

Fruit & Vegetables

Industrial Weighing & Product Inspection



6 News

Latest Checkweighing Technology Guarantees Freshness and Speed

Passionate about vegetables, Bonduelle Deutschland GmbH is a subsidiary of the French Bonduelle Group and is the European market leader in processed vegetables. They work with METTLER TOLEDO Garvens to ensure production of quality products.

At its site in the German town of Straelen on the Lower Rhine, ready-to-eat salads are prepared for the emerging convenience food market. Each day up to 100 000 lettuces are processed at the Straelen site. Once the lettuce has been meticulously rinsed, shredded and freshly packaged, it takes just 24 hours for it to find its way onto the market, into hotels, restaurants and commercial kitchens throughout Germany and Holland. In all steps of the production process quality and product reliability are of paramount importance to Bonduelle.

On one line, an XS3 CC H checkweigher from Garvens inspects the so-called garden mix, a mixed salad with endive, radicchio and frisee lettuce. The net weight of the various mixed salads can vary between

75 and 1000 grams. The checkweigher determines the product weight of each packet of salad up to an accuracy of one gram with a throughput of up to 90 pouches per minute.

Dynamic weighing and simultaneous metal detection

The Garvens XS3 CC H CombiChecker combines a very accurate checkweigher with a very sensitive metal detector. Over or underweight salad packs are also ejected from the production line, as are packs with even the minutest levels of iron contaminants with a diameter of $\geq 1.2\text{mm}$, of non-ferrous metals with a diameter of $\geq 1.7\text{mm}$ or stainless steel with a diameter of $\geq 2.3\text{mm}$. This state-of-the-art CombiChecker has been specially designed for manufacturers in the food industry

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METTLER TOLEDO



The XS3 CC H CombiChecker inspecting salad in foil pouches

and fulfils quality criteria in accordance with FDA, BRC and IFS.

Centralised inventory management along with 100% reporting procedures are performed via an Ethernet connection to the Bonduelle IT central database. Another impressive feature is the so-called “H frame” design with just four feet, allowing for convenient cleaning. Modern checkweighers are extremely easy to operate. “We opted for the Garvens XS3 CC H, as this checkweigher offers far more advantages than competing models”, explains Julien Volpoet, the technical manager at

the Straelen site. “What particularly impressed us about this modern checkweigher is the fact that it is particularly easy to operate, as both the checkweigher and the metal detector are controlled via the same terminal. What’s more, thanks to the individual user management system, an individual profile can be assigned to each operator. This is perfect for us, as we have several different employees working with this checkweigher”, continues Mr. Volpoet.

Quality management

The checkweigher is connected to Bonduelle’s host PC via an optional

Gareco.Net interface (Garvens Remote Control). This means that Bonduelle has permanent “online” access to all statistical product data and the checkweigher can be controlled via a centralised workstation. This also enables the checkweigher to be directly integrated into Bonduelle’s quality management system. To make the most of its investment, Bonduelle uses the checkweigher for products which have to be weighed on an officially calibrated weighing system.

As is the case with all modern Garvens checkweighers, the XS3 CC H is supplied

Fast Facts: The Garvens XS3 CC H CombiChecker

- Consumer protection and savings in terms of raw materials through automated detection and ejection of products outside weight tolerances.
- Consumer protection and protection of brand reputation through reliable detection and ejection of products that have been contaminated by ferrous foreign bodies.
- Touchscreen display with intuitive user interface.
- Steplessly adjustable belt speed.
- Garvens offers several XS models for various weight ranges and diverse applications. Up to 200 products can be saved, which makes the XS models ideal for manufacturers with a wide range of products.



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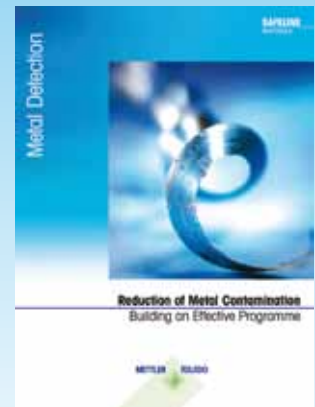


Confident you are in compliance with food safety standards?

