



CASE STORY

Robot-In-A-Box at Arla Foods solved “the impossible job”

Experience from Sara Lee provides new inspiration for Castello cheeses at Arla Foods

At the beginning of 2010, packaging manager at Arla Foods, Benny Henriksen, read about the compact Robot-In-A-Box in operation at Sara Lee and was stunned. At that time, the plan for automatic palletising of Castello cheeses had actually been shelved. Previous analyses based on traditional solutions such as free arm robots and pallet loaders were unable to ensure profitability in eliminating the heavy, repetitive work and making the packaging of Castello cheeses more efficient. The space available at the dairy in Gjesing was so limited that the free arm robots with their long arms would have to be placed in an adjacent room. This would, furthermore, have required an over head conveyor system from production to the robot room. This definitely did not make the project more realistic.

Limited space could not stop Robot-In-A-Box

However, this solution at Sara Lee that had proved to be both ultra compact and quite profitable made Benny Henriksen call Soco System. He was well prepared from previous contacts and quickly explained the limited measures. However, this was no problem at all for the system supplier in “end-of-line” automation as the unique solution from this company is based on an ultra compact gantry robot. In contrast to the traditional free arm robots, the gantry robot has a much smaller working area without compromising with the speed. At Arla Foods, up to 20 cartons per minute are handled. A few days after Soco System had informed that the robot measures were merely 2800 mm x 1800 mm x 2285 mm, Benny Henriksen’s team came up with a simple cardboard model illustrating how the Robot-In-A-Box could be placed in the compact dairy.

“Plug & play” rather than engineer solutions!

Benny Henriksen tells: “I particularly noticed that this was a standard “plug & play” product. Until then, I only knew robot projects as heavy and complex demanding considerable resources. We are not quite looking for “engineer projects” at a dairy focusing on ensuring efficient production and logistics.



Packaging manager, Benny Henriksen, at Arla Foods in front of the robot solution from Soco System: “With Robot-In-A-Box, we found the simple solution to the difficult job”.



Robot-In-A-Box does not take up much more space than a pallet.

Payback in just 1½ years and good ergonomics

Calculations showed that the payback on Robot-In-A-Box was 1½ years. Such short investment horizon eliminated the known budget rounds and the robot was ordered at the beginning of March 2010. It was delivered at the end of June.

24/7 operation with up to 20 cartons per minute

The dairy is now in the peak season with 24/7 operation. Benny Henriksen tells: “We have had very few stops on the system. And when the robot stops we can usually get it started within very short time. The simple operation is quite unique compared to the free arm robots we have. They are so complex that we typically have to call in specialists. We can also type in new pallet patterns ourselves direct from the control panel and have them operational within 10-15 minutes”.

Annual saving of DKK 400,000 and elimination of the red Ega zone

The saving is a fact that speaks for itself. A second robot has, therefore, now been put on the budget for 2011. And there is virtually no chance that this project will be forgotten because the employees on the adjacent packaging line have already started asking when they too will get a “work-horse” to simplify the daily routines at the famous dairy.



The special multifunctional gripper collects up to 4 cartons at a time and places them on the pallet with spacing to ensure correct cooling during storage.



Operator, Søs Nielsen, is pleased with the user friendly touch screen and the speedy activation of new pallet patterns.



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See the robot palletise Blue Castello at Arla Foods in Gjesing/Denmark – you will find the video under the point References at www.socosystem.com