

"Welcome to the Plus" - the new Laser Genius+ 2D machine from Prima Power shapes the new era of laser cutting

Collegno - 13 May 2021 - The Prima Power range of 2D machines has been further enriched by the latest product, which has been designed and developed to meet the needs of a constantly evolving market, setting new standards in speed, reliability and precision: Laser Genius+.

The new Laser Genius+ 2D fiber laser machine, completely designed and built in Italy, was developed using Prima Power's experience of over 40 years and an extremely pragmatic approach aimed at satisfying real market expectations. This requires greater performance, efficiency, quality, ease of use, automation and intelligence.

With a trajectory speed of 180m/min, Laser Genius+ is one of the fastest and most productive machines on the market. Most importantly, the machine has been designed to make the most of the laser power available.

The Laser Genius+ family of machines includes sizes 1530, 2040 and 2060 and can be equipped with a wide range of fiber laser powers, from 2 to 15 kW. The machine is designed to have total control over the laser process and to obtain maximum reliability and quality with all of the power available. To take advantage of the high power capability, you need a fast, rigid and light machine. In fact, just like cars, horsepower isn't enough on its own to get high performance, but rather the suspension, rigid frame and lightness all matter. It's exactly the same for a laser machine. To reduce cycle times, what matters is an excellent relationship between the rigidity of the frame and the weight of the moving masses. It's precisely these features that allow the Laser Genius+ to squeeze out every ounce of power at all times.



The new laser head has also been designed to optimally manage the heat required to melt thick sheets while staying cold and clean, thanks to sensors that actively control the cutting process in real time, hermetically isolated optics, simplified mechanics, and the high efficiency fumes extraction system.

Another important bonus of the machine is its unique layout, which has been designed to ensure superior ergonomics and ease of use, as well as to make the most of the space.

Accessibility has always been a distinctive feature of Prima Power machines and this is even more the case for the Laser Genius+. The cabin is available with large sliding doors which can be placed on the right or left side, or even on both sides, for maximum ergonomics.

Its footprint, one of the smallest on the market, and the simplicity of the layout, which integrates all of the already tested services into one dedicated module separated from the machine work area, make it an extremely compact plug & play system with very quick installation times. In fact, it only takes two days to start production. Additionally, its symmetrical and reversible layout means you can place the machine in any production context without limiting logistic flows.

Despite its compact layout, the Laser Genius+ has the largest working area compared to other 2D machines available on the market (X, Y, Z axis strokes: 3150 x 1600 x 150 mm, for the 1530 model, and 4320 x 2200 x 150 mm, for the 2040 model).

The new Prima Power fiber laser head is designed for excellent cutting quality and dynamics on all materials and on processable gauges with laser powers up to 15kW.

The head boasts adaptive optics for the automatic management of the focal position and diameter for a fast, reactive and precise measurement of the stand-off, from a single focusing lens suited to all production requirements, from Side Impact Protection Systems (SIPS) and Optical Precision Control (OPC) and a protective glass drawer for easy inspection.

Laser Genius+ monitoring systems check the entire process. For example, LISA (Light Intensity System Analyser) checks the correct operation of the process parameters in real time



and the Check Optics function allows you to manage maintenance of the protective glass, thereby minimising downtime.

The machine optionally features Tech Suites that ensure a further reduction in cycle times while also offering superior quality, thanks to the intelligent management of head movements and the piercing and cutting parameters. The new automatic nozzle changer also has 20 stations, which allows you to have the most suitable nozzle at all times.

Laser Genius+ is the smartest and most interconnected machine Prima Power has ever produced, with a very high degree of connectivity, new laser head sensors and artificial intelligence algorithms for advanced process monitoring and control features.

The machine can be integrated with your other systems and management software, thus maximising efficiency and productivity. The software manages all phases: importing production orders generated by your system, automatic programming with Prima Power CAMs, production planning and creation of work lists to be loaded directly onto the machine, right up to the collection of machine data on production (pieces produced, materials used) and performance (machine status, alarms, processing times) to offer you all the data necessary for production control management systems, all the while being fully compliant to Industry 4.0 law requirements.

