



SUCCESS STORY

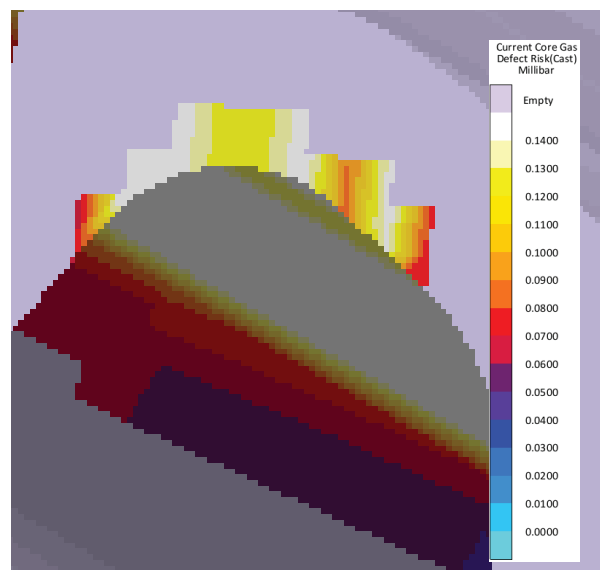
Epcor Foundry is a division of Seilkop Industries, Inc. located in Cincinnati, Ohio. They focus on medium to high volume aluminum sand castings, prototyping, automotive castings as well as finishing services. Epcor believes continued capital investment in automation technology and lean manufacturing allows them to provide customers with the highest quality aluminum castings at competitive prices to their customers.

They turned to MAGMA's engineering group for confirmation regarding the issues they were having and the solution they instinctively felt would work to resolve these issue. Before they spent the time and money putting changes into production, they wanted to be sure the changes made were the right ones and would be a permanent solution.

The first instinct was the defect was shrinkage, but they soon realized the defect was core gas and it made more sense to focus on the filling pattern and how it relates to trapping gas in the problem areas. Engineering teams from both organizations worked together, with MAGMA engineers using MAGMASOFT® autonomous engineering software technology as the lead tool to predict and address the core gas defect. Using MAGMASOFT's core gas prediction result, several gating modifications were reviewed focusing on eliminating the gas being trapped in the center of the part.

Both teams agree by working together they all learned some new concepts by examining ideas that might be considered outside the typical approach.

By modifying and changing the gating specifically to provide a route for the core gas to escape during filling the gas defect was addressed. Since these adjustments they have seen the successful production of this part with a significant reduction in both internal scrap rate at Epcor Foundry as well as reduction of external scrap at the customer.



Current Core Gas Defect Results
MAGMASOFT® autonomous engineering

"We had a great experience working with the MAGMA Engineering team."

Mike Marratta
Plant Manager – Epcor Foundry

Mike Maratta, Plant Manager at Epcor Foundry, states. *“The timing from initial conversations with MAGMA’s Engineering group to the end result was quick and smooth. Initial meetings were to the point and moving through the project to achieving the end result was quick and effortless.”* He went on to say, *“The turnaround of results and the process of traveling through this process with MAGMA exceeded Epcor’s expectations. They clearly have a handle on the foundry industry and production as well as a strong knowledge of applying their software, MAGMASOFT®.”*



“Taking this part and working with MAGMA to confirm and explore options together while keeping the practical foundry process in the forefront. It was apparent that MAGMA’s knowledge of both their software and how foundry production works is essential when trying to find a real-life solution.”

Mike Marratta
Plant Manager – Epcor Foundry



MAGMASOFT®
autonomous engineering