



## Optimum packaging solution leverages proven technology



*Cama's industry knowhow and technological capabilities match 100% of customer demands with tailored, best-fit secondary packaging solution*

Thanks to the depth and breadth of its multi-industry application knowledge, Cama has been able to satisfy the unique demands of a leading pharmaceutical company that wanted to exploit a specific, specialised approach to its secondary packaging processes.

Proving that engineers should never settle for second best or opt for solutions that just 'nearly do' what they want, Cama was able to create a packaging solution that precisely matched the customer's brief and employed all the requested features, using technology- and knowhow-transfer from the other markets it so successfully serves.

### **Exploiting experience**

According to Fabio Melli, Sales Engineer Manager at Cama: "The customer had limited room in which to site the new packaging machine and we knew that side-load packaging, so often deployed in pharma, was not an option. Instead of using side loading, for which Cama has huge experience in high-speed cartoning machine solutions, we were, instead, able to exploit our wide experience of

top-loading machine technology and adapt it to the rigorous demands of the pharma manufacturing environment."

In addition, the engineers at Cama also had to take into account a new packaging format that Cama's packaging design team had helped the customer to visualise, prototype and create. The box not only had to be easy to open and close, but also had to provide tamper-proofing, compounding the challenge was the fact that it had to be available in different sizes, to accommodate various content counts and package formats, to cater for differing demands across the global pharmaceutical market.

The machine that Cama developed was for the packaging of single stick packs—an ever-growing packaging trend within the Healthcare and Pharmaceutical markets. The machine also had to deliver full track and trace, leaflet/booklet dispensing and insertion and other pharmaceutical quality-control measures.



complemented by robotic box forming and closing procedures, too.

"Powder stick pack present a big challenge," Melli says. "They are very small – only 80 mm long and 22 mm wide – and contain about five or six grams of powder. We had to take this into account when packaging them into arrays of between eight and fifty to a box.

In operation, the process bagging machine discharges 10 pieces per cycle and dispenses them in a line, onto a 600 mm wide FDA smart transport conveyor belt. The Cama machine then uses advanced vision systems to detect their individual positions on the belt before guiding the robots to pick up and orientate them according to the packaging style requested.

On top of the regulations defined by CFR21, the customer had a number of additional demands over and above the international standard too, one of which was the ability to simulate errors. This was put in place to optimise throughput, as the supervisory controller would be able to much more easily spot errors, prevent issues from propagating and remove the risk of short counts and contamination.

"We certainly had a lot to achieve," Melli explains. "Not only did we have the small footprint, but we also had to adapt the technology to the new box format. Couple this to an infeed of more than 500 pieces per minute from the bagging machine and the added traceability and leafletting, and you get some idea of the challenge we faced."

### Setting global standards

"We have a lot of experience of this type of application," Melli explains, "thanks to our widespread deployment in other markets, where our new-generation machine portfolio sets the standard for flexibility and efficiency. We had a number of models available upon which we could develop this new pharma technology, so the customer was spoilt for choice when it came the core operating principals. Thanks to our tightly integrated robotic technology and the advanced vision systems, not only did the customer get exactly what it wanted, but it also gained flexibility to adapt the machine to future demands in term of output and packaging formats.

### Flexible, future-proof design

Cama's solution was to deploy its in-house-developed robotic technology, which would pick up the stick pack and load them gently into the boxes using product counts defined by the box size and batch parameters, including the incorporation of packaging recipe flexibility, for possible future variations in products and box packaging dimensions. The pick-and-place operations for the products are



“Side loading is potentially easier and faster for this type of application,” Melli says, “and is typically what other machines suppliers would have offered, even specifically pushing this technology due to their limited machine portfolios. But sidelading would not have addressed all the customer’s demands, especially for easy open and reclose boxes. Our top-loading solution, on the other hand, answers all the customer’s questions. Indeed, the customer opted to go for our solution opposed to what it already has in its workshop. The consensus was that sidelading may be faster, but in this case, it was certainly not the optimum solution.”

“We worked very closely with this customer,” Melli concludes, “to develop an advanced solution that does 100% of what it needed. We always feel that it is important to be open minded with our customers (as many suppliers will only push the limited technology they have), whereas we are able to propose multiple solutions, all based on industry-proven concepts.”



**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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