



# WEB OFFSET PRESS FOR BOOK AND NEWSPAPER

BEIREN INTELLIGENT EQUIPMENT TECHNOLOGY CO.,LTD.

北人智能装备科技有限公司

PROFESSIONAL PRINT FOR A COLORFUL WORLD

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## Company profile

Beiren Intelligent Equipment Technology Co., Ltd. was established in 1952, is one of the main founders of printing machinery in China and has achieved outstanding contributions in the promotion of China printing industry with its printing equipment and brand name "BEIREN".

As the leading manufacturer in printing machinery in China, the printing equipment manufactured by the company and its wholly owned subsidiary, Shaanxi Beiren Printing Machinery Co., Ltd. can meet the printing requirements in book, newspaper, paper and plastic packaging.

Through its development of more than 60 years, the company has accumulated rich experiences in technology of manufacture and R&D, has established marketing and after sales service networks both at home and abroad, has many sets of foreign advanced precise processing equipment, has a state-level technical center, undertakes some national scientific and technological subjects and has become one of the units in national standards setting and initiating.

With the comprehensive application of the Internet and digital technology, the company is focusing on improvement of industrial structure, strengthening core competence and upgrading industry value. provides printing equipment and intelligent, digital and green solutions for publishing and packaging.

The company will become a manufacturing supplier of full solutions in digital, intelligent and green environmental areas rather than a single printing equipment manufacturer and an international leading company in intelligent manufacture.

## Outline

- B-B typed perfecter
- Modular design
- Shaft or shaftless drive
- Basic modular:
  1. Zero speed automatic splicer
  2. B-B typed printing unit
  3. High speed combination folder.
- 2 or 4 colour printing on both side.
- Paper type:
  1. Bible paper
  2. Newspaper
  3. Offset paper



## Machine Features

1. BEIREN logo on each printing unit shows the working status.
2. Lateral and Circumferential adjustment on the main console
3. Manual or automatic ink fountain adjustment for option.
4. Modular design.
5. Automatic centralized lubrication system.
6. Bearer-to-bearer printing.
7. Tapered roller bearing with pretension force
8. Special treated printing cylinder anti-rust and durable.



## Technical Parameters

	BEIREN B508	BEIREN B787	BEIREN B598	BEIREN B890
Quarter Fold Book Size	185×244 mm	185×260 mm	210×285 mm	210×297 mm
Max. Web Width	787 (860) mm		890 mm	
Max. Web Diameter	1270 mm			
Paper Weight	40-80 g/m <sup>2</sup>			
Cutoff	508 mm	550 mm	598 mm	630 mm
Max. Speed	Half-fold:36000rph			
	Quarter fold:36000rph			
	Double Parallel Fold:30000rph			
Printing cylinder Adjustment amount	Lateral:±2.5mm			
	Circumferential:±1.5mm			
Folding Format	half fold, quarter fold, Double Parallel Fold			
Drive	shaft or shaftless			
Printing unit weight	4200 Kg		4800 Kg	
Folding unit weight	7000 Kg		9000 Kg	

## Printing unit

The printing type bearer-to-bearer is employed on this machine with international brand cylinder bearings. It provides the machine stable printing pressure and high printing quality.

The quick-acting plate clamp is used for plate cylinder, and the reel type blanket clamping for the blanket cylinder. The two methods may save both time and labor, making the operation convenient.

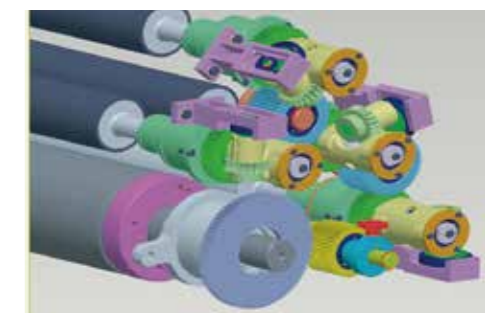
The motor-driven adjusting mechanism is used for both lateral and circumferential adjustment of the plate cylinder, which makes operation convenient.

