



ENERGY SAVING

Operating expenses of the machine are reduced due to energy-saving measures, saving 140 kW of electricity, which is more than 40% compared to the rest of the industry.

FAST SET-UP

High performance for small orders, quick changeover within two minutes, achieved by the latest fixed frame block.

MULTI-DRIVE SYSTEM

Each unit is controlled by a separate servo motor, ensuring high precision and high-quality printing.

END FORMING ROLLERS

High precision folding using the patented SHINKO computer system meets the requirements of each customer. The end forming roller system is developed based on 40 years of experience.

Data	618 x 1800	900 x 2000	900 x 2500	1100 x 2500	1200 x 2700	1200 x 3000
Max. Machine Speed (sheet/min)	400	400	375	300	300	280
Max. Sheet Size, mm (RSC)*	600 x 1800	880 x 2000	880 x 2500	1050 x 2500	1210 x 2700	1210 x 3000
Min. Sheet Size, mm (RSC)*	200 x 435	230 x 695	230 x 695	260 x 755	290 x 755	290 x 775
Maximum sheet size (no folding) (mm)	860 x 1800	1150 x 1900	1150 x 2400	1350 x 2500	1450 x 2700	1450 x 3000
Min. Glue Bridge Size, mm	230	330			360	
Max. Sheet Size (no folding), mm	760 x 1000	880 x 1100	880 x 1100	1050 x 1300	1210 x 1600	1210 x 1600
Min. Sheet Size (no folding), mm	200 x 435	230 x 600		260 x 650	290 x 650	
Max. Printing Area, mm	600 x 1700	820 x 2000	820 x 2000	1020 x 2400	1100 x 2600	1100 x 2900
Max. Printing Plate Length, mm	600	880	880	1075	1210	1210
Guide Joint Width, mm				35		
Min. Box Height, mm				50		
Required Power (kw)		120		130		140

* RSC - Regular Slotted Container (Unfolding box)

СПЕЦИФИКАЦИЯ

Unit	Equipment	Standart	Optional
Feeding unit	Lead edge feeder	●	
	Automatic return to the «zero» position	●	
	Back guide auto positioning	●	
	Lead edge auto set	●	
	Trisal sheet running device	●	
	Paper dust remover (Shinko's original design)	●	
	Sheet jam detector	●	
	Batch counter	●	
	Side jogger	●	
	Lead edge table grating-less mechanism	●	
	First sheet setting device		●
	Carrying	Center belt suction	●
Printing plate cylinder lifting device		●	
Printing unit	Printing plate cylinder motorized lateral adjustment	●	
	Printing plate cylinder auto return to «zero» position	●	
	Ink flow monitoring buzzer	●	
	Ceramic anilox roll	●	
	Automatic ink touch	●	
	Automatic printing plate winder	●	
	Chamber doctor blade system	●	
	Anilox and rubber roll system		●
	Ink bath telfon coating	●	
	Ink supply area telfon coating	●	
	Independent IR drying		●
	Slotting unit	Double slotter system	●
Crush rolls		●	
Automatic setting of yoke heads		●	
Automatic setup of glue flap		●	
Glue joint waste removing fan		●	
Glue joint waste removing rotary brush		●	
Automatic adjustment to the valve length			●
Die cutting unit	«One touch» hand hole cutter	●	
	Polyurethane anvil: automatic adjustment of gaps for thickness, transverse axial displacement of the shaft during rotation up to 60 mm to preserve the coating. Quick change polyurethane bandage system	●	
	Running register auto set	●	
	Pin type stripping system		●
	Anvil polishing device	●	
Forming unit	Molding rollers	●	
	Guide bars	●	
	Upper vacuum belt (with high transmission speed)	●	
	Double tanks		●
	Adhesive roller		●
	Adhesive guns	●	
	Automatic positioning system for guide rail	●	
External adhesive separator	●		
Squaring unit	Squaring hopper	●	
	Holding fan	●	
	Side jogger		●
Counter-ejector	One-stage counter	●	
	Big-wave counter		●
CNC	Touch panel/ Main control panel/ Universal power supply/ Teaching function	●	
	Communication to production manager system/ Communication to preferred/ Communication to robot/load former/ Communication to office computer/ Communication to bundling/strapping machine	●	
	Detection equipment		●
	Large LED display/ Remote control touch panel	●	

Visual Detection Device (optional)

A visual detection device can be used for recognizing and marking printing defects on sheets. It enhances production efficiency and saves labor time, comprehensively realizing intelligent and automatic manufacturing.

