

## WINDOW PATCHING



OPEN THE WINDOW FOR FUTURE PACKAGING INDUSTRY





# HISTORY OF THE POST-PRESS INDUSTRY

MANUAL OPERATION
MECHANICAL OPERATION
HUMANIZED
AUTOMATIC OPERATION

#### **HIGH SPEED**

Speed is highlighted by both the upgrading of window-patching equipment and the different requirements of different customers. Hengtong has achieved improvement in speed and quality of window patching equipment. Also, the requirements over processing equipment and precision are more and more demanding. To meet such requirements, modern methods are employed in designing and manufacturing products.

#### **HUMANIZATION**

Humanization is featured in the design of post-press equipment.
Based on customer experience, humanization is embodied throughout the design of products by combining the engineering, ecological and aesthetic considerations.
With humanized design, Hengtong post-press processing equipment is pleasing to eye, easy to operate, safe to people and friendly to environment.











#### **FLEXIBILITY**

During the long-time development of window-patching equipment, Hengtong pays more attention to improvement of product functions and flexibility. Our design allows for flexible configuration and functional reserve. Some parts may be added or reduced. With reserved functions available, the specific requirements to different customers can be satisfied.

#### **INTELLIGENCE**

With intelligent automation,
Hengtong window-patching
equipment is operated and
controlled by itself with the given
procedures or instructions. With
artificial intelligence, our equi
ment can sense, think, judge and
act perfectly while it is working. For
that purpose, imported products,
industrial benchmark products
and excellent servo control system
are used to ensure intelligence
and stability.

#### **DIGITAL**

Nowadays, nearly all advanced postpress equipment is controlled by computer. It has quality monitoring devices, so that adjustment and control can be achieved automatically with the programs in the computer control system. Alternatively, with network access via the interface, information may be transformed as instructions, which facilitates pre-press, in-press and post-press integration by applying CiP3 and CIP4. Therefore, the whole process of printing can be digitized, which helps improve efficiency, control production process, guarantee product quality, improve precision and reliability, and lower impacts of external environment.



#### Window Patching Machine

Wildly used for all kinds of box window film patching. For example: food box, tissue box, medicine box, etc.



#### **Express Envelope Making Machine**

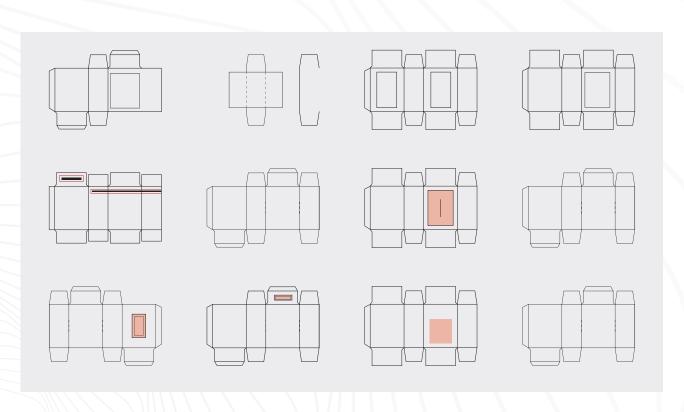
Full-Automatic Express Envelope Making Machine is special designed machine to produce EMS, UPS, DHL,Shunfeng Express envelope etc.



Chinese & Western Style Envelope Making Machine with related Machines

Chinese & Western Style Envelope Making Machine as well as film patching, offset etc.

#### **WINDOW STYLES**



#### IC ZKT-890A/1200A

Models IC ZKT-890A/1200A Full Servo Window Patching Machine



- 11 Sets of Servo Full Motion Intelligent Control
- Horizontal Cut Film
- Air Expansion Shaft With Magnetic Powder Tension Film Unwinding
- Batch Counting of Papere Receiving Tape
- Multi-function Can Be Used For Normal Pasting, V-cut & Creasing Line Products
- Automatic Deviation Correction System
- Double Sheet/Empty Sheet Automatic Glue Lifting
- High-precision Point-to-point Positioning
- Paper Jam Automatic Stop
- Printed Flim Side Tracking
- Punch Holes on The Flim (Optional)
- Horizontal Film Corner Cut & Creasing Line (Optional)
- Some Special Shaped Window Customization (Optional)



#### IC ZKT-890A/1200A

Models IC ZKT-890A/1200A Full Servo Window Patching Machine

#### STRUCTURAL CHARACTERISTICS

#### 01

The whole machine adopts intelligent motion control system (a total of 11 sets of servo systems) and man-machine interface. The close cooperation between the servo and the photoelectric sensor enables the deviation of the product to be effectively monitored and corrected at each parts, and finally make the high quality products that customers need.



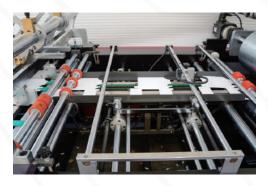
#### 02

The paper feeding part adopts servo photoelectric to feeding paper, input the length and speed on the touch screen, so that make the paper feeding is fast and accurate. Suitable for cardboard and corrugated paper with laminating, reverse UV, nano UV, oil and water varnishing. In addition, the punching part is reserved, which is suitable for paper output smoothly of thin paper and slightly warped paper.



