

HOACO

ON THE CUTTING EDGE[©]

HOACO INTRODUCTION

2024

Pioneering China's Converting Industry



2000+ RDC Stations Sold Annually

#1 by RDC Machine Sales in China

30+ Countries Sold to



2004

Established



200+

Employees



60,000

SQM Factory Space



3 + 4

Domestic + Overseas
Offices



History of Innovation and Growth



2004

Developed 1st RDC machine



2008

Movable RDC station patented



2009

ISO9001:2015 certification



2010

Invented RDC-based thermal graphite sheet process



2011

Invented RDC-based screen frame process, with up to 85% material savings



2012

1000th RDC station sold



2018

CE certification by TUV



Beyond RDC

RDC + Laser Cutting

RDC + Printing

RDC + Flatbed Cutting

RDC + Heat-Sealing

RDC + Satellite Station

RDC + Pick-n-Place

Inspection Machines

Packaging Machines

Industries Served



Electronics

- Screen protectors
- Protective films
- Thermal pads
- Frame adhesive
- Conductive pads
- Insulation pads
- Anti-dust meshes
- Battery strips
- LED strips

Medical & Cosmetics

- Wound dressings
- IV dressings
- ECG/Tab Electrodes
- TENS electrodes
- ESU grounding pads
- Kinesiology patch

Automobile

- Tire repair patch
- Tire plug patch
- Car logo adhesive
- Dashboard adhesive
- Spacers
- Insulators
- Sealing gasket
- Touch pads

Label & RFID

- Label stickers
- Security labels
- RFID labels
- RFID antenna
- Tickets
- Cards
- Luggage tags

Clean Energy

- Hydrogen fuel cell
- MEA (Membrane Electrode Assembly)
- CCM (Catalyst Coated Membranes)
- Lithium-ion batteries protectors

HOACO Group of Companies



- HQ @ Weifang, China
- Manufacturing & Assembly
- R&D



2011
Shenzhen



2012
Kunshan

China Domestic



2015
Singapore
(IHQ)



2019
South Korea



2020
The Hague,
The Netherlands



2022
Houston,
America

International

Corporate Honours & Certificates



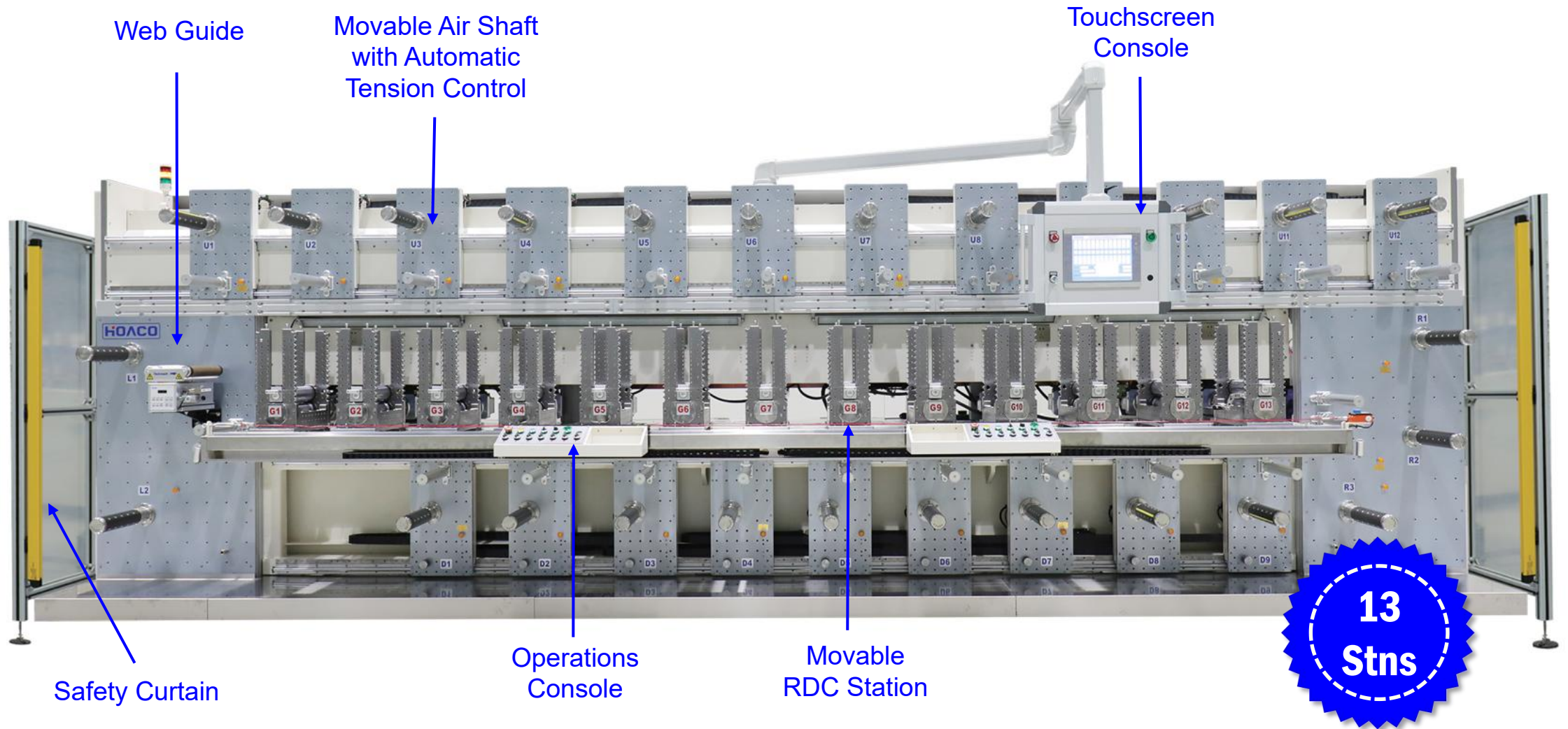
- 2021 - Enterprise for high-end branding cultivation, Shandong
- 2020 - Manufacturing Technology Award, Shandong
- 2019 - Invisible Champion, Weifang
- 2019 - Gazella Company of high-tech enterprises, Weifang
- 2018 - Top 10 Mobile Phone Automation Solution Provider
- 2017 - Shandong Entrepreneurship & Innovation Award – 1st Prize
- 2016 - Top 100 National High-Tech Enterprise Pioneers
- 2016 - National Torch Plan – Industrialization Demo Project
- 2015 - National High-Tech Enterprise
- ISO Quality Management (ISO9001)
- CE Certificate by TUV (MD/LVD/EMC)
- EU Certificate of Registration
- 148 Patent Certificates (Utility Model: 110, Invention: 10, Design: 28)