Complying with food safety regulations and industry standards can be a daunting challenge for food manufacturers, but help is at hand.

"Reduction of Metal Contamination – Building an Effective Programme" published by METTLER TOLEDO Safeline provides all the support and guidance you need to implement a comprehensive HACCP programme to get you through external audits every time.

This authoritative guide has over 60 pages packed with insight and expertise supporting compliance with all leading food safety standards.



Request your complimentary copy from

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with European MID approval. In accordance with the MID Conformity Assessment Procedure (Stage 1), it is designed and produced at the Garvens site in a manner which allows for official calibration. The actual on-site initial calibration (Stage 2) is performed at Bonduelle by a Garvens service engineer. This means that the Garvens service team also supports the quality management system at Bonduelle Deutschland GmbH.

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Only satisfactory products reach the collection turntable



Two pushers with brushes eject defective products from the line – under or overweight products are rejected separately from products containing traces of metal

Statistical Quality Control

The Highest Precision for Wet Areas

Special measuring instruments are needed for quality control in environments with strict hygiene requirements. With the network-capable IND469rem terminal and the KA3s/KA6s scales, METTLER TOLEDO has the ideal weighing system for connection to the FreeWeigh.Net® quality control software. These devices are made of stainless steel and are a great way to meet high-precision and strict hygiene requirements.

FreeWeigh.Net® – Quality control in a network

More and more customers are demanding networked quality control for their products, i.e. central monitoring and evaluation of filling quantities as well as other important quality attributes. With its PC-based FreeWeigh.Net® Statistical Quality Control system, METTLER TOLEDO offers an efficient solution for this demanding task. And when the IND469 terminal is coupled with the KA3s or KA6s platforms, this offers quality control in wet areas.

Maximum IP protection and simple cleaning

The IND469rem terminal has been designed to comply with the latest EHEDG and NSF hygiene design guidelines and is therefore ideally suited for use in wet areas. It is both dustproof and waterproof in line with IP69k (DIN40050) and its extremely fine stainless steel surface (Ra <0.8µm) makes it a breeze to clean.

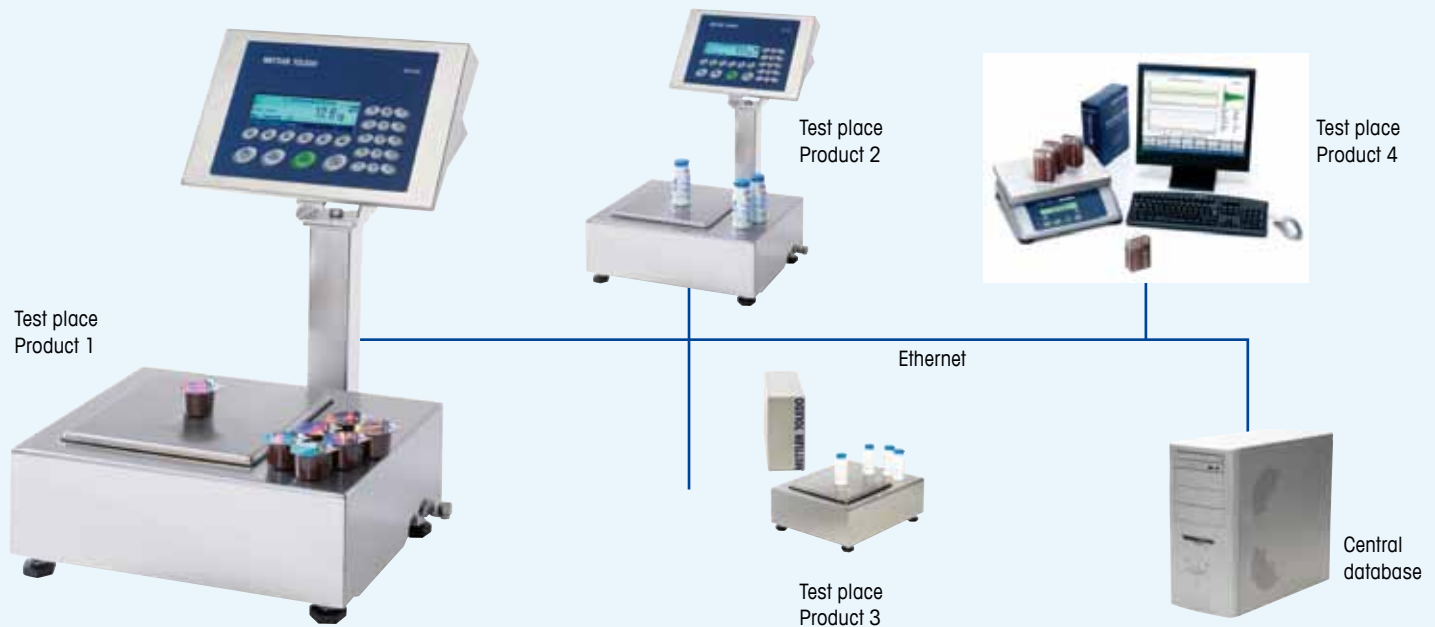
Network connection is hygienic and saves costs

