

## Bottle production at Heye-Glas Netherlands with SIMATIC PCS 7

**Project:**

Bottle production at Heye-Glas


**HEYE-GLAS**  
**NEDERLAND**
**Customer Info****Customer**

Heye-Glas Nederland

**Business Group**

Heye-Glas

**Country**

Netherlands

**Location**

Moerdijk

**Industrial Sector**

Hollow glass



May 1998: After only nine months of construction, Heye-Glas took Europe's most advanced hollow glass factory into operation. Located in Moerdijk near Rotterdam, the factory is equipped with German-built state-of-the-art machinery, such as the Heye-developed refuse glass mill, the new Heye oxyfuel melter with exhaust heat recovery and the IS machine, also from Heye. The new SIMATIC PCS 7 process control system from Siemens was chosen because it met the high demands made by the plant. **Totally Integrated Automation** – the Siemens automation concept – is employed throughout the Heye glass plant, from raw materials storage to the refuse glass mill, the batching house, heat regeneration, gas filtration and not least the glass production itself.

The decision to build a new glass factory in this region was prompted by Heineken, which wanted to source the green bottles for its growing export lager business from local suppliers in the Netherlands. Heineken holds share in Heye-Glas Nederland. Its annual production capacity is about 500 million beer bottles. Heye-Glas International prides itself on its environment-friendly production methods. The benefits of the oxyfuel melter, for example, include a lower heat consumption, significantly reduced use of primary energy and reduced NO<sub>x</sub> and CO<sub>2</sub> emissions.

Another energy-saving feature is the heat regeneration system, which reclaims exhaust heat. This heat is then used to generate steam, which drives a small turbine that circulates cooling air. It is also used to preheat the shards.



The melting bath burners are regulated individually. The fuel/oxygen ratio of each burner is controlled with a Siemens SIPART DR-24 controller, which provides the possibility of local control. The burner controllers' ratio setpoint values are influenced by an O<sub>2</sub> compensation controller, which measures the oxygen content in the exhaust gas.

The temperature controller and the O<sub>2</sub> compensation controllers are implemented as software solutions in the SIMATIC PCS 7 system. The subordinate SIPART DR 24 regulators are controlled with signals transmitted across PROFIBUS-DP. After a main failure, the SIMATIC PCS 7 automatically restores the system status as it was before the fault. The drop former, cutter and drop distributor of the IS machine are equipped with Siemens servo drive technology. The transport system works with highly accurate synchronous drives.

Having been cooled, the bottles reach the cold end, where they are inspected, transported, palletized and packaged. Two lines with 114 MICROMASTER converters ensure trouble-free operation. At the time pressure, under which project manager's team had to work, absolutely reliable partners were essential. For Heye-Glas, Siemens was the first choice for automation technology. Drive technology from Siemens has been in use at Heye-Glas for many years, as have SIMATIC products. With SIMATIC PCS 7 at the heart of a **Totally Integrated Automation** concept, Heye-Glas Nederland is well prepared for the future.

Heye can look back on many years' constructive cooperation with Siemens.

**Siemens solution**

process control system SIMATIC PCS 7, SIPART DR 24 Controller, PROFIBUS-DP, Servomotor, Micromaster,

**Why Siemens was chosen**

- Totally Integrated Automation
- Many years positive experience
- Knowledge of the industry

More information: [www.siemens.com/glass-industry](http://www.siemens.com/glass-industry)