SHINKO MACHINE

SUPER ALPHA FIX FFG



* FFG PRINTING LINE

SHINKO has been producing FFG lines in fixed configurations for over 40 years. As markets have evolved, so have SHINKO's projects. The ultimate result is the production of the most modern machines ever seen in the corrugated industry.

SHINKO Super Alpha meets the industry's drive for enhanced productivity, high print quality, unparalleled folding accuracy, and the ability to quickly adapt to orders for the constantly growing small business sector. The machine's versatility, speed, and precision are synonymous with SHINKO Super Alpha.

SHINKO MACHINE

SUPER ALPHA FIX

FEEDING UNIT

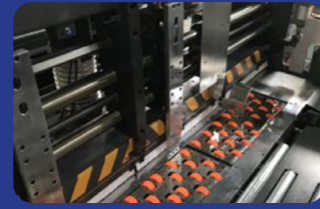
Feeding performance and reliability are increased dramatically by adopting a lead edge feeder that is capable to handle curled paper and by independently driving each axis (four axes) by servo motor. The feeder is designed to decrease noise and vibration when running at

high speed, creating a safer, quieter environment for operators and plant personnel. An added registration compensator greatly increases the accuracy of the feeder.

LEAD EDGE FEEDER SYSTEM

Based on a new idea, Shinko developed a unique paper feeding system, a lead edge feeder system driven by servo motors, which allow feeding of paper from AA flute to G flute with an automatic setting.

The sheets are sucked by the suction fan at the tip and feed by the friction of the urethane roller, each shaft of which is individually driven by a servo motor.



GRATING-LESS

The lead edge feed table, driven by a servo motor, substantially eliminates vibration and noise during high-speed operation, and prevents sheet warping compared with the kicker method. In addition, the elimination of a gear box realized maintenance-free operation.

PAPER DUST REMOVER

Fans located on the upper feed pull roll remove paper dust from the sheets for superior printing quality.

OPTIONAL DEVICE

When connecting to an automatic feeder, a small stack of sheets should be placed into the feeding device with the front edge forward for setup and subsequent automatic operation of the feeding device.



NON-PRESSURE FEEDING DEVICE

The feeding device ensures the absence of pressure on the workpiece, thus preserving the physical and mechanical strength of the corrugated sheet (Shinko patent).

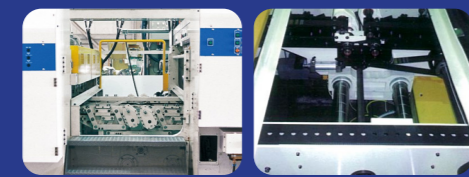


CBS CARRYING BELT SYSTEM

Heavy-duty timing belts feed the sheets by clamping them at 20 mm from the left and right edges. In addition, a center belt with suction function located at the center of the machines stably feeds the sheets without hanging or offsetting.

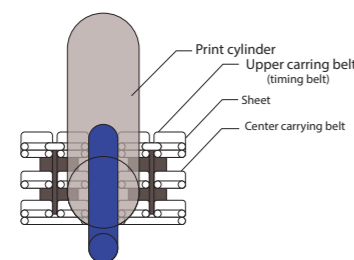
FIXED UNIT DESIGN

Fixed unit design without the need of opening and closing, allow the Shinko to operate safely, while sharply reducing set up time.