Products & Services

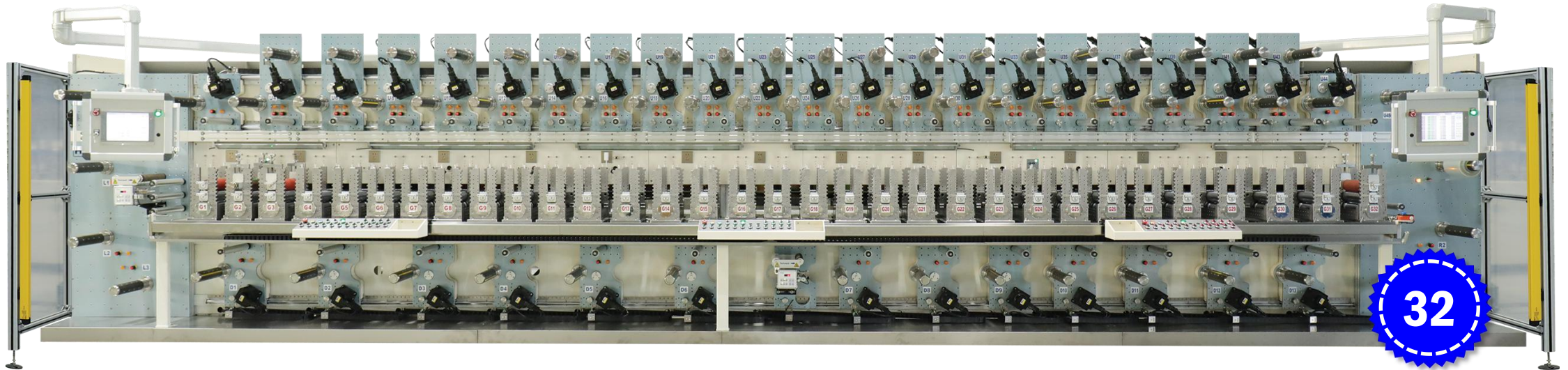


YOUR
ONE-STOP
CONVERTING
SOLUTION
PROVIDER
AND
PARTNER

Flagship Rotary Die Cutting (RDC) Machine



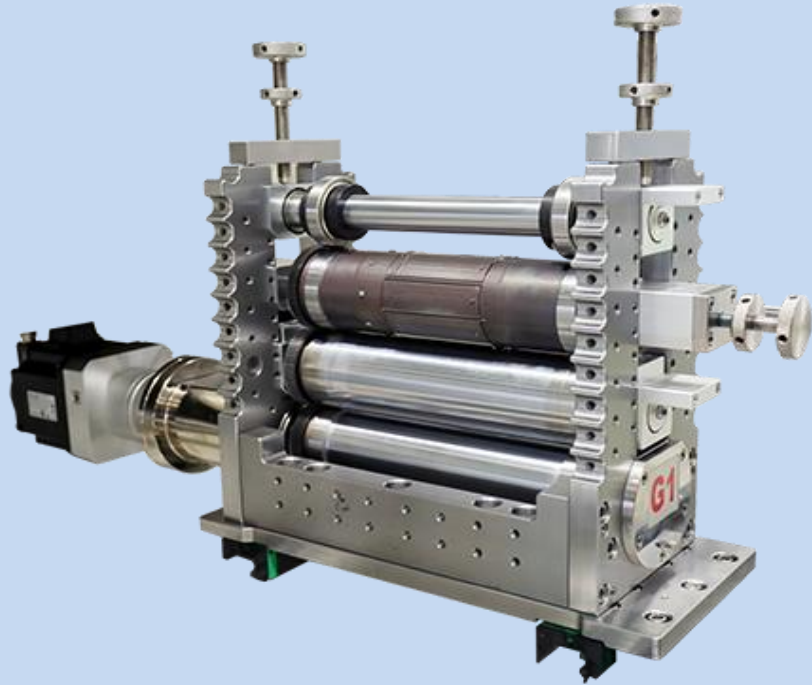
More RDC Machines - 3-32 Stations, W250/350/450/550/750mm



RDC Stations and Shafts

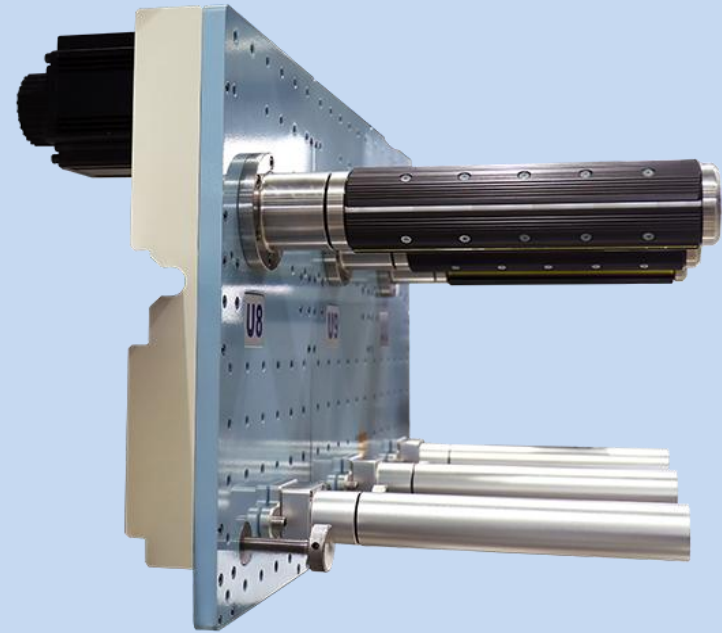
RDC Station

- Cutting or Laminating
- Standard 3.175 gear pitch
- Built-in Sync / Async functions

