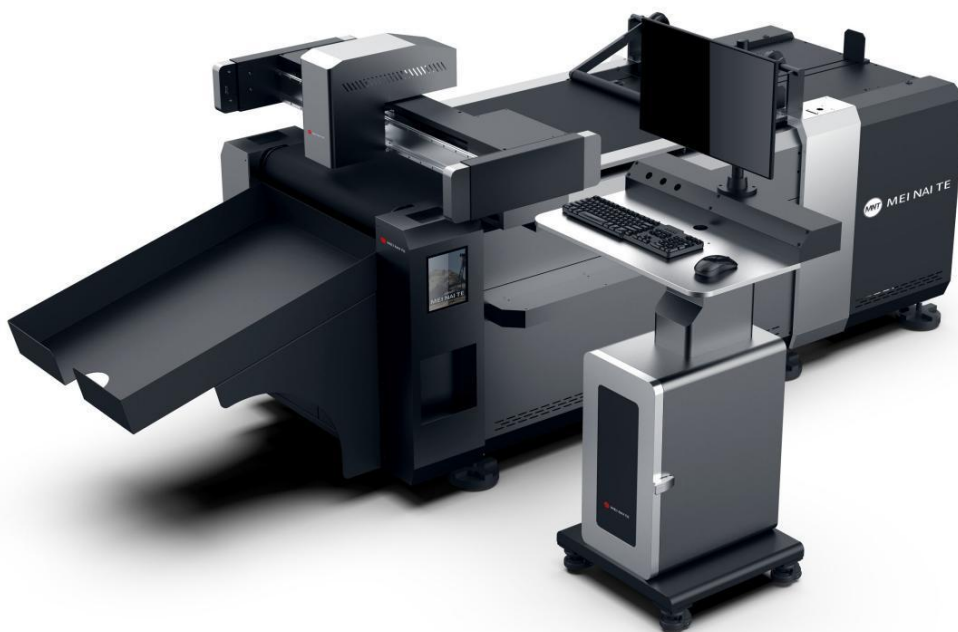




## Technical Proposal



**C6090 — Intelligent Cutting Machine**



## ● About us

### Hangzhou Joyhigh Intelligent Equipment Co., Ltd.

Founded in 2010 and headquartered in Hangzhou, China, we specialize in designing and manufacturing premium CNC equipment for global markets. Our comprehensive product range includes:

- High-Speed Vision-Guided Router Series
- High-Precision Machining Centers
- Multi-Functional Intelligent Cutting Systems
- Fiber Laser Cutting Machines
- CO<sub>2</sub> Laser Cutting Solutions

### Manufacturing Excellence

Operating from an **5,000 m<sup>2</sup>** facility in Yuhang Liangzhu, our vertically integrated production features:

- Sheet Metal Fabrication Workshop
- Precision Assembly Center
- Dedicated R&D Departments for:
  - ◆ Software Development
  - ◆ Mechanical Engineering
  - ◆ Machine Tool Processing

Supported by **35+ skilled professionals**, we maintain an annual production capacity valued at **¥40 million** with streamlined manufacturing processes refined over a decade.

|                                                                                     |                                                                                     |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |
| Factory                                                                             | Showroom                                                                            | Future factory                                                                        |
|  |  |  |
| Precision testing instruments                                                       | Production room                                                                     | Warehouse                                                                             |



