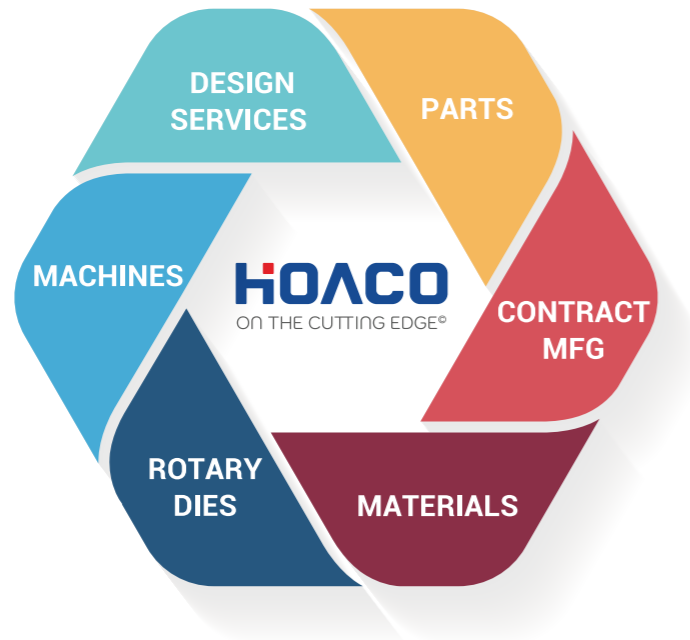




[www.hoacoat.com](http://www.hoacoat.com)

# HOACO

ON THE CUTTING EDGE®



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ROTARY | FLATBED  
LASER | INTEGRATED  
CUTTING MACHINES

PRINTING | PACKAGING  
INSPECTION | CUSTOMIZED  
SPECIALTY MACHINES



# YOUR ONE-STOP CONVERTING SOLUTIONS PROVIDER

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## ABOUT US

Established in 2004, HOACO has ever since grown to a leading global player in the fields of precision die cutting, web converting, printing and packaging solutions provider, serving manufacturing customers with excellence in diverse vertical industries— electronics, labels & printing, automobile, medical & cosmetics, and clean energy, etc.

Our flagship multi-stations RDC (Rotary Die Cutting) machines offer industry-leading speed, precision, and up to 32 RDC stations in a single machine. Leveraging deep expertise in RDC technology, we also developed fully integrated RDC + Flatbed cutting, Laser cutting, Pick-n-Place, Printing and packaging machines to enhance our competencies and provide customers with optimized solutions.

On top of automation machinery, HOACO also offers rotary dies and magnetic cylinders fabricated by our own tooling factory, precision parts and accessories, tapes and materials, process design and prototyping service - a genuine one-stop solutions provider for all your converting needs.

Today, HOACO is the unrivaled top supplier of RDC machines domestically in China, with international customers in 30+ countries. By merging innovative technologies and 15+ years of web converting experience, we are committed to responding to each industry's unique needs and perfecting our solutions to address customer-specific challenges. This is why the biggest names in the converting industry trust our machines with a history of proven precision, performance, reliability and safety. We strive to deliver the highest quality converting systems and services our customers want at the best value.

## VISION

To empower our customers to convert the unimaginable, precisely

## MISSION

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

**2004**  
Established

**300+**  
Employees

**40K sqm**  
Factory Space

## CERTIFICATIONS & HONORS



CE Certificate by TÜV



CE Certificate by UDEM



ISO 9001



European Trademark



# HISTORY OF INNOVATION AND GROWTH

2004

Developed first RDC machine,  
Company Founded



2016

Invented satellite-type RDC machine  
with ultra-high precision up to ±0.05mm  
CCD vision system



2008

Machine re-design with movable  
RDC stations - an industry first



2017

Integrated RDC + Rotary screen printing  
Integrated RDC + Flat screen printing  
Integrated RDC + Flexographic printing  
Heat-seal pouching machine



2009

ISO9001 Quality Management



2010

Invented industry-first thermal  
graphite manufacturing process  
on an RDC machine

2018

CE certification by TÜV  
Roll-to-Roll inspection machine  
Sheet-to-Sheet inspection machine  
Sheet-to-Roll lamination machine  
Specialty RFID labels converting machine



2011

Invented ground-breaking RDC process  
for screen frame adhesives, achieving  
more than 80% material saving



2019

Integrated RDC + Pick-n-Place machine  
Integrated RDC + Laser cutting machine  
Integrated RDC + Flatbed cutting machine



2012

Sales milestone of 1000 RDC stations.  
Company HQ relocated to Weifang



HOACO Korea office in South Korea

2014

Flatbed die cutting machine  
Lamination and Sheeting machines



2020

Specialty machine for  
- Medical hydrogel consumable  
- Medical blood test cartridge  
- Hydrogen fuel cell MEA  
- Lithium-ion battery covers



2015

First overseas office established  
in Singapore



2022

HOACO Europe office in Barcelona, Spain  
HOACO Americas office in Houston, Texas



EXPERIENCE DRIVES CREATIVITY

# PRODUCTS & SERVICES



To empower our customers to convert the unimaginable, precisely

YOUR ONE-STOP  
CONVERTING SOLUTION  
PROVIDER AND PARTNER

# ROTARY DIE CUTTING MACHINES

FROM 3 TO 32 RDC STATIONS, ENDLESS POSSIBILITIES

## HOACO ROTARY DIE CUTTING (RDC) MACHINES

are the preferred solution for manufacturing multi-layered 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.

## HOACO RDC MACHINE BENEFIT

With a modern multi-stations movable design and customizable die cutting stations, HOACO RDC machines offer extreme flexibility, quick changeover, accurate registration, high precision, performance and repeatability, making it the perfect choice for high volume and tight tolerance applications.



Rotary Die Cutting Station

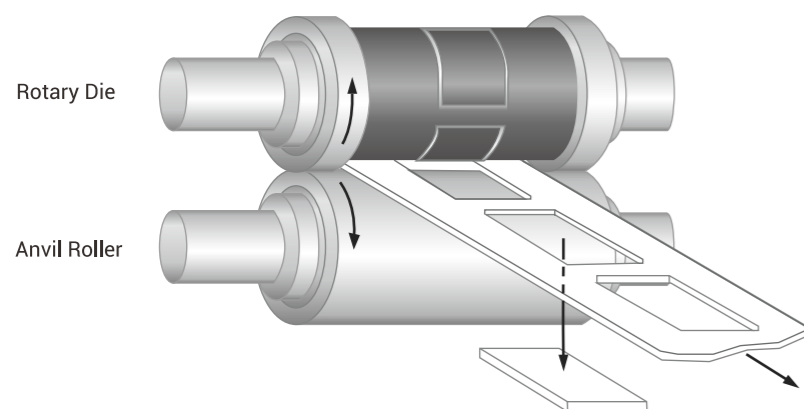


Air Shaft with Automatic Tension Control



## WHAT IS ROTARY DIE CUTTING ?

Rotary Die Cutting (RDC) operates by utilizing cylindrical dies that cut against a hardened anvil roller. Servomotors allow for precise cutting control and registration of parts. Input materials fed from unwind shafts are die cut and rewinded or supplied as intermediary parts to the next process step. RDC machines can work with a wide range of materials including plastic, rubber, paper, fabric, felt, thin metal foil, etc.



Model (W250mm)	3-Stations	5-Stations	7-Stations	8-Stations	10-Stations	13-Stations	16-Stations	20-Stations	32-Stations
Air Shafts	5	10	14	16	20	26	32	40	64
Weight (Tons)	1.5	3	3.5	4	5	6.5	8	10	15
Rated Power (kW)	9	15	21	24	30	39	48	60	96
Length (mm)	2100	3000	3500	4100	5200	6000	7000	8200	10800
Width & Height (mm)	W1700 x H2500								
Power Supply	3-Phase 380-400V								

	Optional Functions & Parts								
Data Saving	X	●	●	●	●	●	●	●	●
Dual Systems	X	X	X	X	●	●	●	●	●
HMI Language - English	●	●	●	●	●	●	●	●	●
Asynchronous Mode	X	●	●	●	●	●	●	●	●
Web Guide	X	●	●	●	●	●	●	●	●
Web Width up to 650mm	○	○	○	○	○	○	○	○	○
CCD Vision System	○	○	○	○	○	○	○	○	○
Safety Light Curtain	○	○	○	○	○	○	○	○	○

Legend: ● Default ○ Optional X Not Available

Quality Components Across All Models			
PLC Control Software	HOACO	Pneumatics	SMC, Japan
PLC Controller	Omron, Japan	Circuit Breaker	Schneider, Germany
RDC Station Servomotor	Omron, Japan	Motor Starter Protector	Siemens, Germany
Air Shaft Servomotor	Delta Electronics, Taiwan	Web Guide	TechMach / Bianfu
CCD Vision System	Delta Electronics, Taiwan	Mark Sensors	Panasonic / SICK / Keyence
Safety Light Curtain	Keyence, Japan	Touchscreen	Weinview, Taiwan

Machine Performance & Capabilities	
Max Speed	60m/min
Typical Precision	±0.15mm
Tension Control	Automatic, 1-150N
Cutter Gear Teeth	Z58-Z200
Max Roll Diameter	600mm
Web Width	250/350/450/550/650

## RDC MACHINE SERIES BY STATIONS & WIDTH

From 3 to 32 stations and W250mm to W650mm web width, we have all the proven models to meet your toughest challenges.



