

# technews

## INSPECTION IN PERFECTION BEVERAGES

[Full bottle inspection](#)

### MAKING THE INVISIBLE VISIBLE

The range of functions of the HEUFT spotter SF has been significantly extended for its debut at the Brau Beviale 2012 exhibition. It now also identifies safety risks in bottles filled with cloudy or dark drinks during the optical all-around inspection. Furthermore it can take over the fill level, closure and leakage check, detect bottle bursts and carry out a strictly fault-specific rejection.

Detecting damage, contaminants and low density foreign objects which are floating in the product or have sunk to the base of the bottle such as foil remnants, bits of paper, insects or mould: the HEUFT spotter SF achieves this with high precision in bottles filled with transparent liquids using its ingenious optical system. But what about black beer, naturally cloudy wheat beer or cola? The reliable detection of such safety risks in these sup-

posedly non-transparent products is now achieved purely camera-based for the first time – due to a new, unique lighting technology, special procedures for a bright field and a dark field inspection and the HEUFT reflexx<sup>2</sup> high-performance image processing system.

[... discover more on page 2](#)

[Empty bottle inspection](#)

### EXTREMELY PRECISE, EXTREMELY COMPACT, EXTREMELY VERSATILE

Whether an X-ray based glass in glass detection, the specific optical recognition of minute finish cracks or an especially compact solution for a reliable all-around inspection in a confined space: there are HEUFT InLine systems for all situations. Two versions of the high-performance empty bottle inspector will be presented at the Brau Beviale 2012 exhibition at the same time.

#### An X-ray system for maximum detection accuracy

The HEUFT InLine IXS is the highlight. As the very first empty bottle inspector of its kind it is not only equipped with superior optical technologies but also with X-ray strobes. The detection reliability when tracking down glass splinters, shell-shaped structures and chipping on the base of the bottle thus moves into completely new dimensions. A glass in glass detection is even possible when the transparent foreign object is surrounded by residual liquid. Furthermore the HEUFT InLine IXS produces very clear X-ray images with an unequalled low radiation exposure without motion blurs.

In addition an in-house developed detection module has been integrated into the tried and tested optical sidewall inspection of the HEUFT InLine IXS for the reliable identification of defects in the inner finish area. Special camera perspectives make a clear view of the inside of the finish possible. Neither the bottle thread nor its reflections affect the inspection result; chips and even minute vertical cracks in this area can be reliably detected for the first time. The new HEUFT reflexx<sup>2</sup> high-performance image processing system evaluates all the camera and X-ray images in real time. In the course of this it clearly differentiates between tolerable packaging structures and real damage, contaminants and foreign objects which jeopardize the safety and quality of the final product using special filter technologies.

This keeps the false rejection rate of the empty bottle inspector extremely low.

The conveyor belts of the HEUFT InLine IXS are driven by means of precisely working servo motors for an optimum all-around inspection and fast, automatic brand changeovers. As a result various formats of drinks packaging are each aligned precisely at the individual inspection stations. In addition the servo technology reduces the proportion of components prone to wear. This also makes the new development stand out from conventional devices. However what really distinguishes it is the patented, pulsed radiometric measurement for a previously unparalleled detection reliability during the base inspection.

[... discover more on page 3](#)



[Full container check](#)

### INGENIOUSLY SIMPLE, SIMPLY INGENIOUS

The prototype of the HEUFT prime already caused a sensation. The new generation of the full container check with its further optimised, ingeniously simple user guidance is now going into series production.

Carrying out brand changes, starting test bottle programs, dealing with cleaning and maintenance: all this is possible with the new HEUFT prime practically without any previous knowledge. Its self-explanatory user guidance leads the respective user through all the functions which are relevant to him and provides him with audiovisual support in the course of this.

Each individual step is displayed in detail on the multilingual HEUFT NaVi graphical user interface. Interactive help tools as well as animated tags, which are displayed on the touchscreen and now also light up actively at the corresponding mechanical parts of the full container check, provide valuable support during changeovers, cleaning and maintenance. At the same time a friendly voice provides audio information about the required procedure in each case.



[... discover more on page 2](#)

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## ... MAKING THE INVISIBLE VISIBLE

Further technologies can be integrated into the compact system in order to be able to detect even more. This includes, among other things, the following:

- optical modules for checking the fill level and the presence of the closure
- the HEUFT sonic for the acoustic inspection of the tightness and integrity of crown corks and other metal closures
- an acoustic bottle burst detection for finding bottles which have burst in the filler and for specifically preventing the contamination of adjacent bottles by flying pieces of glass

In addition the perfected HEUFT spotter SF now offers the possibility of a strictly fault-specific



MARINA HOFMANN  
General Manager  
OOO HEUFT EURASIA

"The excellent performance of the HEUFT spotter SF ensures a high demand from our Eurasian clients especially in the beer and spirits industry. Numerous global players are considering equipping their production lines with the full bottle inspector. We assess the potential of the HEUFT spotter SF to be very high on the Eurasian market based on the high number of corresponding enquiries."

