

Thin-Wall Casting Project Success

Redesign and New Alloy Allow for Thinner Walls and Reduced Weight

THE CHALLENGE

- ▶ Reduce the weight of a differential housing used in light trucks.

THE LIFT SOLUTION

- ▶ Utilizing ICME, LIFT was able to redesign the part based on performance needs and optimized the alloy for strength.
- ▶ The alloy was also optimized for flow into the thinner, redesigned cavities of the part.

THE OUTCOME

- ▶ The project developed a new ductile alloy and showed a 30% weight reduction in the cast prototype parts, including a 50% reduction of walls thickness of parts.



THIN-WALL CASTING FOR HIGH VOLUME PRODUCTION

Weight reduction of nearly 30% with walls thinned by approximately 50%

