

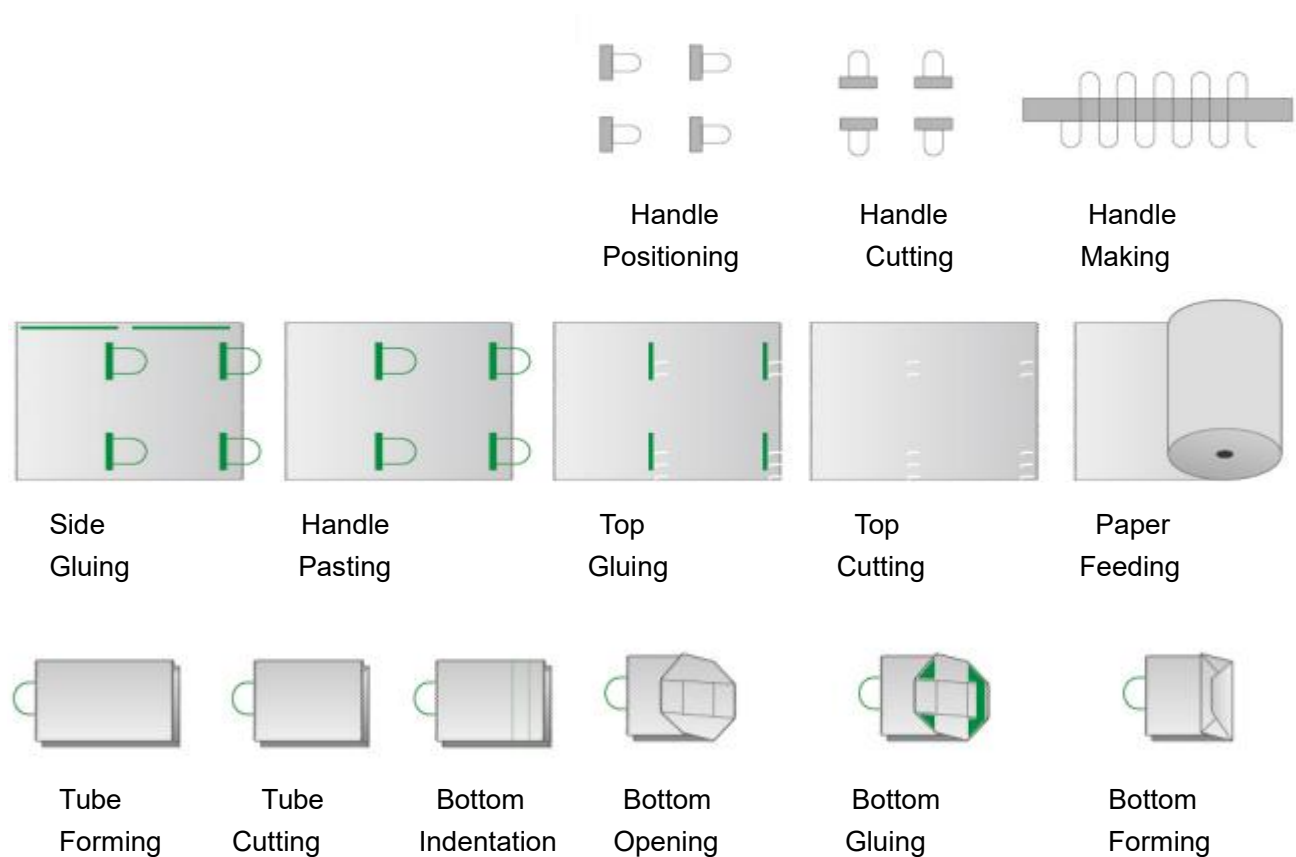


### 1.1 TECHNICAL DESCRIPTION

Oyang 16-A400 full automatic square bottom paper bag machine is used for the production of a paper bag with a twisted handle loop. Transmission of the handle made by handle making unit, cut, stick, pressed, and then pre-cut, glue, auto handle stick in empty or printed roll paper. Then the main machine will glue the paper with the handle loop to the edge, paper bag tube forming, cut off, indentation, bottom glue, bottom forming, and sealing, bag conveying. the whole process is completed simultaneously at one time. Real realization of full automation production, can effectively save labor costs.

The whole machine adopts the servo-electric control system imported from Japan, which ensures the whole machine can run quickly and stably and effectively reduces the time of paper bag size adjustment. The finished bags produced are of high accuracy, strong stability, simple maintenance, and efficient production, which is the ideal equipment for major printing plants and paper bag manufacturers.

