

高精度导柱式合模机 t

High-Precision Series pole with mold Series

技 t 术 t 协 t 议 Technology Agreement

设备名称 Equipment Name	高精度导柱式合模机 t High-Precision Series pole with mold Series
规格型号 Model No	SX400JM-3025YC
买方 Buyer	

SX400JM-3025YC

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1. Overview of performance and structure of machine tool

Die spotting press, which is mainly used for die assembly, while can also be used as general press machine, is a multifunction hydraulic machine tool. The greatest feature of this machine tool is high precision of die spotting machine, easily adjustable parallelism, high-grade machine configuration and several patents acquired. Structure of machine tool as follows:

1.1 Principal machine

Characteristics of main structure of this machine tool adopting guide pillar are as following

- a) The design of guide pillar structure and elastic plate makes the precision of high-tension die assembly of machine higher and parallelism adjustment of plate more convenient.
- b) Four closing cylinders make stress on it even in high-tension die assembly as well as low coefficient of deformation;
- c) Oil-free self-lubricating of complete machine, makes machine cleaner and greener;
- d) With practical and reliable function of fault detection, alarm and mold protection in low tension;
- e) High-precision shifting and lifting device of lower plate;
- f) The overall structure adopts optimal design, rib plate layout is reasonable, the thickness of steel and the density of rib plate are greater than the similar products.

1.2. Hydraulic and electrical systems:

- a) All hydraulic and electrical system adopt imported or Sino-foreign joint components (see main parameters and configuration in article 2)
- b) Design of hydraulic circuit is reasonable, stable and reliable.
- c) Electrical system adopts digital **PLC control**, and all the parameters can freely set by **large LCD screen**. Operation is simple and maintenance is convenient.

1.3. Precision of complete machine and spare parts

All large parts of this machine tool, with good geometric accuracy and high smooth finish, are manufactured in Taiwan CNC stereo machining center.

1.4. Safety design

This machine tool adopts measures as following to ensure personal safety of user and equipment safety:

- a) Install protective screening at the front and back of framework of machine tool, and emergency interlock switch to prevent accidents
- b) Safety protection device of hydraulic contracting brake and low-pressure mould, to prevent terrible accidents to people and machine result from high-speed downslide of slide block because of misoperation.

1.5. This machine adopts advanced structure and high-quality spare parts in main design, select and use of bought-in components, installation and safety protection.

2. Main parameters

2.1 Main body

1	Pressure capacity	t	400
2	Open capacity	t	80
3	Overturn capacity	t	25
4	Ejecting capacity	t	11.2
5	Dimension of upper workbench	mm	3500X2580
6	Dimension of lower workbench	mm	3500X2500
7	Max weight of mould	t	50
8	Min distance between two workbenches	mm	400
9	Max distance between two workbenches	mm	2800
10	Min mould size (LXW)	mm	1000X850
11	Shift-out stroke of lower workbench	mm	5400
12	Ejection stroke	mm	350
13	Overturn angle of upper workbench	°	180
14	External dimension(LXWXH)	mm	8980X4470X8020
15	Electrical power	kW	45
16	Weight	t	About 92

