

GLOBAL SHOP SOLUTIONS CASE STUDY

Equiptest Engineering

Established in 2001 and headquartered in Singapore, *Equiptest Engineering* (EQT) specializes in providing integrated solutions to the micro-electronics industry (companies that work with electronic designs and components at the micro-meter scale or smaller). Their contact mediums and test contactors are used in a variety of applications, including high performance thermal, infrared, coaxial, and kelvin contactors as well as MEMS micro electromechanical systems. EQT provides reliable *mixed-mode* manufacturing for its customers around the world.



An EQT employee using barcode scanning on the shop floor in order to speed up production.



An EQT employee utilizing the robust Advanced Planning & Scheduling (APS) module.

In its early days, EQT relied primarily on manual processes to collect and analyze shop floor data. For example, production planning was performed using Excel spreadsheets, an inefficient and time-consuming method. As the company grew, the lack of data visibility and difficulty in sharing cross-function information resulted in excessive human error and process gaps that constrained on-time delivery. To address these issues, EQT acquired *Global Shop Solutions ERP software* and went live with the system in December 2018.

When asked why they selected Global Shop Solutions, J.S. Foo, Operations Manager for EQT, identified three main reasons:

1. The superb visibility of data in on-time delivery and other vital areas of the business
2. The robust *Advanced Planning & Scheduling (APS)* module that enables live scheduling based on real-time data
3. The ability to minimize human error by automating most manual processes and significantly improving cross-functional data visibility

Timely, Accurate Data When and Where It's Needed

In the first two years, Global Shop Solutions ERP software has generated the results EQT hoped to achieve – and more.

“With the ability to *digitally track setup times*, labor costs and other key production metrics, we can now determine job costs with much greater precision, including the true costs of operating our machines,” says Foo. “We also have more confidence in the accuracy of the numbers, an important factor when making strategic decisions about our products, customers, capital investments and more.”

Management has also gained a better understanding of how direct and indirect time affect labor costs and job distribution. Having ready access to data in these areas allows for new approaches to eliminate unnecessary processes and reduce indirect labor costs.



An EQT employee using the Shop Management Software to track jobs on the shop floor.

In the past, EQT struggled to achieve consistently high on-time delivery rates, mainly due to the manual collection of delivery data. Even when the information was collected in a timely manner, management had doubts about its accuracy. With their new ERP software, EQT now knows where a job is at every step of the production process and where it's going next. The company-wide access to data makes it possible to identify and correct process gaps, often while jobs are still in progress, to improve on-time delivery.

Global Shop Solutions ERP software helps cut costs, simplify operations and improve efficiencies in other areas as well. Some of EQT's products require outsourced processing. Automated purchase order approval simplifies the process while reducing payment delays and errors that can impact on-time delivery.

They are also seeing huge time improvements from simplifying the BOM import process.

"The ability to import engineering BOMs dramatically reduces the time required to build work orders and send them to the shop floor," says Foo. "The built-in revision control also ensures the correct BOM is used for each job, thereby eliminating the need for rework due to incorrect data."

Foo also credits the ready access to information about everything happening on the shop floor for significantly reducing wasted time tracking down people and the information they have. For example, when customers call to inquire about the status of a job, service reps no longer need to take a trip to the shop floor to get the information they need because it's all there at their fingertips.

Shrinking Backlogs Improves On-Time Delivery

Perhaps the biggest ERP benefit for EQT has come in its ability to adapt to a very dynamic and fluid production environment.

With the goal of a two-week turnaround upon receiving the sales order, delivery schedules change frequently for EQT, especially with orders from semiconductor customers. Shipments are often delayed due to difficulties in obtaining parts from suppliers. Failure to satisfy customer acceptance requirements due to these and other unforeseen circumstances can result in loss of orders and revenue.

Prior to Global Shop Solutions, EQT often struggled to keep up with their ambitious on-time delivery goals. Since implementing, EQT has reduced their backlog while improving operational results and the company's financial position.

"The real-time data available throughout the system enables us to make informed decisions about how to streamline and simplify production processes," says Foo. "We can respond to unexpected job changes much faster than in the past and still get the job out on time, which allows us to compete more effectively in today's fast-paced manufacturing markets."