Consistent flavour and quality through total recipe control

Innovative flavours and product consistency are key to differentiate from competition. FormWeigh.Net of METTLER TOLEDO combines efficient, powerful formulation software with reliable weighing technology.

The perfect mixture is essential for product quality. First class chocolate requires not only premium raw materials but also total process control. To reproduce the same perfect quality every time, the line operator needs support from an ideal recipe system — FormWeigh.Net. This system provides important parameters such as materials, recipes, operator instructions and raw-material information on a mouse-click. FormWeigh.Net guides the operator securely and quickly through the daily formulation work. It provides all necessary information paperless in the central production area. Due to the simple and user-friendly screen layouts the operators are able to work efficiently and accurately, even after a minimal training period.

Key customer benefits
- Accurate and reproducible quality
- Minimal waste material due to bad batches
- Fast and accurate operation through simple, user-friendly screen layouts
- Full traceability and regulatory compliance
- Prevention of loss through automatic correction of ingredients
- Easy integration into data management systems (e.g. SAP)

The production process is documented, and every single work-step is registered in the database. Tracing production history is no longer a hassle for the quality or production manager. The required information can even be retrieved electronically in order to pass the data to a third party such as an auditor.
**Fulfill average weight legislation and reduce costs**

Accurate monitoring of portions and final product weight is essential for controlling material use and fulfilling net content legislation.

METTLER TOLEDO solutions for statistical quality control combine ease of operation, quality data management and analysis functionality. Sampling of fill quantities for liquid, pastry, powder or solid products immediately following filling allows precise adjustment through operator prompting or closed loop control to the filler from a dynamic checkweigher. Unnecessary material losses are avoided and legal fill quantities and average weight regulations are met. Production processes conform with internal and external standards such as ISO and GMP. Our standalone compact solutions or networked systems provide statistical data, to understand, document and control profitability and quality.

Key customer benefits
- Save money by reducing overfilling
- Avoid legal complaints
- Simple and informative online status of filling process, allowing quick reaction
- Streamline internal QA procedures

**Package quality parameters**
- Sealing ok?
- Label ok?
- Undamaged?
- Net content ok?
- Expiry date ok?
- Batch/lot ID ok?

**Product quality parameters**
- Sensory test
- Visual appearance (color...)
- Viscosity
- Texture i.e. particle size
- Moisture
- pH-value
- Metal free?

**Solutions that pay back!**

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw material costs</td>
<td>1.–</td>
<td>EUR/kg</td>
</tr>
<tr>
<td>Packages produced</td>
<td>100’000</td>
<td>Units per day</td>
</tr>
<tr>
<td>Nominal fill quantity</td>
<td>100</td>
<td>g</td>
</tr>
<tr>
<td>Production days</td>
<td>250</td>
<td>Days per year</td>
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<tr>
<td><strong>Production mean value</strong></td>
<td><strong>101</strong></td>
<td><strong>g</strong></td>
</tr>
<tr>
<td>Overfill per package</td>
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<td>g</td>
</tr>
<tr>
<td>Overfill per day</td>
<td>100</td>
<td>kg</td>
</tr>
<tr>
<td>Overfill per year</td>
<td>25’000</td>
<td>kg</td>
</tr>
<tr>
<td><strong>Overfill losses</strong></td>
<td><strong>25’000.–</strong></td>
<td><strong>EUR/year</strong></td>
</tr>
</tbody>
</table>
The S3 Shark offers a stainless steel height adjustable frame that meets hygiene regulations for food applications. Product and water build-up contamination is minimised by the exclusive tubular construction and the design of the conveyor and weigh support cells. The Garvens S3 Shark range, designed for the food industry, can weigh up to 800 items per minute. The new checkweigher offers numerous benefits including:

- Flexible design to integrate additional equipment
- Stainless steel reject bins and guarding

Safeline X-ray inspection
Ideal for identifying non-metallic contamination, X-ray inspection systems are providing the optimum protection for your products, your customers and the reputation of your brands.

www.mt.com/product-inspection
Tank and silo weighing solutions
master your batching processes

Boost your productivity and process uptime with reliable weighing equipment – improved batching speed and precision, maximum uptime at low maintenance cost

Fast, reproducible and reliable batching and filling are key success factors for your production process. Various factors can affect precision: dust and foam can compromise optical/radar sensors, and solids do not distribute evenly in a tank or silo. Our weighing technology is not affected by these conditions and provides direct, accurate and repeatable measurement of mass without media contact.

