AEML

Repatriating the manufacturing of clamps from China

AEML has invented a clip pipe attachment clamp. Its operating sequence allows it to compete with chinese manufacturing costs.

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Instead of cutting back on staff, the AEML Company has decided to repatriate a part of its Chinese production to its plant, located in Meung-sur-Loire (France). This was an opportunity to compensate for activity reduction. This decision was expedited because the AEML Atlas clamp, manufactured in Shanghai by its distribution subsidiary - Plombelec - is constantly copied, as the patent for this pipe attachment clamp has fallen into the public domain. Therefore, AEML killed two birds with one stone by finding a new clamp that could be manufactured in France and would be patented. AEML then had to find a solution to produce them in Meung-sur-Loire at costs which would be as competitive as Chinese costs.

An innovation award

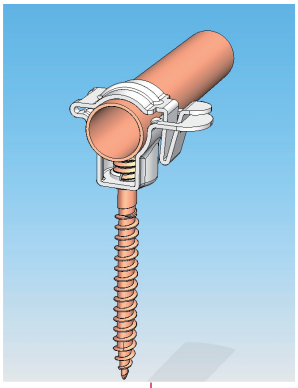
The R&D and Process Planning Departments of the Company got down to this task and designed a new clamp, for which AEML was awarded The Trophée Régional de l'innovation (Regional Innovation Prize) in 2010, issued by INPI (Institut National de la Popriété Industrielle - National Industrial Property Office). The production line of this new clamp should be operational by the end of 2011. The screws have been replaced with a clip. The metal used is a type of steel already treated against corrosion and self-lubricated.

"This new clamp has several advantages - it is not only easier and faster to install, but also cheaper to manufacture", summarised Alain Krzywdziak, in charge of the R&D Department of AEML.

In China, the attachment clamp is treated against corrosion at the end of the line and machines work with lubrication. It is therefore necessary to degrease the clamps before putting them in bags. Using electrogalvanized mild steel makes it possible to avoid performing lubrication, surface treatment and degreasing.

Simulating in order to validate choices

However, the resistance of the chosen material to 100 strokes per minute on the stamping presses was not ascertained. *"We asked the Cetim to help us find the best suited material. We firstly thought about DC01 steel but it was established that an increase in productivity would have been risky with this type of steel"*, explains Didier Ozon, in charge of the Process Planning Department at AEML. Digital simulation proved that using DC03 steel was the relevant solution, as it is cheaper than DC04 steel and provides better performance than DCO1 steel.



OUR CUSTOMER

Corporate name
Ateliers électriques et métallurgiques du Loiret (AEML), société coopérative ouvrière de production

Sales turnover 2009
29 million Euros

Workforce
250

Activity
AEML designs and manufactures equipment for colour preparation for motor vehicle bodies and industry, as well as metal attachment items for the building sector

Cetim's asset

Cetim offers SMIs its expertise in the field of stamping. If necessary, Cetim teams resort to digital simulation tools which small companies cannot afford, as they would not use them on a regular basis.

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1104-016