2.2 Precision of machine tool

1	Parallelism(mm/m ²)	≤0.06
2	Reset precision(mm)	≤0.05

3	Flatness(mm)	≤0.08
4	Noise (dB)	≤82

3. Structure sketch of machine tool: Annex 1

4. Foundation drawing of machine tool: Annex 2

5. Configuration list of main parts

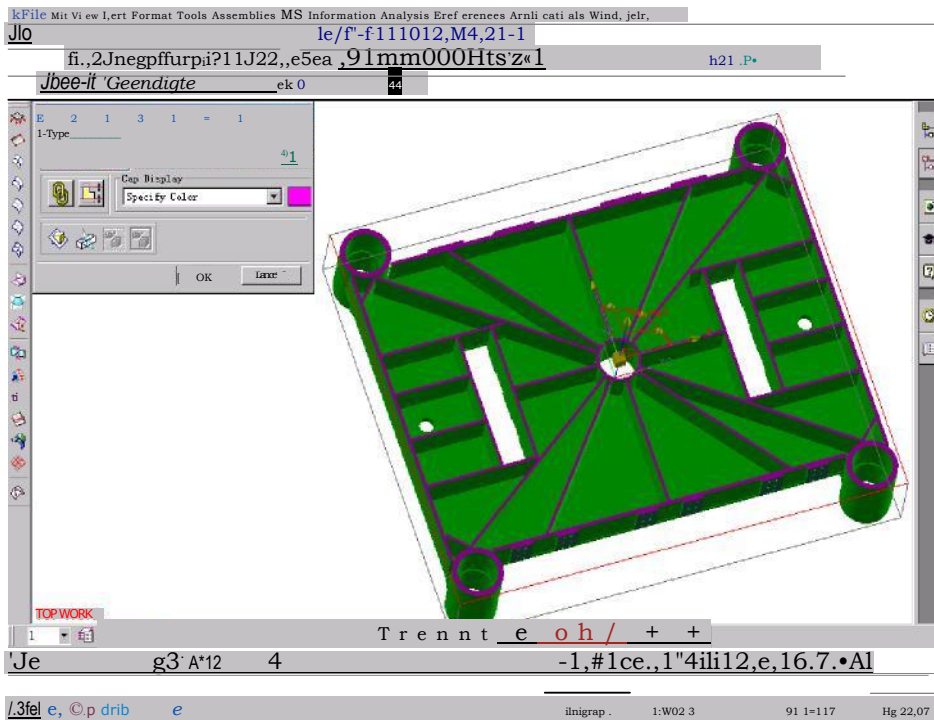
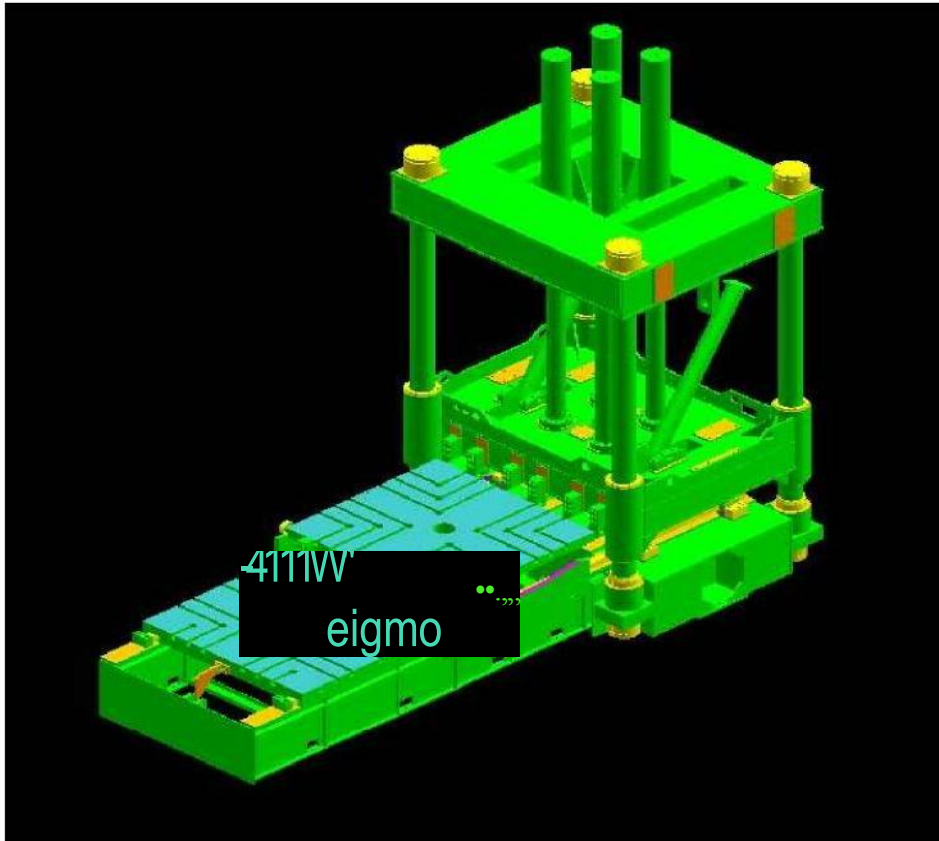
NO.	Name	Model	Manufacturer	Country of origin
1	Touch screen	Smart1000IE	SIEMENS	Germany
2	PLC	S7-1200	SIEMENS	Germany
3	Lighting pipe	LED 50W	Yaming	China
4	Motor	ISMG2-60D17CD-R1A1FA	Inovance	China
5	Frequency converter	IS580T140-R1	Inovance	China
6	Oil pump	HG22-100-80	Sunny	China
7	Oil motor	J6K-625	Eaton	America
8	Electromagnetic diversion valve	DG5V-8C-02C	VICKERS	America
9	Cartridge valve	LG25D-B-S-YW	Northman	China.Taiwan
		LG25P-D-R-LP	Northman	China.Taiwan
		LG25P-D-R-COR	Northman	China.Taiwan
10	Y sealing ring	ODI250X225X19	NOK	Japan
		ODI210X230X16	NOK	Japan
		ODI120X100X12	NOK	Japan
		UHS145X160X9	NOK	Japan
		UHS60X70X6	NOK	Japan
12	K HBTS	S31-210X230.5X8	Michael	Germany
13	Air switch	EZD100M3100	Schneider	French
14	High pressure proximity switch	DW-AD-501-P20	Yingke	China