### 1.2 BAG MAKING PROCESS



### 1.3 SAMPLE BAGS



#### BAG SUITABLE:

Food bag:leisure food bag,baking bag,nuts fried bag,subsidiary food bag,fruit bag,baby products bag,etc.

Gift bag:candy ,tea wine etc.

Take away bag:shopping bag,cloth bag,taking away food bag

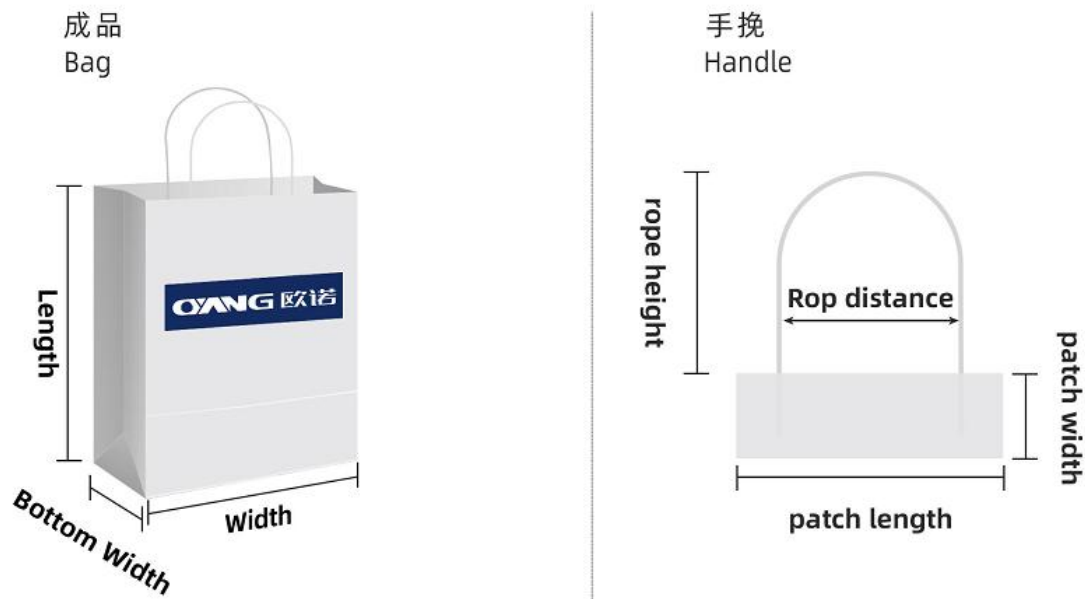
### 1.4 PRODCUTION RANGE DESCRIPTION

MODEL	Oyang 16 -A400
Paper roll width	510/610-1230mm
Paper diameter	≤1500mm
Core inner diameter	Φ76mm
Paper weight	80-140g/m <sup>2</sup>
Paper bag width	200-400mm with handle
	150-400mm without handle
Paper tube length	280-550mm With handle
	280-600mm Without handle

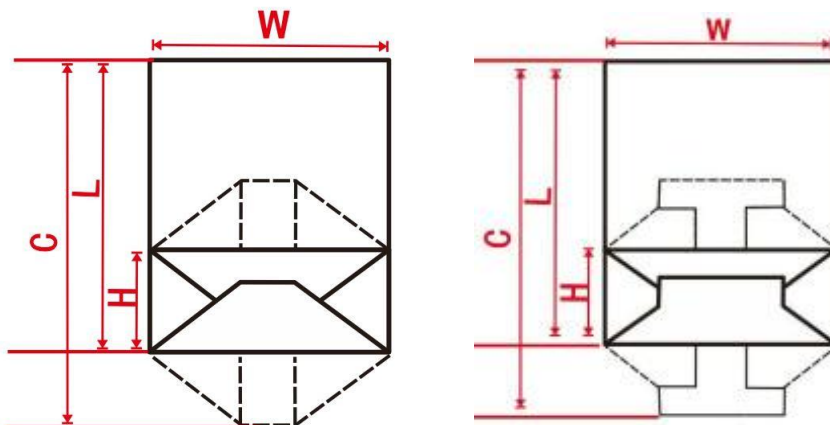
Bottom width of paper bag	90-200mm
Machine speed	150pcs/min
Total power	34KW
Machine weight	18000KG
Machine dimensions	15000*6000*3500mm

**1.5 HANDDLE PRODCUTION RANGE DESCRIPTION**

HANDLE MODEL	5HD
Handle rope height	95-115mm
Handle patch width	45-50mm
Handle patch length	152.4mm
Handle rope diameter	Φ4-6mm
Diameter of handle patch paper roll	Φ1200mm
Handle patch paper roll width	90-100mm
Handle patch weight	100-140g
Distance of the handle	76mm



#### 1.6 BOTTOM FOLDING METHOD



W:paper bag width  
 C:paper bag tube length  
 L:paper bag height  
 H:paper bag bottom width

#### 1.7 DESCRIPTION AND CONFIGURATION OF MAIN STRICTURE AND FUNCTION

Two rolls of paper and paper rope are fed together, the reel of paper and the paper rope are bonded by water glue and hot glue;And then the pressing device is used for conveying and pressing the handle;The handle patch is cut in half and transmitted to the attachment mechanism.

