

ONA Wins 11th Spanish Award for Innovation in Machine Tools

The 11th Spanish Award for Design and Innovation in Machine Tools and Manufacturing Technologies has been won by the company Ona Electroerosión for its model AV-25 wire EDM machine. The award ceremony was held on 4 June 2014 as part of the Spanish International Machine Tool Biennial trade fair. This Prize recognises machine-tool companies that continuously strive to deliver improvements, investing in design and technological innovation.

ONA has now won the award five times, demonstrating public recognition for its history of using industrial design as a strategic tool and making the firm one of Spain's machine tools companies to have placed the most trust in its benefits.

If initially the idea was to focus design on the generation of corporate image, ergonomic concepts regarding the use of machines and safety systems and compliance with the most demanding regulations, ONA's current approach towards the concept of design has undergone a radical change to the point that it is now a primordial part of the engineering process behind new product and service development. This comprehensive design concept therefore involves not just the strategy and marketing areas but the R&D department as well.



Today, concepts such as lean manufacturing, cost optimisation through design, actions regarding materials, new user interface systems in the CNC program, the modular design of large and special machinery and eco design are being put into practice while they are also areas of research, in some cases with a direct reflection in European FP7 projects. This is the case of the ProSEco project currently under development, which

places a special emphasis on the eco design of machinery in which sustainability, energy consumption and environmental impact are key points expected to impact purchasing decisions, at least in the medium/high-end machinery segment, in the medium and long terms. ONA has longstanding history in this field, reflected in actions such as designing the first 100% ecological filter for wire EDM machines (patented in 1993) and the implementation of an ISO14001-certified environmental management

system in the year 2001, making it the first Spanish company in the machine-tool sector to introduce this standard.

The ONA AV25 that won the award is part of the company's strategic plan to boost current product competitiveness through the design of the new range of wire EDM machines in the "Premium" range. The main advances the new AV25 features include:

- A new CNC-CAM that exceeds the demands of the most advanced programmer and at the same time offers an extremely simple, user-friendly interface. The CNC makes it possible to control up to 8 axes simultaneously, has CAD/CAM incorporated and boasts a 21.5" touchscreen.
- A new generator that can deliver surface finishes to the order of 0.1 μm Ra.
- Design of a new automatic threader to handle fine wires of up to 70 μm .
- Improved precision and safety levels. The machine incorporates new corner and profile control systems, linear rulers with a resolution of 0.1 μm and an exclusive protection system able to detect impacts of just 0.8 kg (8 N).
- A new advanced energy-management system that cuts consumption by up to 30% during the cutting process, as well as reduced wire consumption thanks to new ECOCUTTING technologies.
- An extraordinarily compact design. The new machine layout can cut plant space by 20% compared to other models of similar dimensions.

In short, the project that won the 11th Spanish Award for Design and Innovation in Machine Tools and Manufacturing Technologies is the outcome of thousands of hours of painstaking labour by multidisciplinary teams working with a common goal: to create a product at the service of the user based on the four fundamental pillars of efficiency, ergonomics, compactness and simplicity.