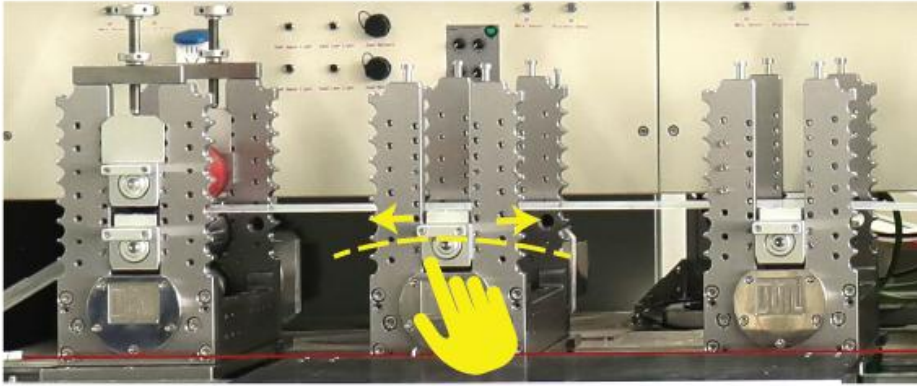


Air Shaft

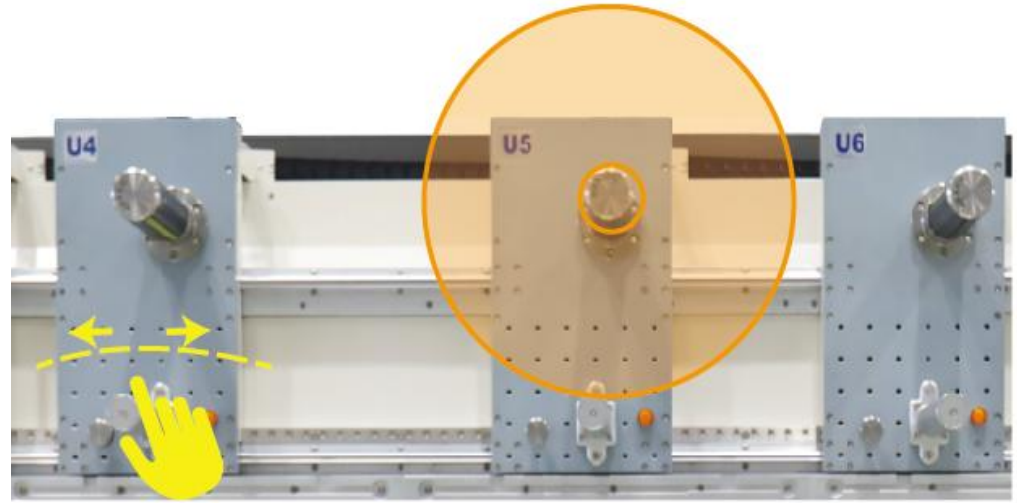
- Automatic Tension Control
- Powerful servomotor (1-150N Tension)
- Rear Motor Design