32-Stations Dual-Air-Shaft RDC Machine

### W250mm Series



13-Stations



12-Stations

### W350/450/550/650mm Wide-Web Series



12-Stations W350



10-Stations W450



10-Stations



7-Stations



7-Stations W550



7-Stations W650

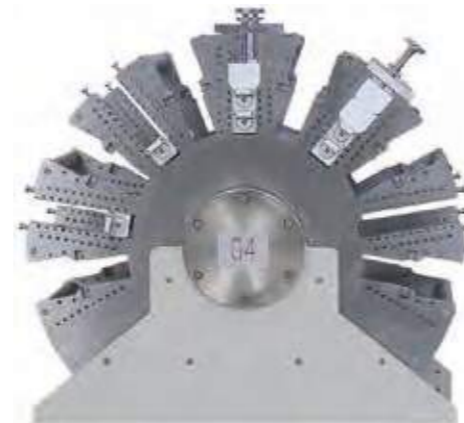
## Satellite-Type RDC Machine (RDC-SC)

Ultra-high precision by mechanical synchronization



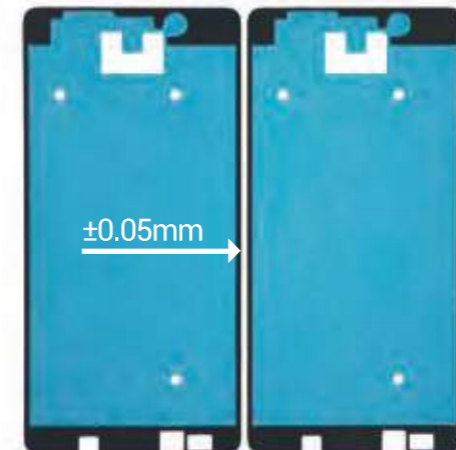
### Key Features

- ▶ Satellite-type RDC stations leverage mechanical gears to cut narrow dimensions with ultra-high precision up to  $\pm 0.05\text{mm}$ .
- ▶ Master-slave die cutting alignment controlled by mechanical synchronization through a single sun gear (Z700) with multiple planetary gears, one for each satellite station.
- ▶ Primary stations can be directly used for cutting/lamination, while secondary stations can be expanded with supporting fixture tools.
- ▶ Unified machine frame integrated with standard RDC stations for stability and precision.
- ▶ Available in 11 or 13 satellite-stations models.



### Specifications

Model	RDC-SC
Power Supply	3Phase 380-400V
Rated Power	45Kw
Sun gear teeth	Z700
Max Speed	60m/min
Max Web Width	250mm
Weight	6.5T
Dimension	L7100*W1700*H2600



## INTEGRATED RDC + LASER CUTTING MACHINE (RDC-LC)

Hybrid Capabilities Light-Years Ahead



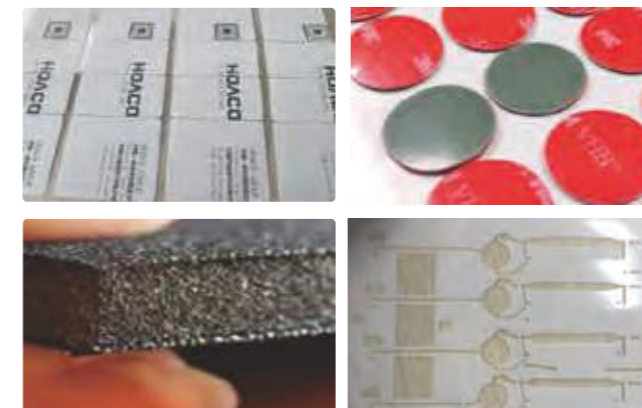
### Key Features

- ▶ Hybrid capabilities offering the best of both worlds to meet your most demanding challenges
- ▶ Operates in continuous or step motion
  - Continuous motion is most productive
  - Step motion offers better precision up to  $\pm 0.06$
- ▶ Vision registration for automatic cutting correction
- ▶ Through-cut or kiss-cut
- ▶ No dies cost, no tooling changeover downtime
- ▶ Flexibility in more complex cut geometries
- ▶ Custom-built laser control software that works with lasers of different brands

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		✓

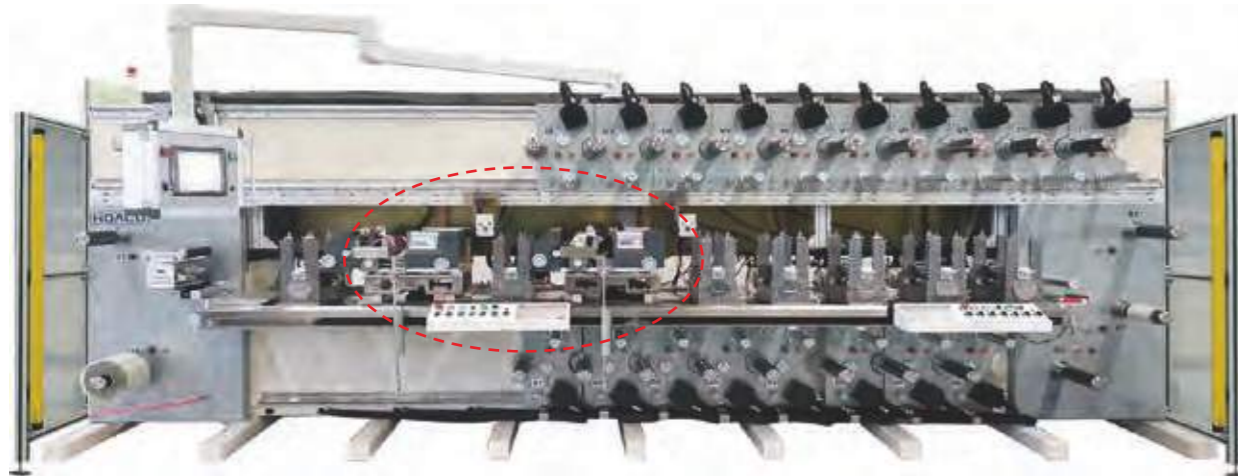
### Laser Specifications

Laser Generator	150W/250W/350W/450W
Scanner	3D Pre-focusing
Mirror	30/50/70
Wavelength	10.2um or 9.3um
Spot Size	0.1 - 0.3mm
Working Field	Up to 400x400mm
Cooling	Water (18-22°C)
Input Voltage/Current	48VDC / 90A



## INTEGRATED RDC + ROTARY SCREEN PRINTING MACHINE (RDC-RSP)

For a Lasting Impression Cut Precisely



### Key Features

- ▶ Integrated RDC + rotary screen printing machine that simplifies process steps and saves material
- ▶ High-speed continuous printing
- ▶ Movable printing units can be installed between any RDC stations to meet process requirement
- ▶ Multi-color prints are possible by installing additional printing units
- ▶ Optional corona treater for surface treatment
- ▶ Supports web width from 250mm to 1000mm
- ▶ Integrated control console

### UV Ink and LED Cure Benefits

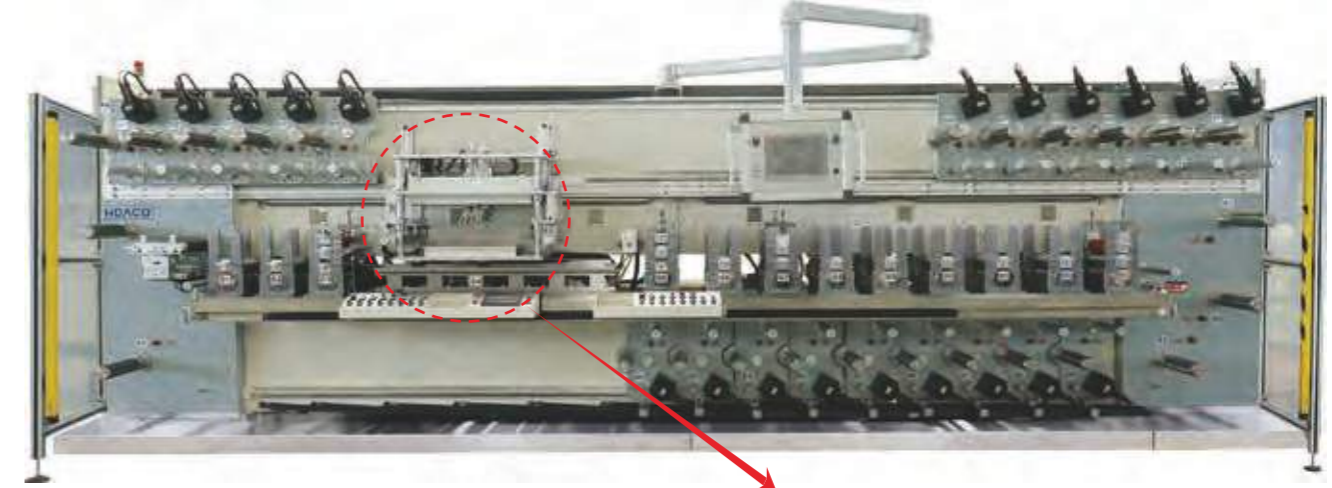
- ▶ Thin print film and low ink usage
- ▶ Instant curing and drying, eco-friendly
- ▶ Fine prints and scratch-resistant
- ▶ Cold-source LED UV light minimizes deformation of the underlying substrate
- ▶ Long service life, low power consumption
- ▶ Small form factor and easily customizable
- ▶ Automatic light intensity adjustment



### Specifications

Model	L250	L350	L450	L550	L650
Printing Width (mm)	250	350	450	550	650
Min Cylinder Repeat	304.8mm (Z96)				
Max Cylinder Repeat	609.6mm (Z192)				
Max Speed	150m/min				
Screen Mesh Count	75-400				
Ink Film Thickness	6-280um				

## INTEGRATED RDC + FLAT SCREEN PRINTING MACHINE (RDC-FSP)

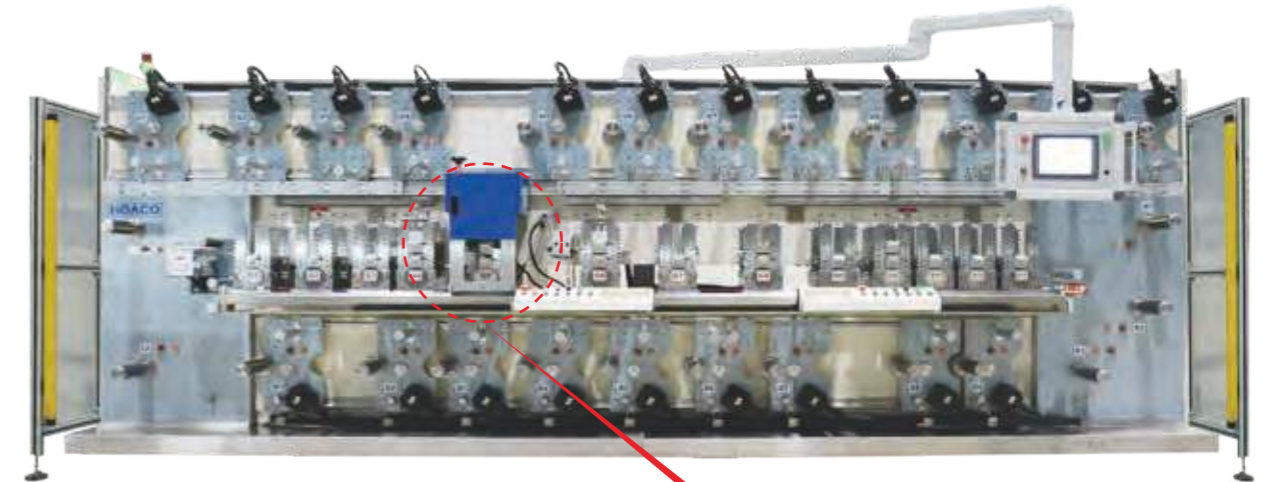


### Key Features

- ▶ Continuous printing with flat screen moving in sync with the underlying substrate web
- ▶ Medium-speed throughput and precision
- ▶ Supports UV ink or Solvent ink
- ▶ Low cost of ownership and maintenance



