



# **GX-SF-20**

Six servo Bag Making Machine (Three-side sealing, 4 Side Seal, Centre Seal,& Zipper Standing & Self-in Gusset Standing Bag)

PROPOSAL BY:

**Smart Pack Solutions** 



# What We Do?

Smart Pack Solutions, established in 2009, specializes in importing high-quality China pouching machines that incorporate advanced European components. These machines offer cutting-edge technology and performance as leading international brands.

Smart Pack Solutions provides end-to-end support, including expert installation, backed by a robust warranty\*. The company is dedicated to delivering exceptional service, from initial setup to ongoing maintenance, ensuring peak performance and long-term reliability. With their deep expertise, Smart Pack Solutions stands out as a trusted partner for businesses looking to invest in advanced packaging technologies.





#### Features

This all-in-one pouch making machine is designed to produce 3 Side Seal, 4 Side Seal, Centre Seal, Standy Pouches, and Standy Pouches with Zipper. Equipped with a round double-cutting blade, it ensures precise cutting without mixing colors, allowing multiple jobs to be completed efficiently from a single roll. Featuring six Panasonic drives for smooth and accurate operation, the machine delivers exceptional control, stability, and precision, ensuring smooth operation even at high speeds. This machine meets CE certification standards and is built to European quality. Its advanced technology and robust design make it the ideal solution for versatile and high-performance pouch production.

# Technical Parameter:

**Function**: Three-side sealing,4 Side Seal, Centre Seal, Double zipper Standing & Self-in Gusset Standing Bag & Secondary cutter

**Main Electric Device:** Six Servo Motors, Panasonic PLC, AC motor master drive, Panasonic frequency converter, Temperature control, Tension control unwinding.

Base material: BOPP, PET, CPP, PE, nylon, aluminum foil, and paper are used to create two-layer or multi-layer structures.

Max working speed: 220 pouches/min

Max unwinding line speed: ≤38 meter/min (subject to base material)

Making bag size: length (400mm). (Max times to send is six)

Max width of bag: 600mm

Max size of roll material: φ800×1250mm (Diameter×Width)



**Location precise:** ≤±0.5mm

**Heating sealing knife quantity:** 2 set Longitudinal Knife, warming and cooling up and down. 4 set Longitudinal Knife, warming and cooling up and down.

Transverse Knife: 5 set warming up and down. 2 set cooling up and down. Transverse sealing adopts ultrasonic welding zipper head.

**Temperature range:** 0~350°C

Total Power: 75Kw (Starting power is about 45kw, in condition of keeping

warm, power is about 35kw)

Overall dimension: 15000×2300×1950mm (L×W×H)

Net weight: About 7500 kg.

Machine steel plate thickness: 10mm (Made by Baosteel)

Control system Model: Japan Panasonic PLC Laminating Film High speed

bag making machine control system.

# Equipment and Parameter

# 1) Unwinding device

- **A. Structural form:** horizontal type level station(formed of magnetic powder brake, air cylinder, swing roller, pulling roller sensor and control system)
- **B. Unwinding bearing:** air shaft and pneumatic-lock device.

### 2) Unwinding tension

- **A. Control system:** computer control, magnetic powder brake, Compensation potentiometer, rotary encoder, tension system.
- B. Adjust drive: PID adjust, PWM drive.
- C. Detection mode: Detection by Compensation potentiometer and rotary encoder together.



#### 3) Edge control device

A. **Structure:** K type frame vertical translation, adjustment by screw rod.

B. Drive: solid-state relay drive and low speed synchronous motor

C. Transmission: coupling connect

D. Control form: Double photoelectric sensorcomputer controlE. Detection mode: reflecting type photoelectric sensor detection

F. tracking accuracy: ≤0.5mm G. Adjustment range: 0-100 mm

#### 4) Opposite side

A. **Structure**: centre and bothway, rotary type adjust structure.

B. Form: manual adjustment(adjusting handle)

### 5) Perfect register up and down

A. Structure: single roller adjustment up and down.

B. Form: manual adjustment(adjusting handle)

## 6) Longitudinal sealing device

A. **Structure**: combined type bridge structure, 4sets heating & cooling up and down

B. Heating knife length: 800mm cooling knife length: 400mm

## 7) Transverse sealing device

A. Structure: crossbeam type heating and pressing

B. Quantity: transverse heating: 5 sets, length: 640mm

C. Cooling: 2 sets, length: 640mm

D. Zipper head adopts ultrasonic welding

## 8) Film Pulling

A. Structure: pneumatic type glue roller pressing and clash type

B. Drive: Inertia in the digital type AC servo system

(Panasonic or Mitsubishi servo motor: 1Kw, 1.5Kw 2000r/m)

C. **Transmission:** M type Synchronous belt round transmission: speed ratio 1:2.4

D. Control Form: computer concentrate control

E. **Detection mode:** photoelectric sensor, nearby switch.

# 9) Middle tension

A. Structure: vapour-pressure type float tension roller

B. Control form: computer control, Dynamic exercise compensation

C. Detection mode: noncontacting approach switch

D. float tension roller adjustment range:0~0.6Mpa



### 10) Main transmission device

A. Structure: The crank rocker push-pull type four bar mechanism

B. Drive: Taiwan 3.7Kw motor

C. Transmission: Main transmission motor with 1: 13 reduction gears

D. Control form: computer control

**E. Mode of exercise:** Main motor exercise brings frame vertical motion up and down.

## 11) Automatically location device

**A. Type:** a) Computer automatically fixed length control type: accuracy: ≤0.5mm

- b) reflecting type photoelectric sensor detection: accuracy: ≤0.5mm
- **B. Photoelectric search range:** 0~10 mm( range is set by computer, automatically search )
- C. Correct compensate range: ±1~±5 mm
- **D. Location correct type:** photoelectricity and servo motor coder feedback computer control.

