

Project example Spring Rolls



Daloon packages spring rolls with the aid of IPS. No other manufacturer of spring rolls in the world surpasses Daloon's production capacity which exceeds 1 million rolls produced and packed every day. The spring rolls are produced in various sizes ranging from 20 g to 200 g and with the various types of filling and pancakes more than 100 varieties are available. This wide variety requires all the units of the line configured by IPS to provide enormous format versatility. Despite this flexibility, the line is able to package up to 700 spring rolls per minute into boxes or bags and insert them into secondary packaging.

The original enquiry referred only to partial automation of the primary packaging area. An analysis of the packaging process by IPS revealed that the only viable solution would be to fully automate the entire primary and secondary packaging area. As a result, IPS was commissioned to assist in the design and total re-engineering of the packaging processes. Product tolerances were defined,

bag sizes and box formats used for packaging were optimized. Also essential was clarification of interfaces between the picker line and the form fill and seal machine. Today, the many different spring roll variants are packaged using two different routes.

Depending on the program preselection, the Schubert F44 robots either place the products on the chain transporter feed unit of a Fuji form fill and seal machine or lay the

rolls into automatically erected boxes with a clicklock type seal. Packaged either in tubular bags or boxes, the spring rolls reach the Schubert casepacker, which places the primary packs into transport cases. The tape sealed boxes are then transported towards the palletizing robot, the final station of the packaging process.

1.



The product feed unit simultaneously forms the interface to the IPS line. The deep-frozen spring rolls are separated by Key vibratory conveyors and transferred to the Schubert product conveyor (blue).

2.

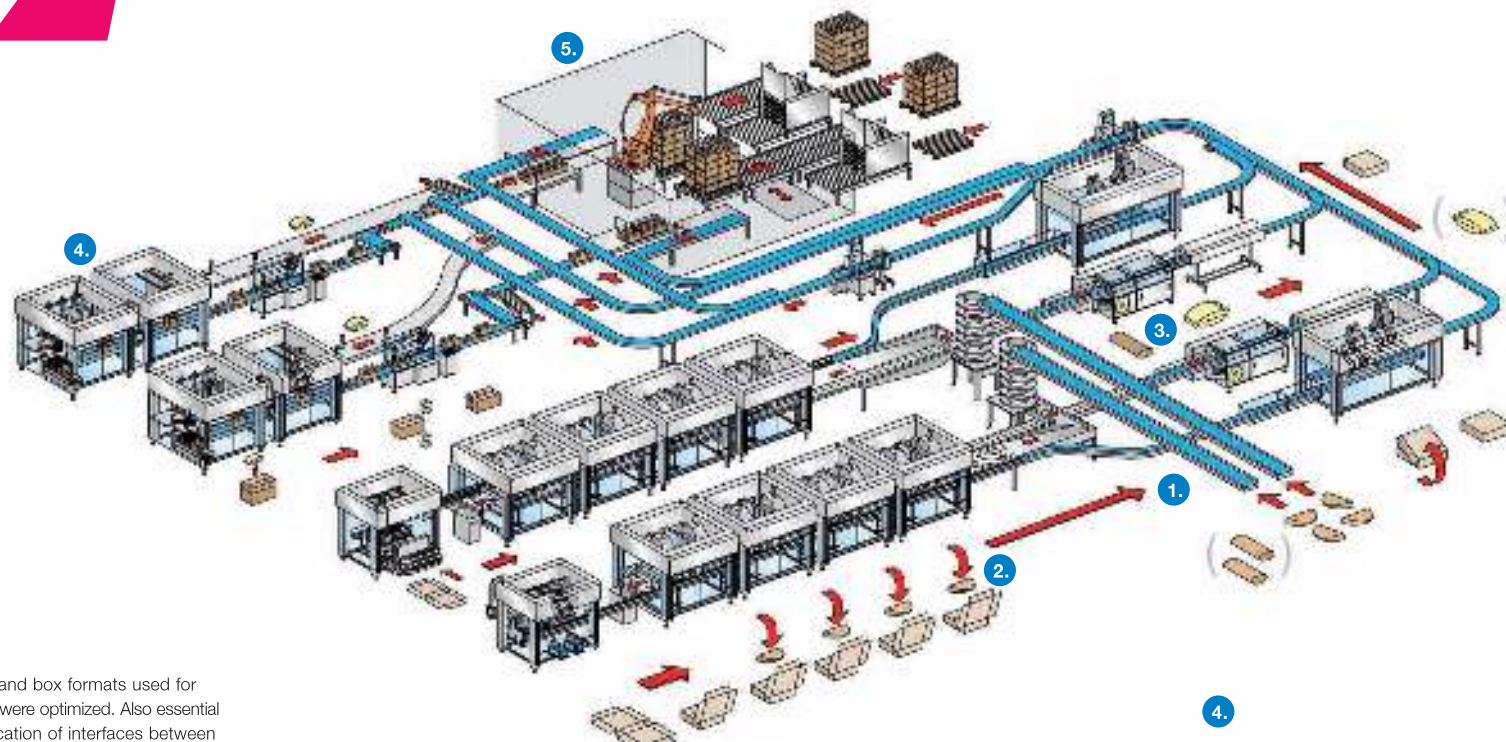


The four individual TLM-F44 cells pack the products singly and place them optionally directly in the box (on the right of the picture) or in the feed conveyor for the form, fill and seal machine (left of the picture).

3.



On the left, the products are shown grouped on the infeed conveyor into the Fuji form, fill and seal machine (Type FW-3710 BS/B4V). As is so often the case, in this project product feed forms the nerve centre of the wrapping function.



Wide-ranging formats and different product sizes call for absolute secondary packaging flexibility. A TLM-F44 from Schubert groups the bags for loading in complete layers in the folding box by its 'colleague' the TLM-F2 robot.



PCA palletizing technology takes care of the boxes closed by the Knecht case sealer. One palletizer services both packaging lines, ensuring optimum capacity utilization.