## INTEGRATED RDC + FLEXOGRAPHIC PRINTING MACHINE (RDC-FXP)



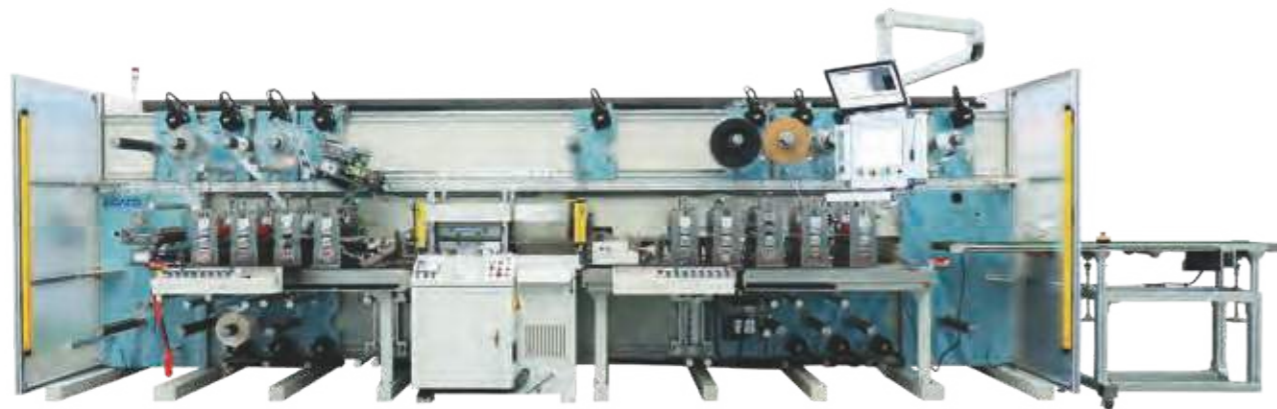
### Key Features

- ▶ Continuous flexographic printing that integrates seamlessly with RDC stations
- ▶ Space-saving design - the flexo unit can be installed on top of an existing standard RDC station
- ▶ Use UV ink with LED UV cure
- ▶ Lowest cost of ownership and maintenance





## INTEGRATED RDC + FLATBED DIE CUTTING MACHINE (RDC-FDC)

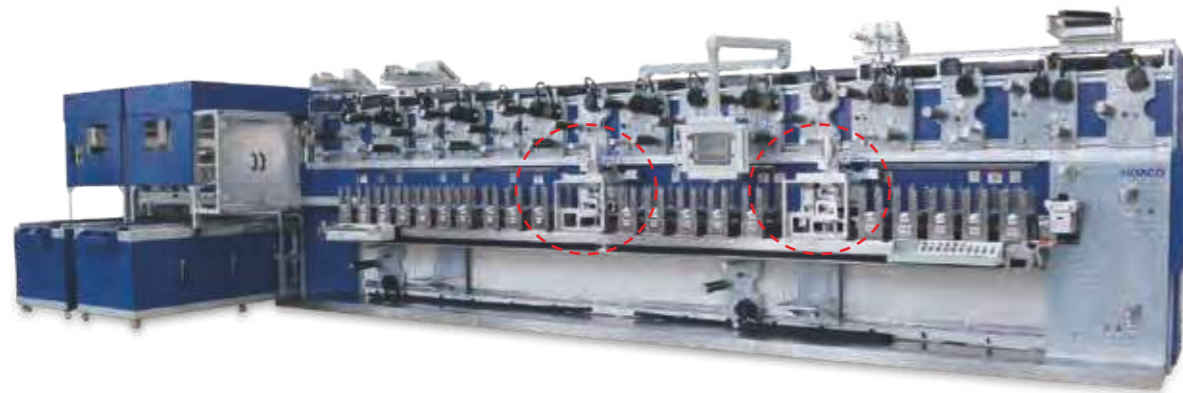


### Key Features

- ▶ Offers the best of both Rotary Die Cutting and Flatbed Die Cutting in a single machine
- ▶ Operates in continuous or step mode
- ▶ Integrated machine control
- ▶ Flexible and easy slug removal

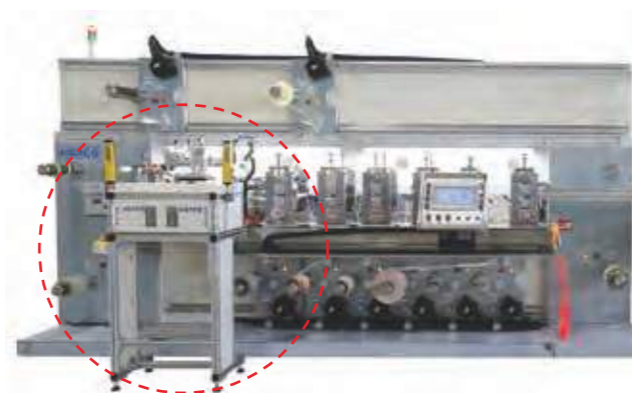
TOOLING & CUTTING	ROTARY	FLATBED
Material Thickness	Thin	Thick
Tooling Cost	High	Low
Turnaround Time	Weeks	Days
Kiss Cutting	Yes	Difficult

## INTEGRATED RDC + PICK-N-PLACE MACHINE (RDC-PNP)



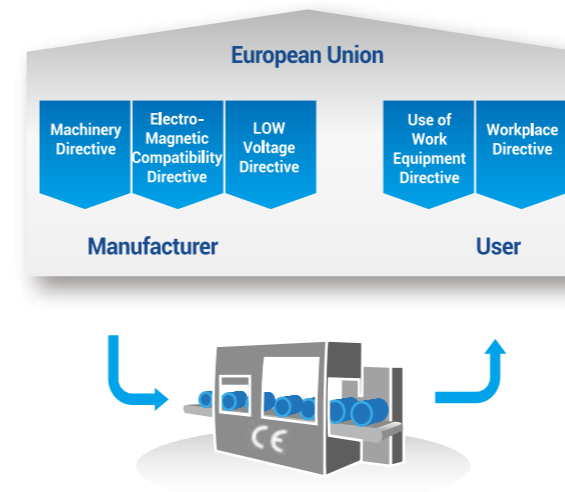
### Key Features

- ▶ A pick-n-place robot works in sync with RDC stations to allow raw materials in sheets to be laminated and cut on RDC stations
- ▶ PNP robot type: Robotic arm, Cartesian or Delta with vision system
- ▶ Incoming sheets are placed individually or in stacks with placeholders
- ▶ Operates in step mode only



## CE-Certification by TÜV

Built-in Machine Safety for a Safe Work Environment



System of Standards for Machine Safety



HOACO RDC Machines

Type A (Basic)  
Applicable to all types of machinery  
- Basic safety concepts  
- General principles for design  
- Principles of Risk assessment

**A**  
BASIC SAFETY STANDARDS

Standard RDC Model

Type B (Generic)  
Applicable to a wide range of machinery, subdivided into B1-Safeguards B2-Safety devices

**B**  
GENERIC SAFETY STANDARDS

Safety+ RDC Model

Type C (Individual)  
Applicable to a particular type of machines

**C**  
INDIVIDUAL SAFETY STANDARDS

Not Required



Safety+ Model

- Built with 100% CE-certified components
- More steps to operate but safety first
- Meets generic CE safety Standards

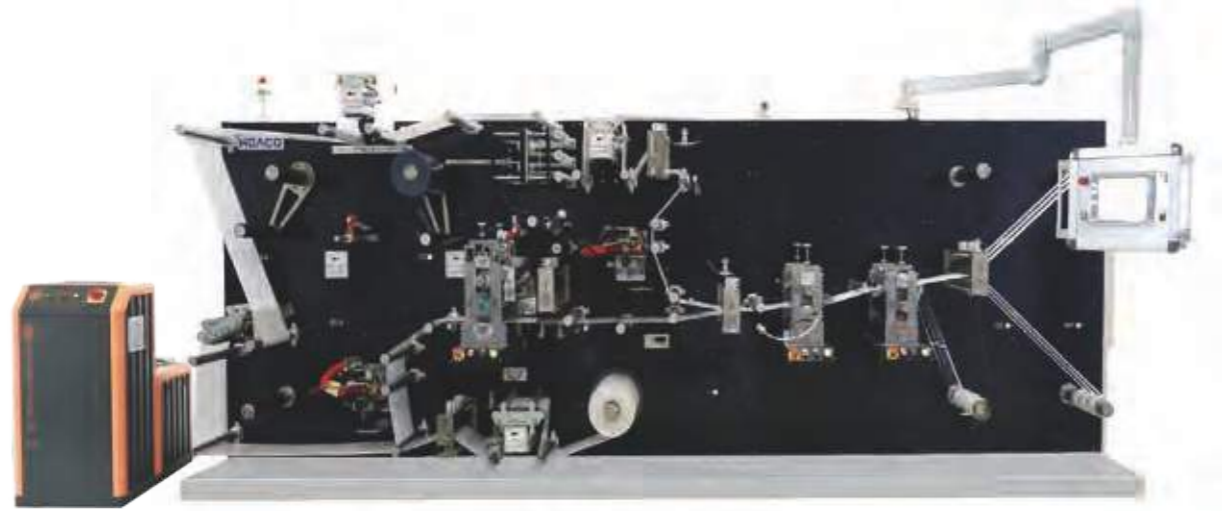


Standard Model

- Designed for functionality and price competitiveness
- More focus on ease-of-use and productivity
- Meets basic CE safety standards

FEATURES	SAFETY+ MODEL	STANDARD MODEL
CE Standards	Type B (Generic)	Type A (Basic)
Safety Controller	Standard + Safety PLC Controller	Standard PLC Controller
Servomotor	Safety Servomotors	Generic Servomotors
Safety Control	Independent safety control for each RDC station	Safety control follows 1st RDC station (cannot be disabled)
CE Certificate	Yes (by TÜV)	Yes (by UDEM)
Precision & Functions	Same	

