

ZBFL-320 6 Colors Flexo Label Printing Machine



Characteristic:

1. Adopt the anilox roller to spread ink.
2. Unwinding and rewinding are controlled by magnetism power brake, clutch.
3. Printing unit adopt 360° for registration.
4. Printing unit have one infrared to dry the device group each,5UV LED,last unit UV dryer.
5. The rubber roller can break away from automatically while parking, and running at a low speed, in order to avoid water being black to be dry.
6. The main motor is adopted the import stepless regulation of frequency conversion.
7. Unwinding, printing, corona treatment,cold stamping, drying,video monitor and rewinding can be finished in



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one process, this kind of printing machine is best for each printing companies to print on adhesive-paper labels and other commercial label.

A. Unwinding unit

- 1.Unwinding diameter:φ600mm
2. Unwinding shaft:76mm
3. Tension control: magnetic powder brake.
4. Controller:

B. Printing Color system

1. Printing cylinder length: max. 120teeth (381mm)
2. Pneumatic press roller;
3. Transitional idler pulley:
4. Color registering system: manual registering system.
5. Drying system: UV/IR drying.
6. Printing main motor: AC frequency conversion motor.

C. Cold Stamping device

1. Cold Stamping

D. Die cutting stations

1. Single Die cutting station is included.
2. Magnetic roller , magnetic blade and cutting blade need extra cost. (As it's different price with different sizes)

E. Rewinding unit

1. Rewinding diameter:φ600mm
2. Rewinding shaft: .76mm
3. Automatic control rewinding: magnetic powder clutch.

Main Technical Parameter:

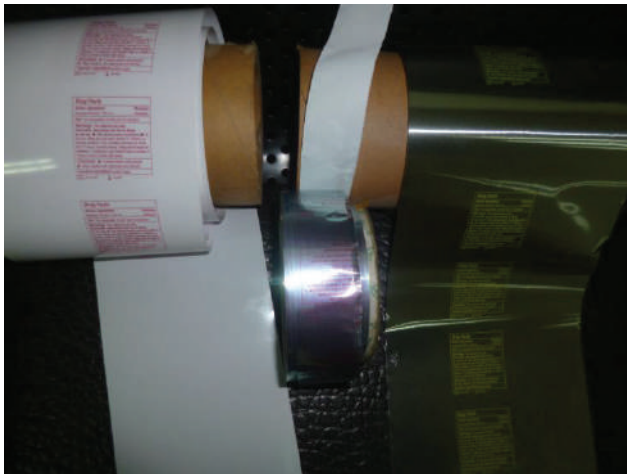
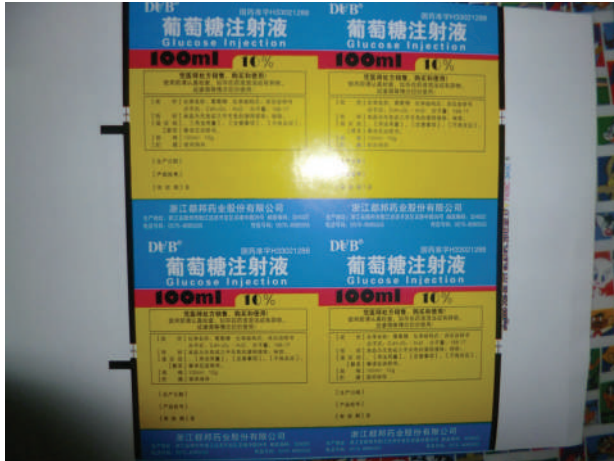
Model	RY-320
Print speed	60m/min
Print color	6 colors
Accuracy of registration	±0.15mm
Unwind width	320mm
Unwind diameter	600mm
Rewind diameter	600mm
Max print width	320mm
Print girth	175~381mm

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voltage

3 phase 380v

Printing samples photo:



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ZBFQ-320 Automatic High Speed Label Slitting Machine**Characteristics::**

FQ-320 automatic slitting machine is an accessory equipment for fully automatic label printing machine and roll to roll die cutting machine. It is suitable for slitting paper into narrow stripes. It has total length counter, label counter, predetermined counter, speed adjustment, alarm, pneumatic coreholder & tension control. Edge guide on unwind is agitated by photo-electrical eye. It is a fast running, accurate slitting, ease of operation and stable equipment under tight construction.