In addition, our range of terminals and transmitters/sensors enables easy connectivity to your control systems.

Key customer benefits
- Increased precision and consistency of your material transfer processes
- Faster batching process through supreme TraxDSP™ noise and vibration filtering
- Minimal maintenance cost

Fast facts terminals/transmitters: PTPN and IND130
- Exclusive TraxDSP™ vibration rejection and superior noise filtering system
- Easy data integration through a variety of interfaces, including Serial, Allen-Bradley® R10, Modbus Plus®, Profibus® and DeviceNET
- IP65 stainless harsh versions

Process terminal PTPN
- Local display for weight indication and calibration checks
- Panel-mount or stainless steel desk enclosure

IND130 smart weight transmitter
- Direct connectivity where no local display is required
- Quick setup and run via PC tool
- CalFREE™ offers fast and easy calibration without test weights
- DIN rail mounting version

Fast facts weighmodules Flexmount™/Flexmount™ HD
- Stainless steel load cell
- Accuracy: 3000d OIML version and 3000d, 6000d, 10 000d NTEP versions (depending on capacity)
- Flexmount™ capacity range from 220 kg to 20 400 kg
- Flexmount™ HD capacity range from 22 000 kg to 90 000 kg
- Anti-lift device restrains tank from tipping
- For light capacity applications choose Ultramount™ capacity range from 5 kg to 100 kg
New generation of weighing terminals: versatile, rugged, reliable

The new weighing terminals provide protected application intelligence, fast, precise weighing results and easy connectivity to MES or ERP systems. Various mounting options and large, clean displays support operators to work quickly and accurately. Full stainless steel housings and hygienic design help to avoid bacterial contamination, whilst IP69k protection against harsh high pressure wash-down procedures and humidity make them the ideal solution for high risk food areas.

The terminals are reliable and provide weights and measures approved weighing results and failure-free functions. The terminals can be used with the complete range of METTLER TOLEDO analogue or digital weighing platforms and weigh modules.

Fast facts IND690
- Applications: 8 dedicated software options: sum/totalization, count/parts counting, filling, checkweighing, shipping/receiving
- Keyboard: 6 softkeys, 10 fix keys, numeric keypad, navigation key
- Display: Active VFD dot matrix, SmartTrac™ over/under display
- Alibi memory
- TraxDSP™ supreme noise and vibration filtering
- Panel-mount and harsh environment versions
- Interfaces: RS232, Profibus® DP, DeviceNet™, Allen-Bradley™ RIO, Ethernet, Digital I/O, 4-20mA and 0-10V analog output
- Connect up to 4 scales

Fast facts IND560
- Applications: simple weighing, filling, totalization, checkweighing, shipping/receiving
- Keyboard: 5 softkeys, 3 fix keys, numeric keypad, navigation key
- Display: Active VFD dot matrix, SmartTrac™ over/under display
- Alibi memory
- TraxDSP™ supreme noise and vibration filtering
- Panel-mount and harsh environment versions
- Interfaces: RS232, Profibus® DP, DeviceNet™, Ethernet, Digital I/O, 4-20mA and 0-10V analog output
- Connect 1 scale

