**BMY-1680A**

**Semi-Automatic Die-cutting Machine**

**Product Introduction**



**Tangshan Jiguo Printing Machinery Co.,Ltd.**

**en.jiguo.net**





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Tangshan [JIGUO](en.jiguo.net) printing machinery Co., LTD., founded in 1996, is a high-tech enterprise started jointly by a number of senior engineers, and is located in the central area of YuTian County within the golden triangle economic zone consisted by Beijing, Tianjin and Tangshan city with 42.81 mu area covered. Our company has a technical team consisting of 160 elite personnel who contribute to our strong technical power, high level skills of design, assembly and manufacturing, perfect management system and advanced processing and testing equipment. Our company is specialized in production of post-print paper packaging equipment, and has established long-term scientific cooperation for die-cutting machine schemes with the Beijing Institute of Graphic Communication. The company is a modern enterprise incorporating the design, research and development, sales and service. There are two subsidiaries, respectively engaged in machinery parts processing and other printing equipment manufacturing, such as creasing matrix, etc.

Our company adheres to the ideas "Technology boosts enterprise” and "Create first-class products". Advanced management concepts and ideas regarding talents as the base, technology as the soul, quality as the foundation, brand as the flag, marketing as the power and service as the source of the company, contributes to rapid development of our enterprise. Our products have passed the ISO9001 quality certification and the CE certification. We are now mainly producing MY-800H/1060H/1080E/1200E/1320A/1500A/1680ASQ automatic die-cutting and creasing machine(with stripping unit), TMY-800H/1080H/1320H automatic die-cutting and foil stamping machine, BMY1320/1500/1680A Semi-automatic die-cutting machine(with stripping unit) and size 1300/1450/1600（Semi）automatic flute laminating machine, TC-760/1100/1500A/B/C Automatic windows patching machine, saw machine, creasing matrix and many other post-press equipment. Since its establishment, Tangshan JIGUO printing machines have attended hundreds of large exhibitions at domestic and abroad, and have won many honorary awards in the industry and received thousands of praises from domestic and international packaging enterprises. Attended all the big exhibition in domestic Beijing, Shanghai, Guangzhou. And the big exhibition in India, Egypt, Iran, Brazil, Turkey, Russia and so on. We have now grown into a well-known domestic post-press equipment manufacturing expert.

Since first launched in market in 1996, with stable quality and reasonable price, our products have received many praises for our quality and reputation. Our company has become an internationally famous enterprises with products sold well all over the country and exported to over 20 countries, including the United States, South Korea, Russia, India, Thailand, Peru, Egypt, Turkey and so on. JIGUO die-cutting series products are the star products of our company. Taking quality as the lifeline, we have manufactured post-press die-cutting machines with superior quality, low price and high cost performance both at home and abroad. With a high starting point and high standard, we have been incessantly pursuing our dream; with excellent quality, preferential prices and excellent service, we have been cooperating with friends at home and abroad closely to obtain mutual benefit and reciprocity, and create a better tomorrow.

1. **Details Specifications**

**Specifications sheet**

|  |  |
| --- | --- |
| Model | BMY-1680A |
| Max.paper size | 1680×1235mm |
| Min.paper size | 550×450mm |
| Max.cutting size | 1660×1220mm |
| Max.pressure | 400 Tons |
| Sheet thickness | Cardboard:200-2500gsm; Corrugated＜8mm |
| Max.cutting speed | 4200s/h |
| Die-Cutting Precision | 0.2mm |
| Max.feeding pile height | 1650mm |
| Max.feeding pile height | 1500mm |
| Min. Gripper Edge | 8mm |
| Total power | 14.5Kw |
| Net weight | 17.8 Tons |
| Overall dimension | 4500×5050×2600mm |

