



**HEUFT PRODUCTS**  
for the pharma industry



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**YOUR PRODUCT.  
TRUE INSPECTION.  
SAFEGUARDING  
PERFECT QUALITY.**

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Quality, safety and efficiency: this is what matters when filling and packaging pharmaceuticals, food and drinks! 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.



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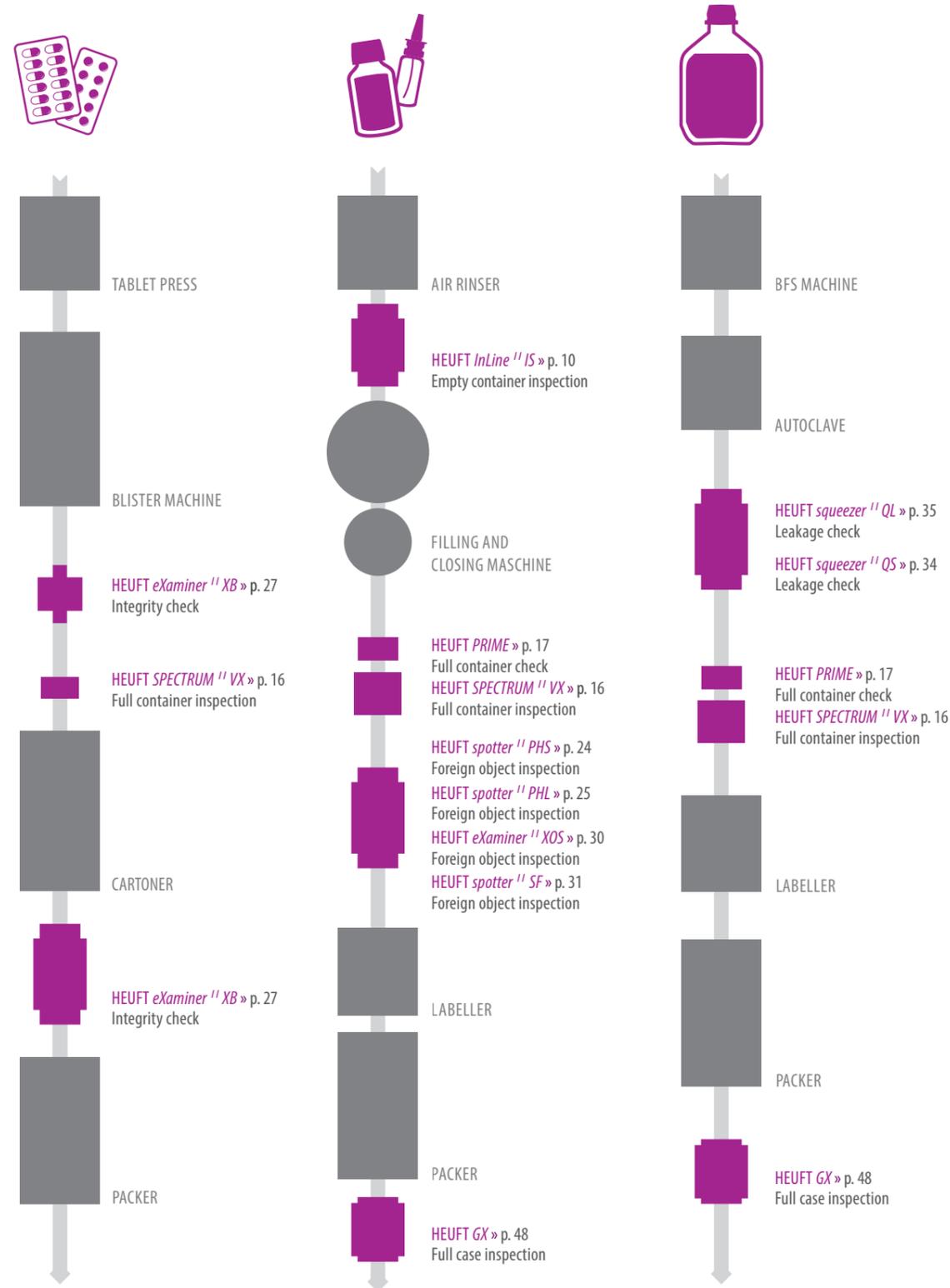
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# PERFECT QUALITY FROM THE BEGINNING TO THE END

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# FAULTLESS & SAFE

Checking, inspecting and verifying –  
safeguarding the quality of pharmaceutical primary  
packaging material even before the filling process.

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## HEUFT *InLine* <sup>11</sup> IS

The new standard for a superior inspection of empty pharmaceutical containers on a HEUFT level.

### Premium becomes standard!

Full integration of the new generation of premium technologies in an unrivalled space-saving, easily accessible construction with neither frame nor machine table in the maintenance and hygiene optimised HEUFT *CleanDesign*.

### Effective protection

Sustainable safeguarding of the quality, integrity and safety of empty pharmaceutical primary packaging material such as vials, flacons or medicine bottles for perfect, uncontaminated final products.

### Comprehensive detection

From the finish to the base: complete inspection of all the container areas for the reliable detection of foreign substances and contaminants as well as inclusions, cracks, defects and even residual stress in the glass. Fourfold sidewall inspection for more than 360° coverage with double resolution.

### Maximum automation and full operating reliability

Servo-controlled fine container alignment, automatic changeover of all the transport and detection units during brand changes. Highly automated HEUFT *SPECTRUM* <sup>11</sup> platform with real-time image analysis capable of learning, audiovisual HEUFT *NaVi* user guidance.

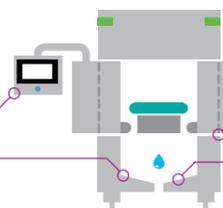


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**EIGHT SIDE VIEWS**  
for coverage of up to 720°

180° - usable on both sides  
extremely easy to maintain



8 x SW / 2 x resolution  
space-saving construction  
hygienic design without table



## HEUFT *reflex* | HEUFT *reflex*<sup>2</sup> real-time image processing **DETECTION ACCURACY UP AND FALSE REJECTION RATE DOWN!**

Even the best detection technologies are useless if the image processing system cannot keep pace. That is why we developed our own as early as 2002 - with in-house developed hardware and software optimally tailored to inspection tasks:

### the HEUFT *reflex* safeguards product quality and output.

Because the image processing system with multi-processing capabilities carries out a specific object detection. It combines several photographs in real time into extremely clear, continuous detection pictures for this and evaluates them directly. Faults are reliably detected even during high-speed operation and clearly distinguished from harmless deviations: only rejecting that which really has to go.

What this is exactly lies in your hands with the new generation of image processing. In addition to the specific detection of the most varied objects the HEUFT *reflex*<sup>2</sup> also carries out their individual classification: you can select them using the touchscreen and characterise them yourself as either good or unwanted.

### The HEUFT *reflex*<sup>2</sup> remembers your quality requirements.

This teach-in together with a faster image transmission and more computing power, resolution, colour depth and contrast increases the detection accuracy yet again. The false rejection rate is reduced substantially. Therefore at maximum productivity only those products reach the customer which fulfil your individual quality criteria exactly.

ENLIGHTENMENT



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# PRECISELY DOSED & SAFELY PACKAGED

Checking, inspecting and detecting –  
finding incorrectly filled, unsealed and leaking  
full pharmaceutical containers in good time.

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# Our devices for a full container check & fill value analysis

From fill level detection to sampling.

## Up with product quality. Up with production quality.

Maximum product quality and a perfect filling and packaging process: checking devices and inspection systems from HEUFT ensure both. They provide precisely dosed, safely packaged medicinal, healthcare and body care products – from a filling quantity inspection to a closure and leakage check.

### Highest product quality

Reliable identification of underfilled and overfilled, open or leaking vials, ampoules, flacons, medicine bottles, pots or aerosol cans.

### Highest production quality

Integrated real-time monitoring and analysis tools.

### Complete safety

Reliable and careful rejection of faulty full containers.

### Highest availability

Smart and easy to handle HEUFT systems in linear operation.



**SAFELY AND CORRECTLY PACKAGED:**  
safeguarding highest production quality.



## HEUFT SPECTRUM<sup>II</sup> VX

Full container inspection based on the HEUFT SPECTRUM<sup>II</sup>.

### Optimal product quality

Reliable detection of underfills, overfills, closure and marking faults.

### Exact evaluation

Integrated quantifying tool for automatically converting the results of all the individual fill level measurements into the actual fill value and for determining the average fill volume.

### Targeted sampling and reliable laning

Individually configurable sampling for internal quality assurance and reliable distribution of full pharmaceutical containers onto up to seven lanes.

### Superior operational reliability

Highly automated HEUFT SPECTRUM<sup>II</sup> system with self-explanatory HEUFT NaVi user guidance.



Discover more

mm » ml



## HEUFT PRIME

Full container check of the new generation.

### Compact quality check

Reliable detection of underfilled or overfilled, unsealed and unlabelled pharmaceutical containers. Intelligent HEUFT sensor camera can be integrated for a precise marking inspection and code verification.

### No recalls

Careful rejection of full pharmaceutical containers with quality defects.

### Increased line efficiency

Serial fault detection and early localisation of faulty filler valves.

### Easy operation

Automatic brand changes and extensive audiovisual step-by-step assistance.



Discover more





Universal device platform

## CROSS-SYSTEM, HIGHLY AUTOMATED AND POWERFUL!

Its consistent modular design principle for a variety of technologies, modules, functions and applications makes HEUFT solutions stand out. A universal platform for individually equipped devices was created with the HEUFT *SPECTRUM TX* almost twenty years ago.

### The HEUFT *SPECTRUM II* goes one step further!

The new generation control unit capable of multiprocessing is just as impressive as its predecessor with a cross-system component equality of 70%, a correspondingly high spare parts availability and a future-proof network connection. In addition it saves valuable human resources due to an exceptional degree of automation and a self-explanatory human machine interface with the audiovisual HEUFT *NaVi* user guidance.

The latest in-house developed hardware and software for significantly more computing power and for real-time data transmission quadruples the precision during purposeful product tracking:

**the actual position of each individual container can be accurately determined up to 0.5 millimetres.**

This ensures that each one is really inspected and each faulty one is removed reliably.



### SAFEGUARDING PRODUCT QUALITY? SIMPLY AUTOMATICALLY! SIMPLY EASY!

HEUFT *SPECTRUM II* systems work fully automatically most of the time. The rest is covered by the HEUFT *NaVi* – with individual support and audiovisual step-by-step assistance. This

- saves time and resources
- increases the detection reliability
- safeguards error-free operation time

during the in-line quality inspection of empty and full pharmaceutical containers. SIMPLY EASY!





## HEUFT SPECTRUM II ATEX

Leakage check and fill level detection for aerosol cans based on the HEUFT SPECTRUM II.

### Non-contact leakage check instead of water bath

Precise laser-based detection of escaping aerosol propellants such as butane, propane or dimethyl ether as an energy-saving and fast alternative to the conventional water bath.

### Exact fill level detection instead of scales

Radiometric measurement of the filling quantity in aerosol cans as an efficiency-enhancing alternative to conventional weighing methods.