The continuous inking by anilox roller with enhanced inking system with a pneumatic thrown off ink conductor roller. The continuous brush dampening system is used for the dampening unit, the brush roller and pan roller can be controlled separately.

All the motors for inking and dampening unit are regulated through the inverter imported from Japan making the operation even more stable and reliable, and the control flexible.

The double-layer housing is used at the operation side of the printing unit with all the electric equipment installed inside the second layer of the housing, which makes the machine structure compact and the maintenance convenient.

All the rotating parts like printing cylinders, inking and dampening rollers, and paper lead rollers are dynamically balanced to ensure that the machine can operate smoothly with lower noise.



## Folding unit

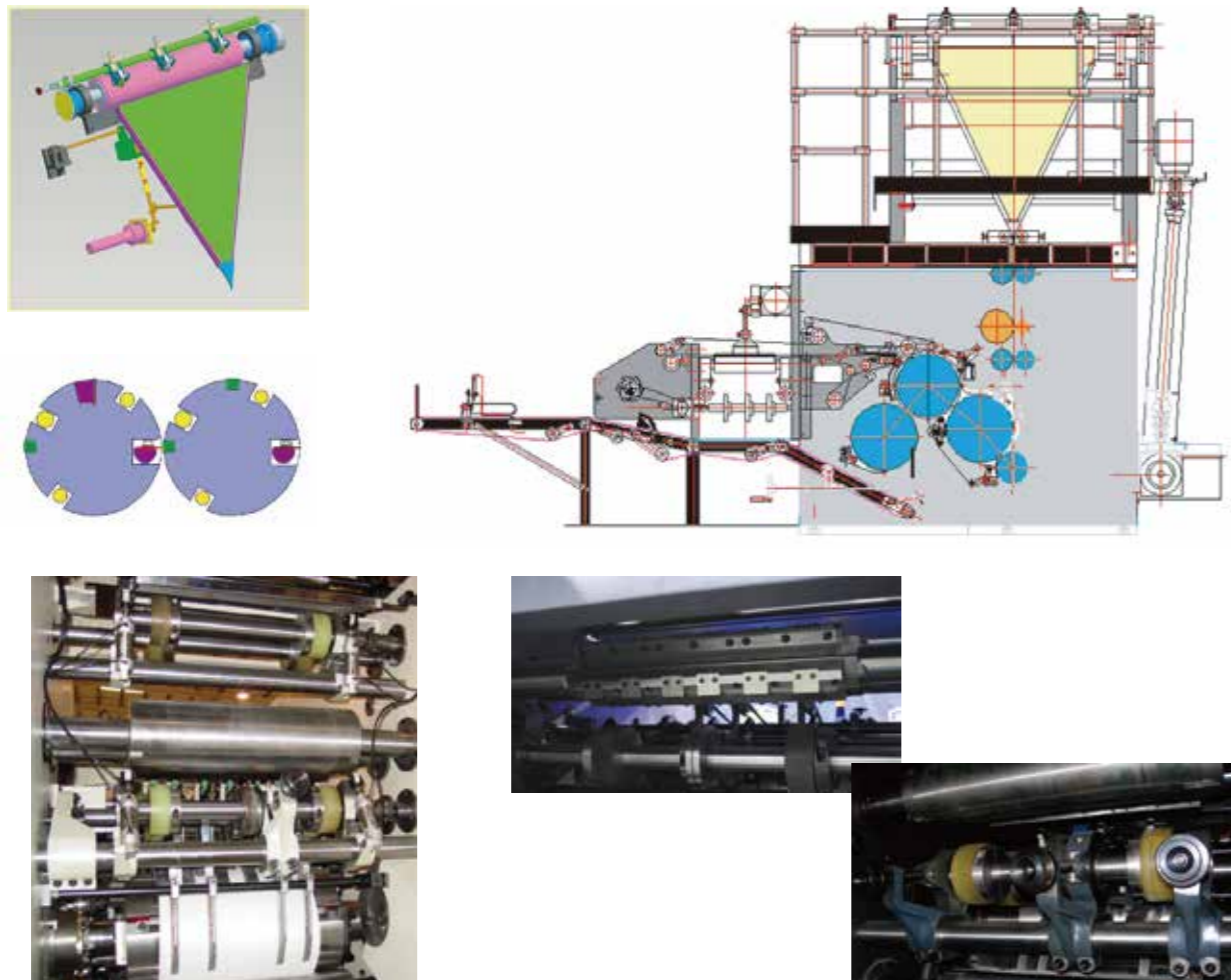
The technology of the HARRIS m-300 is used on the folder which makes it a four-cylinder folder with the signatures delivered from right hand side. The diameter ratio among the cutting cylinder\transfer cylinder\the half-fold cylinder and double-parallel fold cylinder is 1:2:2:2, which may help improve the folding speed and the stability.

