

Compatible with many tools

Flexible thermoforming system with high-speed stack handling

"For challenging tasks in thermoforming, ILLIG is your best bet," is a frequent refrain from manufacturers of branded goods. ILLIG Maschinenbau is a pioneer and market leader in the manufacture of machines and tools for producing plastic packaging using thermoforming. Its new thermoforming system RedLine RDF 85 now enables the use of off-system tool systems. This is how the company is setting new standards in flexibility. Also integrated is a stack handling system with electric axes from Festo.

The flexibility of the new thermoforming machine from the RedLine product line enables the installation of tool systems from other market players. "The adaptive, variable tool interface increases the flexibility tremendously and opens up entirely new possibilities for us in the cost-sensitive and highly competitive markets in Asia," explains Walter Clauss, Head of Mechanical Development and Standardization at ILLIG.

ILLIG supplies custom-developed complete thermoforming systems along the entire value chain. Depending on requirements, the complete systems include modules such as loading, temperature regulation, decorating, shaping, punching, cutting, stacking and final packaging. "Generally, our systems are among the fastest and most reliable on the market with up to 50 cycles per minute," explains Walter Clauss. Another quality characteristic of the ILLIG brand is the sharpness of the plastic packaging's final shape. If the walls of thermoformed plastic packaging are completely uniform, customers can also use thinner-walled plastic films and thus save costs.

ILLIG Technology Center

One thing ILLIG is particularly proud of is the ILLIG Technology Center. Here, the company works with manufacturers of branded goods and packaging from the food and non-food area to test new packaging materials and shapes. "We do more than pay lip service to sustainability here, it is an everyday practice," explains CSO/CTO Jürgen Lochner. In fact, the customers' demands are high: reduced material input and greater use of recycled plastic are right at the top of the wish list for research and development.

Despite the concerns many European consumers have about plastic packaging, the market for plastic packaging worldwide is continually growing. The demand for thermoforming machines is high, particularly in Asia and on the American continent. In Europe there is growing demand for ILLIG's flexible packaging systems for producing pure paper packaging, combined paper and plastic packaging and applications made from recyclable monomaterials. European customers are also demanding more and more bio-based plastic packaging. "That is why the development of sustainable packaging solutions for and together with our customers is such a

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priority for the experts in our ILLIG Technology Center," says Jürgen Lochner. This includes the reliable processing of plastic films made from recycled plastics with ILLIG systems.

Collaboration with market leaders

When it comes to the speed and longevity of thermoforming machines, the most important thing is the automation technology used. "For us, it is very important to collaborate with market leaders. Festo, for example, supplies the electric axes for the stack handling system that removes the finished packaging parts from the machine," explains Head of Mechanical Development and Standardization Walter Clauss. The handling system can produce five different packaging variants.

"The electric axes EGC-HD with heavy-duty guide for high speeds and precision as well as the extremely rigid cantilever axis ELCC from Festo's modular axis system proved to have the very high precision and speed needed to meet the high dynamic requirements for cycle rates," says Clauss. "We combined the axes into a handling system, with full support from the experts at Festo during the selection and configuration." The experts were involved in the joint development of the RDF 85 and the stack handling system right from the beginning. "The experts from Festo were available straightaway and at all times, and had no problem working with our team of developers on site to find shared solutions," stresses Walter Clauss.

Joint development

Together the developers from ILLIG and Festo installed the components in the machine and also carried out joint tests on the system to find the optimum solution. Walter Clauss also found the design tools that allowed the developers at ILLIG to design the automation technology themselves to be very practical. "This greatly boosted our speed and efficiency."

"It was also important to us to be able to get everything from a single source – not just the proven pneumatics from Festo but now also high-performance electric products. And with the prospects in terms of digitalisation solutions, we're on a firm footing for the future with Festo," says the Head of Mechanical Development and Standardization at ILLIG.

About ILLIG:

ILLIG is one of the world's leading suppliers of packaging and thermoforming systems as well as tool systems for cardboard, paper and plastic. Its range of services includes development, design, manufacturing, assembly and commissioning of complex production lines and individual components. ILLIG offers its customers resource-efficient solutions and sustainable solutions with its proprietary packaging development "Pactivity® 360" and high-performance packaging systems and helps packaging manufacturers with design and development. ILLIG has 600 employees worldwide.

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ILLIG thermoforming system RDF 85

System with adaptive, variable tool interface: the flexibility of the new thermoforming machine RDF 85 from the RedLine product line enables tool systems from market competitors to be installed.



ILLIG stack handling system with Festo axes EGC-HD

Stack handling system: according to ILLIG, the electric axes EGC-HD with heavy-duty guide for high speeds and precision as well as the extremely rigid cantilever axis ELCC from Festo's modular axis system proved to have the very high ...



Jürgen Lochner, CSO/CTO at ILLIG

"The development of sustainable packaging solutions is a priority for the experts in our ILLIG Technology Center," says Jürgen Lochner, Chief Sales Officer / Chief Technology Officer at ILLIG Maschinenbau GmbH & Co. KG.



Walter Clauss, Head of Mechanical Development and Standardization at ILLIG

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ILLIG thermoformed packaging

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