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## ... INGENIOUSLY SIMPLE, SIMPLY INGENIOUS

MARKUS MÜLLER  
Product Manager  
Full Container Check & Labelling  
HEUFT SYSTEMTECHNIK GMBH



"Simply simple: the revolutionary usability concept met with great approval at Brau Beviale last year at the exhibition debut of the HEUFT prime prototype. We have made further improvements based on the suggestions of our customers. As a result the compact, network and WLAN compatible full container check is now ready for series production and can be ordered immediately.

### HEUFT prime: FUNCTIONS & FEATURES

- fill level and internal container pressure check
- filler valve monitoring
- inspection for the presence of labels and closure
- bottle burst and serial fault detection
- container tracking including reject verification
- motor-controlled adjustment of the detection units during brand changes
- change assistant for an easy and fast program change
- cleaning and maintenance assistant
- integrated warning lights in order to identify malfunctions directly
- test container programs
- automatic sampling
- audiovisual user guidance
- the HEUFT NaVi touchscreen user interface
- RFID login
- quick start guide
- PDA and remote service online connection
- WLAN



Rejecting and sorting system

## GENTLY BUT FIRMLY

Distributing full bottles onto up to four lanes, sorting empties and removing faulty containers upright from the production flow: the HEUFT XY handles all types of drinks packaging particularly gently and carefully. The rejecting and sorting system demonstrates its true qualities along filling lines running individual premium bottles made of glass or empty lightweight PET containers.

Noble glass packaging places the highest demands on the equipment of a filling line. It has to be transported extremely carefully on the line so that it is not scratched or damaged. Glass to glass contact, collisions at transition points or hard impacts when laning the containers must be avoided. A reliable upright rejection of non-brand packaging is particularly in demand during the sorting of empty bottles along returnable PET lines. The HEUFT XY solves both tasks with style!

It's all in the name: whilst its servo-controlled rejection table moves in the x direction exactly synchronously with the conveyor, the bottles are pushed onto the required lane, gently but firmly,

out falling over, in conjunction with an empty bottle sorter such as the HEUFT SX. This is achieved even in the case of extremely lightweight and unstable empty PET bottles.

This particularly careful laning and rejecting system for the most varied full and empty bottles makes the HEUFT XY a real all-rounder that no returnable line should be without.



rejection: bottles which are contaminated, incorrectly filled, not sealed or with leaks can each be removed separately from the filling line if required.

The system carries out brand and program changes automatically: the touch of a button suffices and the height and passage width of the servo-controlled belt drive for a precise container alignment and the positions of the individual detection units adapt themselves exactly to the changed bottle format.

All these advantages make the further developed HEUFT spotter SF a real all-rounder during the all-around inspection of up to 72,000 filled bottles per hour. It makes safety risks and quality defects which were practically invisible up to now clearly visible.

## ... INGENIOUSLY SIMPLE, SIMPLY INGENIOUS

This ingeniously simple audiovisual usability concept met with great approval at Brau Beviale last year at the exhibition debut of the HEUFT prime prototype.

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- malfunctions directly
- test container programs
- automatic sampling
- audiovisual user guidance
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- WLAN

## HEUFT FOR ALL EVENTUALITIES!

From the returned case inspection to the label inspection: HEUFT will be showcasing almost the total range of systems and tools for the in-line quality assurance of product and packaging as well as the optimisation of the efficiency of entire filling lines at the Brau Beviale 2012 exhibition in Nuremberg, Germany. We will be presenting the following HEUFT products on our significantly larger exhibition area (**Stand 5/309**) in addition to our latest innovations such as the **HEUFT InLine IXS** X-ray empty bottle inspector and the **HEUFT spotter SF** for a precise full bottle inspection:

- the **HEUFT LGX** with a sidewall inspection, capable of learning, for extensively testing the quality of returned crates
- the **HEUFT SX** for specifically sorting empty bottles
- the **HEUFT VX** for an effective filler and closer management
- the **HEUFT TORNADO W** for the high-speed wet glue labelling of full bottles
- the **HEUFT FinalView FO** for a final container inspection with optimised software for an even more precise label inspection
- the **HEUFT PROFILER** for permanent production data acquisition (PDA) and line analysis

As usual all these solutions from the HEUFT modular system can be experienced live and in action. In this way you can see their unrivalled performance with your own eyes!

