Prima Power

The Laser | 3D line

Cutting-edge technology for real-world applications

Contents

Next level.
Next to you.

Today's volatile market demands that companies be competitive, accurate and reactive. Prima Power products continue to evolve, bringing efficiency to a whole new level.
More productive machines, new automation solutions, and easy-to-use option suites are designed to meet the customer's real needs. To provide the best Prima Power technology, our team of experts will always be available to listen, assist and advise.

What can be found in this brochure

The state-of-the-art 3D laser machines to respond to different customer and application needs.

Ideal solutions for massive or specialized automotive productions.

Laser systems designed for a wide range of high precision applications.

Laser machines with high-power source with fiber technology developed and produced by Prima Power.

All Prima Power products are compliant with the Industry 4.0 guidelines, helping the customers turn their production sites into smart factories.

Laser cutting.
The most flexible tool ever

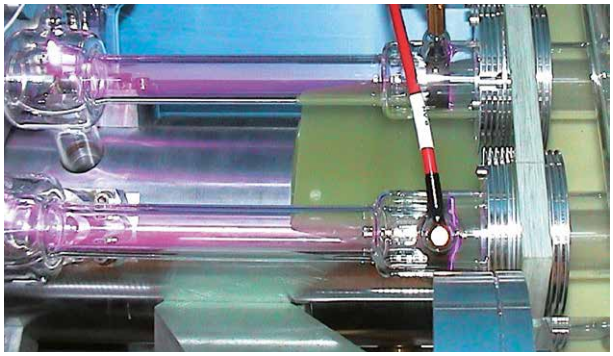
Laser cutting is an amazingly flexible technology. A wide variety of materials and thicknesses can be processed, with no limit to the shape you can obtain. Its programming is so fast, that any change can be applied in any phase of your production with virtually no extra costs and time. Its precision is the highest, the quality of the cut edge is excellent and there is no part distortion.
Our laser product portfolio is extensive and includes both CO_2 and fiber 2D and 3D machines for a broad range of applications in cutting, welding and drilling.

FIBER LASER

In our fiber lasers the active gain medium is an optical fiber doped with ytterbium, no laser gases, mirrors or moving parts. The laser light is transferred via a passive fiber cable to the cutting head. This technology grants high productivity and efficiency with low maintenance requirements.

CO_2 LASER

In CO_2 laser the beam generated by the source is led to the cutting head through highly reflective mirrors. The main benefit of this technology is that it can be applied with high quality results in terms of surface roughness and perpendicularity tolerance to the whole spectrum of processable thicknesses. This generator adheres to the highest standards for quality of surface roughness and perpendicularity tolerance.



ALL IN ONE. THE ONLY ONE

Prima Power, after the launch of its high-power laser source with fiber technology, became the first laser machine manufacturer which has internally developed its own fiber laser source, now available on its products.

With the introduction of the fiber laser we achieved an excellent result for the Group, thanks to which we will be able to offer our customers from time to time the most convenient solution, having the chance to present our Group to the end user as the sole supplier.

The Laser | 3D line

Laser Next 1530 - Laser Next 2130

Designed, developed, manufactured and tested for the production of automotive components, particularly HSS parts, with first-class performance, to grant lowest cycle times excellent quality and reliability.

Fiber 3-4 kW

X: 3,050 mm - Y: 1,530 mm - Z: 612 mm
X: 3,050 mm - Y: 2,100 mm - Z: 612 mm

Laser Next 2141

Designed for large parts processing and job shop applications with flexible configurations, high dynamics and advanced technology for different applications.

Fiber 3-4 kW

X: 4,140 mm - Y: 2,100 mm - Z: 1,020 mm

Rapido

First rate productivity, quality and efficiency with unmatched flexibility. Ideal for jobshops productions thanks to its top application flexibility and low running costs, particularly suitable for frequent changes of production.

Fiber 2-4 kW

X: 4,080 mm - Y: 1,530 mm - Z: 765 mm

Optimo

The higher class three-dimensional machine for the cutting and welding of large workpieces with superior quality and accuracy without repositioning granting an important competitive advantage.

CO_2 2.5-5 kW

X: 4,500 mm - Y: 2,500 mm - Z: 1,020 mm

Laserdyne 430

The flexible laser machining platform for a wide range of high-precision applications, suitable in the aerospace, automotive, medical devices, electronics, industrial and consumer products industries.

Fiber
QCW: 3-20 kW - CW: 1-4 kW

X: 585 mm - Y: 400 mm - Z: 500 mm

Laserdyne 606D

Dual laser processing system with two independent, precise 3D laser cutting, welding, and drilling machines within a single structure ideal for turbine engine combustion liners, exhaust and heat shield components in aerospace industry.

Fiber
QCW: 3-20 kW - CW: 1-4 kW

X: 600 mm - Y: 600 mm - Z: 600 mm (x2)

Laserdyne 795

The premier multi-axis laser processing system for drilling, welding and cutting precision components with large z-axis stroke. The most versatile processing platform available today for land based or aerospace turbine components and automotive components.

Fiber
QCW: 3-20 kW
CW: 1-4 kW

CO_2
CW: 2.5-4 kW

X: 1,000 or 2,000 mm - Y: 1,000 mm
Z: 1,000 or 1,370 or 1,830 mm

Laser Next 1530 - Laser Next 2130

THE 3D LASER SYSTEM FOR AUTOMOTIVE PRODUCTION

Laser Next, the world's fastest 3D laser machine, is available in two sizes to meet any automotive production needs. It grants very low cycle times (+25% throughput compared with previous model) and excellent Overall Equipment Efficiency (OEE).

Laser Next features a highly space efficient layout, both for stand-alone and multi-machine configuration. Given the same area, it is possible to install four Laser Next instead of three units of the previous model. Considering the performance of Laser Next, its productivity per square meter is simply astonishing. You can have up to three machines one next to the other connected to the same magnetic scrap conveyor, with no need of excavation works.

SPECIALIZATION

Laser Next is focused on the production of hot stamped steel components. It's designed, developed, manufactured, and tested for this specific application.

PERFORMANCE

First-class performance to grant lowest cycle times and excellent cutting quality.

MULTI SIZE

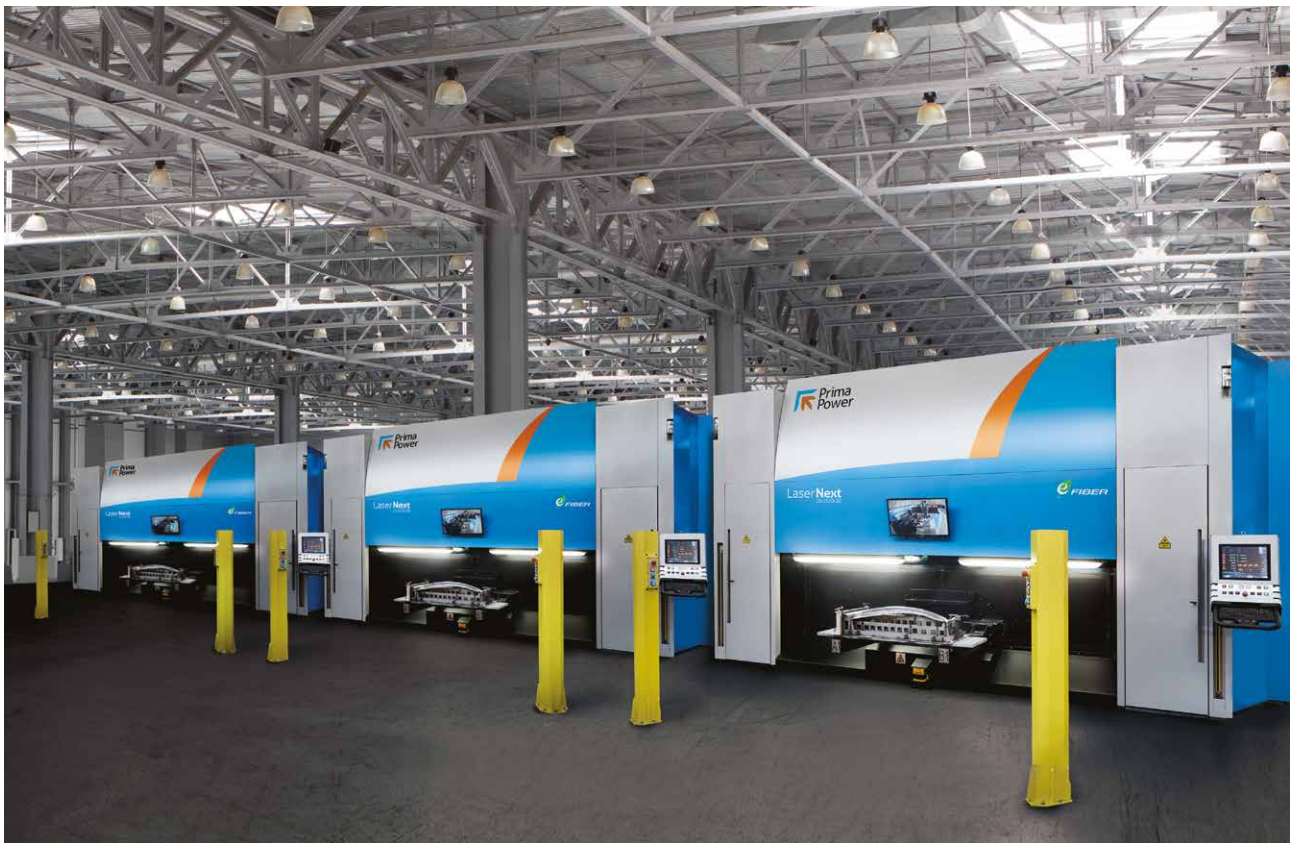
Two working envelope available to process also big automotive parts like door rings.

