2300LC HTCC/LTCC

Ceramic Laser Cutting Equipment

Cencorp 2300LC is mainly used for laser scribing, cutting and drilling of Al_2O_3, AlN and other ceramic materials.

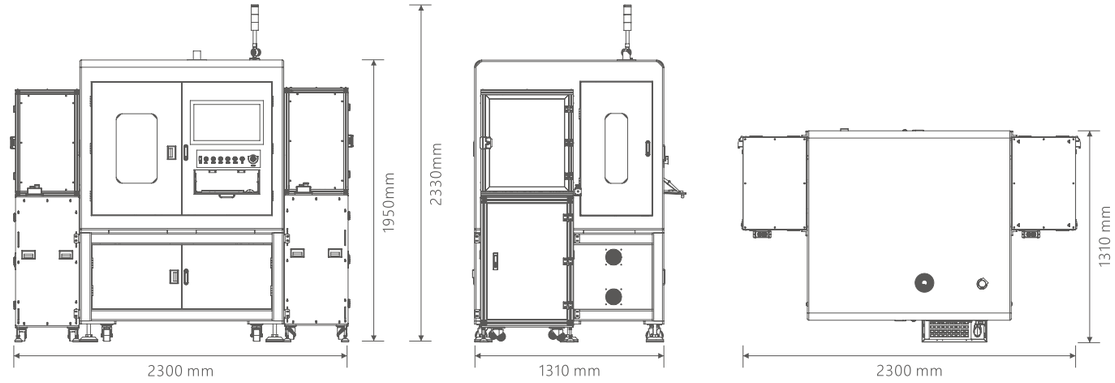
High Quality Cutting Effect

Imported QCW fiber laser+fiber cutting head or imported CO_2 laser+CO_2 cutting head are used;
The laser system has good beam quality and fine focusing spot to ensure good processing effect;
The cutting platform adopts high-precision marble linear motor platform, and the repeated positioning accuracy is less than 2μm, which can achieve high-precision cutting.

Fully Automatic Framework+Intelligent Control System:

The equipment is equipped with automatic loading and unloading system to realize unattended automatic loading - automatic positioning - automatic unloading;
The laser cutting software and the automatic loading and unloading software are highly integrated, and the operation is convenient and efficient; cencorp 2300LC is mainly used for laser scribing, cutting and drilling of Al_2O_3, AlN and other ceramic materials.

TECHNICAL DATA



Basic Info

Width: 2300mm
Depth: 1310mm
Height: 1950mm (Without Beacon)
Height: 2330mm (With Beacon)
Weight: 3000kg

Motion System

X-travel: 400mm
Y-travel: 700mm
Z-travel: 100mm
X-axis stroke of loading & unloading：700mm
Z-axis stroke of loading & unloading：250mm
Repeatability (X, Y): ±0.002 mm
Repeatability (Z): ±0.01mm
Repeatability of Loading Axis：(X,Z): ±0.01mm

Vision System

Automatic Vision Rcognition and Positioning
Datum type: Cross, Circle and Rectangle
Datum Identification Time：< 1s
Visual Positioning Accuracy：±0.005mm
Auto Calibration / Auto Focus

Basic Function

Laser scribing/cutting of alumina Al_2O_3,
AlN and other ceramic
Automatic loading and unloading system
Vacuum adsorption positioning
Automatic vision recognition and positioning
High precision marble linear motor motion platform
External smoke purifier

Processing Capacity

Max Product Size (L*W) : 203.2mm x 203.2mm
Product Thickness: 0.2~2mm
Cutting Kerf Width: ⩽100μm
Cutting Speed: ⩾50mm/s
Total cutting accuracy: ⩽±30μm

Software Function

Windows10 Operating System
Standard User Interface
User rights management
One button switching software and process configuration for different products
Cutting files can be set in multiple layers, and different process parameters for different layers
Supported File Types: DXF, AI, Gerber, etc

Optional Functions

Clamping positioning carrier
Product pressing and leveling function

Laser System

Laser Type: Fiber Laser
Laser Wavelength: 1070nm
Average Power: 150W
Pulse width: 0.05~50ms
Beam Quality: M^2＜1.1
Average Power Stability: ⩽5%rms
Cooling Method: Air Cooling
Scan Head: CL-F100，FL-F50
CL-F125，FL-F100/80 (Optional)
Others: CO_2 Laser (Optional)

Equipment Safety

Mechanical safety: emergency stop, safety interlock protective door
Electrical safety: ESD protection, overload protection, and leakage protection
Laser safety: Class 4

Electrical Service Requirement

Voltage: AC220V/50Hz
Max power consumption: 5KW

Electrical Service Requirement

Pressure: 5 ~ 7 bar, dry clean air
Approx. air consumption: 100L/min
Cutting Protection Gas: N2

Environmental Requirement

Operating Temperature：10 ~ 40°C
Operating Humidity：30% ~ 85% No condensation