Features Highlight



Movable RDC Station



Movable Air Shaft

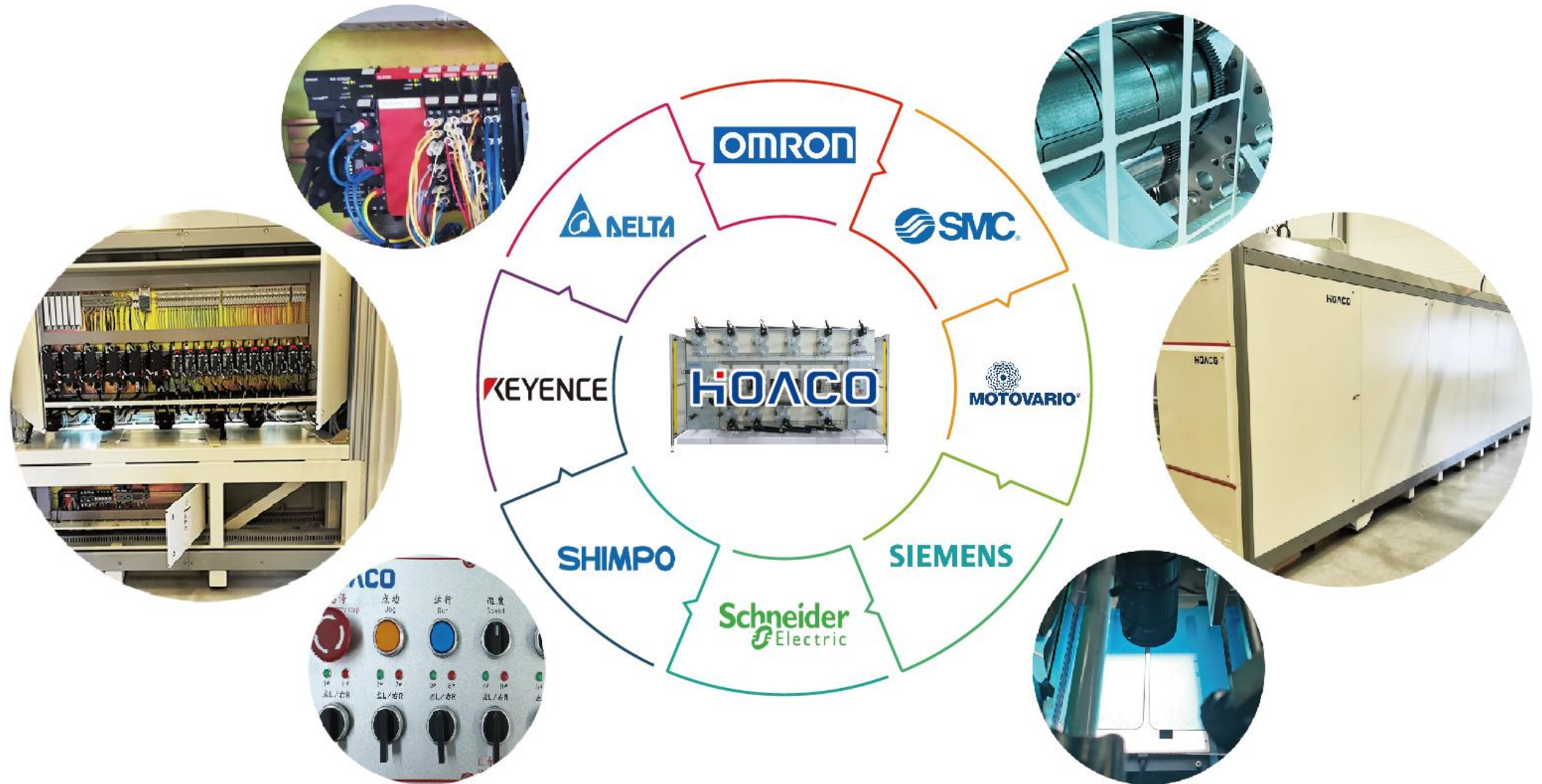


Welded Base Frame

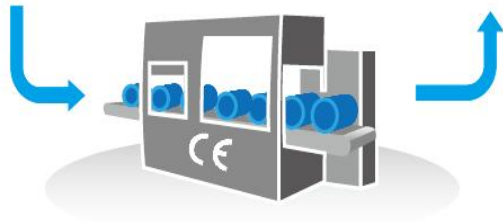
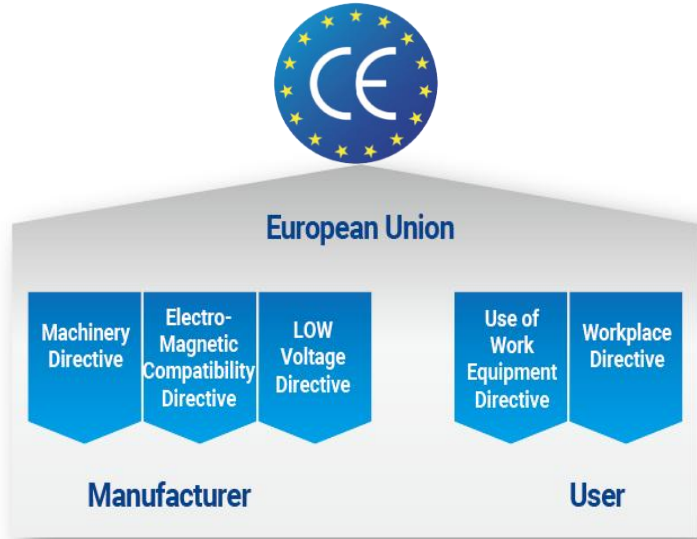


Easy-to-Use Touchscreen

Premium Components, Quality Assured



CE Certified Covering MD/LVD/EMC



C E R T I F I C A T E

of Conformity
EC Council Directive 2006/42/EC
Machinery

Registration No.: AM 50491124 0001
Report No.: 50347933 002

Holder: Shandong HOACO Automation Technology Co., Ltd.
No. 2892 Zhangying Community, Qingchi Subdistrict, High-tech Zone, Weifang 261061 Shandong P.R. China

Product: Machinery (Rotary Die Cutting Machine)

Identification: Type Designation : HW2500C16 HW3500C16 HW4500C16
Serial No. : H16-200301 n.a. n.a.
Remark: 1. Refer to test report 50347933 002 for details.

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. This is to certify that the tested sample is in conformity with all provision of Annex I of Council Directive 2006/42/EC, referred to as the Machinery Directive. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex II of the Directive.

Date 07.01.2021

Certification Body
Huajian Dong

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may be used if all relevant and effective EC Directives are complied with. **CE**

CE Technical Files >

Name

- 203 Electrical Schematic
- 200 Risk assessment-20200528.pdf
- 201 Machine Operation Manual.pdf
- 202 Machine Layout Drawing.dwg
- 204 Pneumatic schematic.pdf
- 205 Safety logic procedures.png
- 206 Machine Part list-20200509.xlsx
- 206 Spare Component list-20200509.xlsx
- 300 PL Assessment Report for RDC Machine.pdf
- 301 SISTEMA Calculation Report.pdf
- 302 Calculation Report of Minimum Distances of ESPDs.pdf
- 302 Mean Number of Annual Operations.docx
- 303 CE test report .pdf
- 304 TR 60360594 001 EMC_Shandong HOACO.pdf
- 305 Noise Emission Test Record.doc
- 306 Declaration of Conformity-HOACO.pdf
- 307 CE Certificate-UDEM.pdf
- 308 R 60360594 001 EMC_Shandong HOACO.pdf
- Technical Files v20200522.xlsx
- TUV CE Certificate.pdf

CE Highlights



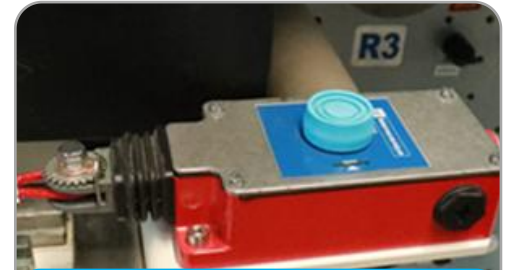
Jog Switch



Safety Curtain



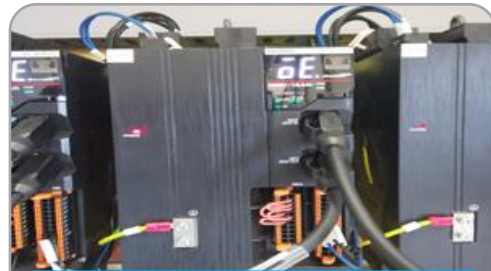
CE-Compliant Switches



Safety Cord



Safety PLC



Safety Servomotor



Contact Sensors



CE-Compliant Lock



Isolated Electrical Cabinet



Safe Wiring



Electrical Controls



EMC Test Pass

Performance, Precision and Reliability



Max Operating Speed

60m / min



Tight Tolerance

Process Precision $\pm 0.05\text{mm}$



Proven Reliability

Long production runs



Safety

100% CE compliance

Dual Systems

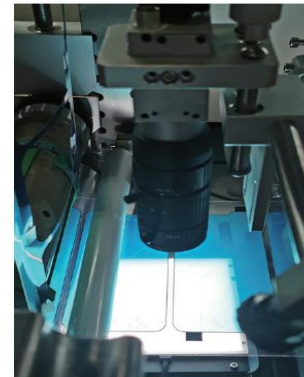
A single HOACO machine can be configured to run as two independent machines, operated by different operators to produce different parts simultaneously.

