



OPERATION INSTRUCTION OF HIGH SPEED FLEXO PRINTING MACHINE



HIGH-SPEED FLEXO PRINTING MACHINE

The high speed flexo printing machine is an important equipment for the carton factory, and it is also one of the very important carton printing machines. The high speed flexo printing machine can complete batch orders at a high speed and stability. It is 2-3 times more efficient than the traditional carton printing machine. High-speed production and supporting auxiliary equipment can realize the improvement of the carton printing production line and greatly reduce labor costs. The high speed flexo printing machine only needs an operator who has good operating experience to operate. The operation instruction is more general and relatively broad, not limited to a certain model, hope could help you and give you some reference .

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01

PREPARATION BEFORE OPERATION

Any equipment is inseparable from good maintenance, so is the carton flexo printing machine. Well maintained equipment can not only improve the service life of the equipment, but also smoothly complete the processing work and improve the efficiency of carton printing process. The following is the routine operation instruction of high speed flexo printing machine, for your reference only.



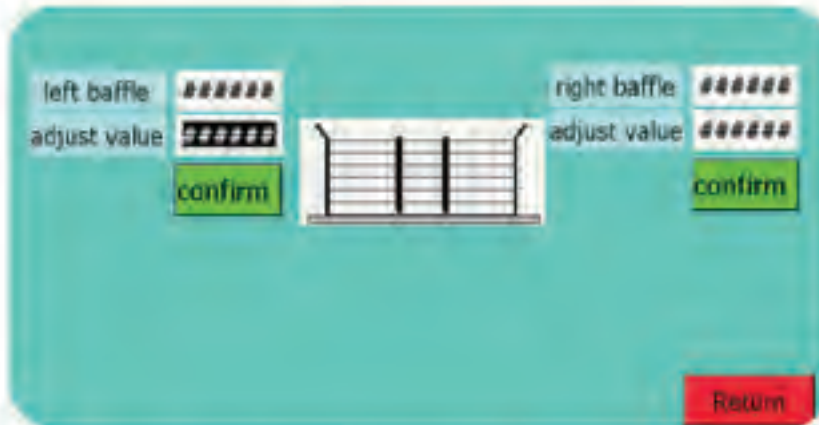
PREPARATION BEFORE OPERATION OF HIGH SPEED FLEXO PRINTING MACHINE

1. Read and understand the maintenance operation instruction of high speed flexo printing machine, carry out maintenance work according to the manufacturer's requirements, and determine the signature acceptance system of maintenance post.
2. After the maintenance of the high speed flexo printing machine, all tools should be returned to the original place, and the oil stains generated during the maintenance should be cleaned to prevent the corrugated board from being stained.
3. Check the carton order processing plan, transport the required corrugated cardboard to the front-end workbench in advance, and prepare the cardboard required by the operator for testing, so as to facilitate the setup and printing of the machine.
4. Check the working position of each roller in the equipment.
5. Working site requirements: common tools, printing plates, pallets, etc. should be set at the fixed position, and the whole machine should be clean, so as to prevent the existence of ponding, running water and other problems.

02

PAPER FEEDING UNIT ADJUSTMENT

1. Adjust the baffle of the paper feeding table of the carton flexo printing machine, and adjust the baffle at both ends of the paper feeding section according to the size of the paperboard.
2. Adjust the back baffle of the paper feeding table, and adjust the distance between the front and back baffle according to the width of the paperboard specification.



3. The distance of the front baffle of the paper feeding table should be appropriate. According to the layers and thickness of the corrugated board, the distance of the front baffle should be adjusted to ensure that only one sheet is allowed to be circularly fed when the machine is started.



4. Adjustment of paper feeding wheel: adjust the gap of paper feeding wheel according to the thickness of corrugated board. The distance of gap determines the accuracy of paper feeding. Excessive adjustment of gap affects the inaccurate paper biting and causes displacement during processing; If the gap distance of the paper feeding wheel is too small, it will affect the quality of the corrugated board, such as the damage of the corrugated board, the damage of the hardness of the paper board and so on.

03

INK SUPPLY

1. The high speed flexo printer shall be equipped with ink according to the requirements of the carton processing order. The demand of the printed pattern of the customer's cardboard is clear, and only the required ink should be prepared.
2. The operator of carton printing machine shall arrange the order of ink printing unit according to the order printing order.



3. First, the ink set is placed in the running state, then the suction tube is placed in the ink bucket, the pneumatic diaphragm pump switch is started, the ink in the barrel is transported to the ink supply system, and finally the ink is recycled into the water drum.

Note for ink supply on carton flexo printing machine:

1. Before the ink suction pump is started, make sure to adjust the contact between the rubber roller and the ink roller to avoid the ink dripping.
2. The ink supply system shall be cleaned in time. When the ink is not cleaned, the rubber roller must be in the opening position to prevent the ink from drying up.
3. When the carton printing machine is shut down, the rubber roller must be in the off position with the ink roller to avoid deformation of rubber roller caused by long-term extrusion.
4. When printing single or double color corrugated board, the printing unit not used shall also be separated from rubber roller and ink roller to avoid dry wear loss.

