**MY-1680Q**

**Automatic Die-cutting Machine**

**Product Introduction**





Tangshan Jiguo Printing Machinery Co.,Ltd.

www.jiguo.net





1. **Company Profile**

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Tangshan Jiguo 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 equipments. Our company is specialized in production of post-print paper packaging equipments, 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 MY800/1060high/1080E/1200E/1320S/1500S/1680S(Q) automatic die-cutting and creasing machine(with stripping unit), TMY-800H/1080/1320H automatic die-cutting and foil stamping machine, BMY1320/1500/1680 semi-automatic die-cutting machine(with stripping unit) and the HRB-1300/1500/1600H/A （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 home and abroad, and have won many honorary awards in the industry and received thousands of praises from domestic and international packaging enterprises. 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 and regions, 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. **Descriptions of the entire product**

Automatic die-cutting 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.

Advantages of our die-cutting machine:

**1、Paper Feeding Unit and Paper Conveying Unit**

**Paper Feeding Unit：**

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1) The high precision lead edge feeder, can adopt to different requirement of the different paper. Frequency conversion control wind volume adjustment. Wind suction area can adjust according to the paper size with high-power fan.

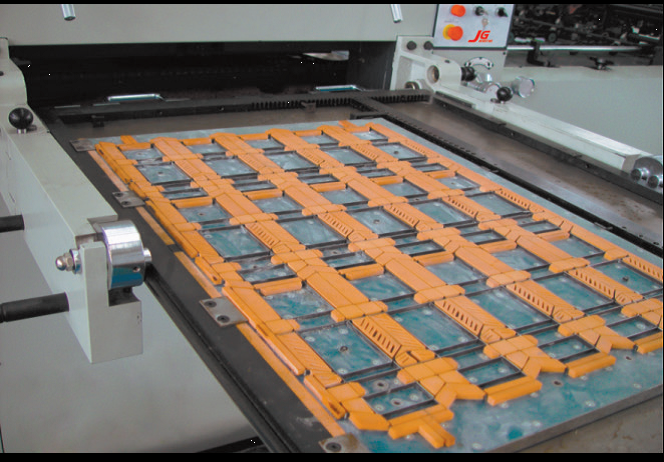
2) The forward, backward, light and low positions can be adjusted according to the stock for smooth feeding of thinner paper, large gram cardboard and corrugated paper etc.

3) 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.

**Paper Conveying Unit：**

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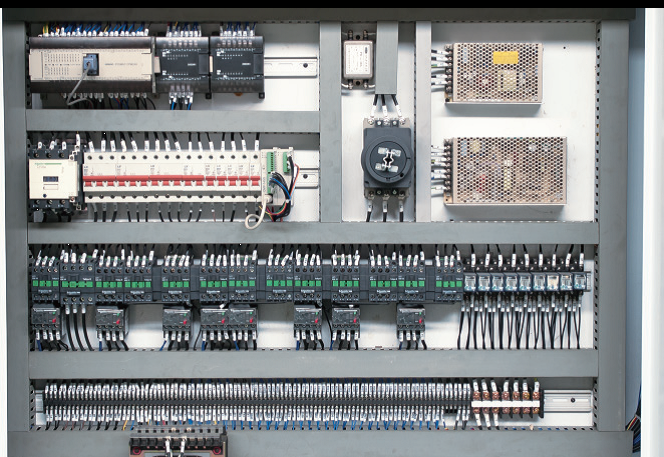
1. The paper conveying part is made of stainless steel plate to prevent rust and provide stable and correct paper conveying.
2. Paper is positioned by a pushing unit and a pulling unit which can be shifted conveniently for different specifications of paper.
3. **Die-cutting Unit**

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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. This machine is upgraded to a brand high level by the automatic pressure regulation and automatic front scale regulation. The addition of this function upgrades it into a convenient and favorable digital device with high controlling speed.
3. 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.
4. 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.
5. 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.
6. The paper holding rack chain is imported from Germany, which provides a long service life and a stable die-cutting precision.
7. 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.
8. 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.
9. **Paper Collecting Unit**

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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**

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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. **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 | Taiwan-owned production |
| 3 | Die cutting steel plate | 7mm | Korean material 75Gr1 |
| 4 | Main chain | Iwis | Germany |
| 5 | Other chains | TYC | Taiwan |
| 6 | Pneumatic clutch | OPMI | Italy |
| 7 | High-speed joint | SMC | Japan |
| 8 | Screws | 12.9 level | Taiwan |
| 9 | Bolt type track rollers | SKF | Sweden |
| 10 | Bearing 30311 | SKF | Sweden |
| 11 | Bearing 32016 | SKF | Sweden |
| 12 | Bearing 57941/10 | SKF | Sweden |
| 13 | Bearing 6016-2Z | SKF | Sweden |
| 14 | Bearing 6212-2Z | SKF | Sweden |
| 15 | Bearing 6214-2Z | SKF | Sweden |
| 16 | Bearing 6218-2Z | SKF | Sweden |
| 17 | Bearing 6219-2Z | SKF | Sweden |
| 18 | Bearing 63202-2Z | SKF | Sweden |
| 19 | Bearing 80202 | SKF | Sweden |
| 20 | Bearing 80208 | SKF | Sweden |
| 21 | Bearing 80209 | SKF | Sweden |
| 22 | Bearing 80210 | SKF | Sweden |
| 23 | Bearing 80216 | SKF | Sweden |
| 24 | Bearing 80307 | SKF | Sweden |
| 25 | Bearing 6311 | SKF | Sweden |
| 26 | Other Bearings | NSK | Japan |
| 27 | Frenquency converter | TOSHIBA | Japan |
| 28 | Programmable logic controller | OMRON | Japan |
| 29 | Oil pressure switch | Southman | Japan |
| 30 | Photoconductive switch | OMRON | Japan |
| 31 | A.C. contactor | Schneider Electric | France |
| 32 | Thermorelay | Schneider Electric | France |
| 33 | Air switch | Schneider Electric | France |
| 34 | Button | Schneider Electric | France |
| 35 | Human-computer interface | TELTA | Taiwan |
| 36 | Motor GV-40-750-200SM | WANSHSIN | Japan |
| 37 | Motor GV-32-400-200SM | WANSHSIN | Japan |
| 38 | Lubrication System | GOLDKA | Taiwan |
| 39 | Gas Path System | SUNRISE | Taiwan |
| 40 | Vacuum Pump | EUROVAC | Taiwan |
| 41 | Relay | IDEC | Japan |
| 42 | Solenoid Valve | AirTAC | Taiwan |

For any needs of technology improvement, company keeps the right to change above information.

1. **Specifications**

**Specifications sheet**

| Model | MY-1680Q |
| --- | --- |
| Max. Paper Size | 1680×1235mm |
| Min. Paper Size | 550×450mm |
| Max. Cutting Size | 1600×1220mm |
| Max. Pressure | 400T |
| Sheet Thickness | Carboard:250-2500g/m2 Corrugated Board<10mm (Max.thickness) |
| Max.Cutting Speed | 4500sheets/h |
| Die-Cutting Precision | ±0.25 |
| Total power | 25KW |
| Weight | 25T |
| Overall Dimension | 9800×5050×2600mm |

1. **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 gripper finger | 10 pieces |
| 2 | Mobile gripper finger | 10 pieces |
| 3 | Spring piece | 10 pieces |
| 4 | Sucker rubber | 16 pieces (2 sets, 1 for large and 1 for small) |
| 5 | Sheet separator | 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 | Brush 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 |