CCD Vision System

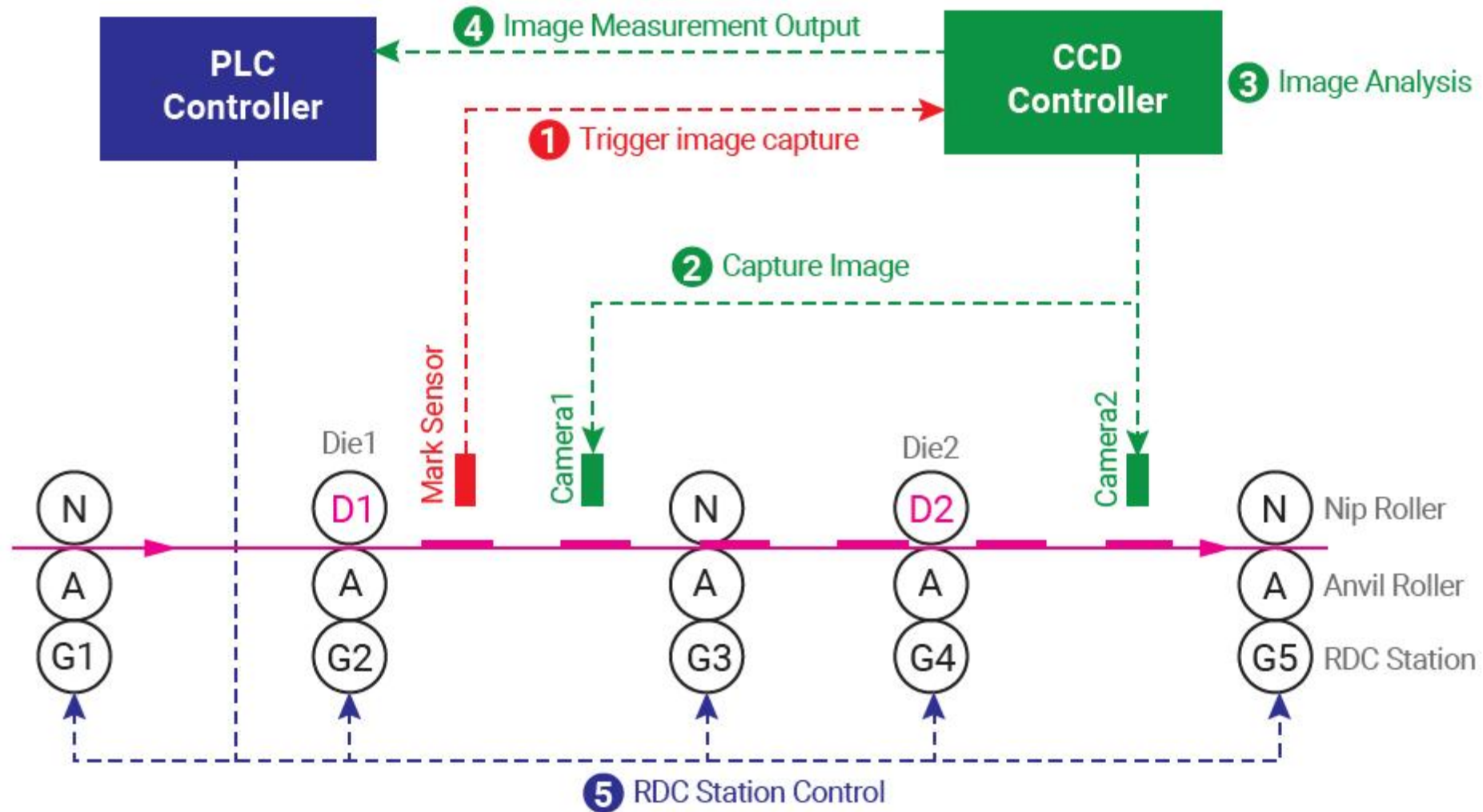
- Realtime high-resolution dimensional measurement to enable
 - Auto-tuning of rotary cutters (Both X/Y Axis)
 - Auto machine alarm/stop
 - Auto blackmark printing or rejection of NG parts



WATCH VIDEO



CCD-PLC Interconnect



Beyond RDC



Integrated RDC + Satellite Station Machine (RDC-SC)



Achieving extreme cutting precision up to $\pm 0.05\text{mm}$
by using mechanical gear synchronization through Sun/Planetary gears



Integrated RDC + Laser Cutting Machine (RDC-LC)



HYBRID CAPABILITIES offering the best of both worlds for a seamless web converting process. Precision up to $\pm 0.06\text{mm}$.

MODE

Cut-on-the-Fly or,
Step-and-Repeat

COMPARISON	RDC	LASER
Speed	✓	
Big Runs	✓	
Flexible Slug Removal	✓	
Less Upfront Cost	✓	
Less Maintenance Cost		✓
Tight Tolerance		✓
Quick Turnaround		✓
Thick or Narrow Cuts		✓
Vast Material Types		✓