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## EXTREMELY PRECISE, EXTREMELY COMPACT, EXTREMELY VERSATILE



### Compact alternative for medium-sized filling plants

Whether with or without X-ray technology: the complete examination of all the surfaces of an empty bottle is accomplished with the HEUFT InLine systems even at high line outputs of up to 72,000 containers per hour. But even filling plants with a lower output do not have to forgo their unrivalled precision and availability. The best example: the extremely space saving version of the inspection system which HEUFT will also be showing at Brau Beviale. It carries out an inspection of the base, finish and sidewall over the shortest distance limited to only those modules which are absolutely necessary at low line speeds.

The particularly compact inspector can also be integrated into existing lines without a problem afterwards. Device dimensions can be reduced

even further or installation is possible at an angle where there is an acute shortage of space. Even then consistent container tracking through the complete system up to the monitoring of the rejector is always fully ensured. The HEUFT InLine designed for a round-the-clock operation in the high-speed section is especially impressive along the lines of medium-sized breweries and drinks producers which are running at slower speeds due to wearing parts with an above average service life and correspondingly long replacement intervals. That and its extremely low false rejection rate also make it a worthwhile investment there.

Regardless of which inspection aims, requirements or space constraints have to be taken into consideration: there is a suitable HEUFT InLine available for all situations!

JOHANNES SEIDEL  
Sales Manager Southern Germany  
HEUFT SYSTEMTECHNIK GMBH



"Medium-sized private breweries with a comparatively low output and little space also have the highest quality demands and want to inspect in the same way as larger businesses. It is good that I can offer them tailor-made compact solutions for inspecting empty bottles up to HEUFT standards."

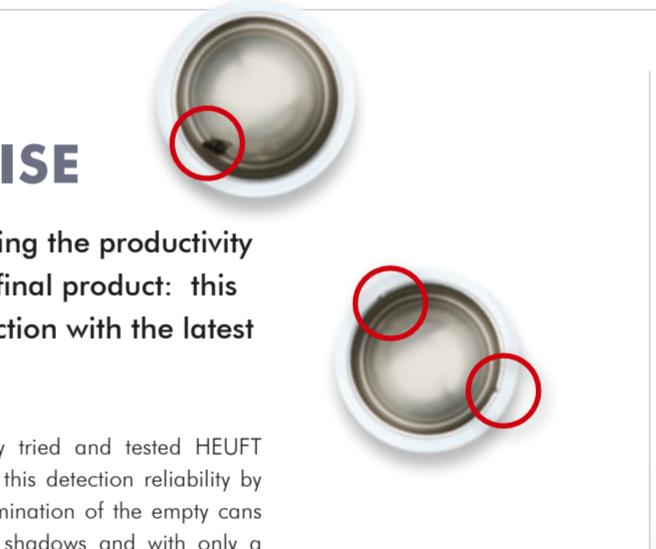
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Empty can inspection

## EXTREMELY FAST AND PRECISE

Removing faulty empty cans in good time and safeguarding the productivity of the complete filling line as well as the integrity of the final product: this can now also be achieved in the absolute high-speed section with the latest version of the HEUFT canLine.

The new HEUFT reflex<sup>2</sup> high-performance image processing system together with the latest software improvements bring the empty can inspector up to speed: the HEUFT canLine now inspects up to 144,000 cans per hour instead of the 132,000 previously. It identifies deformations, indentations and damage during the flanged edge inspection which could result in cans not being sealed at all or not being tightly sealed. The consistent rejection of the empty containers in question prevents losses in efficiency and productivity due to closer obstructions and protects the microbiological purity of the drink. Dents, bumps, dirt and foreign objects which are potentially dangerous to health are precisely tracked down by the base and inner wall inspection section.



Combining &amp; conveyor control

## AVOIDING PRESSURE!

Achieving a smooth and efficient container flow: this is possible with neither pressure nor noise! The HEUFT streamer C combines the bottles into a single file without contact and the HEUFT synchron closes the gaps gently and carefully.