1. **Configuration Information**

|  |  |  |  |
| --- | --- | --- | --- |
| **NO.** | **Name** | **Brand** | **Producing area & comment** |
| 1 | Main worm & worm wheel | M10 | Korean bearing steel，after quenching, wear to worm, Taiwan-owned processing |
| 2 | Intermittent mechanism | TAN TZU | US patent、Taiwan-owned production |
| 3 | Die cutting steel plate | 7mm | Korean material 75Gr1 |
| 4 | Main chain | Iwis | Best in Germany |
| 5 | All other chains | TYC | Taiwan |
| 6 | Pneumatic clutch | OPMI | Italy |
| 7 | High-speed joint | SMC | Japan |
| 8 | Cardan joint | Iwis | Germany |
| 9 | All screws | 12.9 level | Highest-level in Taiwan |
| 10 | Bolt type track rollers | SKF | Sweden |
| 11 | Bearing 30311 | SKF | Sweden |
| 12 | Bearing 32016 | SKF | Sweden |
| 13 | Bearing 57941/10 | SKF | Sweden |
| 14 | Bearing 6016-2Z | SKF | Sweden |
| 15 | Bearing 6212-2Z | SKF | Sweden |
| 16 | Bearing 6214-2Z | SKF | Sweden |
| 17 | Bearing 6218-2Z | SKF | Sweden |
| 18 | Bearing 6219-2Z | SKF | Sweden |
| 19 | Bearing 63202-2Z | SKF | Sweden |
| 20 | Bearing 80202 | SKF | Sweden |
| 21 | Bearing 80208 | SKF | Sweden |
| 22 | Bearing 80209 | SKF | Sweden |
| 23 | Bearing 80210 | SKF | Sweden |
| 24 | Bearing 80216 | SKF | Sweden |
| 25 | Bearing 80307 | SKF | Sweden |
| 26 | Bearing 6311 | SKF | Sweden |
| 27 | All other Bearings | NSK | Japan |
| 28 | Frenquency converter | OMRON | Japan |
| 29 | Programmable logic controller | OMRON | Japan |
| 30 | Oil pressure switch | Southman | Japan |
| 31 | Photoconductive switch | OMRON | Japan |
| 32 | A.C. contactor | Schneider Electric | France |
| 33 | Thermorelay | Schneider Electric | France |
| 34 | Air switch | Schneider Electric | France |
| 35 | Button | Schneider Electric | France |
| 36 | Human-computer interface | TELTA | Taiwan |
| 37 | Approach switch | Contrinex | Switzerland |
| 38 | Motor GV-40-750-200SM | WANSIN | Taiwan |
| 39 | Delivery Paper Motor | WANSIN | Taiwan |
| 40 | Main motor | DEDONG | SHANGHAI |

1. **Descriptions of the entire product**

Semi-automatic die-cutting & stripping machine is the key device for the production of cartons, paper boxes and high standard paper products, etc. It is especially applicable to the automatic die-cutting and stripping of complicated paper boxes and cigarette cases to rationalize the production of paper boxes. This machine is integrally assembled, transported and mounted, it can be put into operated in one day, and thus the cost is reduced. The precise assembly and high configuration make it better than Taiwan machines and competitive with Japan machines.

**1、Paper Feeding Unit**

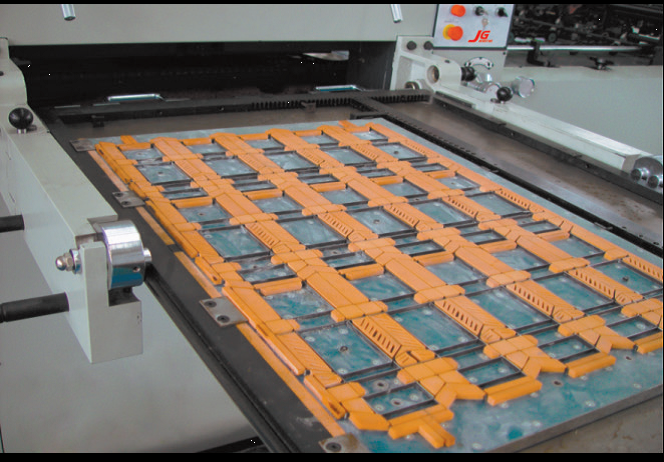
1. With the unique design of the pre-feeder, side regulation and pedal cylinder control, eliminating manual handing and adjustment cumbersome, time-saving, and improve efficiency.
2. To improve the working efficiency, paper feeding and collecting are realized by Taiwan Chenggang dual-speed reduction motor which provides a long service life and a high torsional force, and it saves time due to its high lowering speed.



