



## New Member Introductions

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### **Bonal Technologies, Inc. Commercializes Energy Saving Innovation to Dramatically Reduce Energy Consumption**

In October 2002, George Hebel, President and CEO of Bonal Technologies, accepted an award from the Entrepreneurs for Energy Efficiency, Inc. (E-3) for successfully commercializing the energy savings innovation Meta-Lax® Stress Relief that resulted from the grant the company received in 1989. Bonal has tracked its progress in energy savings since the technology was first commercialized.

According to a cumulative energy savings summary sheet, companies using Meta-Lax stress relief as of March 31, 2006 have saved a tremendous amount of energy. In comparison to the numbers identified from the 1997 U.S. Department of Energy's IMPACTS booklet, Bonal estimates Meta-Lax stress relieving has generated the following savings:

- Saved 260.7 trillion BTUs; Which is the equivalent of
- 45 million barrels of oil saved; and,
- Reduced air pollutants, including carbon dioxide (CO<sub>2</sub>), equivalent to the output of 5,435,000 automobiles.

In a Department of Energy Tech Brief, it is stated that *"Meta-Lax is a proven substitute for 80-90% of heat treatment stress relief in metalworking applications."* Most precision tolerance and long-lasting metal workpieces need to be stress relieved during manufacturing before going into service.

Today, the most common way to stress relieve metal parts is to place the parts into a natural gas-fired furnace for a long period of time. The Department of Energy found that "heat treatment stress relief" is the process that can be replaced to a large extent



Steward Machine, Birmingham, AL uses the Meta-Lax stress relief equipment for post weld stress relief of this 480,000 lb overhead lock door. The door is part of the U.S. Army Corps of Engineers Olmsted Lock and Dam Project on, Ohio River.

by Meta-Lax stress relief, at an estimated 98% reduction in fuel consumption. The company also sells its products to traditional heat treaters so they can provide their customers with the convenient option of Meta-Lax, which takes less time and is a cleaner process.

Bonal Technologies has continued to increase awareness about the product and has developed two product lines that use the Meta-Lax® Stress Relief technology namely Pulse Puddle Arc Welding® (PPAW®) and Black Magic®. PPAW® helps solve welders' challenges of distortion and cracking. PPAW® helps welders have less straightening, rework, preheat and other secondary steps, creating better quality welds in less time. Black Magic is the ultimate distortion controller and is specifically designed to control distortion in metal parts weighing less than 300 pounds. Bonal is a GSA contract holder, allowing the ease of product acquisition for federal agencies and their qualified tier one suppliers. All three product lines are available through the GSA Advantage website.

"Although Bonal Technologies developed Meta-Lax stress relief several years ago, its market potential is still very good. The technology is currently being used by less than 1% of the metalworking market," George Hebel said. "Despite the good record of savings, Bonal can assist more companies in saving energy, money and the environment."