

Making a measurable impact on productivity

Realizing, maintaining and improving the productivity of your specialty chemical processes require thoughtful equipment design, proactive care and dependable partners.

When you are accountable day-in and day-out to meet internal production targets or make just-in-time deliveries to customers, you can't just leave things to chance. The productivity of your process depends on the application of the right weighing equipment, proper maintenance and verification that your process meets requirements. The right equipment must satisfy process accuracy, application, operational and duty-cycle requirements, as well as size and functional specifications. The on-going productivity and quality of your process, even with the perfect equipment, depends on a proactive maintenance and calibration certification plan.

An effective proactive maintenance plan begins with an evaluation of your business risks associated with potential downtime and inaccuracy. A weighing equipment device in one process may only need occasional maintenance to ensure its availability, whereas in another process, the same device may need frequent and specific periodic maintenance to guarantee its uptime. METTLER TOLEDO is uniquely qualified to make a correct assessment of the maintenance requirements for your weighing equipment. We evaluate the risks, use, operational complexity, work environment and your maintenance budget. Based on this evaluation we design the right proactive maintenance plan to ensure productivity and quality.

With METTLER TOLEDO service, you get productivity that meets or exceeds your requirements. Whether you need to satisfy ISO9001/17025 requirements or follow GLP/GMP, BRC, IFS, SQF or ISO22000 standards, we offer the required services. Our factory-trained service technicians also know and care about safety. When instructed, we adhere to your safety policies and procedures with an unparalleled level of professionalism. And, our service representatives will be there at the right time, with the right parts, the right tools and the right skills to meet your needs.



ServiceXXL®

Tailored Services

Key benefits

- Properly maintained equipment to ensure productivity and optimize process performance
- Simplified compliance with industry specific standards and regulations
- Clear and precise documentation that equipment meets requirements to reduce the risk of non-compliance

The ServiceXXL® portfolio needs

- Analysis and consultation
- Installation and commissioning
- Calibration and certification
- Proactive maintenance
- Emergency on-site repair
- Modernization and upgrades
- OEM service parts
- Repair center exchange plans
- Guaranteed response
- Training programs
- Comprehensive agreements

Contact your local METTLER TOLEDO service provider to arrange an assessment of your maintenance and calibration needs. You can also ask us to contact you at

► www.mt.com/service

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Your METTLER TOLEDO contact:

www.mt.com/specialty-chemicals

For more information

Specialty Chemicals

Industrial Weighing & Product Inspection



9 News

Efficient filling system Seamlessly integrated

A concrete additive manufacturer had a new filling system seamlessly integrated into their existing facility. The state of the art weighing technology helped to increase efficiency and reduce overflow.

BASF Construction Chemicals Europe AG is a leading supplier of chemical systems and formulations for customers in the construction industry. Their customized solutions are used for concrete processing, tunnel construction, flooring and facade protection.

The BASF business unit, Admixture Systems Switzerland, decided to replace an old drum filling system with a state of the art solution. The new filling system had to be seamlessly integrated into the existing IT, warehouse and manufacturing areas.

METTLER TOLEDO joined forces with a system integrator to install a turnkey solution. The new drum filling system is controlled by the freely programmable IND690Sys weighing terminal. The

high resolution of the approved KE1500 scale allows it to fill net weights ranging from 150 kg up to 1400 kg within legal for trade tolerances. The large display provides clear information to the operator. All the target weights, tolerances and part numbers are stored in the large database of the IND690Sys.

Rene Bolliger, logistics & quality control manager, and Urs Eisenegger, production manager, were extremely satisfied with the performance of the new solution and the project management. They appreciated the flexibility of both METTLER TOLEDO and the system integrator who integrated the new equipment seamlessly into their existing infrastructure.

