



## Space, complexity and throughput all addressed with Cama's secondary packaging expertise



***When a leading UK-based biscuit manufacturer needed new packaging technology it turned to Cama Group, with an eye on the global packaging machine company's class-leading secondary packaging technology***

Customer pressures to reduce unit cost was the primary stimulus that recently prompted a leading UK biscuit manufacturer to reassess its existing secondary packaging technology for chocolate biscuits.

Compounding this asset-assessment challenge was the need to install secondary packaging for a new cracker line too, but space was the limiting factor here.

It had a choice of machine vendors, including its UK-based incumbent supplier, but chose to exploit the technology and capabilities of the Cama Group, with its highly successful range of breakthrough generation (BTG) machines.

According to Mark Brooker, Director of Cama UK: "The biscuit company operates across multiple sites in the UK. In this plant,

where it manufactures products for its own brands, other confectionary brands and UK supermarkets, it was facing pressure from one of its international customers to reduce unit costs, with its secondary packaging operations for chocolate biscuits being a primary target.

### **Complex existing system**

"The existing secondary packaging solution was a familiar sight," he continues, "especially in established and historic companies. It was an organically grown combination of machines, conveyors and centralised IO – from multiple vendors – which was just about keeping pace with packaging demands. It had so much built-in redundancy and integration inefficiencies that it really was on its last legs."

One of the biscuit company's end customers had implied that there were too many people running too many machines, all of which had an impact on the unit cost. As a result of the investigation following this observation, Cama was tasked with replacing four cartoners and two case packers – all of which were interlinked with a highly complicated and difficult-to-reconfigure conveyor system – with a far more efficient and flexible secondary packaging solution.

"The machines were in a redundant-pair configuration in case one operating machine went offline," Brooker explains. "The problem was, the conveyor system had to have the ability to couple all the possible combinations, so was incredibly complicated, took up a huge amount of space and was not actually all that easy to reconfigure."

### Higher feed and better use of space

Cama was able to replace the entire infrastructure with a single high-speed continuous motion CL156 carterer and an FW748 case packer. The new installation is fed at a higher rate than the old system – by two new SPS flow wrappers – and can offer higher instantaneous feed thanks to a buffer solution, which makes use of the space freed up by the removal of the conveyor.

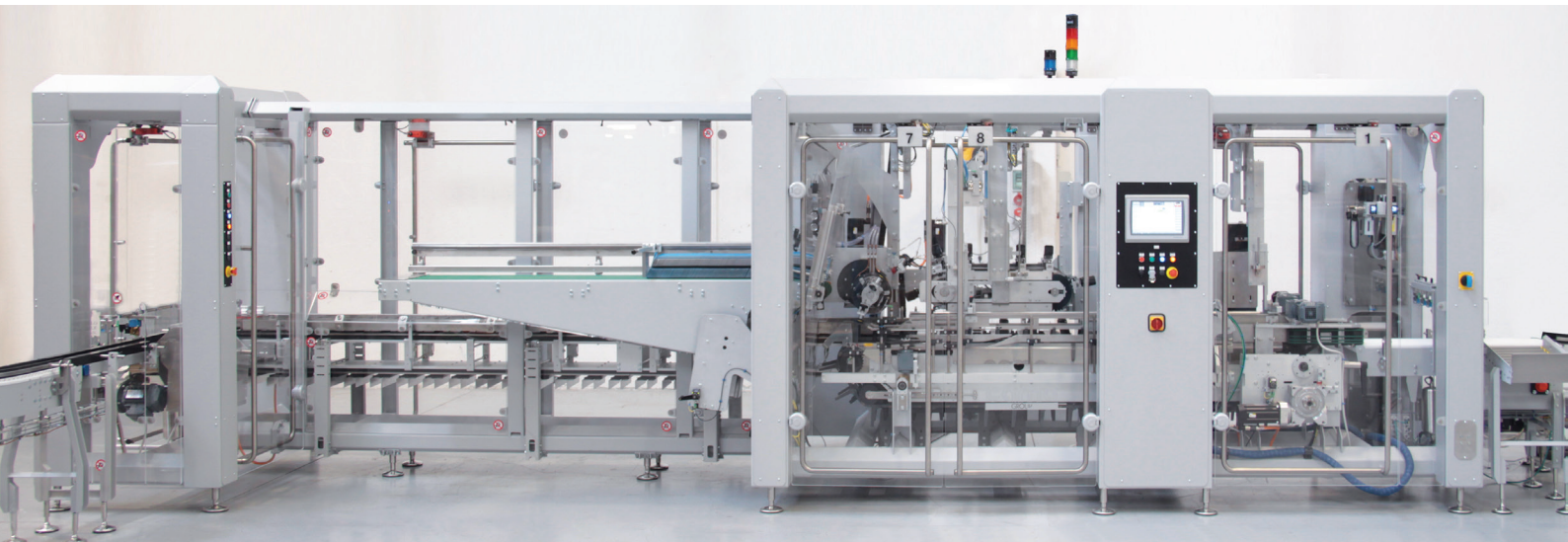
"As well as matching the 240 cartons per minute throughout the customer required," Brooker elaborates, "we have also saved space, removed kilometres of wiring from a central IO panel and added the flexibility and agility that is standard