**Purpose-Built RFID Labels Converting Machine**



**Key Features**

- ▶ Purpose-built RFID lamination and converting machine for cost-effective RFID labels production
- ▶ Inline hotmelt adhesive coating
- ▶ Vacuum-based inlay cut-n-transfer
- ▶ Mirror-folded antennas
- ▶ Speed: 60m/min
- ▶ Lamination/transfer precision: ±0.5mm
- ▶ Cutting precision: ±0.3mm



Hotmelt Adhesive Coating



Vacuum-Based Cut-n-Transfer

**RFID Label Inspection Machine**



- ▶ 100% quality check
- ▶ Operates in continuous or step mode
- ▶ Support all types of HF/UHF RFID readers
- ▶ Automatic machine stop upon detection of NG labels to allow manual replacement and re-test
- ▶ Cost-effective thermal printing for defective labels

**Applications**



Check-in Luggage Tags

**Enhanced RDC Machine for RFID Labels Converting**



**Key Features**

- ▶ Standard RDC machine with enhanced features and functionalities for flexible RFID lamination and converting
- ▶ Suitable for RFIDs of complex designs
  - More than 3 layers
  - Extra compensation layer with holes
  - High precision
  - Labels with artworks / Pre-cut inlays
- ▶ High precision up to ±0.2mm
- ▶ Inline CCD vision system for visual inspection
- ▶ Inline RFID reader for functional inspection

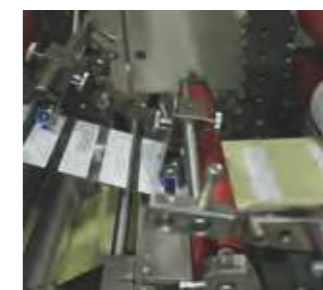
**Applications**



Inline Inspection Reader



CCD Visual Inspection



Island Placement



Folded Antenna



NG Blackmarking



Large Roll Support (600mm)

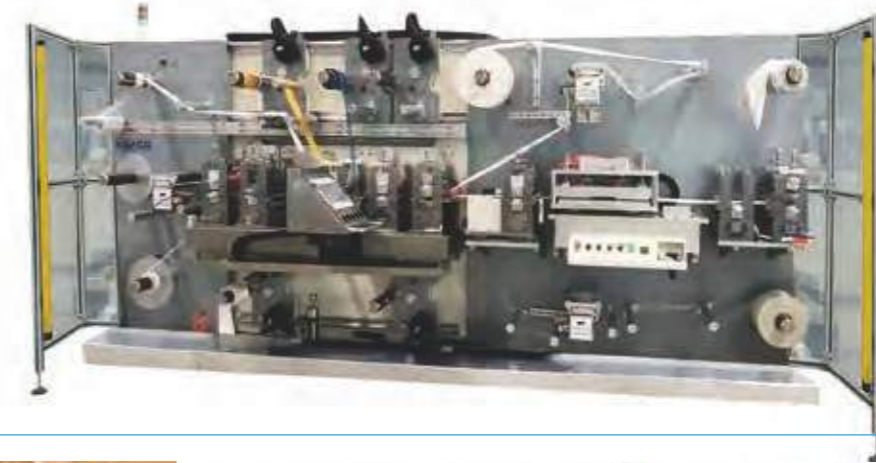
**Multifunctional Medical Consumables Machine**



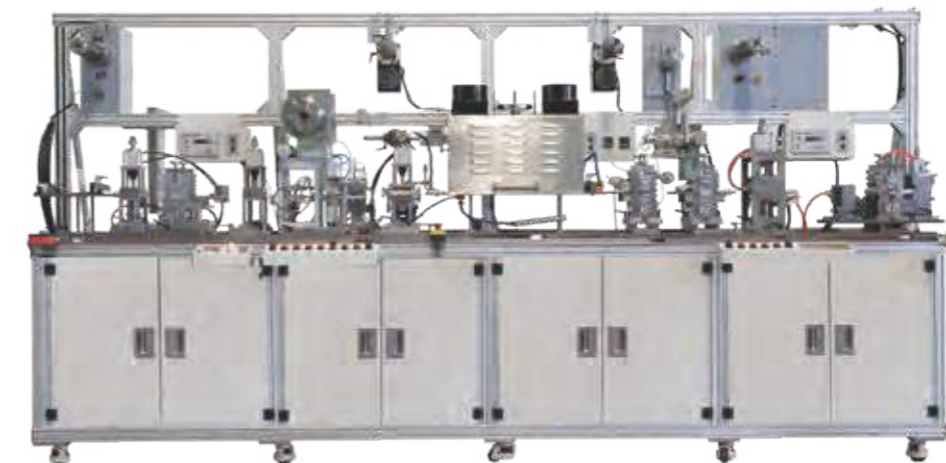
**Medical Wound Dressing + Pouching Machine**



**Medical I.V. Cannula Fixation Dressing + Pouching Machine**

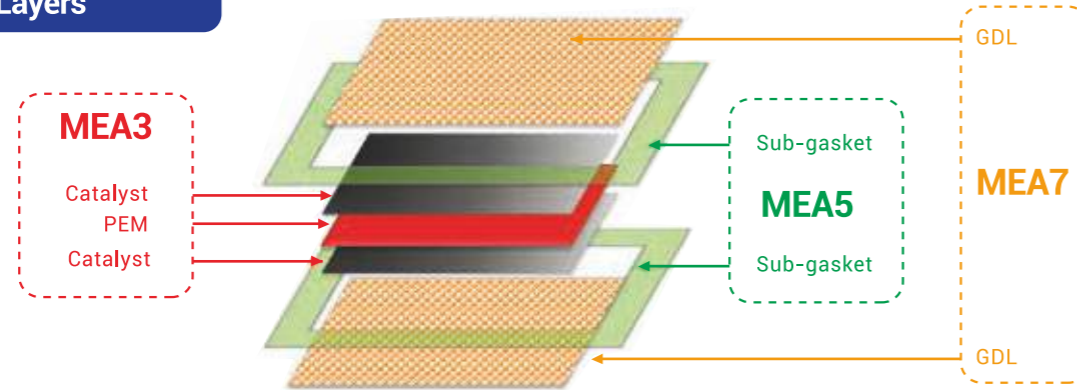


**Medical ECG Electrode Flatbed Machine**

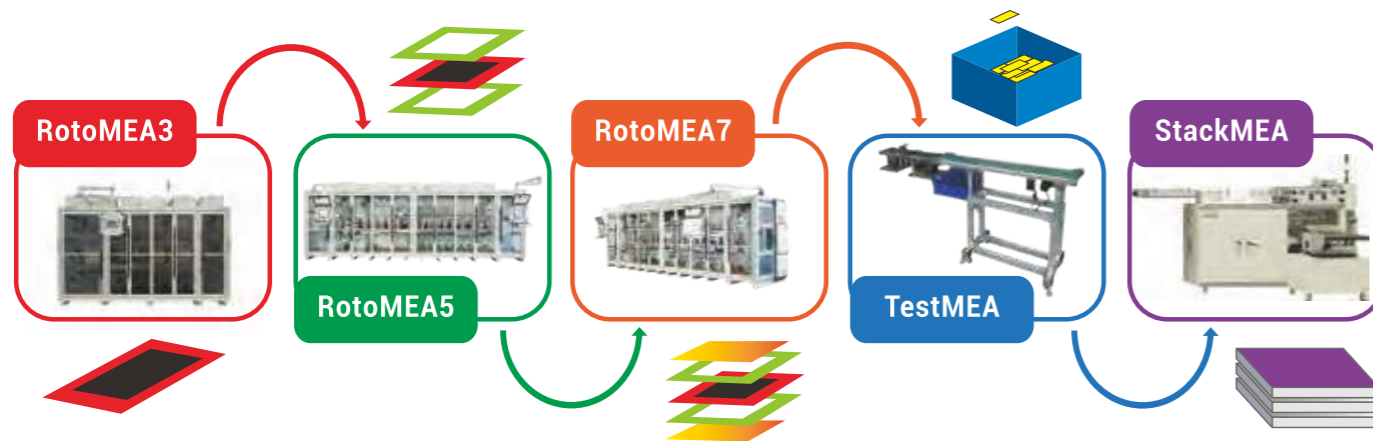




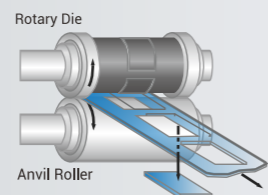
## MEA Layers



## RotoMEA Automation Series

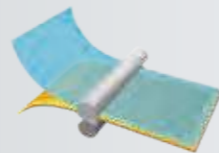


## RotoMEA Advantage



### Rotary Die Cutting

- Multiple-layers in a single pass
- High speed continuous cutting
- High precision
- Clean and smooth cut edges
- Easy slug removal
- High yield, material savings



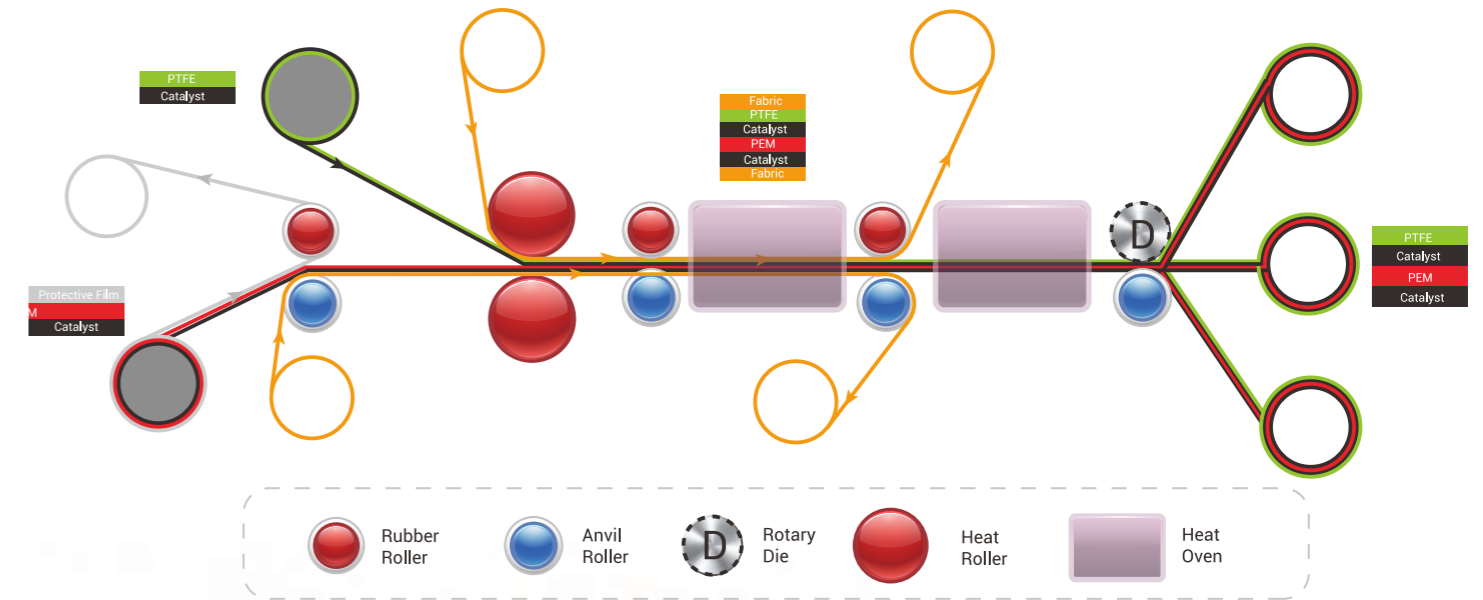
### Rolling Lamination

- Naturally Bubble-free
- Winkle-free
- Closed-loop tension control
- Heated lamination available

Converts two rolls of single-side-coated PTFE/PEM into a single roll of double-side-coated PEM (CCM) by heat-assisted decal transfer and lamination. Decal transfer temperature and duration can be accurately controlled to achieve optimal transfer result.

