

VSM++ and Viking forehearth boost **SORG's** green offer

A global leader in glassmaking technologies, SORG Group is to unveil its latest breakthroughs in sustainable melting and conditioning. Indeed Glasstec 2024 will be showcasing such innovations as the VSM++ electric melter and Viking Forehearth, both of which promise to enhance both efficiency and sustainability - advancing SORG's commitment to driving cleaner, more innovative glass making processes worldwide.

SORG GROUP: PIONEERING TECHNOLOGY FOR THE FUTURE OF GLASSMAKING

A world leader in raw material preparation, melting, conditioning technology and services for the glass industry, the Sorg Group stands at the forefront of innova-

tion and sustainability. The group comprises Nikolaus Sorg, EME and SKS, each contributing specialist expertise to distinct areas of glassmaking. Together, these companies offer a seamless hot-end process, from batch and cullet handling to advanced melting technologies, furnace design, and comprehensive lifecycle services. A strong commit-



ment to developing innovative, sustainable solutions defines the Sorg Group's approach, as it explores alternative melting technologies, enhances process efficiency, and drives automation. Underpinning this collective effort is a shared belief in quality, performance, and customer support.

VENERABLE BEGINNINGS

Founded in 1872, Nikolaus Sorg has a rich heritage spanning five generations of innovation in the glass industry. Over the decades, the company has achieved some of the most significant breakthroughs in glass melting and conditioning,



securing more than 100 patents. Today, Nikolaus Sorg provides security, stability, and high performance to glassmakers in over 80 countries worldwide. EME, another

vital member of the group, is one of the world's leading suppliers of batch preparation plants, cullet handling equipment and batch charging solutions. Originally focused on materials handling and mining

equipment, EME pivoted in 1950 to bring its expertise to the glass industry, where it has since delivered some of the most advanced and complex projects for container, float and specialty glass applications. Known for an innovative approach, EME also excels in customer service, executing projects of any size with precision and care. SORG Keramik Service GmbH (SKS), the third pillar of the group, consolidates seven subdivisions to provide comprehensive furnace solutions. From construction and rebuilds to emergency repairs and ceramic welding, SKS offers a single-source service for every stage of a furnace's life cycle. With over 200 in-house experts, SKS ensures clients receive expert support, whether for furnace audits, routine maintenance, or challenging hot repairs - capabilities that are unmatched in the industry.



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MELTING

A TRANSFORMATIVE ADDITION TO SUSTAINABLE GLASSMAKING

As industry leaders, the Sorg Group continually adapts its vision to meet evolving challenges. At glasstec 2024, Sorg will unveil a range of new concepts, developed to support glassmakers in their journey toward more efficient and sustainable production. Among the highlights are two innovations that promise to redefine the glassmaking landscape: the VSM++ and the Viking Forehearth. Together, these technologies represent another leap forward - enabling manufacturers to achieve greater efficiency and sustainability.

VSM++: SUPERCHARGED DEVELOPMENTS IN ELECTRIC MELTING

With over 100 all-electric melters built to date, including one with the highest-ever pull rate, Nikolaus Sorg continues to advance its VSM[®] technology for tonnages up to 800 tons per day for float glass and other applications. As the latest iteration, the VSM++ builds on the proven design of the original VSM[®] by incorporating a hollow cylinder at the centre of the furnace, featuring an inner hole. This innovative feature is paired with an adapted rotation crown and top electrodes, positioned both inside and outside the cylinder, to ensure an even distribution of raw materials across the melt. As a result, superstruc-

ture temperatures are dramatically reduced, ranging from just 150 to 300°C. This groundbreaking design is currently in the evaluation phase and is set to be introduced to the market shortly.

