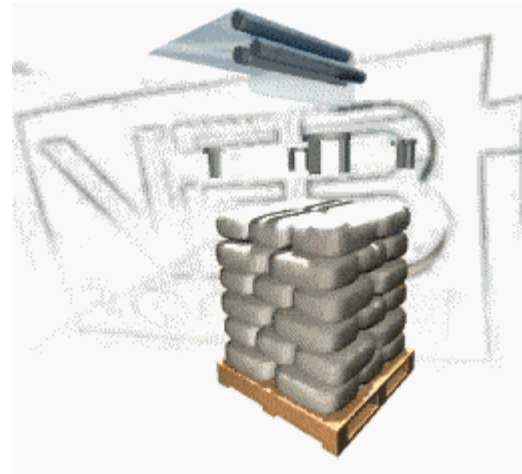


How it works

The cold stretch system is a coherent step in the development of packaging techniques for items loaded on pallets. To this aim, we successfully combined various, tried and tested operating modules for non-stop operation, to achieve a compact, high-capacity unit. The machine and its technology cover a wide range of practical applications.

Features of the cold-stretch technique:

- Film opening system with special carriage inserted under the sealing bar;
- Well-defined hood grip for its insertion into the pick-up device for winding up and extending it;
- Mechanical winding up of the film by means of rubber wheels;
- Optimum film consumption by means of calculation of the length of each individual hood;
- Soldering done by two, Teflon-coated aluminium bars, which are always hot;
- Control of shape during hood-stretching;
- Robust construction with pre-tested machine parts offering sure operation.



Procedure

First of all, the reel of film is unwound by means of a separate synchronism, dual ratio motor (drag and de-reeling) to ensure the film remains taut and is always guided in the same position. After initial opening, 4 pads take up the lateral folds of the film and open it up completely to avoid any resistance in film adhesion. At this stage, the film bellows are open and 4 corner supports can be inserted for winding up and stretching it. The 4 winding-up rollers are placed on the film, a sliding bracket is pressed against them and the required length of film is collected. After the pause needed for terminating the soldering process and for cooling, the rest of the hood is also gathered up onto the 4 corner supports. At this stage, the 4 supports move outwards until they have achieved the set level of extension; during this step, the top part of the film is also stretched. Now the whole carriage with the pre-formed hood is lowered. The hood drops over the pallet and once the film has been released off the corner supports, it stretches over the pallet. The block is thus encased and protected by the hood and is released by the telescope type conveyor (chain/idle rollers).

Technique for manoeuvring the film

- The concept of the machine is based on over ten years of experience in packing systems using heat-shrink wrap and thus featuring: motor-driven control of film unwinding, thus limited strain of film uptake arm;
- Intake of film free at machine head so it is possible to replace the coil in a very short time;
- Coherent film management: the film is never pushed but always pulled, an essential element for very thin films;
- Large surface fingers, which compensate the tolerances for film size and thus provide a firm grip;
- Pneumatic/mechanical aperture of the tubular coil film inside

The concept of the control systems

All the motor-driven controls are impulse-operated, whereas the pneumatic controls are position-operated, guaranteeing maximum reliability especially after breaks or impediments in operation: it is possible to proceed automatically, starting from the current situation reached. All the parameters needed for operation of the machine, such as speed, route and timing, can be entered and changed by authorised personnel on the control panel. All the manoeuvres in the manual were designed to be in line so that it is impossible to risk mechanical collision with the machine, even without specific training on the system or in limit situations.

Techniques for safety

All movement follows controlled routes. The machine stops as soon as there is any interference with the unit to be wrapped, even in manual operating mode. The cold-stretch system was designed in line with the latest standards for the prevention of accidents.