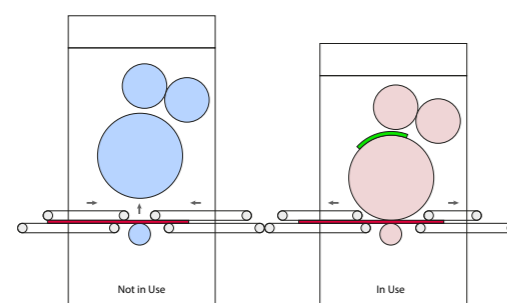
PRINTING PLATES AND INK CAN BE CHANGED WHILE THE MACHINE IS OPERATING

Using unique system that raises the print cylinders 100 mm from the board line, it's possible to change printing plates and ink while the machine is operating. This allows the operator to set up on the next order, reducing set up time and increasing productivity.



NO TRANSFER STEREO IS NECESSARY

When the print cylinders are moved for setup, the upper carrying belt will move forward and backward to keep the sheet feeding. This makes it possible to run the minimum size sheet without using transfer stereo on the printer cylinder.



PRINTING UNIT

The use of a chamber doctor blade system, which scrapes excess ink from a ceramic anilox roll, covers ink uniformly regardless of machine speed or sheet size, eliminating uneven or faded color. The carrying system with excellent stability enables high-quality, sharp printing with less misalignment.

A fixed unit design responds to stripe printing and solid printing, allowing preparation for next lot in advance while in operation and significantly reducing the time for set change order.

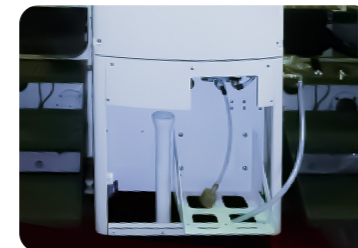
PRINTING UNIT SETUP

Each unit is connected by the carrying belt, the plate cylinder can be raised about 100 mm above the sheet pass line. The plate cylinder of the not-in-use printers can be raised for changing printing plate, or prepare for the next order, even while the machine is running. It shortens the setup time significantly, and reduces the work.



DIAPHRAGM SYSTEM

Ink feeding, recycle and wash-up are fully automatic. Shinko's unique pumping system decreases ink loss, and shorten the inking and recycling time. Shinko's original wash-up system for ink roll, ink duct and ink tube thoroughly while using a minimum amount of water.



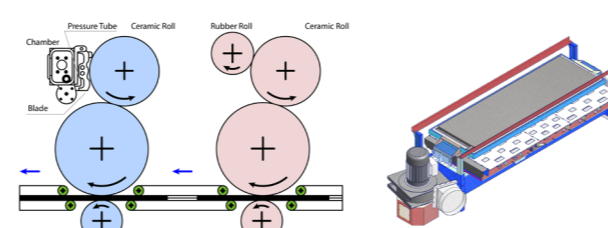
AUTOMATIC PRINTING PLATE MOUNTING DEVICE

Printing Plate winding is motorized, allowing the operator to set up the print units fast and accurately.



OPTIONAL DEVICE

The Roll-to-Roll System, combining a ceramic anilox roll and a rubber roll, enables sharp, high-quality printing effect for solid printing. For solid plate printing or varnishing work, Independent Drying Unit is optional.



SLOTING UNIT

Shinko's 8-shaft slotting unit adopts double slotting, no need to add or remove knives, and keep stable creasing strength. Improve the creasing accuracy, and smooth slotting, makes the precise joint.

DOUBLE SLOTTING UNIT

Cutting by the upper flap and lower flap will be individually processed by two axes. The upper axis holds the convex blade and the lower axis holds the concave blade.



