



66th Technical Conference & Exposition

WINNERS

Aristo-Cast Takes Automotive Casting Award

“Once again, one of our favorite customers came to us with a challenging detail that not only pushed our limits for size, but also took us into a new area in casting where we have never been before,” Paul Leonard of Aristo-Cast explained.

“They first came to us with the design that their generative design software came up with and we had to suggest a few minor changes to create a better investment casting and with those small tweaks, we then designed the gating configuration to be able to feed the part correctly and reduce the amount of machining that would be required to remove this gating,” Leonard concluded.

The wheel was cast to size, the only machining that was required was to remove the gating system.

PART: Generative Design Wheels

Size: 18" diameter, 7.05" deep

Alloy: A357 Aluminum

Notes: Traditional manufacturing collaboration with additive manufacturing creates one-of-a-kind wheel.



Aristo-Cast, Inc.

TPM Takes Energy Casting Award with Casting Conversion

This 30 pound, 6 inch valve seat cage for a reciprocating turbine compressor was being fabricated as an 11 piece weldment. Assembling a single part was a very time consuming process.

By manufacturing the part as an investment casting, the customer saved approximately 100 hours in fabrication, machining and finishing time per compressor, with each compressor using 8 parts. This resulted in an estimated cost savings of approximately \$5,000 per compressor.

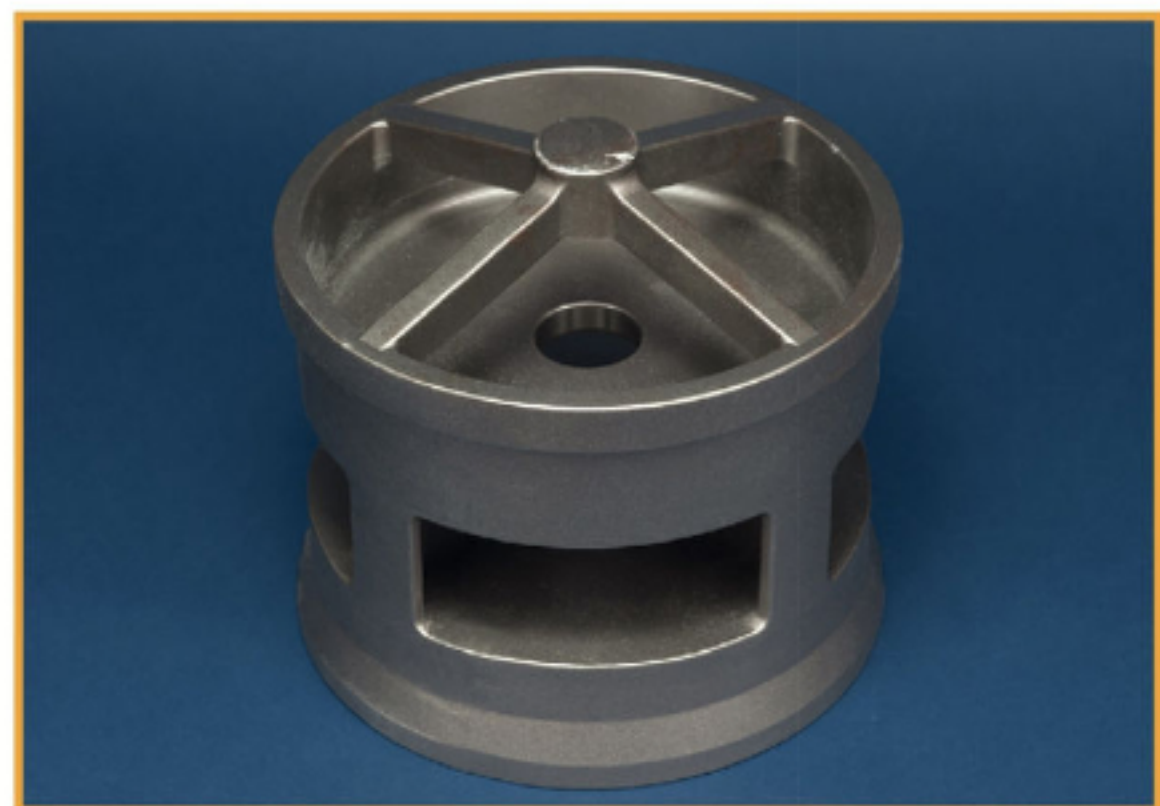
In addition to yielding a drastic reduction in manufacturing cost, the customer was able to buy a part nearly ready for use, freeing up skilled welders and machinists to do other work. By converting this part to an investment casting, the customer not only benefitted from a manufacturing and opportunity cost perspective, they also were able to cast the company's logo and phone number on the part for marketing purposes.

PART: 6 Inch Valve Seat Cage

Size: 30 lbs

Alloy: CA-15

Notes: Casting conversion significantly reduces time and cost.



TPM, Inc.