



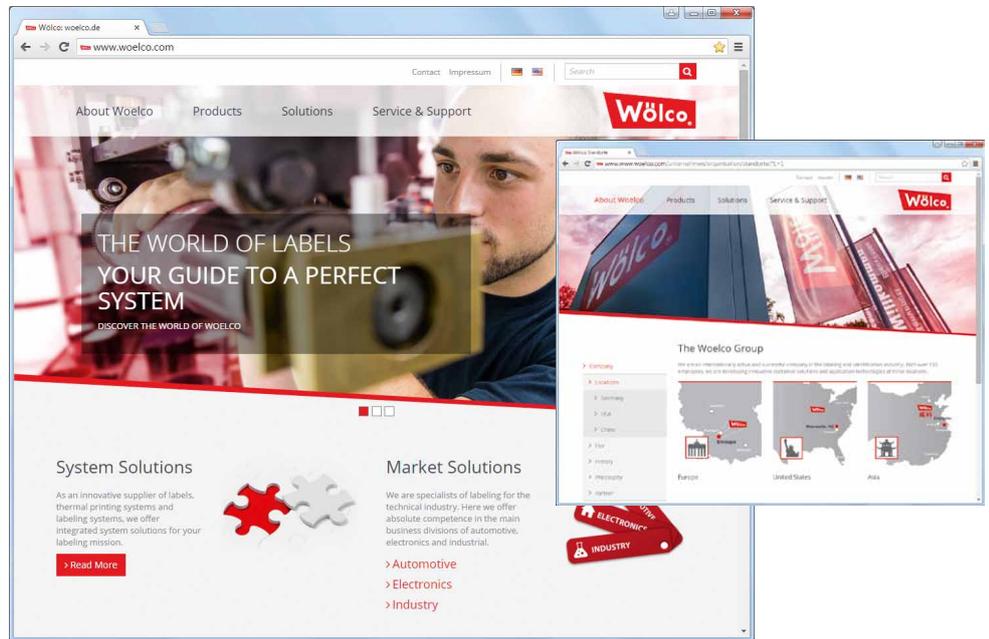
Dear customers and partners,

*in contrast to volatile economic forecasts, Wölco is able to report that business is good and that the company has produced a solid order pipeline in 2015 due to its high-quality products and excellent customer service. In order to continue to deliver top products in the labeling sector with the best employees, various new employees were hired for the Ehningen plant. Several long-term employees will go into well-deserved retirement over the next couple of years. In light of these pending personnel changes, the new hires ensure that valuable expertise will be adequately passed on and will not get lost. Additional revenue increases have been realized in China as well as in the United States.*

*To support the health and well-being of our employees, an internal fitness studio has been opened in September 2015 "Im Letten 16/1" building, Ehningen. The studio is open to all employees.*

*In the near future, you will see a relaunch of the company homepage area to acknowledge the changing user behavior of mobile device users and to remain at the frontline of technological development.*

Dieter Wölfle  
Chairman of the Board



## Wölco Website Relaunch – User-friendly with a Clean New Design

# Online Presence in Line with Newest Trends

*All relevant company and product information can be found quickly and easily on the new Wölco website, which is sporting an updated look and feel. The company homepage was completely redesigned utilizing a new content management system.*

The result is a highly user-friendly interface with intuitive navigation that is easy to update. The modern and innovative online presentation provides information that is prepared to be target group-specific with focus on the topics function labels and labeling systems, featuring a clear design as well as a highly functional application.

The redesigned website presents the modern "digital front" of Wölco.

The relaunch focused especially on web-usability aspects and optimization with respect to mobile end-user devices and search engines. The graphic design is based on requirements of widely utilized end-user devices such as desktop computers, notebooks, tablet PCs or mobile

phones - devices that are primarily used to pull up the page.