### Hazard-free use in the Ex area

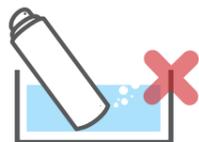
Safe operation in potentially explosive risk areas of ATEX Group Category 3G.

### Easy operation

Highly automated and self-explanatory HEUFT SPECTRUM II system.



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Fill value analysis

## EXACT QUANTIFYING AND TARGETED SAMPLING

In-line inspection systems should be capable of more than finding defects and removing the relevant products immediately for an effective quality assurance. Tools for the early detection of serial faults, fill value analyses and targeted sampling provide greater in-depth knowledge of the total production quality and effective protection against recurring faults and insidious productivity losses. They are integrated in HEUFT devices as standard for checking the quality of filled pharmaceutical containers. A switch-off pulse is released when the number of underfills or overfills exceeds an individually adjustable threshold value. Therefore interference is eliminated before the output suffers.

### A separate quantifying module generates valuable statistical data.

It converts the results of all the individual fill level measurements automatically into the actual fill value and calculates the average fill volume of complete batches. Therefore you can always keep an eye on the quality and exact quantity of the total production.

Specific sampling, particularly when filling and packaging pharmaceutical products, also plays a significant role during the internal examination and sustainable safeguarding of production quality.

### You will achieve exemplary sampling with HEUFT!

No matter whether you wish to reject a freely definable number of loose samples or carry out cross-sectional sampling of production based on a whole series of products in succession: HEUFT systems accomplish this automatically. You can define individual conditions such as the minimum transport speed in order to take truly representative samples under standard production conditions in the course of this.

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## Our devices for a reliable foreign object and defect detection

From metal detection to glass in glass detection.

### Risk inside. Product out.

Foreign matter, contamination, bent hypodermic needles, packaging defects and product incompleteness: such safety and quality defects pose a serious risk particularly when it comes to medicinal products. You can eliminate this with HEUFT! Contaminated and damaged products are reliably identified and consistently rejected whilst still on the line. Unique detection procedures such as the pulsed X-ray technology exclusively available from us achieve this with unrivalled care and precision.

#### Genuine patient protection

Precise identification and removal of contaminated, incomplete and faulty pharmaceutical products.

#### Smart demarcation

Reliable differentiation between real and supposed faults.

#### Powerful technologies

In-house developed procedures for the clear detection of faulty products and packaging material.

#### Full compliance

FDA, GMP, GAMP5 and 21 CFR Part 11 compliant systems with continuous audit trail documentation.



**UNCONTAMINATED AND SAFE:**  
specifically identifying contamination,  
defects and product incompleteness.



## HEUFT *spotter* <sup>II</sup> PHS

All-around quality inspection of filled small sized vials (2 ml to 100 ml) based on the HEUFT *SPECTRUM* <sup>II</sup>.

### Uncontaminated pharmaceutical products

Optical identification of foreign substances such as fibres or hairs in the vial. Risk-free pulsed X-ray detection of glass particles in lyophilisate with active pharmaceutical ingredients (APIs) possible. Headspace analysis with volumetric determination of the O<sub>2</sub> content for closure integrity testing and oxidation prevention.

### Faultless packaging

Clear detection of incorrectly filled and damaged vials as well as those, for example, which have been contaminated by product splashing. 360° closure inspection for a highly precise identification of defective and non-brand flip off caps.

### Clean solution and efficient inspection

Compact, hygiene-optimised construction with fault rejection without compressed air (clean room class B) in an efficient straight-through system without wear-intensive change parts.

### Reliable operation and sustainable documentation

Highly automated HEUFT *SPECTRUM* <sup>II</sup> system with tamper-proof audiovisual HEUFT *NaVi* user guidance and network connection for reliable audit trail documentation. Safe fulfilment of the fundamental FDA, GMP, GAMP5 and 21 CFR Part 11 requirements.



Discover more

up to  
**600**  
containers per minute

**NEW!**  
HSA for  
O<sub>2</sub> detection



GAMP5  
21 CFR Part 11  
FDA  
cGMP



## HEUFT *spotter* <sup>II</sup> PHL

360° complete inspection of full large sized vials based on the HEUFT *SPECTRUM* <sup>II</sup>.

### Vials free of contamination

Continuous complete inspection of larger vials (20 ml – 1000 ml) for a precise identification of minute foreign particles. Retrofittable pulsed X-ray technology suitable for the examination of active pharmaceutical ingredients (API).

### Continuous all-around inspection

Double 360° sidewall, crimp cap and flip off closure inspection for an optimal detection of contamination, cracks, leaks, deformations and defects. Double X-ray fill level detection.

### Straight construction

Efficient straight-through system without wear-intensive change parts which handles the containers carefully for a high throughput, automatic brand changes and low storage costs. Hygiene-optimised construction and fault rejection without compressed air.

### Maximum availability

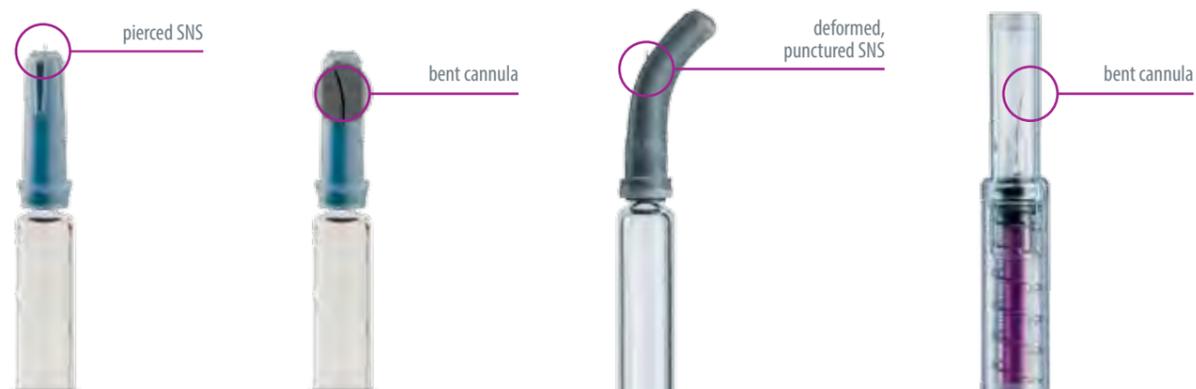
Highly automated HEUFT *SPECTRUM* <sup>II</sup> system with audiovisual HEUFT *NaVi* user guidance, real-time image processing system capable of learning and network connection for a reliable audit trail documentation. Safe fulfilment of the fundamental FDA, cGMP, GAMP5 and 21 CFR Part 11 requirements.



GAMP5  
21 CFR Part 11  
FDA  
cGMP



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## HEUFT Syringer

The inspection of pre-filled syringes and cannulas based on the HEUFT SPECTRUM II.

### Safe needle and risk-free injection

Reliable identification of bent, defective hypodermic needles.

### No contamination

Clear detection of punctured or only slightly pierced protective caps (soft needle shields – SNS / rigid needle shields – RNS).

### Risk-free X-ray

Unequalled low-radiation pulsed X-ray technology – suitable for inspecting injection instruments to be filled with active pharmaceutical ingredients (API).

### Full compliance

Reliable audit trail documentation and safe fulfilment of the fundamental FDA, GMP, GAMP5 and 21 CFR Part 11 requirements.



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## HEUFT eXaminer II XB

Top-down inspection with pulsed X-ray technology based on the HEUFT SPECTRUM II.

### Effective contamination and recall prevention

Reliable detection of foreign particles during the complete inspection of filled primary, secondary and tertiary packaging as well as solid pharmaceutical products.

### Reliable integrity check

Certain detection of incomplete products and packaging as well as defects.

### Superior technologies and maximum automation

Optimised pulsed X-ray technology and maximum detection accuracy with minimum radiation – can be used for the X-ray inspection of products with active pharmaceutical ingredients (API). Highly automated HEUFT SPECTRUM II platform with self-explanatory user guidance.

### Flexible expansion for even more performance

Multi flash option for the complete inspection of even larger products. Division of the conveyor for the parallel inspection of two smaller products at the same time.

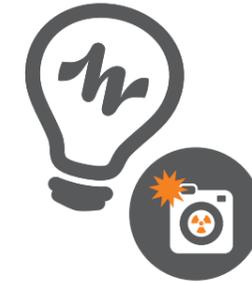


LEAD SCREENS ARE NOT REQUIRED

IDEAL FOR LIGHT-WEIGHTS



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Pulsed X-ray technology

## **MAXIMUM PRECISION AND MINIMUM RADIATION!**

HEUFT X-ray systems identify foreign objects, product faults and packaging defects both precisely and carefully. In contrast to the conventional X-ray scanner their unique pulsed X-ray technology only emits radiation at the moment when a product to be examined is really in the inspection area. And that as an X-ray flash lasting just a thousandth of a second.

**The extremely short exposure time prevents motion blurs and reduces the reflected X-rays by a factor of 1,000.**

No product is exposed to a higher dose than is absolutely necessary. Thus an X-ray strobe only emits radiation for 36 seconds when inspecting 36,000 containers per hour. As a result there is no emission whatsoever during 99% of the time. By contrast, conventional X-ray scanners emit radiation continuously for 60 minutes. That alone makes the pulsed X-ray technology unique.

**Combined with innovative full-field image converters it achieves an unprecedented dimension in range, speed and detection accuracy.**

The size of the foreign objects which can be reliably identified has been halved!

ENLIGHTENMENT



## HEUFT *eXaminer II* XOS

Optical and radiometric foreign object inspection of full containers based on the HEUFT SPECTRUM II.

### Broad spectrum

From glass splinters to transparent film: reliable detection of high density and low density foreign objects in transparent pharmaceutical primary packaging material.

### Complete inspection without blind spots

Optical inspection of the complete container volume plus X-ray base inspection for the safe detection of all types of contamination.

### X-ray flash instead of a permanent beam

Sharp images at unequalled low radiation levels – can be used for the radiometric inspection of products with active pharmaceutical ingredients (API).

### Less false rejections

Highly precise product tracking and the HEUFT *reflexx*<sup>2</sup> real-time image processing system with learning ability for clearly differentiating between real and supposed safety risks.



## HEUFT *spotter II* SF

Foreign object inspection for the reliable detection of dangerous low density objects based on the HEUFT SPECTRUM II.

### Maximum medicinal product safety

Reliable detection of faults which are hardly visible to the naked eye such as mould on the base, hairs, fibres and film floating in the product or cracks in the glass of pharmaceutical primary containers.

### Exact orientation

Servo-controlled container alignment for a continuous 360° all-around inspection.

### Full transparency

Unique optical technologies and HEUFT *reflexx*<sup>2</sup> real-time image processing for detecting foreign objects reliably even in cloudy or dark products.

