

tech news

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HIGHLY EFFICIENT AND SIMPLY EASY! 高效率 and 简单易行

HEUFT will be presenting easy to use solutions which safeguard product quality, increase the efficiency and productivity of complete filling lines and at the same time reduce energy consumption at the China Brew & Beverage exhibition.

The HEUFT SPECTRUM II is the highlight: the new platform for modular inspection systems makes the continuous tracking of empty and filled bottles, the precise detection of faults and the reliable rejection of the products in question simply easy. Manual intervention by the user is the exception due to the new level of automation. The audiovisual HEUFT NaVi user guidance takes him step by step to his goal with regard to all the tasks which arise. Downtimes due to operating errors are practically ruled out as a result. There-

HEUFT 将在中国国际酒、饮料制造技术及设备展览会上提供易于使用的解决方案来保障生产质量，提高效率和灌装整线的生产力，同时降低能耗。

HEUFT SPECTRUM II 是亮点：针对模块检测系统的心平台使得连续跟踪空瓶和满瓶，缺陷的精确检测及问题产品的可靠剔除变得简单容易。自动化的全新水平，几乎无需用户手动干预。HEUFT NaVi 试听用户指南一步一步的引导客户达到他所有的任务的目标。实质性地排除了由于误操作而引起的停机。因此，已经优化了生产线效率，提高了产量。

HEUFT ISI 同步串行接口大大减少了新型 HEUFT SPECTRUM II 代设备在安

fore line efficiency is already optimised and output increased.

The HEUFT ISI, an isochronous serial interface, reduces the amount of wiring required during the installation, retrofitting and networking of the devices of the new HEUFT SPECTRUM II generation considerably. At the same time the new in-house developed field bus system minimises the risk of interference and carries out time-critical monitoring functions reliably and without delay: it is always guaranteed even along high-speed lines that all the signal data and information arrives in real time exactly where it is needed.

A steady, pressureless bottle transport with as few gaps as possible results in energy optimised line efficiency. HEUFT will demonstrate how this is implemented using a rotary system which is equipped with, among other

装、改造和联网时所需的布线。同时，新型内部研发的总线系统能够最小化干扰的风险，可靠地毫不延迟地执行时序要求严格的监控功能。甚至是在高速生产线上始终能够保证所有的信号数据和信息能够及时准确地到达所需要的地方。

瓶子运输平稳、无压力及瓶子间隙小的特点可优化能源，提高产线效率。HEUFT 将展示如何使用其所配备的旋转系统及除此之外的 HEUFT 输送带、无接触 HEUFT streamer C 转角结合器来实现该目标。输送带通过 HEUFT beetec 来驱动。伺服器直接驱动以毫秒的速度对瓶流中的变化做出反应并有力地、极其精确地、高效地调整传输速度，在不使用齿轮的情况下达到所需的转矩。在控制



things, HEUFT conveyors and the non-contact HEUFT streamer C corner combiner. The conveyors are driven by the HEUFT beetec. The servo direct drive reacts to changes in the bottle flow within milliseconds and corrects the transport speed dynamically, extremely precisely and highly efficiently. It achieves the necessary torque without the use of gears. This maximises the system rigidity as well as the precision when

controlling position and speed and prevents energy loss due to friction and waste heat. The HEUFT beetec achieves an efficiency of 90% practically without any wearing parts – electricity consumption is 30% less compared to conventional drives.

The result: less steel and more intelligence for simply more efficiency and profitability when filling, packaging and inspecting in-line!



位置和速度、防止能源因摩擦和多余热量而流失时，最大化提升了系统的刚度及精确度。HEUFT beetec 在没有易损件的情况下切实实现了90%的工作效率-较传统驱动器电源消耗减少了30%。

结论是：在灌装、包装和在线检测时，利用更多智慧及更少钢材便能提高效率、获取更多利润！

HEUFT beetec @ Paulaner: "Leave nothing to chance" 无懈可击!

The Paulaner brewery in Munich has completely renovated one of its returnable lines. HEUFT has brought the whole area between the washing machine and the filler up to date with the latest technological developments within the framework of this major project. With success: the equipment which has been installed 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.

