HL Series Laser Cutting Machine

HLB
HLB Series Economic Laser Cutting Machine

- Wide gantry flying light beam
- Fogor 8055+ control system
- Dual sides synchronization, stable
- Imported precision ball screw, stable and low noise
- Panasonic YB-L200A8 laser generator
- Whole set of LaserMACH cutting head from USA
- Assistant cutting gas proportion control, high automatic
- Outer light beam straight close structure, positive pressure in, make sure light beam stable
**X Axis Dual-side Synchronization**
- Canary control technology
- Alpha transmission parts
- Siemens high precision motor

**Y Axis Gear Transmission**
- Alpha transmission parts
- Siemens high precision motor

**Z Axis Precision Ball Screw**
- Siemens transmission parts
- Siemens high precision motor

**Auto Change Worktable**
- Hydraulic drive
- Can be controlled separately
- Supporting weight 750kg

**Finite Element Optimized Beam**
- Aluminium alloy parts
- Light weight
- Remove sympathetic vibration
**Imported Cutting Head**

- LaserMECH
- PRECITEC

**ROFIN Laser Generator**

- CO₂ Slab laser generator
- High-quality light beam
- Little divergence angle of light beam
- Good stability of light beam

**Panasonic Laser Generator**

- CO₂ laser generator
- High-quality light beam
- Good mode light beam
- Stable light beam

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**Table 1 - LaserMECH Specifications**

<table>
<thead>
<tr>
<th>Type</th>
<th>YCL-L500AB</th>
<th>YCL-L2000AB</th>
<th>YCL-L3000AB</th>
<th>YCL-L4000AB</th>
<th>YCL-L4500AB</th>
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<tbody>
<tr>
<td>Max power</td>
<td>kW</td>
<td>kW</td>
<td>kW</td>
<td>kW</td>
<td>kW</td>
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<tr>
<td></td>
<td>1000</td>
<td>2000</td>
<td>3000</td>
<td>4000</td>
<td>4500</td>
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<tr>
<td>Material</td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
<td>mm</td>
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<tr>
<td>N₂ steel</td>
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<td>15</td>
<td>22</td>
<td>25</td>
<td>28</td>
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<tr>
<td>Stainless steel</td>
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<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
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<tr>
<td>Aluminum sheet</td>
<td>2</td>
<td>3</td>
<td>4</td>
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**Table 2 - ROFIN Laser Generator Specifications**

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<tr>
<th>Type</th>
<th>DC015</th>
<th>DC030</th>
<th>DC045</th>
<th>DC060</th>
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<td>Max power</td>
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<td>kW</td>
<td>kW</td>
<td>kW</td>
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<tr>
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<td>mm</td>
</tr>
<tr>
<td>N₂ steel</td>
<td>15</td>
<td>20</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>Stainless steel</td>
<td>8</td>
<td>10</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Aluminum sheet</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>8</td>
</tr>
</tbody>
</table>

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www.yawei.eu
Water Chiller

- Dual temperature dual control
- Special for high power laser cutting machine

Optical Part

- Water cooling lens base
- Lens

SMC Gas Control System

- Low pressure proportion valve 0.05-0.9 bar
- High pressure proportion valve 3-20 bar
- Cutting head

Dust Removal System (option)

- Pipe for blower
- Dust remover
Most advanced NCUS71.5 module, able to control 12 axes.

High-speed control module makes sure signals from the cutting head sensor be solved directly. Do not pass through PLC, and ensure the distance between nozzle and sheet is maintained.

Laser power control, laser power change according to cutting speed. Because high cutting speed, high laser power needed; low cutting speed, low laser power needed.

Return stop point function, able to return to stop point, continue to cut.

High-speed electric brake, cut 700 holes per minute.

Software

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Cracked specification:

- Drag technology batch process DWG, DXF and ICS
- Input AutoCAD 2D drawing
- Draft AutoCAD 2D drawing and edit, icon of menu, easy to operate
- Interface input
- Hot cut dudge, micro connection, one edge cut, angle cut, remained material manage function
- Make G-code automatically
- Simulate cutting path
- Nesting automatically

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Fagor 8055i/CNC System

- (Up to) 16M RAM
- (Up to) 2GB Flash card (option)
- USB interface
- I/A interface (option; adopt TCP/IP agreement)
- SERCOS bus control
- 2 electric wheels in input
- Z interface for detector
- Light even separately PLC (I/O)
- Spindle position feedback input and its analog value output
- Analog sensor extensive board (option)
<table>
<thead>
<tr>
<th>Name</th>
<th>Unit</th>
<th>HL85-1600</th>
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<tbody>
<tr>
<td>Process range (length x width)</td>
<td>mm</td>
<td>3000 x 1600</td>
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<tr>
<td>X-axis stroke</td>
<td>mm</td>
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<td>Y-axis stroke</td>
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<td>Z-axis stroke</td>
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<td>100</td>
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<tr>
<td>X-axis position speed</td>
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<tr>
<td>Y-axis position speed</td>
<td>m/min</td>
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<td>XY axis max resultant speed</td>
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<td>XY axis acceleration</td>
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<td>Z-axis position speed</td>
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<td>Position precision</td>
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<td>Re-position precision</td>
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<td>Cutting precision</td>
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<td>Soldering width</td>
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<tr>
<td>Max support weight of worktable</td>
<td>kg</td>
<td>720</td>
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<tr>
<td>Spots</td>
<td>mm</td>
<td>11500 x 6500</td>
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<tr>
<td>Weight</td>
<td>kg</td>
<td>12550</td>
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