



With maximized scalability: Packaging machine processes up to 250 products per minute

XTS optimizes end-of-line packaging machine for the pharmaceutical industry

Today's packaging machines must deliver maximal flexibility for small lots along with exceptional speed, a space-saving design, and comprehensive track-and-trace capabilities. Swedish specialist Graniten Engineering has introduced an innovative end-of-line packaging solution for pharmaceutical products that features the eXtended Transport System from Beckhoff at its core. With the linear transport system, the machine is not only extremely compact in design, but moves products with outstanding speed and flexibility. And its integrated serialization feature provides consistent traceability.



For Graniten Engineering, headquartered in Uddevalla, Sweden, which is located approximately 80 kilometers north of Gothenburg, the pharmaceutical industry is one of its most important market segments. "The end-of-line packer we built for a large customer in the pharma industry registers each product with a serial number. This applies to each individual medicine package, the boxes containing multiple packages, and the pallets on which the boxes are shipped. Based on these codes, the recipient can trace each package back to its origin, which is a great help in the fight against product piracy," says Fredrik Sollenby, CEO of Graniten Engineering, describing the track-and-trace function of the end-of-line packer. At the core of this flexible and highly dynamic packaging system is the linear eXtended Transport System (XTS) from Beckhoff, which handles up to 250 products per minute.

XTS meets all requirements

Graniten Engineering has a track record of many years in developing smart packaging solutions for the pharma industry. The company has always been open to innovative technologies. "When we received the order to develop a new end-of-line packaging solution a few years ago, we faced challenges that our traditional machine concepts were not equipped to handle: fast and flexible product changeovers, rapid material movements, and all of it in a small footprint," remembers Daniel Brännwik, Design and Engineering Manager at Graniten Engineering. "To allow more quality checks and additional control functions, you also need more mechanical components in conventional production lines. Since in a best-case scenario all these features would have to be accommodated in the same available space, our new machine had to be exceptionally compact.



Two movers are connected to provide higher force and control of the high payload.



End-of-line packer with XTS from Graniten Engineering.



At the same time, the customer demanded a high degree of flexibility, various options to control the flow of materials, and variable speeds. Last but not least, the machine had to be highly scalable and easily adjustable to accommodate a wide range of lot sizes. As we worked on the concept, we quickly came up with a solution approach that in retrospect seems like a blueprint for a system like XTS. And when we saw the linear transport system from Beckhoff for the first time at a trade show, we recognized its benefits on the spot. XTS truly opened the door for us to an entirely new approach in packaging machine design."

Flexibility for future-proof packaging solutions

According to Brännwik, one of the key arguments in favor of the XTS was the ability to modify the machine with little effort, for example when future requirements would change: "Investment protection through future-proof solutions is a strong argument for our customers. In light of the dynamic development in logistics we see in many industries, the flexibility and scalability of the XTS solutions are critical benefits. We were also impressed by the ease with which customer-specific material transport solutions can be created and commissioned on the basis of the TwinCAT software library."

Graniten Engineering

Graniten Engineering was established in the early 1990s by engineers who shared a passion for solving difficult technical problems. With more than 50 technicians, engineers and developers, Graniten Engineering is one of Sweden's most innovative companies in the field of mechanical engineering today. Its recipe for success is based on developing intelligent machine solutions that meet the highest requirements with regard to quality and functionality.

"An in-house development we added to the XTS enables us to move loads weighing up to 10 kilograms. We are also very proud of the fact that we already have several developments on the market with XTS as the core of a highly dynamic and flexible material transport solution," adds CEO Fredrik Sollenby. "Our close relationship with Beckhoff turned out to be very helpful when we developed our first end-of-line packer." More orders followed, and the future looks highly promising for Graniten Engineering, because the market potential for such solutions is very high, Sollenby believes. "Initially we are focusing on the European market, but our packaging lines meet requirements that apply all over the world, and not only for the pharmaceutical industry. You may even say that the pharma industry functions as a model for many others, which makes our solution with the eXtended Transport System an important reference project," concludes Fredrik Sollenby.

Further information:

www.graniten.com/en

www.beckhoff.se