The appealing design is characterized by a modern page layout that uses clearly structured areas with simple user navigation. It expertly combines functionality with well-thought-out design. Existing content of the previous Wölco website was also revised and updated. The goal was to optimally highlight the products and services. Product information has also been updated and additional download offers were added as well.

Overall a successful step to stay current with cutting-edge technology and to ensure optimal global accessibility of the company and product information around the clock. ■

Wölco positions products in the B2B sector with Mercateo

# Rising presence of online market places

Neither manufactures nor customers are envisioning the future exclusively with classic retailers. B2B marketplaces on the Internet are becoming more and more important for the economy.

In addition to traditional sales channels, Wölco is now focusing more on various online-platforms. Small label dispensers as well as standard products like the "Wölco Place" placeholder labels, are offered here.

The digitalized procurement processes provide an entirely new transparency for purchasing. Instead of a growing number of suppliers, the customer can now focus on a standardized digital interface with carefully selected partners. This consistent utilization of a standardized platform also increases the flexibility with respect to logistics and speed. For products that do not require intensive consulting, this form of retail via



the Internet has been fully accepted and is gaining ground in the market. Clear cost advantages can be realized for buyer and seller, because the

direct connection between companies and end customers cutting out the middleman. A well-managed platform provides many advantages for both business partners, because the buyer can easily compare products.



Wölco invests in the health of its employees

# Opening of company fitness studio

People, who are physically active under professional care are healthier, perform better and feel better overall.



In order to make it easier to start a fitness routine and to support a more active lifestyle, Wölco AG has set up a company-owned sports studio at its headquarters in Ehnningen in the "Im Letten 16/1" building, where all employees can train free of charge on 11 devices set up on more than 100 m².

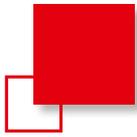


After a full day at work, it is often tempting to quickly grab a beer in the pub around the corner or to relax on the couch with a snack while watching TV. Many people find it difficult to get motivated after work to pursue a sport, even though research has shown that sport increases the tolerance to deal with stress and therefore improves the general well-being, which in turn increases the mental and physical performance.

Visit us in Hall 4 / Booth 4B58



From March 8th -10th, 2016 during the Logimat tradeshow in Stuttgart. 14th International Trade Show for Distribution, Material and Information Flow



## "Everything from One Source"

# Hauff-Technik banks on Wölco products

**Wölco News:** *Your KLT containers turned into a real challenge for your company. How did that happen?*

**Katja Mack, Hauff-Technik:** Over time, more and more identification labels were added to the KLT. However, the old labels were only partially removed or not at all. The result was that the KLT containers were quickly covered with labels and were dirty.



Katja Mack (Team Leader for Shipping and Logistics) & Oliver Litke (Department Head for Production Control)

*Hauff-Technik is one of the most important European manufacturers of bushings for wires, pipes and other lines. Since its founding in 1955, the company has grown from a small manufacturer to a midsize champion, who is now successfully selling more than 3000 different products in more than 20 countries. The customers of Hauff-Technik include energy suppliers, municipalities, construction companies, installation businesses, commercial companies, and private contractors. Hauff-Technik focuses on best quality and optimized work processes for its internal operations.*

**Wölco News:** *What made you choose the Wölco "Place" label for your container management?*

**Katja Mack, Hauff-Technik:** The "Place" label significantly reduced the cleaning efforts and costs. In addition, the imprinting of company information, such as the logo and address, always identify our KLT containers as the property of Hauff-Technik.

**Wölco News:** *Please describe in 3 words the look of your KLT containers before you started using Wölco Place.*

**Katja Mack, Hauff-Technik:** Sticky, messy, unorganized.

**Wölco News:** *And after being fitted with Wölco Place?*

**Katja Mack, Hauff-Technik:** Clean, presentable and ready for being marked without cleaning.

**Wölco News:** *How did your employees respond to the optimization of the KLT containers through Wölco?*

**Katja Mack, Hauff-Technik:** Attaching the Place labels was easy for our colleagues. Of course they saw the added-value through the significantly reduced cleaning efforts as very positive. Finally, there was no more cumbersome scratching off of label residue!

