palletising

Case Story

Showcase project in stacking potato products

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The standard in the potato products industry used to be to transport all cases to one central area and use high capacity palletisers to do the stacking. Although this is a good solution from technological viewpoint, the most important downside is the heavy dependency on a few pieces of equipment.

Therefore it was, already early in the process, decided to go for the more LEAN-approach of end-of-line palletising. And the customer really wanted to create a showcase factory with the best of technologies. Top quality suppliers as Kiremko, Blueprint, Bosch, Markem and CSi were contacted to come with proposals. As usual, CSi proposed a few different alternatives in this phase, underlining its consultative approach and making use of its extensive range of palletising solutions and experience.

It was very clear that the customer did not prefer robotic solutions, so CSi focused on several lay-outs with TAROS layer palletisers. In the sales phase CSi used a virtual reality impression of the lay-out to give the customer a better idea of what was offered.

KEY DATA

- √ Industry: Potato products - frozen
- √ Country: United Kingdom
- √ Equipment: 7 TAROS layer palletisers, wrappers, case- and pallet conveyors, elevators, spiralveyors
- √ Remote end-of-line palletising of 11 productions lines
- √ Large cases with weights of 12 kg - 15 kg
- √ Capacity: up to 120 pallets per hours

BENEFITS

- √ Productivity project resulting in salary-cost reductions
- √ Handling ergonomics improved

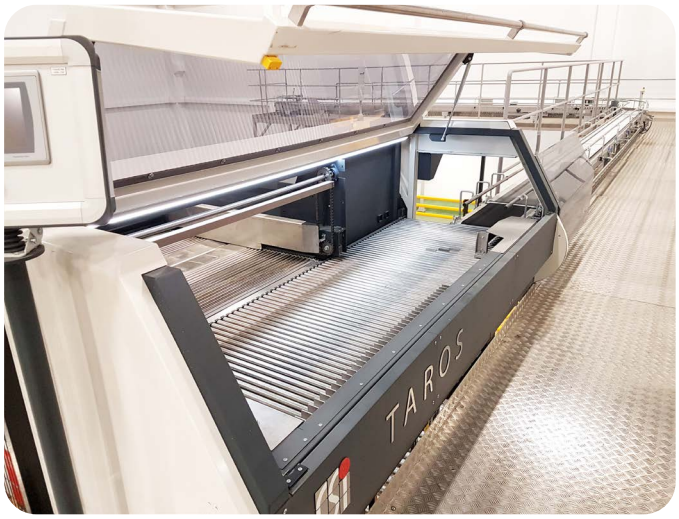
OPPORTUNITIES

The concept - every line can go to every palletiser - gives optimal reliability and flexibility. If one palletiser is down (e.g. for maintenance), products can easily be transferred to another palletiser

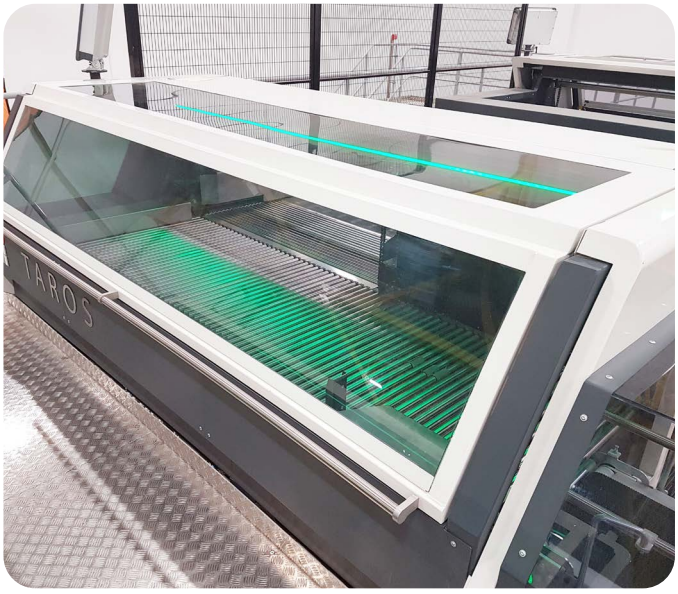
INNOVATIONS & TECHNICAL HIGHLIGHTS

- √ Color led warning lights on machines
- √ Very small footprint
- √ Full access to row-forming area with one door
- √ High level of workmanship quality
- √ Virtual reality projections used in sales phase
- √ Turning cross TAROS to prevent case imprint
- √ End-of-line instead of multiload central

Although not 100% a greenfield project, as a warehouse/ cold store was refurbished to become a factory, many aspects of the project resembled a greenfield. Planning of many different contractors, including construction workers, had to be aligned. This resulted in scheduling challenges that demanded extra flexibility from all involved partners. The professionalism of the contractors, their cooperation and their commitment made it work. Also the customer handled matters very professional and made sure communication was smooth and decisions transparent. Being a turnkey supplier with strong relationships to the other suppliers CSi was able to take this responsibility and turn its share of the project into a success.



A production line results in 2 or 3 legs where products are packed. Then the cases are fed back onto a case conveyor to be moved upwards (Ambaflex spiralveyors) and towards the central palletising area. Cases, that already have been assigned to a specific layer palletisers, are pushed in the right direction and stacked.



Such a large project requires many people on-site during a relatively long time. Many people, different timings and different works cause all kinds of risks. These were managed very strict and as during the works one incident occurred, procedures were strengthened further as a result.

Any product can be assigned to any palletiser. By means of a turning cross in the TAROS infeed the products are turned and positioned such that they are not damaged. The TAROS machine was restyled and upgraded a few years ago to create a better fit into state-of-the-art production environments. Empty pallets are transported on a transfer car. After palletisation pallets are conveyed to two Lantech stretch wrappers. With two double vertical pallet elevators the pallets are moved are moved to the manual unloading position (-/- 18 C) or automatic truck loading.

The new plant really is becoming a showcase for handling potato products, not only within the Group, but within the whole industry. CSi is proud to have been part of this. Based on size, complexity and reliability, it really is an example project in its kind

EXPERIENCE

With many different people on site, installation is a challenge. With clear rules and good management it finally results in a system that contributes to a higher productivity