► www.basf-cc.ch



Courtesy BASF

METTLER TOLEDO

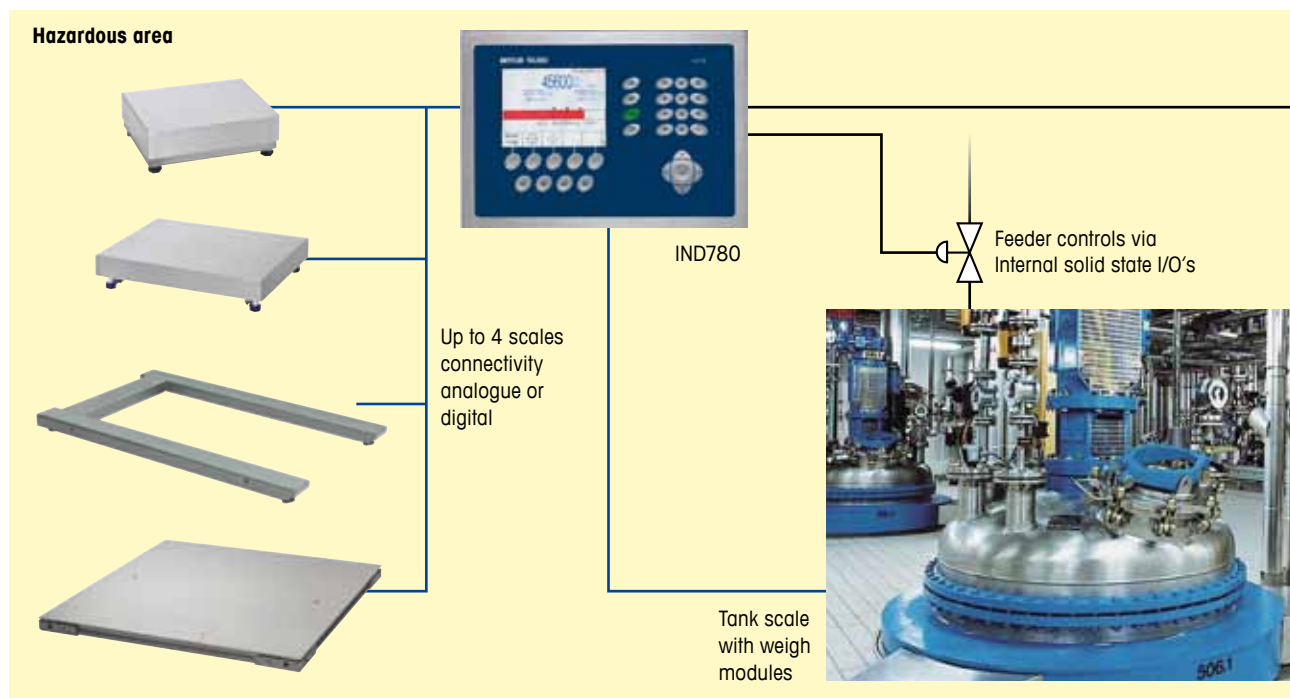
Power and performance for advanced weighing applications

Have you had complex processes or manual weighing applications that required you to either sacrifice performance or compromise between conflicting solutions? The IND780 provides all the power, reliability and flexibility in a single terminal to overcome these challenges.

Designed to meet the most demanding requirements, the IND780 can be used as a highly intuitive manual control weighing terminal or as a high speed process con-

troller. The IND780 is now rated for use in Division 2 or Zone 2/22 hazardous locations without the need for expensive purge or explosion proof housings. It of-

fers a true total control solution with the right combination of weighing technology, connectivity features and user interface controls.



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With its bright full color display the IND780 provides the operator with clear visual guidance for both automatic and manual weighing operations. The IND780 can show the individual weight data for each of its 4 scales simultaneously. Its high speed multi-tasking processor with fast A/D rate of 366 HZ enables simultaneous filling or dosing on multiple scales for increased throughput.

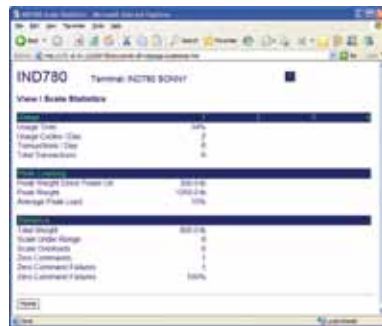
The IND780 is also built for robust environments. It is constructed of stainless steel and is NEMA Type 4/12 protection approved. Using non-incendive circuits, the IND780 makes an easy direct connection to approved load cells and scales without the need for barriers.



Bright 145 mm QVGA graphical LCD display available in monochrome or Active TFT Color.