COMPACTNESS

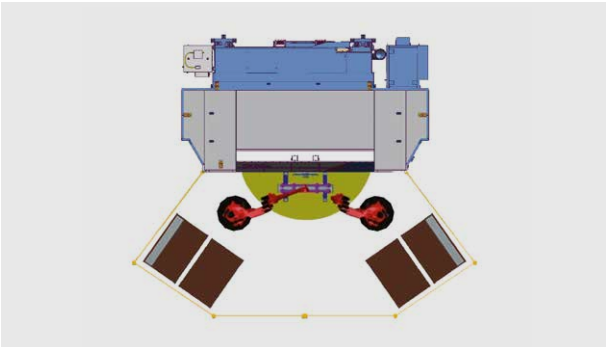
Space saver, especially for multi-machine configuration. Easy and fast to install.

EFFICIENCY

Higher Overall Equipment Efficiency due to reduced downtime and maintenance. Less resources dedicated and no special skills needed for simplified maintenance.



Multi-machine configuration for the best footprint-productivity ratio: single scrap conveyor that can be used up to three machines. Only available for LN 1530.



Connection to automatic loading/unloading system available.

Laser Next 2130 can process bigger components such as automotive door rings.

Direct motors and transducers with optical scales on main axes and on focusing head: superior dynamics and precision.

Photo courtesy of ArcelorMittal

Laser Next 2130 has been designed and developed for large size automotive parts (e.g. door ring).

MACHINE FEATURES

Direct motors and transducers with optical scales on main axes and on focusing head for superior dynamics and precision.

High precision turntable with servo motor and absolute encoder. Designed to ensure the highest performance reliability and safety.

Focusing head with FPC (Focus Position Control) better sealed and more compact. Improved focal regulation system more stable and robust (in the event of a crash it remains accurate).

Well-organized spaces for layout optimization and excellent performance in fume exhausting.

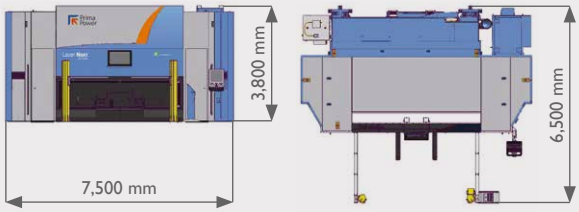
Synthetic granite frame with state-of the-art topology optimization methods for smooth and regular machine movements, even at the highest dynamics.

Technical specifications

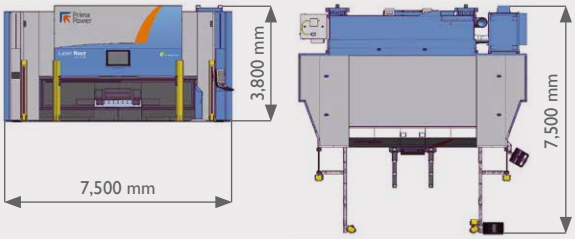
LaserNext

	LN 1530	LN 2130
AXIS STROKES	X = 3,050 mm Y = 1,530 mm Z = 612 mm	X = 3,050 mm Y = 2,100 mm Z = 612 mm
HEAD AXIS STROKES	A = 360° continuous B = ± 135° C = ± 12 mm	A = 360° continuous B = ± 135° C = ± 12 mm
TURN TABLE DIAMETER	4,000 mm	5,000 mm
SPEED	X, Y, Z = 120 m/min A, B = 540°/s (1.5 rev/s) C = 50 m/min TRAJECTORY = 208 m/min	X, Y, Z = 120 m/min A, B = 540°/s (1.5 rev/s) C = 50 m/min TRAJECTORY = 208 m/min
ACCELERATION	X, Y, Z = 1.2 g A, B = 9.5 rev/s² C = 4 g TRAJECTORY = 2.1 g	X, Y, Z = 1.2 g A, B = 9.5 rev/s² C = 4 g TRAJECTORY = 2.1 g
LINEAR AXIS RESOLUTION	0.001 mm	0.001 mm
HEAD AXIS RESOLUTION	0.00006°	0.00006°
ACCURACY (*) - according to VDI/DGQ 3441 standards - measurement length: complete stroke	 X, Y, Z = 0.03 mm A, B = 0.005°	 X, Y, Z = 0.03 mm A, B = 0.005°
MAXIMUM OVERALL DIMENSIONS		
Width	6,500 mm	7,500 mm
Length (one machine)	7,500 mm	7,500 mm
Length (two machines)	15,100 mm	-
Length (three machines)	22,700 mm	-
Height	3,800 mm	3,800 mm
WEIGHT		
Machine Weight (without scrap conveyor)	19,500 kg	20,000 kg
FIBER LASER POWER	3,000 W - 4,000 W	3,000 W - 4,000 W

LN 1530



LN 2130



(*) The accuracy of the piece depends on its type, dimensions and pretreatment, as well as on the application conditions

Laser Next 2141

THE FLEXIBLE SOLUTION WITH LARGE WORKING ENVELOPE AND BEST-IN-CLASS EFFICIENCY

The Laser Next 2141 is the latest addition in the Laser Next family; it combines the efficiency and productivity of the other Laser Next products with a unique flexibility.
Thanks to multiple machine configurations (fixed tables, split cabin, shuttles and turn table) it can meet any production need.
Laser Next 2141 is a multipurpose solution developed and designed for large-part processing and jobshop productions with advanced technology for different applications (3D cutting, 2D cutting and welding).

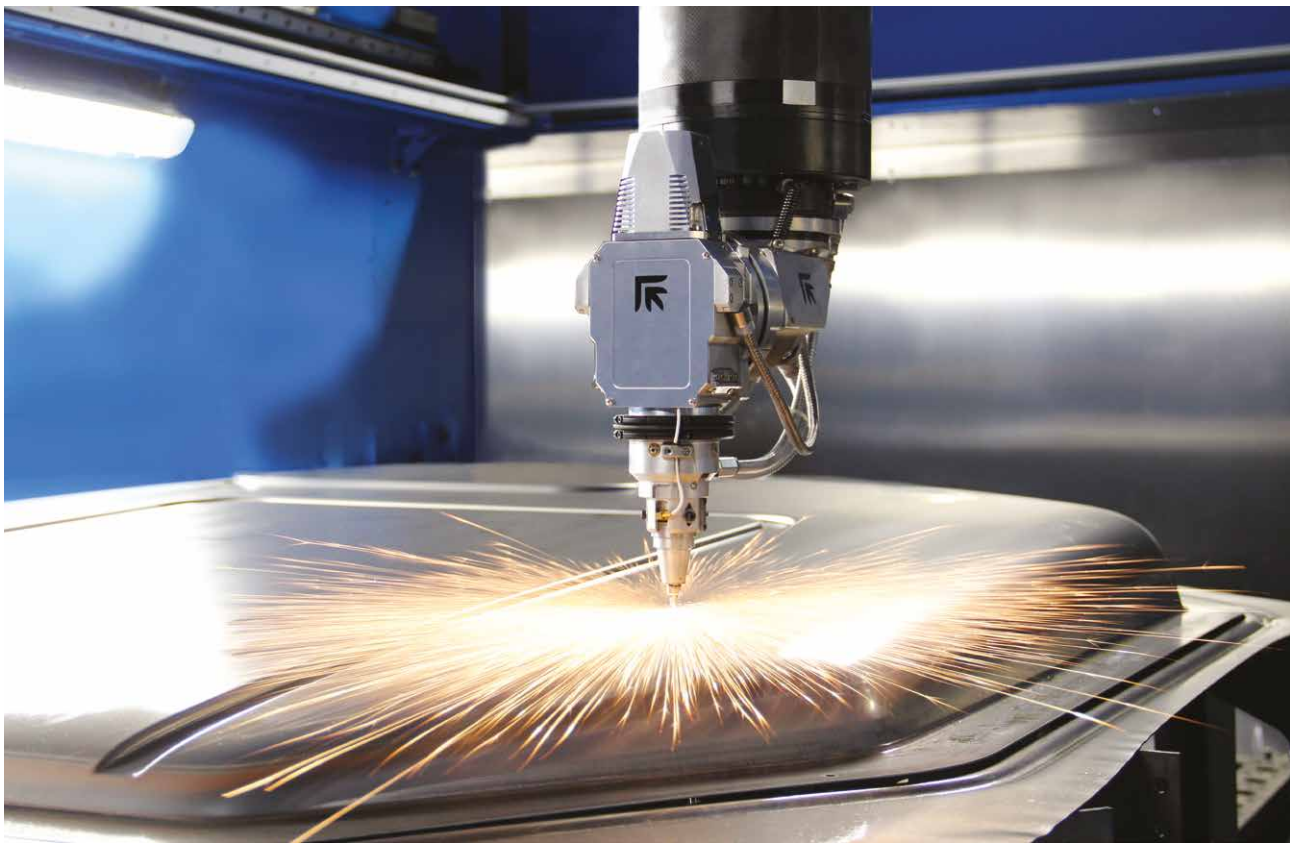
FLEXIBLE
Different applications with a single machine. 3D cutting, 2D cutting and welding in a single multipurpose solution with multiple machine configurations.