慕尼黑的 Paulaner 啤酒厂改建了一条可回收线，从洗瓶机到灌装机的整个区域，HEUFT 为这个项目的整个结构提供了最先进的技术。作为成功案例，所有安装的 HEUFT 设备能确保一个动态的，和谐的和安静的容器传送，与此同时，作为空瓶验瓶机的供应商，我们能为您提供合适的无缺陷的设备。



Discover more...

Industrial revolution? Sustainable evolution! 工业革命? 可持续的进展!

What others proclaim to be a vision of the future has long been the standard at HEUFT. Our inspection systems have been fulfilling the criteria of a "smart device" for decades. The next stage of a continuous evolution in terms of development technology now follows with even more automation, real-time data transmission and a self-explanatory machine human interface.

其他企业宣称的愿景一直以来都是 HEUFT 的标准。我们的检测设备几十年来一直实现着“智能设备”的标准。现在发展科技方面下一阶段的持续进展追求更多的自动化、实时数据传输及不言自明的机器人界面。



Discover more...

SIMPLY EASY!

FINDING FAULTS AND UNCOVERING THE CAUSES 找出错误并揭示原因

Detecting the quality defects of freshly filled bottles and pinpointing the causes at an early stage: this is even more precise and straightforward with the **HEUFT SPECTRUM II VX**!

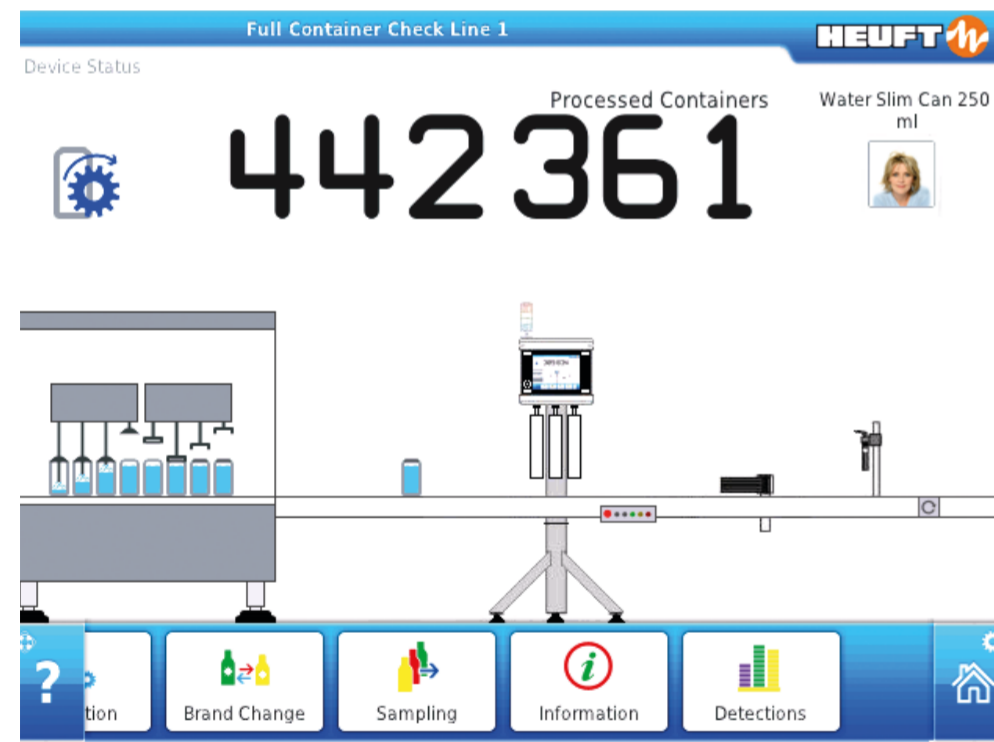
The system checks the fill level, the closures and the labels of up to 140,000 containers per hour. Permanently monitoring the filler valves and the closer heads protects against high reject rates: error sources are uncovered before they go into production and impair the line efficiency.

The personalised and self-explanatory HEUFT NaVi user guidance greatly reduces the need for manual actions. The fill management system of the new HEUFT SPECTRUM II generation makes error-free operation possible without any previous knowledge.