#### 12) Temperature control device

**A. Detection mode**: thermocouple Detection E type

**B. Control type:** computer control, solid-state relay drive PID adjustment

C. Temperature range: 0~300°C

**D. Detection temperature spot:** Middle in electric heating piece.

### 13) Cutting knife

A. Structure: up cutting knife+ adjustment device + fixed down cutting knife

B. Transmission: eccentric shaft motive power

C. Adjustment: level moving, pulling handle adjust the angle of cutting.

### 14) Zipper device

**A. Longitudinal cold wave:** combination type bridge structure, 2 sets heating and cooling up and down.

B. Heating knife: 800mm C. Cooling knife: 400mm

**D. Zipper move towards**: left, middle, right guide plate Longitudinal arrange



#### 15) Standing bag illustration device

A. **Structure**: horizontal type level station(formed of magnetic powder brake, air cylinder, swing roller, pulling roller sensor and control system)

- B. Illustration pulling: main motor pulling drive illustration together
- C. Unwinding: swinging arm control unwinding motor
- D. Control form: sensor and rotary encoder
- E. **Transmission**: coupling connection.
- F. opposite side: screw rod structure, manual adjustment
- G. **Tension**: unwinding constant-tension
- H. **Unwinding bearing:** air shaft
- I. **Punch hole:** photoelectricity tracking, Main computer control, pneumatic punch. Punch hole location is adjusted manually.

#### 16) Waste collector

A. **Structure**: horizontal type Reciprocating screw collecting waste material.

B. **Drive**: AC motorC. **Control**: sensor

#### 17) Punch device

- A. Structure: Bow type pneumatic type punch mould
- B. Control form: computer control
- C. **Drive**: electronic switch drive magnetic valve (DC24V)
- D. Punch hole seat: guide rail type support bow type manual level adjustment.
- E. **Moulds**: Ling form hole  $4\times2$  (1 set) round hole  $\phi6$  (1 set)  $\phi15$  (2 sets)

# 18) Times to send device

- A. Structure: pneumatic type cushion and nonsynchronous heat protection type
- B. Control form: computer control
- C. **Drive**: electronic switch drive magnetic valve (DC24V)
- D. **Motion type**: 5 sets transverse heating knife, 2 sets cooling knife, nonsynchronous motion.
- E. Quantity of times to send: from 2-6 times(it is set in computer)

# 19) Automatically carry device

- A. **Structure**: O type lever station
- B. Drive: solid-state relay drive, gear reduction speed single phase motor
- C. Transmission: helical gear transmission
- D. carry range and quantity: set in computer freely
- E. Control form: computer control



# Supporting facility (offered by the user)

A. Power: three phase 380V±10 % 50Hz air switch 150A

With zero wire, earth wire (R.S.T.E)

**B. Capacity:** ≥75Kw

C. air source: 35 L/min (0.6Mpa)

D. Cooling water: 15 L/min

# Optional: (not including the price)

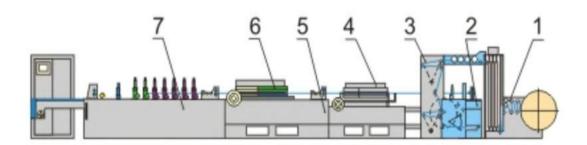
A. adding punch hole

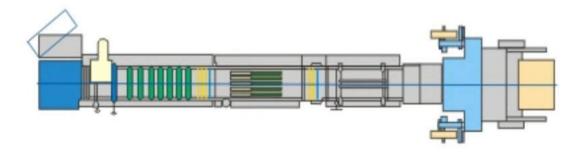
it must be statement More than the basic punching configuration

B. Abnormal shape sealing knife

it can be made especially according to the user's request

# Schematic Diagram







# Key Parts List

Position name	Parts name	Model	Quantity	Supplier
Pulling	Pulling motor	0.75KW/1 set/1KW/2 set /1.5KW/3 sets	s 6 sets	Panasonic
	Pneumatic part			Airtac, Taiwan
Transmission	Reducer	1: 13	1 set	Taiwan
	Main motor	3.7KW	1 set	Taiwan
Feeding	Transducer	0.75KW	2 sets	Panasonic
Vertical feeding	Black motor	0.12KW	2 sets	China
Control part	PLC		1 set	Panasonic
	Touch screen	10.4inch Color	1 set	Weinview, Taiwa
	Solid relay		20 pcs	Shanghai
	Magnetic powder brake	0.6/2 sets \ 2.5/2 sets	4 sets	China
	Edge controller	Double sensor	1 set	China
	Off way controller	PPK-II	1 set	Wuxi, China
Bearing	Oscillating bearing	g		Germany
	Drive bearing			Germany
Detecting part	Photo electric senso		2 pcs	Germany



# GX-SF-20 Bag Making Machine Accessories List

# **Mechanism**

Position name	Parts name	Model	Quantity	Remark
Heating knife	Longitudinal knife	5mm	2 pcs	Wuxi
		10mm	3 pcs	Wuxi
		20mm	3 pcs	Wuxi
	Longitudinal chain knife	Groove width: 3mm	4 pcs	Wuxi
	Transverse knife	5	2 pcs	Wuxi
		10	5 pcs	Wuxi
		20	5 pcs	Wuxi
		30	2 pcs	Wuxi
	Stand bag arc knife		2 pcs	Made by client requirement
	Flat knife		2 set	
	Common edge machine		1 set	

Remark: the parts above include parts which come with machine.



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