Readers' Q & A

How does RFID system enhance efficiency?

It has been difficult for garment factory managers to have visibility of data at the production floor mainly because of high product diversity, complicated processes and high labor intensity.

According to Edgar Tung, CEO of Zymmetry Group, the issue of invisibility is more acute for overseas-invested garment factories in China, because the production done at factory floors there is often far from transparent and visible for management at the distant headquarters in other countries or regions.

Q : What is RFID?

A : Radio frequency technology is not new. First developed in the 1940s, it was used to retransmit radio waves with audio information. It has been widely used to broadcast radio programs for decades.

In a garment factory, data transmission is limited to a crowded indoor area, making the relatively cheaper low-frequency application feasible.

RFID technology is economically viable for garment factories to meet today's requirements of the global market, e.g. small batch, short lead time and frequent change of styles.

Each low-frequency RFID card now costs about RMB 2, which can be recycled upon completion of production.

To reduce investment cost, rental services are offered by some RFID solutions providers. Even if purchased at full cost, most users are able to recover the investment within half a year.

Q : How to apply RFID at the production floor?

A : With the RFID system, line supervisors can now get easier access to more accurate data.

Take Yintak Intex as an example. It is one of Asia's largest intimate apparel manufacturers headquartered in Hong Kong. Prior to using the RFID system, ZymFactory, powered by Zymmetry, workers at Yintak Intex used "job tickets" to record what kind of tasks they have, and as a proof of how much they earned. Production progress was monitored manually by sub-division leaders. Factory managers often found it hard to monitor the overall production flows with paper-based ticket records gathered from numerous workers at the production floor.

After adopting the RFID system, each factory worker will be given a RFID-enabled worker ID card so that they can scan it against a card reader, to record their attendance and amount of time spent on a particular task. There will also be a "bundle" card attached with each bundle of garment and the bundle card flows with the garment and will be scanned against each reader as more work are done on the garment. Each task of cutting, component sewing, assembly sewing, subcontracting, wet processing, finishing and packing can be monitored easily.

A RFID system can provide workplace data and analysis

RFID system helps speed up the daily work of garment factory staff

This will allow managers to monitor the progress of each task and identify bottlenecks.

Individual performance of workers is also recorded to understand employee working efficiency, and a relatively objective job evaluation is also available for the personnel department.

Mr Tung explained that the production visibility was important to Yintak Intex, which employs more than 1,000 workers with an annual capacity of exceeding 100 million pieces of garment for retailers across Europe, the US and Australia.

After adopting the RFID system, Yintak Intex reported a reduced cost on overtime work by 15% and savings of order-tracking and administrative time. Moreover, the production cycle is shortened by 18% compared to the past, complemented by a notable improvement in production efficiency by 15-25%.

All in all, the use of a RFID system helped Yintak Intex improve its productivity by 10-30%.

In order to attain real-time production visibility, the RFID system should be used together with related computer software and set-up including an enterprise resource planning (ERP) solution for real-time production information and other benefits. This is more important to larger manufacturers adopting a multi-factory supply-chain model with several production sites around the world.

Q : What equipments are needed to adopt a RFID system?

To install a RFID system, electronic RFID tags for workers, card readers, computer and network facilities are needed and there are also operating costs and information processing costs.

The information was provided by Zymmetry Group. ■