The bottles collide loudly at the transition to the single-lane conveyor? This does not have to be the case! Because the HEUFT streamer systems combine them without touching each other in the course of this: for this the containers arriving from the mass transportation merge with a conveyor running at a different speed which transfers them to the single-lane conveyor. The HEUFT streamer C is the first choice if the line layout should proceed around a corner and the only 450 mm wide HEUFT streamer S for straight combining where space is limited. Transporting the containers afterwards under pressure in order to close gaps and to ensure that the master machines such as the filler and the labeller are continuously supplied? This can be achieved better and more carefully: the

HEUFT synchron conveyor control systems know how many bottles are actually in the lane. They control the required transport speed precisely in each case and bring the containers together without applying any pressure at all and without colliding up to the maximum allocation.



HARALD AX  
Product Manager  
Conveying Systems & Line Control  
HEUFT SYSTEMTECHNIK GMBH



"Highly efficient and smooth at the same time – that is how an optimal container transport should look. You can achieve both with HEUFT equipment: supplying the master machines with neither gaps nor jams and a gentle, pressureless and low-noise container flow."

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HEUFT SPECTRUM TX

## MODULAR & RETROFITTABLE

Is it possible to integrate the new inner finish inspection in my empty bottle inspector? Extend the range of functions of my foreign object inspector with a fill level or a closure detection? This can also be carried out afterwards with our modular system! Because almost all the HEUFT devices are based on a compact, universal control unit which accommodates all the cross-system components. The result: a unique upwards compatibility for particularly easy retrofits.

Furthermore integrated Ethernet and DDE interfaces and TCP / IP provide access to all networks. The multilingual HEUFT PILOT user interface is therefore not just available at the respective device itself but also at all the connected PCs. Online maintenance via the HEUFT TeleService and connection possibilities to PDA and MES systems are further advantages of this networking capability which already has a proven track record of over 15 years. Due to their open modular structure HEUFT systems can be equipped exactly with those modules which you really need - even later on! Individual requirements and inspection aims are



also optimally fulfilled in this way. You would like to know more? Please do not hesitate to contact us! Our competent experts will be pleased to inform you about the possibilities right now here at Brau Beviale.

HEUFT Customer Center

## FIND OUT MORE, EXPERIENCE MORE, UNDERSTAND MORE!

You want more background knowledge and to know more about how simply more can be detected during the inspection of product and packaging? Then why not visit us in the new HEUFT Customer Center! The conditions are ideal there for experiencing our inspection systems live and in action and to examine them in detail. Their unique detection reliability can even be tested straight away on one's own products and packaging by making an appointment and making the corresponding samples available beforehand: all conceivable operating situations can be presented in our spacious show arena directly at the respective device. Furthermore the new HEUFT Customer Center

provides more room for intensive consultations, training courses, seminars and workshops. Why not arrange an individual appointment: welcome@heuft.com or +49 2636 / 56-0. You are always welcome.



## GET IN TOUCH!

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HEUFT SYSTEMTECHNIK GMBH

## HEUFT IST SYSTEMTECHNIK!



A proven track record

**HEUFT SYSTEMS IN PRACTICE****"The brand essence is the decisive factor"**

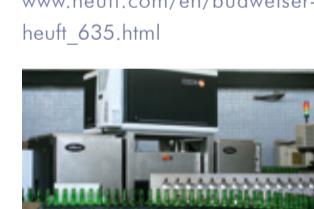
The teachable sidewall inspection of the HEUFT LGX checks the design and appearance of the empty crate pool of the "Fürstlich Fürstenbergische Brauerei" in Donaueschingen.  
[www.heuft.com/en/brand-essence-decisive-factor\\_669.html](http://www.heuft.com/en/brand-essence-decisive-factor_669.html)

**"Leaving nothing to chance"**

The "Paulaner" brewery in Munich ensures a dynamic, harmonious and quiet container transport as well as a supply of empty bottles which are of the correct type and free from defects with the HEUFT beetec, HEUFT synchron, HEUFT SX and the HEUFT InLine.  
[www.heuft.com/en/nichts-zufall-ueberlassen\\_654.html](http://www.heuft.com/en/nichts-zufall-ueberlassen_654.html)

**Budweiser Budvar prefers HEUFT**

The major Czech brewery Budweiser Budvar makes sure, using two new HEUFT InLine systems, that only empty bottles from its own portfolio are filled which are without foreign objects, clean and undamaged.  
[www.heuft.com/en/budweiser-budvar-bevorzugt-heuft\\_635.html](http://www.heuft.com/en/budweiser-budvar-bevorzugt-heuft_635.html)

**China is committed to efficiency**

Major Chinese brewery groups increase the efficiency and output of their filling lines with the HEUFT PROFILER and the HEUFT synchron.  
[www.heuft.com/en/china-setzt-effizienz\\_644.html](http://www.heuft.com/en/china-setzt-effizienz_644.html)

