palletising

Case Story

Increased ergonomics because of automatic palletising of heavy detergents

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Our customer is a leading European manufacturer of household and personal care products. The company has the ambition to also become the leading manufacturer of comanufactured and private label products for the household and personal care market. As the company is growing fast, they were in need of two new palletising lines for nine new products which recently had been added to their product portfolio. They have an extensive international network of manufacturing locations and is planning many targeted investments on key sites.

CSi installed two new i-Pal palletisers with Fanuc robots, layersheet applicators, buffering conveyors and label orientation for the two new production lines. In total nine palletising lines have now successfully been installed at the customers production facility.

CSi has been working with this customer for many years already and has installed seven i-Pal palletisers in its production facility. As the company is steadily growing and also is developing new household and personal care products constantly, two new production lines have been taken in operation. On these new production lines they are producing nine new products which are all packed in cardboard boxes and boxes with lids.

KEY DATA

- √ Sector: detergents
- √ Product: household cleaning products in boxes, 9.2 kgs max
- √ 2 additional i-Pal palletising robots with label orientation
- √ Integration of layer sheet applicator and buffering conveyors
- √ Capacity: 10 cases/minute for 9 different products
- √ Pallet sizes: 1200x800 and 1200x1000 m

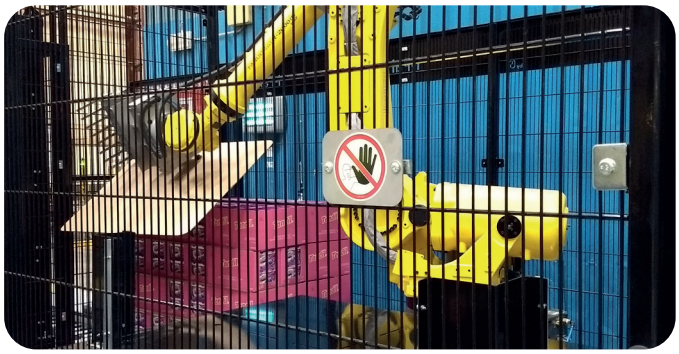
BENEFITS

- √ Customer is saving costs of 1 fte per shift (3 or 5 shifts)
- √ Higher efficiency and substantial reduction of people suffering from back problems
- √ No more difficulty in finding manpower to palletise by hand
- √ No longer mistakes in pallet patterns and stacking of pallets

TECHNICAL HIGHLIGHTS

- ✓ 2 additional i-Pal palletising lines with integrated layer sheet applicator
- ✓ Buffering lines for 9 different products
- ✓ Label orientation

Behind the case packers, all products first will be transported to the buffering lines supplied by CSi. As soon as one of the buffering lines is full, the i-Pal will receive a signal and palletise the amount of one full pallet, by picking up two products in one cycle. The shuffle gripper, which is a special design of CSi, is not only able of multi-picking products but can also pick up layer sheets and place them on every 2nd, 3rd and 4th layer on the pallet.



The operator is able to change layer patterns, stacking patterns or even add new products himself at any time with help of the Patternware® software, also supplied by CSi. The i-Pal is well known for offering a high degree of flexibility, also due to the software which enables the operator to modify product data or add new products in very short time.

The two new lines each have a capacity of picking ten products per minute and are programmed to palletise nine different patterns for nine different products. The customer is using two different pallet sizes for its products, coming from the i-Pal's automatic pallet dispensers.



The products are stacked up to a height of maximum 2.200 mm with a maximum number of sixteen products per layer. With help of automatic label orientation, CSi makes sure that all products will be stacked on the pallet with the product labels facing the outside. As soon as the pallet is ready, it will be transported out of the i-Pal's palletising area and a new empty pallet will be taken from the pallet magazine automatically. The i-Pal will show a signal to the operator to inform him that the full pallet is ready to be taken away.

With the two new i-Pal palletisers, the customer is saving at least one FTE per shift, having three or five shifts on a daily basis. Before the lines were installed, the customer was always having great difficulty with finding manpower to palletise the products by hand. Nowadays nobody is suffering from back problems anymore since the nine palletisers are taking care of this job 24/7. Layers are formed and pallets are stacked now without any mistake because human errors are excluded.



EXPERIENCE

- ✓ Modern i-Pal palletising lines with Fanuc robots and a high degree of standardisation
- ✓ Layer sheet applicator integrated in gripper tool

The customer was again very satisfied about the price and the high degree of standardisation and quality of the i-Pal. In the first years, they were using the opportunity to lease the machines from CSi. Nowadays, also due to new company policy, the customer bought the machines.

And, after all these years of co-operation, the customer is also very satisfied with the recently installed machines, which have been taken into operation in just three days. CSi again showed its high level of professionality and is proud to maintain its long term international relationship.