Reduced Overfilling
With Optimized Shrimp Packaging

Shrimp produced in Ecuador have a long tradition of high quality. The most important export market is the USA, where shrimp with traceable quality at competitive prices are expected. A large shrimp producer from Ecuador installed a manual checkweighing solution and achieved increased material savings, improved processes and a proven traceability.

Globally, shrimp is the most important commodity traded in the seafood business. The competition between producers from countries such as Ecuador, China, Vietnam, or Brazil is strong and the regulations for importing seafood into the USA or Europe are high. In front of this situation a large shrimp producer based in Manta, Ecuador was looking for a system for further optimizing his packaging process. His product range covers different types of shrimp packed in boxes of various sizes. He was specifically interested in receiving a fast and efficient filling procedure of each box within the legally required net content regulations. The new system should automatically store relevant track and trace data for better compliance with FDA regulations, improve the performance of the packaging process, increase the operator's productivity and reduce costs originated from overfilling.

Manual shrimps packaging.

Manual checkweighing with IND780

In Ecuador METTLER TOLEDO's industrial distributor, Espinosa Páez S.A, installed a complete manual checkweighing solution based upon these requirements. The installation includes four analog scale platforms with corresponding signal lamps and bar code readers, one over / under checkweighing application terminal (IND780) and software assistance to provide connectivity to the existing ERP system.
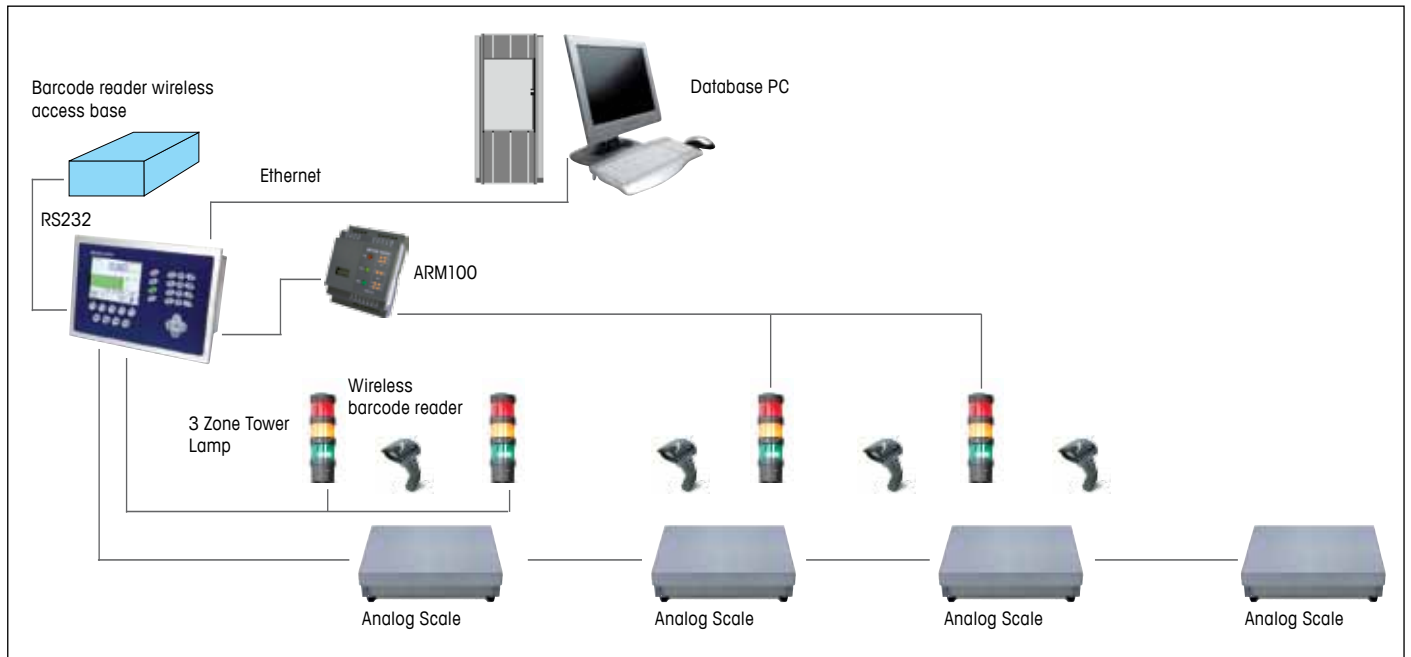
Power for advanced weighing applications

The IND780 terminal has an ingress protection rating of IP69k for wet and harsh applications. It allows up to four scales to be connected and comes with a bright QVGA graphical LCD display for compact oversight of the ongoing processes. Customer specific adaptations to the existing process haven been implemented by Espinosa Páez with the software TaskExpert™, a flow chart based development tool. As a result weighing data from four weighing stations are clearly displayed on the screen and automatically integrated and stored in the existing ERP system ready to be reviewed, printed or archieved.

Efficient shrimp checkweighing procedure

Today's packaging process is organized in such a way that the incoming shrimp

Manual shrimps checkweighing solution.

Operators process for Over / Under Checkweighing

Preparations
- Enter batch specific data (e.g. lot number, operator-ID etc.)
- Activate dedicated weighing station
- Select product specific weighing attributes (target / tolerance limits)

Manual checkweighing
- Scan barcode of prefilled box and adjust weight by adding / removing shrimps
- As soon as the weight reaches the predefined tolerance range, press input button and release data

Track & Trace
- Automatic data storage in database

first are automatically presorted and pre-filled into packaging boxes. For the fine adjustment, the line operators manually correct the final net content for each box. Processed data is finally stored on the master data PC.

With this solution the customer was able to increase his productivity and reduce his overfilling costs by thousands of dollars per line and year. Furthermore the process automatically stores data and provides a safe track and trace procedure. They are ready for any audit to come!

Key customer benefits
- Material savings of thousands of dollars per line / year
- Improved productivity and reduced errors
- Enhanced process and product traceability for food safety
- Facilitate data automation and paperless transactions

Fast Facts IND780
- SmartTrac™ graphical display for over/under and material transfer applications
- Rugged industrial quality stainless steel harsh enclosure IP69K protected
- Numerous connection options (serial, Ethernet, USB, digital I/O, PLC interface, etc.), up to four scale can be connected
- TaskExpert™ Programming: Flowchart-based application programming tool

▶ **www.mt.com/ind780**

www.espinosapaez.com