Lachenmeier Stretch Hood

The art lies in making the difficult simple...
A close and intensive cooperation with our customers and suppliers is our foundation. We listen in order to put your ideas into practice. To be one step ahead and give you the professional solutions you require. Our success builds on customer satisfaction which can only be achieved through a mutually beneficial relationship. Our objective is to give customers optimal solutions related to their specific needs. Products that are second to none, and which perfectly suit your requirements – built for long life.

When you say Lachenmeier, you also say

Highly experienced company
Through almost four decades, we have gained a thorough knowledge of the end-of-line packaging industry and its segments. Furthermore, we have sold more than 3000 machines.

Industry specific solutions
We are open-minded towards customer expectations and requirements, and pride ourselves in delivering machines to the specific requirements and demands of each customer and market segment.

Professional service
We are dedicated to providing you with what we believe is the best service on the market. We provide a thorough commissioning of our machines and training of your personnel. We have a 24/7 hotline served by a group of our most experienced engineers. Furthermore, our after sales service department is known for its quick and professional response to customer demands.

As a professional user of Lachenmeier equipment, you can have every confidence that you have acquired a product of the highest quality and of the greatest possible benefit to you.

Lachenmeier – Listening, Learning, Lasting

www.lachenmeier.com
Stretch hood is one of the most economical and flexible packaging methods to keep loads safe and secure. In addition to securing the products on a pallet, stretch hood also keeps dirt and water out. Stretch hood provides a cost reduction of approx. 30% compared to shrink wrapping and is cheaper than traditional stretch wrapping, where multiple film layers are required to provide the same strength and protection. Back in 1988 Lachenmeier was the first company in the world to introduce the fully automatic stretch hood machine.

The stretch hood principle continues to gain ground worldwide thanks to its many fundamental advantages over other packaging systems. Stretch hood technology is perfect for packing sack loads, and together with the development of new films, it is now possible also to pack products such as food and beverages, bricks, appliances, etc.

The advantages of stretch hood wrapping over shrink wrapping and stretch wrapping include lower film consumption, a smooth and visually optimal load ensuring an excellent product display, a water and dust-proof packaging well-suited for outdoor storage, and lower energy consumption minimizing the impact on the environment. Another advantage is a reduction in film roll changes. With stretch wrapping, film change is carried out about 20 times more often than with stretch hood. The consequences are more manpower needed and more down-time resulting in increased costs.

At Lachenmeier, we consider every aspect to ensure the optimum reliability, both of the wrapped product as well as the constructional reliability of the machine and consequently the machine lifetime. When Lachenmeier started producing packaging machines, the machines had a double chain system, but customers wanted a more stable machine, which is why Lachenmeier changed to QCS (Quatro Chain frame Suspension). The principle is that the Lachenmeier stretch hood frame is mounted in chains in all four corners of the machine. The chains are connected by axles; this synchronizes the frame weight in the machine. This way, we have no unnecessary torque and only vertical forces appear in the machine frame. Even at a capacity of 180+ loads an hour, a machine that runs continuously all year round operates without noticeable vibrations leading to a better stretch result. This again extends the machine lifetime and improves the overall economics of the machine.
A Lachenmeier Multi Flex stretch hood machine is your guarantee for a wrapping machine tailored extensively to your specific needs. The Multi Flex offers a high level of flexibility in the multiplicity of load sizes ranging from 1/4, 1/2 to 1/1 pallets, which can be wrapped in one machine with automatic change between the different pallet sizes.

In the Multi Flex, the height of the load is automatically measured before it moves into the machine. The machine automatically chooses the correct film size and the right amount of film is fed to the film opening system. The film hood is then welded and cut. The hood is stretched hydraulically by four grippers that then move down the load applying the film and deliver it underneath or onto the pallet.

The flexibility of the machine lies in the gripper system. The grippers have a long reach and are adjustable in both X and Y direction and therefore always adapt to the actual load size.

Multi Flex stretch hood machines are delivered with control panels fitted with established components and a large operating screen. The Lachenmeier stretch hood machines are constructed to handle various qualities and thicknesses of stretch hood films. We run film development projects with several converters and the resin manufacturer, ExxonMobil Chemical. This positions Lachenmeier as a front-runner not only in regard to our machines but also in relation to film development.

The easy machine operation allows for customers to enter new parameters in the control system in case of new future load dimensions or film type. The machine handles recipes enabling the customers to easily create new parameter sets and download them to the PLC, after which the Multi Flex adjusts itself accordingly. Lachenmeier stretch hood machines are delivered with control panels fitted with established components and a large operating screen.

The Lachenmeier Multi Flex machine can process 200+ loads an hour when integrating the specially designed high-speed module.

Stretch hood may not always be the right choice, and therefore we offer you a test wrapping of your own products at one of our test facility centres. You are most welcome to attend these tests or await the full test result, when the packed loads return at your premises.
Lachenmeier is recognized world-wide for providing innovative packaging solutions to all types of consumer and industrial products companies. We have a high performance research and development team with various skills in mechanical and electrical conception, design and fitting that ensures continuous focus on new developments and the ongoing improvement of existing machines. Over the years, this has led to various patents and improvements to the benefit of our customers.

