



## **LASERDYNE 606D**

Dual laser processing machine with two independent, precision 3D laser cutting, welding, and drilling machines within a single structure.

# 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 X = 610 mm  
Y = 610 mm  
Z = 610 mm

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HEAD AXES BeamDirector® 3 = 900° continuous motion in C axis  
300° continuous motion in D axis  
Rotary Axis (optional) = 350° continuous

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POSITION SPEED X, Y = 15 m/min  
Z = 15 m/min  
BeamDirector® 3 = 0 - 90 rpm

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FEEDRATE X, Y, Z = 50,000 mm/min  
BeamDirector® 3 (C-D) = 0 - 90 rpm  
Rotary Axis (optional) = See individual specification

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RESOLUTION BeamDirector® 3 = 0.0005°

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ACCURACY X, Y, Z = 20 µm bi-directional  
BeamDirector® 3 = ± 6 arcseconds

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REPEATABILITY X, Y, Z = 20 µm bi-directional  
BeamDirector® 3 = within 6 arc-seconds

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MINIMUM PROGRAMMABLE INCREMENT X, Y, Z = 2.5 µm  
BeamDirector® 3 (C-D) = 0,001°