**Wölco News:** *Ms. Mack, in addition to the Wölco labels, Hauff-Technik has acquired 10 Zebra thermal transfer printers. What purposes do they serve?*

**Katja Mack, Hauff-Technik:** The labels for our products are printed at our commissioning stations. The printers are connected with our ERP system and thus can take care of a multitude of tasks.

**Wölco News:** *How important is the flawless function of the devices?*

**Katja Mack, Hauff-Technik:** The printers are used every day and of course our products cannot leave the premises without the proper labeling. Flawless function is therefore very important.

**Wölco News:** *What drove the decision to purchase the TT printers, the labels, and the consumables from Wölco?*

**Katja Mack, Hauff-Technik:** It was very important for us to purchase all required components from one company that offers "all from one source". That reduces the amount of work for us and we have one point of contact for all areas. In addition, Wölco was able to optimally coordinate the printers, labels, and the thermal transfer ribbon.

**Wölco News:** *What benefit do you see in selecting regional partners like Wölco AG as it relates to service and repair for the thermal transfer printers at your company?*

**Katja Mack, Hauff-Technik:** The simplest answer is that regional partners can be on-site quickly and can provide more personal service.

**Wölco News:** *Thank you very much for the friendly view into the inner workings of your company. We are certain that our customers will read this interview with great interest and we are looking forward to a hopefully long-term business relationship with Hauff-Technik GmbH & Co. KG.*



Wölco Place at work



Thermal transfer printer at work



The label holds what it promises

## Rotating labels

VANK Wheels produces aluminum racing rims for professional kart racers. These racing rims are the first choice for racing sports enthusiasts due to the high precision and absolute true running.

VANK has set its goal to position the brand more prominently in the market and to also introduce a simple traceability of the rims. Together with the customer, WLS has now developed a label that guarantees the customer a simple traceability without barcode. VANK selected WLS due to local proximity and the extensive expertise in the area of technical labels.

Wölco designed a label with a special adhesive formula, which not only sticks to aluminum but also to anodized aluminum. In addition, the label stays in place even under extreme heat conditions as is the case during kart races. Due to its thin material, the label does not impact the true running of the wheels. WLS was able to fully apply its label expertise. ■



Highly motivated employees are the key to success

## 365 days without complaints

During the last monitoring audit in January 2015, the external auditor pointed out to WLS that it had been more than 150 days since the last customer complaint.



In the meantime, we have had more than 365 days without negative customer feedback. That is a significant achievement and a compliment for

the quality provided by the entire WLS team. The optimal combination of employees who care for each other, the product, and the customers is key to the success. All employees are motivated and very much appreciate the work environment as well as the certified quality management system, which guarantees transparency, structured processes, and traceability of the entire process. The success was honored on September 15 with a "qualiversary" celebration (anniversary of top quality) for the entire team. ■

## Woelco now also represented in Mexico

Mexico is seen as a growth market in Northern America. Due to this development, Woelco is now represented at various locations so that our customers have access to technical support and sales staff in their local language.



## VOSS Award for excellent services

For the year 2014/2015, WLS was awarded the "Quality Performance Award" of VOSS Automotive Mexico for the first time. This annual distinction is awarded by this renowned international commercial company to its best suppliers. Excellent services, flexibility as well as the technical quality of the products are key award characteristics.