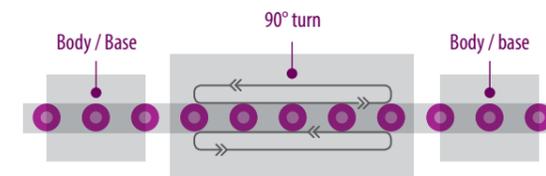
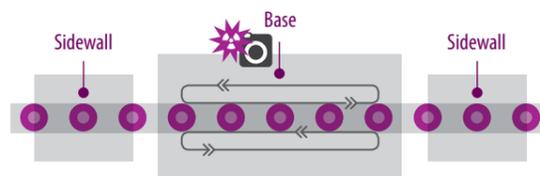
### Full detection and rejection reliability

Highly automated HEUFT SPECTRUM II platform with audiovisual HEUFT *NaVi* user guidance for more performance and precision when tracking products, detecting foreign substances and rejecting faults.



up to 1,200 containers per minute

X-RAY  
110 µSv  
Flight Frankfurt – San Francisco  
10 µSv



## Our devices for a leakage check

From internal container pressure measurement to the identification of microleaks.

### Leak identified. Danger eliminated.

Leaks, stress cracks and microcracks: such faults have no place in blow fill seal bottles, pouches or other filled pharmaceutical primary packaging made of plastics such as LDPE, HDPE or PP. They not only threaten the integrity and stability of the packaging but also the microbial purity and therefore the shelf life of the medicinal product contained in it. You can expose leaking plastic pharmaceutical packaging in-line and reject it reliably before it reaches the market and can pose a threat to the patient with the leakage checks of the HEUFT *squeezer* series.

#### High packaging quality and high product safety

Sustainable safeguarding of the container stability and effective protection against microbially contaminated pharmaceutical products.

#### Full shelf life for full enjoyment

Effective prevention of premature spoilage of the product.

#### Clean surroundings

No contamination on the line, during transport or for the patient caused by an unwanted product leakage.

#### Full product quality

Correct nominal filling quantity and maximum closure integrity.



**FULL MICROBIAL PURITY:**  
identifying minute leaks reliably.

LEAKAGE CHECK



LEAKAGE CHECK



## HEUFT *squeezer* II QS

Highly automated leakage check based on the HEUFT *SPECTRUM* II.

### Leakproof packaging and pure contents

Reliable detection of minute leaks in filled pharmaceutical primary packaging material made of plastic for the sustainable safeguarding of the packaging integrity as well as the microbial purity of the pharmaceutical product inside.

### Full stability

Precise measurement of the internal pressure of the container for stable full containers which can be optimally transported and stored.

### Outstanding detection reliability

Comparative fill level detection in a non-compressed and compressed condition for maximum precision when identifying leaks.

### Reliable and easy operation

Maximally automated HEUFT *SPECTRUM* II system with self-explanatory audiovisual HEUFT *NaVi* user guidance.



## HEUFT *squeezer* II QL

Highly precise microleak detection for identifying leaks on a HEUFT *SPECTRUM* II level.

### Complete packaging safety

Reliable identification of minute leaks due to internal container pressure measurement and comparative fill level detection.

### Maximum detection reliability

Extra long inspection path for detecting leaks in filled BFS bottles and other pharmaceutical primary packaging material made of plastic even more precisely.

### Microbial purity

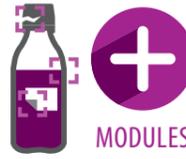
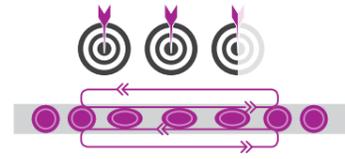
Specific rejection of leaking containers with contents which could be contaminated.

### Automatic brand changes

Fully automatic adjustment of the transport and detection units during brand and program changes and tamper-proof HEUFT *NaVi* user guidance with individual audiovisual step-by-step assistance.



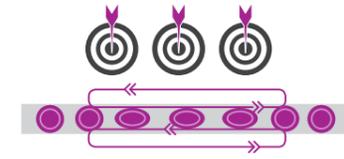
Discover more



MODULES



MODULES



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Real-time product tracking and reject verification

## PRECISE MONITORING FOR FULL DETECTION RELIABILITY

Where is the product? You should know this. The exact current whereabouts of a particular product on the line must be known at all times. A reliable inspection and fault rejection is only then possible.

The distance covered and the position of all pharmaceutical packaging on the conveyor is triggered repeatedly and tracked precisely.

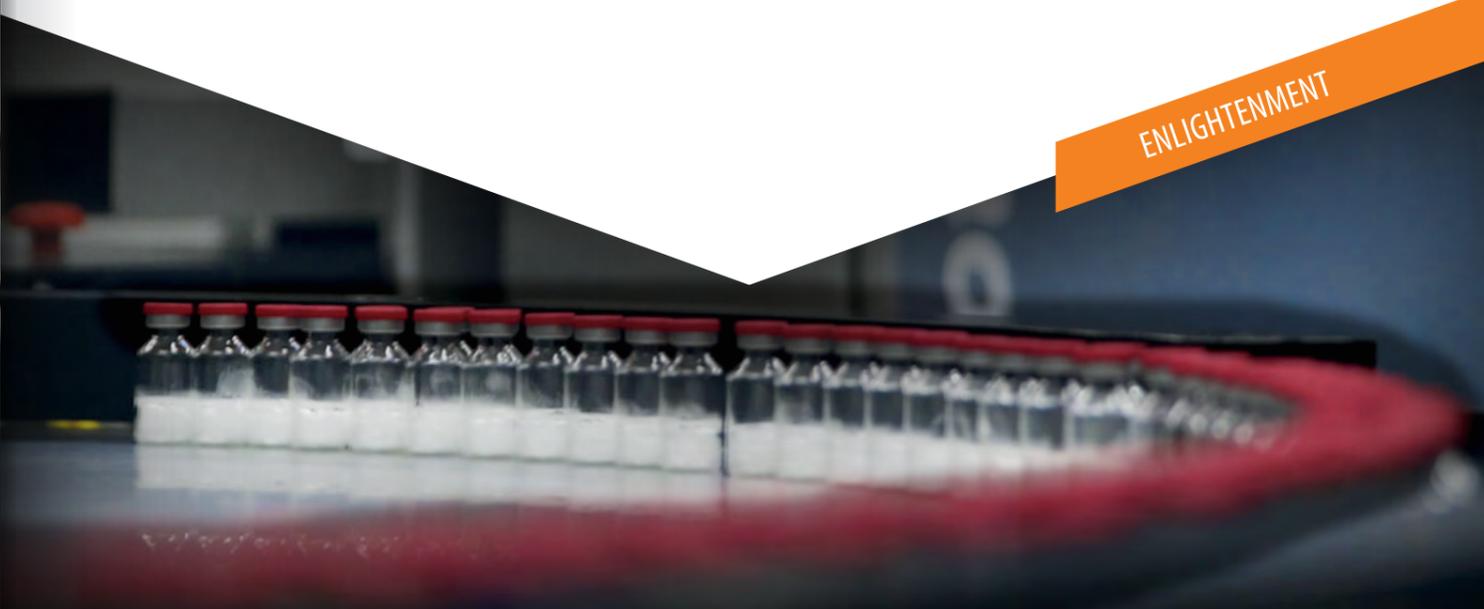
**Accurate real-time monitoring is the guarantee for full detection reliability.**

The exact whereabouts of all the pharmaceutical containers and products is constantly located with millimetre accuracy. This ensures that each individual one is really examined and each faulty one is actually removed.

**Permanent product tracking guarantees maximum accuracy when rejecting faults.**

Only the packaging material and pharmaceutical products which really have to go are removed. The monitoring procedure even goes a step further: the integrated reject verification records immediately if a fault which should be rejected has not left the line yet.

ENLIGHTENMENT

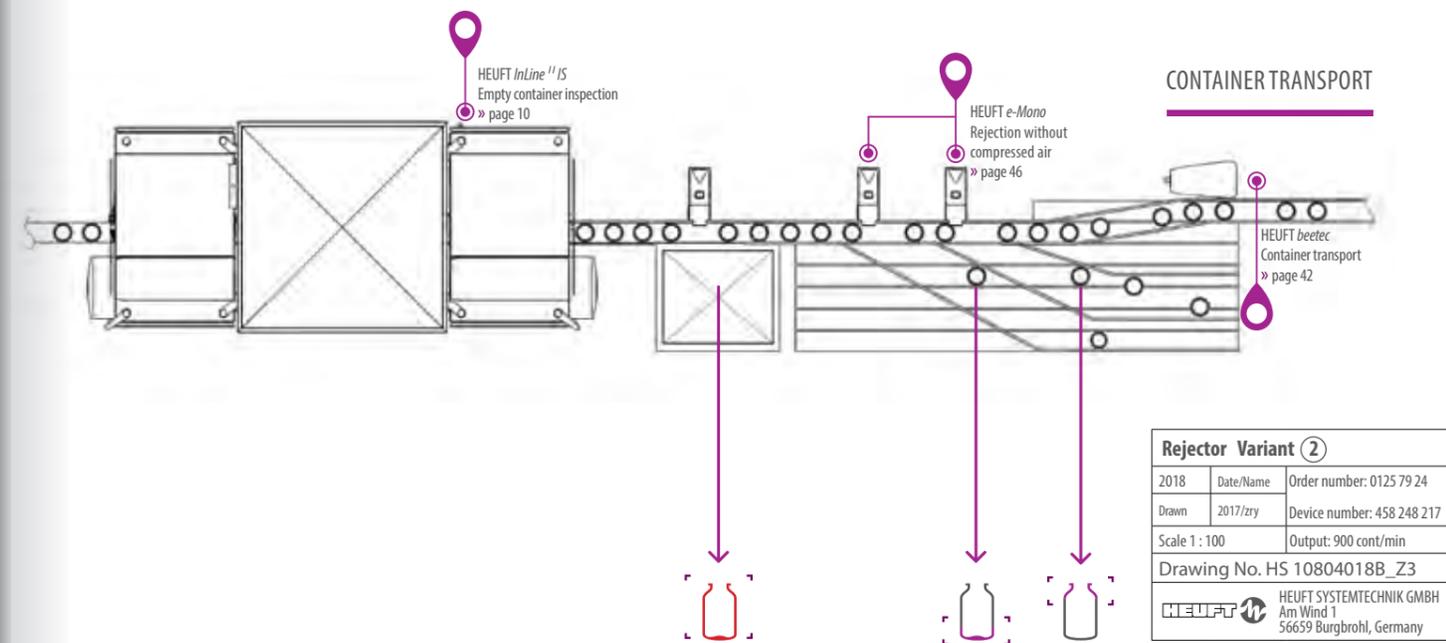
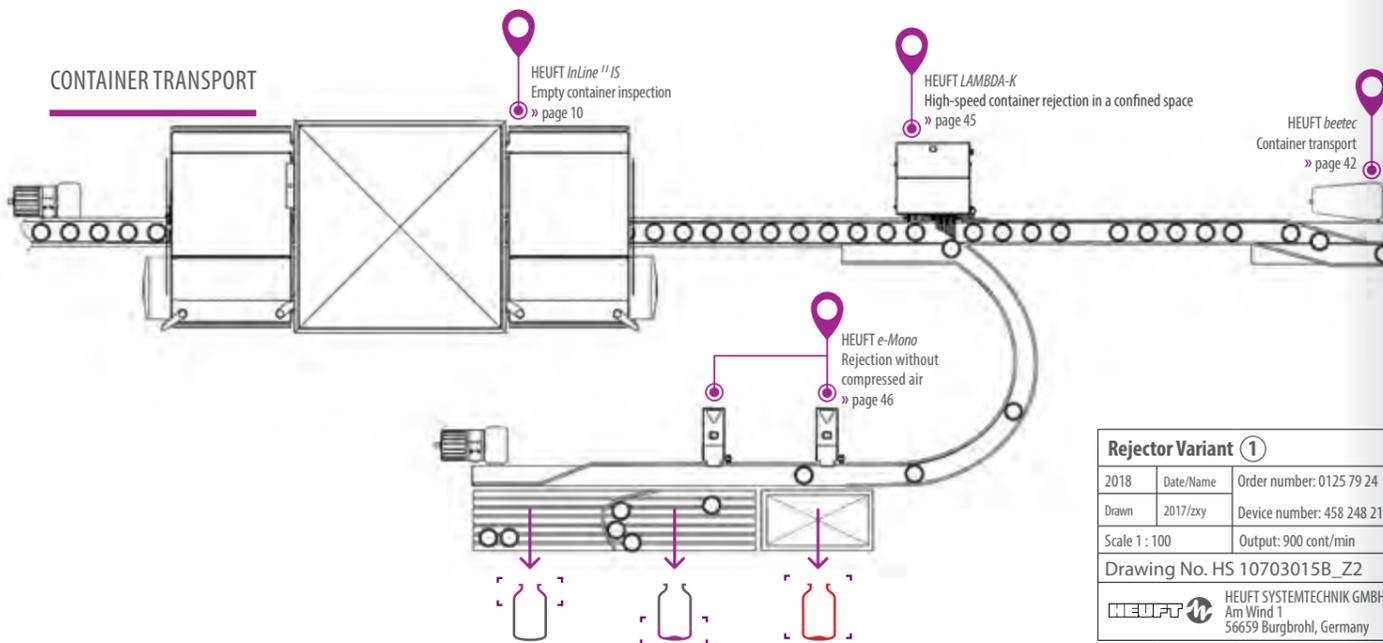


