



LaserCube

Flatbed Laser Cutting System



Small Parts Made Easy

LaserCube is a compact flatbed laser cutting workstation purpose-built to address the unique challenges of cutting small parts. Offering both flexibility and industry-leading performance, LaserCube is a cost-effective solution designed to deliver superior results.

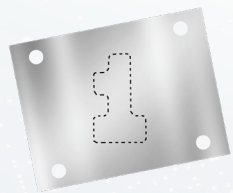
BENEFITS

- ▶ Cut a variety of metals from thin foils to 3/4" steels
- ▶ Higher cutting speeds than alternative laser cutting workstations
- ▶ Superior laser beam quality enables finer feature cutting
- ▶ Virtually maintenance free operation
- ▶ High-efficiency laser source up to 45% energy efficient
- ▶ Easy to learn and operate

FEATURES

- ▶ Internally mounted laser with power up to 6 kW
- ▶ High-accuracy, high-speed motion platform
- ▶ Telescoping drawer for easy part access
- ▶ Purged stages and laser cutting head
- ▶ Single point for service and support

VISION REGISTRATION



Parts with previously machined features align imperfectly with programmed cut path



LaserCube machine vision recognizes part features and automatically adjusts cutting path to compensate

Laser Safe Enclosure

- Fully Interlocked for Operator Safety
- Laser-Safe Windows Allow Viewing During Operation
- Manual or Automated Door Options
- Side Access Panels for Easy Access

IPG Cutting Head

- Lightweight for High-speed Part Processing
- Purged for Reliability
- Optional Machine Vision

Compact Design

- Compact 61 ft² Footprint Minimizes Floor Space
- Efficient Design Maximizes Cutting Workspace
- Rack Mounted Laser up to 6 kW

High-Precision Motion System

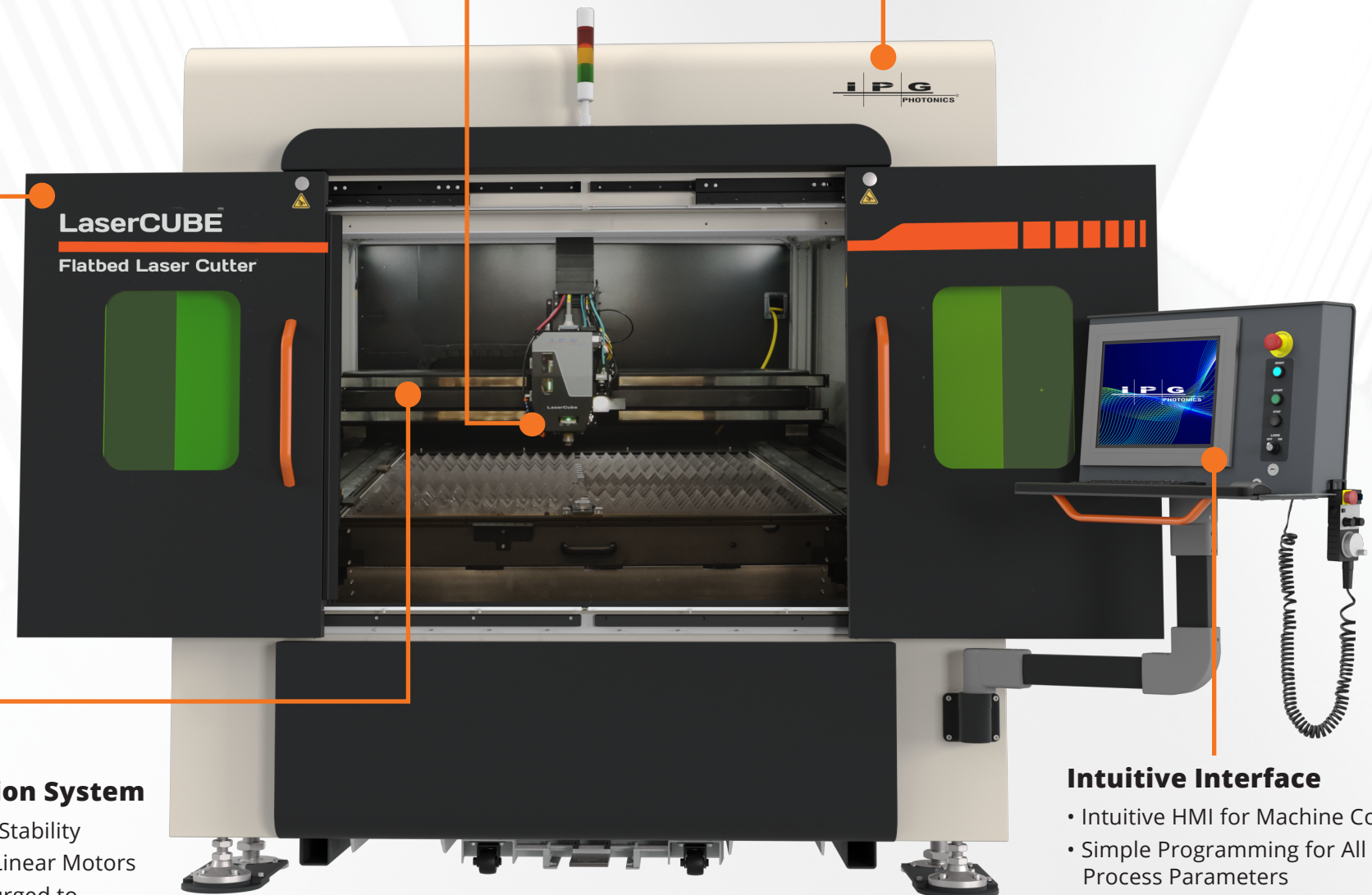
- Granite-based Stage for Stability
- High Force Direct Drive Linear Motors
- Stages Sealed and Air-purged to Minimize Contamination

