CORPORATE PROFILE

Established in 2004, HOACO is a premier automation solution provider for motion-controlled die cutting, web converting and packaging systems. HOACO’s flagship multi-stations Rotary Die Cutting (RDC) machines have served manufacturing customers with excellence in diverse industries—electronics, medical & cosmetics, labels & printing, automotive, etc. Today HOACO is the unrivalled top supplier of die cutting machines domestically in China, while gaining customers fast internationally.

By merging innovative technologies and 15 years of experience, we are committed and trained to respond to the unique needs of each industry and perfect solutions to address industry-specific challenges. This is why the biggest names in the most demanding industries trust our systems with a history of high precision, superb reliability and proven performance. We strive to deliver the highest quality converting systems and services customers want at the best value.

VISION
— "Cutting" a Better Tomorrow

MISSION
— To make machine cutting more intelligent and deliver innovative web converting solutions that solve our customers’ most demanding challenges.

CERTIFICATIONS & HONORS

- ISO 9001-2008 Quality Management Certification
- CE Safety Certification
- China National Torch Plan - Industrialization Demonstration Project
- China Top 10 Mobile Phone Automation Solution Provider
- China Top 100 National High-Tech Enterprise Pioneers
HOACO ROTARY DIE CUTTING (RDC) MACHINES are the preferred solutions for manufacturing multilayered products, which enables die cutting, converting, laminating, CCD registration & inspection in a single pass. RDC machines are widely used in many fields of applications, especially in electronics, medical & cosmetics, automobile, labels & printing industry. It can accommodate materials of different density, thickness and composition based on the requirements of your application.

**20-Stations Rotary Die Cutting Machine**

<table>
<thead>
<tr>
<th>Model</th>
<th>3 Stations</th>
<th>5 Stations</th>
<th>7 Stations</th>
<th>8 Stations</th>
<th>10 Stations</th>
<th>13 Stations</th>
<th>16 Stations</th>
<th>20 Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unwind/Rewind Shafts</td>
<td>5</td>
<td>10</td>
<td>14</td>
<td>16</td>
<td>20</td>
<td>26</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td>Weight (Tons)</td>
<td>1</td>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td>5</td>
<td>6.5</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Rated Power (KW)</td>
<td>9</td>
<td>15</td>
<td>21</td>
<td>24</td>
<td>30</td>
<td>39</td>
<td>48</td>
<td>60</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>2080</td>
<td>2980</td>
<td>3480</td>
<td>4080</td>
<td>5200</td>
<td>5900</td>
<td>7000</td>
<td>8400</td>
</tr>
<tr>
<td>Width (mm)</td>
<td>1750 (for 250mm web width) or 1950 (for 350mm web width)</td>
<td>2300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Height (mm)</td>
<td>2300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voltage</td>
<td>3-Phase 380V 50Hz</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Optional Functions</th>
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</thead>
<tbody>
<tr>
<td>Data Saving</td>
</tr>
<tr>
<td>Dual Systems</td>
</tr>
<tr>
<td>HMI Language - English</td>
</tr>
<tr>
<td>Asynchronous Mode</td>
</tr>
<tr>
<td>Web Guiding Module</td>
</tr>
<tr>
<td>Max Material Width 750mm</td>
</tr>
<tr>
<td>CCD Inspection System</td>
</tr>
<tr>
<td>Safety Enclosures</td>
</tr>
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</table>

**All Models**

<table>
<thead>
<tr>
<th>PLC Controller</th>
<th>OMRON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Servo Motor</td>
<td>OMRON or DELTA</td>
</tr>
<tr>
<td>Precision</td>
<td>Up to ±0.05mm</td>
</tr>
<tr>
<td>Max Web Diameter</td>
<td>480mm</td>
</tr>
<tr>
<td>Max Speed</td>
<td>60m/min</td>
</tr>
<tr>
<td>Web Width</td>
<td>250mm or 350mm</td>
</tr>
<tr>
<td>Material Form</td>
<td>Roll</td>
</tr>
</tbody>
</table>