The terminal is connected to the FreeWeigh.Net® network via an Ethernet interface or simply and cheaply without the need for cables via WLAN.



Properties IND469rem and KA3s/KA6s

- Integrated remote application for network operation with FreeWeigh.Net®
- For monitoring finished packs with net filling quantities of:
5g–3000g (KA3s: 0.1 g Weights and Measures approved)
10g–6000g (KA6s: 0.2 g Weights and Measures approved)
- Stainless steel housing
- Waterproof and dustproof
IND469rem: in line with IP69k
KA3s/KA6s: in line with IP66/IP67
- RS232, PS/2, Ethernet or WLAN connection



Net weight monitoring with filling quantities starting from 5g



0.1g Weights and Measures approved resolution for the strictest hygiene requirements

With its KA3s and KA6s scales, METTLER TOLEDO has set new standards in the fields of waterproof and dustproof weighing platforms. Thanks to its IP66/67 degree of protection, the weighing platform can be rinsed with water with absolutely no issues. With a Weights and Measures approved re-

solution starting from 0.1 g (not Weights and Measures approved from 0.01 g), these devices are suitable for a wide range of applications. Scales that are used for fill level monitoring of finished packs are subject to legal stipulations. To ensure that labeling regulations are observed, the KA3s/KA6s platforms allow finished packs to be weighed in wet areas for the first time with net filling quantities starting from 5 g/10 g.

► www.mt.com/sqc-calculator

► www.mt.com/sqc

What you stand to gain

- Net weight monitoring from 5g in wet areas thanks to 0.1g Weights and Measures approved resolution
- Time-saving and thorough cleaning thanks to
 - IP66/IP67/IP69k degree of protection
 - Complies with EHEDG und NSF hygiene guidelines
- Complies with finished pack regulations
- Saves unnecessary overfilling costs

FreeWeigh.Net®

EHEDG



EHEDG: European Hygienic Engineering and Design Group
NSF: National Sanitation Foundation (US)

Automatic Dosing Made Simple and Secure with FormWeigh.Net® and IND560

Efficient, manual and automatic dosing can now be implemented in a fully integrated, end-to-end system. METTLER TOLEDO now offers a combination of the FormWeigh.Net® manual formulation system and the IND560 process weighing terminal for precise and automatic dosing.

The networked FormWeigh.Net® formulation system supports staff in the weighing room when weighing individual components which are then mixed as per instructions and forwarded for further processing in production. Both the quantities to be weighed and the precise workflow are defined in the system and displayed to staff in a clear and understandable way on an industrial PC, such as the METTLER TOLEDO ID30. To avoid confusion and potential mix-ups, the components used are identified and verified with barcode readers. In validated mode, thanks to FormWeigh.Net® it is even possible to do without the costly “counter check” principle, in which the attention of two staff members is required for critical procedures.

Using FormWeigh.Net® not only helps eliminate the risk of using incorrect or out-of-date batches, but also helps standardize formulation workflows. The risk of defective mixtures is reduced to a mini-

mum. Companies not only benefit from improved quality assurance. Thanks to shorter processing times and greater process reliability, they also achieve a significant improvement in efficiency and reduction in manufacturing costs.