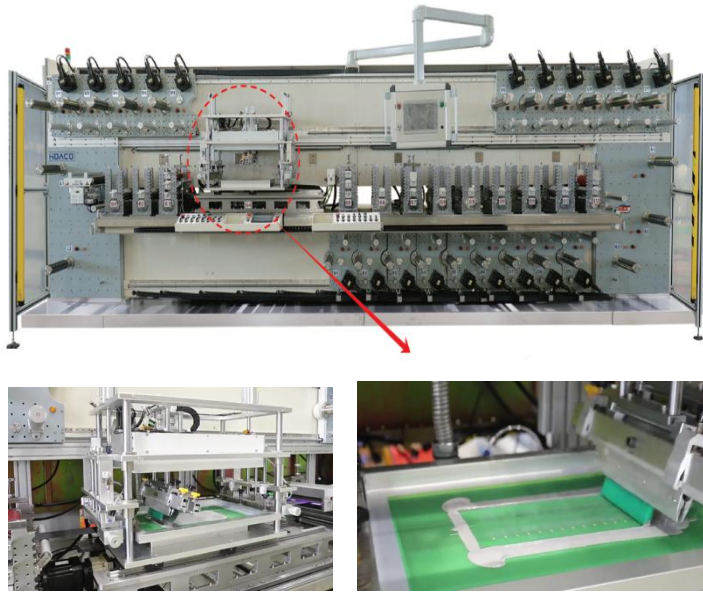


WATCH VIDEO

Integrated RDC + Printing Machine

Simplified Manufacturing Process, Improved Product Design and Material Savings

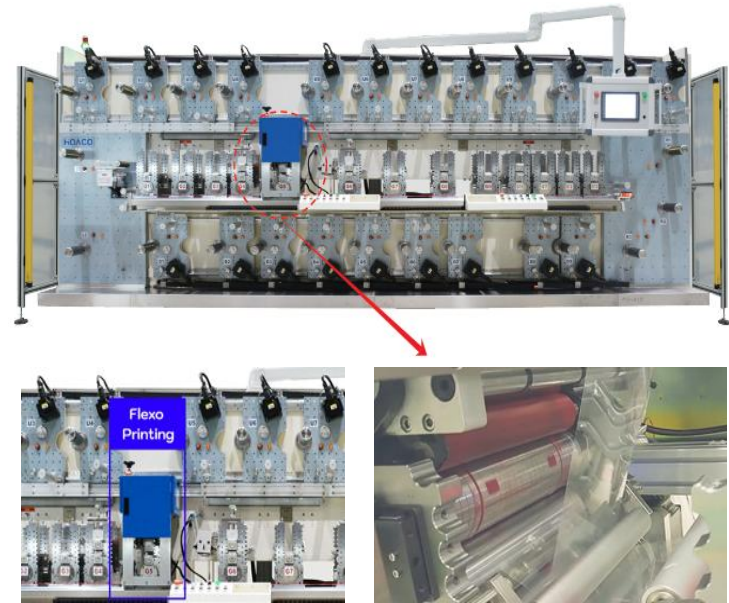
Flat Screen Printing (RDC-FSP)



WATCH VIDEO



Flexo Printing (RDC-FXP)

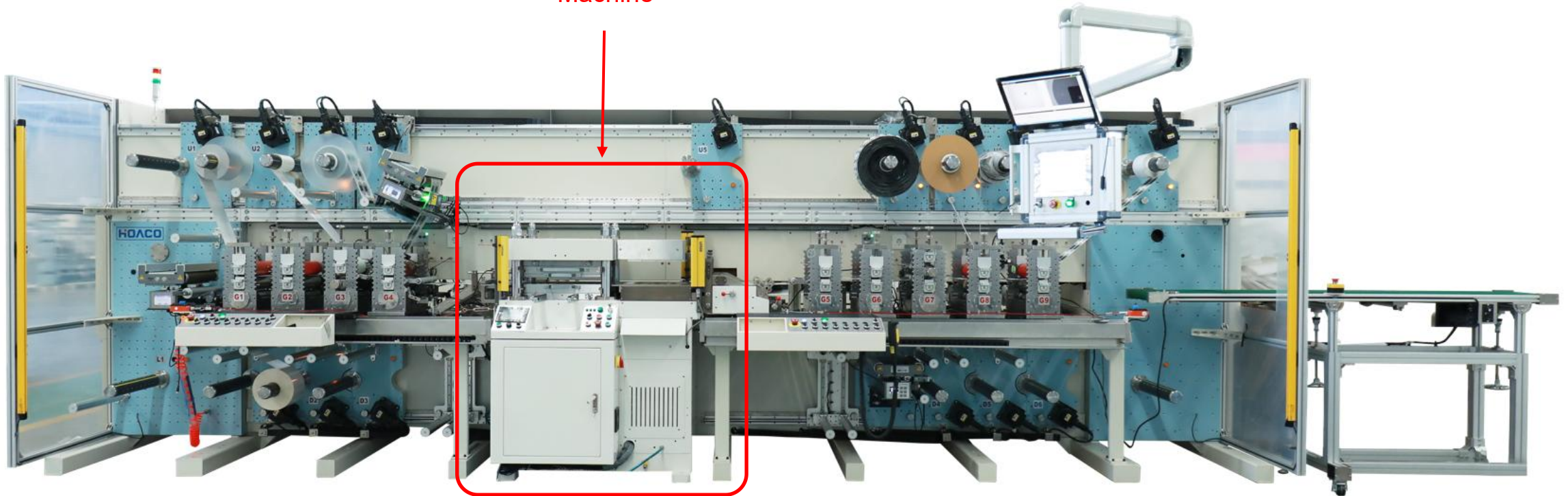


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Integrated RDC + Flatbed Cutting Machine (RDC-FDC)