检测新鲜灌装瓶的质量瑕疵并在早期找出原因：**HEUFT SPECTRUM II VX** 使其更加精确直接！

该系统每小时检测多达14万个容器的液位、封盖及标签，永久监测灌装机关及封盖头防止高剔除率的发生：提前发现误差源防止其进入生

产、影响产线效率。具人性化且不言自明的 HEUFT NaVi 用户指南大大减少了手动操作。新 HEUFT SPECTRUM II 一代的液位管理系统使无错误操作成为可能，并且用户不需要准备任何知识。



SIMPLY SEEING MORE PRECISELY! 精确度提升了!

HEUFT sets standards with respect to the all-around inspection of empty containers. The latest example: the **HEUFT SPECTRUM II IXS!** It combines proven optical and electronic detection procedures with the advantages of the powerful HEUFT SPECTRUM II platform and pulsed X-ray technology. Therefore the identification of shell-shaped fractures, chips or glass splinters on the container base is easier and more precise than ever before. In addition the empty bottle inspector detects, among other things, residual liquid as well as cracks and faults in the sidewall and in the finish area. Every individual container is optimally aligned at all the inspection units

in each case so that the examination covers the whole container volume completely. The result: simply more detection accuracy!

HEUFT 设定全面检测空容器的标准。最新的例子：**HEUFT SPECTRUM II IXS!** 它结合了行之有效的光学和电子检测程序以及强大的 HEUFT SPECTRUM II 平台的优势和脉冲X-ray技术。因此，容器底部的扇形破裂、碎屑或者玻璃碎片的识别比之前更容易更精确。

此外，空瓶检测设备还能检测残液、裂缝、侧壁及瓶口区域的错误。在所有情况下，每一个单独的

REJECTING RELIABLY WITHOUT ANY COMPRESSED AIR 可靠剔除，不需要任何压缩空气

It is the ideal solution for hygienically sensitive or aseptic lines and wherever the installation of a pneumatic container rejector is not economical. The new **HEUFT e-mono** manages completely without expensive compressed air! Driven by an in-house developed electric motor it practically only uses energy during the rejection procedure. The advance force adapts flexibly to the weight of the respective package in the course of this. Therefore faulty containers which are filled quite differently are each rejected exactly the same distance – even at high speeds of up to 180,000 containers per hour. The rejection system is extremely quiet and de facto free of wear and maintenance. The HEUFT e-mono is very compact and easy to install

since frequency converters do not have to be integrated.

这是对卫生敏感或者无菌生产线以及安装气动剔除器不够经济实惠时的理想解决方案。新型 **HEUFT e-mono** 能够完全实现不需要昂贵的压缩空气！它通过内部研发的电动马达驱动，几乎只在剔除过程中使用能源。在这过程中推进力能够适应各种包装的重量。因此，每一个不同灌装的错误容器都能准确地等距离剔除—甚至是在线速高达每小时 180,000 罐的情况下。剔除系统十分安静，并且没有磨损和维护。由于无需集成变频器，HEUFT e-mono 非常小巧且容易安装。

THIS IS SELF-EXPLANATORY! 不言自明!

The high degree of automation of the new HEUFT SPECTRUM II platform reduces the need for intervention by the user. However if something has to be done the HEUFT NaVi makes the work simply easy for him. Personalised and focussing on what is essential the menu structure of the graphical touchscreen user interface is extremely flat, organised and self-explanatory. Contextual messages, tools and assistants inform the user step by step what has to be done when, where and in which order. Consequently he can find his way around intuitively without any special previous knowledge. The HEUFT NaVi even speaks to the user: Amanda, the Chief Navigator, guides him through all the relevant device functions in a target-oriented manner using clear and simple words! In addition HEUFT checkPoints simplify the specific identification of components which require manual adjustments e.g. during brand changes: the coloured tags not only flash on the display in this case but also exactly there where intervention is needed. The audiovisual HEUFT NaVi user guidance makes the reliable operation of the inspec-

tion systems of the new HEUFT SPECTRUM II generation simply easy.

