeling Software and Zebra's desktop printers. Based on IPSi's suggestion, OmegaFlex implemented a new solution that features 12 new workstations. Each space includes a Red Lion HMI, Do-More PLC, Cincinnati Test Systems Pressure Decay Tester and a Zebra ZD400 Series desktop printer.

"{Zebra printers are} incredible products. We get a full lifecycle out of those things," says Brian Szczech, IT Manager, OmegaFlex.

While the setup includes many components, Justin Moore, Senior Project Engineer with OmegaFlex, says integration was not difficult. "The Human-Machine Interface (HMI) and Programmable Logic Controller (PLC) are ethernet compatible, so that was a quick, easy communication. It's sending strings of characters to send the commands. We actually built one workstation first, {we} proved {it worked} and after a few months, they all jumped on board."

## Increased Efficiency

Now that Omegaflex has replaced the inefficient, centralized system, the quality testing team has reported an increase its overall efficiency. The BarTender software automatically takes the information the operator keys into the HMI, sends that information to the database and generates a label back to that workstation, where it is then printed.

"The printers are key," Moore says. "If a printer doesn't work, the tested product doesn't go any farther. It can't make its way into inventory without a proper label on it."

"We're ending up with a more professional product at this point, and a more professional label that goes out on our product."

**Brian Szczech, IT Manager,  
OmegaFlex about the Zebra ZD400  
Series desktop printer.**



### No Lines & Better Accuracy

Thanks to the new solution, the operators are also able to stay at their own workstations, eliminating the logjam of the prior method. And while operators previously had to self-monitor their work, which often resulted in inaccurate inventories, now there are fewer input errors since the information is only being entered once instead of multiple times.

The data is much more accurate. Supervisors spend less time going back into the database, and they are correcting fewer mistakes. In fact, Omegaflex has increased throughput in the inspection department by 20%.

Moore estimates the improved labeling accuracy saves supervisors roughly two hours each morning since they spend less time searching information from the previous day. It has also simplified the process for operators and reduced some of the paperwork they need to fill out at the end of their shift.

The new solution has also increased testing speeds anywhere from 20%-50%. This improves overall efficiency for the company as the quicker the product gets into inventory, the faster it can be sold and shipped.

“We’re ending up with a more professional product at this point,” says Szczech. “And a more professional label that goes out on our product.”



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