**Legend**

- ● Default
- O Optional
- X Not Available

**WHAT IS ROTARY DIE CUTTING?**

Rotary Die Cutting (RDC) operates by utilizing cylindrical dies that cut against a hardened anvil roll. Servo motors allow for precise cutting control and registration of parts. Input materials fed from unwind shafts are die cut and rewound or supplied as discrete parts to the next process step. RDC machines can work with a wide range of materials including plastic, rubber, paper, fabrics, felts, etc.
Rotary Die Cutting Machines (3-20 Stations)

From 3 to 20 stations, we have all the proven models to meet your toughest challenges.
Customized RDC Machines

Sattelite-Type Rotary Die Cutting Machine

ECG Electrode Machine

CCD Inspection

Customized RDC Machine (Web Width 750mm)

Heal-Seal Pouching Machine

Heat-Seal Laminating Machine
Features & Benefits

**MECHANICAL**
- Available in 3 to 20 movable stations, the machine enables ultimate flexibility in process design and material placement.
  - Each station is fully capable of handling multiple layers of kiss-cut, through cut or lamination
- Materials and cut parts are facilitated in roll form
- Standard web material width: 250mm (10”) and 350mm (13”)
- Pendant arm HMI touchscreen for greater ergonomics
- Active web guiding control maintains even feeding of materials
- Maximum 60m/min cutting speed

**ELECTRO-SERVO**
- All servo-motors are synchronized by our ingenious software
- Dedicated servo-motor for each cutting/laminating and unwind/rewind station ensures synchronized positioning accuracy and precision up to ±0.05mm
- CCD camera registration/inspection with feedback for correction/adjustment to improve precision and minimize material waste
- Programmable web tension control for supreme accuracy
- Simple-to-use HMI design with multilingual support

**PROCESS & CONTROL**

Dual Systems: A single RDC machine’s available stations can be separately configured to manufacture two different products, operated by two operators at the same time without interference. Modular independent stations and replaceable cutters deliver unparalleled simplicity and flexibility in enabling the manufacturing of two products on a single machine, saving customer investment and factory footprint.

Graphite Sheet Cutting: Overcoming challenges of partial edge banding and backside adhesiveness when cutting thermal graphite sheet, HOACO RDC machine successfully automated multilayered cutting/lamination of thermal graphite sheet with 95% yield. Fueled by the superior performance and yield, HOACO commands a majority market share in the domestic thermal graphite cutting market.

Fixed-Length Crosscutting function can be achieved by setting cutting length in advance according to product requirement. Once set, the machine can automatically crosscut parts based on input material length, eliminating the need for a separate cutting machine.

Screen Frame Adhesive Sticker Tape production through asynchronous cutting and splicing of edge strips greatly reduced material waste while maintaining precision and speed.

**APPLICATIONS**

- **Medical & Cosmetics**
- **Labels & Printing**
- **Automobile**
- **Electronics**

**Electronics**

**Medical & Cosmetics**

**Labels & Printing**

**Automobile**

**Screen Protectors**
Protective Films

Thermal Graphite Pads

Electrical Conductive Pads

Foams and Anti-dust Meshes

Double-sided, OCA and Shading Adhesives

Electrical Insulation Pads

Screen Frame Adhesive Sticker Tape

Battery Adhesive Tape Strip Sticker
Flatbed Die Cutting Machine

In Flatbed die cutting, the machine stamps out each product using a servo or hydraulic press and steel rule dies. The raw material feeds along the base while the press is pushed down vertically to make the cut. HOACO Flatbed die cutting machines offer excellent kiss cutting, through cutting, automatic stamping functions with accurate alignment feeding systems. The machine can achieve precision up to ±0.03mm and speed up to 300 cuts/min.

### Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>HXM-2</th>
<th>HXM-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting Force</td>
<td>50 kN</td>
<td>120 kN</td>
</tr>
<tr>
<td>Cutting Speed</td>
<td>Up to 300 cuts/min</td>
<td>Up to 200 cuts/min</td>
</tr>
<tr>
<td>Feeding distance</td>
<td>24 mm</td>
<td>28 mm</td>
</tr>
<tr>
<td>Clamping Height</td>
<td>105 mm</td>
<td>115 mm</td>
</tr>
<tr>
<td>Adjustable Depth</td>
<td>±5 mm</td>
<td>±5 mm</td>
</tr>
<tr>
<td>Steel Rule Die Size</td>
<td>130 x 180 mm</td>
<td>Horizontal: 350 x 300 mm, Vertical: 320 x 420 mm</td>
</tr>
<tr>
<td>Overall Dimension</td>
<td>1200 x W910 x H1250 mm</td>
<td>1500 x W1500 x H1450 mm</td>
</tr>
<tr>
<td>Web Width</td>
<td>200 mm</td>
<td>Horizontal: 420 mm, Vertical: 320 mm</td>
</tr>
<tr>
<td>Material Feeding Speed</td>
<td>Up to 70 m/min</td>
<td></td>
</tr>
<tr>
<td>Control System</td>
<td>Electro-Servo</td>
<td></td>
</tr>
<tr>
<td>Die Types</td>
<td>Wood, Plastic, Chemical Etching, Steel</td>
<td></td>
</tr>
</tbody>
</table>