Embedded web based diagnostics

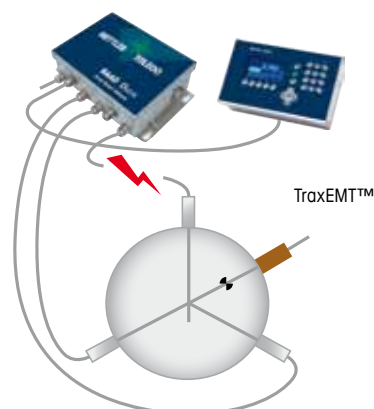
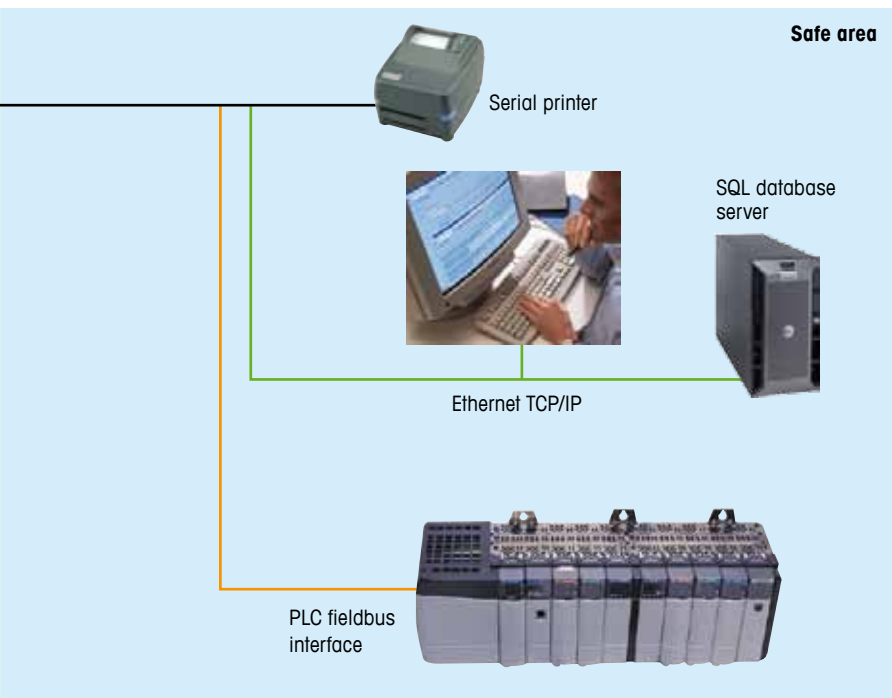
The IND780 can contact a service technician via email if a fault develops. The technician can then remotely access the terminal directly using a standard web browser allowing simple diagnostic checks to be performed.



Additional features:

The IND780 also contains the following advanced technology.

- Choice of Ethernet, RS232/422/485, AB®-RIO, Profibus™, DeviceNet™, EtherNet/IP™, ControlNet™ and ModbusTCP interfaces.
- TaskExpert™: opens up the IND780 for customized programming.
- TraxDSP™: advanced vibration filtering
- CalFREE™: calibrate scales with no test weights
- MinWeigh® function: warns operator when weighing below the minimum weight
- TraxEMT™: The built-in predictive maintenance and diagnostics features help predict errors and plan scale maintenance, rather than react after a scale is already down.



Desk/wall-mount
No version available

Panel-mount

ATEX: II 3G EEx nL[nL] IIB T4
II 3D T85°C -10°C<
=Ta<=+40°C IP6X

cULus: Class I, II, III, Div 2,
Groups A–D, F, G
Class I, Zone 2,
Group IIC -10°C<=Ta<=+40°C/T4

For More information log onto:

- ▶ www.mt.com/IND780
- ▶ www.mt.com/hazardous



Sophisticated X-ray inspection technology Delivers product consistency

There's more to X-ray inspection than detection of contaminants. The technology that can identify foreign bodies can also spot a huge range of product faults from missing components to compromised seals. Niall McRory, Regional Sales Manager for Europe at METTLER TOLEDO Safeline X-ray, believes that manufacturers now have the technology to close the door on product variations. They can almost guarantee the promise of their brand.

Taking quality control to areas where human eyes and electronic sensors cannot reach

Since the early 1990s, the food and pharmaceutical industries have used x-ray inspection systems to catch common product contaminants such as metal, glass, stone and high-density plastic or rubber. These industries were early adopters of the technology because they understood the value of brand reputation and the costs of bad publicity. To prove the point, a 2007 survey by Harris Research* showed that more than half of consumers would switch brands in the event of a product recall.

As the technology has improved, so have the analytical methods. Sophisticated image recognition and analytical software can now examine a single x-ray image for a range of product faults from breakages to missing components, to faulty packaging. The result is quality control so precise and so accurate, it can detect a single missing tablet within a sealed carton containing four layers of pharmaceutical blister packs.