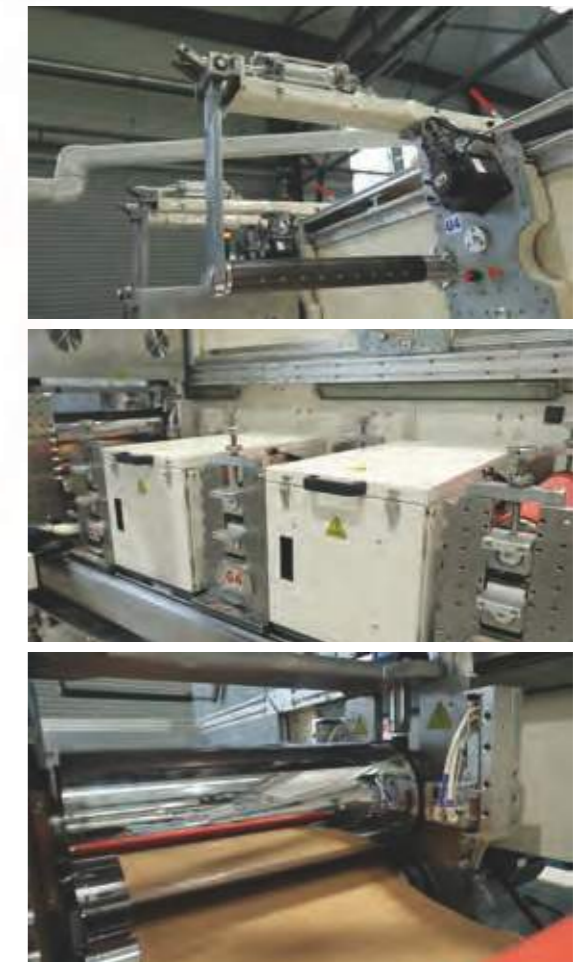
> Web width support up to 500mm

> Inline slitting for FG rolls



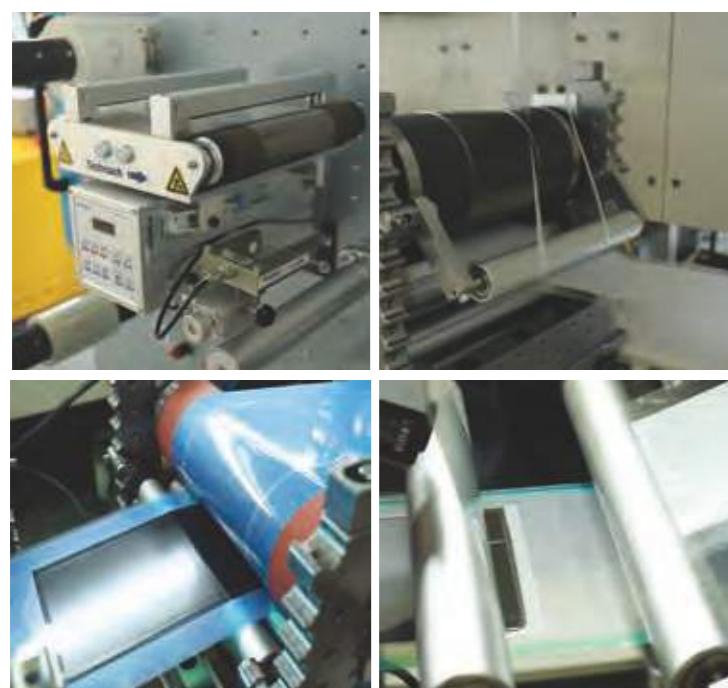
## Specification

Model	RotoMEA3
Rated Power	43kW
Dimension	L4600*W2000*H2500
Speed	≤ 1m/min
Web Width	≤ 500mm
Catalyst Layer Width	≤ 400mm
Heat Roller Temperature	≤ 250±2°C
Heat Oven Temperature	≤ 200±2°C
Web Guide Precision	±0.5mm



Cutting and laminating top/bottom sub-gasket layers to MEA3 to produce MEA5, RotoMEA5 18-stations model can add double-layer gaskets (top and bottom), while its 26-station counterpart model can attach 4-layers (top 2 and bottom 2) - all in a single pass.

- > All incoming materials in rolls.
- > Superior sealing finish, no wrinkles/bubbles.



Specification

Model	RotoMEA5
Rated Power	63kW
Dimension	L7100*W1700*H2600
Speed	Up to 10m/min
Web Width	≤ 250mm
Heat Roller Temperature	≤ 250±2°C
Cutting Precision	±0.15mm
Gasket-to-Gasket Precision	±0.3mm
Gasket-to-CMM Precision	±0.4mm
Web Guide Precision	±0.5mm
Rotary Die Lifespan	2Mil Rotations

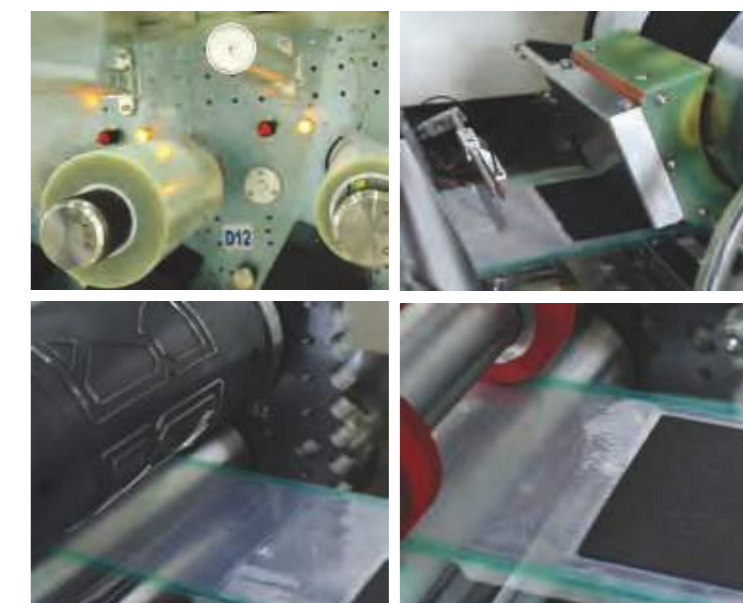
RotoMEA7 attaches top and bottom GDL layers to produce the final MEA assembly in sheets. Heat rollers are used when necessary to trigger heat-activated adhesive on GDL and improve lamination result.

- > FG in sheets
- > Supports GDL with hotmelt or PSA adhesive.



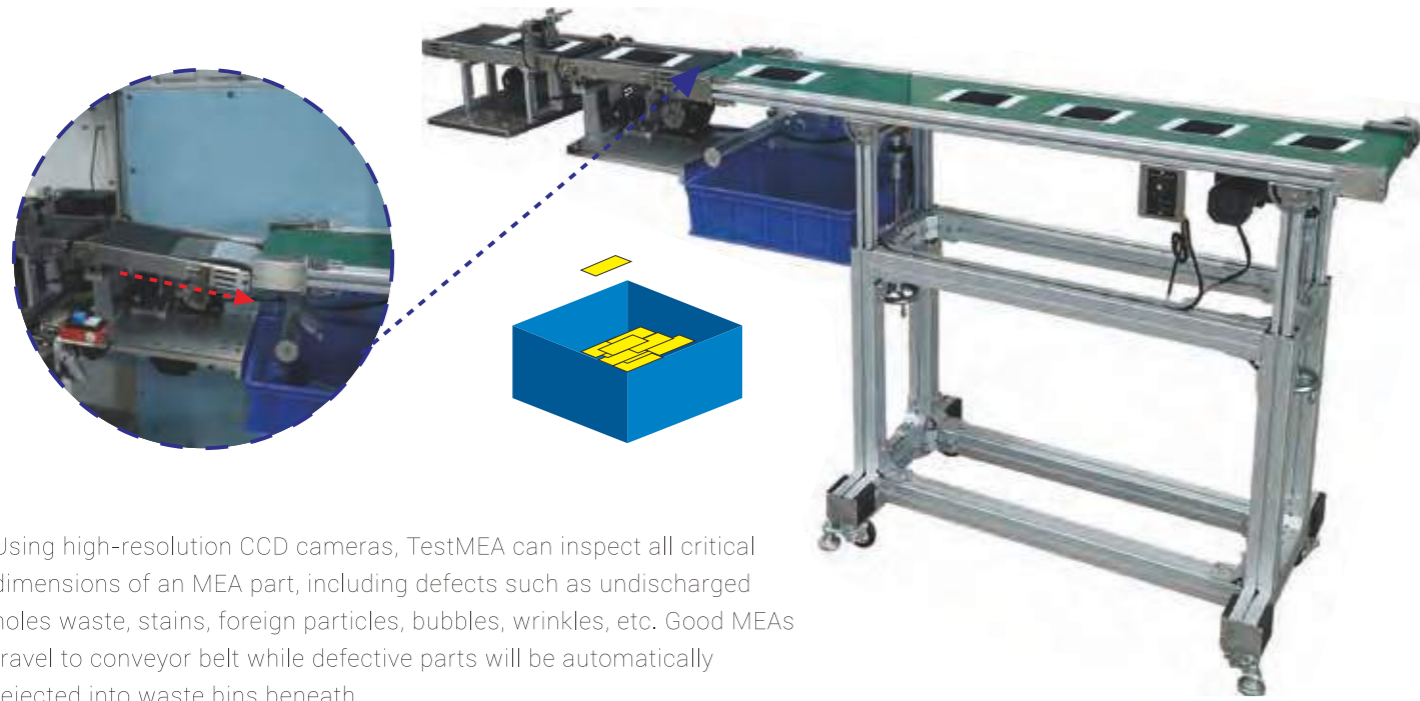
Specification

Model	RotoMEA7
Rated Power	55kW
Dimension	L7100*W1760*H2500
Speed	Up to 10m/min
Web Width	≤ 250mm
Heat Roller Pressure	1-20N
Heat Roller Temperature	≤ 250±2°C
Cutting Precision	±0.15mm
GDL-to-GDL Precision	±0.3mm
GDL-to-Gasket Precision	±0.4mm
Web Guide Precision	±0.5mm
Rotary Die Lifespan	2Mil Rotations





## TestMEA (Visual MEA Inspection)



Using high-resolution CCD cameras, TestMEA can inspect all critical dimensions of an MEA part, including defects such as undischarged holes waste, stains, foreign particles, bubbles, wrinkles, etc. Good MEAs travel to conveyor belt while defective parts will be automatically rejected into waste bins beneath.