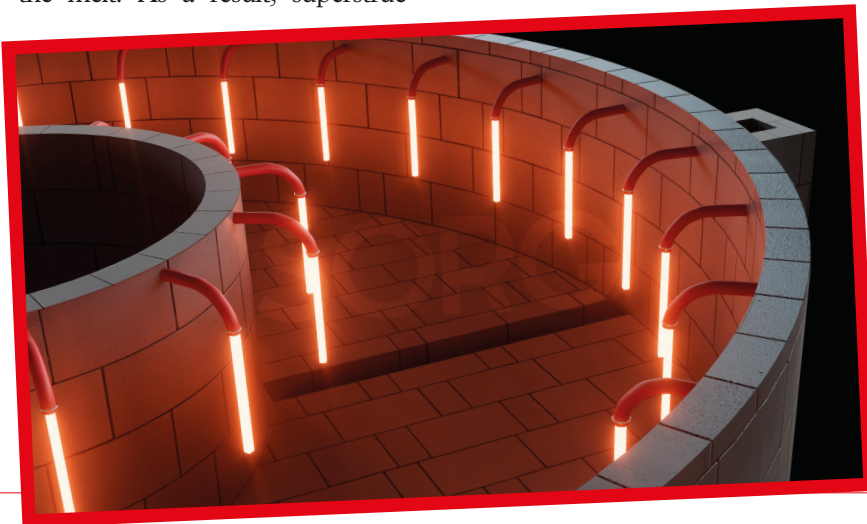
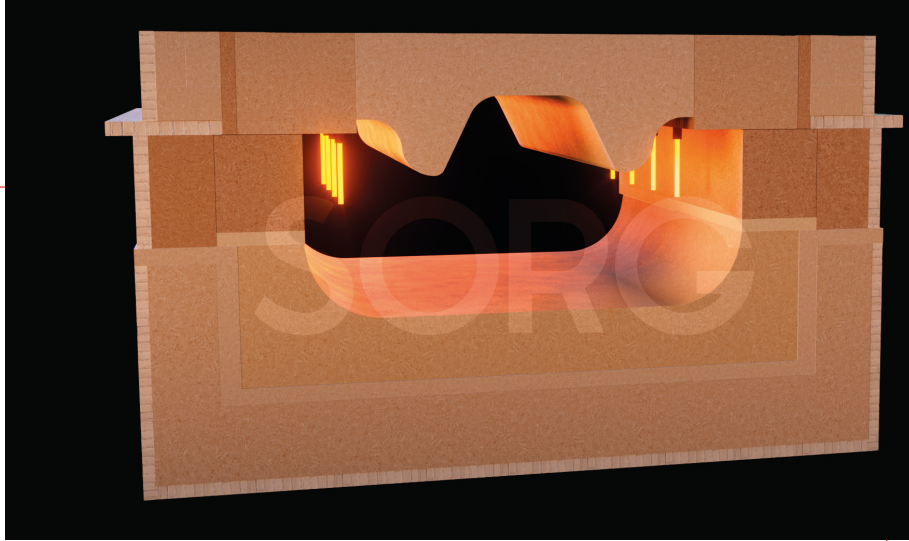
VIKING FOREHEARTH: SUSTAINABLE INNOVATION IN GLASS CONDITIONING

Continuing Sorg Group's pioneering efforts in sustainable glassmaking, the Viking Forehearth offers a significant advancement in glass conditioning technology. Conditioning is one of the major contributors to CO₂ emissions in the glass production process. While electrically-heated conditioning systems have existed for some time, they have typically been restricted to special applications due to limitations such as slow response times, contamination from electrical heating and wear or corrosion of the heating elements. The Viking Forehearth changes this paradigm with a 100 percent electrically heated conditioning system designed for all tonnages. The forehearth benefits

from electrodes integrated into its specially designed superstructure, which completely prevents local overheating. This design also protects the glass melt from potential impurities, as the electrode material is kept from falling into the glass bath - ensuring a cleaner and safer conditioning process. The Viking Forehearth's versatility and sustainability mark a significant step forward in reducing the environmental impact of glass production.

LEADING THE FUTURE OF SUSTAINABLE GLASSMAKING

Sorg Group continues to set new standards in the glass industry - driven by its commitment to sustainability and efficiency. With unrivalled expertise in electric and hybrid technology, the company is well-positioned to meet the growing demand for cleaner glass production methods. Its long history of innovation, combined with a forward-looking approach, enables Sorg to develop groundbreaking solutions that will shape the future of glassmaking for years to come. From reducing energy consumption to lowering emissions, Sorg's technologies reflect a dedication to driving positive, long-term change across the global glass industry. ■



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