

ESI Presents Leading Casting Simulation Software ProCAST at CastExpo 2016

Helping Foundries "Cast it Right the First Time" with Casting Process Analysis & Collaboration Tools

Paris, France – April 5, 2016 – <u>ESI Group</u>, pioneer and world-leading solution provider in <u>Virtual Prototyping</u> for manufacturing industries, announces its participation at <u>CastExpo</u>, 16-19 April 2016 in Minneapolis, MN, USA. Sponsored by the <u>American Foundry Society</u> (<u>AFS</u>), CastExpo is the largest metal casting trade show in North America. ESI will showcase on booth 1915 its leading casting simulation software, ProCAST, which addresses a large number of casting processes for diverse metals and alloys. Developed over the past 25 years, ProCAST has helped foundries, big and small, improve cast part quality, reduce manufacturing defects, and lower scrap rates.

<u>ESI ProCAST</u> is a versatile, precise and comprehensive casting simulation solution, enabling foundries to tackle easily both typical and complex casting issues. Using ProCAST, manufacturers quickly understand and fix casting defects caused by shrinkage, gas porosity, mis-runs, inclusions, and a variety of other defects linked to microstructure and mechanical evolution. Based on powerful Finite Element technology, ProCAST expands the scope of typical casting simulation to stress evaluation that predicts distortion, residual stress, hot tearing and cracking; addressing both the casting process and subsequent heat treatment. The software covers typical casting processes from sand casting to die casting, investment casting and permanent mold casting. Other less common casting processes or casting-related processes also benefit from ProCAST modeling. These include semi-solid and core blowing processes, centrifugal casting, lost foam, and continuous casting.

<u>ESI ProCAST</u> also targets the typical foundry concerns of filling, solidification, and porosity prediction and provides a simple and efficient analysis setup without compromising the accuracy of the evaluation. It helps foundries reduce costs and lead times and is used at all stages of mold and process development and for cast part quality assessment.



Meet ESI at CastExpo!

Requiring minimal training, <u>ESI ProCAST</u> meets the needs of factory shop floor technicians as well as it does for experienced casting process engineers. At CastExpo ESI's technical representatives will run demonstrations of ProCAST and explain simulation capabilities through case studies. Join ESI on booth 1915 to meet our Technical Engineers and to find out more about Casting Simulation.

Sam Scott, ESI North America, will deliver a technical presentation entitled "*Effective Gating for Copper Alloy Sand Castings*" in the technical session "*Quality Pouring Practices to Achieve Clean Castings*" during the Copper Alloys track, on Saturday April 16, 2016 at 9:15 AM. Sam will demonstrate gating and risering strategies to obtain high quality castings – targeting methods applicable to copper, but also valid for a wide variety of other alloys.

Read about how ESI customers use ProCAST

For more ESI news, visit: <u>www.esi-group.com/press</u>

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ESI is a world-leading provider of Virtual Prototyping software and services with a strong foundation in the physics of materials and Virtual Manufacturing.

Founded over 40 years ago, <u>ESI</u> has developed a unique proficiency in helping industrial manufacturers replace physical prototypes by virtually replicating the fabrication, assembly and testing of products in different environments. <u>Virtual Prototyping</u> enables <u>ESI</u>'s clients to evaluate the performance of their product and the consequences of its manufacturing history, under normal or accidental conditions. By benefiting from this information early in the process, enterprises know whether a product can be built, and whether it will meet its performance and certification objectives, before any physical prototype is built. To enable customer innovation, <u>ESI</u>'s solutions integrate the latest technologies in high performance computing and immersive Virtual Reality, allowing companies to bring products to life before they even exist.

Today, ESI's customer base spans nearly every industry sector. The company employs about 1000 high-level specialists worldwide to address the needs of customers in more than 40 countries. For further information, visit <u>www.esi-group.com</u>