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## GENTLE & EFFICIENT

Powering, conveying and regulating – transporting pharmaceuticals and packaging quickly, carefully and efficiently along the line.

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## Our container transport solutions

From conveyor drive to fault rejection.

### No impact pressure and no gaps. Full line efficiency.

Continuous, careful and without pressure: this is what really matters regarding the container flow along your filling and packaging line. After all, the master machines should be continuously supplied, jams prevented and all the products transported fast, safely, smoothly and quietly. You will achieve a harmonious, efficient container flow without interference or impact pressure, even in the high-speed section and in a confined space, with drives, conveyors and conveyor control systems from HEUFT. This protects the quality of the product and the packaging and at the same time increases the efficiency and productivity of the complete line.

#### Efficient drive

Energy-saving motors with high efficiency for dynamically driven conveyors.

#### Gentle transport

Tailor-made single and multi-lane conveyors.

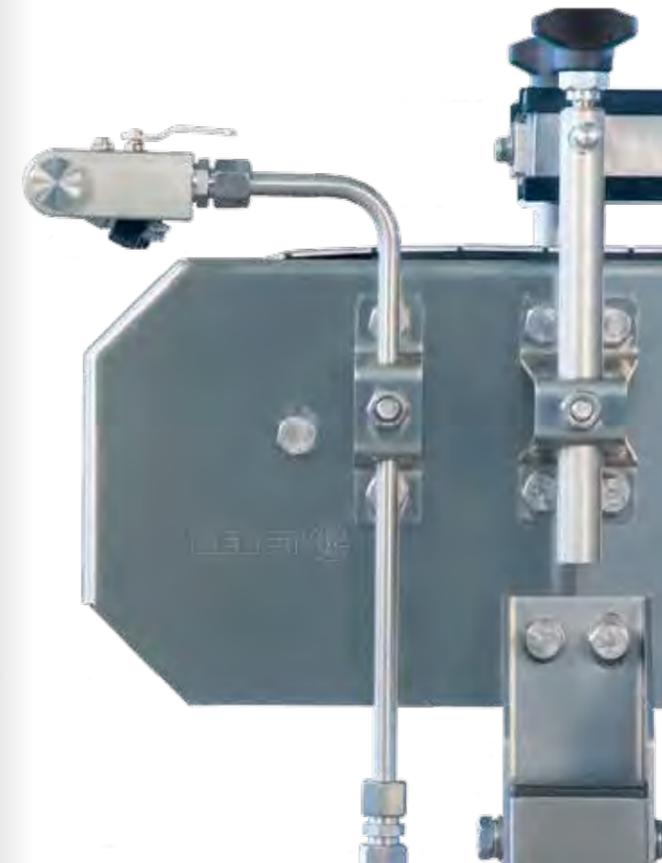
#### Intelligent control system

Proactive conveyor control system for a harmonious container transport without gaps or impact pressure.

#### A high degree of flexibility

Specific solutions for the most varied requirements regarding line optimisation.

## Everything flowing smoothly and everything in order!



From single-lane to multi-lane transport, from a primary rejection to a fault-specific secondary removal: you can achieve a smooth and efficient product and container flow in a small area with drives, conveyors, conveyor control systems, rejection systems, buffer tables, individually adapted layouts and unique complete solutions from HEUFT!

### Space-saving, flexible and individual

Detailed line analyses, intensive advice and exact planning by competent HEUFT experts create compact solutions which will even fully meet your specific requirements! Products without faults are thus transported carefully through the line so that they remain without faults. Faulty ones are removed specifically and reliably – either by means of a primary rejection directly from the main flow and a subsequent fault-specific secondary removal ① or little by little ② at various positions after the inspector.



## HEUFT conveyor

Powerful conveyors for a safe container transport.

### Optimal conveying

Fast, safe and gentle transport of empty and full pharmaceutical containers on one or several lanes.

### Problem-free integration

Customised adaptation to individual space available and requirements due to a flexible combination of a variety of standard modules and curve radii.

### Construction optimised for maintenance and cleaning

Robust components, adjustments without tools, no "dirty corners" and hardly any contact surfaces for germs.

### Comprehensive advice and planning

Full HEUFT expertise from situation analysis to the specific implementation of individual transport solutions and sustainably optimised line layouts.



## HEUFT synchron TXI

Conveyor control system for a harmoniously regulated, efficient container flow.

### Increased efficiency

Smooth, zero-pressure gap closing – proactive prevention of jams, blockages and line stoppages.

### Continuous supply

Single-lane blocking of master machines for maximum efficiency.

### Harmonious mass transport

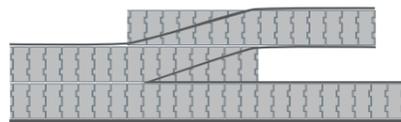
Careful control of multi-lane conveyors, pressureless regulation of the buffer areas and reliable container distribution.

### Stress-free flow

No glass defects caused by hard collisions and impact pressure, less scuffing and considerably reduced noise.

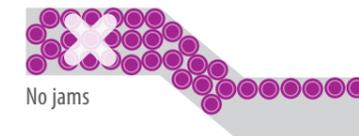


**HIGH-SPEED  
CONTAINER  
TRANSPORT**



MODULE

Smooth gap closing



Discover more



## HEUFT *LAMBDA-K*

Upright high-speed container rejection in a confined space.

### Slim alternative to conventional rejectors with bulky rejection tables

New, particularly compact complete system comprising special conveyor mechanics, intelligent conveyor control system and modified HEUFT *DELTA-K* multi-segment rejector.

### Safe rejection without falling over

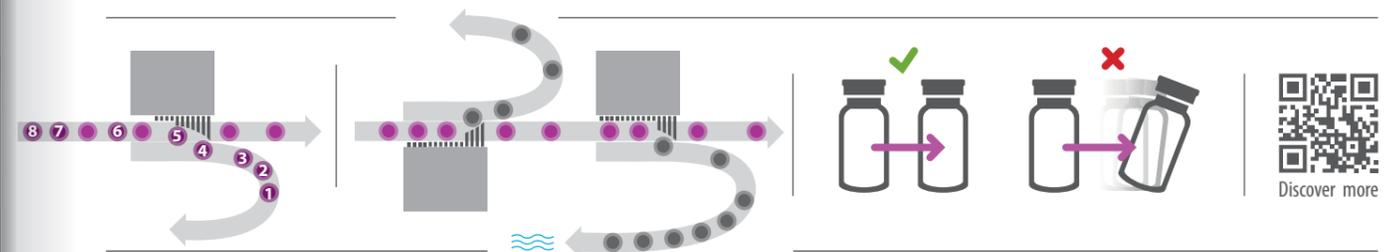
Careful upright rejection of faulty or non-brand pharmaceutical packaging due to special segment curve for minimum container resistance.

### Compact conveyor instead of bulky buffer table

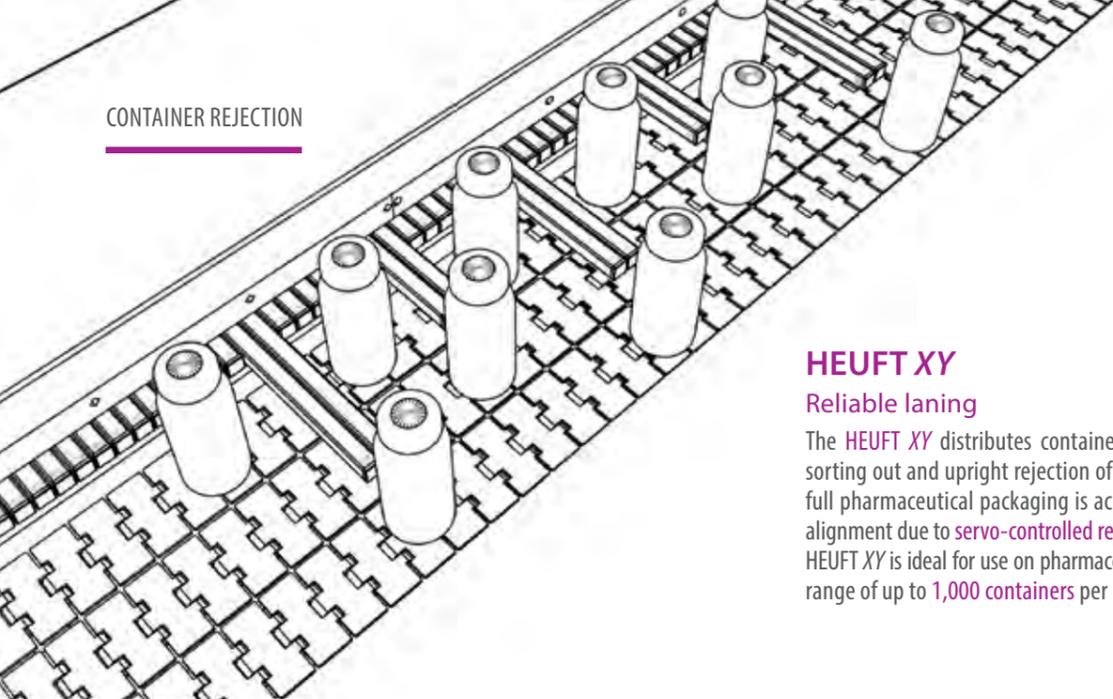
Gentle diversion of faulty containers onto a space-saving single lane rejection conveyor.

