

ZF105 Fully Automatic High-speed Multi-purpose Film Laminating



This machine is designed and manufactured new high-speed laminating equipment for printing house to replace the old ones. The machine can be available for water-based glue, solvent-based glue and even for pre-coated film. This machine adopts the most modern laminating technology at present, BOPP film to be applied with water-based glue (or solvent-based glue) goes through special drying chamber and big-diameter drying roller, at the same time, paper is transported from automatic feeder to powder-removing section where the dust on sheet can be cleaned, then transported to laminating section. By heating and pressure, film will be strongly stucked onto paper. The laminated sheets can be rewinding onto roller, or transported to paper-division section to deliver them into piles. The machine is designed according to Nation's environmental protection, try to decrease the exhausted xylene and other dust till the least. It is a new advanced environmental-protection equipment.

Products Characteristic

This machine is composed of automatic feeder, cleaner, gluing section, drying chamber, laminating section, slitting section and automatic stacker. And it can work with water-based, solvent-based glue and pre-coated film. We developed this machine from single function to multi-purpose through modern industrial, human-machine engineering design to make mechanical, electrical and pneumatic together.

And We push the improvements from quantity scale to quality benefit.

Function Explain

1. Fully automatic feeder is adopted for paper transportation. Pre-stack feeding table and non-stop device are installed. Supply sheets in time while the machine is till running. So enhance the efficiency of this machine fully, reduce labor cost, increase rate of qualified products and improve benefit.
2. Electric heating/brush are both used for powder removing, which can remove the powder on printed paper.

3. Big-diameter impression roller, its diameter is up to 800mm, heat-circulating system, temperature controller are set inside. The temperature on impression roller is well distributed, temperature difference should be less than $\pm 1.5^{\circ}\text{C}$.
4. Glue is controlled by the gap between ceramics roller attached with blade and gluing roller to keep glue uniform. Film and glue are pneumatically controlled.
5. Vertical short-distant drying chamber is designed for film running stably, special drying system and automatic temperature control system can make glue dry fast.
6. Impression roller is automatically controlled by electric-control piston.
7. Rotary knife for cutting can be micro adjusted and easily controlled, and sheeted by wheel.
8. In the delivery, pneumatic jogger is used. The stacker is automatically adjusted by photoelectric sensor, vacuum suction belts are used at feeding table to keep sheets straight when high-speed running.
9. The whole machine is controlled by OMRON PLC, the speed for each section matching with main section is controlled by OMRON inverter. The speed for each section can be automatically increased or decreased. Advanced 8.4inch colorful screen human-machine interface is adopted, and main electrical components adopt Schneider products.
10. Original imported bearings are adopted to ensure the machine runs stably for long time.

Technical Variables

Max paper size	1040×1040 mm
Min paper size	452×452 mm
Paper weight	100~500 g/m ²
Max laminating width	1040 mm
Film diameter	600 mm
Core diameter	3"
Type of adhesive	water-based/solvent-based glue and (optional pre-coated film)
Speed	10~60 M/min
Height of feeding pile	1060 mm
Height of stacker pile	1100 mm
Max pile weight	1000 kg
Electricity	80 KVA
Electric consumption	64.6 KVA
Overall dimension (L×W×H)	13.4×2.9×2.6 M
Machine weight	8600 kg