

tech news

ENGLISH LANGUAGE VERSION // HEUFT SYSTEMTECHNIK GMBH // NEWSLETTER



HEUFT eXaminer II XB // Top-down inspection

SIMPLY DETECTING MORE!

Minute foreign particles in lyo products, hidden hypodermic needles, incomplete or incorrectly packaged tablets: the new HEUFT eXaminer II XB identifies vials, syringes and blister packs with such quality defects even more precisely and simply easily!

It is the only top-down inspector to combine the pulsed X-ray technology exclusively available from us (see the info box on page 2 – *Flashing instead of scanning!*) with compact full-field image converters.

The new HEUFT SPECTRUM II device platform provides a considerable increase in computing power and automation and at the same time tracks products with millimetre accuracy.

The audiovisual HEUFT NavI user guidance makes the system self-explanatory. And HEUFT reflexx² real-time image processing with teaching in capability clearly differentiates between harmless irregularities and critical faults. The result: a new dimension in range, detection, rejection and operational

reliability during the in-line inspection of filled pharmaceutical primary packaging.

The unique combination of pulsed X-ray technology with smart multiple flash option and optimally arranged image converters extends the sensitive detection surface of the HEUFT eXaminer II XB at a higher resolution. Larger products can also be inspected continuously and with high precision in this way. Even the parallel examination of two products at the same time is now possible with it. The extremely clear detection pictures remain free of distortions and aberrations even in the border areas.

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HEUFT IS SYSTEMTECHNIK



Quality, safety and efficiency: this is what matters when filling and packaging food, drinks and pharmaceuticals! The modular solutions from HEUFT SYSTEMTECHNIK GMBH put these key factors into practice simply and effectively. They ensure, during maximum productivity, that only perfect products reach the market.

Unique camera, X-ray and image processing technologies for a precise empty and full container inspection, trend-setting labelling technology and smart tools for container flow optimisation, production data acquisition and performance analysis safeguard product quality and line efficiency sustainably!

A consistent modular design principle with a cross-system control unit for the most varied technologies, procedures and modules generates, together with a high component equality, the correct automation solution for every application.

Those who decide in favour of a user-friendly

HEUFT system can depend on a high level of operational reliability. Competent support is always guaranteed with the long-term availability of spare parts and the 24/7 on call service.

This concept keeps the globally operating company on a dynamic course of growth. In the meantime the number of employees has long since exceeded the 1,000 mark. Its own locations in 14 different countries and a comprehensive network of service bases on all five continents meet the huge demand for the HEUFT systems which are manufactured exclusively in Germany.

The result: more safety, quality and efficiency during the filling and packaging of food, drinks and pharmaceuticals.

HEUFT knows how!

... Continued from page 1 – SIMPLY DETECTING MORE!

The unique HEUFT X-ray strobes (see info box – **Flashing instead of scanning!**), which make the use of full-field image converters possible in the first place, carry out a static top-down inspection in contrast to the classic line scanner: the reliable detection of foreign substances and all types of product and packaging faults is therefore also possible when the self-adjusting conveyor has stopped. The X-ray generators and the high-voltage components have also been sustainably optimised. Thus there is considerably more room and flexibility when adapting the height of the conveyor with radiation emission which has been reduced even further. Cooling is not required and therefore product contam-

ination by possible coolant leaks can be ruled out. The significantly increased degree of automation and the performance of the universal HEUFT SPECTRUM ² control unit with its audiovisual HEUFT NaVi user guidance make the reliable operation of the new HEUFT eXaminer ² XB for an even more precise detection and rejection of contaminated, faulty or incomplete pharmaceutical packaging simply easy.



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HEUFT spotter PH // Vial inspection

COVERING EVERYTHING AND FINDING EVERYTHING!

Foreign particles, glass chips, cracks and scratches: the HEUFT spotter PH reliably removes primary packaging for parenteral drugs with faults such as these. The compact device carries out a continuous and complete inspection of filled vials of different sizes along an efficient straight-through system – almost without any change parts!

The HEUFT spotter PH tracks down foreign matter and contamination in vials using modern camera technology. Special procedures make a reliable fault detection possible even in coloured or dark liquids. Deviations in shape and cracks are also detected reliably. The containers are guided past four different detection units for a complete examination. The servo-controlled conveyor belt rotates the primary packaging in a careful and controlled manner after each of these stations. It covers more than 360° of

the volume in the course of this – there are no blind spots! The HEUFT reflexx² real-time image processing system clearly differentiates between critical faults and harmless deviations and remembers individual quality criteria. Therefore only faulty products are rejected. In addition modified setting parameters and an automatic mask adaptation simplify the cGMP approval of the device. The range of functions of the HEUFT spotter PH can be further expanded by means of special



modules for the inspection of crimp caps or ampoule tips. It has less than one square metre of floor space and is therefore easy to integrate into existing lines or use as a stand-alone system in a confined space. Product changes can be carried out quickly and without tools. User-related access rights, regular password changes and an extensive audit trail log protect the system against unwanted changes to the adjustments and make all the logins permanently traceable.