### Trouble-free changeovers and fast brand changes

Simple adjustment and precise vertical and horizontal settings with a digital display.



Discover more

**HEUFT XY****Reliable laning**

The **HEUFT XY** distributes containers onto up to four lanes. The sorting out and upright rejection of different shapes of empty and full pharmaceutical packaging is achieved without changing their alignment due to **servo-controlled rejection segments**. Therefore the HEUFT XY is ideal for use on pharmaceutical lines with a performance range of up to **1,000 containers** per minute.

**HEUFT *pusher***

Compact discharger.

**HEUFT *mono***

Careful rejector.

**HEUFT *e-Mono***

High-speed rejector without compressed air.

**HEUFT *flip***

Smooth rejection.

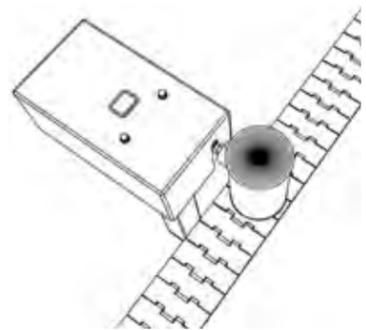
**HEUFT *DELTA-FW***

Dynamic rejection curve.

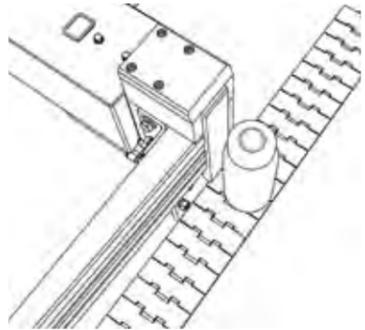
**HEUFT *DELTA-K***

Gentle folding rejector.

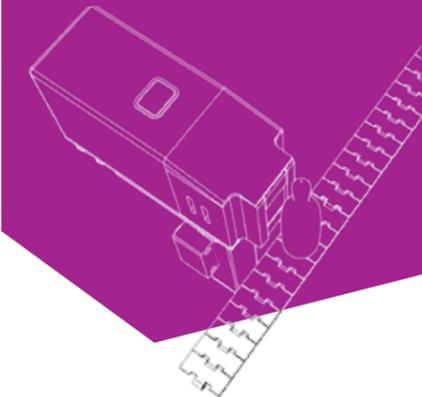
The **HEUFT *pusher*** transports faulty full containers by means of a carefully calculated push to where they belong: in the rubbish. The **single-segment rejection** system works precisely and reliably even on high-speed lines with conveyor speeds of up to 2.5 metres per second and a maximal output of more than **2,100 containers** per minute.



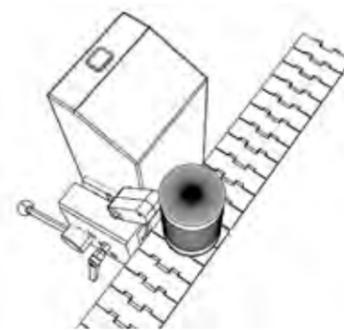
The **HEUFT *mono*** removes full and empty containers with safety and quality defects reliably. And carefully. A special guide rail on the **single segment rejector** compensates the static friction of the containers for this. Consequently full containers can even be rejected in an upright position without falling over using minimum segment movement. The HEUFT *mono*, a cost-effective all-rounder, is suitable for line outputs of up to **1,200 containers** per minute.



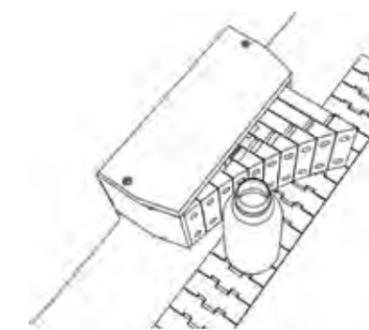
The **HEUFT *e-Mono*** is ideal for rejecting faulty containers onto a parallel conveyor or directly into a bin. The almost wear-free system does not need expensive, unhygienic compressed air for this and electricity only during the rejection procedure. Its feed force is adapted to the respective weight so that packaging material where the contents vary considerably is nevertheless rejected over the same distance. And that at line outputs of up to **3,000 containers** per minute!



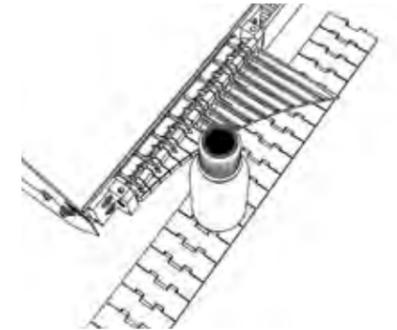
The **HEUFT *flip*** removes all shapes of empty and full containers smoothly from the packaging line. The unprecedented low mechanical load of the lifting cylinder which sets the rejection segment in motion is due to a cleverly designed joint construction. The **compact HEUFT *flip*** is ideally suited for the upright rejection of lightweight cylindrical pharmaceutical packaging for line outputs of up to **1,000 containers** per minute.



The **HEUFT *DELTA-FW*** rejects and distributes filled containers upright. Up to sixteen segments form a rejection curve along which they are gently guided. When a good container follows a faulty one only the first container is touched. The system **rejects complete series** reliably with permanently extended segments. And that at line outputs of up to **2,500 containers** per minute.



The **HEUFT *DELTA-K*** is ideally suited for sorting out empty containers in an upright position, distributing empty and filled containers as well as rejecting complete series. It has up to 16 segments which can be **folded out individually so quickly** that unsuitable containers can be rejected unproblematically without touching the preceding or subsequent containers. It only rejects that which has to go at line outputs of up to **1,200 containers** per minute.





## HEUFT GX

Full case inspection for outer packaging in top shape.

# CONTENTS COMPLETE & SAFELY PACKAGED

Checking, measuring and examining – safeguarding the quality and functionality of cardboard boxes, trays and other types of outer packaging in-line.

### Extensive quality assurance

Detailed examination of filled cardboard boxes and trays.

### Complete unpackability and transportability

Reliable detection of distorted and incorrectly sealed full cases.

### Fully packaged and the correct height

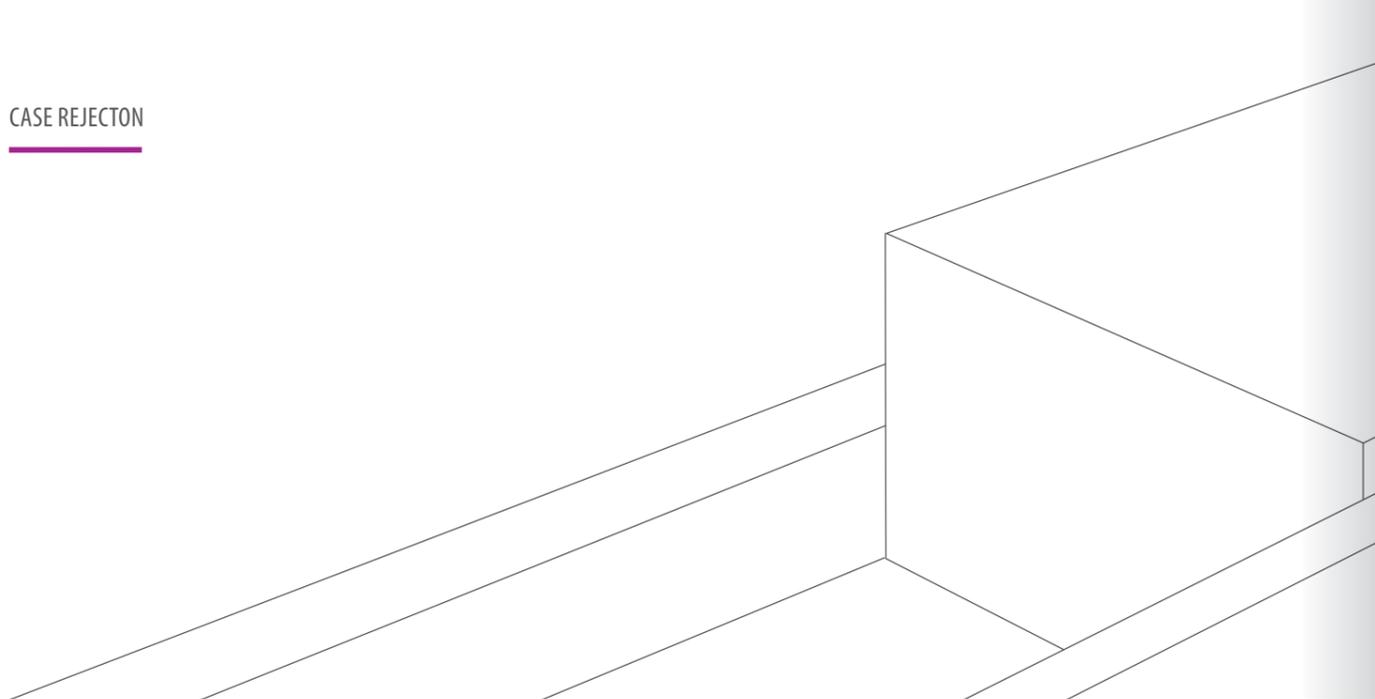
Reliable examination that the correct number of containers is present in the case and a height profile check for identifying distorted and contaminated compartments as well as faulty containers.

### Specific fault rejection

Consistent removal of incompletely packaged, faulty and non-transportable full cases from the production flow.



Discover more



### HEUFT *xcase*

Adaptable rejection push.

### HEUFT *xtray*

Intelligent tray rejection.

### HEUFT *maxi-flip*

Flexible activation.

