

Featured Company: Metalonica

Shop No Longer Stresses Out Over Stress

Stress relieving parts, especially large ones, was causing problems for Metalonica, a company based in Thessaloniki, Greece, that constructs, overhauls and maintains all types of heavy industrial machinery. The shop was forced to send out jobs to subcontractors for stress relieving in heat treat ovens, a practice that caused scheduling delays of up to two weeks. Aside from the wait, the heat treaters' costs added to the overall price of every project.

Metalonica wanted to provide both construction and machining, along with stress relief, on its own premises, so the shop incorporated the Meta-Lax process from Bonal Technologies Inc. (USA) (www.metalax.com).

Meta-Lax stress relieves metals without using the heat treat process. Instead, it vibrates a workpiece at its sub-harmonic energy level. By applying sub-harmonic vibration energy, the pockets of high stress concentrations redistribute, thereby reducing the effects of thermal stress.

The process works on all metal types. And since Meta-Lax is applied by clamping a unit to the metal

structure and treating one section of a workpiece at a time, the size of that workpiece is not an issue, which solves the most difficult part of Metalonica's problems.

Within one year of having the Meta-Lax equipment, Metalonica recouped the purchase price by reducing distortion problems and has saved a significant amount of time not having to repair or reconstruct workpieces.



Metalonica makes many custom weldments which are now Meta-Lax stress relieved in-house to save time and money as well as to maintain high quality. This weldment was Meta-Lax treated to assure that it will hold proper alignment in service.

“The system has created a less-expensive and simple way to provide construction, machining and stress relief for all of our clients,” said Anestis Saraliotis, a mechanical engineer at Metalonica.

“Not only has the subcontractor's cost been eliminated, but we are now profiting on jobs involving

stress relief.”

Also, the company's production has increased by 15 to 20 percent since incorporating Meta-Lax. But more importantly, the shop can apply stress relieving to workpieces where clients are unaware it is even required.

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