Intuitive Interface

- Intuitive HMI for Machine Control
- Simple Programming for All Process Parameters
- G+M-code Programming
- CAD/CAM Compatible

Discover Your Laser Cutting Solution

Talk to the laser experts and discover your laser cutting solution. The IPG Applications Team eliminates guesswork by selecting the perfect laser parameters to optimize cutting quality and throughput for your application.



System Specifications	
Laser Source	Selected to Best Match Application Rack-Mounted Laser up to 6 kW Quasi-CW Laser up to 4.5 kW Peak Power Adjustable Mode Beam Laser up to 6 kW
Beam Delivery	IPG Cutting Head with Replaceable Cover Window and Integrated Coaxial Cutting Assist Gas
Part Loading	Three Axis motion control with Automatic Capacitive Height Sensing

Motion Stages	
Travel (X × Y × Z), in	49 × 49 × 3
Max Speed, IPM	2300
Accuracy, in	Positioning: ±0.001 Resolution: ±0.0002

General Characteristics	
Dimensions (W × D × H), in	100 × 86 × 72
Weight, lbs	8500
Cutting Surface	Telescoping drawer with metal saw-tooth cutting points (Capacity: 350 lbs) Optional honeycomb inserts for thin materials Removable debris collection bin
Controls	Industrial Windows based CNC Control with full Look-Ahead Contouring Capability Laser Power Proportional to Velocity G+M Code Programing, Editable Material Tech Tables
Process Gas	3 Gas Inputs / Electronically Controlled Pressure Regulator

Options	
Machine Vision	Vision Registration for Automatic Cutting Path Alignment
Automated Doors	Power operator front doors for easy part loading/unloading
Roll Out Cutting Bed	Front table extension for increased capacity (750 lbs)
Pneumatic Clamping	Pneumatically Actuated Part Clamping Fingers
Robotic Interface	Open communication gateway between LaserCube and Customer Supplied External PLC
Rotary Axis	Direct drive rotary stage with adjustable bracket and four jaw chuck



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