The new generation of fiber laser machines has arrived with the PS3015 laser cutting system. It features a brand new high performance compact design. The PS3015 comes with a high stiffness main frame with a steel cutting bridge that supports a lightweight cutting carriage. A Thermo-hygrostat is used to save space and simplify the assembly of surrounding units. Torque displacement has been decreased by 10x compared to the previous FS3015 Fiber model. The cutting carriage has a weight reduction of 50% compared to other models in the market. HK has developed a reliable machine with advanced technology and specifications to meet any customer needs.

**Innovative design for the main frame**

- Ultra Light-weight gantry structure

- **Lower Tool Center Point**

  Light-weight cutting head assembly (Total weight 130 lbs) is designed for high dynamic movement, lowering the Tool Center Point to keep the cutting head from losing accuracy that is caused by whipping or drifting during high speed acceleration movement.

**Ultra Dynamic Fiber Laser Cutting System**

- **High speed fiber cutting head**
  - Built-in recirculated collimator adjusts the focal point
  - Two protective windows protect the upper collimator and lower focal lens from any contamination from outside
  - Precise LED lights at the cutting head include the status of the optics and temperature of the head to prevent catastrophic failure
  - Sealed structure designed for stable and reliable operation against contamination and environmental issues

- **Single-emitter based Fiber laser resonator**
  - Solid-state Fiber laser resonator adopts the high-power single emitter diodes. This technology certifies a stable, superior beam quality with a long life cycle compared to multi-stack diode or disk laser resonators.

- **Optimized Base Frame**
  - Very stiff and stable base frame
  - Eight zone & ducted exhaust system
  - Dual synchronized laser head drive system
  - Induction rack & stand parallel drive system enables very smooth movements

- **High speed 15” Siemens 840D control & Drive**
  - Slab type operator control console with 15” touch panel screens. Powered by Siemens 840D SINUMERIK control & drive, it enables unbeatable high speed processing with an average 1500 square feet and 2500 memory size.

- By intuitive 9000 screen with built-in tech database make it easy for the operator to learn and run

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**Model:** PS3015 fiber  
**Structure:** Patent engineering  
**Weight:** 386 lbs  
**Distortion:** 0.0004”

**Model:** Conventional model  
**Structure:** Steel base structure  
**Weight:** 560 lbs  
**Distortion:** 0.008”
**PS3015 FIBER**

HK Laser & Systems

Fiber Laser Cutting System

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### Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber Laser Power</td>
<td>2KW, 3KW, 4KW, 6KW</td>
</tr>
<tr>
<td>Maximum Capacity</td>
<td>120&quot; x 60&quot;</td>
</tr>
<tr>
<td>Maximum Axis Speed</td>
<td>5512 Ipm</td>
</tr>
<tr>
<td>Motor's Spontaneous Axis Speed</td>
<td>3937 Ipm, X and Y</td>
</tr>
<tr>
<td>Acceleration</td>
<td>1.2G</td>
</tr>
<tr>
<td>Position Accuracy</td>
<td>±0.005”</td>
</tr>
<tr>
<td>Resolution Accuracy</td>
<td>±0.001”</td>
</tr>
<tr>
<td>Main Sprocket Track</td>
<td>12&quot; 180 teeth</td>
</tr>
<tr>
<td>Motor</td>
<td>15&quot; 180 teeth</td>
</tr>
<tr>
<td>Operating System</td>
<td>Windows 7</td>
</tr>
<tr>
<td>Side Communication</td>
<td>USB, Ethernet, IPv6</td>
</tr>
</tbody>
</table>

* Specifications are subject to change without notice.

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**Smart Cell II Automation**

Advanced compact material handling system with short cycle time

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1. Fork system is attached underneath the raw material pallet to move in unison to the machine shuttle table.
2. Fork system picks up the processed sheet while the loader picks up the raw material above.
3. Pallet/Fork Carrier returns to the home position.
4. Loader moves down and loads the raw material to the table.
5. Fork unloads the processed sheet to the unloading station on the ground.

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**Dimensions**

<table>
<thead>
<tr>
<th>Unloading</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle Time</td>
<td>50-60 seconds</td>
</tr>
<tr>
<td>Max. Height</td>
<td>4.73 inches</td>
</tr>
<tr>
<td>Max. Weight</td>
<td>6,614 lbs</td>
</tr>
<tr>
<td>Max. Sheet Size</td>
<td>5’ x 10’</td>
</tr>
</tbody>
</table>

**Data Communication**

- USB
- Ethernet LAN

**Operating System**

- Windows 7

**Table Change Time**

- ± 30 Seconds

**Repetition Accuracy**

- ±0.01" ±0.0039"

**Position Accuracy**

- ±0.005" ±0.001"

**Monitor**

- 15" Flat Touch Panel

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**HK AMERICA, Inc.**

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