Making sense out of shades of grey

All objects and materials absorb x-rays. The rule is that denser materials absorb more x-rays than those less dense. On a digital x-ray image, dense objects show up as dark grey, while those less dense appear

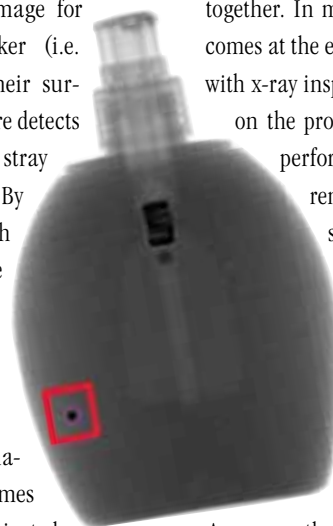
light grey. The overall result is an image in varying shades of grey.

By examining the image for areas that are darker (i.e. more dense) than their surroundings, the software detects anomalies such as a stray shard of glass in a jar. By comparing images with known good ones, the software spots products that fail to meet quality standards.

From this simple analytical technique comes unexpectedly sophisticated quality control. The digital x-ray image is a window on an endless list of hidden product faults: the packaging that is damaged; the bottle that has a missing cap, the jar that is not filled correctly; the contact lens pack that is missing its instruction leaflet; the box of blister packs that contains a broken tablet.

Protecting product integrity at high throughputs

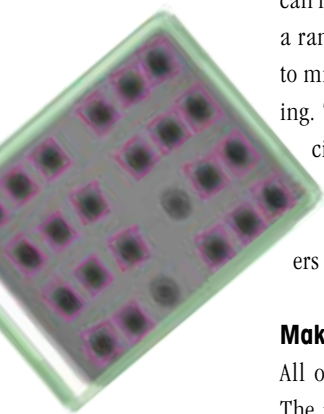
Speed and exhaustive checking rarely go together. In manufacturing, one usually comes at the expense of the other. But not with x-ray inspection systems. Depending on the product and the checks being performed, the equipment can remove faulty products at line speeds of up to 1,500 units an hour.



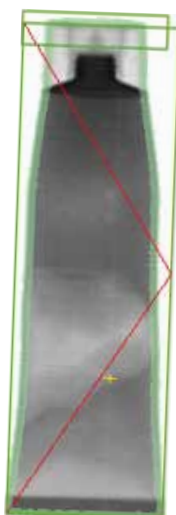
X-ray image shows contamination in a bottle of hand-wash

As soon as the product passes through the x-ray beam, the software goes to work, often performing several analyses in parallel...searching for contaminants...looking for missing components...checking the integrity of the packaging. If the product fails on any one count, it's ejected from the line.

Multiple inspections of this kind put brand owners in control of their brand values in a way that was unimaginable 20 years ago. In the past, consistency of quality and presentation relied on visual inspections and statistical analysis; now manufacturers can prove that every single product meets the standards they have set themselves.



X-ray image shows two tablets missing within a blister pack



Under-fill is highlighted in a metal tube of heat-rub



The same techniques can verify that nothing is missing: that product literature is in place and that premiums and promotional give-aways are in the pack.

No shocks, no surprises – x-ray inspection enforces brand values

The latest generation of x-ray inspection equipment is the great defender of brand values. The technology gives brand owners the tools to maintain quality control and product integrity at every stage of production.

By setting appropriate parameters and fine-tuning the sensitivity, manufacturers can investigate numerous quality issues from catching contaminants to checking that a product looks exactly as a customer expects it to look. The product that successfully passes x-ray inspection contains no shocks, surprises or disappointments. The manufacturer knows that it fulfills its brand promise.

X-ray inspection ensures compliance with standards such as HACCP

Meeting one’s own standards is one thing; measuring up to someone else’s requires systems and proof. Here too, x-ray inspection helps manufacturers comply with external yardsticks – legislative and regulatory standards such as Hazard Analysis Critical Control Points (HACCP) and Good Manufacturing Practice, as well as ad hoc standards set by individual retailers.

In this safety-conscious production environment, x-ray inspection is the surest way to prove that a manufacturer is serious about protecting customers and meeting its legal obligations.

A full jar, a square carton, a capped bottle, a promised give-away

The range of product features and attributes verified by x-ray analysis is huge. In every case, the software compares what it sees in the image with what it has been trained to expect.

This type of analysis makes product shortfalls a thing of the past. The software can examine fill levels, perform content counts and check seal integrity.