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15	Travel switch	HL5000	Omron	Japan
16	Approach switch	PM12-04N	Yangming	China.Taiwan
17	Displacement sensor	EP02800MD341V11	MTS	America

6. Effect diagram of machine and structure diagram of key parts:



6.1 Safety performance of machine:

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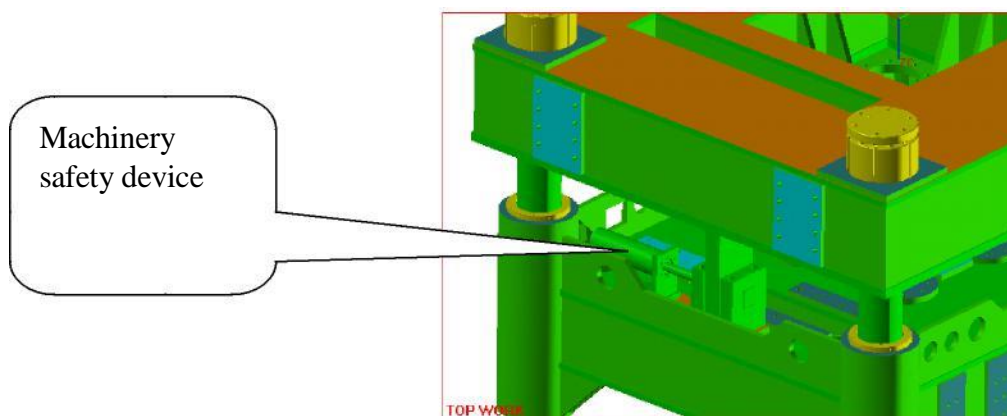
a. Safety performance of machine itself

Machine design is conducted on the basis of full consideration of strength and stiffness, and meet humanization requirement, under this premise to adopt certain structural design to improve accuracy requirement of equipments

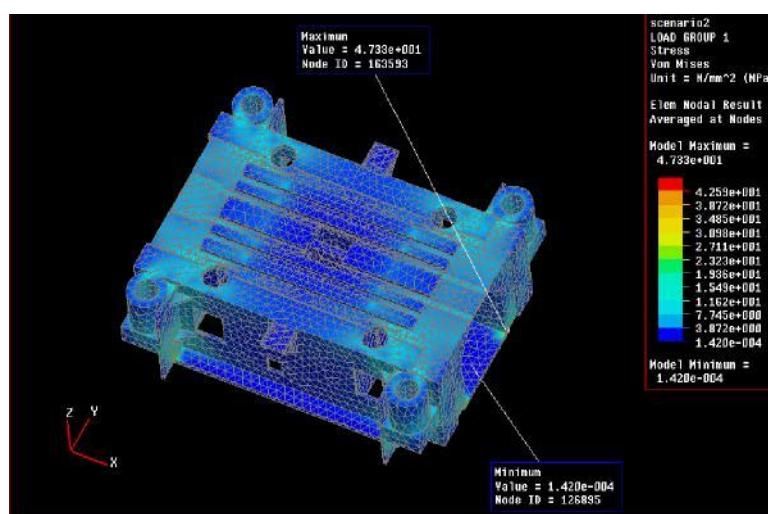
b. Safety performance of machine to people or molds

Safety performance to people or molds in machine design mainly embodied in the following:

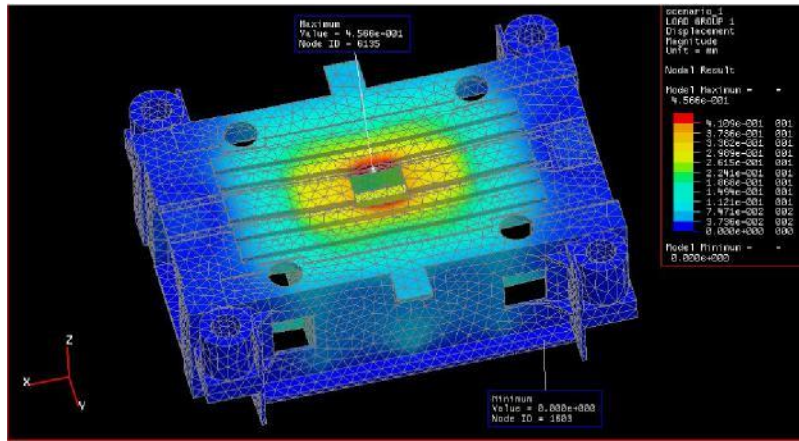
- Machinery safety device
- Hydraulic safety device
- Electrical equipment safety device
- Peripheral guardrail, safety interlock of series electrical equipment
- Low-pressure mold protection device



