New Drive-Through Scales
Stainless Steel – No Costly Pit Model

The new PUA579 floor scales are designed for all weighing applications in heavy wash down areas, where the mobility of the scale and the lowest passage height is an absolute must.

Manufacturing in hygienic sensitive areas demands suitable equipment. Whether you are working according to HACCP, BRC, IFS or ISO 22000, the PUA579 drive-through scales meet the highest requirements related to hygienic design and ingress protection.

Hygienically designed with EHEDG
The stainless steel weighing platform is protected according to IP68 for prolonged submersion and designed for use in wet areas where heavy wash down procedures are the standard. The PUA579-CS and -FL are the first floor scales to conform to the European Hygienic Engineering and Design Group (EHEDG) guidelines which set the standards in regard to hygiene in food industries. EHEDG approved the value of the open, easy-to-clean design with no hidden holes, the optionally available smooth surface (average peak-to-valley height: \( R_a < 1 \mu m \)) for trouble-free cleaning and the full stainless steel 1.4301 / AISI304 construction (optional: AISI 316).

Standard- and free-size dimensions
The floor scales – suitable for loads from 300 kg to 1500 kg – are available in different standard- and free-size dimensions. The low height (35 mm to 45 mm respectively) and short approach ramp, make it easy to drive over the scales, providing significant versatility and saving floor space. A pit installation becomes redundant.

Due to extended product options and a wide range of accessories, the PUA579 can be very
well adapted to your demands. Whether you require approach ramps, a lifting system with gas filled springs or the wide range of weighing terminals – you decide.

**The optimum weighing solution with a suitable display unit**

The weighing process determines which display unit you select. A wide range of weighing terminals – EHEDG approved and IP69k protected – are available with a digital or analog scale interface. In addition to the straightforward weighing function, the display units can be configured individually depending on your application:

- Available data interfaces: CL, RS232, RS485, Ethernet, Profibus
- Additional software modules for formulation/recipe weighing, dosing, filling, totaling, etc.
- Peripheral devices such as barcode readers/printers, external keyboard, etc.

All of the above benefits are now available without having to invest in a more costly, difficult to clean pit scale. This enables a more flexible positioning in production.

### Resolution e: 3000e

<table>
<thead>
<tr>
<th>Platform Size (mm)</th>
<th>Capacity</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS: 850 x 850</td>
<td>100g (EHEDG)</td>
<td>35mm</td>
</tr>
<tr>
<td>E: 1500 x 1250</td>
<td>100g</td>
<td>500g</td>
</tr>
<tr>
<td>FL: from 750 x 400 to 1250 x 1000</td>
<td>100g (EHEDG)</td>
<td>35mm</td>
</tr>
<tr>
<td>FM: from 1000 x 1000 to 1500 x 1250</td>
<td>100g</td>
<td>500g</td>
</tr>
<tr>
<td>FH: from 1500 x 1250 to 1500 x 1500</td>
<td>–</td>
<td>500g</td>
</tr>
</tbody>
</table>

Optional: 2x 3000e MultiRange, 3x 3000e MultiRange, 2x 3000e Multi Interval, 1x 6000e, fino a 30000d
Oerlemans Foods has its roots in the south of the Netherlands. As a grower, producer and supplier, Oerlemans Foods specializes in ‘freshly frozen’ vegetables, fruit and potato products. The innovative assortment consists of more than 1000 products and varieties.

Oerlemans Foods is a ‘global player’, with sales in over 50 countries. A significant part of the weekly 800 tons production volume of the plant in Waalwijk is exported to Great Britain.

Strict quality control
Incoming vegetables undergo a stringent quality control. Parameters like moisture or nitrate content are determined to guarantee quality, fulfilling regulatory requirements. With the BBA330 operators have a simple-to-operate and precise compact scale to determine the base weight for probes.

Production in the refrigerating house
After quality control vegetables are washed, cut, mixed and frozen. At the mixing station a METTLER TOLEDO DNE1500 floor scale with the new IND449 weighing terminal check if the correct amount of vegetables is batched into the mixing machine. The dark and extremely cold environment in the refrigerating house represents no problem for the terminal. In contrary, the large backlit LC display with +/- checkweighing bargraph enables a comfortable reading of the weight by the pallet truck driver. And the terminal withstands the extremely frosty environment!

Scales and terminals for harsh environment
Both the BBA330 bench scale and the IND449 weighing terminal combine the advantages of equipment designed after the EHEDG and NSF guidelines. The complete stainless steel constructions (AISI 304, 1.4301) with no hidden holes and a smooth hygienic surface are easy-to-clean helping to improve food safety. With the IP69k protection they withstand high pressure water jet cleaning and are completely dustproof.