Prima Power has always been alongside customers throughout the product life cycle, and that's why a solution has been developed based on the concept of the Internet of Things from a SAAS (Software As A Service) perspective. This solution is dedicated to the monitoring and advanced diagnostics of a large amount of behavioural, non-production data collected by the Laser Genius+. The information is collected on a certified cloud for security and is available to technicians at Prima Power Service Centres who check the behaviour of the machine via our Remote Care web application and give customer suggestions to improve production and help resolve any unexpected problems.

A new 24" high definition dual monitor console and simplified user interface has been designed for the Laser Genius+. The Info Panel on the machine also displays some data in



real time, such as details on processed materials and energy consumption, which is very useful for operators and production managers.

The machine is also equipped with three new on-board software modules: Optia, for the recovery of scrap sheets by digitising shapes via the camera, which consequently reduces waste; Wizard, a simplified CAM that allows you to create new nesting and processes, or modify existing ones (by moving, rotating and deleting pieces); 2D Editor, a part program graphic editor that allows adjustments to the technology (manual and automatic cutting, lead-in and micro-joining).

Laser Genius+ is designed for continuous 24/7 production. The standard supply includes an automatic, fully electric pallet changer, with up to 30% reduced cycle times compared to previous versions. In view of the increased dynamic performance of the machine and the optimal exploitation of high-power fiber lasers, Laser Genius+ is an excellent match for a wide range of automation solutions that cover all production needs, even unmanned. The machine can be easily connected to Prima Power automation systems to automate the flows of material and machined parts (loading, unloading, picking, stacking, and storage) and further increase productivity. The automation modules can also be integrated in subsequent moments, as production volumes grow.

Compact Server is the most compact layout solution on the market, It is affordable and easy to use, and suitable for short periods of unattended production where a production mix is not required. With the addition of a third pallet, it is possible to load and unload both from the manual station and from the automation, ensuring high production flexibility. Combo Tower Laser is available with 1 or 2 multi-functional and configurable towers which are an optimal solution for small-medium lights out production volumes. Night Train is a flexible manufacturing system, which automates the entire manufacturing process in a single step, from scheduling to production reporting, ideal for 24/7 production.

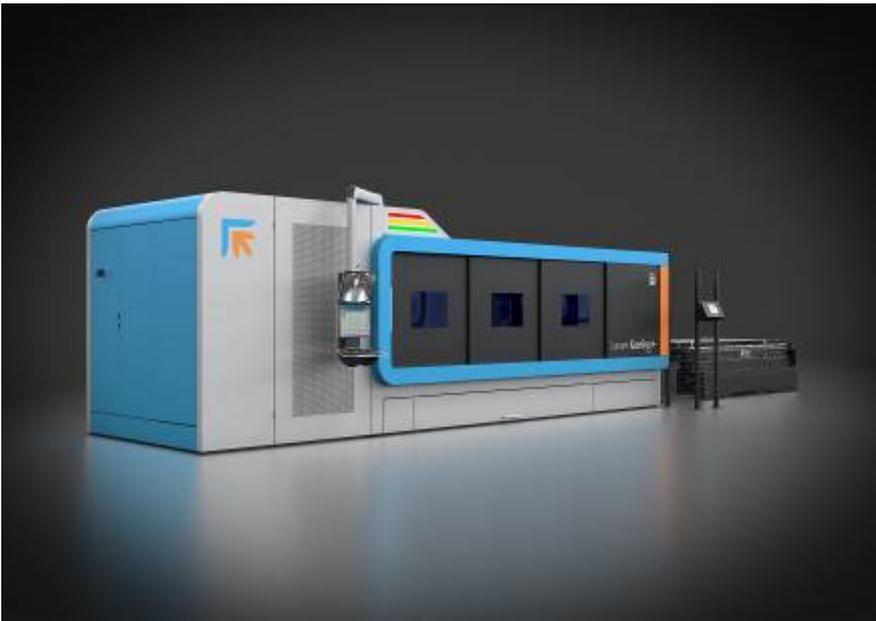
Laser Genius+ has all the winning elements of Prima Power machines, but perfects them and brings them even closer to customer needs, offering excellent levels of productivity, quality and efficiency, while also guaranteeing maximum ergonomics and ease of use for the operator.



