Beyond the equipment real solutions that add value

Tablets continue to be a popular pharmaceutical dosage form. They are relatively easy to manufacture, package and transport; offer good physical and chemical stability; and facilitate simple and accurate dosing. Despite these advantages, problems can occur in the tableting process, requiring specific expertise to overcome them. This is where the Glatt Group adds

immense value, writes Abby Vorster.

n addition to its ability to produce and supply integrated process solutions and equipment, Glatt has vast technical knowledge of tablet manufacturing processes and can assist customers in many ways. A customer may need to increase operational efficiency or improve safety measures to

> ensure better protection for its machine operators. It could also be experiencing quality issues and might need to fine tune a formulation as a result.

The Glatt Group's headquarters are located in Germany. Since inception, the presence of this dynamic company has grown substantially with 15 branches and subsidiaries, as well as various

representatives situated worldwide. In South Africa, it is represented by Reitech SA, a Cape Town-based process engineering company and supplier of packaging and manufacturing machinery to the FMCG, pharmaceutical, food and beverage and cosmetics industries.

Dr Norbert Pöllinger,

senior consultant at Glatt Pharmaceutical

Services

Glatt and Reitech SA work closely to meet the manufacturing and packaging needs of many South African pharmaceutical businesses. They have a thorough understanding of the local industry landscape and how the pharmaceutical demands differ based on the various levels of automation.

Glatt's area sales manager, Alexander Rongen comments: "We have identified several levels of capabilities among South African manufacturers. The big high-tech production plants are the most advanced. They employ fully-automated, high-speed processes. At some of the smaller to medium-sized semi-automated factories highly-sophisticated controls are a central focus. There are also facilities where automation and throughput are not fundamental concerns. These manufacturers use manual processes in order to create jobs for semi-skilled workers."

A CUT ABOVE THE REST

Glatt provides technical support to all its pharmaceutical customers, locally and abroad, regardless of their level of automation or manufacturing sophistication. This support is also available to customers who currently cannot afford to invest in new machinery.



The Glatt Innovation Centre, located in Binzen, Germany

TABLETING FROM THEN TO NOW

To manufacture tablets, blending the powder substrate of excipients and the API, feeding the powder mixture into a tableting machine and compressing it into tablets was the simplest approach. However, evidence has shown that this is quite rare in a manufacturing environment, as manufacturers soon required granulation technologies to improve their tableting processes. According to Dr Norbert Pöllinger, senior consultant at Glatt Pharmaceutical Services, this is why the Glatt Group exists.

Glatt is an expert in process technology. It develops granulation solutions, among other process technologies, to improve the tableting process.

"Granulation shapes very fine powders with poor flowability into agglomerates using a technical agglomeration process. This results in a coarser material which has better flowability and can be transferred efficiently into the dies of the tablet press to be punched into tablets," Dr Pöllinger adds.

Over the years, the tablet compression process has also evolved to become fully automatic. Manufacturers are now faced with technological challenges as quality must be permanently controlled for each single tablet produced. Think of a modern tableting press that produces more than 1 million tablets per hour, if the weight and hardness of each of those tablets is permanently controlled to automatically eliminate defective tablets, the stream of good tablets will become interrupted. At higher press speeds, the number of good tablets rejected from the line will simply increase.

PHARMA FOCUS: TABLETING & ENCAPSULATION



Axel Friese, Glatt head of marketing

"We offer a lot more value than your typical equipment supplier, guiding our customers from concept development to the final product," says Axel Friese, Glatt head of marketing. "We provide extensive training with equipment sales which can be repeated in the event of staff turnover or if an employee requires further educational support. Prior to the pandemic, the training was conducted on-site. Yet it is now done virtually to protect the health of our staff, our customers and their employees."

If a customer experiences any technical issues on a production line, Glatt helps to address them. This is also done virtually using Team Viewer, or a digital animation in video format is sent to the customer.

When a concern is not software-related, such as changing a seal or replacing the filter on a machine, it is addressed using integrated smart glasses or AR technology. The operator shares machine information in real-time with Glatt's technical experts and improvements are quickly and easily communicated back to the customer, also in real-time.

Friese adds: "If a problem is more complex, the process could be tested at one of our technology centres – two of which are in Germany and one is in the US. For demos and testing to be effective, the customer's equipment does need to be the same as the equipment at our innovation centre."

Glatt Pharmaceutical Services operates within the banner of the Glatt Group with its team located at the innovation centre in Germany to help customers to tackle manufacturing problems. Customers from all over the world will often send the team samples of problematic products or recipes for evaluation. Glatt encourages its South African customers to do the same, especially if they are experiencing any production issues.

JOIN GLATT AT ACHEMA PULSE

Get inspired, get involved and get connected – this is Glatt's theme for Achema Pulse and you are invited to take part and connect with Glatt during this not-to-be-missed virtual event taking place on 15 and 16 June. There are three ways to connect with Glatt at Achema Pulse:

- 1. via the Exhibitor Channel
- 2.during the Exhibitor Pitch
- 3. by attending one or more of the Glatt workshops taking place during the virtual event.

Excellence United will also be presenting at Achema Pulse on the headline topics of containment, the perfect project, digitisation and efficiency. Visit www.achema.de for more information and to register to attend Achema Pulse.

> Your Free Ticket _{Coupon code} naWTk www.achema.de



PHARMA FOCUS: TABLETING & ENCAPSULATION



Glatt's area sales manager, Alexander Rongen

Once the samples are received, the Glatt Pharmaceutical Services experts put them through various tests on a fully operational production line within the innovation centre. In doing so, both the product and process are assesed.

CONTROLLED AUTOMATION

Glatt's consulting portfolio also features a solution for controlled automation, which the group deems its recipe-driven

Did you know?

In recent years, mini or micro tablets have become a popular dosage form for administering tablets in young children and toddlers. The diameter of these tiny tablets ranges from 1.5mm to 2mm, making it easy for very young patients to swallow them.

controlled automation approach. This service is highly relevant to the local pharmaceutical industry, particularly where there are manual processes, as it helps to address inefficiencies in manufacturing operations and to close skills gaps on the factory floor.

"Controlled automation is beneficial when a customer wants to improve operational efficiency," Rongen explains. "Glatt develops and provides the controls for an automated recipe-driven process which includes regulated methods and achieves reproducible batches. Controlled automation also reduces the risk of human error and offers batch reporting of the entire process."

Improved safety is also an advantage of controlled automation as it not only

increases operator protection but also elevates safety within the surrounding environment.

"Tablet manufacturing involves risky processes and the use of dust powders and organic solvents. If safety measures aren't maintained, an explosion could occur or the operator's health could be harmed," adds Rongen, highlighting that Glatt is known for its safe equipment that is engineered to offer maximum protection.

In addition to safety, the group is very passionate about the topic of cleaning pharmaceutical processing equipment which is essential to maintain quality standards. Glatt has extensive know-how on pharmaceutical cleaning and offers customers regular training to help them to avoid cross-contamination in their manufacturing facilities. Ultimately, it is Glatt's mission to share the group's cumulative expertise worldwide, spreading plenty of valuable knowledge and uplifting skills across the globe, even in South Africa.

Glatt Group – www.glatt.com Reitech SA – www.reitech.co.za