

Pharmaceuticals

Product Inspection



Applications

GARVENS

Checkweighing

Stringent quality standards require modern marking solutions at Lilly Deutschland GmbH

At Lilly Deutschland GmbH, particular emphasis is placed on safety and quality, as physicians and patients need to be able to rely on the effectiveness and safety of medicines.

Due to the increasing number of counterfeit products in the pharmaceuticals market, Eli Lilly was looking for a precise and reliable serialisation solution that would enable the company to continue guaranteeing the traceability and thereby the safety of its pharmaceutical products. In their continuous battle against counterfeit products, the authorities in the US and Europe are issuing ever stricter regulations, in which consecutive numbering (serial numbers) and verification are vital.

With its XS2 MV system, METTLER TOLEDO Garvens offers an accurate and reliable solution for precise weighing, marking and verification – thereby supporting its customers in the battle against counterfeit pharmaceutical products.



METTLER TOLEDO



The XS2 MV was purchased with a view to the future. It will form part of a sophisticated and complex serialisation concept at Lilly Deutschland GmbH



In the marking and verification process, secondary packaging is marked with a unique code to facilitate comprehensive forwards and backwards traceability of products from the packaging line right up to delivery to chemists or healthcare facilities.

XS2 MV – Marking, verification and checkweighing in a single system

The XS2 MV checkweigher is a compact solution which combines all key serialisation processes at Lilly with modern weighing technology. The product codes used by the XS2 MV are checked by a special print verification camera for accuracy and legibility and serve as a key for the legally required proof of quality. The XS2 MV checkweighing module has an accuracy of up to 200mg to ensure maximum weighing precision for products of up to 600g. The system throughput of 150 cardboard boxes per minute lays the foundation for optimisation of production lines at Lilly to secure even higher productivity.

Fast Facts And Figures

GARVENS XS2 MV

- Checkweighing, labelling, verifying and precise product transfers
- Lays the cornerstone for protection against counterfeit pharmaceutical products
- Touchscreen display with intuitive user interface for more efficient, time-saving procedures (diverse range of operating languages available)
- Robust design for maximum reliability
- Infinitely adjustable belt speed can be adapted to the relevant line speed
- High degree of flexibility and wide-ranging connection options such as serial or Ethernet connection, fieldbus systems or OPC server applications



**XS2 MV –
Available with
ink jet printing
system (see Fig.)
or laser marking
system**

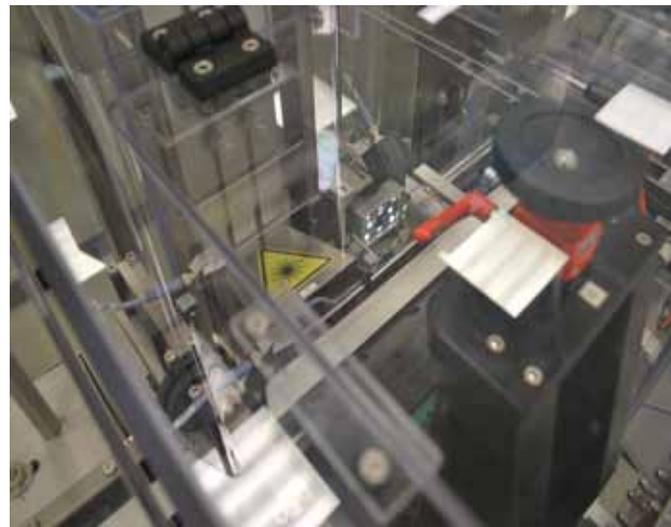
The expiration date and batch number are printed perfectly on the cardboard boxes at Lilly using a laser marking system. The camera system verifies the printed data.

The checkweigher checks all products with the highest precision to ensure compliance with the nominal weight and also guarantee completeness of contents. Any deviations from the nominal weight of the product are an indication that necessary contents are missing.

Any product marking that cannot be read or product that has missing contents is reliably and precisely ejected by the XS2 MV. Should this occur, the quality assurance team is able to research the causes and then implement appropriate corrective action.

Optional functions fulfil the special requirements at Lilly Deutschland GmbH

The XS2 MV will be part of the complex serialisation concept which will be integrated at Lilly. The new, high precision mechanical transfer unit, which transfers cardboard boxes reliably to the print process area to ensure excellent print quality, is a special feature of Lilly's installation. The detection of open flaps and incorrect alignment also contributes to the excellent print quality. Any misaligned products in the infeed area of the XS2 MV are automatically detected and ejected. The "open flap detection" works similarly, employing two manually adjustable photoelectric sensors arranged above the line to ensure that any cardboard boxes not closed properly are ejected prior to printing.



Laser marker and print verification camera system for "serialisation" of products

The XS2 MV can optionally also be extended to include a labelling function

Following successful installation of the XS2 MV, this marking and verification solution was extended to include an additional labelling function. After the marking, verification and weighing processes, labels are now applied



Print verification camera and laser marker operating terminal alongside the METTLER TOLEDO Garvens weighing terminal

- Lilly – The company:**
- "Eli Lilly and Company", USA, founded by Eli Lilly in 1876
 - Lilly Deutschland GmbH was founded in 1960 and employs a workforce of 1,000 employees (2009)
 - 3 sites in Germany – Bad Homburg, Gießen and Norderfriedrichskoog
 - The European manufacturing and distribution centre is located in Gießen
 - Main business areas: Endocrinology, oncology, psychiatry /neurology, urology, cardiology, intensive care medicine
 - Total revenue of Lilly Deutschl. GmbH 2009: €501.7 million

to the cardboard boxes from above by a labeller. These labels are required in compliance with various regulations, such as those of the Italian pharmaceuticals market. A print verification camera also checks here whether the labels are positioned correctly on the cardboard boxes at a speed of 150 boxes per minute. Despite the fact that it was retrofitted, the camera system can still be controlled from the XS2 MV terminal.

Based on their positive experience with the XS2 MV, Lilly is now set to equip further lines with this reliable solution

As a high-end model with many optional functions, the extreme flexibility of the XS2 MV allows it to be integrated into most production lines and adjusted for use in specific applications. Thanks to its many adjustment options, the XS2 MV can be quickly adapted to various cardboard box dimensions. The precise, mechanical product transfer and reliable product sorting guarantee product safety and a high production volume – to maximise product safety at Lilly Deutschland GmbH.

Alongside these precise serialisation solutions, METTLER TOLEDO provides a complete range of inline monitoring technology for packaged and non-packaged products, including checkweighers, metal detectors and X-ray inspection systems. Last but not least, METTLER TOLEDO's worldwide service network, including spare parts service, makes the company an ideal partner for international firms such as Lilly Deutschland GmbH. ■

Mettler-Toledo Garvens GmbH

Kampstrasse 7
31180 Giesen, Germany
Telephone +49 (0) 5121 933-0
Facsimile +49 (0) 5121 933-456
e-mail garvens@mt.com

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