RELIABLE
Fully tested and reliable thanks to the experience of the successful Laser Next platform.

HIGH CAPACITY
Very large working envelope for large parts processing combined with reduced footprint.

EFFICIENT
Higher Overall Equipment Efficiency due to reduced downtime and maintenance. Less resources dedicated and no special skills needed for simplified maintenance.

ACCURATE
High precision, with no backlash or wear, thanks to the linear motor-driven focusing head and optical scales on main axes and on focusing head.



Large-part processing with superior efficiency and reliability.

Movable tables configuration with manual or automatic movement, both in X or Y direction.

Split cabin configuration with removable central wall and movable roof: high safety and great accessibility for enhanced productivity.

Carbon fiber Z axis and main carriage in aluminum casting.

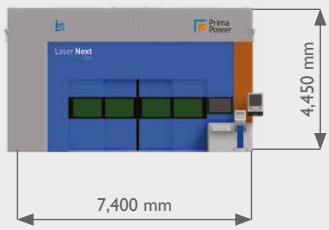
MACHINE FEATURES

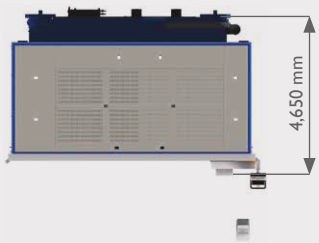
- Turn table configuration available with servo motor and absolute encoder for part loading/unloading in covered time.
- Direct motors and transducers with optical scales on main axes and on focusing head for superior dynamics and precision.
- Synthetic granite frame with state-of the-art topology optimization methods for smooth and regular machine movements, even at the highest dynamics.
- High brilliance fiber laser with high energy efficiency, no maintenance and eco-compatible use.
- User-friendly and powerful 3D and 2D CAD/CAM software allows an easy and quick generation and testing of the entire cutting program.

Technical specifications

LaserNext 2141

AXIS STROKES	X = 4,140 mm Y = 2,100 mm Z = 1,020 mm
HEAD AXIS STROKES	A = 360° continuous B = ± 135° C = ± 12 mm
SPEED	X, Y, Z = 120 m/min A, B = 540°/s (1.5 rev/s) C = 50 m/min TRAJECTORY = 208 m/min
ACCELERATION	X, Y, Z = 1 g A, B = 9.5 rev/s² C = 4 g TRAJECTORY = 2.1 g
ACCURACY (*) - according to VDI/DGQ 3441 standards - measurement length: complete stroke	X, Y, Z = 0.03 mm A, B = 0.005°
MAXIMUM OVERALL DIMENSIONS (automatic pallet and protection cabin included, water chiller, fumes extractor and photocells excluded)	
Length	4,650 mm
Width	7,400 mm
Height	4,450 mm
WEIGHT (BASIC MACHINE)	22,000 kg
STANDARD FIBER LASER POWER	3,000 W - 4,000 W





(*) The accuracy of the piece depends on its type, size and pre-treatment, and the conditions of application.

Rapido

PRODUCTIVITY, QUALITY AND EFFICIENCY WITH UNMATCHED FLEXIBILITY

Today the real challenge for laser machines manufacturers is to combine productivity with efficiency and flexibility. RAPIDO®, the latest generation of this tried-and-tested machine, is the key to these modern needs.
RAPIDO is equipped with fiber laser source.
The high brilliance fiber laser with high energy efficiency, eco-compatible use and no maintenance gives the greatest benefits in case of large series production. Many applications can take advantage of this source, resulting in lower cycle times and reduced cost per part.

FLEXIBLE
Different applications with a single machine. The working area can be divided in two halves thanks to a movable partition wall and a sliding roof.

RELIABLE
Fully tested and reliable thanks to the long-lasting experience in the widest range of applications.

USER FRIENDLY
Easy to use programming software and Prima Power operator interface. Fast setup and reduced downtime.

PRODUCTIVE
High productivity, quality and efficiency: best in class for machine architecture and control solutions.

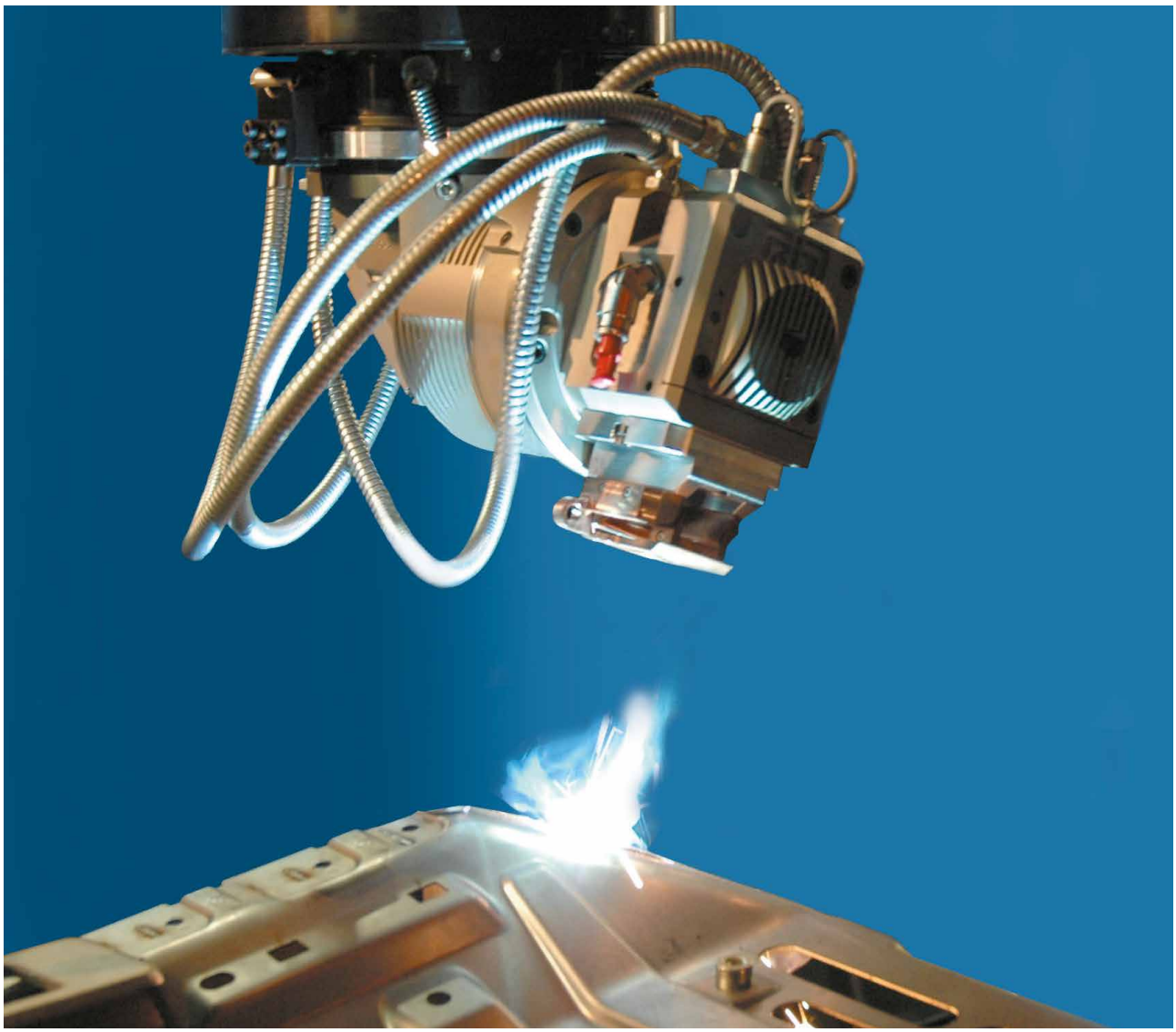
COMPACTNESS
Large work volume with reduced machine dimensions – less factory space.