1. Paper delivery part monitoring: there is a video interface showing the circumstance of the paper delivery part， which help the worker find the abnormal situation and take steps.
2. Paper is positioned by a pushing unit and a pulling unit which can be shifted conveniently for different specifications of paper.

**2、Die-cutting Unit**

1. The cast wall plate is rejected because of its low pulling force but high deformation, and steel wall plate is applied like Japan machines. The pulling force is enlarged, i.e. the pressing force is enlarged, and it becomes firm and endurable without any deformation.
2. The oil route is forcibly lubricated by a HP oil pump as made in Taiwan to reduce wearing, an oil cooler is added to cool the lubricating oil, and the main chain is lubricated timely to improve the operation efficiency



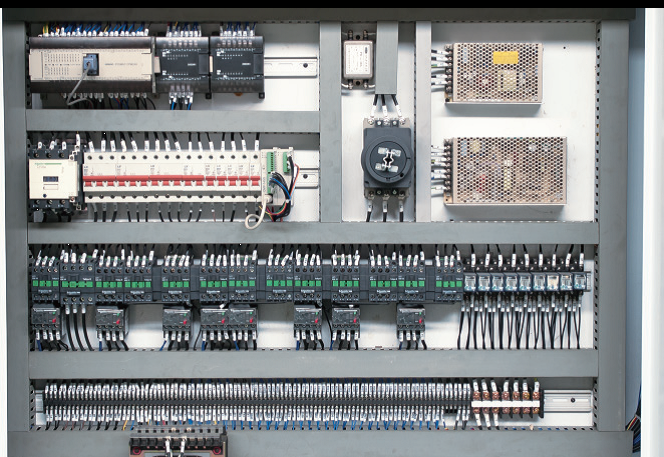
1. The novel transmission mechanism provides high speed die-cutting, and the highly precise swing link platform improves the padding speed (almost without padding), as it is known the pressure can be hardly balanced in most of other common machines.
2. The pneumatic plate locking unit can fix the upper frame more firmly and faster. In our die-cutting machine, the front, back, left and right are pneumatically locked simultaneously to realize a high correctness and a high speed. However, common machines are tightened by screws.
3. The paper holding rack chain is imported from Germany, which provides a long service life and a stable die-cutting precision.
4. The Taiwan intermittent mechanism is the main transmission part of the die-cutting machine, and it improves the die-cutting speed and precision and reduces the device noise, while the speed and precision cannot be realized by any domestic mechanism.
5. The torque limiter is equipped with overload protection. The primary and secondary units can be separated at any overload to ensure the machine can be operated safely. The Italia pneumatic brake and clutch with Japan SMC rotary joint comply with the European standard. They provide fast clutching, high and stable force, long service life and low noise.

**3、Paper Collecting Unit**



1. Paper can be collected automatically and orderly.
2. The efficiency is improved by an uninterrupted paper collecting grid plate, and when paper is stacked to the specified height, the paper collecting grid plate will be replaced by another plate for uninterrupted paper collecting.
3. By the pneumatic sampling, the die-cut paper can be conveniently inspected at any time.

**4、Electrical Control Unit**



1. The electrical control system is Japan Omron PLC computer automatic control for fully detecting and controlling, and the Japan Omron frequency converter with Taiwan main motor provides high power for paper feeding, paper conveying, die-cutting, and paper collecting.
2. The human-machine interface can display various working conditions, indicate fault positions and give solutions.
3. The machine is equipped with various safety protection units. A visible and audible alarm will be given at any fault, and the machine will be automatically shut down to protect personal and device safety.
4. **Accessories**

**1、Accompanying tools**

|  |  |  |
| --- | --- | --- |
| Name | Quantity | Specification |
| Flat screw driver | 1 piece | 150 |
| Cross screw driver | 1 piece | 150 |
| Monkey wrench | 1 piece | 300 |
| Allen wrench | 1 set |  |
| Socket spanner | 1 set | 6-27 |
| Sway spanner | 1 piece |  |
| Steel plate handle | 1 piece |  |
| Hammer | 1 piece |  |
| Engine oil can | 1 piece |  |
| Pressing oil gun | 1 piece |  |
| Tool box | 1 piece |  |