**Features & Benefits**

- High speed, high accuracy cutting driven by servo motor
- Rotatable and movable dies allow for best cutting positioning adjustment
- Hardware die improves stamping precision, fast changeover and die exchangeability
- Hardware die blanking hole facilitates easy waste discharge for through cut
- A variety of accessories are available to automate and customize the system to suit a variety of converting requirements. Most accessories may be added at a later date as needed.
- Low noise, low vibration

Sheeting Machine

Specialized equipment used in adhesive tape processing industry for converting tape rolls into sheets.

- High precision, high reliability
- High speed and safe
- Slicing by marker tracking
- Slicing by fixed length
- Automatic parts counting
- Automatic stacking

<table>
<thead>
<tr>
<th>Specifications</th>
<th>HXQ-2</th>
<th>HXQ-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slicing Speed</td>
<td>180 pieces/min</td>
<td>110 pieces/min</td>
</tr>
<tr>
<td>Web Width</td>
<td>200 mm</td>
<td>420 mm</td>
</tr>
<tr>
<td>Fix-length Slicing Precision</td>
<td>0.4% mm</td>
<td>0.2% mm</td>
</tr>
<tr>
<td>Dimension</td>
<td>L660 x W400 x H1300 mm</td>
<td>L1350 x W650 x H1500 mm</td>
</tr>
</tbody>
</table>

Laminating Machine

For lamination and automatic waste discharge of multi-strip, multi-layer adhesive tape, thin film, release paper, etc.

- Independent speed adjustment and tension control
- Flexible waste discharge setup with multiple waste discharge cutters and rollers
- Precision up to ±0.1mm

<table>
<thead>
<tr>
<th>Specifications</th>
<th>HXF 3-343</th>
<th>HXF 3-232</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laminating Unit</td>
<td>2 Sets</td>
<td>3 Sets</td>
</tr>
<tr>
<td>Unwind Shaft</td>
<td>3 sets</td>
<td>4 sets</td>
</tr>
<tr>
<td>Rewind Shaft</td>
<td>2 sets</td>
<td>3 sets</td>
</tr>
<tr>
<td>Speed</td>
<td>Up to 30m/min</td>
<td>Up to 30m/min</td>
</tr>
<tr>
<td>Max Web Width</td>
<td>300mm</td>
<td>300mm</td>
</tr>
<tr>
<td>Max Web Diameter</td>
<td>350mm</td>
<td>350mm</td>
</tr>
<tr>
<td>Dimension</td>
<td>L1621 x W920 x H1430 mm</td>
<td>L1960 x W920 x H1430 mm</td>
</tr>
</tbody>
</table>
ROVORY SCREEN PRINTING

For a Lasting Impression

HOACO ROTARY SCREEN PRINTING is more versatile than traditional printing techniques. The printing surface does not have to be printed under pressure and not necessarily planar. Different inks can be used to work with a variety of materials. The machine can achieve many types of high color saturation, light-resistant prints with special effects of endless possibilities.

HOACO ADVANTAGE

- Integrated rotary screen printing + die cutting
- High speed continuous printing
- Movable station for easy process configuration
- Dedicated servo motors for each printing station
- Twin-geared press
- Easy-to-use HMI touchscreen

Integrated Screen Printing + Rotary Die Cutting

ROTARY SCREEN PRINTING is a stencil process where a cylindrical screen containing the image rotates in a fixed position. As the web moves between the screen and the impression roller, screen’s motion forces the ink through the stencil openings onto the substrate through a squeegee.