Fast facts IND429/IND439/IND449
- Applications:
  IND429: simple weighing
  IND439: basic weighing functions, parts counting
  IND449: advanced parts counting, checkweighing, totalizing, ID, date & time
- Keyboard:
  IND429: 6 keys
  IND439: 10 keys
  IND449: 25 keys, numeric block
- Display: LCD backlight
- MinWeigh function
- Optional battery pack
- Interfaces: RS232, Ethernet, USB Slave, RS485/422, Digital I/O
- Connect up to 2 scales

Multi-component batching

Box filling
Full control of inbound and outbound goods by extremely reliable vehicle weighing

METTLER TOLEDO manufactures a wide range of truck and rail scales designed to meet your specific requirements. METTLER TOLEDO OverDrive® vehicle management software creates a comprehensive and simple to use material monitoring package, providing full transparency into inbound and outbound material flow. Treating yourself and your customers fairly is dependent on 100% accurate weighing. A damaged sensor could cause your scale to register incorrect weight. Therefore, the METTLER TOLEDO brand MTX POWERCELL® will tell your operator in seconds that you are at risk to lose money or valuable customer relationships. In addition, the MTX POWERCELL® is resistant to lightning, can be submerged, and now is the first digital vehicle scale cell rated both IP68 and IP69k. The only time a METTLER TOLEDO scale user sees the service department is during routine maintenance – saving costs.

Key customer benefits

- Optimised plant efficiency with transparent inbound and outbound material control
- Extremely low failure rate through a rugged and reliable solution
- Fast and precise shipment completion

Fast facts weigh bridges

- Accuracy — Our MTX POWERCELL® technology gives you the most accurate vehicle weighing available
- Durability — Our scales are built to last, so you get the longest service life for your money
- Dependability — Our asset management tools tell you before a problem occurs reducing costly downtime.
- Maintainability — Our MTX POWERCELL® can be exchanged in seconds, usually without tools, reducing service costs.

Fast facts OverDrive®

- Complete vehicle scale management system
- Transaction screen
- Database tables for account, carrier, company, container, contract, driver, permit, product, surcharge, tax, trailer, vehicle and 25 additional extended tables
- Two generic text entry fields, two numeric entry fields
- Data grouping function “Presets” and transaction “learning” capability
- Password protected user log-on
- Transaction maintenance, standard or custom, reports and tickets
- Weights and measures “alibi” log
- Runs on Sybase, MS-SQL, or Oracle
- Networkable for multi-user applications
- Optional 24/7 unattended operation

Fast facts MTX POWERCELL®

- 5 year warranty
- 25-90 t (cell) >1000 t scale capacity
- 3000e – 6000e OIML, 5000e – 10 000e NTEP world-wide approval
- Tested and proven for prolonged submersion, IP68/IP69k
- Integral lightning protection
- More than 500 000 in worldwide use
- Instant failure notification
- Digital close loop correction of:
  - Temperature influence
  - Zero change
  - Hysteresis/linearity
  - Weighbridge creep
  - Vibration
- TraxEMT™ (Asset Management Monitors):
  - Individual cell overload
  - Scale overload-shock
  - Number of cycles
  - Symmetry and drift
Guaranteed service
Keep your business running

Avoid unnecessary downtime with our wide range of after sales service packages for your specific requirements.

With a range of innovative service solutions offering regulatory compliance, equipment calibration, training, routine service and breakdown assistance, you can profit from sustained uptime, together with ongoing performance verification and long life of equipment. There is a range of contract options designed to complement your existing quality systems. Each one offers its own unique set of benefits depending on the equipment and its application.

www.mt.com/service
A wide range of solutions
to improve processes

1. SevenGo™ portable pH-meter
2. Barcode readers, form-/label printers
3. FP900 Thermo system (melting point, ...)
4. DL22 Food and beverage analyser
5. Halogen moisture analyser

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 chocolate and confectionery 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. Statistical Quality Control/Statistical Process Control
2. FormWeigh.Net – Formulation/Recipe solution
3. Process weighing
4. Predictive maintenance
5. Methods of moisture content determination

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