Flatbed
Cutting
Machine



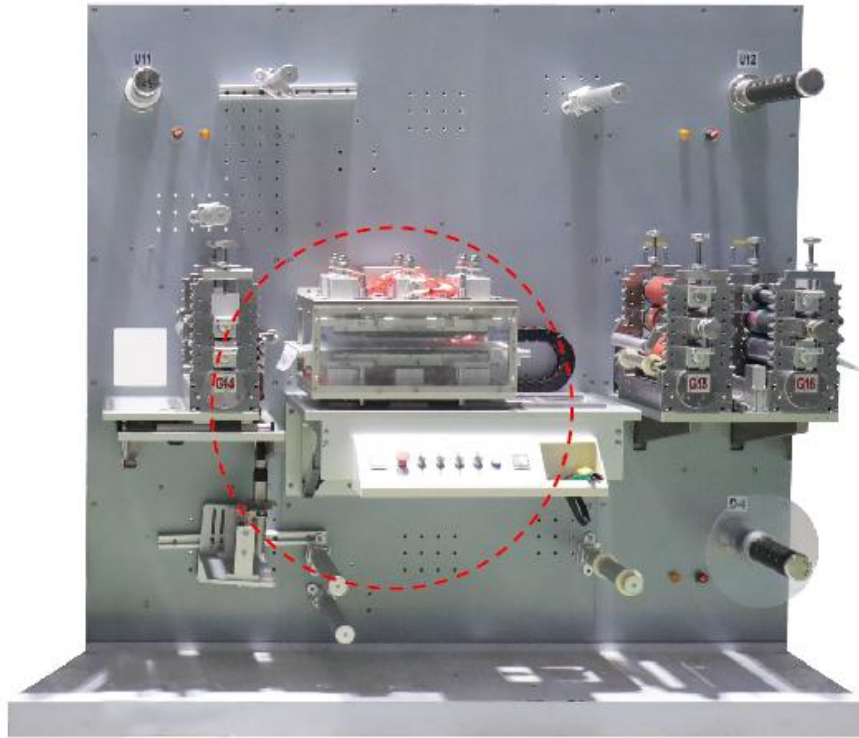
WATCH VIDEO



Integrated RDC + Heat-Seal Machine (RDC-HS)

- Four-sided pouch sealing by heated reciprocating plate pressing, while web is continuously moving

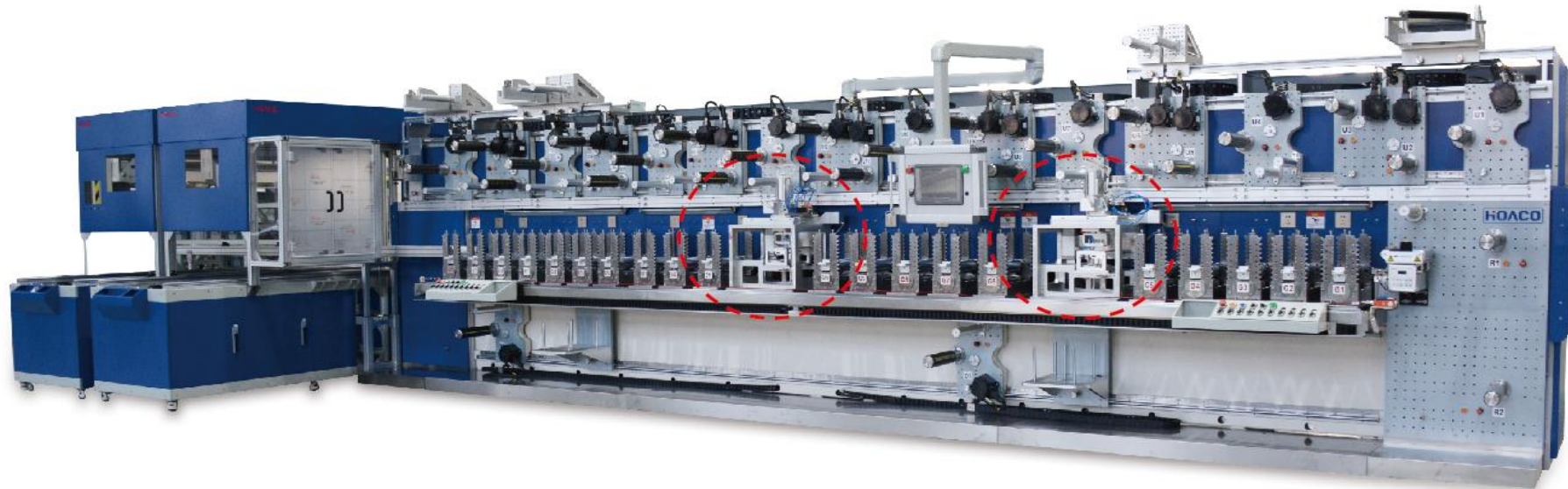
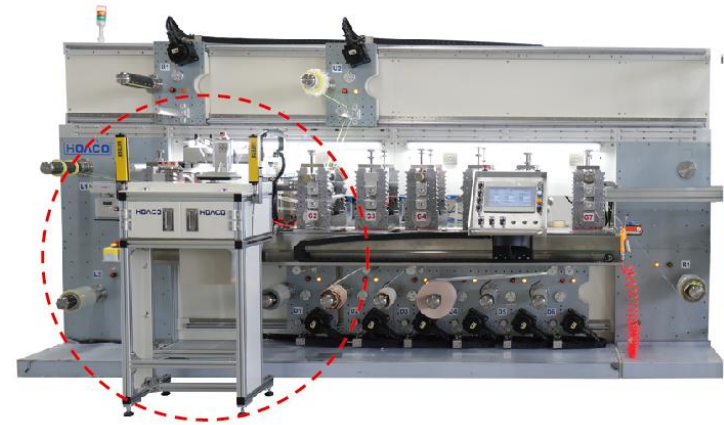
WATCH VIDEO



Integrated RDC + Pick-n-Place Machine (RDC-PNP)

- Integrated Pick-n-Place robots to
 - Handle raw materials in sheets for RDC cutting
 - Cut-and-transfer with rotations

WATCH VIDEO



Flatbed Die Cutting Machine (Servo-Press)



HXM-2

Cut Size: 180 x 130mm
Max Pressure: 5 Tons



HXM-4

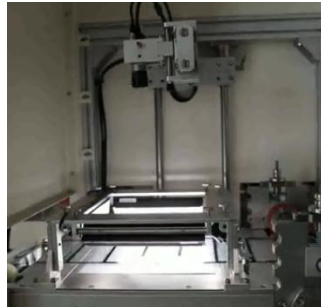
Cut Size: 400 x 240mm
Max Pressure: 12 Tons

