



Lachenmeier Shrink Wrapping

Rely on your packaging



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, built for long life and which perfectly suit your requirements.

Lachenmeier is synonymous to:

**Highly experienced company**

More than 35 years in the market has given us extensive experience of the end-of-line packaging industry and has positioned us as one of the world leaders in end-of-line pallet wrapping. The fact that we have sold more than 1000 machines speaks for itself.

**Tailor-made machines**

We interact with our customers with curiosity; we listen to them and respond to their expectations and needs. The machines are constructed on the basis of the information provided by the customer and on our thorough knowledge of the different segments.

**Professional service**

Before we leave your site, the machine has been tested thoroughly and your personnel have been trained to ease trouble-shooting. Our 24-hour customer service hot line provides fast, easy, reliable access to our most experienced support engineers. Customer needs are also met effectively and quickly by our after sales service department.

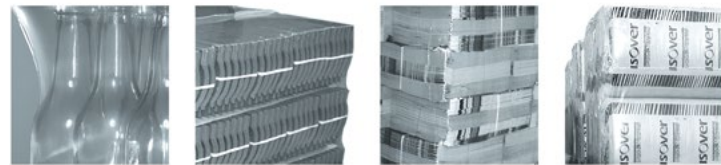
Lachenmeier – Listening, Learning, Lasting

[www.lachenmeier.us](http://www.lachenmeier.us)