Characteristics of the Lachenmeier Stretch Hood machines:

**Strength and cost saving**
Our patented film unwinding system makes it possible to down-gauge the film thickness and size and thereby save costs. Our hydraulic stretch units with traction forces exceeding one ton per gripper stretch films from 40 to 200 microns even at low temperatures. The Quatro Chain frame Suspension (QCS system) eliminates unnecessary wear on the machine and prolongs the machine life.

**High reliability**
Provided by several built-in safety devices, among others profile control, gripper control as well as film adjustment to prevent film displacement.

**Simplicity**
Characterized by our vacuum opening system – unique to Lachenmeier, and our simple and maintenance-friendly film feed device, which provides easy replacement of film sealing and cutting unit.
There are several reasons why we use hydraulic stretch units. First and foremost, they ensure a gentle way to precisely suit load type, load weight and product tolerances. This way, we achieve a visually optimal film application and a very flat load top – all resulting in improved branding of the products and a very stable load effectively secured for transport.

Ends - well-suited for high-elevated loads

Lachenmeier stretch hood machines can pack with either film hoods, film tubes (open top, where we simply apply a film tube or a film band. It is even possible to wrap with a flat film. This holds the goods tightly together minimizing the risk of transport damages. Our new top stretch film unwinding system eliminates thin and fragile film on the corners of the stretch hood wrapped load. The system makes film on the corners approx. 30% thicker than normal and avoids the formation of “pouches” on the corners of the load. The unwinding during stretching saves you up to 10% film. With this system, it is also possible to down-gauge film thickness and to reduce packaging costs. Another benefit of this system is the significantly reduced risk of tearing the film during application as well as a secure wrapping of products with sharp edges.

The Lachenmeier stretch hood machine is suspended in chains in all four corners of the machine. The chains are connected by axles to ensure a synchronized lifting/lowering of the frame. This construction avoids torque leaving only vertical forces in the machine frame, which extends the lifetime of the machine considerably. The machine operates without noticeable vibrations and the final stretch result is optimized.

The film unwinding during application gives optimum vertical stretch and is slower than the downward movement itself. Thus, film is saved, appearance is improved, and load stability is considerably increased. The Quatro Chain frame Suspension (QCS system)

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The stretch units are equipped with encoders that control application of the stretch film over the product. Every step of the application procedure is fully controllable from stretching the film to application over the load and to releasing the film under the pallet. The film does not just slide off the stretch units; the winding off is controlled in a gentle way to precisely suit load type, load weight and product tolerances. This way, we achieve a visually optimal film application and a very flat load top – all resulting in improved branding of the products and a very stable load effectively secured for transport.

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Encoder controlled film application

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Excellent packaging economy

Film unwinding during stretching – new patent EP 1 184 281

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Lachenmeier Reliability

Gripper control

The gripper control system ensures that the film is always placed correctly on the grippers and that no load leaves the machine without film. It is a simple and reliable gripper system with no movable parts.

Pallet profile control

The Lachenmeier stretch hood machines are fitted with equipment which ensures correct packaging of the goods. A built-in profile-control with four photocells constantly supervises whether the goods have been positioned correctly on the pallet and that the grippers are automatically placed in a position matching the load dimensions, keeping the film size at a minimum and ensuring that the film is not over-stretched.

Film adjustment to prevent film displacement

Ensures that the film is always placed in the centre of the film feed device in order to ensure optimum operation. If the film reel is wound asymmetrically, the system automatically aligns the film in either direction required before the film is fed to the machine.

Vacuum film opening system

Unique to Lachenmeier our film opening system is able to open and apply film hoods without various internal separators, cones, rollers and external drive-belts. Thanks to vacuum, all the internal devices can be avoided. Four special Lachenmeier vacuum boxes with optimum suction surfaces for improved fixation of all four sides of the film, open the film hood. The vacuum boxes are individually adjustable to various film sizes. A fixation unit, which retains the film mechanically during the opening, is placed on the side of each vacuum box. An opening system with double reliability.

Film feed device

Characterized by its simplified, maintenance-friendly design, our film feed device operates up to eight different film sizes with automatic change. In case of chaotic feeding of varying pallet sizes, the film feed device automatically selects the correct film size.

Easy Service

All Lachenmeier machines are easy to operate and there is easy access to tool-less servicing. The frame can be lowered to a comfort able working level and the film replacement takes place at floor level.

Smooth, controlled film application. Delivery anywhere on the load – under the pallet, at the pallet top or simply as a stretch band. No loose film ends - well-suited for high shelf storage.

Lachenmeier stretch hood machines can pack with either film hoods, film tubes (open top, where we simply apply a film tube or a film band. It is even possible to wrap with a flat film. This holds the goods tightly together minimizing the risk of transport damages.

Superior stability due to both vertical and horizontal holding forces in the film.

Easy film change at floor level. The end of the old film is simply sealed, taped or stitched to the end of the spare film and automatically fed through the film feed system.

Film opening based on vacuum and mechanical fixation. Special Lachenmeier designed vacuum boxes.

Profile control monitoring the correct positioning of the pallet during the entire application of the film hood.

Easy replacement of the sealing and cutting unit. No tools required. Simply open the “Click-lock” and pull out the magnetic sealing unit and replace it with a spare one.

Single film feed device with easy access to the film sealing and cutting unit.

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# Lachenmeier

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