With METTLER TOLEDO weighing solutions dedicated for use in harsh environments, Oerlemans Food has the freedom of fast and precise weighing results combined with a maximum uptime.

Mr. Yves Huybregt, Head of the Technical Department, confirms: “We are very satisfied with the performance of the METTLER TOLEDO scales and terminals in our demanding cold and wet production environment.”

Fast facts IND449
- Stainless steel, IP69k weighing terminal
- Checkweighing, totalizing, user identification, date & time
- Foil-keypad, scratch resistant, numeric block
- Display, LCD backlight, bargraph
- Optional battery pack
- Interfaces RS232 (optional: RS422, RS485, Ethernet, WLAN, USB (Slave), Digital I/O)
- Connect up to 2 scales
Keeping Control Over Production Costs Despite Rising Raw Material Prices

As a result of open globalized markets, food manufacturers have to operate under constant price and cost pressures. They are forced to offer high-quality products at competitive prices in order to survive in the face of critical consumers and aggressive competition. This is made all the more difficult by the upwards trend in raw material prices, which poses a serious threat to the profit margin. A comprehensive METTLER TOLEDO quality and production control system, which is fully integrated in the production process, helps to monitor and optimize these costs without having to compromise on product quality.

Increasing raw material costs

A glance at the current trends in raw material prices and statements from market experts paint a clear picture. Prices are unstable and future price developments are unpredictable.

While the price trends for coffee and sugar are currently on the downturn, further increases can be expected in the near future for other raw materials. For example, the price of cocoa is currently soaring, as are the prices of rapeseed, soya, and wheat. The increased use of corn and soya as raw materials for environmentally friendly motor fuels means that these cereals will continue to become more expensive in the future.

With a few exceptions, it can be assumed that manufacturers will have to contend with higher costs when purchasing raw materials for food production.

Avoiding material wastage

One strategy that offers promising and worthwhile results in the short to medium term is the use of suitable tools to precisely monitor the use of raw materials, and to maintain control over their use to optimize consumption without having to compromise on product quality.

METTLER TOLEDO offers sophisticated systems in the areas of both formulation and filling process control, which enables companies to optimize the utilization of raw materials and end products through increased accuracy in all process steps.

Efficient formulation

FormWeigh.Net® is a flexible and networked formulation solution that controls and monitors the formulation process, enabling maximum precision and flexibility in the use of the available raw materials. This therefore guarantees transparent management of the available materials, clear traceability, and consistent product quality. The consumer can rest assured that the product he is buying does not contain any hidden surprises, while the producer can be sure that not a single drop is unnecessarily wasted during the manufacturing process.

Key customer benefits of FormWeigh.Net®:
- Right mixture reliably documented
- Graphical support to avoid incorrect mixtures
- Prevention of material wastage
- Acquisition and verification of batch information
- Clear, concise representation of the weighing process
- Maximum process reliability
- Seamless traceability
- ERP integration
- Fast ROI (<12 months)
Example: Food industry — overfilling cost before and after FreeWeigh.Net® system introduction

<table>
<thead>
<tr>
<th>Month</th>
<th>Overfill [%]</th>
<th>Overfill [US $]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 2005</td>
<td>104.00</td>
<td>32'456</td>
</tr>
<tr>
<td>May 2005</td>
<td>103.00</td>
<td>25'777</td>
</tr>
<tr>
<td>Jun 2005</td>
<td>102.00</td>
<td>19'385</td>
</tr>
<tr>
<td>Jul 2005</td>
<td>101.00</td>
<td>9'996</td>
</tr>
<tr>
<td>Aug 2005</td>
<td>100.00</td>
<td>8'846</td>
</tr>
<tr>
<td>Sep 2005</td>
<td>101.00</td>
<td>9'281</td>
</tr>
<tr>
<td>Oct 2005</td>
<td>102.00</td>
<td>7'237</td>
</tr>
<tr>
<td>Nov 2005</td>
<td>103.00</td>
<td>6'466</td>
</tr>
<tr>
<td>Dec 2005</td>
<td>104.00</td>
<td>5'028</td>
</tr>
<tr>
<td>Jan 2006</td>
<td>105.00</td>
<td>3'732</td>
</tr>
<tr>
<td>Feb 2006</td>
<td>106.00</td>
<td>9'385</td>
</tr>
<tr>
<td>Mar 2006</td>
<td>107.00</td>
<td>25'777</td>
</tr>
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Reduction of overfill costs

Accuracy and the minimization of variation are also of paramount importance in the area of filling and packaging. Raw materials must be used as economically as possible while remaining within legal limits.

