

## **Movement in the Glass Industry – With Drive Technology from SEW-EURODRIVE**

### Reference Projects



**Noelle + von Campe  
Glashütte GmbH**

**Carl Kühne KG (GmbH & Co.)**

**Consol Glass**

# 1 Extremely reliable at extreme temperatures: Servo drives in glass production

At Noelle + von Campe, renowned glass manufacturer based in Germany's Lower Saxony region, drive technology from SEW-EURODRIVE keeps the production of glass containers for products such as jam, herring, pickles and honey in motion. The requirements for this application are just as varied as the production temperatures, which start at the hot end with the production of liquid glass and extend all the way to the more temperate cold end, the packaging process.

In the process of forming the glass containers, beads of molten glass at temperatures of approx. 1100 °C fall into the IS machine (IS refers to the "individual selection" of production

units and also stands for the names of its inventors, Ingle and Smith). This machine is generally based on a pneumatic design, but has been modernized to include drive technology as part of the glass bead transfer and container removal processes.

The transfer process is a mechanical process performed using cooled blades driven by CFM90M servomotors operated with a mechanical cam. The working conditions represent a serious challenge for the motors: ambient temperatures of approximately 95 °C and limited installation space. The 14 CFM71M servomotors responsible for transporting the glass containers are subjected to similar conditions.

These motors also offer a high degree of reliability under difficult conditions. The servomotors – both masters and slaves – are controlled by MOVIDRIVE® B frequency inverters from SEW-EURODRIVE.

After the cooling and relaxation periods, the glass containers are transported on to quality assurance by way of conveyor belts connected to field distributors and PROFIBUS units and driven by decentralized MOVIMOT® gearmotors. Computer-aided quality checks guarantee a high standard of quality for the glass containers throughout the entire manufacturing process.



**"Not only are the drives and frequency inverters reliable; our special requests were also taken into account in the planning and design phase. Our needs were always addressed directly and implemented in the design of the drives. We were never left alone during any part of the process – not until startup, which seemed to take care of itself. For startup, we did not need any support when it came to drive technology."** Peter Weber, Head

of Electrical Design at Noelle + von Campe Glashütte GmbH and his colleague, Frank Helfer, do not regret their decision to update their systems with drive technology from SEW-EURODRIVE.



# 2

## Clean transport and precise packaging: Efficient transport solutions for flexible packaging technology

In order to increase efficiency, Kühne, the German food producer, modernized its packaging system in cooperation with the system designer Goutherm. For this project, SEW-EURODRIVE provided a complete motion control solution as well as energy-efficient and dynamic drives with a hygienic design: gearmotors, servomotors, and servo inverters. The drive configuration with the MOVIFIT® FDC field device controller significantly simplified system startup.

One MOVIFIT® FDC drive controller designed to function as a configurable control unit (CCU)

is used to control up to ten MOVIGEAR® drive units, making the drive system extremely user-friendly. At the same time, this solution simplifies the startup of complex motion control applications because it eliminates the programming work that would be required for numerous standard applications; only the CCU has to be configured. In addition, the MOVIGEAR® unit usually saves up to 50% on energy when compared with a standard gearmotor.

For the layering and palletizing processes, the complete solution from SEW-EURODRIVE with the IEC 61131-compatible MOVI-PLC®

motion and logic controller facilitates the use of motion profiles optimized for time and jerking. This helps to ensure maximum system performance and careful handling of the product. An additional benefit of this complete solution is on-the-fly pick-up and placement, a method which reduces the total cycle time needed to reposition the glass containers. As it is possible to set the motion control parameters graphically in the engineering phase of the project, on-site startup time can be dramatically reduced.



**“We associate SEW-EURODRIVE with a strong focus on the customer and excellent service. That had a lot to do with our decision when choosing our system provider,”** says Technical Manager Manfred Holtmann.



## 3 MOVIGEAR® supports Consol achieve green efficiencies at new Nigel plant

Consol's estimated glass container production of over one million per year, makes it Africa's largest glass manufacturer. The new Greenfield plant in Nigel has enabled further reduction in energy and in the CO<sub>2</sub> footprint of its glass packaging, utilizing technology from SEW-EURODRIVE in its production process, specifically the MOVIGEAR® drive system.

The system comprises of over ten stations and each station being operated using 18 servomotors. The entire system is controlled numerically so that parameters can be accessed and stored quickly and easily.

The MOVIGEAR® drive system is unique in that the gear unit, drive and inverter are integrated in such a way as to reduce the necessary operating capital while ensuring continuous availability. The central control and monitoring system provides many advantages and enables a change to the configuration of the conveyor at the touch of a button. The technology is progressive, reliable and simple to use, with basic training equipping users with the required skills.



**“We are very pleased that SEW-EURODRIVE delivered the MOVIGEAR® solution on time and on budget. The startup of our first production line ran smoothly, and thanks to the central control system, starting up the remaining three production lines should be concluded within a matter of days”,** says Grant Bailey, Manufacturing Services Manager at Consol.

**“The new Nigel factory that was built in 2011 has been based on cutting edge technology across the full production process, and Consol wanted to ensure that strong, long term business relationships were established with its business partners. SEW-EURODRIVE has proven to be a reliable supplier with the required understanding of its products and their applications,”** concludes Bailey.

## The glass industry uses drive technology from Bruchsal

Saving energy, reducing costs, increasing efficiency: At SEW-EURODRIVE, you can find a whole range of innovative drive solutions and market-oriented products for all transport and packaging applications on the cold end of the glass production process. No matter whether you need gearmotors and frequency inverters, servo drive systems, decentralized drive systems or industrial gear units, SEW-EURODRIVE's solutions are always high-quality, versatile, efficient and powerful. The examples from our customers' applications truly prove this to be the case.



## How we're driving the world



**SEW-EURODRIVE**  
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