WLC  
Woelco Labeling China

威科 Wölco®



## Expansion of the capacities for label production

# Investment in the future

*"Economic and efficient work in compliance with our quality standards are the guidelines for our label production. The methods of lean management are also an integral component of our work. The quality management system ISO TS16949 is the instrument for keeping this promise to our customers" states Jochen Schleiss, managing director of WLC.*

In order to follow these guidelines in the future to adjust the production capacity to demand, WLC decided to strengthen the labor production, especially in the area of sophisticated labels. After an intensive and long selection phase, which already started in early 2014, an extensive practice test was to show whether the secret favorite was able to deliver on its promises. For this practice test, employees of Wölco AG/Ehningen took selected test materials to the machine manufacturer in Italy. In addition to the general processing of label materials, the setup process as well as the general handling, the system was also extensively tested for its maximum performance and precision in particular. Final interviews with reference customers finalized the purchasing decision for us. In January 2015, WLC placed the final order for the delivery of a print and die-cutting system. Before the new machine found its way to China for label production, following the initial completion in May of this year, it was still tested for several days in Italy to confirm its suitability and finally received preliminary acceptance.

"The wait has definitely paid off" explains Jochen Schleiss. Like all machines of this series, the system has been equipped with servo technology for optimal handling and control of the web tension. The semi-rotating die is a "technological highlight". In addition to two die-cut

units, the production system features three print units and can process materials up to a width of 370 mm. "With the system, we anticipate a significant increase in productivity and the development of new business sectors in China" says Dieter Wölfle, chairman of the board of Wölco AG and owner of WLC. ■



# 威科



## Strengthening of sales

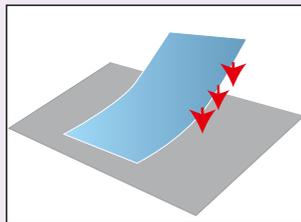
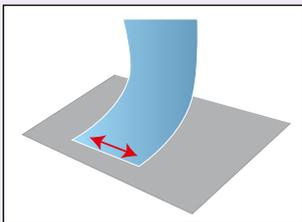
The sales team at WLC has a new member: Ray Xu. He already has many years of experience in the automotive sector. He managed sales for Hengst Filter in Suzhou for 8 years. After that, he switched to Sensata Sensors, where he also worked as a sales manager for two years. On June 1, 2015, Ray Xu took over the position of sales director to manage all sales and marketing activities of WLC. This central position was introduced as part of the adjustment of the sales strategies of the company, which have already been initiated at the beginning of the current year 2015. It targets primarily the individual support of the domestic automobile end customers in China. Ray Xu will drive the development of new sales channels in order to ensure the continued effective supply of the target markets with high quality Woelco products. ■

# Bubble-free application of self-adhesive products

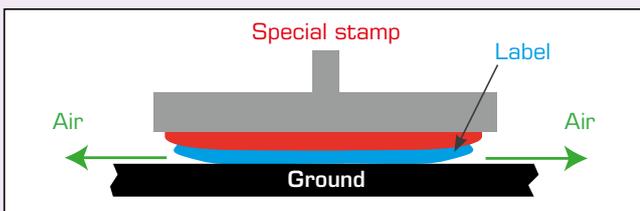
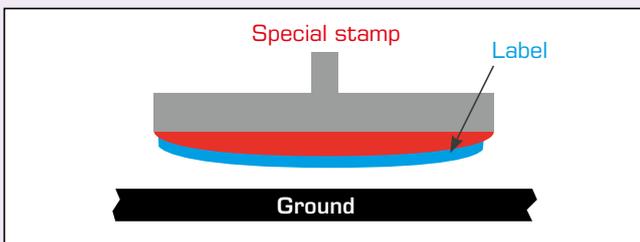
An undesired bubble formation during the application of self-adhesive labels is not only a visual nuisance, but also costs time and money due to the disrupted application process. In general, malfunctions during the label application can be differentiated into error categories. First, there is a physical cause, which means bubbles and air pockets form immediately during the application of labels, mostly involving larger formats. The second cause on the other hand involves the formation of air bubbles over time. The cause is the application surface, which most of the time is plastic that emits gas over time and therefore forms air pockets under the label. The objective is now to further investigate the formation of bubbles and to devise practical solutions.