The split wall and sliding roof can divide the working area in two halves, giving the possibility to load/unload on one half safely while the laser head works on the other.

Direct-drive head featuring high dynamics, accuracy, and quality of movements.

P30L numerical control by Prima Electro with powerful HMI, high computational power and integrated CAM (optional).

Synthetic granite frame for the best stiffness and damping capacity, resulting in smoothness of movements, even at the highest dynamics.



MACHINE FEATURES

Focusing head with direct drives and transducers grants high dynamics, accuracy, no backlash and reduced maintenance. Welding head available.

High brilliance fiber laser with high energy efficiency, no maintenance and eco-compatible use.

Great accessibility thanks to the overhead retractable arm, cantilever structure and no sagging.

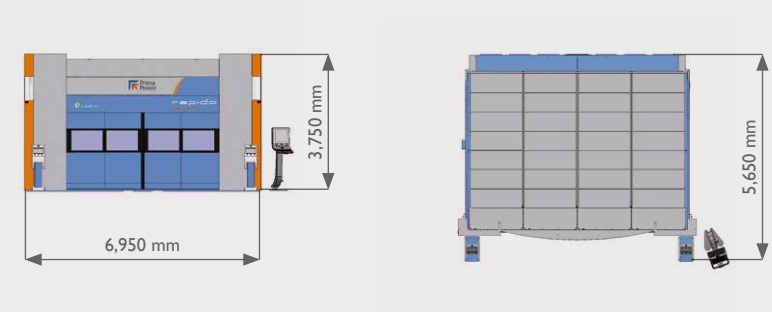
Synthetic granite frame designed with state-of-the-art topology optimization methods grants the smoothness of movements, even at the highest dynamics.

User-friendly and powerful 3D and 2D CAD/CAM software allows an easy and quick generation and testing of the entire cutting program.

Technical specifications

rapido®

AXIS STROKES	X = 4,080 mm Y = 1,530 mm Z = 765 mm
HEAD AXIS STROKES	A = 360° continuous (without limitations) B = ± 135° continuous C = ± 12 mm
SPEED	X, Y, Z = 100 m/min A, B = 1.5 rev/s TRAJECTORY = 175 m/min
ACCELERATION	X, Y, Z = 0.8 g A, B = 60 rad/s² (9.5 rev/s²) C = 4 g TRAJECTORY = 1.4 g
LINEAR AXIS RESOLUTION	0.001 mm
HEAD AXIS RESOLUTION	0.00006°
ACCURACY (*) - according to VDI/DGQ 3441 standards - measurement length: complete stroke	 X, Y, Z = 0.03 mm A, B = 0.005°
MAXIMUM OVERALL DIMENSIONS Width Length Height	 5,650 mm 6,950 mm 3,750 mm
WEIGHT Machine Weight (without scrap conveyor)	18,700 kg
FIBER LASER POWER	2,000 W - 3,000 W - 4,000 W



(*) The accuracy of the piece depends on its type, dimensions and pretreatment, as well as on the application conditions

Optimo

THE HIGHER CLASS THREE-DIMENSIONAL MACHINE FOR THE PROCESSING OF LARGE WORKPIECES

OPTIMO® is the laser machine by Prima Power for the high precision cutting and welding of large and very large three-dimensional parts. Its wide work envelope, over 11m³, sets no limits to the size of the components which can be processed. OPTIMO is suitable for a variety of cutting and welding applications.
OPTIMO is a high performing machine with excellent accuracy and quality. Its design allows an easy access to the work area and the integration with a wide range of solutions for workpiece support and handling.

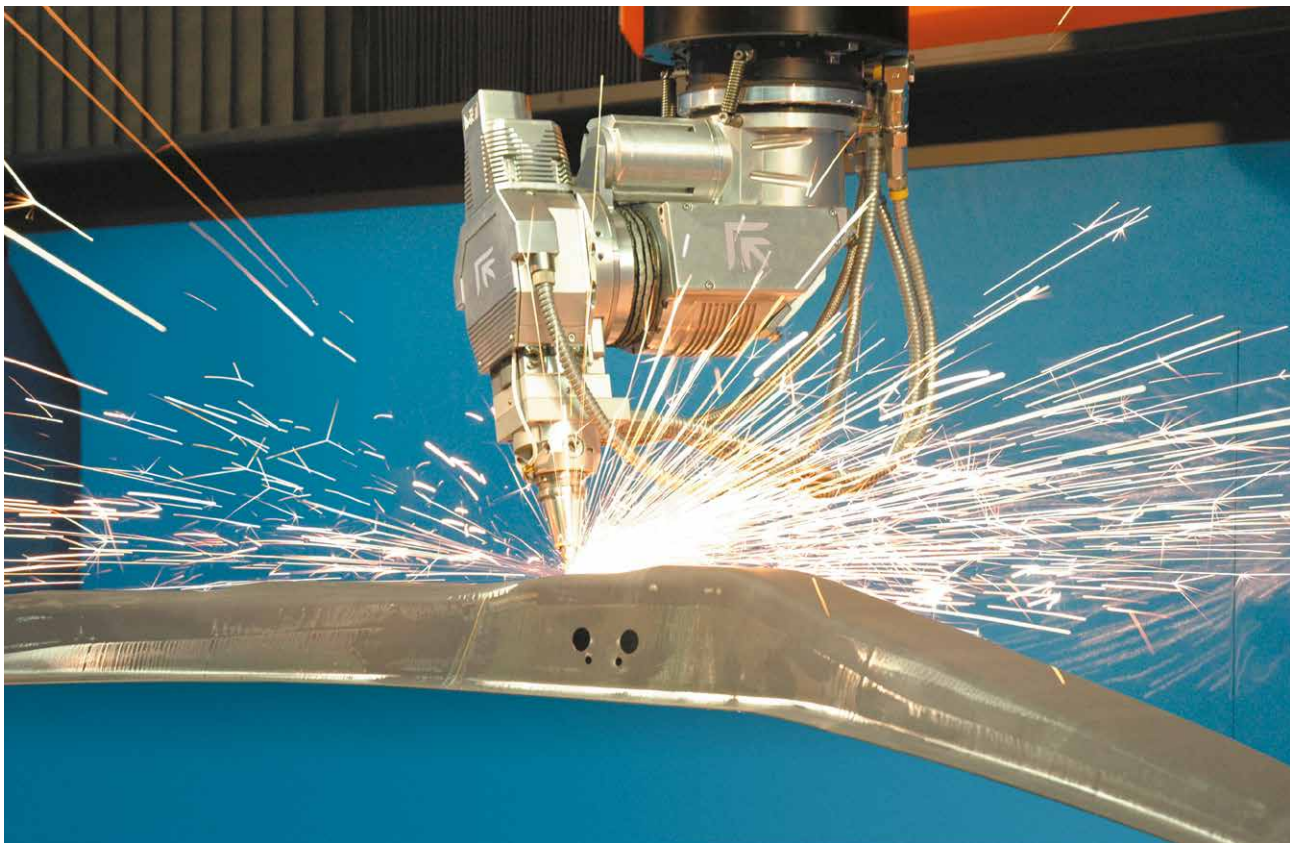
HIGH CAPACITY
Possibility to process very large components without repositioning, granting an important competitive advantage.

FLEXIBLE
Simple and immediate setup and change of production. Split cabin and automatic shuttles available.

ACCURATE
High precision, with no backlash or wear, thanks to the direct motor-driven focusing head and optical scales on linear axes.