Standalone Inspection Machines

Roll Inspection Machine



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Sheets Inspection Machine

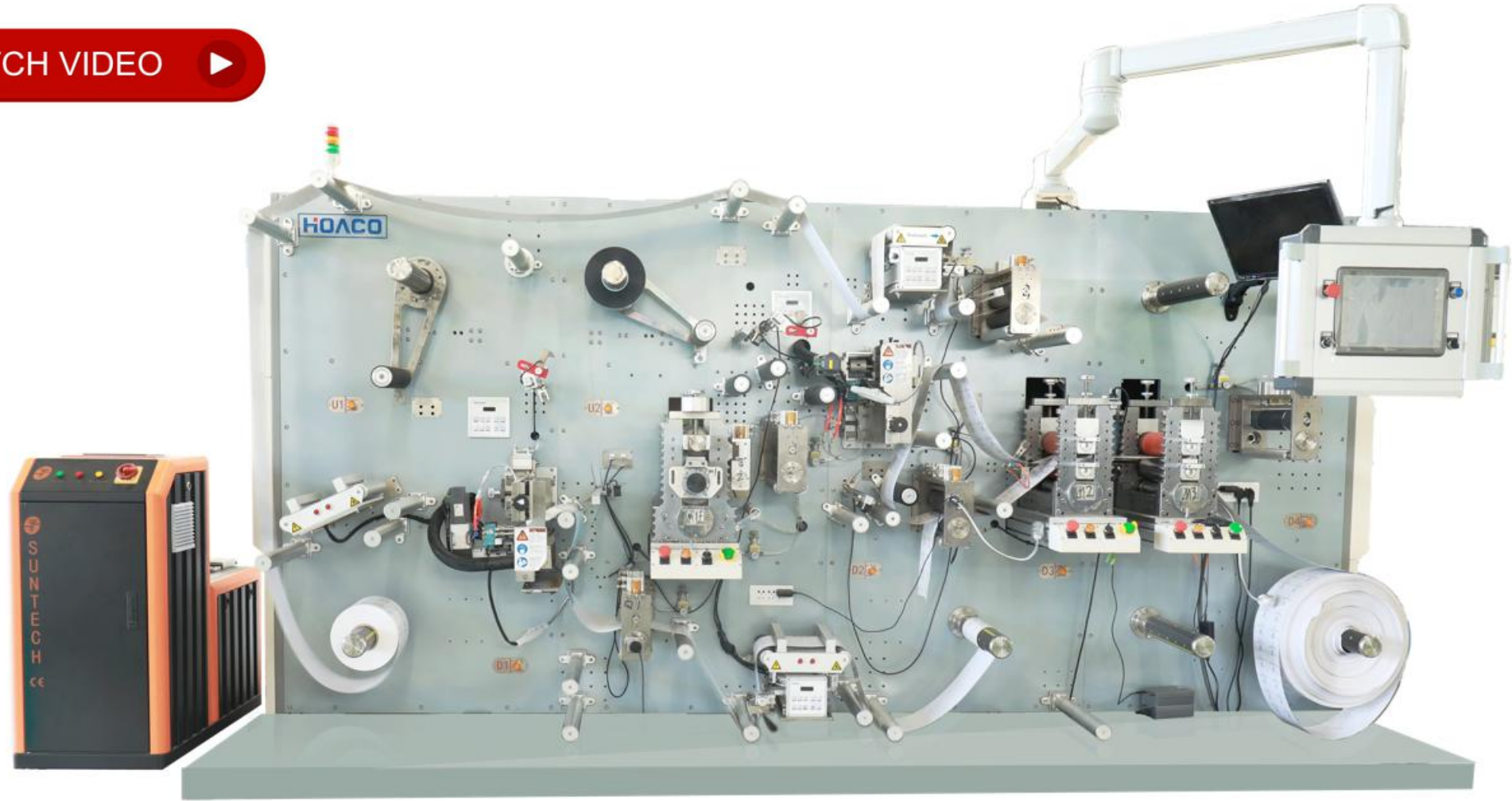


WATCH VIDEO ▶



Specialty RFID Label Machine

WATCH VIDEO



Specialty Machines



Fuel Cell MEA (Membrane Electrode Assembly) Machine



Fuel Cell CCM Lamination Machine



Tire Plug Patch Machine



Medical ECG Electrode Machine

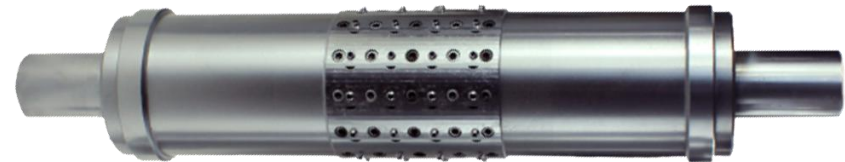
Rotary Dies (Made by HOACO)



Solid Dies



Pin-Eject Dies



Vacuum Dies

Accessories 1/3



Support Roller



Gap Roller



Anvil Roller



Adjustable Anvil Roller



Rubber Roller (Soft)



Rubber Roller (Hard)



Rubber Roller with Bearer Ring



Rubber Roller (Chemical-Resistant)



Heating Roller



Adjustable Relief Roller



Customized Relief Roller



Idler Roller (Ø50)

Accessories 2/3



Crank Roller



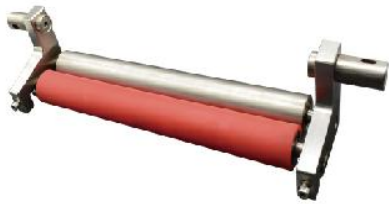
Crank Rubber Roller



Straight Roller (Ø35)



Anti-Static Roller (Ø50)



Dual Lamination Roller



Non-Stick Crank Roller



Floating Idler Roller



Lubricating Felt Roller



Color Mark Sensor



Thrubeam Sensor



Proximity Sensor



LED Light

Accessories 3/3



CCD Controller



CCD Camera / LENS



CCD Top LED Light



CCD Bottom LED Light



Web Guide Controller



Edge Sensor



Line Sensor



Splicing Web Guide Top



Safety Light Curtain



Inkjet Printer



ESD Eliminator



ESD Brush

A world map is visible in the background, rendered in a lighter shade of blue on the left side and a lighter shade of red on the right side. The map shows the continents and oceans.

THANK YOU!

HOVCO