

Checkweighers Optimize Filling Processes For Maximum Profit

Fawema successfully combines state-of-the-art packaging solutions with checkweighers to create an effective overall system. The name "Fawema" stands for reliable, modern packaging machines for dry bulk goods such as tea, flour, sugar or spices.

The machine builder Fawema works in close collaboration with METTLER TOLEDO to develop comprehensive packaging concepts with integrated product inspection solutions. These concepts cover the entire process chain from the manufacture and feeding of the packaging, to dosing, filling and sealing, right through to order commissioning and product inspection. Since METTLER TOLEDO's dynamic inline weighing solutions can be individually adapted to suit any customer requirement, they are the perfect partner to complement Fawema's packaging solutions.



Fawema Maschinenfabrik GmbH
Checkweighing Technology Integrated

METTLER TOLEDO



Fawema has integrated the checkweigher (see photo below) into a line featuring a packaging machine for single and meslin flour, where it checks the filling and packaging process

"Mettler-Toledo Garvens's project-oriented approach is important for us, as we primarily deal in custom-built machines," explains Thomas Krimmel, Project Manager at

Fawema. "Checkweighers are one part of our overall modular concept, so we have to be able to adapt them to fit in with our systems perfectly," continues Krimmel.

Checkweighers can also be directly connected to the packaging machine by means of feedback control, which enables them to control the filling process in a proactive manner. This means that Mettler-Toledo Garvens checkweighers have a direct influence on the filling process to prevent both overfilling and underfilling.



Its ruggedness and ease of operation make this checkweigher the optimum solution even in industrial production lines with dusty environment like the flour filling and packing line

The mid-size checkweigher is used in many Fawema packaging solutions

In this example a customized checkweigher has been configured for filling sacks with 10 to 25 kg of flour; Fawema has produced these particular sacks specifically for a customer in England. Fawema builds customized machines and, as such, is ideally placed to meet the individual needs and requirements of its customers. The example shown above is a modern packaging machine for single and meslin flour. Twelve feed hoppers ensure the packaging process which involves a high degree of product compaction and dust-tight sealing and is both fast and precise.

The machine can pack up to 30 bags per minute. Once the bags of flour have been sealed with a FISCHBEIN sewing head, a Mettler-Toledo Garvens checkweigher makes a final check of the entire packaging process.

The mid-size checkweigher has been specially developed for heavy products

The checkweigher shown in this example weighs 30 sacks of flour per minute with an accuracy of two grams. It is Weights and Measures approved and has been specially designed for larger, heavy products, i.e. loads of up to 40 kg.

Large operator control elements, extremely simple operation and memory space for up to 200 product setups mean this checkweigher is an ideal solution for all production lines or end-of-line applications. Four different sack weight and sizes are produced on this Fawema machine. All these different sizes are stored in the checkweigher's product setup memory. This allows for product changeover in no time at all.

Bags of flour that are overweight or underweight are removed from the production line by means of a pneumatic pusher; bags that are not of the correct weight could also be an indication of a sealing problem. Therefore, the checkweigher forms a key part of the quality assurance procedures employed by Fawema as a machine builder.



Sacks are filled with flour and then sewn up

Joint development project between Fawema and Mettler-Toledo Garvens GmbH results in a "top-up solution"

Just how successful the collaboration between the two companies Fawema and METTLER TOLEDO has been is demonstrated by their jointly developed top-up solution which is used in packaging machines that have to fill sacks with an extremely precise volume of flour. The top-up solution involves a two-stage automatic weighing process to ensure that the required nominal weight is achieved, without over or underfilling. The two companies, Mettler-Toledo Garvens GmbH and Fawema, worked together as partners by combining their technical expertise and functioning as a single synchronized unit – the only way to develop a solution such as this.

As part of the top-up solution, a METTLER TOLEDO load cell is integrated into the packaging machine, where it becomes an essential component of the packaging solution.

Accuracy, reliability, easy integration and even a diagnostics interface for engineers are the pluspoints of the electromagnetic force compensation load cells from METTLER TOLEDO.



Fawema provides its customers with customized technical solutions that use METTLER TOLEDO checkweighers for quality assurance



Sacks of flour that do not conform to tolerance limits are reliably rejected by a pusher



The C23 PlusLine checkweigher for larger objects/loads up to 80 kg

**METTLER TOLEDO is instrumental
in quality management
optimization at Fawema**

The METTLER TOLEDO Product Inspection Division offers a full range of inline control solutions, i.e. checkweighers, metal detectors X-ray inspection systems, and visual inspection technology.

The product range is rounded off by global customer support services. This is paramount for international business interests at Fawema. In this way, METTLER TOLEDO optimizes quality management for Fawema, a machine builder that is very aware of the importance of high quality.

More information:

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