

Smooth production, optimal results

Róbert Nusszer* discusses the advantages of Rath Group's acquisition of Bucher Emhart Glass' refractory division.

In 2019 Rath, a specialist in refractory technology, acquired the Bucher Emhart Glass production facility in Owensville (USA), which produces refractory materials for the container glass industry.

With this acquisition Rath enhanced its service and product portfolio and is now the original equipment manufacturer for original Emhart feeder refractory parts.

More than 100 years ago, Bucher Emhart developed the basic method and equipment for the feeder systems that have been in use until recently. Since then, the feeders changed, but the fundamentals remain the same. Rath now owns the original drawings, the original refractory production methods and the production technology.

The new refractory system, called Rath Emhart Glass System, combines the advantages and expertise of both companies. The spout's design and characteristics have not changed and a bright future beckons, given Rath's

research, development and engineering background.

Refractory spouts funnel the molten glass to the orifice ring in order to form the gob. They are joined to the tube so that the flow of glass can be stopped when the orifice ring is replaced. The spout is a critical component of the glass feeder system. One of the highlights of Rath's products are feeder spouts with special inserts, which have a longer service life and reduce downtime in production due to the lower number of the spout changes.

Most traditional refractory spouts last for approximately one year. As the glass pours through the throat, the refractory is eventually eroded away to the point that the tube is no longer able to sit properly on the spout bottom surface and the flow of glass can no longer be stemmed. The best way to address this issue and to increase the service life of the spout is to use a high-quality refractory that has a higher resistance to constant erosion.

Advanced manufacturing process

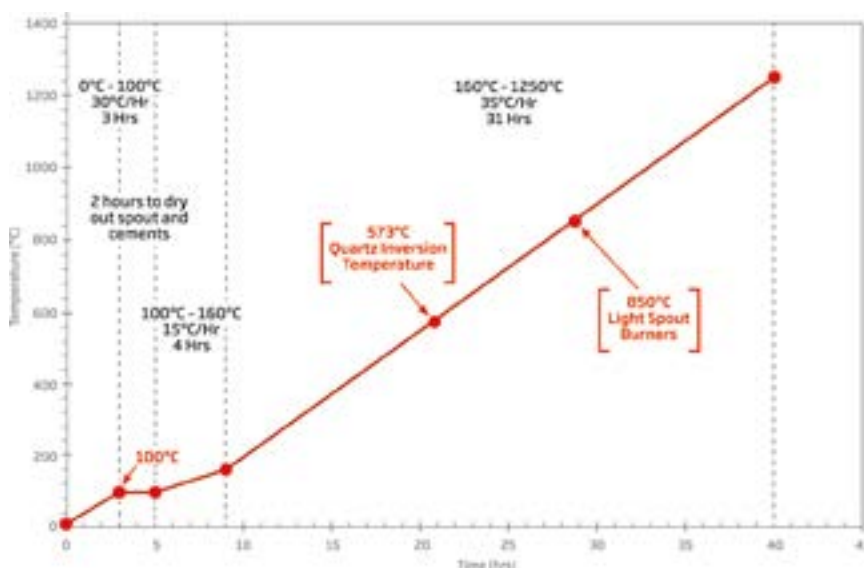
developments have been implemented for spout bowls to meet the stringent demands of the glass container forming process.

Rath Group 333, 315, and 301 are bonded AZS (zircon-mullite) materials containing various percentages of ZrO_2 . They are produced at high firing temperatures, resulting in improved density and a highly corrosion-resistant matrix.

The inserted refractory spout service life is two to three times longer than the standard 315 or 301 body without insert. The result is reduced downtime in production due to less frequent spout changes.

All standard Rath Group spouts and metering spouts are available with chrome oxide or fused AZS inserts. ■

*Head of Global Business Unit Glass, Rath Group
E: robert.nusszer@rath-group.com
www.rath-group.com/glass



► Fig 1 The inserted spouts are sensitive to thermal shock, so they have to be heated up very gradually.