04

PRINTING PLATE HANGING

1. According to the pattern or sample carton requirements of the customer's printing order, the operator of the carton flexo printer should take the same printing plate and check whether it meets the printing requirements when hanging the plate.
2. Install the printing plate into the printing wheel groove according to the printing requirements, and pay attention to whether the center line is aligned, whether the two ends of the printing plate are in order.



3. Check whether the printing plate is close to printing roller, and the printing plate shall not be warped or even fall off after installation.

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PRINTING UNIT ADJUSTMENT

Adjusting the printing unit of high speed printing units needs two functional areas, one is the adjustment of shaft clearance, the other is the adjustment of printing position.

1. Plate pressure adjustment of printing unit: the clearance between the printing plate and the printing roller is generally 0.04-0.05mm smaller than the printing plate. If the plate is pressed too much, it will cause plate wear or ink accumulation.



2. Press adjustment of printing unit: the gap between the printing plate and the bottom wheel is adjusted. If the press is too large, it will damage the edge of the printing pattern area. It is easy to cause printing double image and damage the compressive strength of the carton.



3. Adjustment of the paper feeding roller: the paper roller is generally located at the edge and edge position. The adjustment gap between each color printing group should be calculated, and the gap should be calculated according to the fixed reference value from the first color to the last color. Note: pay attention to clean the ink on the surface of the paper feeding roller before starting work every day. Adjust the printing position according to the result of the first printing test.

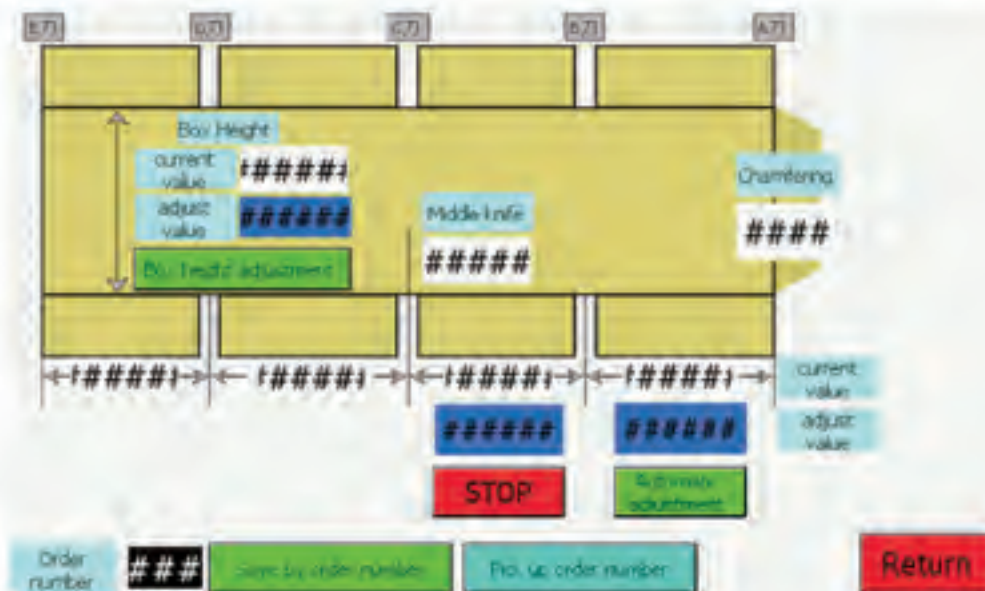
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SLOTING UNIT ADJUSTMENT

The slotting function of carton printing slotting machine is basically divided into two kinds, one is that the operator adjusts the slotting group according to the specification requirements, and the other is relatively advanced, which only needs to input the length, width and height to automatically complete the slotting adjustment. The former is more common when processing large orders, but its disadvantages are not obvious. When encountering small orders or loose orders, it is unable to realize rapid replacement; The latter is the intelligent adjustment introduced by our company, which only needs to input the specifications into the computer, and can be processed and produced normally in a few minutes. Today, we mainly introduce the former one, because at present, this kind of slotting machine is still a kind of carton printing machine with a wide range of application.



1. According to the carton processing requirements, adjust the slotting knife position to zero.



2. Adjustment of paperboard creasing line: set the position of creasing line according to the specifications of the carton. The creasing line here refers to the longitudinal line. Tongue adjustment: if the tongue position is unreasonable, it will affect the forming of the carton

PRECAUTIONS FOR SLOTTING UNIT ADJUSTMENT:

1. Align the thread creasing knife and slotting knife.
2. Adjustment of creasing line depth. The thickness of the carton is different from that of the corrugated board. Adjust the pressing line depth according to different cardboard.