METTLER TOLEDO SQC (Statistical Quality Control) systems act as extremely valuable information sources since they can provide information at any time about the current fill quantity based on the evaluation of sample data from the production line, and therefore help to optimize the fill quantity while avoiding underfilling.

The METTLER TOLEDO SQC product range includes compact standalone scale-based solutions as well as the networked and flexibly extendable FreeWeigh.Net® software system. FreeWeigh.Net® offers, in addition to filling process control, a variety of further options for quality control such as documenting sensory tests and/or integrating measuring devices like check-weighers, moisture analyzers and metal detectors.

Process control and optimization in the area of formulation and filling process control help food manufacturers to optimize costs and hence to remain competitive and profitable, despite uncontrollable factors such as the price of raw materials.

METTLER TOLEDO offers appropriate process control solutions that can be easily expanded to suit businesses of all sizes. The investment is easily justified by improved process control, and pays for itself within a matter of months due to the savings that can be achieved.

- [www.mt.com/formweighnet](http://www.mt.com/formweighnet)
- [www.mt.com/freeweighnet](http://www.mt.com/freeweighnet)

Key customer benefits of FreeWeigh.Net®:
- Significant reduction of product overfill cost
- Compliance to legal fill requirements
- Standardized and simplified processes
- Online monitoring and alarming
- Short reaction time in production
- Automated reporting
- Scalable system implementation and enhancement
- ERP integration
- Fast ROI (<12 months)
Enhance Traceability of Raw Materials
Used During Recipe Weighing

Do you want to minimize handling errors due to manual computation of recipes? Do you want to increase productivity and improve traceability with an intelligent and PC based recipe weighing system?

Then FormXP formulation software hits the spot! FormXP makes your formulation process easier, fail-proof and efficient. Select one of the available filling sequences, easily create, manage and exchange recipe and raw material data, and track material usage with the embedded inventory control tool.

Select your filling sequence
- Vertical filling: All components of a recipe are filled in one container.
- Horizontal filling: Each component of a recipe is filled in a separate container.
- Batch filling: Each component of a recipe is filled in a separate container. The compound is filled as often as assigned in the number of batches. If the compound is batched, the next compound follows.

If a component has been overfilled a rescaling function is used which corrects other corresponding components.

Manage all recipe relevant information with unique ID #
- Raw materials database
- Recipe database
- Handling and instruction database
- User ID

From recording raw materials to processing recipes – FormXP guides the user easily and clearly. Due to numerous interconnected databases, the display can also show information such as work instructions, quantities and tolerances while the recipe is being weighed.

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Select raw material

Select recipe type

Messages

Process recipe

IND690 FormXP display

Edit recipe data
FormXP includes FormToolXP, a special PC software which enables you to edit message, component and recipe data. A mouseclick on your PC gives you direct access to the IND690 or to a host system.
Document and trace back

FormXP is a software pack that runs on any IND690 weighing indicator. The additional FormToolXP PC software allows you to handle smoothly any task from your PC.

**Key customer benefits**

- Enhanced traceability of recipes by assigning lot and raw materials numbers
- Accurate and reproducible recipes
- Minimal waste material due to bad batches
- Easier handling and reduced paperwork results in higher productivity
- Increased safety by capturing component data via a barcode scanner, displaying messages while formulating and ensuring a fail-proof working sequence
- Higher efficiency by reporting the stock of raw material and using the rescaling function when overfilling components
- Quicker adaption to changing production requirements by using the PC-software FormToolXP

**Barcode scanner**

**Label printer**

**Up to 4 bench or floor scales connectable**
A Wide Range of Solutions
to Improve Processes

1. BBA499 over/under check scale with colored backlight
2. Safeline® metal detectors
3. Static and automated weigh price labeling systems
4. Statistical Quality Control systems

Share our Knowledge

Learn from our specialists – our knowledge and experience are at your disposal in print or online.

Learn more about all of our solutions for the convenience food industry at our website. You can find information on a wide range of topics to improve your processes, including case studies, application stories, return-on-investment calculators, plus all the product information you need to make an informed decision.

1. PUA579 Low profile floor scales
2. Statistical Quality Control/Statistical Process Control solution
3. FormWeigh.Net®-Formulation/Recipe Weighing solution
4. Industrial Catalog

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For more information