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HEUFT squeezer QS // Leakage check

DETECTING MINUTE LEAKS!

Plastic infusion bottles with stress cracks, microleaks and closure faults seriously threaten the safety and microbial purity of the parenteral drug inside – and therefore the health of the patient. The HEUFT squeezer QS identifies these reliably.

It checks their fill level for this. The internal pressure is also measured. An integrated belt drive exerts a precisely controlled amount of pressure on the containers for this. The resistance which occurs as a result is recorded by a sensor and is then evaluated statistically. The result: clear conclusions about the integrity of the primary packaging. Minute leaks are reliably detected. The HEUFT squeezer QS checks the presence, colour, coding and the position of the closures by means of optical technologies. It implements simple, always reproducible brand changes without change parts or manual intervention due to innovative servo technology: the height and passage width

of the belt drive as well as the position of the detection units adapt themselves fully automatically to the type of container produced in each case. Misadjustments and long changeover times are thus eliminated.



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HEUFT VX // Quality inspection

KNOWING WHAT'S INSIDE AND OUTSIDE!

Fill level detection, closure inspection, code verification and more: the HEUFT VX carries out the final inspection of filled pharmaceutical containers in an economic linear operation.

The modular system for the reliable detection of fill level deviations can be equipped with infrared, high frequency or X-ray technology. The latter detects critical underfills even when the container is not transparent. Integrated quantifying converts the individual measuring results into the actual fill value and calculates the average value of the complete fill volume. Photocells or inductive sensors check the presence of the closures. Cameras verify brand-specific colouration, closure logos and coding. Special illumination technologies produce contour views for the clear identification of canted closures

or damaged safety elements. The HEUFT VISION 360 module carries out an extensive crimp cap inspection together with a stopper position check and makes even the smallest faults visible. Filled pharmaceutical packaging with quality defects are therefore identified reliably. A special mini version of the HEUFT DELTA-FW rejects them in an upright position. In addition it carries out specific sampling. Permanent monitoring always makes the exact position of the respective product available for this. The HEUFT VX requires no change parts as an economic linear machine which



automatically adapts all the detection units to the respective brand: product changes can be carried out fast, easily and without manual intervention.

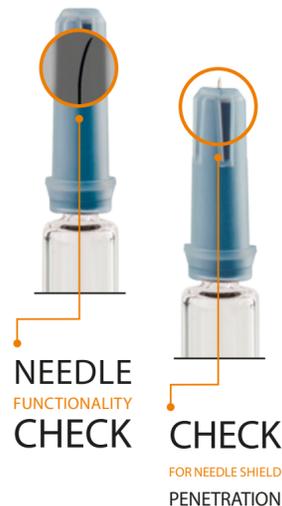


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HEUFT Syringer // The inspection of injection instruments

SAFEGUARDING SYRINGES AND CANNULAS!

Our unique pulsed X-ray technology is ideally suited for a wide range of applications when filling and packaging pharmaceutical products – and can be integrated into the line without a problem. ACHEMA visitors can not only see this for themselves at the HEUFT stand: we have integrated the new HEUFT Syringer module, especially for the inspection of syringes and cannulas, directly into the equipment of the specialists for pharmaceutical packaging machines. Whether bent needles, pierced protective covers or minute contaminations and defects: critical faults which threaten the product safety of the injection instruments are therefore identified reliably in-line.



NEEDLE FUNCTIONALITY CHECK

CHECK FOR NEEDLE SHIELD PENETRATION

The HEUFT Syringer is on the groninger stand at the ACHEMA exhibition: Hall 3.1, G72

FLASHING INSTEAD OF SCANNING!

An absolutely unique feature:

HEUFT systems emit X-ray flashes – each lasting only a millisecond. And that only when there really is a product to be examined in the inspection area. Case example: conventional X-ray scanners continuously emit radiation for 60 minutes when inspecting 36,000 products per hour whereas the X-ray strobes from HEUFT only do this for 36 seconds. There is absolutely no emission for over 99% of the operating period! HEUFT systems neither have to be switched off nor cleared if the line has stopped. Furthermore the short exposure time prevents motion blurs impairing the detection accuracy even during high-speed operation: therefore even minute foreign objects and defects become clearly visible.



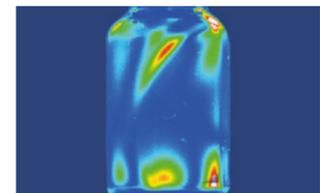
HEUFT InLine IS // Empty container inspection

A COMPLETE EXAMINATION!

Foreign matter, contamination and even glass defects before they occur: the HEUFT InLine IS finds all of these even before the filling process. Format and product changes are carried out within a very short time.

