

Innovative Heat Treat Methods of Al Castings (ACRC)

Researchers:

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Overview

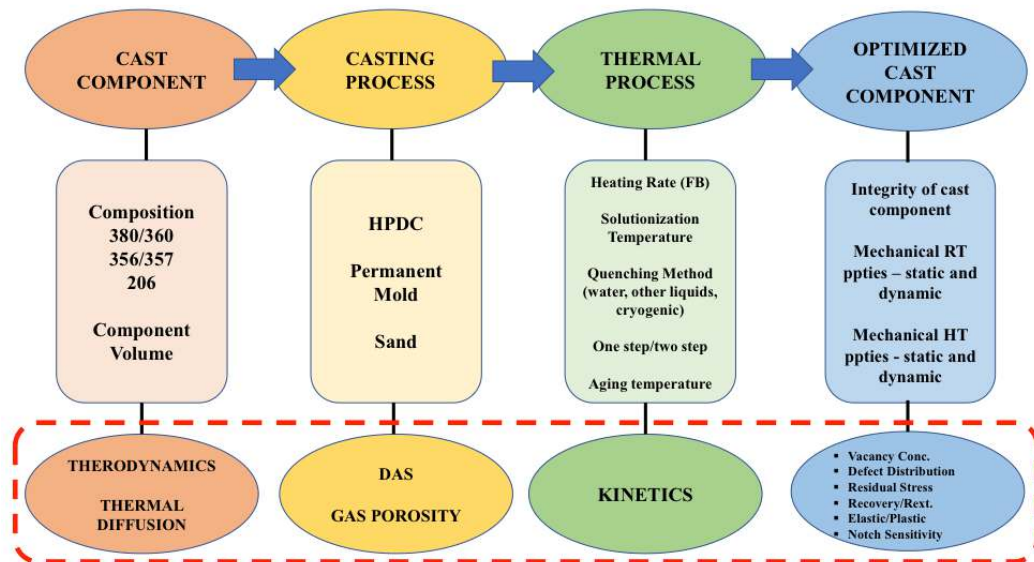
As part of this endeavor, fundamentals of how these parameters control the thermodynamics, kinetics, thermal diffusivity and physical metallurgy of the alloy are being studied. The processes and the designated alloys have been targeted to be investigated in this project are listed below:

- High pressure die casting process for A360 and A380
- Permanent mold casting process for A356 and E357
- Cryogenic treatment process for A206, A355 and E357

Focus Group Members

Shahrooz Nafisi (Consolidated Metco), David Weiss (Eck Industries), Kevin Anderson (Mercury Marine)

Category: Funded by ACRC Consortium



The ACRC team initiated a broad project devoted to improving properties/performance of Al alloys from a fundamental perspective with the aim of developing impactful innovations in post-solidification process. There are several parameters, including but not limited to alloy composition, casting process, heating/quenching technologies utilized and casting volume, which significantly influence the heat treatment process.