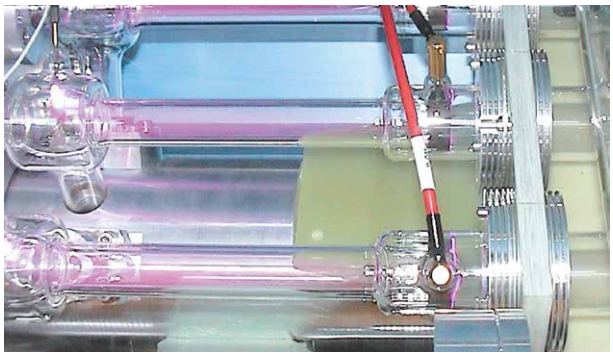
ACCESSIBLE
Gantry design allows high accessibility, accurate movement of axes, rigidity and stability.

RELIABLE
40 years of unmatched experience in 3D laser processing and field-proven platform.



Optimo's cutting nozzle can be used as a measuring tool to speed up the setup time as well as to validate parts directly on the machine.

Gantry architecture grants accessibility, accurate movement of axes, rigidity and stability.



CO_2 laser allows high speed cutting, especially on stainless steel, and deep penetration welding.

User-friendly console with touch screen and trackball, high computational power and powerfull HMI.

Possibility to process large workpieces without repositioning or to use more than one station simultaneously.

MACHINE FEATURES

Gantry architecture grants great accessibility, accurate movement of axes, rigidity and stability. Carbon fiber Z column provides an excellent structural rigidity.

Large, automatic telescopic doors for optimal accessibility. Also available on the back side.

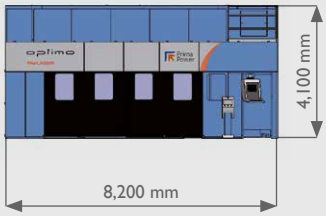
Numerical Control, Operator interface and programming software, developed and manufactured by Prima Power, are user-friendly and smart tools.

Numerous customizable solutions: the large working volume and high accessibility allow virtually no limit to the workpiece handling configurations (split cabin and automatic shuttles).

Technical specifications

optimo®

AXIS STROKES	X = 4,500 mm Y = 2,500 mm Z = 1,020 mm
HEAD AXIS STROKES	A = 360° continuous B = ± 135° C = ± 10 mm
SPEED	X, Y, Z = 50 m/min A, B = 1.5 rev/s TRAJECTORY = 85 m/min
ACCELERATION	X, Y, Z = 0.4 g A, B = 60 rad/s² (9.5 rev/s²) C = 4 g TRAJECTORY = 0.7 g
LINEAR AXIS RESOLUTION	0.001 mm
HEAD AXIS RESOLUTION	0.00006°
ACCURACY (*) - according to VDI/DGQ 3441 standards	X, Y, Z = 0.06 mm X, Y, Z = 0.03 mm (with optical scales) A, B = 0.005°
MAXIMUM OVERALL DIMENSIONS Width Length Height	 5,300 mm 8,200 mm 4,100 mm
WEIGHT (basic machine)	18,700 kg
CO_2 LASER POWER	2,500 W - 3,000 W - 4,000 W - 5,000 W



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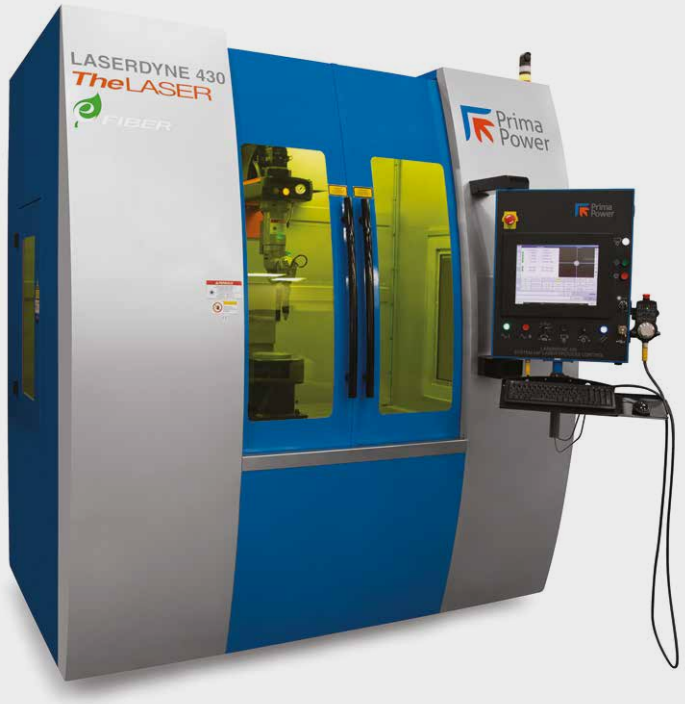
Laserdyne 430



THE FLEXIBLE LASER MACHINING PLATFORM FOR A WIDE RANGE OF HIGH-PRECISION APPLICATIONS

The LASERDYNE® 430 workstation was designed for precision laser processing for a wide range of metal and non-metal cutting, welding and drilling applications and it's the ideal flexible laser machining platform for a wide range of high-precision applications.
The LASERDYNE 430 is suitable in the aerospace, automotive, medical devices, electronics, industrial and consumer products industries. Designed from a vertical machining center platform, the 430 provides rugged, high-accuracy laser processing that will perform reliably and with excellent process capability.

RELIABLE
Well-suited for the most demanding process validation requirements but also for the toughest factory environments.

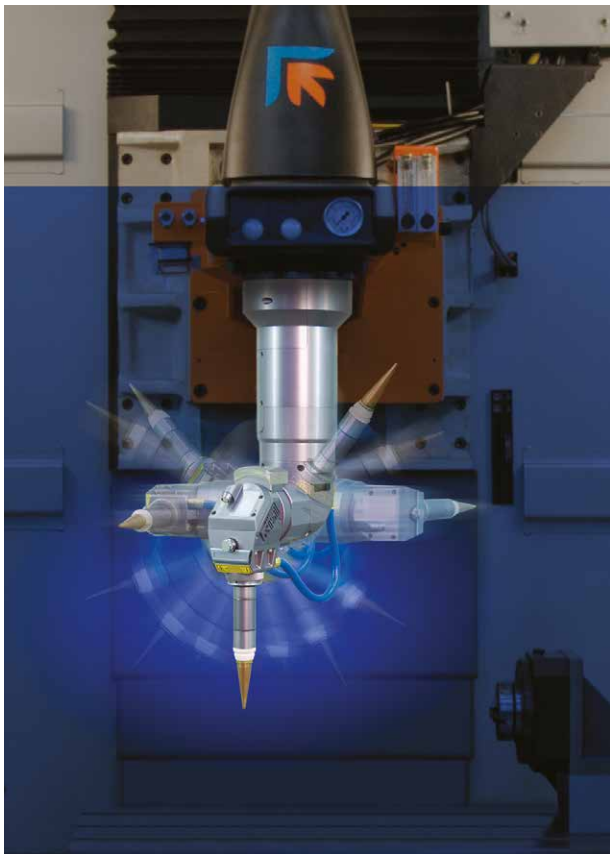
ACCURATE
Specific attention to mechanical and optical alignment resulting in 5 axis accuracy and volumetric precision.

NIMBLE
Focusing head designed specifically for intricate inside and outside part cutting, drilling and welding with unique ability for very shallow angle drilling.

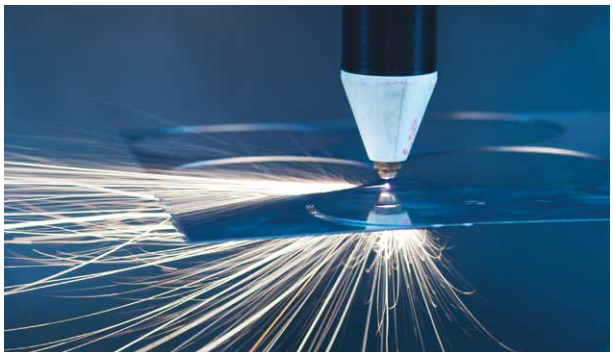
ACCESSIBLE
Easy load position and height and easy access from the front and both sides for tooling or automation.

FLEXIBLE
Massive worktable for mounting a wide range of custom workholding for current and future applications.

Application for drilling 0.5 mm diameter holes at shallow angle to the surface of a TBC (engineered ceramic) coating.



The LASERDYNE BeamDirector provides 900 degrees of rotary motion and 300 degrees of tilt motion.



The 430 is used from processing components for fine mechanics, electronics, and medical devices.

LASERDYNE 3D technology for precision process control gives medical device manufacturers assurance of consistent quality.