### HEUFT *maxi-laner*

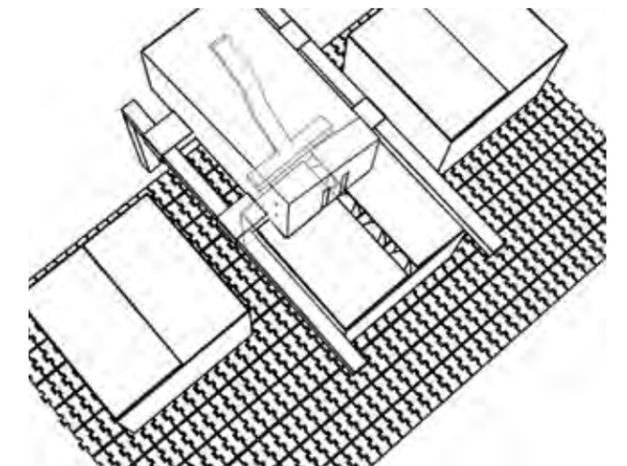
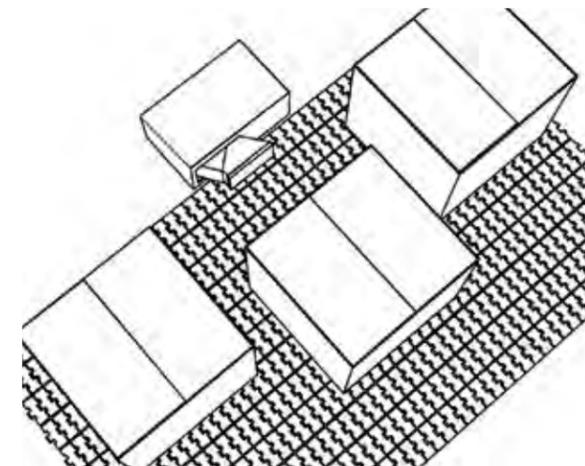
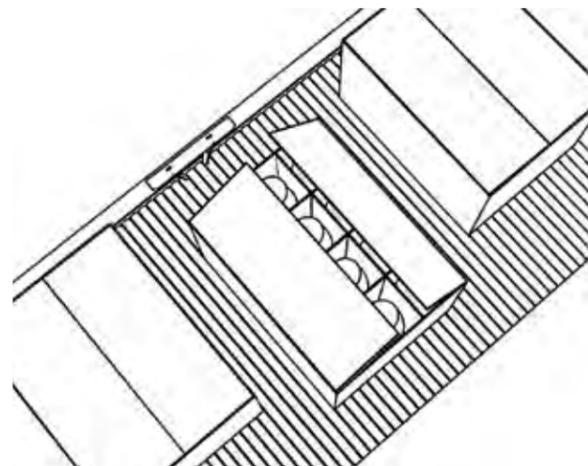
Compact alternative.

The **HEUFT *xcase*** creates brand purity and quality on a line. Its load-dependent control system, which adapts the force of the rejection push to the weight of each individual case, removes non-brand or faulty outer packaging smoothly from the filling line. Cases of varying weights are therefore each rejected an equal distance.

The **HEUFT *xtray*** removes damaged or faulty full trays from the line. Three rejection fingers assembled on a sledge under the roller conveyor are extended for this purpose. Trays can also be distributed onto several lanes if several of these intelligent case rejectors are lined up next to each other.

The **HEUFT *maxi-flip*** rejects empty, half-full or completely full cases each an equal distance onto parallel conveyor chains. Its rejection segment is activated for a longer time for heavy cases or cardboard boxes than for lighter ones. A complex mechanical changeover for different types of cases is not necessary.

The **HEUFT *maxi-laner*** is even more space saving than the HEUFT *maxi-flip*. The system installed directly above the conveyor is also impressive with a load-dependent control system for the rejection of different cases. Also possible: a reliable distribution onto up to three transport lanes.





# CLOSELY NETWORKED & FULLY INFORMED

Transferring, accessing and analysing: recording, evaluating and archiving production and quality-related data.



HEUFT network technologies

## EVERYTHING NETWORKED AND EVERYTHING IN VIEW!

Transferring information, recording operating data, analysing the performance of complete packaging lines and implementing targeted remote maintenance. HEUFT systems are equipped with future-proof network interfaces so that this all works in real time.

**Open, standard and cross-platform protocols generate maximum efficiency and overview.**

All the devices and machines on the line speak the same language and form a network into which office computers can also be integrated without a problem. Operating and production data, shift records as well as productivity, fault and HACCP limit value analyses are not only available at the HEUFT systems themselves but also everywhere in the network at the same time.

**Interference, safety risks, quality problems and efficiency losses are therefore identified immediately.**

A firewall protected direct connection to the HEUFT *TeleService* makes competent remote maintenance possible all around the clock in order to rectify these at an early stage.

ENLIGHTENMENT



21 CFR Part 11, cGMP, GAMP5

## QUALIFIED, VALIDATED AND COMPLIANT

Computer-aided systems for the packaging and quality assurance of pharmaceutical products have to meet strict standards and documentation requirements.

**This is achieved simply safely with network-compatible hardware, customised software and effective support from HEUFT!**

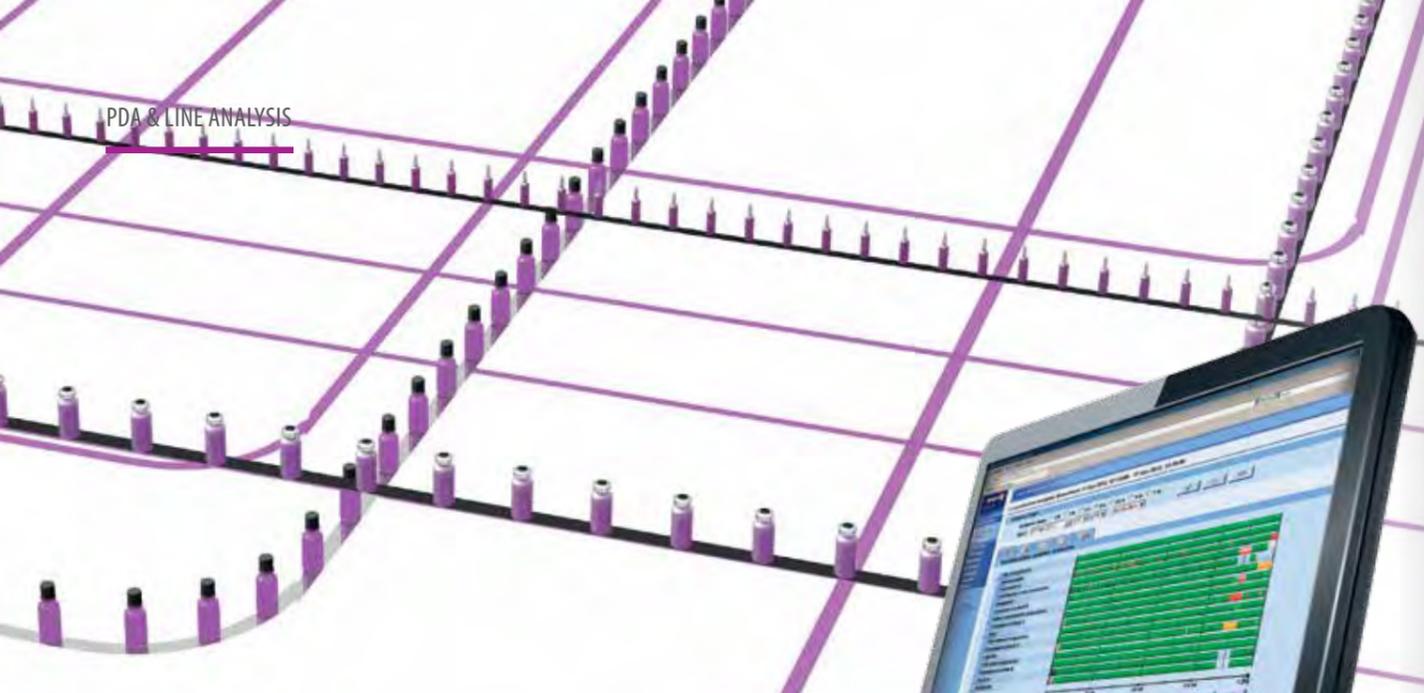
HEUFT devices with user-specific, password protected access rights and a detailed audit trail log of all the operating and process information satisfy the FDA 21 CFR Part 11 regulations. This protects against unwanted changes to the parameters and makes all the logins permanently traceable. An online connection to higher-level databases and MES systems safeguards real-time transmission, the preparation and complete archiving of detection, batch and production data as well as a reliable audit trail documentation with the HEUFT *PROFILER advanced* (see page 57). Precise product tracking and self-tests for regularly validating and documenting their detection performance complete the performance spectrum of the superior HEUFT systems.

**In addition our experts will implement a comprehensive device qualification together with you.**

This is the elementary basis for the process validation required for GAMP5 compliance: documented evidence will be produced that a system meets the above-mentioned criteria during practical operation and that this is always reproducible. Because only validated methods and processes may be used during the production of medicinal products. From your individual user requirement specification (URS) to the site acceptance test (SAT): HEUFT will accompany you competently through all stages of the V diagram for device qualification and provides the documentation which you need for this!



ENLIGHTENMENT



# HEUFT PROFILER family

Production data acquisition (PDA) and line analysis in real time.



HEUFT STRATEGY II server for HEUFT PROFILER and HEUFT PROFILER advanced

### Constant performance analysis

Continuous recording, sustainable backing up and targeted evaluation of production and quality-related data of HEUFT systems / all the networked machines of a packaging line.

### More production quality and more productivity

Early exposure of error sources, weak points and interference for preventive maintenance.

### Precise computing and clear display

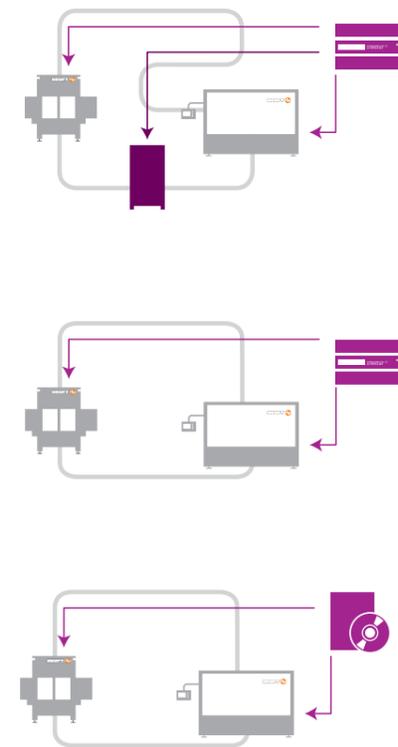
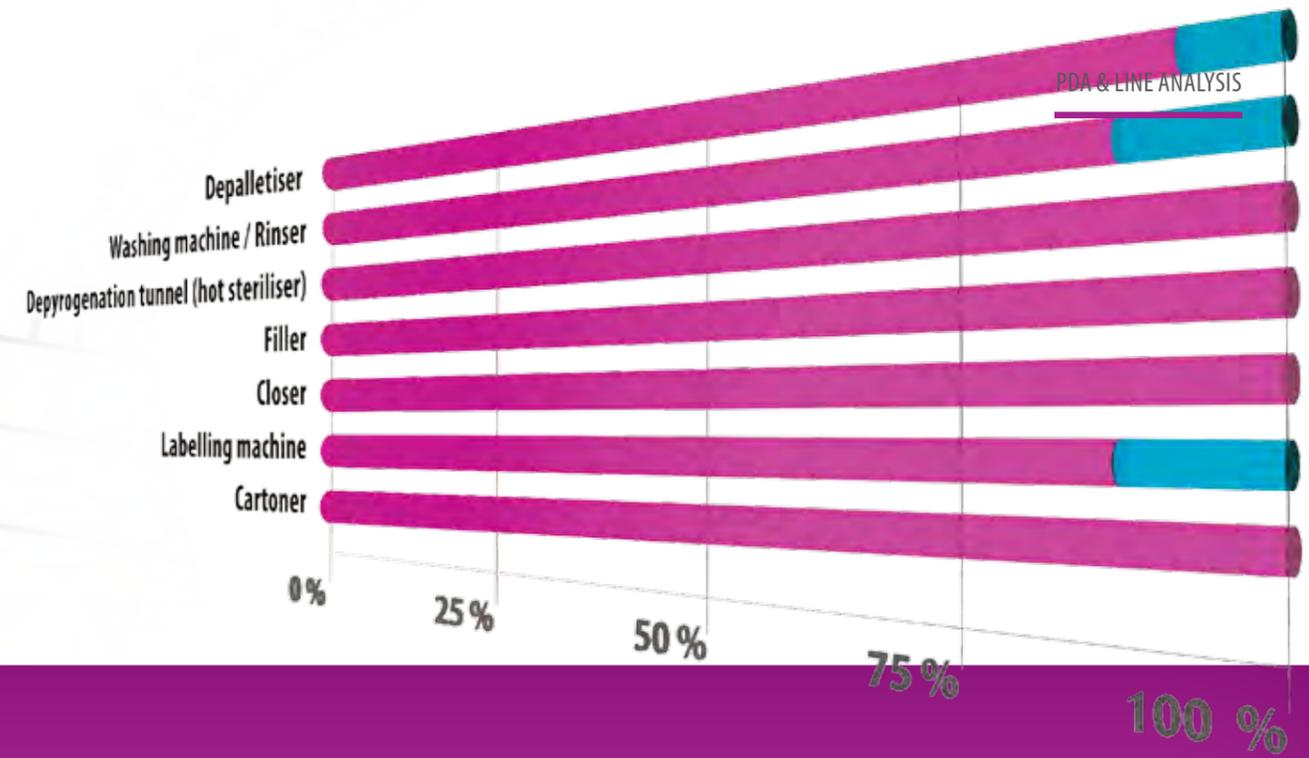
Automatic calculation, table and graphic preparation as well as the long-term archiving of important operating figures.