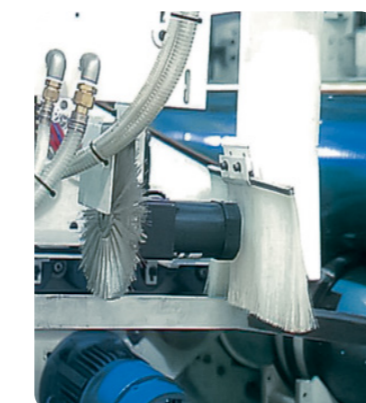
DOUBLE CREASING UNIT

Using the same diameter for creasing and crushing axes with slotting axes enables uniform sheet crushing and creasing. It is possible to stably crush and crease sheets, even with an AB flute or reinforced core, without bending in high-speed rotation, compared with a small-diameter crushing roller. Opening the space between the slotting unit and creasing unit enables easy maintenance, such as replacing blades. Both creasing and crushing axes can mount two different shape wheels, allowing the selection of a maximum of four combinations of creasing wheel and crushing wheel according to the type of flute, size, and liner. (Patent applied).



GLUE JOINT WASTE REMOVER

Glue Joint waste is removed by a rotary brush and fan system, delivering clean product to the folding section.



AUTOMATIC RSC SETUP WITH A SELECTION OF REGULAR OR EXTENDED GLUE FLAP

Whether regular or extended glue flap is needed, it can be set up through CNC. When choose extended glue flap, the length of glue joint can be adjusted from 0mm to 50mm manually.

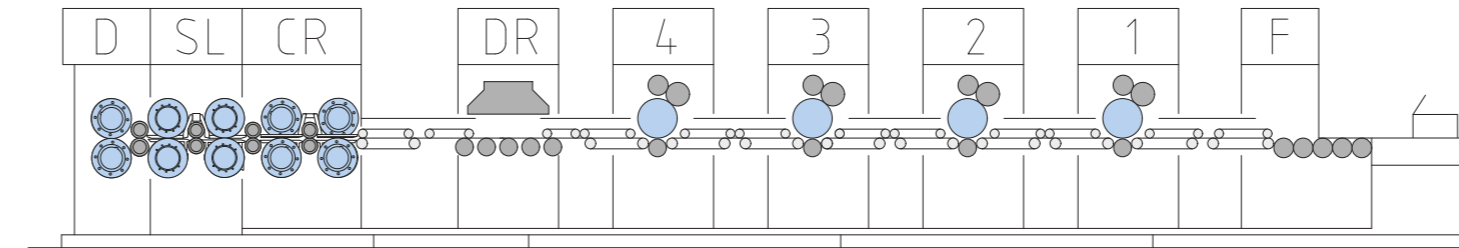
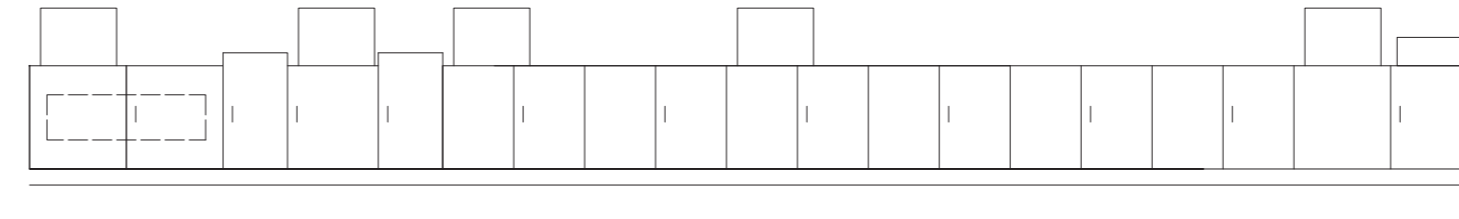
AUTOMATIC SETUP OF SLOTTING DEPTH

The upper and lower flap length can be adjusted through CNC.

OPTIONAL DEVICE

Automatic adjustment of the length of the joint flap (in case of sheets with extended glue flap).

DIE CUTTING UNIT



1-Й ВАЛ ДЛЯ ПРЕДРИЛЕВКИ И РИЛЕВКИ, 2-Й ВАЛ С ДВУМЯ ПРОРЕЗНЫМИ НОЖАМИ

A full size, soft anvil rotary die cutter gives flexibility to the Shinko line. In addition, a "one touch" hand hole cutting device with automatic positioning system is standard. No tools are necessary to mount or remove the "one-touch" device.