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PRINTING TEST AND ADJUSTMENT

After adjusting the various units of high speed flexo printing machine, it is necessary to carry out trial printing. According to the effect of trial printing, check whether the printing machine can be officially started. The following points are the trial printing process of carton printing machine.

1. Assemble and lock the adjusted units.



2. Put the corrugated board used for trial printing into the paper feeding section, and then use the pneumatic ink supply system and fan.



3. Corrugated paperboard is finished after paper feeding, printing, slotting, die cutting and other processing steps. If only printing or slotting and other separate processing processes are needed, the unnecessary units will be adjusted to standby.

4. Check the detail quality of the finished corrugated board, mainly including printing pattern, pressing line, carton slot, etc. if there is deviation from the order requirements, it is necessary to adjust and test repeatedly until it fully meets the requirements.

5. After the carton printing machine passes the test, it is ready to be put into mass production. When the carton is officially produced, the speed of the carton printing machine should not be too fast, and the processing speed should be gradually and steadily accelerated from slow speed to normal processing speed.

6. To monitor the viscosity change of the ink of the carton printing machine, the ink will change according to the speed, and process high-quality printing patterns. The speed of the carton printing machine should be balanced and stable, pay attention to the viscosity change of the ink, and make timely adjustments.

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MACHINE STOPPING OPERATION

After the carton printing machine finish the order, it doesn't turn off the power directly like household appliances. When the high speed flexo printing machine runs at high speed, it should strictly abide by the shutdown operation specifications, so as to avoid causing faults to the carton printing machine. Today, I'd like to share the stopping process of the carton printing equipment.

1. After the carton printing process is completed, adjust the speed of the main machine slowly from high to low until it runs at low speed.
2. Close the pressure regulating valve of the pneumatic diaphragm pump of the printing unit to make the ink flow into the barrel.
3. Use clean water to recover the light ink, use pneumatic ink pump to suck in the clean water and clean the remaining ink, and finally recover the light ink in the homogenizing unit.
4. After cleaning the uniform ink, turn off the uniform ink and ink painting, and turn off the fan and main motor.

5. Separate the printing units and clean the residual ink and sundries. If the printing plate will continue to be used, it does not need to be replaced. If it is not used, the printing plate needs to be removed and kept.
6. Before the storage of the printing plate, it is necessary to clean the printing plate and use a special towel to wipe it. The cleaning force should not be too large. Special attention should be paid to the areas such as too fine or dot in the printing plate to ensure the normal use in the future.
7. After cleaning the sundries and dust of each unit, the unit shall be assembled.
8. Arrange the tools around the printing equipment.
9. Pull down all the control switches, the equipment is in non working state, and then turn off the main power supply.
10. Check the loose parts of the equipment to avoid loosening. (Check before operation too)

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PRECAUTIONS FOR SAFE OPERATION

The operation of the carton printing machine is basically controlled by the operator. The safe operation of the equipment should be ensured in the process of startup, processing and shutdown. Some places that often need attention should be sorted and summarized so that customers can browse and save them.

1. Before assembling the equipment and machine, ensure that no person are involved.
2. Do not start the machine when the safety equipment is damaged or incomplete, and do not remove the protective cover, safety switch and other devices.
3. The monitoring probe can be used to check the operation of the equipment, and the staff can not stand on the equipment to check the operation status.
4. No sundries, such as water cups, tools, towels, should be placed near the workbench of the equipment.
5. Do not step on the surface of conveyor belt.
6. It is forbidden to touch any part of the body when the carton printing machine rotates.
7. When entering the machine, press the emergency stop self-locking switch. If the running motor of the equipment starts, the safety rope in the equipment must be pulled down quickly to ensure that all units stop moving.
8. The carton printing machine must be under the supervision during the working period. Although the high speed flexo printing machine has a high degree of intelligence, it is not allowed for the staff to work without supervision.
9. When adjusting the size, pay attention to the protection to prevent hard objects from knocking.
10. Pay special attention when cleaning the anilox roller to prevent scratching the surface of the anilox roller.

10

QUALITY CONTROL

When the carton printing machine processes the order, it first adjusts the equipment unit, then carries on the carton printing test, and finally carries on the batch carton printing. In the printing process, the carton printing machine operator should pay attention to monitoring the quality, so as to avoid a large number of unqualified printing. Let's share some experience on quality monitoring.

1. In the process of high speed flexo printing machine, the operator must inspect every two hours to observe the vibration, sound and air temperature of the carton printing machine, and judge whether the equipment is abnormal according to these daily conditions.
2. After printing, pay attention to the sampling inspection of cartons, and continuously check the printing quality.
3. The printed cartons need to be protected, and the stacked cartons should pay attention to the stacking pressure and avoid skew collapse.
4. Pay attention to the work record after completing a printing order.