**2、Additional accessories and consumable spares**

|  |  |  |
| --- | --- | --- |
| SN | Name | Quantity |
| 1 | Fixed tooth | 10 pieces |
| 2 | Mobile tooth | 10 pieces |
| 3 | Spring piece | 10 pieces |
| 4 | Nozzle rubber | 16 pieces (2 sets, 1 for large and 1 for small) |
| 5 | Paper dividing spring piece | 12 pieces (2 sets, 1 for thick and 1 for thin) |
| 6 | Electrical banding tape | 5 pieces for large and small each |
| 7 | Semicircular head screw M6×8 | 8 pieces |
| 8 | Expansion bolt M8 | 2 pieces |
| 9 | Buckle Ø30 | 8 pieces |
| 10 | Paper feeding plate | 1 set |
| 11 | Hair wheel (hard hair) | 4 pieces |
| 12 | Paper dividing hair brush | 2 pieces |
| 13 | Paper pressing plate | 1 set |
| 14 | Torsion spring (A0714A.A0714B) Ø2.5 | 7 pieces for each |
| 15 | Rubber padding plate 200×200 | 6 piece |
| 16 | Pushing scale LG31.LG32 | 1 piece for each |
| 17 | Paper barrier C0637B | 2 pieces |
| 18 | Flexible self-adhesive tape | 1 piece |

**VI、Machine Videos Link**

<https://youtu.be/URTy9OVQgGA>

**VII、After-sales service commitment**

**Respected users of JIGUO printing machine:**

JIGUO Printing Machine after-sales service give our heartfelt thanks to you for your choice of our products and solemnly promise you: we will provide satisfactory and considerate service for you.

In order to guarantee your normal use of the die-cutting machine and acquisition of good after-sales service, please carefully read the commitment made in this manual, for this commitment is an important accessory file delivered with user’s manual, factory certificate and packing list. It is an important basis to guarantee your after-sales service, therefore please keep this manual and act in accordance with provisions in this manual.

**A. Our company has executed an all-the-way tracking management system during the period from product delivery to expiration date. Specific measures are as follows:**

**1、Establishing product technical record management system:**

One set of documents for each machine, including acceptance certificate of assembled products, product delivery status, responsible personnel of product installation and commissioning, usage training and qualification certificate, warranty, record of technology and quality status during the guarantee and maintenance period and record of analysis and problem solving process, which can ensure guaranteed operation of each die-cutting machine sold.

**2、After-sales service guarantee system**

1. **Equipment installation and commissioning:**  
   Our company will send professional engineers responsible for equipment overall installation and commissioning.
2. **Technical training:**  
   After equipment arrives at your place, we will provide free training to two operators with technical training materials specially compiled. Professional trainers will be responsible for the training. Main training contents are:  
   Structure introduction of the die-cutting machine, structure and adjustment method of paper feeding, structure of the mainframe, adjustment method of the die-cutting pressure, structure and adjustment method of paper collection, installation of die-cutting plate and plate placing method, usage and attentions of various operating switches, daily maintenance and other courses.  
   After the training is completed, assessment of theory and practical operation will be given to operators to see whether they can operate machine skillfully and have understood principle of mechanical properties. Certificate will be given to operators who can carry out routine operations and maintenance. This certificate makes final decision on whether operators can become trainers in order to ensure the normal operation of machine later.
3. **Time-limited maintenance:**  
   If temporary fault occurs in mechanical system, technical service personnel would make phone call to inquire and solve the problem on receipt of your notice. For unsolved problem, technical service engineers would arrive on your scene within 24 hours if the scene is within 150km of our company; if it is not, engineers would arrive in 48 hours (only for domestic market).
4. One year of free repair guarantee,and one years of warranty, provided the spare parts during guarantee free of charge. and lifetime quality assurance:  
   From the day of your purchase, our company will provide you with free commissioning, maintenance and parts replacement service within one year, but we will charge cost of main parts if the accidents are caused by improper operation instead of mechanical quality.  
   After guarantee, we will provide technical support for all faults occurred in your machine and charge for repair service, including fault repair and original parts replacement.

**B. This guarantee has legal effect and will not become invalid from company’s development and change.**

**C. Guaranteed by the JIGUO brand, we will continue to provide quality guarantee commitment to you.**