Both cross and length perforation function are provided to ensure the signatures flat and solid, and the folding marks constant.

The cams and torsion bars are used of jaw control, and the jaws are closed at the high point of the cam, which ensures the half-fold and double parallel- fold stable and reliable.

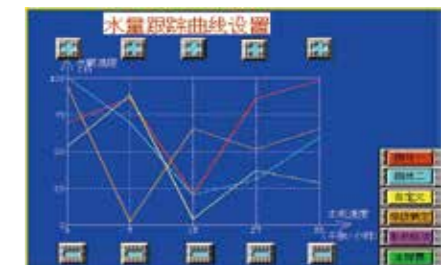
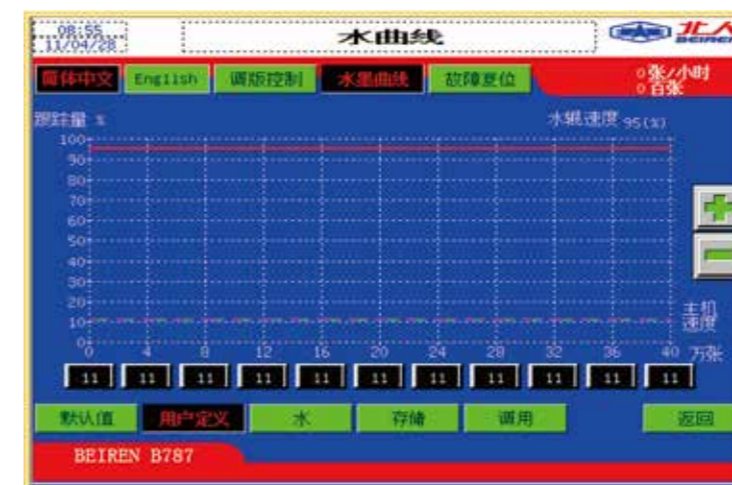
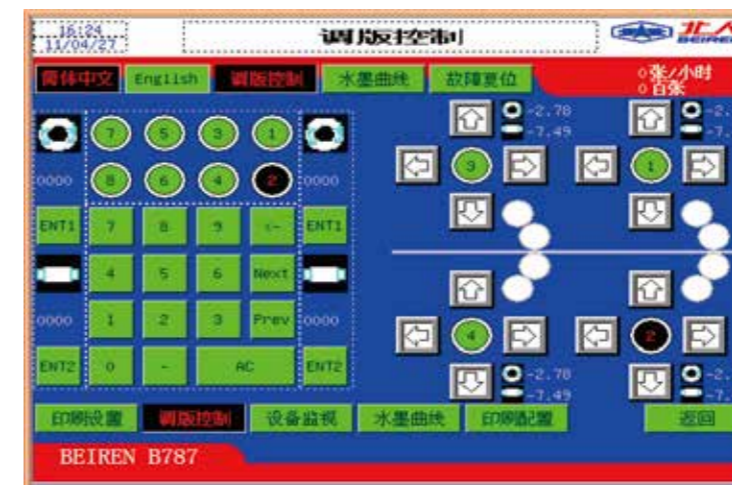
The driven rollers for web infeed are used for both web feed, thus increasing stability of web running. It is easy and quick to make adjustment of printing position on the paper.