### Different versions for various requirements

Tailor-made, customer-specific tools from a slim software solution for the essentials to an extensive server-based complete line analysis.



HEUFT PROFILER elemental



Extension

Upgrade

### HEUFT PROFILER advanced

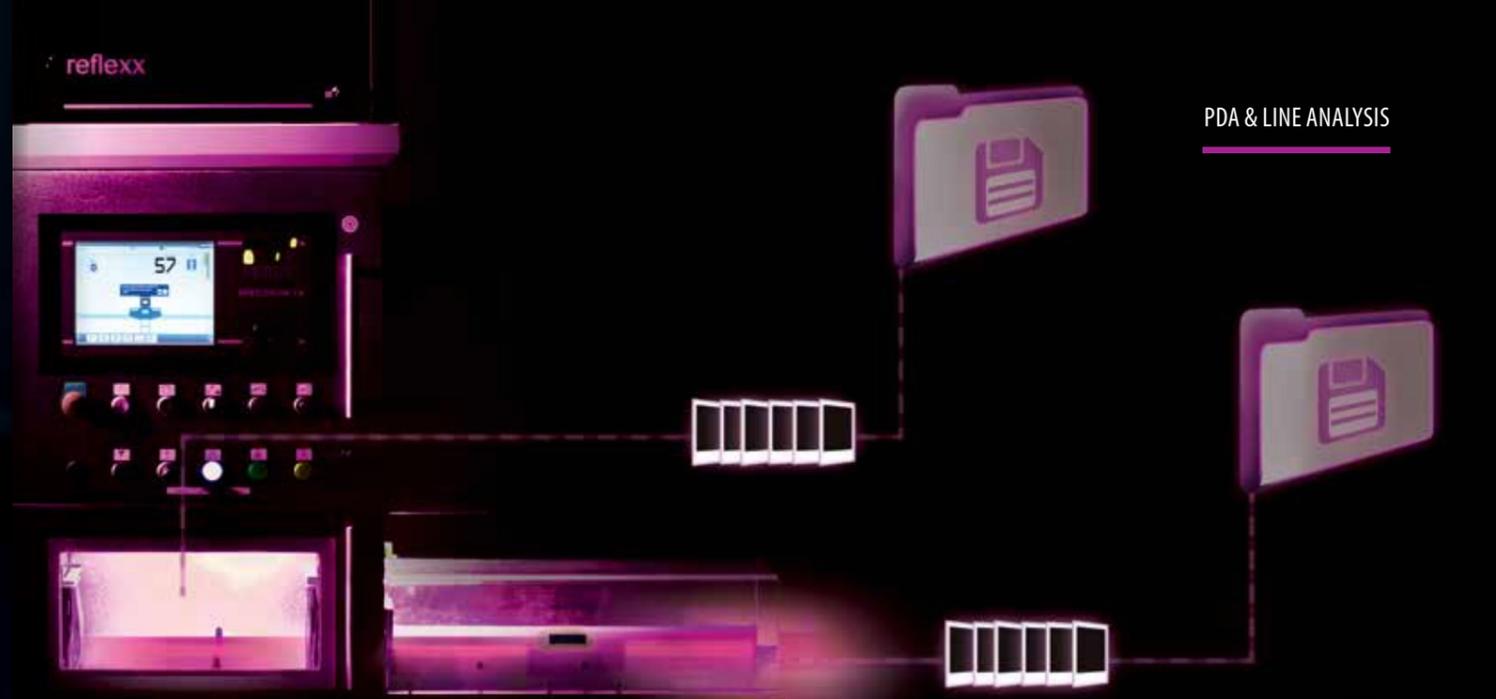
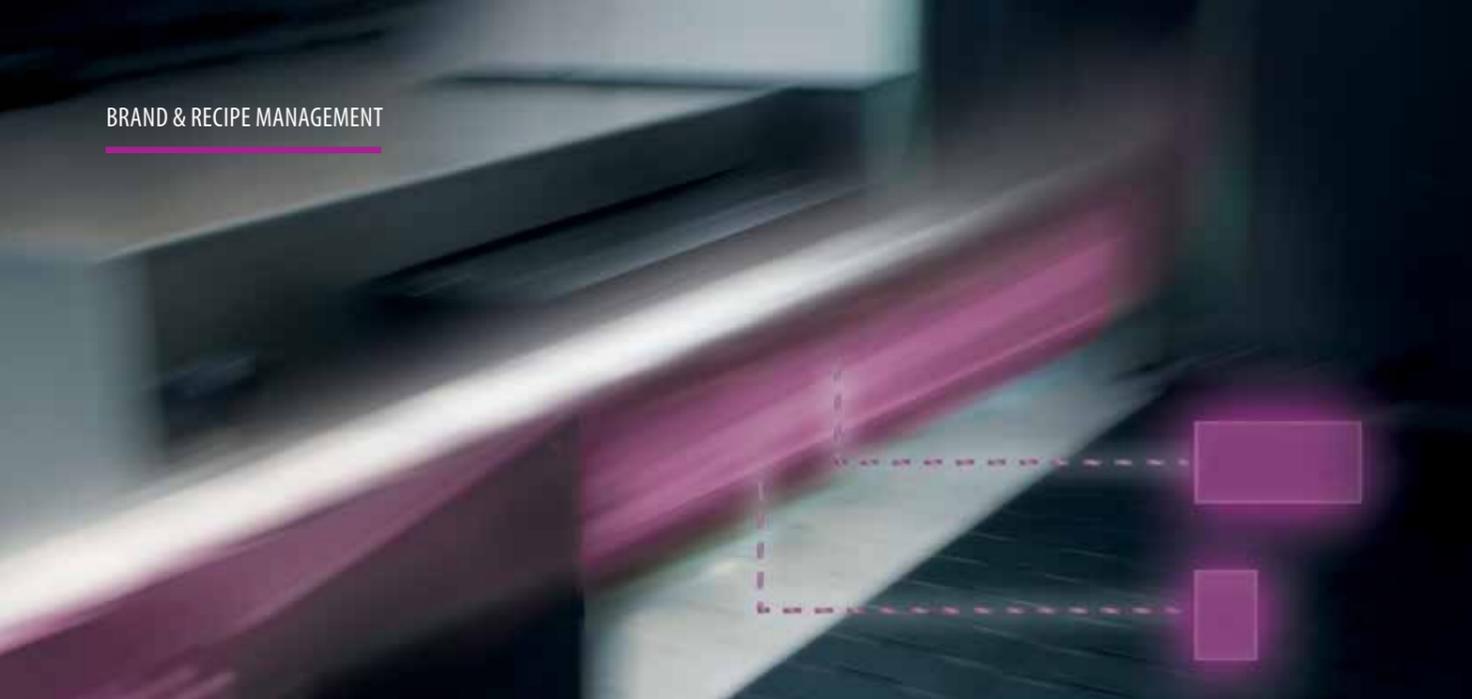
The complete package for an extensive line analysis – server-based IT tool for HEUFT and non HEUFT devices

### HEUFT PROFILER

The PDA solution with added value – server-based IT tool for HEUFT devices

### HEUFT PROFILER elemental

Software solution for HEUFT devices – the PDA system for the essentials



## HEUFT *RECIPER*

Networked brand and recipe management.

## HEUFT *picCollect*

Automatic transmission and storage of detection pictures.

### More product quality and more output

Server-based brand and recipe management in real time.

### Automatic transfer of recipes and equipment features

Live distribution of all relevant data and parameters to networked HEUFT systems for optimal quality assurance.

### Central brand changeovers

Direct connection to overall manufacturing execution systems (MES) for easy initiation of program changes and real-time transmission of changed container and equipment characteristics to each HEUFT device in the network.

### Easy new commissioning and modifications

Uncomplicated addition of new and fast adaptations to existing recipes and equipment features.



HEUFT *RECIPER*

### Specific production monitoring and sustainable archiving

Direct transmission and long-term backing up of the camera pictures and X-ray images of all the inspected or all the rejected products for continuously documenting the detection performance of the HEUFT systems.

### Obvious marking for a full overview

Marking the faults recorded in the jpg image files clearly in red.

### Easy integration

Slim software tool for uncomplicated installation on customer servers and office PCs.

### Permanent availability

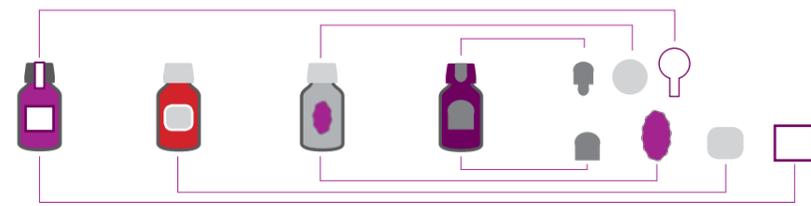
Constant backing up without a time limit.



HEUFT *picCollect*



Discover more



Archive



Archive



Discover more

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## LIFE CYCLE PARTNERSHIP

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Those who choose HEUFT receive more than innovative systems which ensure product quality and line efficiency reliably. In HEUFT you have a strong partner at your side providing professional support from the very beginning.

We will bring in our full **expertise** before implementing turnkey solutions. Proactive **support** is provided by us at all times after commissioning. We simply always offer competent **enlightenment** regarding the possibilities and limits of an in-line quality inspection. The result: a reliable partnership which already begins prior to the purchase, extends over the complete life cycle of your HEUFT systems and ensures their full **performance** sustainably.