MACHINE FEATURES

- Massive worktable for mounting a wide range of custom workholding for current and future applications.
- Air conditioned electronics ensures long-life and reliability in any factory environment.
- Dual processor design enables solid machine performance and powerful yet easy to learn user interface.
- With time-proven technology, standard features include highly-flexible welding and cutting performance, nozzle crash protection, and both online and offline programming ability.
- LASERDYNE System S94P console with pendant controller, providing both programmable flexibility and process capability.

Technical specifications

LASERDYNE 430

AXES STROKES	X = 585 mm Y = 408 mm Z = 508 mm
HEAD AXES STROKES	BeamDirector® 3: C = 900° D = 300°
SPEED	X, Y, Z: 15 m/min BeamDirector® 3: 90 rpm Rotary Axis (optional) = see individual specification
RESOLUTION	X, Y, Z: 0.001 mm BeamDirector® 3: 0.001°
ACCURACY (*) - according to VDI/DGQ 3441 standards	X, Y, Z: 0.013 mm bi-directional BeamDirector® 3Y: +/- 6 arcseconds BeamDirector® 3X: +/- 15 arcseconds Rotary Axis (optional) = see individual specification
REPEATABILITY	X, Y, Z: 0.013 mm bi-directional BeamDirector® 3Y: within 6 arcseconds BeamDirector® 3X: within 15 arcseconds Rotary Axis (optional) = see individual specification
TABLE LOAD CAPACITY	250 kg

(*) The accuracy of the piece depends on its type, dimensions and pretreatment, as well as on the application conditions

Laserdyne 606D

DUAL LASER PROCESSING MACHINE WITH TWO INDEPENDENT, PRECISION 3D LASER CUTTING, WELDING, AND DRILLING MACHINES WITHIN A SINGLE STRUCTURE

The LASERDYNE® 606D incorporates two completely independent 5 to 7 axis laser cutting, welding, and drilling systems in a single structure. The system is designed to provide the highest throughput in laser processing per unit of factory floor space. Each of the two systems can be configured with the fiber laser best suited for its applications - the system may include two identical laser sources or two completely different ones. High throughput is enabled by a high speed, high acceleration motion system based on linear motors for the X and Y axes. High dynamic precision is supported by a synthetic granite base and moving structures produced from carbon fiber composite.

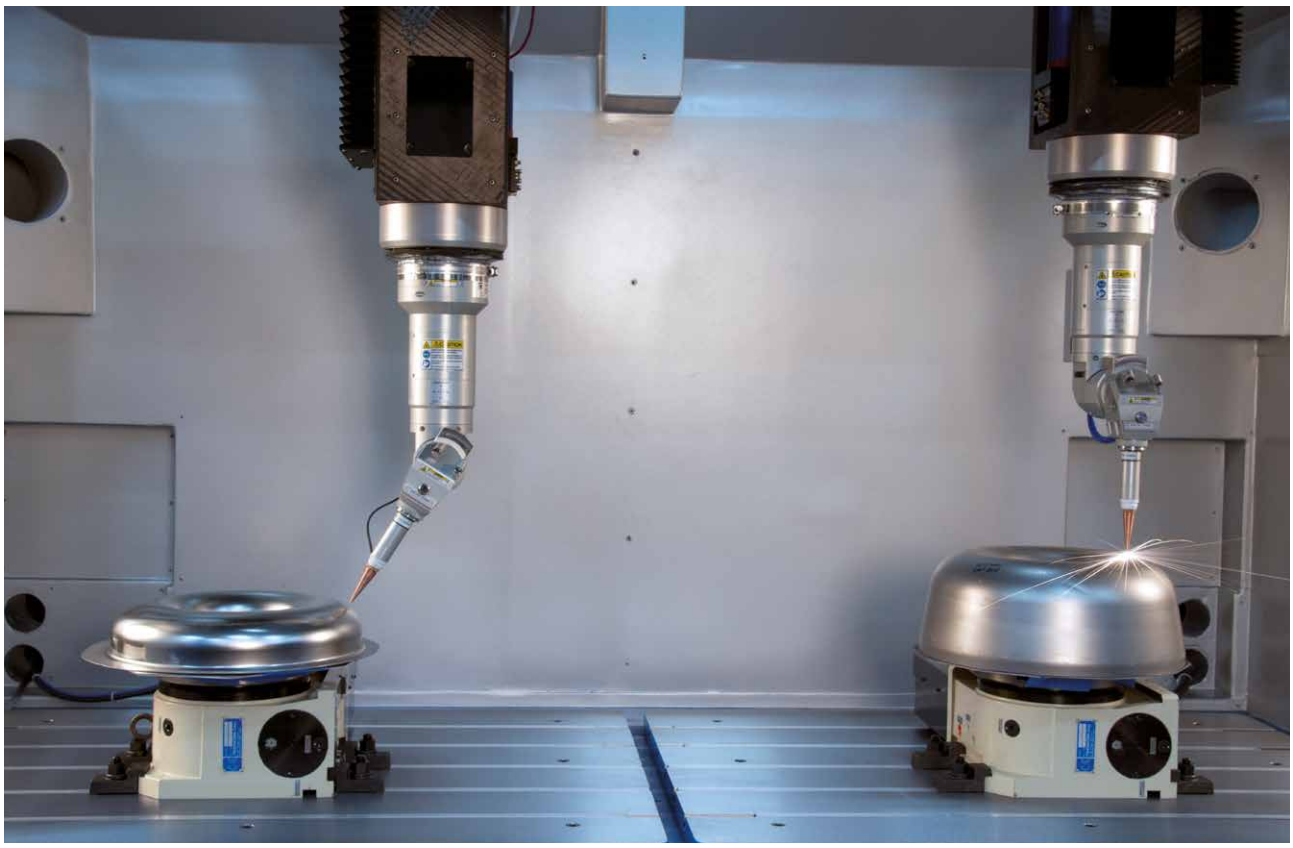
FAST
Linear motors provide high speed and, more importantly, high acceleration (up to 2g) for high speed processing as well as high speed positioning before and after processing.

EFFICIENT
The compact footprint housing two independent 600 x 600 x 600 mm work envelopes contributes to unmatched efficiency.

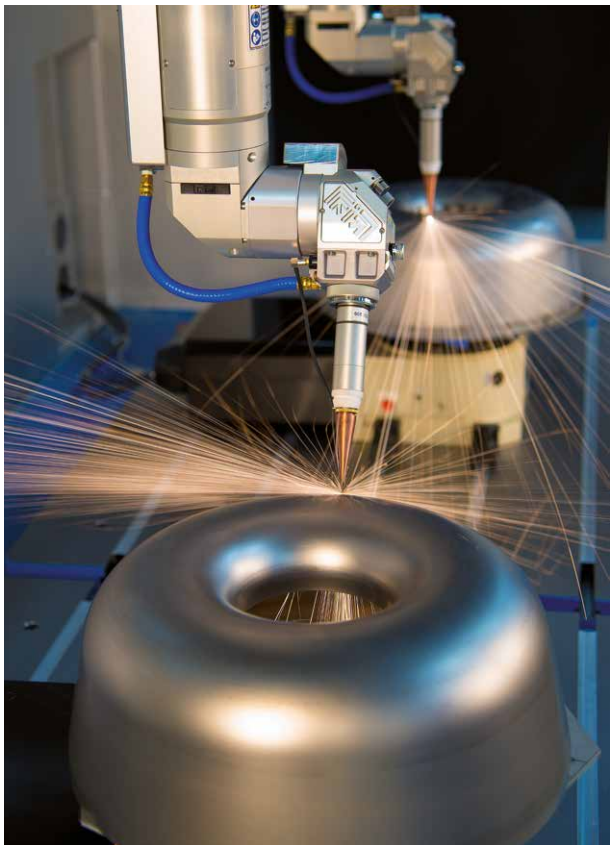
PRECISE
Use of the latest materials for high strength to weight ratio and vibration dampening contributes to high dynamic accuracy.

CAPABLE
Prima Power Laserdyne Applications Engineers have unmatched capability for precision laser processing with high power fiber lasers. Turnkey solutions are available to help you get into production quickly.

FLEXIBLE
Standard software, lens assemblies, and high power QCW fiber lasers provides capability for precision laser cutting, welding, drilling - all in one machine.



Two 6-axis machines consisting of three linear axes, two rotary axes of the BeamDirector(R), and fully integrated rotary axis for workpiece indexing and contouring.



LASERDYNE 606D can be used to process completely different parts or perform different operations in each of the workstations.

To further minimize floor space requirements, an optional mezzanine for the fiber lasers and their chillers is available.

