



More than 65 years producing
precision aluminum die castings

Rangers Die Casting Company

RANGERS Results

Quarterly News

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Increasing Number of Regulations Could Reduce Manufacturing Output

Federal regulations affecting the manufacturing sector have increased by 60 percent since 2009, with the potential to reduce manufacturing output by as much as \$500 billion in 2012 according to a recent industry study.



Macroeconomic
Impacts of Federal
Regulation of the
Manufacturing Sector,
conducted by NERA
Economic Consulting,
focused on five types of
regulations. Those that

have the most significant impact on the manufacturing sector are financial, labor, energy, environmental and transportation mandates.

According to the report, an average of 72 major regulations per year have been promulgated since 2009, compared to an average of 45 per year between 2001 to 2008, and 36 between 1993 to 2000. The report noted that environmental regulations, such as those to reduce cross-state air pollution, sulfur dioxide and particulate matter, have the greatest impact on manufacturers.

Rangers Die Casting is committed to environmental responsibility. We understand the need for certain regulations to help protect society. However, we also advocate a cooperative, common sense regulatory environment that takes into account the financial impact of these mandates.

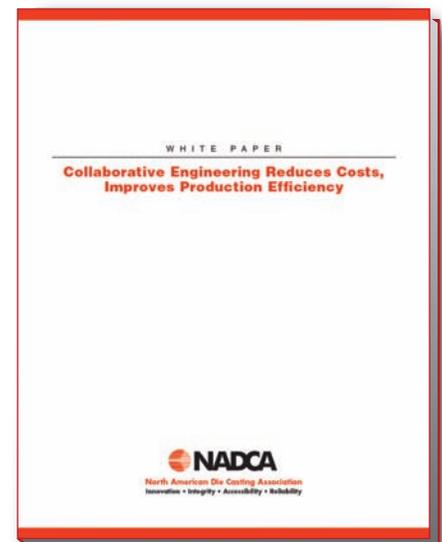
For years, we have cooperated with Southern California Edison Co. and voluntarily agreed to curtail manufacturing during peak usage hours to lessen the chance of "Brownouts or Blackouts." With proper scheduling and employee participation we have maintained a 99 percent on time delivery target for cast aluminum parts during this period.

Rangers also has installed electric resistance holding furnaces, which have

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Answering All the Right Questions for Good Die Design

Well-designed tooling is the foundation for creating a successful aluminum die cast component. Our engineers work with you from the start to ensure that the correct tooling is used to create a quality part.



We use the latest CAD/CAM software to create 3D designs that help you envision the final die cast aluminum part or cast aluminum component. Our die casting simulation software maximizes gating and aluminum alloy flow for consistent wall thickness and solidification.

Before we use these advanced systems, our engineers start with basic

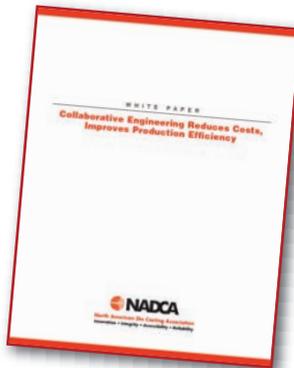
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Answering All the Right Questions for Good Die Design *...continued*

questions that will impact the die design. These include:

- Is the wall thickness sufficient?
- Are ribs needed?
- Is the parting line acceptable?
- Is there enough radius?
- Will the ejection pin location affect surface cosmetics?
- Is extra material needed for final machining?



Once we have these and other answers, we are able to create models to verify that the aluminum die casting design will meet your product specifications.

Creating the right tool is critical to successfully producing die cast aluminum, but so is using the die effectively during production. To assist us with this vital task, Rangers uses a computerized die management module. The software tracks all aspects of a die's life from quoting, production and scheduling, to quality control and maintenance. Key production aspects of the die management module include:

- Auto alerting die maintenance personnel when a die reaches its shot limit.
- Placing a stop code on a die to prevent manufacturing activity for that die.
- Auto calculating die replacement/amortization costs.

Using a combination of time-tested techniques and cutting-edge technology, we can help you develop the best dies for complex aluminum die cast components. Industry white papers such as "Collaborative Engineering Reduces Costs, Improves Production Efficiency" prepared by NADCA are also excellent information services for OEMs.

Increasing Number of Regulations Could Reduce Manufacturing Output *...continued*



cut its metal oxidation losses and aluminum alloy scrap rates in half, resulting in lowered operating aluminum die casting costs and while creating a quieter, more comfortable work environment for its employees.

Rangers Conquers Social Media



Pictured with Rangers' Don Klements (far right) are manufacturer's reps, Jeff Haskell and Carl Davidson of RE Davidson Co.



We recently participated at the Design2Part Show held in the Los Angeles area and had the opportunity to meet and greet many customers and qualified prospects. Rangers takes great pride in exhibiting at such regional events and having the opportunity to have numerous one-on-one meetings with those who are seeking our expertise with their product design challenges and discovering the numerous benefits associated with the die casting process.

Our thanks to the North American Die Casting Association (NADCA) for all its support and guidance in working with us on industry issues. We're very proud to be a NADCA corporate member and as an active member of its Los Angeles Chapter.



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