新 HEUFT SPECTRUM II 平台的高度自动化减少了用户的介入。但是如果需要做些什么，HEUFT NaVi 可以使工作变得轻松简单。图解触摸用户界面的菜单结构极其扁平、有条有理并且不言自明，其设计相当人性化且击中要点。上下文的消息、工具和助手一步一步告诉用户何时何地哪个命令需要做什么，因此用户可以凭直觉找到解决方法而不需要准备任何特殊的相关知识。HEUFT NaVi 甚至可以和用户说话：总领航员阿曼达使用简单清晰的语言带着用户有目的地浏览所有设备的相关功能！此外，HEUFT checkPoints 简化了需要人工调节的部件的特定性识别，如瓶型更换期间：在此情况下彩色的标签不仅在显示屏上闪烁，也正是需要介入的时候。视听 HEUFT NaVi 用户指南使得新 HEUFT SPECTRUM II 一代检测系统的可靠运行更加轻松简便。



ONE FOR ALL! 以一敌百!

The **HEUFT spotter SF** now also carries out a fill level, closure, leakage and label check in addition to the reliable detection of foreign objects and defects.

The full bottle inspector which reliably identifies low density foreign objects which are floating about in the product or have sunk to the bottle base such as paper, insects or mould as well as scratches, cracks, inclusions and chips on the container itself using a sophisticated optical method is enjoying a very high demand in China. Additional detection technologies, besides the new HEUFT reflexx² high-performance image processing system, have been integrated into the device in order to fully meet the requirements of the largest beer market in the world for a complete inspection of filled transparent bottles.

This includes in particular:

- 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
- a label presence check

In addition the perfected HEUFT spotter SF now offers the possibility of a strictly fault-specific rejection: bottles which are contaminated, incorrectly filled, not sealed, with leaks or unlabelled can each be removed separately from the filling line on different lanes if required.

除了能够可靠地检测异物和瑕疵，还能检测液位、封盖、泄漏和标签。满瓶验瓶机在中国拥有大量的需求，它通过使用一个技术成熟的光学方法可靠地识别漂浮在产品中或沉在瓶底的低密度异物，诸如纸片、昆虫或者霉斑还有容器上的刮痕、裂缝、包裹物及碎片等。除了新型的高性能图像处理系统



HEUFT reflexx²，还有其他检测技术被集成到了系统中，为了能够完全达到全球巨大啤酒市场对于已灌装透明瓶整个检测的要求。

这尤其包括：

- 用于检测液位和封盖缺失的光学模块
- 用于皇冠盖和其他材料封盖密封性与完整性的声波检测 HEUFT sonic
- 标签缺失检测

除此之外，完美的 HEUFT spotter SF 现在能够提供一个严格的具体错误剔除：如果需要，被污染的、不正确灌装的、没有密封的、泄漏的或者没有标签的瓶子可以分别地从灌装线上剔除到不同的分道上去。



ALWAYS AVAILABLE WHEREVER YOU NEED US! 使命必达!

HEUFT systems are well-known for their long-term operational reliability. Malfunctions only occur rarely. And even then you do not have to be afraid of serious production losses. Integrated tutorials and assistants provide valuable help for self-help. Our 24/7 services are available all over the world and offer even more support: the HEUFT TeleService, HEUFT PhoneService and HEUFT DirectService! Whether online remote diagnosis and maintenance, competent advice or on-site visits: technicians with field experience are on standby around the clock in order to find and solve the respective problem. Therefore the reliable operation of your HEUFT system is always guaranteed.

HEUFT 系统以其长期的运行可靠性著称。故障很少发生，您甚至不用担心会产生严重的生产损耗。综合的指南和辅助工具能够为自助提供宝贵的帮助。全球化的 24/7 服务，能够提供更多的支持：HEUFT TeleService, HEUFT PhoneService 和 HEUFT DirectService! 无论是在线远程诊断维护、合理建议还是现场访问：有现场经验的技术人员全天候待命，为的是发现和解决每个问题。因此，您的 HEUFT 系统操作的可靠性总是有保障的。

MORE ROOM – MORE OPPORTUNITIES 更多空间 – 更多机会

What started in 2002 with just five employees has developed dramatically: in the meantime the team at HEUFT SYSTEMS TECHNOLOGY (Shanghai) CO. LTD. comprises almost 100 competent experts. We have extended our Chinese location considerably in order to accommodate them all and at the same time meet the continuously increasing demand for superior HEUFT equipment: a new building of about 1,000 square metres was recently completed. This creates even better conditions with regard to the selling, project planning and commissioning of HEUFT systems, stocking of spare parts, remote maintenance and service. The new customer centre with over 350 square metres of exhibition area and highly modern conference and training rooms provides ideal conditions in order to familiarise yourself with the advantages of our smart systems for utmost safety, quality and efficiency along filling and packaging lines directly on our premises. See for yourself – simply arrange an individual appointment: china@heuft.com