### 1.7.1 HANDLE MAKING UNIT

#### 1. Handle unwinding unit

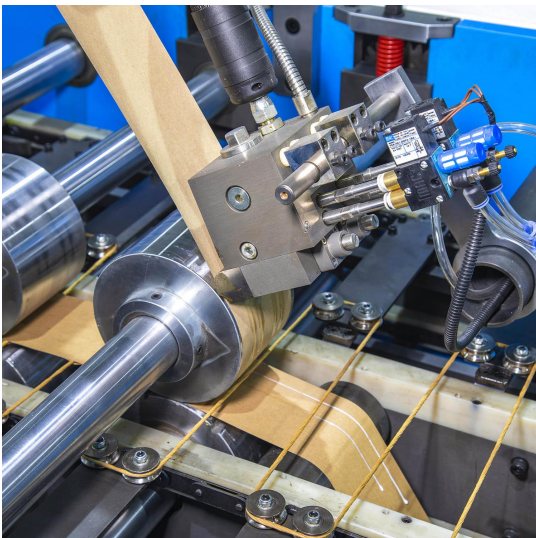
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|-------------------------------|----------------|
| (1)Mechanical tension control | 2 SET          |
| (2)Web guide system           | (ARISE ) 2 SET |



#### 2. Handle making unit

##### (1) Handle pasting unit,use cold glue and hot melt glue

- |                      |                    |
|----------------------|--------------------|
| Cold glue system     | 1 SET              |
| Hot melt glue system | (XINBAISHUN) 1 SET |



##### (2) Drive system

- |                 |                     |       |
|-----------------|---------------------|-------|
| Servo motor 2kw | (YASKAWA JAPAN)     | 1 SET |
| Reducer         | (LIMING TAIWAN)     | 1 SET |
| Gear            | (level 5 precision) |       |
| Bearing         | (NSK Japan)         |       |
| Air cylinder    | (AIRTAC TAIWAN)     |       |

- |                              |       |
|------------------------------|-------|
| (3) Hand conveyor guide rail | 1 SET |
|------------------------------|-------|



**1.7.2 HANDLE CONVEYOR AND PASTING UNIT**

The handle piece will be cut off and transferred to the longitudinal pushing claw; The cutting handle will be sent to the designated position of the mouth of the paper bag to be produced by conveyor station; Then glue the handle on the paper bag specified position, and then press the handle on paper and transmission to the bag forming part.

Gear	(level 5 precision)	
Bearing	(NSK JAPAN)	
Handle Traction servo motor	(YASKAWA JAPAN)	1 SET
Pre-Cutting servo motor	(YASKAWA JAPAN)	1 SET
Gluing servo motor	(YASKAWA JAPAN)	1 SET
Glue spin servo motor 1	(YASKAWA JAPAN)	1 SET
Glue spin servo motor 2	(YASKAWA JAPAN)	1 SET
Glue system	(Auto glue feeding)	
Conveyor servo motor	(YASKAWA JAPAN)	1 SET
Reducer	(LIMING TAIWAN)	
Air cylinder	(AIRTAC TAIWAN)	
Electric element	(Schneider FRANCH)	
Sensor	(Panasonic JAPAN/Schneider FRANCH)	2 PCS

**1.7.3 PAPER MATERIAL FEEDING SYSTEM**

1. The feeding is equipped with an automatic lifting function, the main function is easy to replace the paper during production, can be easily completed through the switch control.

- (1) Unwinding using air expansion axis
- (2) Feeding is equipped with hydraulic cylinder lifting control system
- (3) Feeding with automatic tension control system

2. Automatic stroke correction system, the system is mainly to ensure the smoothness and stability of web paper feeding state.