This minimises the total cost of ownership (TCO) and generates simply more added value, competitiveness and productivity with maximum product quality!

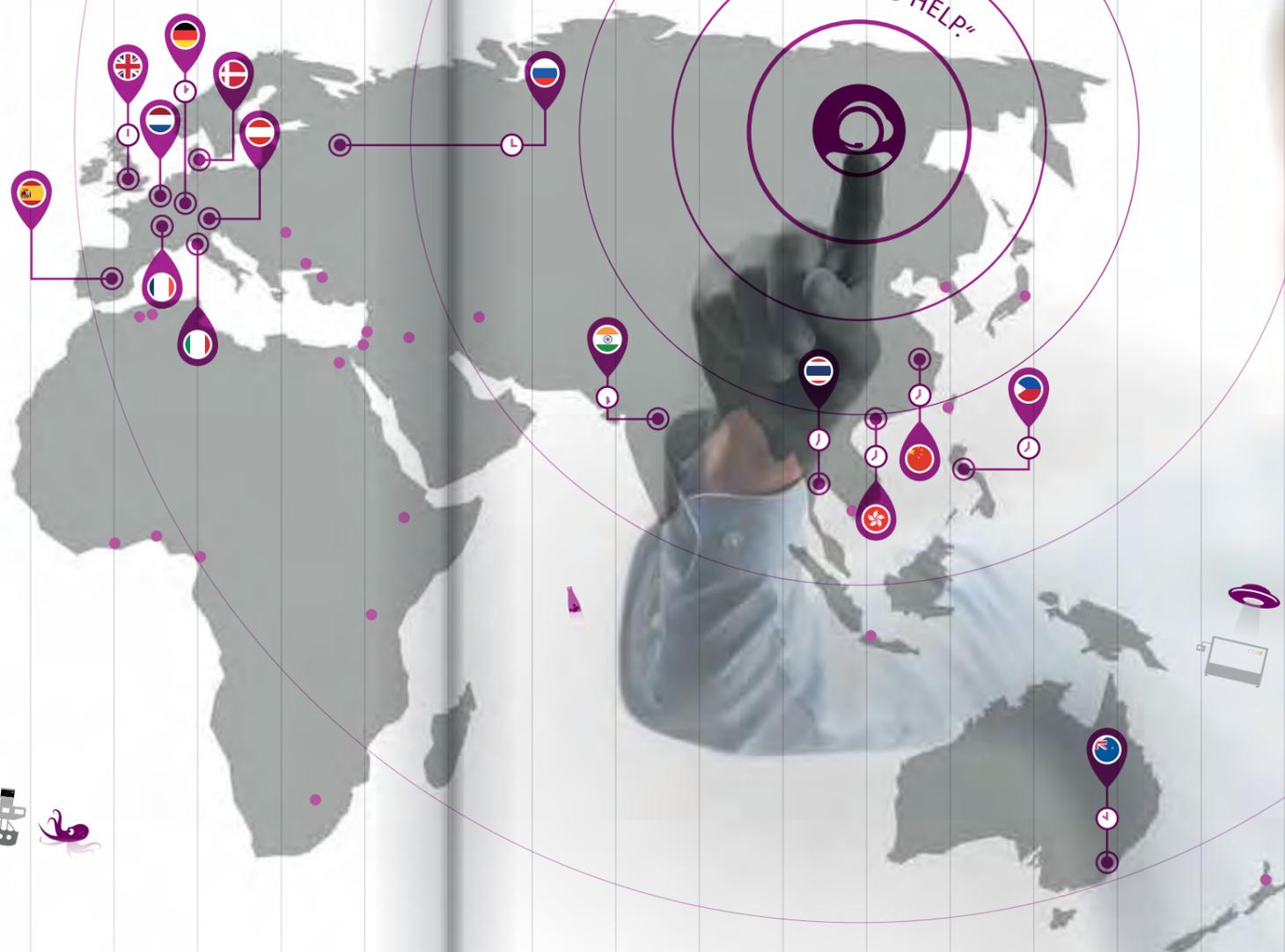


# GLOBAL PLAYER

## GLOBAL SERVICE



-  HEUFT LOCATIONS
-  PARTNERS
-  TIME ZONES
-  HEUFT *TeleService* – online and remote diagnosis  
HEUFT *PhoneService* – telephone consultation
-  HEUFT *DirectService* – prompt on-site visits
-  HEUFT *DeviceSupport* – live overview of the current device status



 **24**  
**7** *AROUND THE WORLD*



## HEUFT *TeleService*

Online remote diagnosis and maintenance.

### Always there for you!

24/7 on-call duty for constant availability in the event of a failure.

### Real remote maintenance in real time

Stable online connection with the nearest local service technician in the HEUFT network for direct access to the device in question – identifying and solving problems promptly.

### Secure tunnel

Firewall and password protected, encrypted VPN IPsec point-to-point connection to any nodes in the HEUFT network.

### Up-to-date hardware and easy handling

New, compact HEUFT *GATEWAY* II server with simplified network configuration for all HEUFT *SPECTRUM* and HEUFT *SPECTRUM* II systems. Straightforward commissioning and easy web-based administration by your own IT team. Display for current status messages. Automatic security updates. Individual solutions with customer-specific network configuration possible.



HEUFT *PhoneService*



HEUFT *DirectService*



HEUFT *DeviceSupport*

### Hotline for powerful support.

The HEUFT *PhoneService* is also continuously available. You can contact qualified HEUFT technicians with field experience on the service hotline for our customers seven days a week around the clock. Unlike clueless call centre agents they know exactly what has to be done and support you comprehensively with targeted assistance at inland call rates: the respective problem is diagnosed reliably and solved directly. A prompt on-site visit is arranged immediately if in an exceptional case this should not be possible remotely.

### Fast and effective on-site visits.

You need a service technician at your premises? Then you can count on the fast response times of the HEUFT *DirectService*! With 14 international locations and additional service representatives all over the world the swift arrival of competent experts is always ensured. They deal skilfully with everything necessary for restoring the full availability and operational reliability of your HEUFT systems as quickly as possible.

### Online customer portal for a simply better overview and rapid response.

The HEUFT *DeviceSupport* provides you with an overview of the status and the complete technical documentation for all the installed HEUFT systems including available counter readings, messages and basic documents. In addition the browser-based online portal ensures effective spare parts and service management – with an always up-to-date illustrated spare parts list, virtual shopping basket and service visit calendar. The HEUFT *DeviceSupport* provides safety, transparency and up-to-dateness with user-specific, password protected access rights, customisable desktop, the individual grouping of device lists, user-definable alternative device names and the easy downloading of the latest firmware and software.

# VISIT US IN OUR CUSTOMER CENTER



## SHOWROOM

Experience the complete range of HEUFT solutions in action: our arena with almost 1,000 square metres of exhibition space provides you with the perfect conditions to convince yourself of the superior performance of our inspection and quality assurance systems – even with live tests using products from your own portfolio upon request.

[Visit@heuft.com](mailto:Visit@heuft.com) | +49 2636 56 0



## TRAINING

The right know-how for reliable operation: experienced experts will provide you with all the knowledge you need in order to safeguard the functionality and availability of your HEUFT system sustainably in the HEUFT Training Center – not only theoretically but also directly at the device!

[Training@heuft.com](mailto:Training@heuft.com) | +49 2636 56 2671



## SERVICE

The nerve centre for a proactive customer service: our service control centre coordinates all the services on your premises from online remote maintenance with the HEUFT *TeleService*, the HEUFT *PhoneService* up to HEUFT *DirectService* visits – for a worldwide 24/7 support.

[Technical.Desk@heuft.com](mailto:Technical.Desk@heuft.com) | +49 2636 56 278



## CONFERENCES

From seminar room to auditorium for 199 guests: we are pleased to make our premises containing state-of-the-art multimedia equipment available to customers and partners for meetings and events – including a tour of the premises, specialist lectures and practical presentations!

[Welcome@heuft.com](mailto:Welcome@heuft.com) | +49 2636 56 0



## Technological milestones

### 1978 1979 1982 1988 1991

First HEUFT **fill level detection** and world's first ever **multi-segment rejection system**.

The founding of **HEUFT SYSTEMTECHNIK GMBH**.

World's first ever device for an **in-line quality inspection** with operator guidance using a **monitor**.

Universal HEUFT **SPECTRUM** platform for modular inspection systems.

HEUFT **EBI** – the **first empty bottle inspector** for an efficient **linear operation**.

### 1998 1999 2001 2002 2003

First HEUFT **TORNADO** labelling machine.

HEUFT **InLine** – an empty container inspection on an area of only one square metre.

HEUFT **squeezer** for checking the tightness of filled plastic containers.

In-house developed HEUFT **reflexx** image processing system with specific object detection.

HEUFT **eXaminer** – unique pulsed X-ray technology for a careful and precise foreign object detection.

HEUFT **SPECTRUM TX** – a network-compatible platform for modular inspection systems with the **HEUFT PILOT** graphical user interface.

HEUFT **PROFILER** – production data acquisition and line analysis.

First HEUFT **squeezer** for checking the tightness of BFS bottles.

### 2005 2009 2010 2011 2012

First HEUFT **SPECTRUM VX** device qualified for the complete inspection of nasal sprays.

HEUFT **beetec** – a direct drive for container conveyors.

HEUFT **reflexx<sup>2</sup>** real-time image processing system with specific object detection and classification.

HEUFT **prime** full container check – first self-explanatory device with the revolutionary audiovisual **HEUFT NaVi** user guidance.

HEUFT **spotter PH** for inspecting ampoules.

HEUFT **FinalView** for an extensive final examination of the container dress.

HEUFT **conveyor** – container transport in accordance with the **HEUFT CleanDesign**.

### 2013 2014 2015 2016 2017

HEUFT **SPECTRUM II** – the latest generation of the universal device platform for a wide variety of inspection tasks with significantly increased performance and automation as well as the self-explanatory audiovisual **HEUFT NaVi** user guidance.

HEUFT **InLine II IXS** – first empty container inspector with pulsed X-ray technology based on the **HEUFT SPECTRUM II**.

Optimised HEUFT **eXaminer** technology with X-ray strobes and full-field image converters based on the **HEUFT SPECTRUM II** for even more detection accuracy when detecting foreign objects.

HEUFT **Syringer** – inspection of syringes and cannulas.

HEUFT **RECIPER** – brand and recipe management.

HEUFT **LAMBDA-K** – a complete system comprising conveyor mechanics, conveyor control system and multi-segment rejector for a careful upright container rejection in a confined space.

HEUFT **spotter II PHS** and **HEUFT spotter II PHL** – complete inspection of filled vials based on the **HEUFT SPECTRUM II**.

### 2019

The **HSA-Modul** for **closure integrity testing** and the volumetric **determination of the O<sub>2</sub> content in the headspace of full vials** completes the range of functions of the **HEUFT eXaminer II PHS**.

# GLOBAL PLAYER

● HEUFT subsidiaries    ● HEUFT partners



V3\_2020-1

## HEUFT SYSTEMTECHNIK GMBH

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