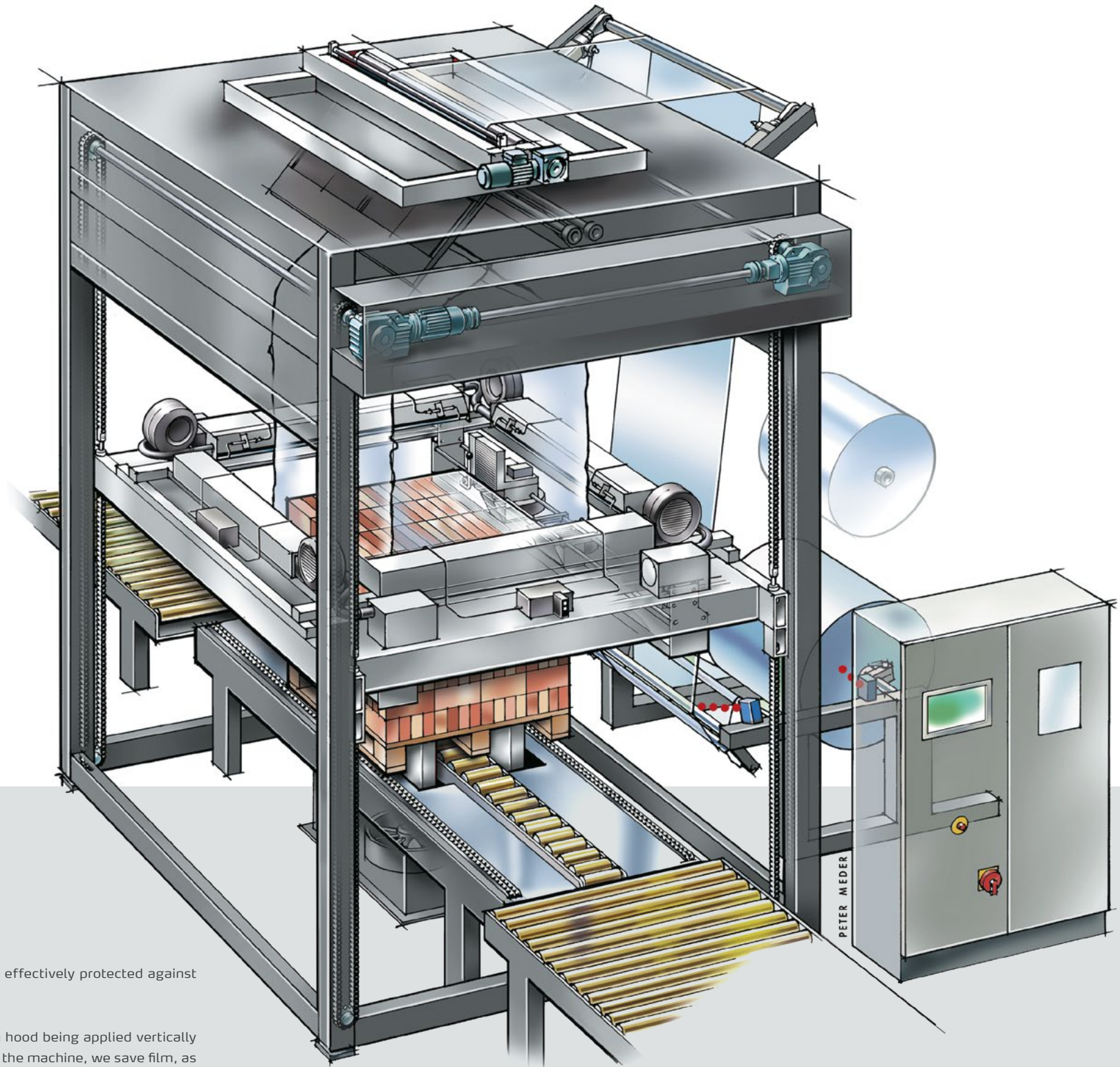




In 1982 Lachenmeier was the first company in the world to introduce the shrink wrapping principle, where hood application and shrinking take place in one unit.



Glass bottles    Tiles    Magazines    Insulation



## Combi Flex

The Lachenmeier Combi Flex is a space-saving machine built in a modular unit design. The machine is the incorporation of both a hood-making device and a shrinking unit.



Prior to entering the Combi Flex, the height of the load is measured and the machine adjusts the length of the hood accordingly. Depending on the pallet dimension, the Combi Flex automatically selects from the different film roll sizes. Up to 8 different film sizes with automatic change is possible. The film hood is then blown up like a balloon and applied over the load safely and without getting in contact with the load. After application, the film hood is sucked underneath the lifted pallet, the bottom shrink starts, and

the pallet is lowered onto the conveyor, thus preventing the building of half-moons at the bottom of the load. The shrink frame moves upwards while shrinking the film on the sides of the load and finishing at the top with the top shrinking. Load and pallet are now fixed

in a stable unit effectively protected against dirt and water.

Due to the film hood being applied vertically from the top of the machine, we save film, as it is possible to reduce the film circumference and still guarantee a safe non-contact hood application.

The capacity of the Combi Flex is 100+ loads per hour.

### Longer machine life

At Lachenmeier, we consider every aspect to ensure the optimum reliability, not only of the wrapped product but also the constructional reliability 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 the QCS System (Quatro Chain frame Suspension). The frame is suspended in chains in all four corners. The chains are connected by axles to ensure a synchronized lifting/lowering of the frame. This way, we have no unneces-

sary torque and only vertical forces appear in the machine frame. Even at a capacity of 100+ loads an hour, a machine that runs continuously all year round operates without noticeable vibrations and the final shrink result is better. This again extends the machine lifetime and improves the overall economics of the machine.



**Cutting edge technology**

The shrink film packaging market has been substantially influenced by Lachenmeier through our continuous research and new developments brought to the market since 1969. Lachenmeier holds numerous patents that all contribute to reduced film costs, optimum load stability and superior branding of the products.

Lachenmeier shrink wrapping is known for:

