



PRESS RELEASE

PRIMA INDUSTRIE GROUP AT THE SCHWEISSEN & SCHNEIDEN: QUALITY, PRODUCTIVITY AND FLEXIBILITY WITH PRIMA LASER WELDING.

(STAND 309 - HALL 7)

July 21st, 2009

PRIMA INDUSTRIE Group will participate from 14 to 19 September at the *Schweissen & Schneiden*, the important international trade fair dedicated to the welding techniques taking place every four years in Essen.

PRIMA INDUSTRIE will show some of the most significant welding applications carried out with its RAPIDO, OPTIMO, DOMINO and LASERDYNE laser systems.

PRIMA INDUSTRIE Group boasts an experience of over 30 years in the cutting, welding and drilling of two- and three-dimensional components. Main application fields for its systems range from automotive to aerospace, from energy to electromechanics, from furniture to white goods and food industries.

"Our laser systems – explains Emilio Maio, 3D Product Manager for PRIMA INDUSTRIE – allow to weld at high speed and to obtain accurate, repeatable and highly resistant joints, with reduced Heat Affected Zone and piece distortion. Both butt and lap joints created with laser systems are generally narrow but deep and can be cleaned or polished more easily than the joints obtained with other welding techniques. Consequently, laser welding is particularly suitable when high productivity, high quality and repeatability, and a good aesthetic aspect are required."

Main benefits of laser welding can be summed up as follows:

- High welding speed and single-pass welding.
- High quality and resistance of the welded joint, with considerable penetration (optimal depth/width ratio of the weld bead).
- Accuracy, uniformity and repeatability: the advantages of a fully automatic process.
- Minimum thermal supply and lack of physical contact, with consequent reduction of part distortion and subsequent processing of the welded part.





- High working speed and flexibility: the laser head moves around the part, allowing the processing in a single phase, without subsequent repositioning.
- Reduced complexity of the referencing and clamping fixtures needed with respect to the conventional techniques.
- High production flexibility of the laser welding systems.

Generally, laser welding is autogenous, but sometimes for metallurgical reasons or due to the joints geometry, a filler material is needed. In these cases, the Wire Feeder system by PRIMA INDUSTRIE is the right solution.

Moreover, PRIMA INDUSTRIE machines can be equipped with a focusing head for the "quasi-remote" welding: the head is kept at a distance of $150 \div 200$ mm. This head is called *HOW (Hands-Off-Welding)* and allows to use simpler fixtures, to weld points hard to reach, and to drastically reduce the cycle times. The HOW technique is particularly useful for the stitch welding, mainly used for car body parts. The main benefit is that the time necessary to move the tool from one stitch to the following one is minimized, while this time is considerable when conventional systems are used.

"Another important advantage of our laser welding machines – closes Emilio Maio – is that they are easily and quickly converted into cutting machines: by replacing a part of the head the machine switches from welding to cutting and vice versa. This grants great production flexibility and the investment optimization typical of multi-purpose machines."





Pictures (high resolution version attached):



HOW laser welding head by PRIMA INDUSTRIE



RAPIDO, the 3D laser machine for welding and cutting



LASERDYNE 795, the laser machine for drilling, welding and cutting

For further information:

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