Unwinding unit	1 SET
Pneumatic brake	1 SET
Auto tension	1 SET
Auto EPC system	(PAUSOURCE) 1 SET
Auto stop system	



#### 1.7.4 PAPER SIDE GLUE SYTEM

Separated material in-feed unit  
 Precision cold glue system (40kg glue pressure tank)

#### 1.7.5 PAPER TUBE FORMING SYSTEM



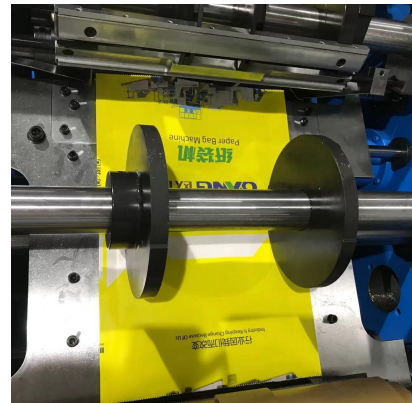
Former support device	(up and down)	1 SET
Side insert device	(Chrome plated )	1 SET
Printing checking sensor	(SICK GERMANY)	1 SET
Pressing wheel		6 SET
Bottom cut servo motor	(YASKAWA JAPAN)	1 SET

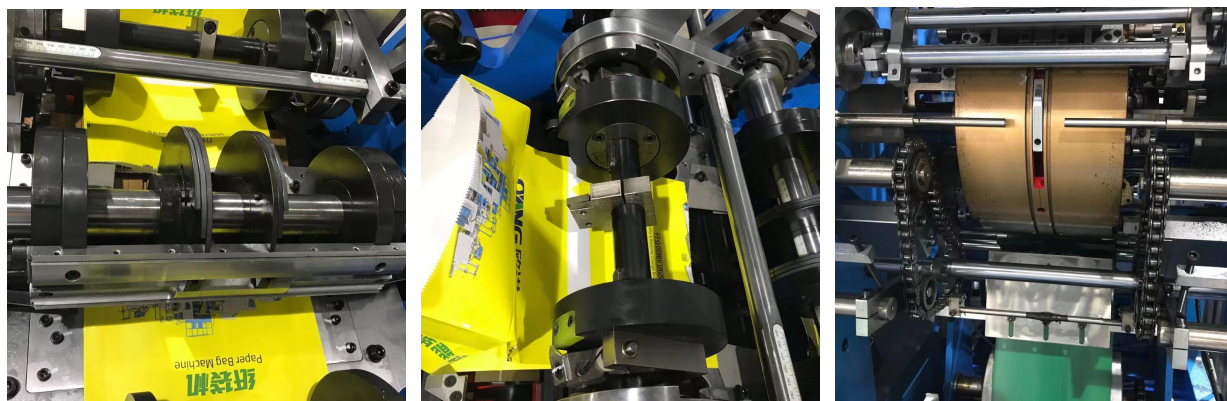


**1.7.6 PAPER BAG BOTTOM FORMING SYSTEM**

Main servo motor	(YASKAWA JAPAN)	1SET
Traction servo motor	(YASKAWA JAPAN)	1SET
Bag length cutting servo motor	(YASKAWA JAPAN)	1SET
bag bottom open servo motor	(YASKAWA JAPAN)	1SET
Bottom glue servo motor	(YASKAWA JAPAN)	1SET
Bag bottom close servo motor	(YASKAWA JAPAN)	1SET
Traction roller	1 SET	
Bag conveyor unit	1 SET	
Bag bottom creasing unit	1 SET	
Bag bottom open unit	1 SET	
Lubricating oil system	(China)	1 SET
Cylinder	(DELIXI)	
Pneumatic valve	(DELIXI)	
Paper checking sensor	(Panasonic JAPAN)	
Bearing	Germany NEY	

Multi Layer Bottom Forming Drum, Center Grippers, Second Tuck Clamps, and Drum Fingers are adjustable for ease of changeover





### 1.7.7 PAPER BAG COLLECTION SYSTEM

The formed paper bag is pressed together and conveyed out. The bag collection device can set automatic counting when the finished product is out of the bag according to the requirements.

Vertical bag collection unit	1 SET
Working table	1 SET
Auto Counting system	1 SET

### 1.8 ELETRIC CONFIGURATION

MOTION CONTROLLER	(YASKAWA JAPAN)	1SET
Ethernet full-color touch screen	(FANYI )	1SET
Servo Drive	(YASKAWA JAPAN)	14SET
Input and output PNP	(YASKAWA JAPAN)	1SET
Power and feedback cable	(MITSINOSJ JAPAN)	1SET
Circuit breaker	(SHNEIDER FRANCE)	
Contactore	(SHNEIDER FRANCE)	
Relay	(SHNEIDER FRANCE)	

### 1.9 MAIN MACHINE MATERIAL AND PROCESSING TECHNIC

Main wallboard material	nodular cast iron QT400
Gear material	38CrMnAl
Shaft material	45#、40Cr
Other materials	ZG270-500, G12MOV
The thickness of the shaft plating layer	> 0.08mm
The surface hardness of the gear	45-50HRC
Conveyor belt material	Switzerland Habasit