The LASERDYNE 606D work envelope makes it ideal for laser processing of small to medium size parts.

MACHINE FEATURES

Two completely independent laser systems in one structure provides high operator efficiency (single operator for two machines) and floor space efficiency.

Linear motors, carbon fiber composites, and synthetic granite enable high precision, high speed laser cutting, welding, and drilling of medium size 2D and 3D parts.

Proprietary, advanced control of high power CW and QCW fiber lasers with the LASERDYNE S94P gives capabilities not available from other suppliers.

LASERDYNE SmartTechniques™ provides capabilities in laser cutting, welding, and drilling not available from other suppliers.

Patented, laser based optical focus control (OFC) enables precision processing of real-world components.

Technical specifications

LASERDYNE 606D

AXES STROKES (x2)	X = 600 mm Y = 600 mm Z = 600 mm
HEAD AXIS STROKES (x2)	BeamDirector® 3: C = 900° D = 300°
SPEED	X, Y, Z: 50 m/min BeamDirector® 3: 90 rpm Rotary Axis (optional) = see individual specification
ACCELERATION	X, Y, Z: 1 g BeamDirector® 3: 2500°/s^2
RESOLUTION	X, Y, Z: 0.001 mm BeamDirector® 3: 0.001°
ACCURACY (*) **- According to VDI/DGQ 3441 standards**	X, Y, Z: 0.020 mm bi-directional BeamDirector® 3Y: +/- 6 arcseconds BeamDirector® 3X: +/- 15 arcseconds Rotary Axis (optional) = see individual specification
REPEATABILITY	X, Y, Z: 0.020 mm bi-directional BeamDirector® 3Y: within 6 arcseconds BeamDirector® 3X: within 15 arcseconds Rotary Axis (optional) = see individual specification

(*) The accuracy of the piece depends on its type, dimensions and pretreatment, as well as on the application conditions

Laserdyne 795

THE PREMIER MULTI-AXIS LASER PROCESSING SYSTEM FOR DRILLING, WELDING AND CUTTING PRECISION COMPONENTS

The LASERDYNE® 795, a 5-axis laser machining system, is designed to drill, cut and weld medium to large 3D parts with a unique moving beam motion system. Constructed for high-speed operation without compromising mechanical accuracy, it is the first and only standard built multi-axis laser system to guarantee volumetric accuracy.
The LASERDYNE 795 is designed to accept CO_2, Nd:YAG and now fiber lasers for cutting, drilling and welding 2D and 3D parts. These systems are used by aerospace, turbine engine and contract manufacturing companies that require flexibility of motion and tight tolerances when laser processing. The open frame architecture and moving beam motion system allows the system to be configured to handle parts of virtually unlimited size.

EFFICIENT
Fast, accurate, and most versatile 3D beam delivery including industry's best 5 years unlimited warranty.

RELIABLE
Machine and laser generator by Prima Group with over 30 years of experience in laser material processing technology.

FLEXIBLE
The most versatile processing platform available today for land based or aerospace turbine and automotive components. Providing access to the most difficult part geometries.

PROFITABLE
Energy efficient laser sources, low operating costs and minimal maintenance. Proven long lifetime performance for lowest capital cost amortization.

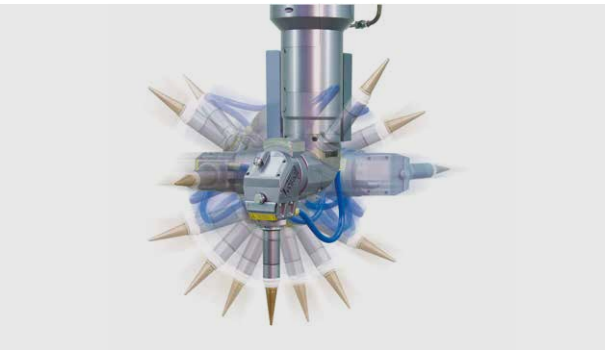
USER FRIENDLY
Control features an easy to use touchscreen, a dual operating system and a full complement of LASERDYNE exclusive software.

The compact profile of the LASERDYNE BeamDirector® makes this the only machine that can drill at angles as shallow as 10 degrees from the surface along the entire stroke of the Z-axis.

Able to produce dense patterns of holes in thin metals without significant distortion.

The LASERDYNE BeamDirector provides quick and easy change of the focusing lens and of the lens protection cover slide.

Turnkey systems may include dust collection system, camera mounted within the work area and process development.



The LASERDYNE BeamDirector provides 900 degrees of rotary motion and 300 degrees of tilt motion.

MACHINE FEATURES

Rigid structure incorporates a granite base with a heavy-duty steel weldment construction with precision machined surfaces, large diameter, high rigidity ball screws, wide track rails.

High capacity BeamDirector direct drive design eliminates gears and belts for higher accuracy, allowing greater travel and reach over zero offset style wrists.

Adaptive Hole Size Control, the single, best method of producing the highest quality laser drilled holes, ensures hole size and critical flow requirements with minimal operator involvement.

The SPC (Statistical Process Control) – Data Acquisition™ monitors and records key processing data used to create each part and records the data in a permanent record.

Auto Focus Control (AFC), a unique LASERDYNE concept, allows all machine axes to react to sensing of part surface creating unlimited "R" axis correction with speed and unmatched sensitivity.

Technical specifications

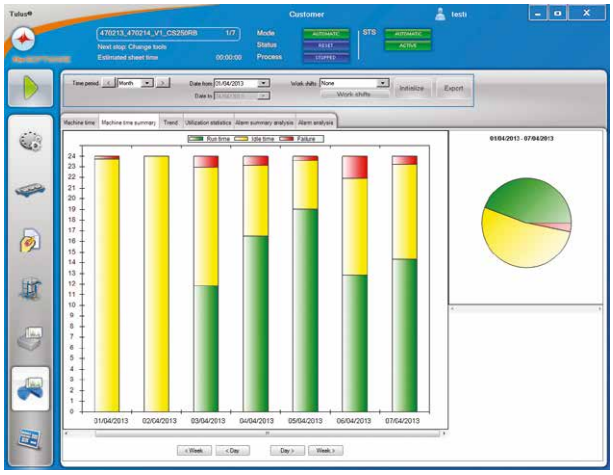
LASERDYNE 795

AXES STROKES	X = 1,000 or 2,000 mm Y = 1,000 mm Z = 1,000 or 1,370 or 1,830 mm BeamDirector® 3 = 900° continuous motion in C axis 300° continuous motion in D axis
HEAD AXIS STROKES	BeamDirector® 3: C = 900° D = 300°
SPEED	X, Y, Z: 20 m/min BeamDirector® 3: 90 rpm Rotary Axis (optional) = see individual specification
RESOLUTION	X, Y, Z: 0.001 mm BeamDirector® 3: 0.001°
ACCURACY (*) - According to VDI/DGQ 3441 standards	X, Y, Z: 0.020 mm bi-directional BeamDirector® 3Y: +/- 6 arcseconds BeamDirector® 3X: +/- 15 arcseconds Rotary Axis (optional) = see individual specification
REPEATABILITY	X, Y, Z: 0.020 mm bi-directional BeamDirector® 3Y: within 6 arcseconds BeamDirector® 3X: within 15 arcseconds Rotary Axis (optional) = see individual specification

(*) The accuracy of the piece depends on its type, dimensions and pretreatment, as well as on the application conditions

Production and Performance Data Reporting

Proprietary solution for viewing reports of machine status and analyzing production data.



Performance Reporting

- Machine efficiency and utilization reports
- Machine failure and idle time reports

Production Reporting

- Reports of processed production
- Production details
- Raw material inventory
- Completed production orders and nestings

Offline Programming Solution

The reliable software tool brings added value to 3D laser customers due to flexibility and functionality.

