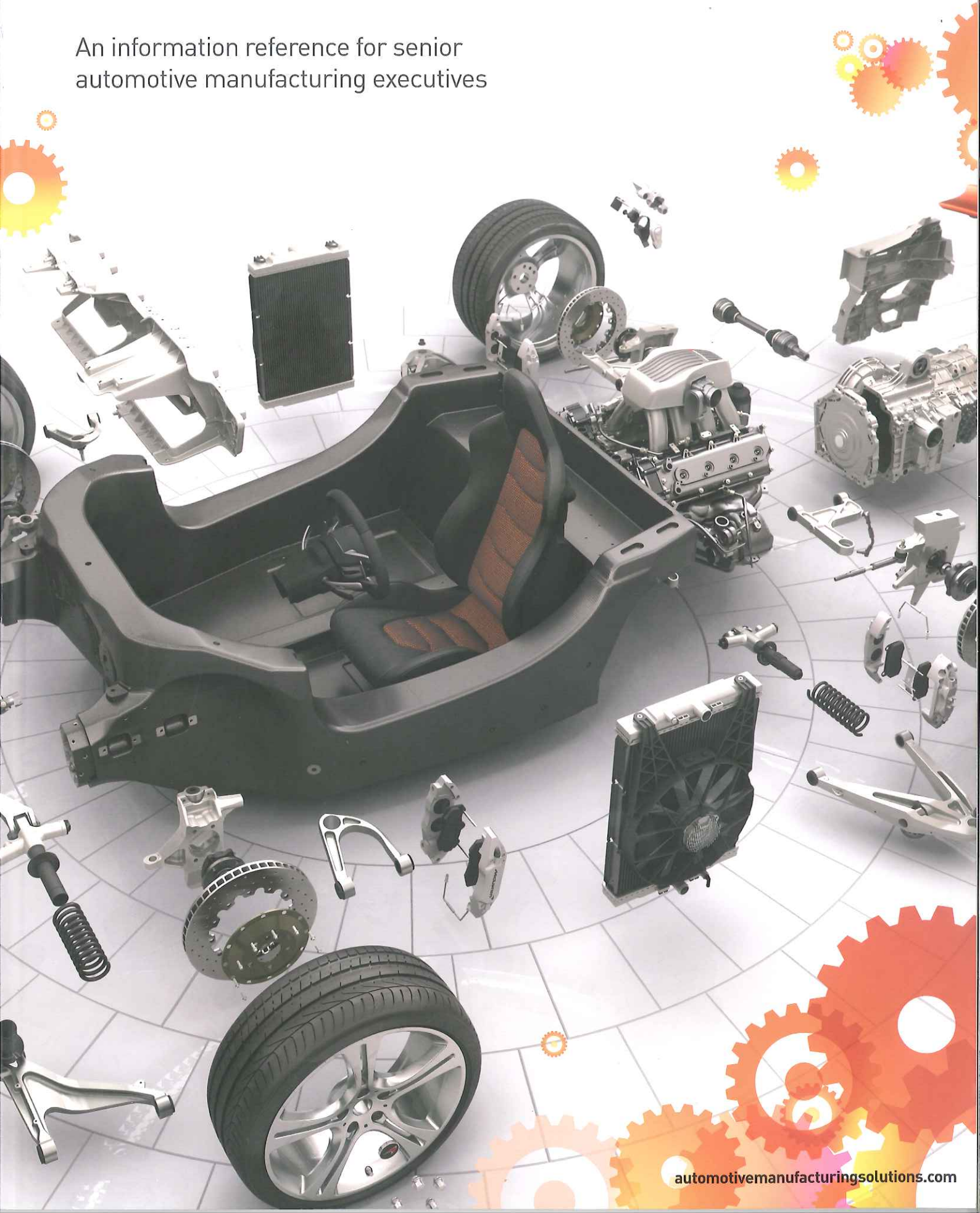


Automotive Manufacturing Solutions

AMS DIRECTORY* 2013

An information reference for senior
automotive manufacturing executives





PRIMA INDUSTRIE S.p.A.
Prima Power Division
Via Antonelli, 32
10097 Collegno
Torino, Italy