## GDL Glue Dispensing Machine



With incoming GDL in rolls, the machine can dispense non-continuous glue droplets onto the GDL first, followed by inline sheeting to produce GDL with adhesive in sheets.



## StackMEA (Stack Up MEAs for Packaging)



Good MEA7 parts travel to StackMEA machine through a conveyor belt. Sensors on StackMEA keep track of when and how many MEA parts are coming, sort and stack them up for easy packaging.

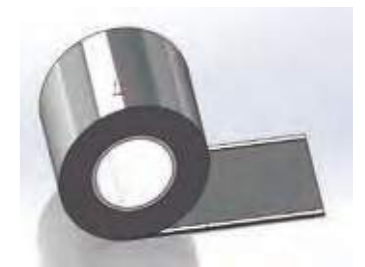
- > Number of parts in each stack is configurable.
- > Automatically handles MEAs of varying dimensions



## GDL Glue Coating Machine



The machine prepares the GDL roll ready for use on RotoMEA7 by coating two strips of glue along GDL edges.



## Flatbed Die Cutting Machine (HXM)

Servo-Driven Precision



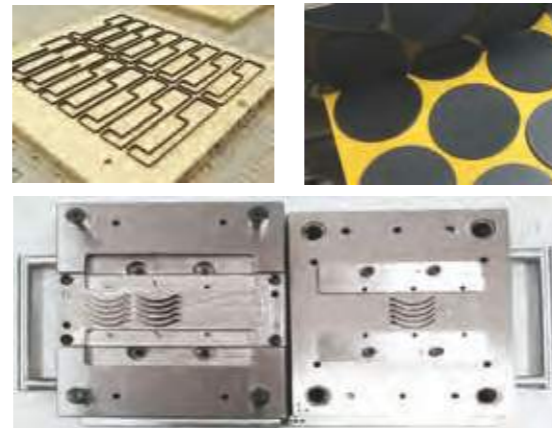
HXM-2



HXM-4

### Key Features

- ▶ Servo-driven precision up to  $\pm 0.03\text{mm}$
- ▶ Cleanroom-friendly
- ▶ Through-cut or kiss-cut
- ▶ Roll or sheet feeding
- ▶ Parts registration by sensor or camera
- ▶ Quick tooling change
- ▶ Low noise, gentle vibration



### Specifications

MODEL	HXM-2	HXM-4
# of Support Post	2	4
Speed	300 times/min	200 times/min
Cutting Force	50kN (5 ton)	120kN (12 ton)
Platen Size	200 x 180mm	420 x 320mm
Ram Stroke	24mm	28mm
Standard Daylight	105mm	115mm
Feeding Precision	$\leq 2\%$ mm	$\leq 2\%$ mm
Dimension	L1200 x W910 x H1250mm	L1450 x W1500 x H1450mm
Weight	1.0 Ton	2.3 Tons
Power	3P5W 380-400V, 6KW	3P5W 380-400V, 11KW
Safety	Safety Curtain, CE Certified	
Compressed Air Pressure	0.55-0.65Mpa	
Operating Modes	Jog   Single   Continuous   Project	
Tool Acceptance	Steel Rule, Male/Female Reciprocating, Flexible "Chem-Etch"	

## Lamination Machine (HXF)



HXF 232



HXF 343

- ▶ For lamination and auto waste discharge of multi-strip, multi-layer tapes and liners
- ▶ Independent speed and tension control of stations and shafts
- ▶ Flexible waste discharge

MODEL	HXF-232	HXF-343
Laminating Stations	2	3
Unwind/Rewind Shafts	3 / 2	4 / 3
Speed	30m/min	
Web Width / Diameter	W300 / $\varnothing 350$	
Dimension	L1610 x W920 x H1430	

## Sheeting Machine (HXQ)



HXQ-2



HXQ-4

- ▶ Specialized equipment used for converting tape rolls into sheets
- ▶ Sheeting by registration or fixed length
- ▶ Automatic counting
- ▶ Automatic stacking

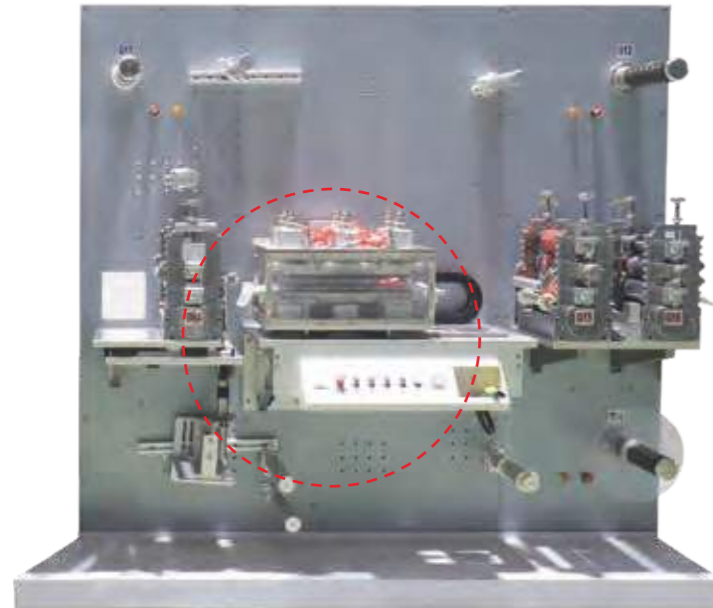
MODEL	HXQ-2	HXQ-4
Sheeting Speed	180 pcs/min	110 pcs/min
Precision (as % of set length)	0.4%	0.2%
Web Width	200mm	420mm
Weight	280kg	350kg
Dimension (LxWxH)	660 x 400 x 1300	1350 x 650 x 1500

# PACKAGING MACHINES

# CONVEYORS AND STACKING MACHINES

## Reciprocating Heat-Seal Pouching Machine

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



### Specifications

RDC Station	3
Air Shaft	2
Web Guide	Optional
Max Speed	20m/min
Temperature	30 - 180°C
Web Width	250 or 350mm
Dimension	L2100*W1120*H2000



## Conveyor Belts



Standalone Single-Belt



Integrated Dual-Belt Conveyor



Adjustable-Height Single-Belt



Standalone Dual-Belt Conveyor with Counting and Stacking Function

## Stacking Machine

Receives FGs in sheet, stack and place into trays





## Roll Inspection Machine

Standalone visual inspection of products in rolls - one air shaft for unwinding, and another for rewinding. Inspection type can be dimensional measurement, appearance check or defects detection.



## Sheet Inspection Machine

Standalone visual inspection of products in sheet form. Inspection type can be dimensional measurement, appearance check or NG detection.



1 Sheet Pickup from Stack



2 Turntable Rotation



4 Pass/Fail Bin Holders



3 Image Capture and Analysis

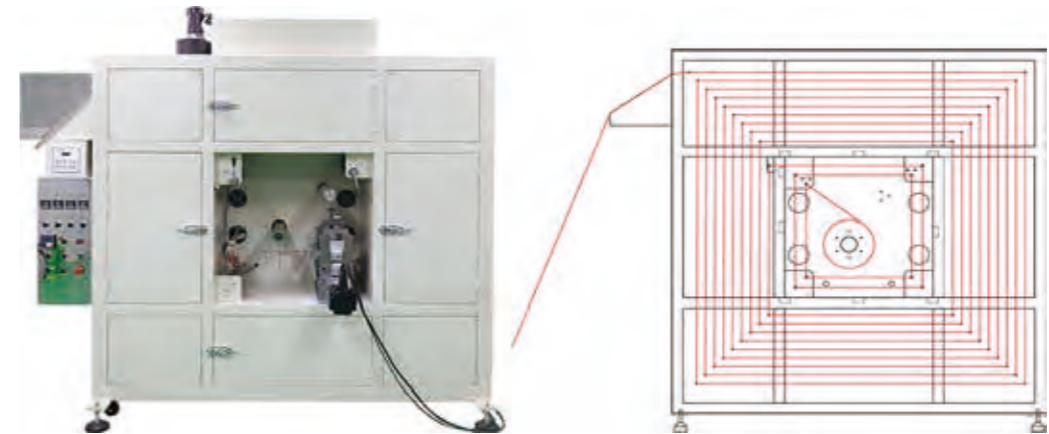
## Coating Machine

The machine leverages rotary screen printing technology to coat ink on the underlying substrate. Coating thickness and smoothness can be easily controlled by speed and screen mesh count.



## Oven Drying Machine

This machine maintains a configurable temperature inside an insulated oven space to dry inks. Total film inside the oven can be wound up to 75m in length to allow sufficient drying time.



## Applications



# CCD VISION SYSTEM

# A NEW ERA OF HIGH-RESOLUTION VISUAL INSPECTION

## CCD System Configuration



CCD vision system is optional on HOACO RDC machines, but strongly recommended to achieve a higher degree of precision, automatic tuning and greatly improve yield.

