

Controlling complex machine tools and welding plastics

One can find all kinds of innovations at the SIAMS exhibition. The NC machines are getting ever more complex and their controllers are following suit. Still, while the standard CAD control systems show satisfactory improvement in the milling and turning domains, the CAM systems currently on the market are generally lacklustre. This realisation inspired Jinfo SA of Porrentruy, who customises and markets softwares purchased from the US and France, to conceive their own CAM software. For this the company created Jurasoft SA, who developed the SyvlieXpert software entirely based on 3D modelling for complex turning and milling machines. This was then unveiled during the SIAMS exhibition.

Helping innovation

To create the software Jurasoft hired four engineers who, in the good cause, moved or returned to the Jura region. This gained the Bruntutan twin-company, who employs twelve people in all, the support of the Jura Canton Economy Promotion initiative. Jurasoft also benefited from two years of support by the Commission for Technology and Innovation (CTI) of the Federal Office for Professional Training and Technology, via TT-Novatech (a technology transfer centre based in Saint-Imier and Moutier). Also Jurasoft is actually collaborating with Leonello Zaquini, professor and head of the Machine Tools Laboratory at the Jura region's Engineers School at Locle, in order to improve SyvlieXpert by integrating a system for automatically determining the machining parameters and strategy required. This version will be available in 2005, marketed by Jinfo in Germany, Austria and Italy. At this moment in time, the Porrentruy-based company works in French-speaking Switzerland, with extensions into France for marketing its newest software.

Laser-Jura, a small company based in Rossemaison (4 employees), unveiled a new development in the 3D laser-welding of thermoplastics. The process was developed at Sarnen by the Leister company which specialised initially in the micro-welding of metals, and who have become partners of Laser-Jura.

This system – Globo-Welding – allows you to weld plastics directly onto curved or swelled surfaces without first having to bind the pieces in place. This considerably simplifies the difficulties of holding the components in place during assembly. The automobile industry is most likely to be interested, especially for the welding of headlights and taillights, as well as the paper industry and the textile and medical industries. Laser-Jura will be marketing welding products such as the laser machine for such operations. The laser-welding technology first became widespread five years ago.

Their first mission was the ignition keys for Mercedes Class A cars. The Jura company is, therefore, breaking new ground, and thinking about marketing its product abroad.

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As well as drinks, the Jinfo stand offers new softwares for machine tools.