Equipped with integrated delivery fan, the folder ensures the formats move smoothly and consistently on high folding speed.



## Electrical Control System

1. PLC programmable controller, man-machine interface easy operation.
2. Error checking on the console desk.
3. AC frequency converter controlled Main motor.
4. Inking and dampening speed will track and follow Main motor automatically.
5. Web break timely detecting on the console desk.
6. Open system interface to automatic registration, CPC ink remote control and updating.
7. Modular design.
8. CPC ink remote control for option.



## Technical Parameters

Technical Parameters	BEIREN 40A	BEIREN 40B	BEIREN 45A
Max. Web width	860 mm	914 mm	860 mm
Max. Web Diameter	1270 mm		
Paper Weight	47-60 g/m <sup>2</sup>		
Cutoff	546 mm	578 mm	546 mm
Max. Speed (rph)	40000rph		45000rph
Max. Printing Area	535×840 mm	566×900 mm	535×840 mm
Printing Cylinder Adjustment	axial : ±2.5 mm		
	circumferential: ±1.5 mm		
Folding Format	8 Half-fold (16mo,32mo as optional)		
Tower Weight	18000 Kg	20000 Kg	18000 Kg
Folder Weight	7000 Kg	9000 Kg	9000 Kg



## Introduction:

BEIREN 40A(B) is mini web offset press of tower printing unit for newspaper designed by BEIREN independently. It is mainly used in double side printing of 4 color newspapers. The cut off size of BEIREN 40A is 546mm, and BEIREN 40B is 578mm. The advantages of BEIREN 40A(B) include high-speed, high automation, accurate registration with the capability of 2 or 4 colors printing on double sides\ red-spot printing on both sides of the newspaper. Numbers of combinations of the tower printing units with folders can meet various needs for newspaper printing with lots of color advertisement leaflet.

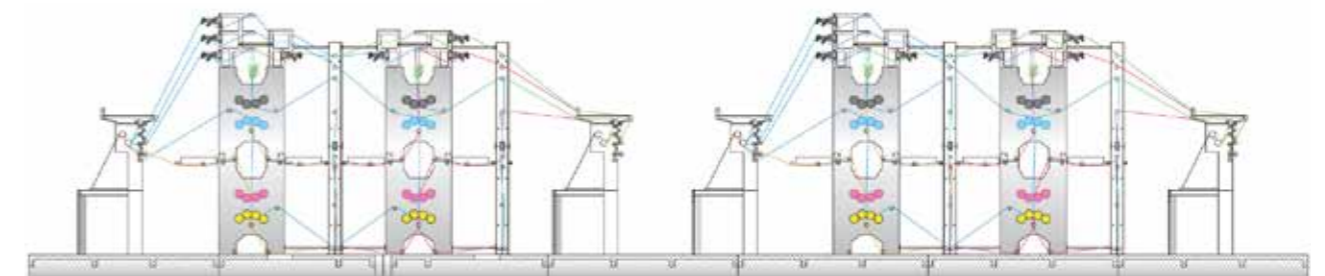


## Reel Stand Unit

It is an option for customers to choose either zero-speed automatic splicer or high-speed automatic splicer.