**Strength and cost saving**

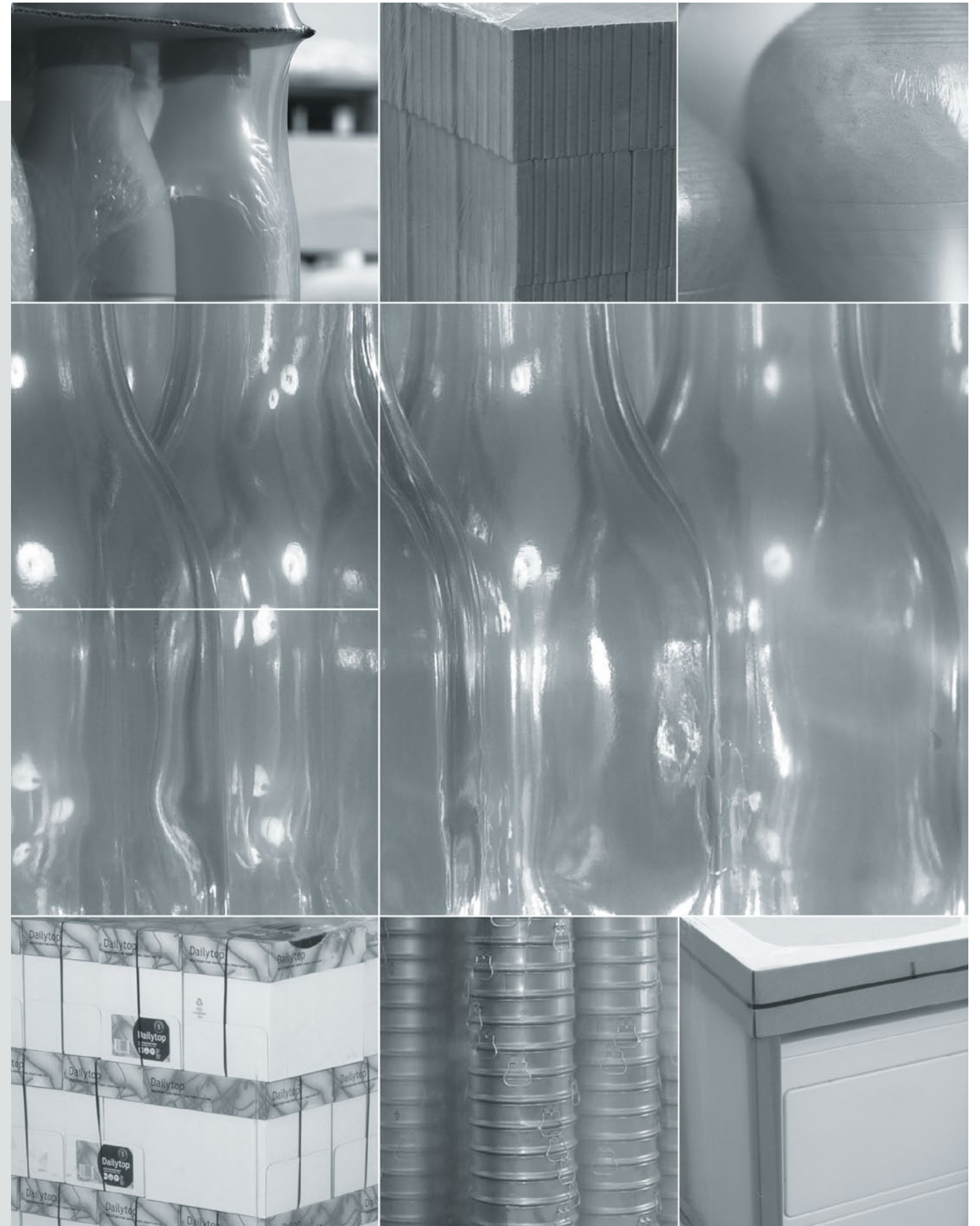
The QCS System (Quatro Chain frame Suspension) guarantees no unnecessary wear and tear on the frame, and with that a prolonged machine life. Our low consumption gas burners with the controlled heat distribution system allow for down-gauging in film thickness and cost saving.

**High reliability**

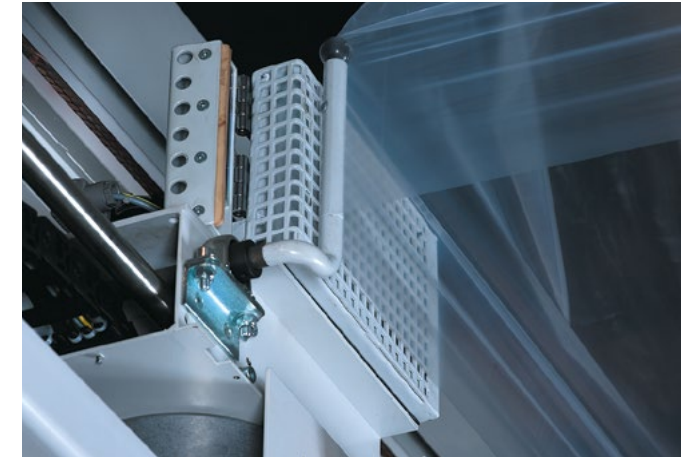
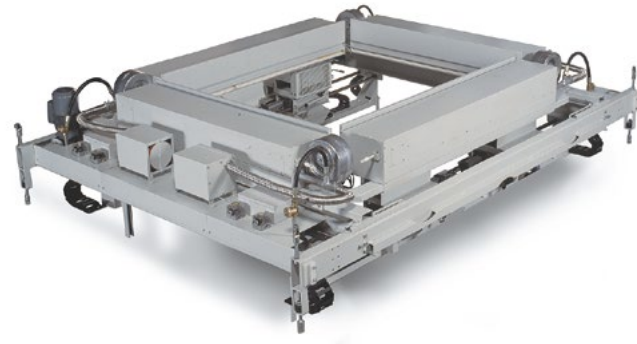
Provided by our burner system that ensures an even heat distribution to all four sides of the product independent of variations in load dimension, which is essential for a safe shrinking. Other built-in safety devices are the profile control, the gripper control as well as the film adjustment that prevents film displacement.

