



FULL CONTAINER CHECK

HEUFT *basic*



Maximum performance for minimum expenditure



The HEUFT *basic* represents an introduction to a reliable and accurate full container check.

The results of the experience gathered over twenty years in the field of control technology combined with high-quality components at an extremely favourable price is provided with the HEUFT *basic* devices. This is possible by pre-configuring different systems for typical

tasks in series production and equipping them accordingly. In principle the equipment variants differ in accordance with the measuring technology used (high frequency, infrared or X-ray technology) and the container material to be examined (glass, plastic or metal). In addition it is possible to extend the checking spectrum of the device using add-ons.

The very shortest delivery times are achieved due to the series production of the individual modules in accordance with an extremely strict modular system. A technical reference handbook provides the experienced and skilled worker with instructions for on-site assembly.



Fill level detection

Neither underfilling nor overfilling are wanted by the customer, the legislator or the producer. A measurement using infrared, high frequency or X-ray technology provides the best result depending on the container and the filled product.

Transparent containers can be checked optically: photocells which use infrared light produce a signal as soon as the

beam is interrupted by an overfilled product. Underfills are recorded by photocells, which are installed lower down, due to the absence of the interruption.

The containers pass through an electric field in the case of the high frequency technology. The field is influenced depending on the product quantity in the container. This change is recorded

and makes an exact conclusion regarding the fill level possible.

The product attenuates the measuring beam in the case of the fill level examination by means of the X-ray measurement. A receiver records this and the fill level of the container is provided by evaluating the result.





Checking closures reliably



An optimal result can only be achieved for the closure detection by using a technology which is suitable for the closure as in the case of the fill level detection. The HEUFT *basic* uses the following procedures:

Infrared photocells are good value, robust and versatile. They make it possible to reliably differentiate between closed containers and containers where

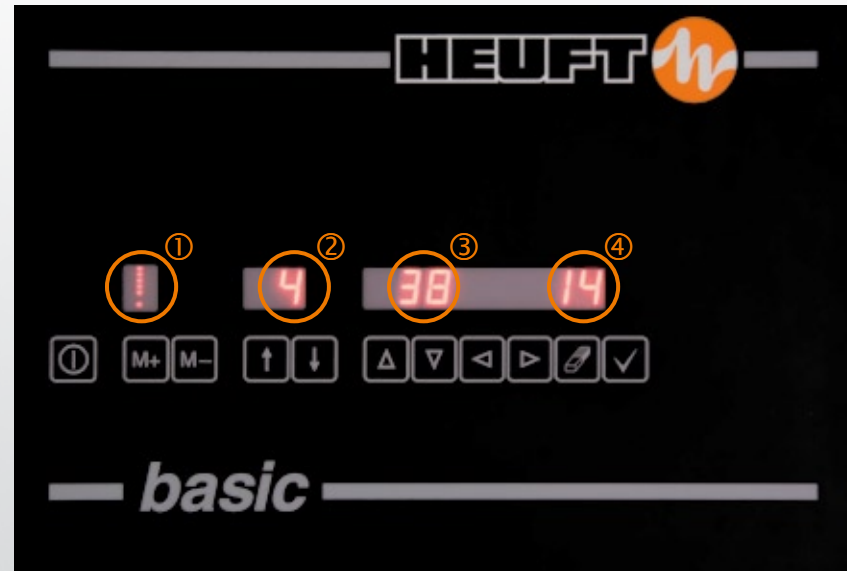
a closure has been incorrectly applied or not at all.

The presence of metal closures (e.g. crown corks, metal foil or cans) is checked using inductive-type sensors.

Evaluating an acoustic measurement is another possibility: the closure is made to vibrate using an electromagnetic pulse in the case of the HEUFT *sonic*

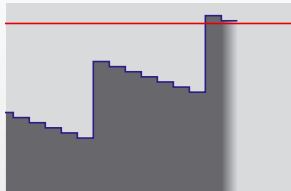
measurement module. The acoustic reply is evaluated.

Inductive as well as acoustic measurements make it possible to determine the internal pressure of the container and therefore make a statement regarding its tightness.



Display: ① Attention! ② Device status ③ Message specification (in this case: the number of the faulty valve) ④ Message (in this case: serial fault, filler)

So that faults do not go into production ...



Correct production must not be at the cost of the line efficiency. It is often difficult to locate malfunctions which occur irregularly and reduce the efficiency of the complete line.

The HEUFT *basic* provides the serial fault detection in order to find irregularities, e.g. during the filling process, in good time. Each container which

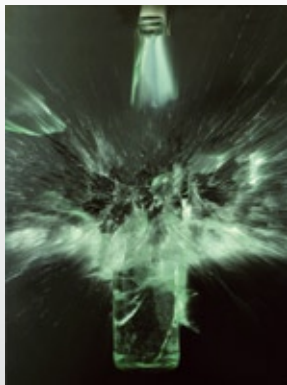
passes the fill level detection is allocated to the corresponding filler valve with this special procedure. A stop signal is produced when the number of faults detected at a valve exceeds an adjustable threshold.