APPLICATIONS & BENEFITS

<table>
<thead>
<tr>
<th>Printing Substrates</th>
<th>Industries</th>
<th>Special Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper</td>
<td>RFID</td>
<td>3D</td>
</tr>
<tr>
<td>Plastic</td>
<td>Printed Circuit Board</td>
<td>White ink</td>
</tr>
<tr>
<td>Wood</td>
<td>Medical Devices</td>
<td>Fine mesh for small prints</td>
</tr>
<tr>
<td>Glass</td>
<td>Decals</td>
<td>Scratch-off</td>
</tr>
<tr>
<td>Metal</td>
<td>Signboards</td>
<td>Raised ink</td>
</tr>
<tr>
<td>Cloth</td>
<td>Clothing</td>
<td>Glow-in-the-dark</td>
</tr>
</tbody>
</table>

APPLICATIONS:

- Paper
- RFID
- 3D
- Printed Circuit Board
- White ink
- Scented & Fragrances
- Medical Devices
- Fine mesh for small prints
- Textured
- Decals
- Scratch-off
- Metallic
- Signboards
- Raised ink
- Mirror & Reflective
- Clothing
- Glow-in-the-dark
- Thermochromic

UV INK BENEFITS

- Fine detailing with color saturation
- Thin print film and low ink usage
- Instant curing & drying
- Faster printing speed
- Scratch-resistant print
- No toxic fumes
- Do not dry in air
- Eco-Friendly

LED UV CURE ADVANTAGES

- Cold-source LED UV light will not cause damage, deformation or discoloration of the underlying substrates
- Long service life
- Low power consumption
- Small form-factor and easily customizable
- Automatic light intensity adjustment based on printing speed

Model | 1300 | 1330 | I410 | I500 | I600 | I1000
Print Width | 300 mm | 330 mm | 410 mm | 500 mm | 600 mm | 1000 mm
Min-Max Cylinder Repeat | 305 mm (96T) — 610 mm (192T)
Mechanical Speed | 150 m/min
Screen Mesh Count | 75-400
Ink Film Thickness | 6-280 um

Printing Cylinder | LED UV Cure | Corona Treater

CUSTOMIZED MACHINE AVAILABLE FOR ANY PRINT WIDTH < 1500 MM

Two-Color Rotary Screen Print | Rotary Die Cutting

Customized machine is available for any print width < 1500 mm
ROBOT DIES

Being a rotary die cutting equipment supplier, we know better the importance of quality rotary dies than anybody else. Through subsidiary companies, HOACO has the full capabilities to design and build all types of high precision rotary dies to better serve our customers with highest quality and fastest turnaround time.

Removable Blade Sheeter Die
Vacuum Die
Air-Eject Die
Hot Stamp Roller Die
Pin-Eject Die
Slitting Die
Dies for Printed Labels
Magnetic Cylinder
Anvil Roller
Dies for Medical Consumables

RobotDrive Harmonic Gear Reducers

www.robotdrive.com.cn

Designed by Beijing ROBOTDRIVE Technology and manufactured by HOACO Automation Technology, our series of harmonic gear reducers serve a wide range of industries and customers with excellence.

Working hand-in-hand and leveraging each other’s expertise, we are renowned not only as a premier harmonic drive components supplier, but also an integrated solution provider delivering total motion control and automation solution that give our customers a competitive advantage. Together, the group own the complete harmonic drive R&D and manufacturing processes from design to delivery.

RobotDrive Harmonic Reducer

is mainly used in 1-6 joint of industrial robot; it has been widely used by many industrial robot manufactures around the world.
Shandong HOACO Automation Technology Co., Ltd. (China HQ)
Address: 2892 Gaoer Road Junction with Yingqian Street,
High-Tech District, Weifang City, Shandong Province, China 261061
Phone: (86) 199-0636-6967 (86) 186-6060-5966
Fax: (86) 536-2085975
Email: contact@hoacoat.com

HOACO Automation Technology International Pte. Ltd. (Singapore)
Address: 51 Goldhill Plaza #07-10/11, Singapore 308900
Phone: (65) 81267312
Email: contact@hoacoat.com

HOACO Automation Technology LLC (USA)
Address: 3860 Bay Center Place, Hayward, CA 94545
Email: contact@hoacoat.com