

Palletiser C3000 — Machine principles



The introduction of the C3000 marks the completion of CSI's palletising programme. Its well thought-out technology makes the machine outstandingly suitable as an end-of-line palletiser for medium capacity production lines. The solid twin-column lifting mechanism assures stability at all times, while advanced techniques like a two part loading platform, automatically adjustable side guides, spacing pawl and end guides guarantee optimum stacking and extremely fast changeover times under all conditions.



IMPROVING PERFORMANCE

Palletising is an essential link in the production and distribution process. Substantial delays can easily build up in the internal flow of goods whenever this important logistical element is not functioning effectively. A fully automatic palletiser can therefore achieve considerable savings in costs and an appreciably higher performance level for the complete production line. Equipped with the qualities of robustness and product friendliness for which CSI is renowned, the C3000 is capable of transforming what mostly used to be a function which was difficult to control into a paragon of reliability and flexibility.

The dosing conveyor carries the packs to the pattern formation station of the machine, where the packs are either turned or not (depending on the design of the stacking pattern) and a row is formed. The row of packs which subsequently moves onto the infeed conveyor is then transferred to the loading platform, with several rows coming together to form a layer. When a layer has been formed, the lifting mechanism either ascends or descends to the transfer level and the loading platform moves vertically until it is above the waiting pallet. The centring device encircles the layer and the loading platform separates in the middle, so that the layer is placed carefully and with complete control on the pallet or load already present. The lifting mechanism subsequently returns to the loading level, so that a new layer of packs can be formed.

The machine takes up relatively little floor space due to its compact and solid twin-column construction, yet provides optimum stability at all times. The basic machine is suitable for product infeed at both high and low levels, so that the machine can be installed in practically any lay-out. In addition, it is also possible to feed-in and discharge pallets in different directions, while the two part loading platform in combination with the automatic centring device ensure an exceptional degree of product friendliness which is not achieved at the expense of tight stacking. The lifting mechanism moves vertically and is equipped with a frequency-modulated main drive. The C3000 can handle a great variety of products under all conditions. The application of the CSI Modular Product System means that the machine can also be upgraded to a higher degree of automation in a later phase.



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IMPROVING PERFORMANCE

Automatic palletiser

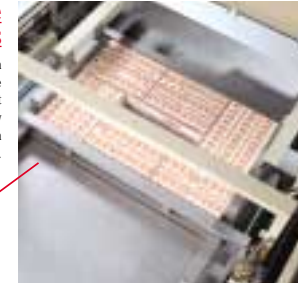


Automatically adjustable spacing pawl

The introduction of a fully automatic spacing pawl and end guide on the pattern formation station is another prime example of technological ingenuity. The separate manual adjustment at 4 points has been completely eliminated, providing a good half hour of extra production time per product changeover.

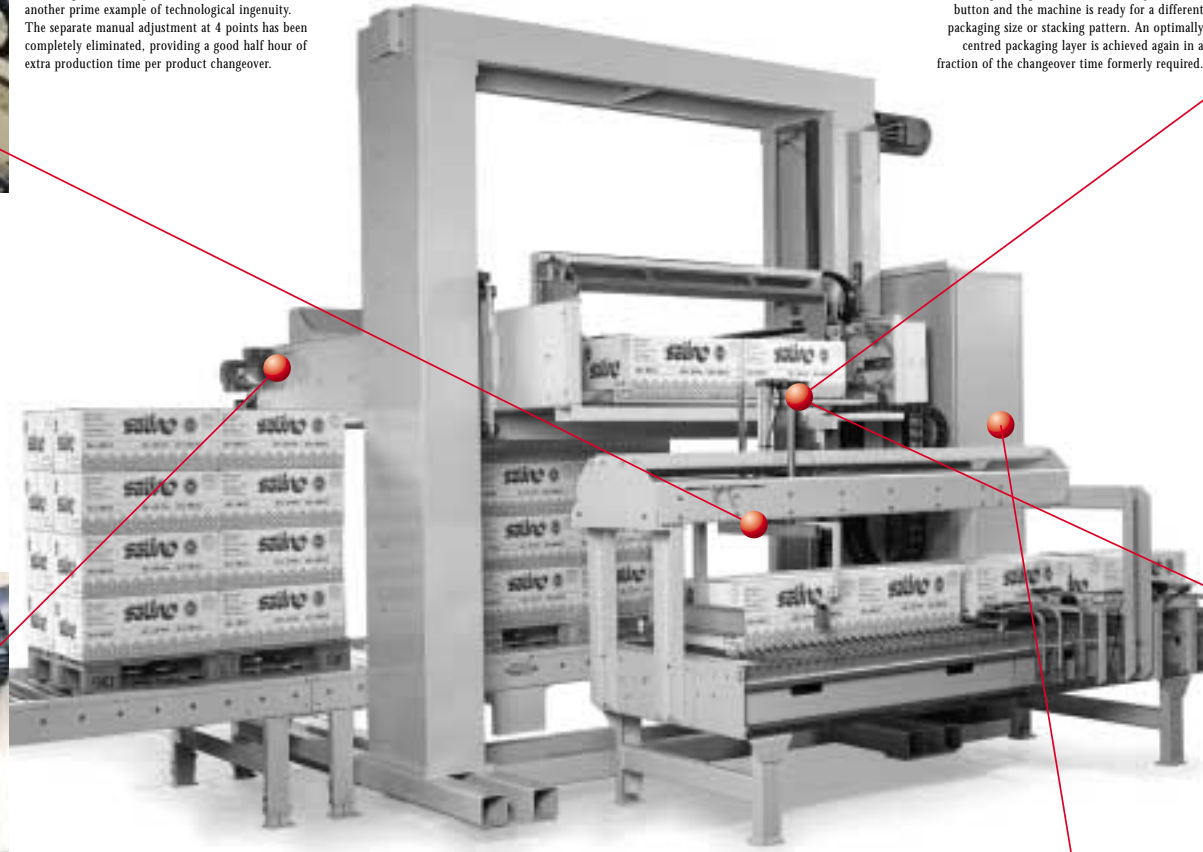
Automatically adjustable side guides

Changing over is no longer synonymous with scrambling through the machine. One push of the button and the machine is ready for a different packaging size or stacking pattern. An optimally centred packaging layer is achieved again in a fraction of the changeover time formerly required.



Electrical components

High-tech pulse generators and motor reducers have replaced their pneumatic predecessors. The - expensive - consumption of air has thus almost been reduced to zero, while the maintenance required has also been substantially curtailed. Furthermore, the C3000 is now in its element in all conditions, and that also includes extreme cold.



Advanced man-machine interface

A fingertip is all that is needed to make the choice of a different product or palletising pattern, clear to the C3000. The machine responds immediately and changes over to the programme input by the operator in a fraction of the previously-required changeover time. The ultimate in easy operation.



Two part loading platform

Not only cases and shrink film packages with or without tray, but also softpacks are handled without problems in any stacking pattern required. The studied construction of the loading platform even makes extra stacking patterns possible, guarantees tight stacking and eliminates the necessity for a turning section on the discharge conveyor.