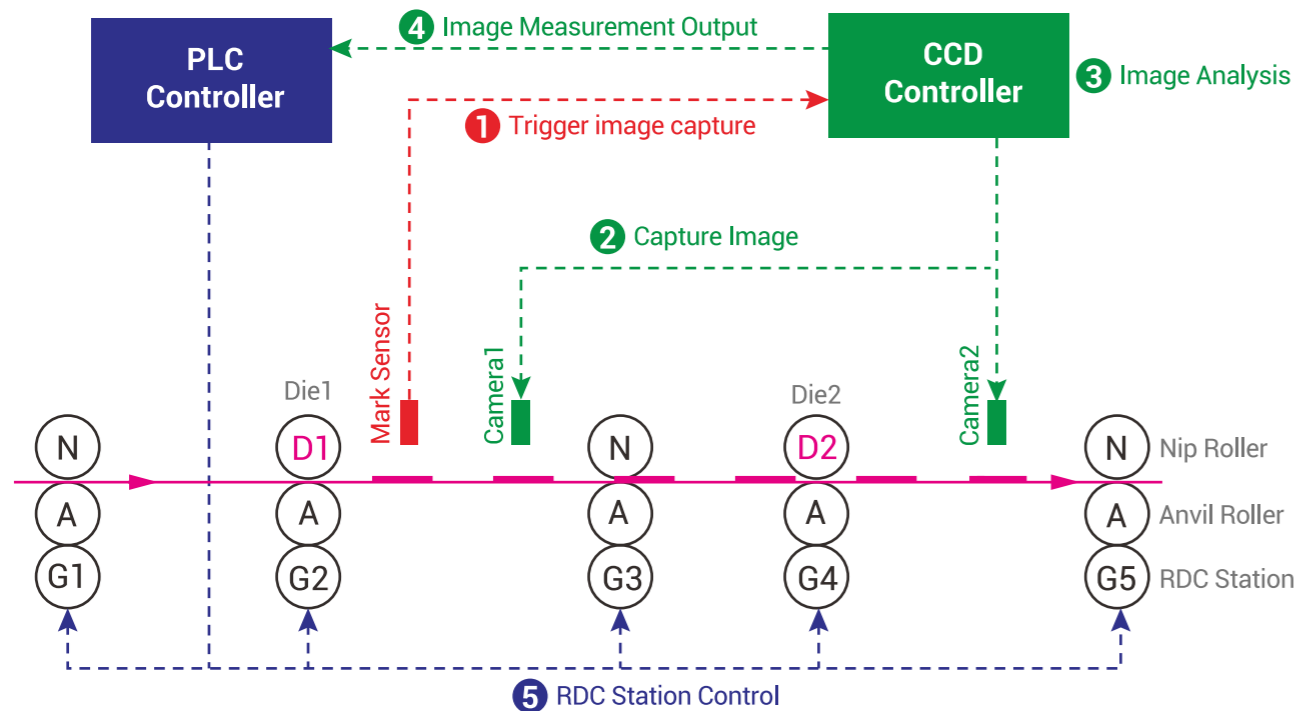
### CCD Vision System Benefits

- ▶ Automatic machine pause after continuously # of NGs
- ▶ Measure delta values of positioning cross marks cut by master and slave dies, so as to automatically tune the slave die to be in sync with the master
- ▶ Triggering of blackmark printing for NG parts
- ▶ Recording of measurement data for offline analysis

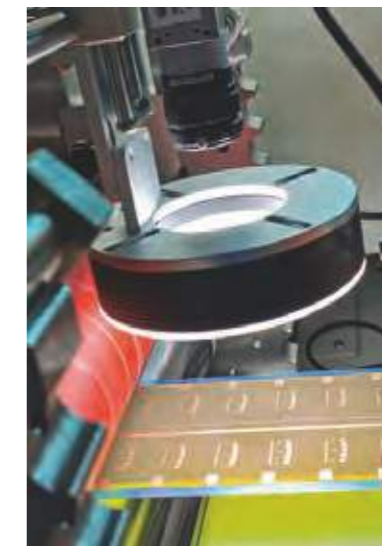


PLC-CCD Inter-Connect Settings

## PLC-CCD Interconnect



Cameras, Lens and Mounting Brackets



Top LED Light



Bottom LED Light



CCD Vision Software - Processing, Output & Analysis

# PARTS & TOOLS

The art is in the detail, and HOACO understands a quality machine starts with precision parts. Every machine part must pass stringent internal QC inspection before installation. Our RDC machines are built with mostly standard quality parts and accessories to deliver to our valued customers high-performance high-precision RDC machines at best value.

Most parts and accessories can be ordered separately as field-replaceable units. Let us know if you wish to order for replacement or as spares. Custom-made parts can also be designed and built upon request.

## RDC Station Parts



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)



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

# YOUR TOOLKIT FOR SUCCESS



Adjustable Bearing Block



Bearing Block



Pressure Spindle



Pressure Gauges



Pressure Block



Gears



Cleaning Roller for Rubber Cylinders



Cleaning Roller for Incoming Tapes



Station Height Extension Block



Relief Spring



Axis Flex Coupler



Roller Washer

## Air Shaft Parts



Automatic Air Shaft



Manual Air Shaft



Differential Air Shaft



Sleeve Shaft



Air Shaft Core Adapter



Lug-Type Core Adapter



Ring-Type Core Adapter



Roll Flange



Roller Clamp



Air Shaft Clamp



Air Gun



Pneumatic Connector

## Electrical Parts



Color Mark Sensor



Thrubeam Sensor



Proximity Sensor



LED Light



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



Control Panel



ESD Eliminator



ESD Brush



Inkjet Printer



Corona Treater



Speed Encoder



Transformer



Omron PLC Controller



Omron Servomotor and Driver



Delta Servomotor and Driver



Circuit Breaker

## Rotary Dies

Being a rotary die cutting machine supplier, we know better the importance of quality rotary dies than anybody else. HOACO has the full capabilities to design and fabricate all types of high precision rotary dies to better serve our customers with quality and quick turnaround time.



### Solid Rotary Dies

The most commonly used rotary dies with outstanding hardness, precision, wear resistance and long life. Once blunt, the die can still be re-sharpened and reused up to 3 times.

### Pin-Eject Dies

Cut with easy slug removal. Holes waste is pushed out by retractable pins and carried away by an underlying process tape. No air, no noise, just a clean finish.



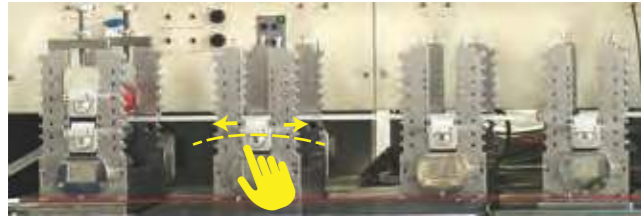
### Vacuum Dies

Made hollow inside the tool body, vacuum dies have through holes on the body to allow holes waste extracted out by vacuum, through a vacuum hose connected to the shaft.

### Heat Dies

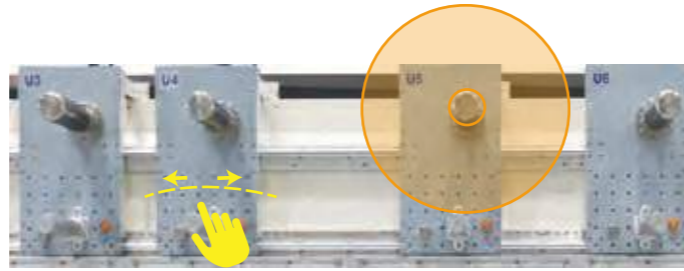
Some materials, such as fabric cloth and rubber, cuts better under elevated temperature. A heating cutter is specially designed to cut at high temperature for an optimal converting finish.

## MECHANICAL ADVANTAGES



### From 3 to 32 Movable RDC Stations

Probably the only RDC machine with movable stations in the converting industry, offering you the ultimate flexibility in process setup, and the possibility of installing additional subsystem in between stations. The choice and possibility are yours.



### Movable Air Shaft with Large Roll Support

Other RDC machines offer either movable shafts or large roll support, but not both. On HOACO machines, you can enjoy the convenience of both features. Thanks to our innovative air shaft panel design with rear-attached motor yet still movable.



### Flexible Process Setup

- 1) Screw holes for easy attachment of rollers/brackets
- 2) Arcs on the side for quick install and removal of rollers
- 3) Screw holes to easily install extra idler rollers, web guides or movable air shafts
- 4) Single button controlling shaft start/stop, inflate/deflate



### Sliding or Suspension-Arm HMI Console

Operating an RDC machine requires constant interaction with the machine's HMI console. Whether it is a sliding design for small machines or suspension-arm design for large machines, the console is always in your arm's reach to have you in control.



### The Entire Machine on a Single Base Frame of PWHT (Post Weld Heat Treatment)

RDC stations are heavy but require precise mechanical construct to guarantee station-to-station mechanical precision. Over the long run, even the slightest deformation of the base frame will lead to unacceptable loss of cutting precision. Hence our HOACO machines are always built on top of a single unified PWHT-treated (Post-Weld Heat Treatment) steel base frame to lay the machine's foundation for accuracy, durability and repeatability over extended heavy-duty use in the long run.

## ELECTRICAL ADVANTAGES



### Easy-to-Use Touchscreen HMI Console

Configure all settings through intuitive touchscreen

- Main - Home screen showing overall machines status
- Stations - Start/Stop, CW/CCW, Speed Ratio, Sync/Async
- Shafts - Start/Stop, Inflate/Deflate, CW/CCW, Alarm Diameter
- Function - Async, Cut-to-Mark, Async Laminate, etc
- Others - Gears, Yield, Data Save/Retrieve

That is about 90% of what you need to learn to operate a HOACO RDC machine like a pro. Extra settings will be required only when optional systems are installed, such as CCD vision system.