**Simplicity**

Characterized by our vacuum opening system and our simple and maintenance-friendly film feed device that provides easy replacement of film sealing and cutting unit.



## Shrink Wrapping



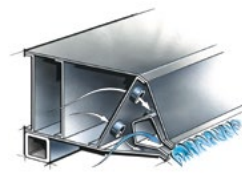
## Unique Lachenmeier technology

### Shrink safety

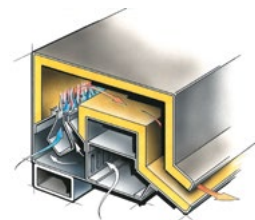
We do not compromise with safety. It is crucial that the shrink result achieved with a Lachenmeier burner system is the most economical and most reliable available. The Lachenmeier burner systems are provided with separate, automatic speed controlled blower motors, air/gas ratio controls, supervision, ignition system, etc. In case of variations in product dimensions, the heat distribution is adjusted automatically to each single product. As a consequence, all four sides of the product are exposed to the same temperature during the shrinking. Furthermore, a built-in flame monitoring device ensures that the gas supply to the burners stops if ignition fails in one of the burners. The machine consumes no gas when running idle, as the gas supply is only open during the few seconds of shrinking. Besides shrinking by means of either natural gas or liquefied gas, the Lachenmeier shrink wrapping machines can also be delivered with electrically heated shrink frames.

### Anti-lamination system

Anti-lamination is used for products already packed in plastic. In order to minimize lamination between the shrink film and the plastic on the products, the system prevents that the shrink film gets into contact with the film on the products until it is sufficiently cooled down and there is no longer any risk of lamination between the two films.



Low consumption burner with a reduced gas consumption.



Enclosed burner with no visible flame. An insulated burner, which is not emitting much heat to the surroundings.

## Excellent packaging economy

### Non-contact hood application

The film hood is fed from the top of the machine, blown up like a balloon and applied over the load safely and without touching the load. This method saves film as the direct vertical application makes it possible to reduce the film circumference.

### Quatro Chain frame Suspension – QCS System

For machines running at high capacities, the actual shrink frame is under a heavy charge. Therefore the Lachenmeier shrink frames are either centre-mounted or mounted in a 4-column frame where it is suspended in chains in all four corners. The chains are connected by axles to ensure a synchronized lifting/lowering of the frame. This way you completely avoid stress on e.g. the columns and on the chain system - all leading to a longer lifetime of the machine. Furthermore, the shrinking itself is performed without any vibrations from the burners, and you avoid overshrinking the film, stress on gas piping and the general appearance of the final shrink result is improved.

### User-friendly graphic operation

The Lachenmeier control cabinet is equipped with established components and a large, operator friendly screen. A modem can be connected allowing for remote on-line servicing, and unnecessary long and costly interruptions of operation on your machine are avoided.



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.



Possibility of data collection and modem connection for remote servicing of the machine.

## Lachenmeier Reliability

### Bottom Shrink

The bottom shrink process locks the shrink hood under the load before shrinking the sides and the top, so no half-moons at the bottom of the load occur. During the bottom shrink process, a vacuum is created to ensure the film shrinks properly underneath the pallet and thereby creates the optimum hold between products and pallet.

### Pallet profile control

The Lachenmeier shrink wrap machines are fitted with equipment that 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 that matches the load dimension. This keeps the film size at a minimum and avoids contact between film and load.

### Gripper control

The gripper control system ensures that the film is always placed correctly on the grippers. The shrinking process does not start unless a hood has been applied to the load.



Profile control - the process stops if the photocells are refracted during the downward movement.



Pneumatic gripper control. Ensures that the film is always placed correctly on the grippers.

## Keep-it-simple and easy to service

### 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. A double safety and highly reliable opening system.

### Film feed device

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



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



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.



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