our new-generation machines whilst reducing their direct labour costs on the line.

"Our BTG solutions are setting the standard in secondary packaging," he explains, "by offering modular, scalable frameworks that offer easy entry and access, coupled to a hygienic machine design. Within this framework, contemporary automation solutions – including advanced rotary and linear servo technology – can be tightly coupled to in-house-developed robotics, to deliver the all-important flexibility and adaptability required by modern packaging operations. Our BTG machines are also based on a digital platform that supports full industry 4.0 capabilities, including AR, VR and virtual testing, training and operation."

In terms of testing and commissioning Cama has adapted its process to cater for travel restrictions and social distancing. "In some projects we have employed a hybrid commissioning routine," Brooker





explains, "where the local engineers undertake on-site installation, and our Italian team is brought in virtually for final commissioning stages. This has proved so effective and so successful that the hybrid approach will now form part of our standard offering to help save time and costs."

A virtual approach was certainly required for the second project, a new cracker line that will eventually supply own-label crackers to a number of UK supermarkets. "The factory acceptance test (FAT) for this machine was all performed remotely," Brooker explains, "using cameras, hand-held computers and video systems."

### **Faster and smaller than the competitors**

"The order for this line – a high-speed continuous motion CL156 cartoner and an FW746 Compact low Wraparound case packer – was off the back of the successes on the chocolate biscuit line," Brooker adds. "But there was a double challenge here: the customer needed a throughput of 192 cartons per minute and had limited space in which to install the line. Many of our competitors struggle at speeds this high, doubly so in a space this limited. Not only are we able to meet these speeds repeatably and efficiently, but we can also do so in a machine some three meters shorter than industry competitors, thanks to the smaller dimensions of the FW746, which allows us to position it more closely to other machines."

"For all the flexibility and scope these machines offer, this actually a very standard packaging operation," Brooker elaborates. "All UK supermarkets, which will be supplied by this machine, use identical cracker and packaging sizes – you could almost say they are British Standard Crackers. As a result, the inherent flexibility of the machines will remain relatively untapped until the manufacturers choose to make a point of difference on biscuit size or pack count. In the meantime, the efficiency, throughput and diminutive footprint coming to the fore as real advantages."

In both cases, the lines are controlled by an Allen-Bradley automation infrastructure from Rockwell Automation, which matches the existing factory architecture and that specified by the company's chocolate biscuit customer.

"These projects are a great example of how retro-fits and new builds can take advantage of new integrated packaging technologies," Brooker concludes. "As well as more efficient use of real estate, higher efficiencies, greater data integration and far less complexity, the factory also benefits from our on-machine, pre-boxing QA measurement technology, which we consider to be an essential element of our standard offering, and not just a costly add on. Even though packaging flexibility was never a primary element of the brief, this customer can still have the peace of mind that it is there if they need it."

Cama Group, since 1981, is an international leader in engineering and production of high-technology secondary packaging systems. We offer completely integrated packaging lines, from primary packages up to final packaging, ready for palletizing, serving the Food (Bakery, Confectionery, Coffee, Ice Cream, Dairy, Ready Meals, Grocery), Non Food (Personal, Health & Home Care) and Pet Food industries.  
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