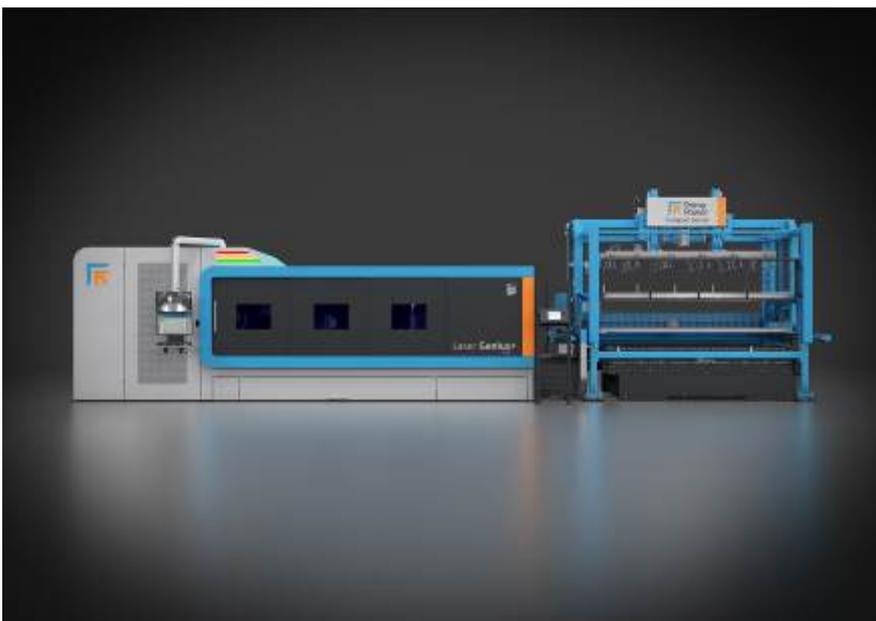
Hi-res images:

<https://drive.google.com/drive/folders/1uN-5m8UC5TnW-w6osuUKCJUNTrBgNktr?usp=sharing>

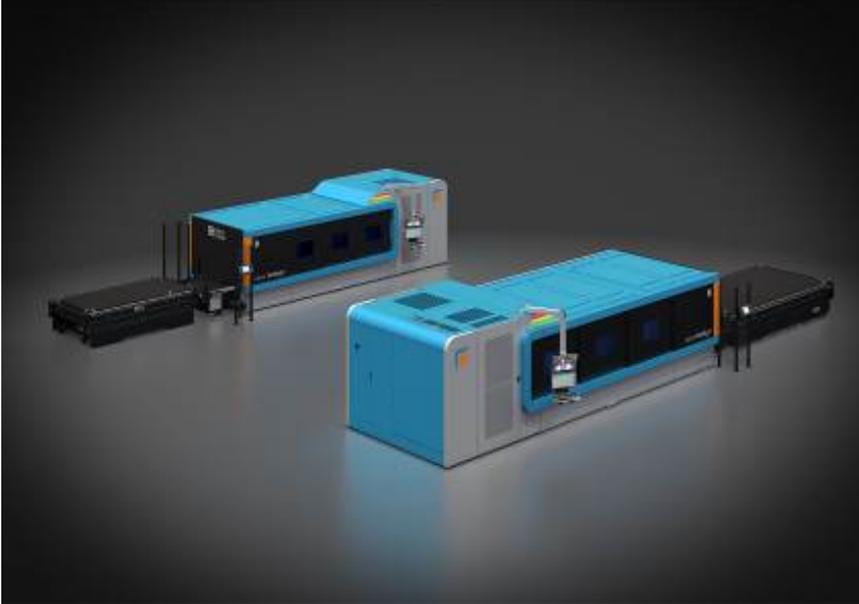
Images and captions:



1. Prima Power's new Laser Genius+ 2D machine



2. Laser Genius+ with Compact Server automation



3. Laser Genius+ 1530 and 2040 - The machine has an innovative reversible layout

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Prima Power is a world-class supplier in the high-tech industry of laser and sheet metal processing machinery. Its product portfolio is one of the most comprehensive in the industry and includes: 2D and 3D laser machines for cutting, welding and drilling, punching machines, combined punching/laser and punching/shearing systems, press brakes, panel benders, bending centres and flexible manufacturing systems (FMS).

Prima Power is the Machinery Business Unit of Prima Industrie, a group with over 1,700 employees worldwide, production sites in Italy, Finland, the United States and China, and a sales and service network in over 80 countries.