## ● Technical Parameters

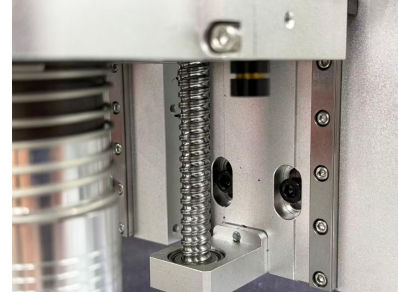
| No. | Content                   | Specification                                                                                                                                                                                                                                                                                                |
|-----|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Air Pump Power            | 7.5kw                                                                                                                                                                                                                                                                                                        |
| 2   | Total Capacity            | 9.5kw                                                                                                                                                                                                                                                                                                        |
| 3   | Cutting Area              | 600mm×900mm<br>600mm× 1200mm<br>900mm× 1200mm                                                                                                                                                                                                                                                                |
| 4   | Machine Size              | 1000mm×2000mm× 1350mm<br>1000mm×2300mm× 1350mm<br>1300mm×2300mm× 1350mm                                                                                                                                                                                                                                      |
| 5   | Cutting Speed             | 300-1800mm<br>(depends on the material)                                                                                                                                                                                                                                                                      |
| 6   | Cutting Thickness         | ≤50mm<br>(depends on the material)                                                                                                                                                                                                                                                                           |
| 7   | Working Environment       | Temperature:-10-45℃<br>Humidity:0%-90%                                                                                                                                                                                                                                                                       |
| 8   | Transmission System       | Imported servo drive+linear guide+belt                                                                                                                                                                                                                                                                       |
| 9   | Operating Voltage         | AC 380V/220V±10% 50Hz/60Hz                                                                                                                                                                                                                                                                                   |
| 10  | File                      | HPGL/PLT/DXF,etc.                                                                                                                                                                                                                                                                                            |
| 11  | Operating Characteristics | Can be connected to any CAD software, computer aided design and cutting simultaneously                                                                                                                                                                                                                       |
| 12  | Cutter Buffer Capacity    | Rapid transfer for single-pass sheet changing cuts                                                                                                                                                                                                                                                           |
| 13  | Transmission Port         | Standard ethernet port                                                                                                                                                                                                                                                                                       |
| 14  | Mounting Method           | Vacuum adsorption for material fixing                                                                                                                                                                                                                                                                        |
| 15  | Feeding Method            | High-performance belt auto-feeding (enables continuous cutting)                                                                                                                                                                                                                                              |
| 16  | Standard Tools            | Oscillating Knife, Creasing Knife                                                                                                                                                                                                                                                                            |
| 17  | Optional Tools            | POT, rotary tool, V-cut tool, kiss-cut tool, creasing tool, wheel tool etc.                                                                                                                                                                                                                                  |
| 18  | Cutting Materials         | Composite materials, all kinds of corrugated cardboard, PVC cardboard, honeycomb board, PVC foam board, acrylic, KT board, aluminum-plastic board, fiber reinforced baseboard, rubber sheet, rigid foam board, adhesive-backed vinyl, reflective film, photographic gloss paper, rigid PVC photo panel, etc. |



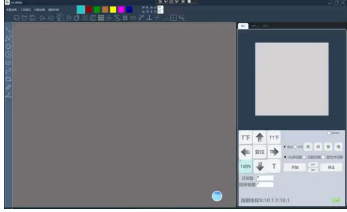
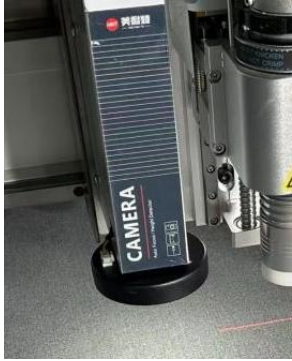
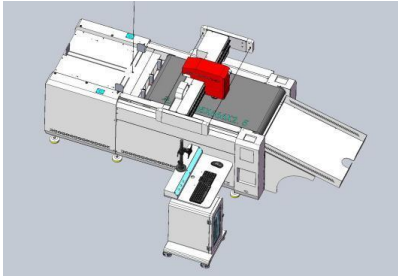
## ● Configurations

|                  | Items                       | √/O(option) | Notes                                                  |
|------------------|-----------------------------|-------------|--------------------------------------------------------|
| <b>Machine</b>   | Servo motor & drive         | √           | Inovance                                               |
|                  | Guide rail                  | √           | LAPPING                                                |
|                  | rack transmissstion         | √           | /                                                      |
|                  | Ball screw                  | √           | /                                                      |
|                  | Electrical circuitry        | √           | /                                                      |
|                  | Machine frame               | √           | inline steel-structure bed,<br>aluminum gantry         |
|                  | Felt platform               | √           | /                                                      |
|                  | Collection device           | √           | /                                                      |
|                  | Auto-feeding                | √           | /                                                      |
|                  | Camera                      | √           | /                                                      |
|                  | Two universal modules       | √           | EOT & UCT                                              |
|                  | Aluminum honeycomb table    | √           | Vacuum adsorption                                      |
|                  | Frequency converter         | √           | /                                                      |
|                  | Conveyor table              | √           | /                                                      |
|                  | Infrared tool alignment     | O           | For EOT                                                |
| <b>Operation</b> | Software                    | √           | MNT                                                    |
|                  | Auto-typesetting software   | O           | MNT                                                    |
|                  | Computer                    | O           | /                                                      |
| <b>Parts</b>     | Air pump                    | √           | 7.5kw                                                  |
|                  | Power transformer           | O           | /                                                      |
| <b>Tools</b>     | Electrical oscillating tool | √           | /                                                      |
|                  | Universal cutting tool      | O           | /                                                      |
|                  | Pneumatic oscillating tool  | O           | /                                                      |
|                  | Creasing tool               | √           | /                                                      |
|                  | V-cut tool                  | O           | /                                                      |
|                  | kiss-cut tool               | O           | /                                                      |
|                  | Rotary tool                 | O           | /                                                      |
| <b>Others</b>    | Warranty                    | √           | 1 year for machine,<br>software update for<br>lifetime |
|                  | Training                    | √           | online & on site                                       |
|                  | After-sales service         | √           | online & on site                                       |

