



IMPLEMENTATION OF NEW TECHNOLOGY PROVIDES SUBSTANTIAL PRODUCTIVITY GAIN

As a partner in the American Metalcasting Consortium (AMC), the North American Die Casting Association (NADCA) has sponsored the development of new technologies for improving productivity. For rapid transition of these new technologies to industry, implementation strategies are being formulated into a user friendly electronic tool. In addition, NADCA is providing direct assistance to companies for implementing productivity enhancing technologies.

The targeted benefits for the Defense Logistics Agency (DLA) are:

- Estimated 20% shorter lead times
- Stronger supply chain
- Estimated 5-10% lower cost

SUCCESS STORY

Problem: Twin City Die Cast was experiencing problems producing a die cast fan clutch used on the cooling system of many light and medium duty military trucks. Scrap was high at 14% rejection for porosity after machining and the 37-second cycle time exceeded the desired efficiency.

Solution: Utilizing NADCA's Productivity Improvements Tool, Twin City implemented computer control of die cooling line water with a thermal design and control technology in an effort to reduce scrap and decrease cycle time. Cooling lines were modified and the control system was installed.

Benefits: After implementation of the control system, scrap was reduced to less than 1% and cycle time was reduced to 32 seconds. Combined, these improvements increased total productivity 26%. Other benefits include reduced start-up time, increased die life, and reduced downtime.



"Implementation of the computer controlled die cooling line technology greatly assisted in improving our productivity by reducing cycle time and significantly reducing scrap related to a clutch plate casting. NADCA's AMC project provides a great opportunity to ensure high-quality, cost-efficient parts for the military."

-Mark Engebreston, Plant Manager, Twin City Die Casting Co.



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