Efficiency relies on selecting the right resources

If small quantities are to be dosed for a formula, tight tolerances generally apply which can only be fulfilled with operator skill and corresponding instruments, such as analytical balances.

However, as soon as large quantities of a substance are to be dosed, the manual process can encounter difficulties for the following reasons. Large quantities cannot be manually dosed efficiently and substances of this kind are also often stored in large containers or silos, which cannot be brought into the weighing room for dosing. In cases like these, an automated and perma-



FormWeigh.Net® features at a glance

- Flexible and simple production control
- Central management of formulae and jobs
- Traceable processes
- Minimizing rejects caused by operator errors
- Cost savings and increased efficiency
- Validation and implementation of FDA 21 CFR part 11 compliant systems



Dustproof and suitable for cleaning with high-pressure equipment

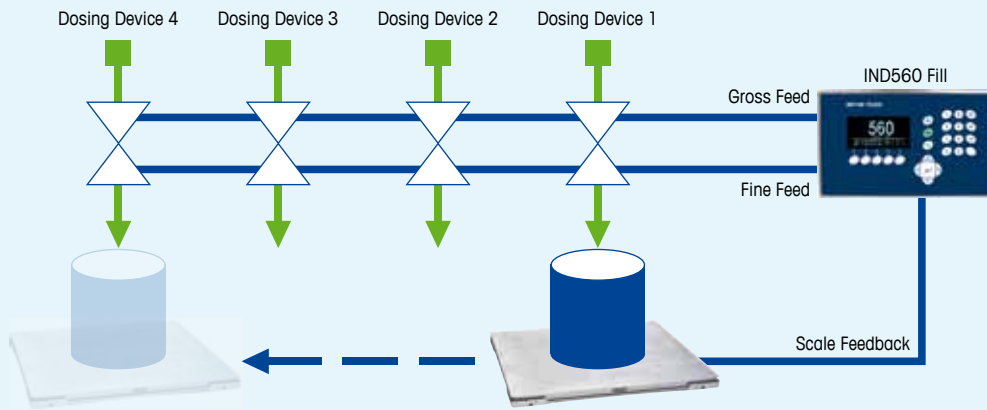


European Hygienic Engineering and Design Group



National Sanitation Foundation (US)

Automatic formulation



nently installed dosing system is often the best solution.

If this is connected to a system which ensures end-to-end processing of all manual and automatic work steps, this not only offers optimum handling, it also guarantees maximum efficiency.

Fully integrated automated dosing with FormWeigh.Net®

The combination of FormWeigh.Net® and the METTLER TOLEDO industrial terminal IND560 enables manual and automatic dosing to be implemented in single end-to-end system.

The formulae stored in FormWeigh.Net® contain components to be manually and automatically dosed. This allows combined operation to be set up for an optimized and fully traceable working process.

Up to four different components can be checked in a staggered manner by an IND560 terminal. And thanks to the terminal's two-stage valve control, they can be quickly dosed with pinpoint accuracy.

For more information:

► www.mt.com/formweighnet

The ideal symbiosis of two outstanding systems



FormWeigh.Net® formulation system

Manual formulation



Bench scale



Precision or analytical balance



Floor scale



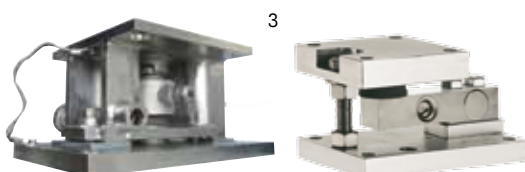
ARM100 – Digital input/output module for increasing the number of dosing stations to a maximum of 16

Features of IND560fill with Fill-560 application software at a glance

- Simple connection to FormWeigh.Net® for automated dosing
- Modern IP69k protected stainless steel housing
- Large easy to read fluorescent display
- Can control up to 4 different dosing stations with standard equipment. Can be expanded to include a total of 16 stations of the ARM100 module expansion
- Modern and fast weighing processor with digital TraxDSP™ filtering technology

A Wide Range of Solutions to Improve Processes

1. Vehicle scales
2. X-ray inspection systems
3. Weigh modules for tank scales



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