



Press Release For Immediate Distribution

SinterCast displays industry leading technologies at GIFA world foundry trade fair



The SinterCast technology on display in Hall 10, Stand A38

[Düsseldorf, 12 June 2023] – SinterCast welcomes its foundry customers and industry colleagues to visit the SinterCast technology display in Hall 10, Stand 38 at GIFA 2023. Held every four years in Düsseldorf, we look forward to this opportunity to display our industry leading process control technologies and to promote the benefits of Compacted Graphite Iron (CGI). Representing 57 installations in 13 countries, the suite of technologies on display at the SinterCast stand includes foundry solutions for all levels of CGI production; traceability solutions for tracking and controlling liquid iron, cores, moulds and castings; and, a display of SinterCast-CGI components used in passenger vehicle, commercial vehicle and industrial power applications.

Industry Leading CGI Process Control

With current production of more than 175,000 tonnes per year of shipped CGI castings, the fourth generation System 4000 process control system takes centre stage at the SinterCast stand. The display includes the fully automated System 4000, comprised of individual hardware modules that can be configured to suit the layout, process flow and production volume of any foundry, and the Mini-System 4000 that is purpose-built for product development, prototyping and niche volume production. GIFA 2023 also marks the launch of Version 7.1 of the SinterCast process control software with new functionalities and enhanced integration capabilities to incorporate data from foundry production equipment and to provide real-time data streaming to foundry's process control, quality control and Manufacturing Execution Systems (MES) procedures. The System 4000 display also includes the Customer Access Terminal to enable foundry engineers to independently set process control parameters and access thermal analysis results.

Industry 4.0 Traceability for Ladles, Cores, Moulds and Castings

The traceability solutions on display include the SinterCast Ladle Tracker[®] and the SinterCast Cast Tracker[®]. The Ladle Tracker uses Radio Frequency Identification (RFID) technology to ensure that every ladle reports to every step in the process and that every step is completed within the specified process limits. Ladle Tracker also identifies where and why ladles fall-out of the process, enabling foundry managers to measure, control and improve process efficiency and productivity. The Cast Tracker technology provides complete traceability for all castings. Each core – or core package – is uniquely labelled with an engraved identification code and each flask is equipped with RFID technology to link the cores and the liquid metal history for each casting. Cast Tracker ensures that every core package is within specification prior to casting, identifies the cast sequence within the ladle and measures the shake-out time. GIFA 2023 marks the launch of a new Optical Character Recognition (OCR) solution to automatically read the identification code on each casting and to input information regarding casting soundness directly into an SQL database integrated with the foundry quality system. Together, the Ladle Tracker and Cast Tracker technologies provide Industry 4.0 traceability, evolving castings from batch commodity products into unique components with fully documented production histories.

Ultra-Light CGI Design Concept – The Cylinder Block Reinvented

The SinterCast stand showcases the redesign of a current production 1.2 litre petrol engine cylinder block from aluminium to CGI. The redesigned block uses CGI for the running surfaces and structural areas and durable plastic covers for the outer enclosures to provide the same cylinder block weight and engine performance, together with 54% less metal volume, approximately 40% lower manufacturing CO₂ footprint and improved recyclability. The stand also showcases the high volume 2.7 litre V6 petrol engine designated as base engine on the Ford F-150 pick-up truck. Produced at Tupy foundry in Saltillo, Mexico, the SinterCast-CGI cylinder block has earned the title as the most popular engine in the most popular vehicle in America.

"Twenty years ago, the demand for improved fuel efficiency and reduced CO₂ emissions provided the opportunity for SinterCast to prove its technology. Today, the same ever-increasing demands continue to drive OEMs toward CGI, and continue to provide the opportunity for our technology to contribute to the environment. Since the last GIFA in 2019, our series production has grown by approximately 30% and we estimate that the improved fuel efficiency of SinterCast-CGI vehicles on the roads has eliminated more than 25 million tonnes of CO₂ emissions" said Dr Steve Dawson, President & CEO, SinterCast. GIFA provides an excellent opportunity to showcase our process control technology, to promote CGI, to provoke the debate about lightweight engine technology, and to host our current and potential customers from around the world. We look forward to the next five days in Düsseldorf!"

For more information:

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SinterCast[®] is the world's leading supplier of process control technology for the reliable high volume production of Compacted Graphite Iron (CGI). The properties of CGI enable improved transport solutions, increasing efficiency and reducing carbon emissions in passenger vehicle, commercial vehicle and industrial power applications. As a specialist supplier of precision measurement and process control solutions to the metals industry, SinterCast also supplies the SinterCast Ladle Tracker[®] and SinterCast Cast Tracker[®] technologies, to improve production efficiency and Industry 4.0 traceability in a variety of applications. With 57 installations in 13 countries, SinterCast is a publicly traded company, quoted on the Small Cap segment of the Nasdaq Stockholm stock exchange (SINT). For more information: www.sintercast.com

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