### Best-of-Breed Motion Control Software

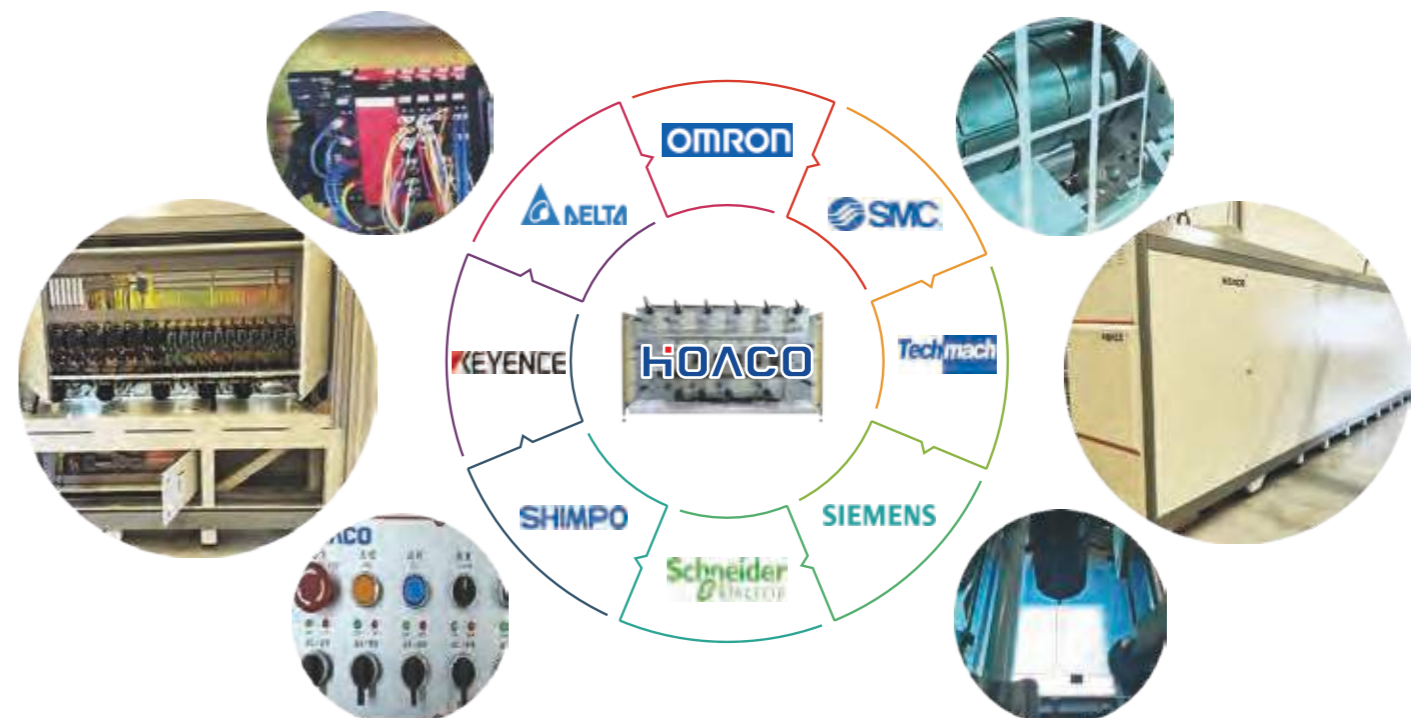
- ▶ Proprietary machine control software embeds 18 years of RDC converting experience representing the best-in-class functionalities, performance, precision and process control
- ▶ Automatic station-to-station synchronization control
- ▶ Automatic air shaft tension control and material shortage alarm
- ▶ Simple yet powerful touchscreen-based HMI interface
- ▶ Remote access for remote troubleshooting and support
- ▶ Built-in safety control meeting CE standards

### Dual Systems

#### Run a single machine like two machines

- ▶ Dual systems allow production of two different products, operated by two operators at the same time without interference. This improves machine utilization, saves customer investment and factory footprint.
- ▶ Only for 10+ stations machine

### Premium Components, Top-Notch Finish, Quality Assured



# Applications



Labels & RFID



Electronics



Medical & Cosmetics



Automobile

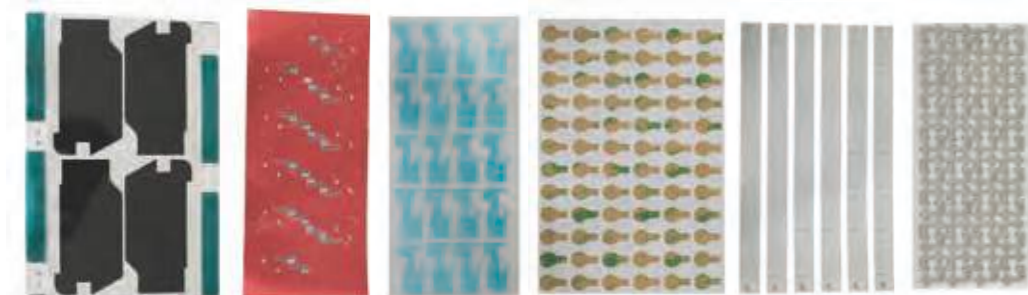
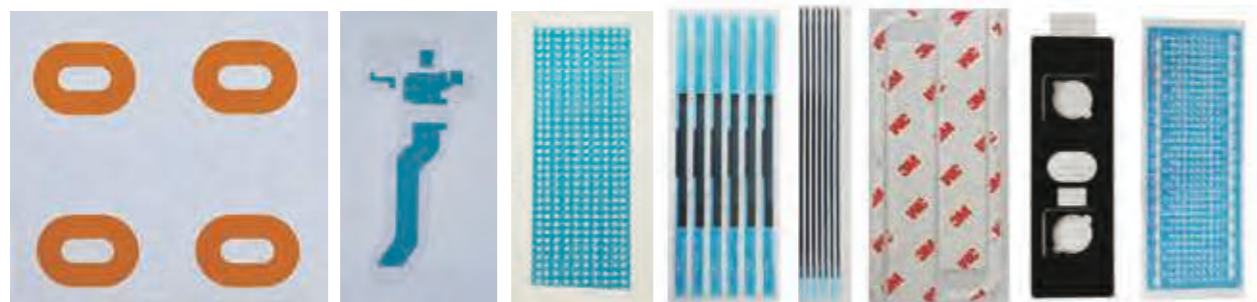


Printing & Packaging

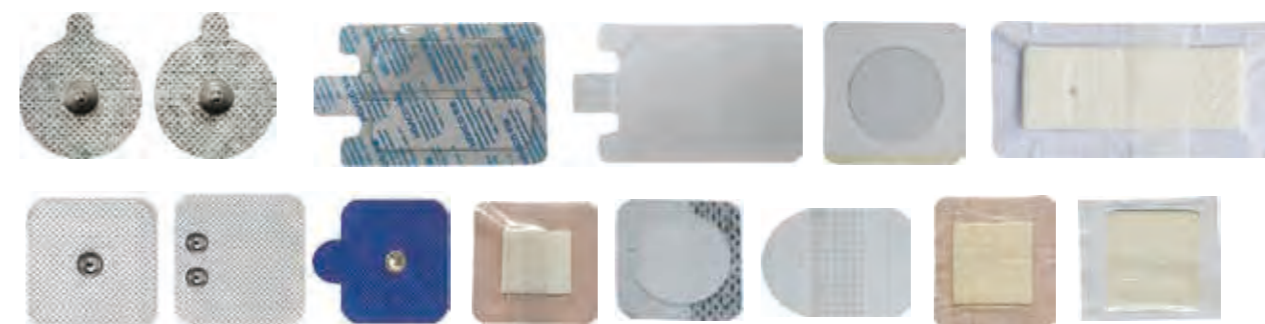
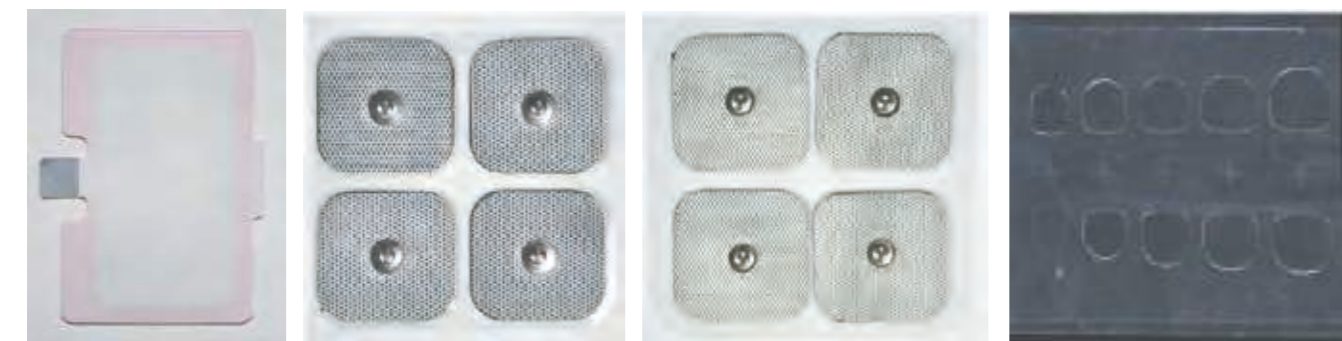


Clean Energy

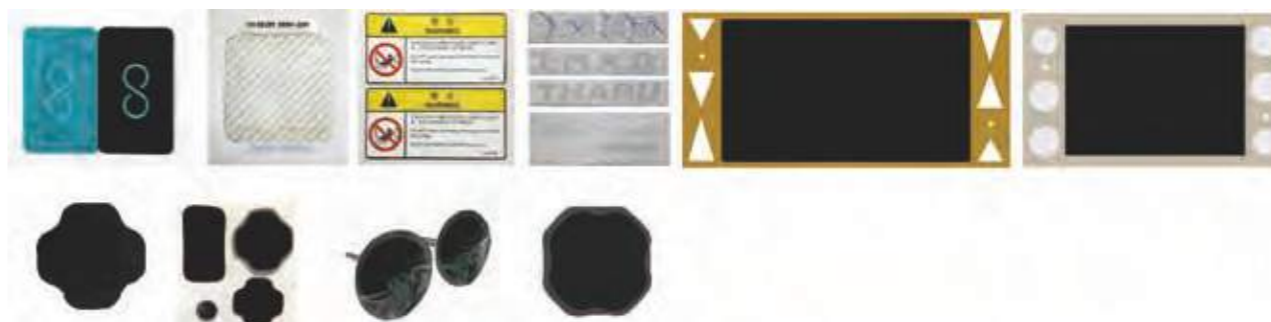




### Medical & Cosmetics



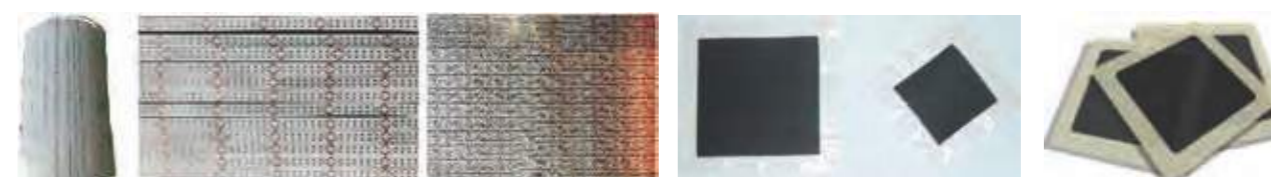
### Automobile



### Printing & Packaging



### Clean Energy





# Global Service Network



- HOACO Group of Companies
- Global Customers