Tel.: +39 011 4103.1
Fax: +39 011 411 28 27

Email: info@primapower.com
Website: www.primapower.com

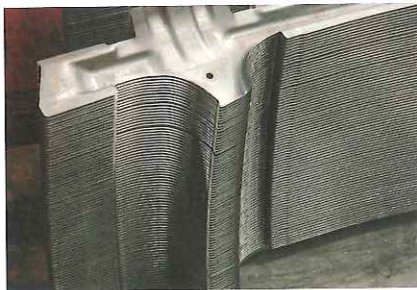
The Green Laser

The design approach aimed at the reduction of the environmental impact is often winning because it can be essential to enhance the industrial added value.

Prima Power pursues the same strategy of sustainable innovation, believing that the consumption reduction is a principle that assures environmental, but also and especially, productive and economic benefits. This approach is summarized by the concept "Green Means" by Prima Power, which favours the aspects of



↑ For this specific application, in about 2 years the new technology has actually replaced the previous one, fixing a new standard of productivity and environmental protection in the intensive production through laser beam



↑ The trimming phase, due to the high metal hardness, is only carried out by laser cutting, using three-dimensional Cartesian machines

energy saving, productive efficiency and environmental sustainability in the product design and development.

Concerning this, an example is the application of laser trimming of high-strength steel components hot formed for the automotive market.

Prima Power was the first to use new laser fibre sources, instead of more traditional gas laser.

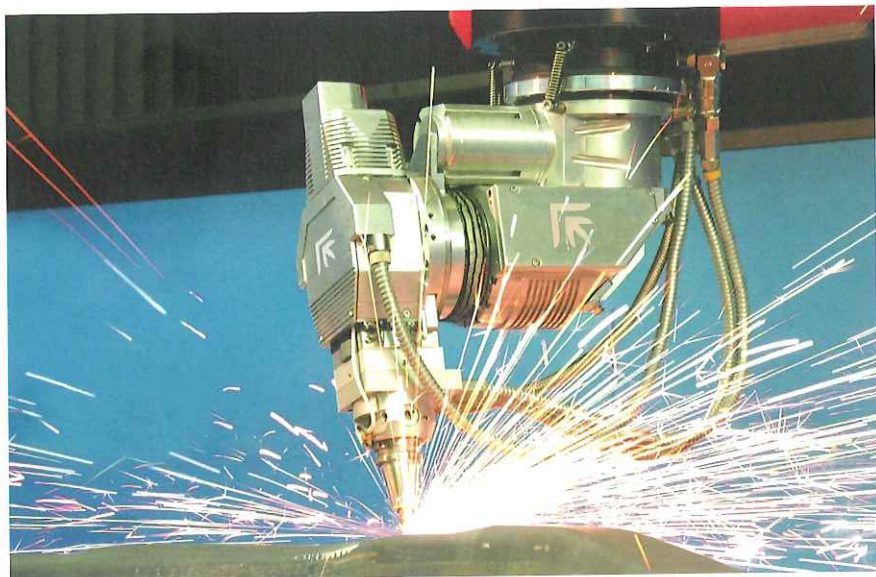
These sources derive from telecommunications, with an increase of several orders of magnitude in available powers.

The shorter wavelength, the excellent quality in the beam propagation modality and the high energy density attainable in the focusing point are characteristics that notably enhance the productivity

in the cutting of thin material, typical of automotive applications. These advantages concerning the process are completed by the notable advantages in terms of consumptions. The fibre laser is in fact directly generated inside an optical fibre instead of inside a gas resonator. This feature makes laser a fully electronic object, without mechanical moving parts, increasing the energy efficiency in significant way.

Using a gas laser, the electrical energy consumed in one year corresponds to 400,000kW/h. The same production, performed with a fibre laser, consumes about 100,000kW/h, with a really remarkable saving of 300,000kW/h per year.

Sustainability and social responsibility are features of a modern company and enhance its competitiveness, producing better components at lower cost.



↑ Vivida head by Prima Power features an additional axis for shorter cycle times and energy savings