

Evolution is power

In April, Prima Power introduced the Laser Next 2141 3D fibre laser machine. Over 150 customers were present at its Turin headquarters, as well as media representatives from around the world. John Barber reports from Italy

Prima Power is the Machinery Division of Prima Industrie. The Group's experience in 3D laser working machines is unique in the sector and dates back to 1978, when the first 5-axis laser robot was developed. Today its 3D laser product range is one of the widest on the market and represents more than 25 percent of the company's total revenues.

In Turin the company announced the launch of its new Laser Next 2141 3D fiber laser machine to a packed audience. The product is designed and developed to satisfy the needs of stamped-metal-parts manufacturers in diversified industrial sectors, such as job shops, press shops, aerospace, agricultural, and automotive. The Laser Next 2141 will provide them an unparalleled flexibility in terms of processes, part sizes, and configurations, combined with state-of-the-art performance, quality, and accuracy.

Laser Next 2141 is the new product in Prima Power's 3D fibre laser machine range and the latest evolution of the Laser Next family. All the winning features of the Laser Next 1530 and 2130 systems, highly specialised for the processing of components for the automotive industry, are made available in this new product, which is designed to be as universal and multipurpose as possible.



Speaking at the launch, Ezio Basso, CEO of Prima Industrie S.p.A, said: "We recently celebrated our 40th anniversary and in these 40 years we have done a lot of things across different technologies, different products and different industrial divisions. We have 40 years of innovation and we are also celebrating the anniversary of our 3D laser machine. It was the first 3D laser machine in the world. At the time when we had the first machine we also had our first measuring machine. This remains in our DNA; accuracy is in our DNA."

"Today we are here to present to you the

newest member of the Laser Next family: the Laser Next 2141. This is a new machine, but it has been built upon the experience of the other machines in the family. We are sure that this machine will be reliable and flexible, allowing the customer to cut, weld and to do different applications."

Luca Bianchini, sales & business development manager at Prima for 3D laser systems, added: "The Laser Next brings speed, accuracy and reliability. Accuracy is in our DNA and the speeds and reliability of the product is particularly impressive."

The working volume of this machine is the largest on the market at 4140 x 2100 x 1020 mm, with a very compact footprint, and it is suitable for virtually all 3D stamped and flat sheetmetal part sizes. Its technological features allow it to process both three-dimensional and two-dimensional parts and to easily switch from cutting to welding applications. The new Laser Next 2141 is the new reference in its market segment thanks to its working envelope, performance capability and accuracy.

Laser Next 2141 is the perfect balance of speed, accuracy, and reliability. The linear motors on the main axes, the direct drive on the focusing head and advanced control systems, provide the highest dynamics in its market segment, with single axis speed of 120 m/min and trajectory speed of 208 m/min. This is combined with maximum



accuracy, Pa and Ps= 0.03 mm, in a very large working envelope and with the best Overall Equipment Efficiency (OEE).

Laser Next 2141 is available in different configurations to better suit any production.

The standard version with fixed tables exploits the entire working envelope to process large parts and features great accessibility from all sides. With the Split Cabin configuration, the working volume is separated by a removable wall and a sliding roof into two halves, where the parts are alternatively processed or loaded/unloaded in total safety. In this way, machine productivity is increased and, when needed for larger parts, the wall can be removed to restore the entire working envelope.

For the fastest part handling operations without machine stops, cover time operation, the Turn-Table configuration is available. This is the ideal solution for large-series production of medium to large-size parts. The Shuttle Table version allows the fast and automatic movement of parts and fixtures outside the working area from the sides or the front of the machine. This is the solution for allowing large and heavy parts to be handled outside the working area and in case of complex setup. Combined with the split cabin, the Shuttle Table configuration also allows cover time operations.

With its versatility and performance, Laser Next 2141 opens up new horizons for 3D parts processing. The Laser Next family, launched on the market in 2014, set new standards in large-series production of automotive components in terms of throughput and reliability. These unique features are also made available for small to medium-batch sizes for a wide range of applications in addition to hot stamped parts. What really sets this product apart is the combination of the highest productivity and efficiency with all-round flexibility.

Laser Next 2141 is equipped with either a three or 4 kW Prima Power fiber laser, featuring high reliability, quality pumping



diodes, better protection against back-reflections, a patented highly-reactive electronic shutter, and a high integration into the system.

As with all Prima Power products, Laser Next 2141 is "Industry 4.0 inside" and features innovative solutions for digital manufacturing and cloud-based communication. This productive and flexible machine interacts with the factory and with the whole enterprise. Customers have the power to remotely monitor, control, and predict the production process for the highest efficiency.

Prima Power's 40-year experience in 3D laser processing is really unique. Thanks to a continuous dialogue with customers and partners operating in the most diversified industrial sectors, Prima Power has learned their needs and expectations and has translated them into this new product. Laser Next 2141 will definitely help them improve their production and gain a strong competitive advantage.

Prima has long-established collaborations with big car manufacturers at a global level. Ezio Basso said: "Our customer base is also made up of job shops, press shops and automotive Tier 1 and Tier 2 suppliers.

"We firmly believe that when you deliver a machine to the customer this is not only the supply that you offer but also the service that you provide them with. This is the reason why our customer service teams are spread all over the world. We have 490 people that are working next to the customers in order to support them, improve their application and to train them to get the most out of our products."

"The good results in the year 2017 were

supported by the excellent performance of our 3D laser business, which enjoyed strong investments from automotive and aerospace markets. Also significant was the growth of systems sales, driven by the Industry 4.0 technological shift to connected machines and automated production lines.

"Our products are under the umbrella of green means. This means they have less impact on the environment, they are more efficient and are also less expensive to operate. For each product line we launch one new product every year."

Prima Industrie has a long history of innovation. The group has pioneered many laser and sheet metal technologies over the last four decades. This forward-thinking approach is still at the base of its success and allows the company to remain at the forefront of technology. Prima Industrie develops new laser sources that are increasingly efficient and sustainable and has developed advanced and effective "Industry 4.0 inside" solutions for digital, data-driven manufacturing and service.

The company invests between five and six percent of its revenues in R & D, collaborates with major universities and research centres and participates in important European research projects, often as coordinators."

Ezio Basso concluded: "We are an innovation company and we want to keep innovating.

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