## Physical air inclusions

What works with smaller labels without any issues, causes problems with the application of large-format labels. If you don't pay attention, an air bubble can form very quickly, and is then difficult to remove. The most important principle during manual application: Do not fully remove the self-adhesive label from the carrier material. First, only peel off a small piece along the short side of the carrier material. This way, you can position the label exactly where it needs to stick later. Then, use a hand or a small squeegee to slowly press the label on the surface in a sweeping motion in one direction while simultaneously and slowly pulling back the carrier material.



The automatic application works similarly. The secret is to not just slap the label on, but to apply it in a precise manner. The application stamp of the system should be adjusted to fit the conditions of the application surface and the label form.



## Bubble formation during the application

Especially over-sized formats bear the risks of forming folds and air inclusions because in spite of careful work it is almost impossible to apply the glue evenly on the surface.

## Air bubble formation during chemical reaction due to outgassing

Outgassing surfaces - this spells unpleasant conditions for the label-processing industry. What exactly does "outgassing" mean? When studying the issue of undesired bubble formation, "outgassing" is related to the composition of the surface materials. Thermo-plastic sometimes release gases during their product lifetime. In case polycarbonate, this would be carbon dioxide and water vapor; in case of acrylic glass, it is residual monomers. This process can also be accelerated through the impact of temperatures above 50°C. Polycarbonate is a solid, very hard plastic which is often used for construction parts in the automotive and electronics industry due to its high resistance and low weight. Acrylic glass on the other hand offers a variety of applications for architectural use such as light strips, terrace roofs or exhibition booth construction. The issue: With these materials, the problem of "outgassing" may first occur many years after the construction. In comparison, materials such as metal and glass do not exhibit any outgassing effects. Other plastics usually only release gas immediately after the manufacturing process. Among other materials, this also includes mold injections made of polypropylene or polyurethane.

## Why do materials release gases?

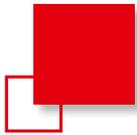
The cause for this phenomenon may be a rising gas pressure. Under the influence of rising temperatures, the pressure in the plastic rises so that - as in the case of polycarbonate - carbon dioxide and water vapor escape. Everything initially looks like clean work after the application of the foils. However, weeks and sometimes even months later clearly visible bubbles form on the surface.

Visual defects lead to doubt in the product quality.

Because foils and adhesives are almost gas impermeable, air inclusions cannot escape fast enough. Especially in connection with heat, this leads to punctual debonding effects between adhesive and surface. The consequences of a visual impairment of the appearance of products are often underestimated. Users that are looking at a defective label often also draw conclusions with respect to the quality of the product. When faced with defective labeling, the buyer or user potentially also has doubts about the functionality of the product itself.

## Smart solutions

The answer to air inclusions that occurred during the application can be micro-structured adhesives with air channels. Immediately after the adhesion, the air can escape via the channels or can be smoothed out with the help of the squeegee. Solutions for outgassing services may also be a gas-permeable combination of foil and adhesive. Semi-permeable materials allow a fast escaping of the air inclusions. The suitability of the material must be checked individually for each application because the functionality depends greatly on the extent and duration of the outgassing. In case of outgassing surfaces, together with the client we will take a close look at the surfaces onto which the labels are to be applied. Depending on the results, a rapid outgassing test may be necessary. Following a conclusive assessment, various designs will be tested to ensure optimal suitability to prevent bubble formation. Ultimately, only tests and competent consulting services can prevent time-consuming and thus expensive follow-up work.



Semiautomatic labeling with robotics technology

# Compact and precise

*Wölco Labeling & Automation developed and realized a system to apply insulating elements to a component. A particular challenge was presented by the difficult material that had to be applied with utmost precision.*

Through the use of state-of-the-art components such as image processing and robotics, this project was successfully implemented. All development work was carried out at Wölco.