#### 03

The pin paper-feeding part adopts servo control, which can be operated directly on the touch screen, it can change the angle to adjust the connection speed between the paper and the pin, so that make different papers can be fed more stably and smoothly.



#### 04

The suction and conveying part adopts a combination of servo and blower, which can change the wind force according to different paper specifications, so that make the paper was always adsorbed on the conveyor belt stably.



#### IC ZKT-890A/1200A

Models IC ZKT-890A/1200A Full Servo Window Patching Machine

#### 05

The gluing part is composed of servo motor, cylinder, photoelectric, solenoid valve, 304 stainless steel roller, glue separating guide plate, side limiter and gluing roller, which can be easily pulled out for setting and cleaning conveniently. Adjustable glue separating guide plate to control the glue range and outflow volume. After stopping machine, the cylinder can lift the gluing roller and drive it with another independent servo motor to avoid the glue from solidifying. The gluing roller can freely adjust its position axially and radially without stop the machine. Once meet with double sheets or empty sheet in the gluing part, the gluing part have the function of lifting glue, which prevents the glue from contacting the suction belt effectively.



#### 06

The film cutting and film with corner cutting and creasing parts are controlled by servo motor and automatic deviation correction, with high precision. This machine can produce normal pasting, single or double corner cutting and creasing, horizontal corner cutting and creasing (optional), and customization of some special-shaped windows (optional). The film mechanism also adopts servo control, which can be jogged as a whole, fine-tuned left and right, and quickly aligned with the window.



#### 07

The film feeding part uses an air expansion shaft to load the film, and automatically corrects the deviation to keep the film feeding in a straight line. The automatic tension function will always change the tension according to the diameter of the roll of film, making the servo film feeding more stable, eliminating stretching and reducing inertia. At the same time, it is also equipped with the function of printed film side tracking and stop due to lack of film.



#### 08

The collecting part has the counting function, which can be counted in batches, and has automatic machine stop function when has paper jam.



#### IC ZKT-890/1200

Models IC ZKT-890/1200 Full Servo Window Patching Machine





## CONFIGURATION

Servo System: China Inovance/China Taiwan DELTA/Japan YASKAWA

Motion Controller: China Inovance

Frequency Converter: China Inovance

Power Switch: China CHINT/France Schneider

Switch Button: China CHINT/France Schneider

Color Mark Photoelectricity: German JEELON/ German SICK

Photoelectricity Switch: Japan Omron

Model	IC ZKT-890	IC ZKT-1200
Machine Speed (Normal Pasting)	4000-36000pcs/h	4000-26000pcs/h
Paper Width	140-800mm	140-1100mm
Film Width	40-450mm	40-500mm
Paper Length	120-780mm	120-780mm
Film Length	60-400mm	60-400mm
Thickness of Film	0.03-0.25mm	0.03-0.25mm
Pump Power	4.5KW	4.5KW
Machine Power	17KW	17KW
Machine Weight	2300KG	3000KG
External Dimension	6200×1650×1950mm	6200×2150×1950mm

- 9 Sets of Servo Full Motion Intelligent Control
- Rotary Knife Cutting Film
- Air Expansion Shaft With Magnetic Powder Tension Film Unwinding
- Batch Counting of Paper Receiving Tape
- Automatic Deviation Correction System
- Tissue Box Film Middle Cutting Function
- Double Sheet/Empty Sheet Automatic Glue Lifting
- · High-precision Point-to-point Positioning
- Paper Jam Automatic Stop
- Printed Film Side Tracking
- Punch Holes On The Film(Optional)

#### IC ZKT-700/1080

Models IC ZKT-700/1080 High Speed Window Patching Machine

#### STRUCTURAL CHARACTERISTICS



## CONFIGURATION

Servo System Yaskawa / Dorna

Relay: Omron

Plc: Panasonic

Frequency converter: Toshiba/Shanghai Ribo (Optional)

Power Switch: Schneider

Switch button: Schneider

Motor: Anhui Wannan

Model	IC ZKT-700	IC ZKT-1080
Speed	7000-31000pcs/h	6000-18000pcs/h
(speed can be changed a		
Paper Length	160-680mm	200-680mm
Paper Width	120-700mm	120-1080mm
Film Length	60-330mm	70-330mm
Film Width	30-400mm	30-500mm
Thickness of Film	0.03-0.25mm	0.03-0.25mm
Main Power	2.2kw	2.2kw
Power of Pump	1.5kw	1.5kw
External Dimension	6200×1580×1700mm	6500×1400×1500mm
Machine Weight	2300kg	2600kg

