BONAL TECHNOLOGIES, INC.

Customer Testimonial

Featured Company: ITT Automotive

Meta-Lax Puts ITT on the Fast Track

ITT Automotive's involvement with speed goes far beyond its sponsorship of Indy Car events such as the Detroit Grand Prix. A visit to any of the company's plants reveals its commitment to the efficient and timely production of quality automotive components. This is especially true of **ITT Automotive's Precision Die Casting Company,** which both designs and builds its own dies and then uses them to produce top quality cast aluminum components for the automotive industry.

Assembled die casting die being Meta-Lax treated.

ITT Automotive Precision Die Casting Company consists of four facilities: the Technical Center in Solon, Ohio and die casting plants in Rome, Georgia and in Twinsburg and Bedford, Ohio. The Technical Center designs and builds tooling for the three die casting plants, which in turn produce a wide range of automotive parts.

It was the Technical Center which first became aware of Meta-Lax two years ago when one of its engineers came across an article in a trade publication extolling the merits of this advanced stress relieving technology.

"Up until that time," said Thomas Bandwen, an engineering manager at the Technical Center, "we were stress relieving dies made of H-13 steel between rough and finish milling by sending them out for heat treating., which added a week to our production schedule. With Meta-Lax, we've accelerated the stress relieving process from days to a few hours. Whenever we put a die back in service after we've taken it off line for maintenance, we save additional time by not having to disassemble it for stress relieving as we had to with heat treat. Meta-Lax lets us stress relieve an entire die assembly as a single unit." *(page 1 of 2)*

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Bonal Technologies, Inc. - 1300 North Campbell Road - Royal Oak, MI 48067
P: 248-582-0900 or Meta-Lax F: 248-582-0901 - info@bonal.com - www.bonal.com

Meta-Lax Puts Die Casting on the Fast Track

"Before using Meta-Lax," added Al Phan, tooling supervisor at the Technical Center, "we experienced problems with cracking and heat checking of dies. Since adding Meta-Lax to the manufacturing process, we don't have those problems. Meta-Lax also eliminated the problem of metal movement that happens during heat treating, which can distort precision elements of a die."

The Technical Center also uses Meta-Lax during and after welding and for weld repairs of large die blocks. According to Bandwen, "Meta-Lax improves the welding process by generating a better weld flow."

Based on these positive results, the Technical Center recommended the use of Meta-Lax at each of its three die casting plants. The Rome, Georgia plant was the first to adopt the Meta-Lax stress relieving technology. This facility produces a wide range of cast aluminum components, including: power steering pump housings, rack & pinion pump housings, transmission parts, air conditioner compressor housings and fan clutches, to mention a few.

"We were having some problems with premature die failures," said Jack Humphrey, automation supervisor at the Rome plant, "when we first heard about Meta-Lax two years ago. At the recommendation of our Technical Center, we decided to give Meta-Lax a try. Although we haven't specifically tracked the improvement in die performance since we started using Meta-Lax, we have noticed a definite reduction in early die failures."

"Meta-Lax has also allowed us to eliminate the time consuming die tear down process, by stress relieving a whole die block with fittings at one time. It has become part of our production process. We use Meta-Lax when we first prep a die to measure it for stress, after welding and before any die is brought back on line. We use Meta-Lax religiously."

According to Jim Shirley, industrial engineer at the Rome plant, "We've seen a general increase in the number of shots from our dies since we began using Meta-Lax two years ago and the only thing that has changed is the addition of Meta-Lax. We're definitely getting more life out of our tools." And increased tool life means reduced operating costs.

In today's competitive and fast-paced marketplace, improvements in production efficiency translate into increase market share and profits. ITT Automotive Precision Die Casting Company, like many other Bonal Technologies customers, has recognized that Meta-Lax can accelerate their manufacturing process and reduce operating costs while maintaining their high standards of quality.

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