Main Technical Parameter:

Model	FQ-320
Slitting Speed	80m/min
Max width of web	320mm
Max feeding diameter	500mm
Max rolling diameter	500mm
Overall dimension	1200x800x1200mm
Weight	(about)400kg
Main Motor power	1.75kw
Positioning Precision	±0.10mm

TBJ-320 High End Plate Mounting Machine**1. Overview****1.1 Brief Introduction of the Project**

TBJ-320 High-End Plate Mounting Machine is the high-end product developed towards the customers for wide flexo printing machines. They are mainly used to fulfill the plate operations of the wide flexo printing machines, including rack, plate operation desk, high-definition color video camera, driving mechanism of plate roller lifting gear motor, corresponding control system and other components. The outstanding features of the equipment are expressed in the following several aspects:

- ★ The rack construction with the wallboard structure after high-strength holistic processing has great working stability and is durable in use;
- ★ The 650-line color high-definition camera can reach 70-times amplification ratio, present clear images, possess high resolution ratio, and substantially improve the precision of the plate;



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- ★ The lifting of plate roller structure adopts the gear motor drive control, which largely facilitates the operations of the plate;
- ★ The complete machine adopts the centralized control of circuits, which is convenient for operations and has relatively high degree of automation;
- ★ The 23-inch high-resolution liquid crystal display provides clear and bright images and effectively alleviates the visual fatigue of operating workers.

1.2 Overview of Equipment

The maximum width of the equipment is within 0.8m, the longitudinal length is controlled at 0.7m or so, the height of the equipment is smaller than 1.7m and the drive is on the two sides of the wallboards of the equipment. The operation, usage, repairing and maintenance are very convenient.

2. Main Technical Parameters of the Equipment

Effective Width of the Plate:	320MM
Diameter of the Central Spindle:	Φ200MM
Precision of the Plate:	Better than ±0.05MM
Resolution Ratio of the Camera Lens:	650 Line
Maximum Focal Length of the Camera Lens:	70 Times
Focusing Mode of the Camera Lens:	Manual Variation of Focal Length and Manual Focusing
Gear Motor Drive:	Approximate to 300mm/min (Plate Roller)

3. Main Equipment Configuration

Rack System	KERUI	One Set
Liquid Crystal Display	Philips 23-Inch	One Set
Taiwan TBI Guide Rail		One Set

Anilox Roller Ultrasonic Cleaners**Advantages:**

- ★Economical and practical cleaning equipment with multiple remarkable functions
- ★Small and exquisite, easy to operate
- ★Safe and effective cleaning anilox roller
- ★Suspension type of design, exchangeable and optional between single frequency and double frequency.
 - Single frequency: 40 KHz, stabilized and reliable, cleaning thoroughly.
 - Multiple frequencies – after removing stubborn dirt with low frequency, you can clean highly precisely.
- ★The length of rinsing tank: 495mm
- ★The width of rinsing tank: 320mm
- ★Customized cleansers of different sizes can be available
- ★Equipped with roller swiveling wheel
- ★Equipped with heating and constant temperature system
- ★The waterproof function has been largely improved, which makes the product durable and safe
- ★Stainless steel shell, making the product more graceful and durable in use



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- ★The cleaning fluid can be made with tap water and a bit of special solvent
 - ★High-power cleaning effect is so significant that can be visible with naked eyes.

Main Technical Variables

The length of anilox roller: 100-330mm

- 1.Quantity of vibrators: 14
2. Working frequency of the cleanser: 40 KHz
3. Total power of electric heater: 1KW
- 4.Temperature control range: 30℃-100℃
- 5.Ultrasonic power source: 20A / 220V
6. Heating power source of rinsing tank: 220V 20A

It is a modern and advanced cleaning process to clean anilox roller with ultrasonic. The working principle is to make use of transducer to convert ultrasonic frequency electric signals into high-frequency mechanical vibration, which will be transmitted to cleaning fluid. When high-power ultrasonic is transmitted in cleaning fluid, molecules of the cleaning fluid are strongly stirred and vibrated, which leads to the constant generation and cracking of countless steam bubbles. Under the action of ultrasonic, the instant generation and cracking of these bubbles produced powerful impact force, which rapidly removes the printing ink on the surface of anilox roller and in the mesh and realizes the aim of cleaning the anilox roller.

The Specialty of Ultrasonic in Cleaning Micro Holes

Anilox rollers are divided into metal rollers and ceramic rollers, all of which rely on fine ink cells to store printing ink. Take the ordinary anilox roller 600L/ICH as an example. The bore diameter of its ink cell is about 30 micrometers. So, it is difficult to clean such fine ink cells with ordinary cleaning tools. However, the diameter of bubbles generated by ultrasonic is about 2.5 micrometers, which makes it possible that 6-15 water bubbles simultaneously enter into a single cell and conduct physical attack to the dirt at the bottom of the ink cells. As a result, it can thoroughly clean the machine, which cannot be matched by other cleaning methods. Nowadays, ultrasonic cleanser has been widely used to clean fine holes and enjoyed a wide application range.