CAD features and automated math data clean up

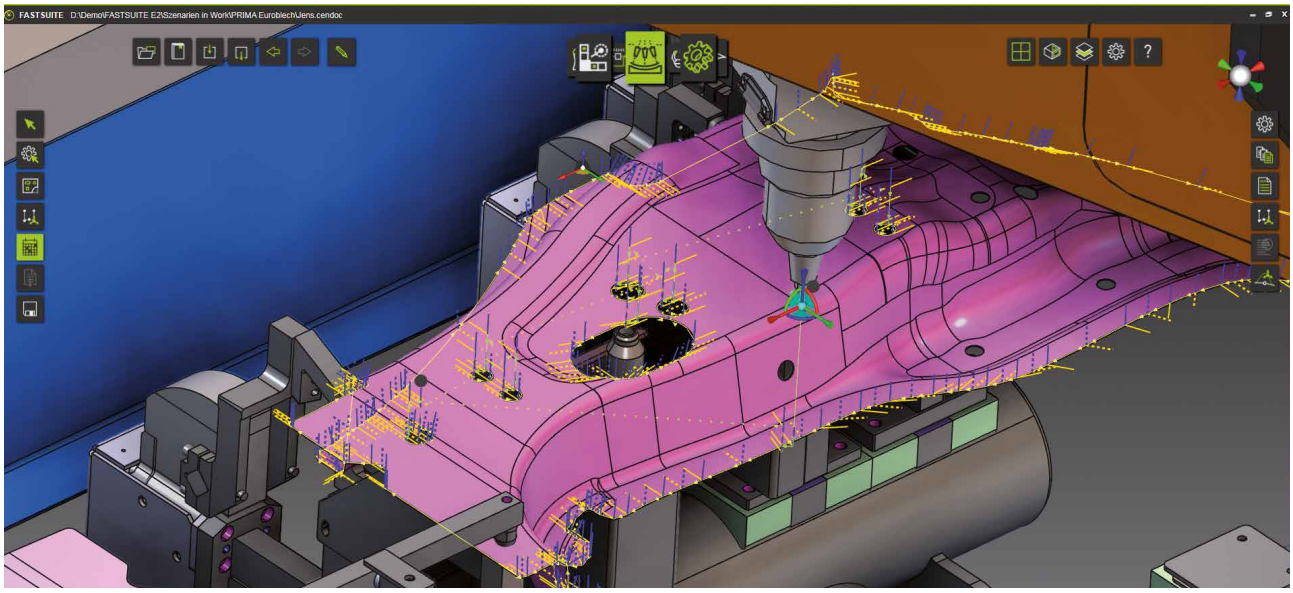
Cutting fixture design and programming

Easy Programming

Best cutting options and best PostProcessors to reduce machine cycle time

Powerful tool of Simulation

Best support for prototype and serial parts



ThreeD Editor

ThreeD Editor runs on the machine console of Laser Next, Rapido and Optimo machines or it can run on an external PC.

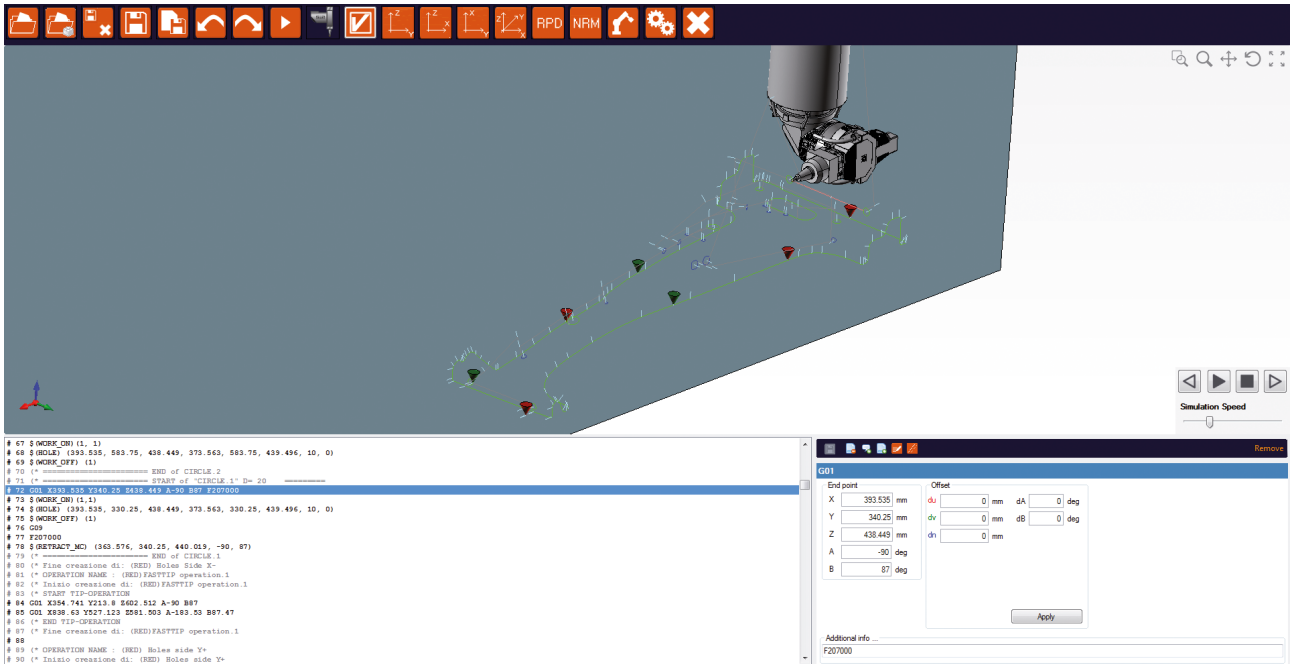
Displays machine head model, part-program, working paths.

Changing Iso G-Code partprogram:

- Commands change inside part-program
- Programs instructions multiedit
- ToolPath visualization
- ToolPath editing
- Accuracy editing
- Geometry editing
- Working path editing
- Store changes (Save Iso program)

Allows modifications and generates a new part-program with the applied modifications directly at machine's.

Allows 3D Simulation



INDUSTRY 4.0

Prima Industrie is compliant with the Industry 4.0 guidelines, helping its customers turn their production sites into smart factories: smart and interconnected machines and factory systems which, provided with sensors, are able to return production information; increasingly powerful and optimized software. This allows significant benefits in terms of time and cost reduction.

Numerical Control

Our products take advantage of the latest generation of Prima Electro CNC. It represents the intelligent and user- friendly engine of our machines which provides fundamental features for managing and monitoring the production.

Laser parameters management
Technological parameters directly available on CNC.

Setup Tools
Laser and machine calibration to speed up maintenance operations.

Program management
Quick program selection with exhaustive preview function, available also in real time.

Program editing
Easy program changes directly from CNC.

Restart functions
Several dedicated solutions to increase productivity and process reliability.

Other options are:

- Maintenance manager. Tracking and recording the maintenance history of the equipment. It also allows the service engineer to easily operate on the maintenance counters.
- User's login level (e.g. administrator, maintenance engineer, machine operator etc.).
- Notification Manager. Automatic sending of email in case of error.

LASERDYNE® NUMERICAL CONTROL | S94P LASER PROCESS CONTROL

LASERDYNE engineers and customers know the most important element of productivity is the ability to produce parts correctly without scrap. The System 94P Laser Process Controller continues an impressive history of providing laser system users with unique control feature tools. The new LASERDYNE SYSTEM controller features an easy to use touch screen, a dual operating system (Linux for machine operations and Windows for operator interface), and a full complement of LASERDYNE exclusive software including:

SmartTechniques™
Advanced integrated control of laser, motion, and process sensors to ensure your laser processes are more productive, yield higher quality, and are more robust.

ShapeSoft™
Enabling faster development of processes for shaped hole production.

CylPerf™
The powerful yet simple way to program and visualize complex patterns of features on a cylindrical part.

Prima Power Services: key to better productivity

We believe in long-term relationship with our partners, and we think that the real product we deliver to our customer is not just the machine itself, but the production capacity that our customer can achieve with our products and technology. The heart of Prima Power service is the common goal we share with our customer: start, maintain and develop the plant's production capacity and maximize it.
Our Service covers the whole life cycle of the system and technology and contributes to reach one goal: maximize the productivity and the profit for our customers.

TELESERVICE
It is a service for the remote diagnostic and assistance. Skilled service engineers are available to operate remotely with the customer's CNC.

FIELD SERVICE
In addition to preventive maintenance, we offer high-quality corrective maintenance to guarantee fast recovery when there is a problem. With more than 12,000 machines installed in more than 80 countries, we are able to give our customer the required assistance no matter where they are.

SERVICE AGREEMENTS
We continuously develop preventive maintenance plans for Prima Power machines. Maintenance visits are performed according to the task list specified for each machine type.

UPDATES & UPGRADES
The modularity of the product range often allows upgrading of a machine or manufacturing system even years after the original delivery.

SPARE PARTS
Original Prima Power spare parts to guarantee full performance and prolonged durability.

CONSULTATION
Wide range of consultation services on machine operation, programming and maintenance.

USED MACHINES
Possibility to purchase second hand machines with Prima Power quality.

TRAINING
Training programs and updates for using our machines and software to their best, maximizing manufacturing capacity and quality.

Contacts

Find your local Prima Power representative at primapower.com

Concept and design by Ars Media

primapower.com

Prima Power