Whether vials, infusion or injection bottles: the compact system carries out a 360° inspection of all empty packaging. It covers the complete container volume using sophisticated modules for an optical base, sidewall and colour finish inspection and the HEUFT reflexx² real-time image processing system. Areas which are difficult to inspect, such as very pronounced vial shoulders, can be examined with twice the resolution in order to detect particularly small faults. Specially developed technologies even make

mechanical residual stress which reduces the breaking strength of glass primary packaging visible. Thus the HEUFT InLine IS already identifies critical defects before they can occur. The containers in question are consistently rejected. The HEUFT picCollect collects all the pictures of faults in order to document and archive them sustainably. The empty containers are exactly aligned at each detection station of the efficient linear machine using servo technology. In addition it reduces the proportion of components prone to wear and carries out uncomplicated product changes due to clearly reproducible brand adjustments. Time-consuming changeovers and the use of innumerable change parts are therefore no longer an issue.



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SCHOTT, HEUFT & GEA

A JOINT SOLUTION

The new solution for traceability (see page 4) is also available as a complete solution in close cooperation with GEA and SCHOTT the glass manufacturer responsible for the unique laser coding: it ensures the unmistakable marking and the one hundred per cent traceability of filled primary packaging

from the unique marking, code verification, grading and lyophilisation up to the finished final product. This prevents drug counterfeiting and therefore not only protects the holder of the trademark rights but also the health of the patient.



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HEUFT PROFILER advanced // Real-time data management

LOGGING EVERYTHING ACCURATELY AND RECORDING IT PERMANENTLY!

Whether audit trail documentation or the transmission, processing and archiving of important production data, operating figures and batch information: the HEUFT PROFILER advanced manages essential process and product data in real time.

Who logged in and when? What access rights does the employee have at all? And what exactly has he changed? The HEUFT PROFILER advanced always has an answer to such questions. It generates complete audit trail logs which record all the operating and process information of network-compatible HEUFT and non-HEUFT devices and displays this in documents which can be put together individually in order to protect against unauthorised intervention and manipulation. Therefore the actions of all the users are clear

and documented in such a way that they cannot be altered throughout the complete operating life of the respective systems. Furthermore the powerful IT tool logs, transfers and archives counter readings, product and process data, among other things, in real time and compiles this into batch-related statistics and complete batch reports, which can be quite simply created and printed in PDF format, in accordance with 21 CFR Part 11. The HEUFT PROFILER advanced also imports the detection pictures of faulty

products recorded by the HEUFT picCollect (see page 3 – HEUFT InLine IS) to databases. The same applies to the results of the code grading (see article below). These can also be processed statistically and illustrated in clearly arranged diagrams. In addition they can be individually divided up into different categories and therefore it is possible to determine as from when suboptimal marking quality should result in the rejection of the container in question.



Code verification and monitoring

PREVENTING DRUG COUNTERFEITING!

An innovative HEUFT solution takes over the precise examination of discreet 2D laser matrix codes for the unique marking of primary packaging as well as continuous product tracking including real-time data management. The result: full traceability for effective protection against drug counterfeiting.

The optical, all-around inspection of filled vials not only includes the verification of the contents of the stored product and batch data but also the grading of the GS1 coding in accordance with ISO / IEC 1515. The detection unit, suitable for oRABS, cRABS and isolators, can check the fill quantity and closure

position and detect minute glass defects at the same time. Full detection reliability is always provided even when the containers are not aligned. A special HEUFT rejection system removes them from the production flow if they are faulty – entirely without the use of compressed air. Thus the solution

meets the high class A clean room standards. Its mechanical design allows unrestricted use in laminar flow areas.

The actual position of all coded primary packaging can always be determined with millimetre accuracy due to permanent monitoring. The result: perfect traceability throughout the entire process chain. Real-time data management ensures the efficient transmission, reliable serialisation and sustainable archiving of the verified unique identifier and batch data. Therefore the cGMP and GAMP compliant new development makes an important contribution to the end to end verification of the authenticity and safety of drugs and thus the implementation of the EU counterfeiting directive. ACHEMA visitors can not only experience how well this works at the HEUFT stand. The



compact combination of reliable code verification, continuous product tracking and real-time data management is integrated in the ALUS™ load system of a freeze dryer at the exhibition presence of GEA.

The complete package is on the GEA stand at the ACHEMA exhibition: Hall 4.0 / G46



24/7 on-call duty

HEUFT WILL NOT LEAVE YOU ON YOUR OWN!

We will remain a reliable partner at your side even after the purchasing and commissioning phases in order to ensure the full availability of your HEUFT system in the long term. Day after day. Around the clock. All over the world. **Competent support is provided by**

- the HEUFT TeleService for online remote diagnosis and maintenance
- the HEUFT PhoneService for intensive advice on the telephone

- the HEUFT DirectService for prompt on-site visits

You can also benefit from our extended 24/7 on-call duty! An after sales support contract with tailor-made service and maintenance packages offers particularly attractive conditions.



GET IN TOUCH!

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