- The paper feeder adopts photoelectric control, so it is not needed to adjust paper length by hand, thus making paper feeding easy, quick and accurate. It applies to card paper and corrugated paper.
- The film feeder has an imported servo control system. It is OK to input cutting length on the touch screen, which helps improve precision and facilitate adjustment.
- The gluing section consists of chrome-plated sizing roller, glue separating guide, side
  limit and gluing stencil roller. It can be pulled out easily, which simplifies both setting and
  cleaning. The adjustable glue separating guide can control gluing range and glue volume.
  Aer shutdown, the cylinder raises the gluing roller and drives it with a separate motor to
  prevent glue from solidifying. The printing roller can be adjusted freely in the axial and
  radial directions without being stopped.
- A device on the film cutter can rotate axially freely in order to fit dierent window positions, which helps save the adjustment time and improve eiciency significantly.
- Compared to the previous machine, each section of this product has improved, thus saving the adjustment time, making it more eicient and friendly in use.
- The paper and film feeding sections are equipped with a chain guide imported from Germany and a linear guide imported from Taiwan, and other accessories, which helps improve film patching accuracy and reduce noise.
- The touch screen is equipped with a speed shiing unit. So it can double speed for small-sized products.

#### **IC ZKT-750 B**

Models IC ZKT-750B Window Patching Machine

#### STRUCTURAL CHARACTERISTICS





## CONFIGURATION

Servo System Yaskawa / Dorna

Relay: Omron

Plc: Panasonic

Frequency converter: Toshiba/Shanghai Ribo (Optional)

Power Switch: Schneider

Switch button: Schneider

Motor: Anhui Wannan

Model	IC ZKT-750B	
Speed	6000-10000pcs/h	
(speed can be changed according to the paper size)		
Paper Length	140 - 600mm	
Paper Width	120 - 750mm	
Film Length	60- 350mm	
Film Width	30-400mm	
Thickness of Film	0.03-0.25mm	
Main Power	2.2kw	
Power of Pump	1.5kw	
External Dimension	5000×1550×1770 mm	
Machine Weight	2800kg	

- The paper feeder is driven by a servo of a famous brand. Paper is delivered on the bottom via an intermittent belt, so paper can be fed continuously without shutdown. The paper feeder is controlled by PLC. It has a humanmachine interface, on which you can enter the length of paper to be fed, so that paper can be supplied quickly and accurately. Also, the paper feeder applies to card paper and corrugated paper.
- (1) It is easy to adjust the basic part of the film feeder left and right in parallel.
  - (2) The film feeder is controlled by a servo control system of a famous brand. It is only required to enter the length to be cut on the touch screen, which improves accuracy and makes adjustment easy.
    - (3) The film feeder can cut corners and creasing lines automatically. It applies to products subject to single (double) line creasing and corner cutting. Also it can be adjusted at will.
- (1) The sizing section consists of chromed sizing roller, glue separating guide, side limiter and sizing template roller. It is easy to pull out, set and clean the sizing section.
  - (2) The glue separating guide can be adjusted to control I the range and amount of glue. In the event of shutdown, the cylinder can raise the sizing roller and it is driven by the other independent motor to avoid glue solidification.
  - (3) Without shutdown, the gluing roller can be adjusted freely on an axial or radial basis.
- The paper collector is designed as a belt and final product can be stacked in order.

#### IC ZKT-700B/1080B

Models IC ZKT-700/700B Window Patching Machine

#### STRUCTURAL CHARACTERISTICS



## CONFIGURATION

Servo System Yaskawa / Dorna

Relay: Omron

Plc: Panasonic

Frequency converter: Toshiba/Shanghai Ribo (Optional)

Power Switch: Schneider

Switch button: Schneider

Motor: Anhui Wannan

Model	IC ZKT-700B	IC ZKT-1080B
Speed	7000-21000pcs/h	6000-10000pcs/h
	5000-10000pcs/h	4000-7000pcs/h
Paper Length	140-600mm	200-700mm
Paper Width	140-690mm	200-1080mm
Thickness of Film	0.03-0.25mm	0.03-0.25mm
Film Length	60-400mm	70-400mm
Film Width	30-400mm	30-500mm
Main Power	2.2kw	2.2kw
Power of Pump	1.5kw	1.5kw
External Dimension	4200×1400×1500mm	5500×1900×1600mm
Machine Weight	2800kg	3500kg

- The paper feeder is controlled by PLC with a human-computer interface. The length of paper to be fed can be entered on the touch screen, so that paper can be input quickly and accurately. Also, it applies to card paper and corrugated paper.
- The film feeder is controlled by a servo control system of a famous international brand.
   The length of film to be cut can be entered on the touch screen. Not only can film be cut accurately, but also adjustment can be made more quickly and directly.
- The gluing section adopted pneumatic principle, and can glue on particular part according
  to the window position, so no need to glue the whole roller, making it easier to clean the
  roller as well as saving the glue.
- Film cutter is equipped with a axis of rotation, so to suit variable window position. It can saving the machine-adjustment time and improve productivity.
- IC ZKT-700B is widely used in 90 degrees angle window samples, and can do the angle cutting and creasing.
- The paper and film feeding sections are equipped with a chain guide imported from Germany and a linear guide imported from Taiwan, and other accesso ries, which helps improve film patching accuracy and reduce noise.
- Compared to the previous machine, each section of this product has improved, thus saving the adjustment time, making it more eicient and friendly in use.



#### **CONTACT US**





