



LASERDYNE 795

BeamDirector® 3

The Premier Multi Axis Laser Processing System
for Drilling, Welding and Cutting Precision Components

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 CO₂, 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.



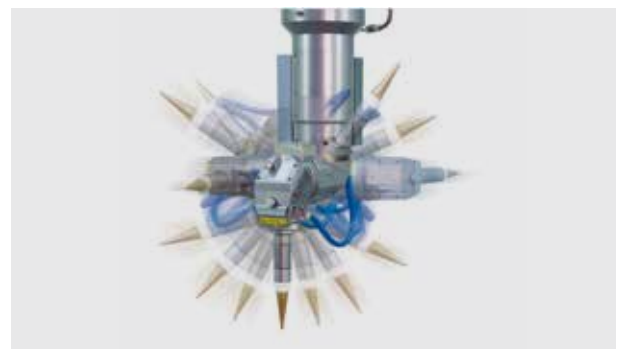
Able to produce dense patterns of holes in thin metals without significant distortion.



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 90 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

XS
X = 1,000 mm
Y = 1,000 mm
Z = 1,000 mm

XL
X = 2,000 mm
Y = 1,000 mm
Z = 1,000 mm

HEAD AXES

BeamDirector® 3 = 900° continuous motion in C axis
300° continuous motion in D axis

POSITION SPEED

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

FEEDRATE

X, Y, Z = 0-20,000 mm/min
BeamDirector® 3 = 0 - 90 rpm
Rotary Axis = Variety of options depending on application

RESOLUTION

X, Y, Z = 0.0025 mm
BeamDirector® 3 = 0.0005°

ACCURACY

X, Y, Z = 0.01 mm per 20 inches of travel
± 0.0008 inch full travel
BeamDirector® 3 = ± 6 arcseconds

REPEATABILITY

X, Y, Z = within 0.02 mm full system travel
BeamDirector® 3 = within 6 arcseconds
Rotary Axis = depending on choice of option