By comparing product shapes, inspection equipment can spot if a carton has been crushed or deformed; by examining the image density at the top of a jar or bottle, it can tell if the lid is present; by inspecting product seals, it can tell if particles of product have compromised seal integrity.

- ▶ www.mt.com/safeline-xray
- ▶ www.mt.com/pi-personalcare

* Reference:
The Harris Poll® #53, June 12, 2007
www.harrisinteractive.com/harris_poll/index.asp?PID=769



Ensure 100% product compliance and improve statistical control

BCM, the leading cosmetics producer – relies on dynamic checkweighers from METTLER TOLEDO Garvens to ensure the quality of its cosmetic products.

The headquarters of BCM Kosmetik GmbH is located in Dietzenbach, Germany near Frankfurt. Here, the company manufactures a wide range of cosmetic products including mascara, eye-shadow and lipstick, marketed worldwide by branded companies under their own labels.

Over the last 40 years BCM Kosmetik has built up an excellent reputation as a contract manufacturer for the cosmetics industry. All of its product solutions are characterized by quality and creativity. As a leading specialist in cosmetics, who also work for a number of international companies, BCM's goal is to consistently meet every customer expectation in terms of service, quality and innovation.

Dynamic checkweighers save money and guarantee 100% control

Saving money and ensuring all products are inspected, are other reasons why BCM opted for dynamic checkweighers from METTLER TOLEDO Garvens. "Our company strives for 100% inspection", explains Sascha Dussa, a process engineer at BCM Kosmetik. "In particular for opaque packages METTLER TOLEDO Garvens equipment gives us a 100% control. This is the only way we can be sure that no incompletely filled products are distributed to retailers. Dynamic checkweighers also enable us to dispense with static random sample checking, so we can make more efficient use of our staff."

The XS2: reliable weight checking for up to 600 grams

When process reliability is of the essence, the compact and highly efficient XS2 check-

weigher from METTLER TOLEDO Garvens is the optimum choice. With its clear 15-inch touchscreen, memory for 200 articles (product set-ups), classification in up to seven weight zones and comprehensive range of options and accessories, the XS2 is the optimum solution for cosmetics companies. With an accuracy of 100 milligrams, the checkweigher can inspect up to 60 mascara wands per minute on BCM's mascara line. The BCM products are transported safely across the weighing belt by an optional guide rail. Overfilled or underfilled mascara products are filtered out by tandem air jet nozzles. The optional counter function also makes it easier to change boxes for dispatch. The checkweigher counts 'good' products with reference to an individually pre-definable number. Once the specified quantity is reached the belt stops and the operator can replace the box containing the newly manufactured products.

FreeWeigh.Net® networks all checkweighers

At BCM, all checkweighers are networked with the FreeWeigh.Net® software. FreeWeigh.Net® allows all production data to be centrally checked and also monitored for compliance with legal and business requirements. The software suggests easy-to-implement solutions to optimize the filling process.

Equipped with a powerful data import and export module, FreeWeigh.Net® is the ideal addition to existing operating data recording systems. The software provides seamless information and data from the production process, facilitating compliance with BCM's quality requirements.

BCM Kosmetik GmbH

- Founded 1995
- Part of the Boots company in the UK
- Manufactures over 3000 products
- Annual production volume of over 80 million units
- GMP quality standard
- Production sites in Germany and Poland
- German production facility in Dietzenbach near Frankfurt
- Around 320 employees at Dietzenbach

Reliable checkweighing protects consumers and brand reputation



METTLER TOLEDO offers comprehensive solutions for product control

“We consciously decided in favour of the database solution from METTLER TOLEDO because the structure of FreeWeigh.Net® was the most impressive”, recalls Sascha Dussa. “We also wanted to source the software solution and the dynamic checkweigher from the same company.”

METTLER TOLEDO offers a full range of in-line product inspection solutions, i.e. checkweighers, metal detectors and x-ray inspection systems, making it an ideal business partner for BCM Kosmetik GmbH.

► www.mt.com/garvens

► www.mt.com/pi-personalcare



Fast Facts: XS2 checkweigher

- for highest throughput and highest accuracy
- 200 product setups (article memories) for easy and quick product changeover
- access protection by password; various user "profiles" and access levels
- easy navigation thanks to intuitive software structure (user interface)
- graphic symbols facilitate operation
- quick familiarization – saves time and money
- positive attitude and acceptance by all users – their identification with the system helps avoid errors and mistakes

Garvens XS2
checks cosmetic
products



Mascara products
are fed to the
checkweigher