2002 年最开始时仅有5位员工现在已发展壮大：同时海富检测包装系统技术（上海）有限公司的专业队伍也壮大起来，将近有 100 位称职的员工。我们大大地扩展了中国地区的业务，容纳所有地区同时满足客户对于优质 HEUFT 设备持续增长的需求。最近一幢大约为 1000 平方米的大楼刚刚落成。这为销售、项目筹划、HEUFT 系统调试、备件仓储、远程维护及服务提供了更好的条件。展览区域全新的客户中心有 350 平方米，高度现代化的培训会议室为熟悉智能系统的优势创造了理想的条件，您可直接在现场亲自体验他们在灌装线及包装线上安全、品质和高效的表现。亲眼看看——只需个人预约：china@heuft.com

EMPTY CAN INSPECTION AT HIGH SPEED 高速下的空罐检测

Removing faulty empty cans before they can thwart the productivity of the complete filling line and jeopardize the safety of the final product: this also functions on high-speed lines with the latest version of the HEUFT canLine.

The compact system now checks the quality characteristics of up to 144,000 empty cans per hour due to the new HEUFT *reflex*² high-performance image processing system and current software enhancements. Misshapen or faulty flanged edges, which could lead to the practical beverage packaging not being sealed safely or at all and can cause productivity losses due to closer obstructions, are reliably detected. This also applies to dents, bumps and dirt on the inner sidewalls and foreign objects on the base of the container.

The **HEUFT canLine** achieves its impressive detection accuracy with an LED illumination without reflections or shadows and only one single camera. It photographs the complete

finish, inner wall and base area from above. The optics system has such a depth of field that minute faults become clearly visible in the high-resolution images even on high-speed can lines.

在有缺陷的空罐阻碍整个灌装线生产力和危害最终产品安全之前将它们移除：这也是新版 **HEUFT canLine** 在高速生产线上的功能。

倚靠新型 HEUFT *reflex*² 高性能图像处理系统和当前增强的软件，该小巧的系统能在线速高达每小时 144,000 空罐下检测空罐质量。能够可靠地检测可能导致实际饮料包装不能安全密封或者由于封盖障碍完全导致生产力损耗的容器畸形或法兰边缺陷。这同样适用于凹痕，撞击和内侧壁上的污垢以及容器底部的异物。

HEUFT canLine 能够通过一个没有反射和阴影的 LED 照明和一个照相机达到惊人的检测精度。它从上面拍摄



整个瓶口、内侧壁和瓶底区域。如此精深的光学系统使得微小的错误

在高分辨率图像中清晰可见，甚至是在高速空罐线上。

An active partnership: HEUFT seminar at Carlsberg China 积极的伙伴关系：嘉士伯中国 HEUFT 研讨会

Representatives from the renowned brewery group discussed solutions for more quality and efficiency with HEUFT experts in Chongqing.



Discover more...

来自著名啤酒集团的代表在重庆与 HEUFT 专家讨论提高生产质量和效率的解决方案。

China is committed to efficiency 中国致力于效率

China is the largest beer market in the world with over 500 breweries and an annual production exceeding 400 million hectolitres – and it is continuing to grow rapidly. Therefore the demand for HEUFT solutions which improve line efficiency and considerably increase output is accordingly high.

中国以拥有 500 多个啤酒厂和超过 4 亿百升的年产量而成为世界最大

的啤酒市场，并且这一市场仍在持续快速增长。因此对能够改进生产线效率并极大的增加产出的海富解决方案的需求也相应的增加。



Discover more...

Every thousandth part counts! 每千分之一都有价值!

False rejections equal wastefulness! Innovative HEUFT equipment reduces the proportion of good products which are removed from the production line by mistake. This protects valuable resources, increases output and saves real money.

误剔除就是浪费！创新的 HEUFT 设备能够减少从生产线上错误移除好产品的比例。这能保护有价值的资源，增加产量，节约金钱。



Discover more...

GET IN TOUCH! 联系我们!

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