More Thorough Cleaning Effect by Making Use of Ultrasonic

The principle of cleaning with ultrasonic is: when the ultrasonic transducer works, hundred millions of water bubbles which cannot be seen with naked eyes will be generated. These bubbles densely and evenly surrounded the anilox roller. Either for a plat surface or a depressed surface, as long as the water bubbles can enter, the dirt will be removed. The function of cleaning fluid is to activate the dirt attached in the ink cells and reduce the adsorption capacity so as to easily remove the dirt with ultrasonic and realize the aim of thorough cleaning. Meanwhile, ultrasonic removes the dirt through the striking force of water bubbles, which belongs to physical function. While, the cleaning fluid aims to reduce the adhesive force of the dirt, which belongs to chemical function. It is just like the theory that western medicine takes temporary solution, but Chinese medicine aims to effect a permanent cure. The combination of physical and chemical functions makes the cleaning more thorough and reasonable, which is also an advantage that cannot be matched by other cleaning methods.

It will not easily do Harms to Anilox Rollers.

The physical force of small bubbles generated by ultrasonic entering the ink cells and striking the cleaned things is limited. The striking force is controlled by the power and frequency of ultrasonic generator. The selected



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technical data can be changed according to different cleaning objects. Through such control, the damages to anilox roller will be minimized.

It is more convenient to operate and environment-friendly.

Ultrasonic cleaning is an environment method which converts electric energy into kinetic energy, without generating dust and sewage. The only consumption material is cleaning fluid which is used to increase the activity of the dirt and make it easier to remove the dirt. The whole cleaning process is very simple. After putting the anilox roller into the cleaning tank with cleaning fluid, you just need to press the cleaning switch. The cleaning fluid is environment-friendly and can be directly discharged into the sewer.

Comparison with Other Cleaning Methods

Although there are many other methods of cleaning anilox roller including using caustic soda or alkali to heat up and clean, cleaning with High-pressure gas blowout or direct spray of baking soda dry powder etc., the method using ultrasonic is relatively safer and more effective. The comparison among these three methods is as follows: 1). cleaning with caustic soda or alkali: it belongs to pure chemical function. Although it is relative cost effective, it is easy to corrode metal anilox roller; ceramic roller is alkali-resistant, but during the heating process, the metal fundamental roller will expand and make the ceramic crack. If alkali is used for a long time, this method will damage ceramic. 2). Cleaning with high-pressure gas blowout or direct spray of baking soda dry powder: it belongs to physical striking to the surface of anilox roller and has the disadvantage that uneven grits or powder particles cannot enter the depth of ink cells and fail to thoroughly clean. Besides, direct high-pressure spray may cause the collapse of net wall if it is used for a long time. 3). cleaning with ultrasonic cleanser: it is the combination of chemical and physical functions. Fine and small water bubbles can enter the inner of cells and can well clean anilox roller of multiple loops. The cleaning fluid is neutral or weak base. The striking force generated by ultrasonic is very slight and does relatively small damages to the anilox roller.

The supersonic frequency higher than 15KHZ generated by ultrasonic generator is transferred into mechanical vibration of the same frequency through transducer and transmitted into cleaning fluid. The forward transition of sparse and dense interphases generate numerous small and fine bubbles, forming on the zone of negative pressure and cracking on the zone of positive pressure throughout the longitudinal propagation of ultrasonic. The formation, growth and rapid cracking of these bubbles are called as "cavitation effect". In cavitation effect, the cracking of bubbles produces instant high pressure of 10000Pha. The successive instant high pressures constantly attack the surface of objects like a series of small explosions and make the dirt remove from the surface of the objects. When the ultrasonic of certain intensity is transmitted into the liquid medium, the repeat increase and decrease of pressures on the surface of cleaned objects will generate "cavitation effect". Small cavities will be produced in the fluid. When the ultrasonic is intensified enough, these cavities will violently explode, generating intensified strikes. The pressure will reach to 5-50 t/m² and possesses tremendous energy, which makes the water attack the surface of cleaned objects at the accelerated velocity of more than 10000G. The dirt will be washed down and apparent cleaning effect will be reached. Besides, the effect can be reached everywhere the fluid can reach, which cannot be reached by common means like manual cleaning and mechanical vibration etc.