A display which shows the performance can be called up on the front panel which indicates the ten worst valves.

The valve numbers and the proportion of these valve positions in relation to the total number of incorrect fillings are displayed.



So that the container does not become a danger



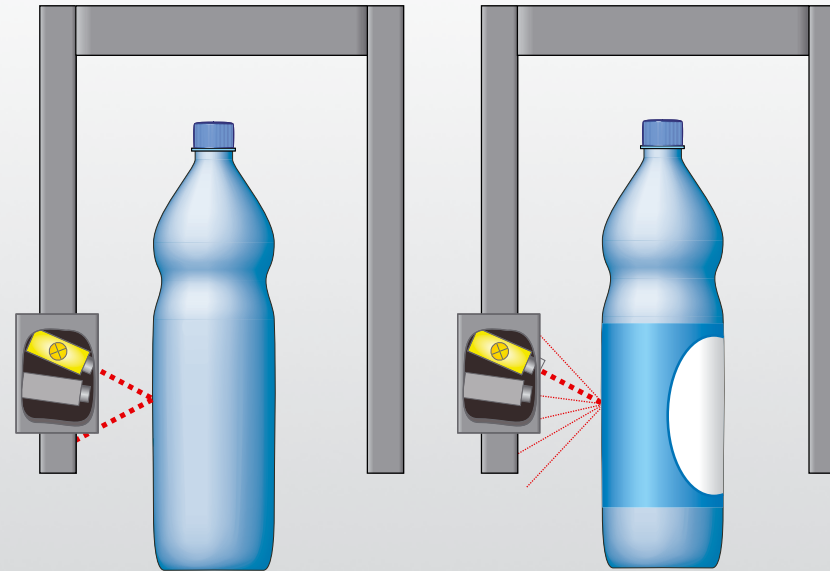
Glass splinters which enter a product as a result of a bottle burst inside the filler present a serious health risk to the customer. The bottle burst detection identifies burst containers in good time and the rejector is activated.

Glass splinters fly about when a bottle bursts and therefore it is not enough just to reject the bottle in question: on the one hand the adjacent containers also have to be rejected and on the

other hand glass splinters may have reached the filler valve in question and those surrounding it and could enter the product during the next filling process. For this reason (depending on the program selected) the adjacent containers as well as the containers filled during the subsequent circuits are rejected.

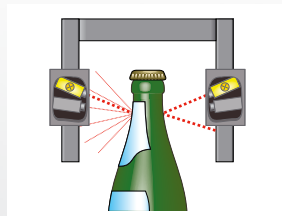
The HEUFT *basic* can have these containers underfilled so that they can be clearly identified. In this way these

are not inadvertently returned to the production flow. The shower, for cleaning the area with the risk of containing broken glass, can be activated in addition to these measures.



Label presence detection

So that what you see on the label is what you get



Labels are used to identify a product and to bear information. The HEUFT *basic* provides different options for checking the presence.

Sensors which identify the different reflective characteristics of the label and the container surface are used to detect labels / foil. The type of sensor used depends on the label material.

The HEUFT *basic* can check a multitude of labels e.g. collar, body, back, neck, wrap-around label, partial labelling (the size of the label is more than half of the container circumference) and foil because the label dress of a container can be very varied.

The check can be carried out in the labeller or directly whilst passing on

the conveyor. Several labels can be examined with one measuring bridge depending on the equipment.



Specifications



The following detection accuracy was determined as regards standard containers:

- at least 99.8% of the deviations in the fill level are detected with a tolerance of +/- 1 mm in the case of the radiometric measurement
- the detection accuracy is at least 99.5% in the case of pressure differences of more than 1 bar - the false rejection rate, that is the proportion of rejected containers without an identifiable fault in relation to the total amount produced, is only 0.01% in the case of containers without a closure
- containers are checked up to a maximum conveyor speed of 1.5 m/s



Your cost advantages with HEUFT



We do everything in order to combine the very highest quality with fair prices:

- limitation to the typical areas of use
- a well thought-out operating system reduces training periods
- manufactured in series production
- easy integration into existing lines
- qualified personnel can assemble it themselves
- advantageous spare parts storage
- shorter standstill times
- fast changeover times
- more than 20 years experience in the filling industry
- change parts not necessary
- short maintenance times
- robust and stable components
- increased service life
- minimum wear and tear
- low failure rates

The HEUFT *flip*The HEUFT *DELTA-K*The HEUFT *DELTA-FW*

The HEUFT *rejector*

The following rejection systems can be integrated into the HEUFT *basic* full container check:

The HEUFT *flip*

- single-segment, high-speed rejector for cylindrical containers
- particularly smooth transversal acceleration of the containers
- very compact construction

The HEUFT *DELTA-FW*

- reliable upright rejection due to a virtual follow-on multi-segment rejection curve
- specially suitable for heavy containers

The HEUFT *DELTA-K*

- multi-segment rejector as a virtual follow-on guide rail

- upright rejection of shaped containers by means of single point guidance

The HEUFT *mono*

- single-segment, high-speed rejector for cylindrical containers
- very compact construction
- suitable for steady containers





Operating surface

Device operation



Operating the HEUFT *basic* is so easy and comprehensible as hardly any other device of its class:

all the menus are shown language-independent via a symbol on the multi-segment display. These can be selected using the keys which are well protected under printed film.