"SOFT CUT" ROLL DIE CUTTER

Full-size, soft rotary die cutter provides flexibility to the SHINKO line. Additionally, the standard package includes a one-touch hole cutting device with an automatic positioning system. No additional equipment is required for installing or removing the one-touch die cutting device.

A "soft cut" serrated blade is used for the die and the anvil is wrapped with urethane. You can choose either cut up or cut down type in mounting wooden molds. (The pin method is available with a cut down type only.)



OPTIONAL DEVICE

A pin-type waste fraction cleaning device is available. Remove the waste paper fraction on the die cutting blade, with pin mounting in die cutter cylinder.

SINGLE-TOUCH ROTARY DIE CUTTING

Matrices for cutting holes for handles are easily mounted using the patented



OPTIONAL DEVICE

Apin-type waste fraction cleaning hand hole is available.

FORMING GLUER

Shinko's forming roller system, which is patented in seven major countries in the world, minimizes joint gaps and fishtailing.

This combined with Shinko's accurate creasing and slotting system, produces the highest quality folding and forming.

FOLDING UNIT

Folding is done using the forming roller, which was designed by Shinko's patented technique (patented in seven major countries in the world) and 40 years of experience. The roller bends the paper and produces boxes with high joint accuracy. With its stable joint accuracy, the device enables the production of suitable cases for automatic boxing machines that fit today's requirements. The forming roller driven by a timing belt ensures stable transportation and bending of sheets.



UNDERNEATH BELT

The underneath belt at the exit side of the gluer has a suction function to achieve stable sheet feeding. In addition, the belts of both operating and driving sides are individually driven, which improves joint accuracy, even for special shape cases.



GLUE UNIT

Adopt USA Valco or Germany HHS Glue System (equipped with air pressure adjusting device). Automatic adjustment of position through touch screen. Automatic distinguish the length of box with high speed.



OPTIONAL DEVICE

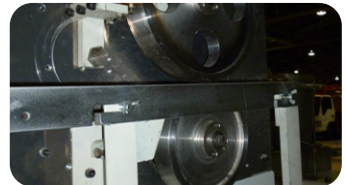
High-Performance Glue Pump
Used together with glue roll. With newly applied high-performance tubing, the life of the tube extended 10 times compared to conventional pump, significantly reducing maintenance and trouble.



OPTIONAL DEVICE

Adoption of a glue roll type

High speed glue heads or an advanced glue roll is standard. The advanced glue roll has horizontal slots that maintain uniform glue coverage through a doctor blade system. An independent drive prevents the glue from drying if the machine is stopped.

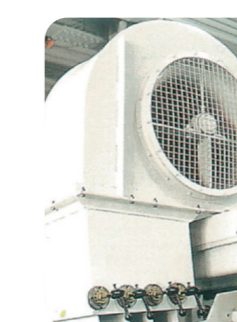


COUNTER EJECTOR

Shinko's one-stage counter system can easily handle finished boxes, even at the highest speeds.

ONE-STAGE COUNTER

The folded boxes are counted by a photo sensor in the Ejector unit. Then the squaring section checks and corrects the angles of boxes bundled in a set quantity. Cycling 25 times per minute, the highest speed in the world.



HOLDING FAN

The folded boxes are kept in place by a fan system located on the squaring hopper, which prevents jamming and stably discharges boxes even at high speeds. The air blow volume can be adjusted by the inverter unit. The position of the squaring hopper is automatically set by instructions from a CNC machine.



SQUARING HOPPER

Asquaring section corrects the edge of folded paper by patting from the front and rear. This is independently driven and adjustable in terms of the number of movements.

OPTIONAL DEVICE

Big-Wave Counter

The boxes corrected at the squaring section are fed from the bottom by the suction belt and counted one by one by a photoelectric sensor. Then the boxes are wrapped on the second suction belt, bundled into a set quantity at the sheet stopper, and then fed to the binding machine to finish counting. (Patented).