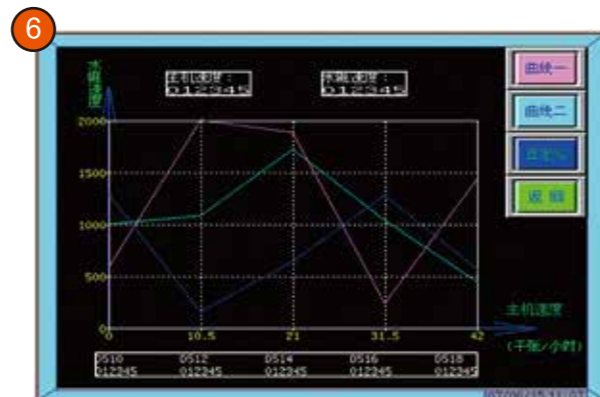
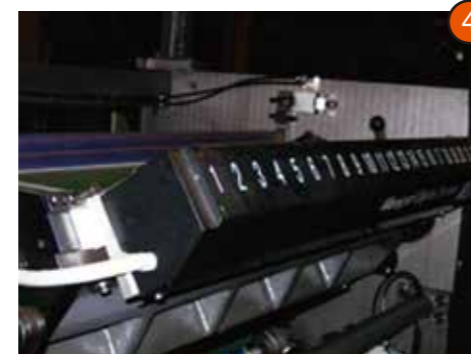
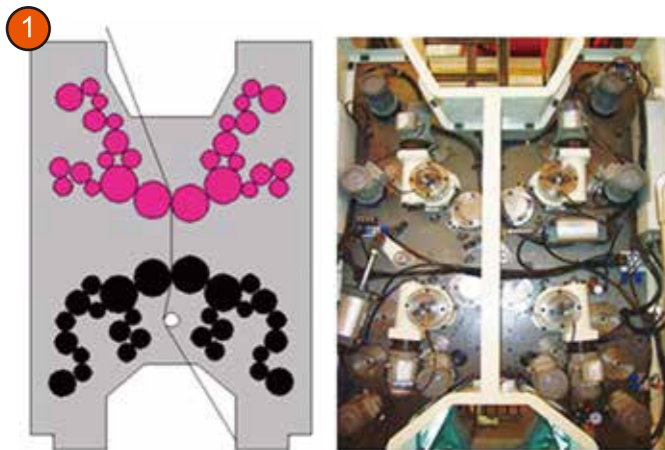


## BEIREN 40A(B) configuration drawing



## Tower printing unit:

1. The single tower includes two H-type printing unit and is well steady. It is accurately assembled to ensure the high quality of printings under the speed of 40,000sph.
2. The printing cylinder is made of high-qualified steel material and coated with hard chrome layer for corrosion resistant.
3. The Graphic Operation Terminals (GOT) are equipped on the main console. The circumferential adjustment is  $\pm 1.5$  mm and the lateral adjustment is  $\pm 2.5$  mm which is a digital display on the console.
4. It is an option for customers to choose CPC inking system or the manual inking system.
5. The dampening system is exploited with double -layer stainless steel water fountain with temperature-preservation. The brush roller is used and the structure is stable and reliable.
6. Convertible inking and dampening system automatically following the main motor.



## The folding unit

1. It is designed and improved on the basis of the 4D folder of U.S.A with the jaws closed at high-point of the cam and low noise. The basic folding module is half fold.
2. The capacity of folder is designed for max.4 webs.
3. The folder former has an air cushion to prevent the printings from getting scratched ink contamination.
4. It is an option for the customer to choose double-former module.
5. It is stable with high speed and accurate folding precision. It also can meet the various needs of customers to connect with quarter fold module driven independently to increase the fold function.

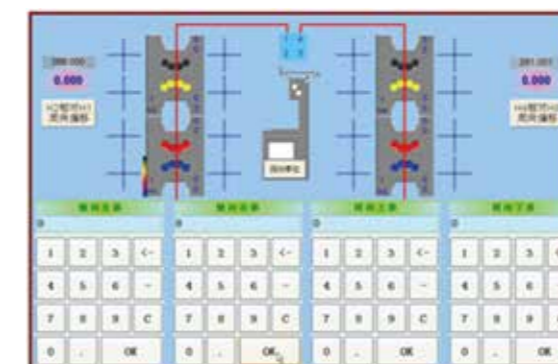


**Triangle former with air cushion device**

## Full set of electrical control system fully designed by BEIREN

The electrical control system adopts PLC and distributed network structure; the main motor adopts technology of frequency converter to achieve steady speed and torque ensuring the accurate printings; it adopts The Graphic Operation Terminals which is convenient for the operator to handle flexibly.

It is controllable at the main console to switch on/off the units so that the operator can carry on the expansion of the machine according to the need. The touch screen system makes the operation easier.



**The electrical control system**