The operators can retrieve all the important data of the control system

after a short briefing and a few keystrokes. Different functions are protected by access codes which make specific adjustment options available to the users.

A condensed manual below the keyboard includes the most important device operating functions. In addition a table, for entering the required values for a brand changeover and the pro-

gram numbers of the respective container brand, is available on the device so that all the important data is always on hand.



The HEUFT VX

The HEUFT *squeezer QA*The HEUFT *FinalView FX*

Other HEUFT products



The following products can be used alternatively for similar tasks:

The HEUFT VX

- recording and analysing the functions of the filler and the closer
- individually adaptable and extendable by means of modules e.g. a fill level detection, filler valve and closer head monitoring system
- up to 72,000 bottles per hour

The HEUFT *squeezer QA*

- inspection for detecting leaks in filled plastic containers
- can be extended at any time by means of components e.g. for inspecting the closure, checking the fill level and determining the internal container pressure
- up to 72,000 containers per hour

The HEUFT *FinalView FX*

- optical all-around check of the finished product
- extensive closure inspection
- checking the label alignment as well as the verification of labels
- up to 72,000 containers per hour



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The HEUFT *basic* full container check for filled cans and bottles



FUNCTIONS

- underfill and overfill check
- closure detection
- label check
- internal container pressure measurement
- vacuum check

- filler valve monitoring
- bottle burst detection
- the detection of serial faults with the release of a switch-off pulse
- alternative: laning of containers onto two lanes
[more]*

THE ADVANTAGES

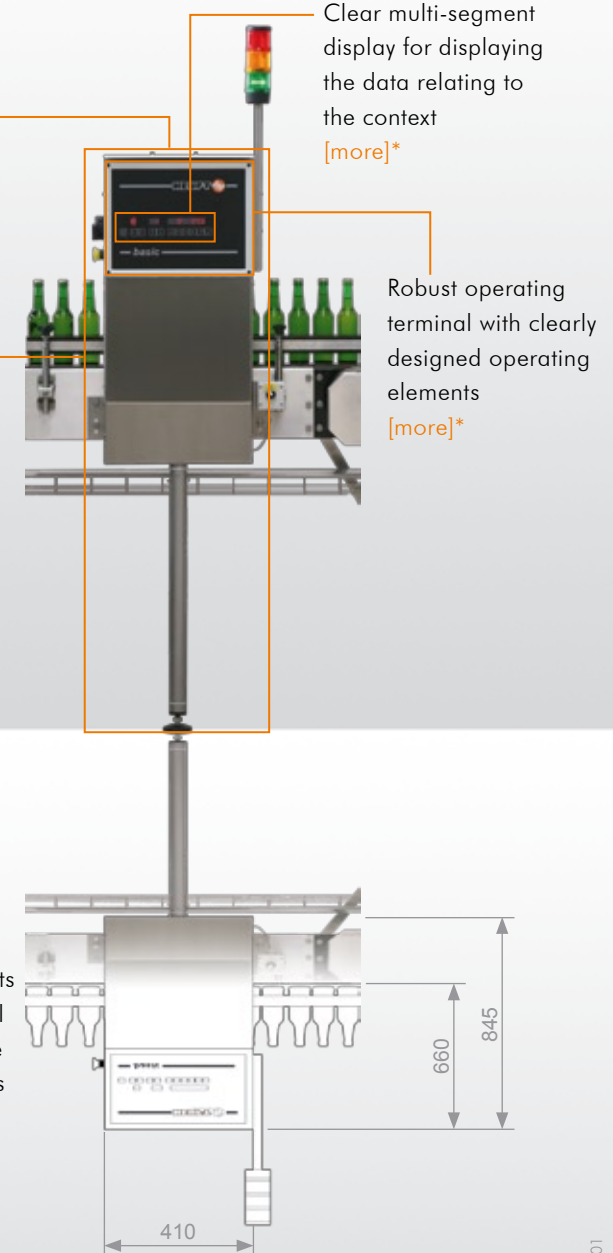
- attractive price due to series production

Compact checking device with the most up-to-date inspection electronics
[more]*

The construction of the device is such that experienced and skilled workers can assemble it themselves on site
[more]*

Clear multi-segment display for displaying the data relating to the context
[more]*

Robust operating terminal with clearly designed operating elements
[more]*



- activates all the HEUFT rejection systems without additional components
- high frequency, X-ray and infrared fill level measuring technology available
- filler valve monitoring identifies faults which occur intermittently
- the bottle burst detection ensures a high level of product safety
[more]*

* [more] detailed information on www.heuft.com/ba