**Production process:**

The worker manually inserts the component into the holder and presses the START button. Then the system starts the process and a robotic arm moves to the special foil that is attached extremely lightly to the carrier foil. A special design removes the die-cutting

part from the carrier material and positions it onto the robotic stamp. Then, the positioning of the die-cutting part on the stamp is measured via a camera. This position locating allows to apply the die part precisely onto the component of the spiral.

For this project, Wölco has pushed the boundaries of standard label application systems again and set new standards for difficult applications. ■



*Stephan Bellem is employed by Wölco AG as a division manager and has been instrumental in developing the company-internal tooling building department. After successful Mechatronics studies and a certified engineering degree, he first worked as a project engineer at Visolution GmbH and managed international projects. During many international trips, including India, the United States, Japan, and Saudi Arabia, he gained important experiences before he started to work as a division manager at Wölco in 2008.*

**Wölco News:** *Mr. Bellem, how would you describe the area of responsibility as a division manager at Wölco?*

**Stephan Bellem:** It involves the planning and development of the labeling and automation division. This includes the design of mechanics, electronics, electrical systems and software as well as the introduction of standards and processes.

**Wölco News:** *The Wölco tool manufacturing team has grown significantly over the last couple of years. What is the reason for that?*

**Stephan Bellem:** The main reason for our success is the expanded bandwidth of the internal specialists. By introducing standards while retaining the high flexibility of a mid-size company, Wölco machine manufacturing has developed new markets as a total systems provider. From databank integration to the handling of products in the area of automation, hardware, and software are implemented "in-house".

The motto is: All from one source. Our customers have one point of contact from blank labels over image processing all the way to a complex automation step and the integration of systems in installation modules.

**Wölco News:** *Which products and services present your core business?*

**Stephan Bellem:** The core business are standard applications in the area of automated identification of products with individual adaptations to the respective purpose.

**Wölco News:** *As a department head you are always in close contact with the customers. What trends do you see in the labeling and automation sectors - what are Wölco customers currently concerned with?*

**Stephan Bellem:** For Wölco the trend goes more and more towards automation. Predominantly that means specialized solutions and new developments. We label products beyond of common requirements. Precision, traceability, special carrier systems, product handling, and the integration of our systems into the customers' process chain play an important role.

**Wölco News:** *Thank you for your candid responses.* ■

Multiple languages in a small space

# New Vaillant solar station with the Wölco multi-layer label INFOduo

The new solar station auroFLOW VMS 70 from Vaillant is significantly more compact in comparison to its predecessor model, which means that the space for information is also very limited. The identification in this case is provided with a multi-layer label from the Wölco INFO series.

In order to transport product information in different languages on very small space, Vaillant uses the multi-layer label INFOduo from Wölco for its new compact solo station. The label can be opened and resealed over and over again without impact on readability or adhesive strength. This manner of use is enabled through a carrier label that is permanently bonded to the product with an adhesive, while two cover labels can be opened and closed again any number of times with the help of an adhesive-free grip tab.



Sharing of experience at a personal level strengthens the team spirit

# International Sales Meeting in Ehningen

In June, Wölco opened its doors for the 3-day International Sales Meeting. Wölco employees from Germany, the United States, and China met in Ehningen for a personal get-together, during which they were informed about the latest product developments and exchanged experiences and ideas.

This regular personal interaction is especially important to the chairman of the board Dieter Wölfle. "In sales we work primarily with peo-

ple, with whom we communicate on a regular basis, but who are sometimes separated from us by thousands of kilometers. In this case it is

especially important that you become familiar with each other in order to be able to get a personal impression from the respective team members and move beyond just knowing names and numbers. This is the only way we can also speak a common language with regards to Wölco" explains Dieter Wölfle to highlight the importance of the meeting. A lot of work- and industry-related information were therefore be exchanged during the three event days. Numerous ideas, also related to measures for the improvement of international customer support, were very well received. The last evening was spent as a casual get-together to be able to get to know each other in a relaxed atmosphere. The entire event is an important component for the company in order to ensure the high standards for customer service at a global scale.



## I M P R I N T

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