## ● Details

| ITEM                       | PICTURE                                                                             | CHARACTERISTIC                                                                                                                                                                                                                                                                   |
|----------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Servo Motor + Drive</b> |    | <p><b>Motor &amp; driver:</b><br/>High-speed, high-precision Configuration</p> <p><b>Performance:</b><br/>High accuracy with low inertia ensures operational precision and prevents step loss during operation.</p>                                                              |
| <b>Air Pump</b>            |   | <p>7.5kW aluminum turbo vacuum pump delivers stable negative pressure for the vacuum adsorption table of CNC engraving machines, ensuring machining accuracy, improving clamping efficiency, with wide compatibility, low energy consumption and maintenance-free operation.</p> |
| <b>Guide Rail</b>          |  | <ul style="list-style-type: none"> <li>- High precision</li> <li>- Low noise</li> <li>- Wear-resistant design ensures long service life.</li> </ul>                                                                                                                              |
| <b>Ball Screw</b>          |  | <ul style="list-style-type: none"> <li>- High wear resistance</li> <li>- Precision accuracy</li> <li>- Exceptional stability.</li> </ul>                                                                                                                                         |

## Hangzhou Joyhigh Intelligent Equipment Co., Ltd

|                               |                                                                                     |                                                                                                                                                                                                                                                                                    |
|-------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Software</b>               |    | <p>Intelligent cutting control software features optimized path algorithm and grid line processing, supports overcut/arc compensation, multi-format file extraction and simulation cutting, delivering high-precision, fast and high-quality cutting.</p>                          |
| <b>Universal tool modules</b> |    | <p>Universal tool modules allow replacement of different tools, adapt to various cutting processes, and greatly improve processing flexibility and adaptability.</p>                                                                                                               |
| <b>Camera</b>                 |   | <p>The CNC edge-following camera locates workpieces by identifying mark points, corrects deviations automatically and ensures precise contour cutting.</p>                                                                                                                         |
| <b>Machine Frame</b>          |  | <ul style="list-style-type: none"> <li>- Domestically exclusive large-scale gantry machining center construction</li> <li>- 1.5-ton industrial- grade frame ensures vibration-free high- velocity cutting</li> <li>- Production-optimized for high-volume manufacturing</li> </ul> |



## ● Optional Tools and Applications

| Tools                                                           | Applications                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ultra-frequency electric oscillating tool</b><br>(standard)  | All kinds of corrugated, cardboard, KT board, gray board, composite materials, etc<br>                                                                                                          |
| <b>Non-oscillating tool</b><br>(standard)                       | Flexible materials less than 3mm thickness.<br>                                                                                                                                                 |
| <b>Milling tool</b><br>(standard)                               | Acrylic, aluminum composite panel and MDF, etc within 20mm thickness.<br>                                                                                                                     |
| <b>Ultra-frequency pneumatic oscillating tool</b><br>(optional) | Seal parts and gaskets materials such as asbestos board, asbestos free board, PTFE, rubber board, fluorine rubber board, silica gel board, graphite board, graphite composite board, etc.<br> |

|                                                     |                                                                                                                                                                                                              |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Wheel cut tool</b><br/>(optional)</p>         | <p>Flexible materials such as UV fabric, carbon fabric, glass fabric and textiles, etc.</p>                                |
| <p><b>Multi-angle V-Cut tool</b><br/>(optional)</p> | <p>Can make V-cut angles of 15°, 22.5°, 30° and 45° for cardboard less than 20mm thickness.</p>                            |
| <p><b>Creasing tool</b><br/>(optional)</p>          | <p>Used in packaging industry for making cartons and boxes of corrugated board, cardboard and pp hollow board, etc.</p>  |
| <p><b>Kiss-cut tool</b><br/>(optional)</p>          | <p>All kinds of stickers, vinyl, engineering reflective film, etc.</p>                                                   |