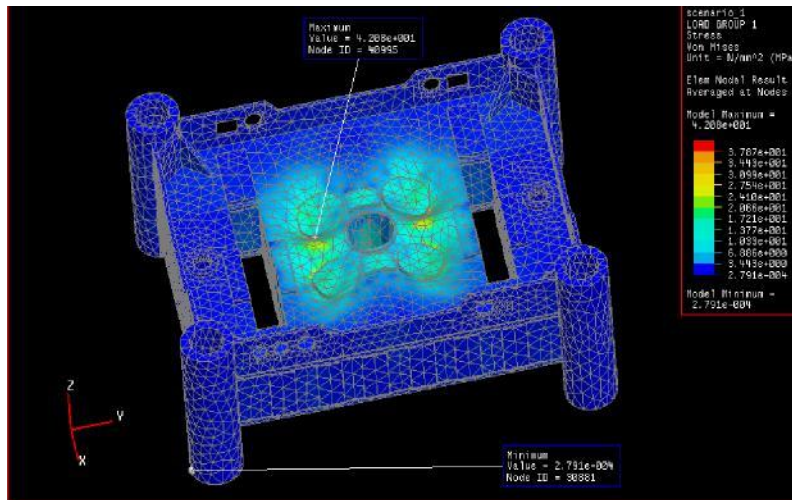
6.2 Maximum stress of base finite element analysis is:



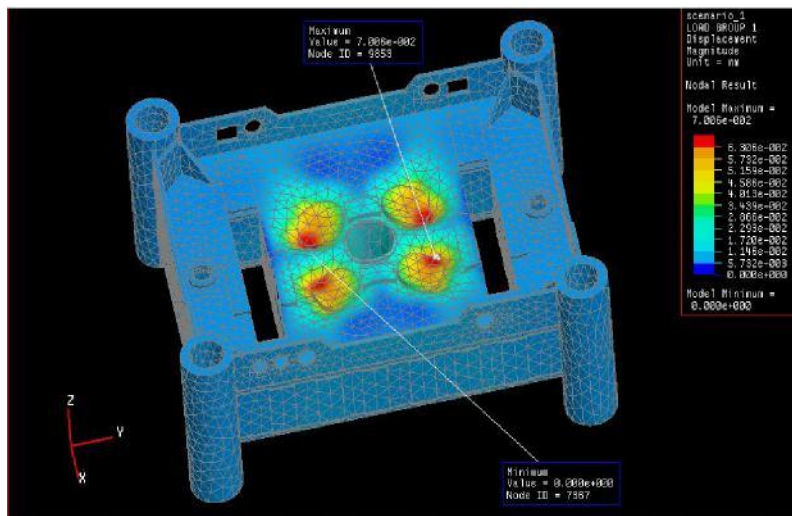
Maximum strain is :



6.3 Maximum stress of intermediate base finite element analysis is:



Maximum strain is :



7. Accessories

No.	Name	Specifications	Quantity	Remark
1	Open ended wrench	36-36	1	
2	Adjustable wrench	300mm	1	
3	Socket head wrench	14mm;17mm	1	
4	Travel switch	Omron	2	
5	Proximity switch	2 meters	2	
6	Screwdriver	“+”Cross	1	
7	Screwdriver	“-”Slotted	1	
8	Adjustable iron gasket	Type A (300)	30	
9	Clamping cap	M-24	24	
10	T-nut	M-24	24	
11	Clamping bolt	M30	23	Foundation
12	Nut peace pad	30	46	
13	Lubricant grease		1	
14	Grease gun		1	
15	Signal lamp		1	
16	Lighting lamp		4	
17	Lighting pipe		2	
18	Tool kit		1	

8. Accompanying documents

No.	Name	Amount	Remark
1	Operation instruction	1	
2	Product certificate	1	
3	Packing list	1	
4	Precision Inspection Certificate	1	
5	Delivery note	1	

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9. Optional devices

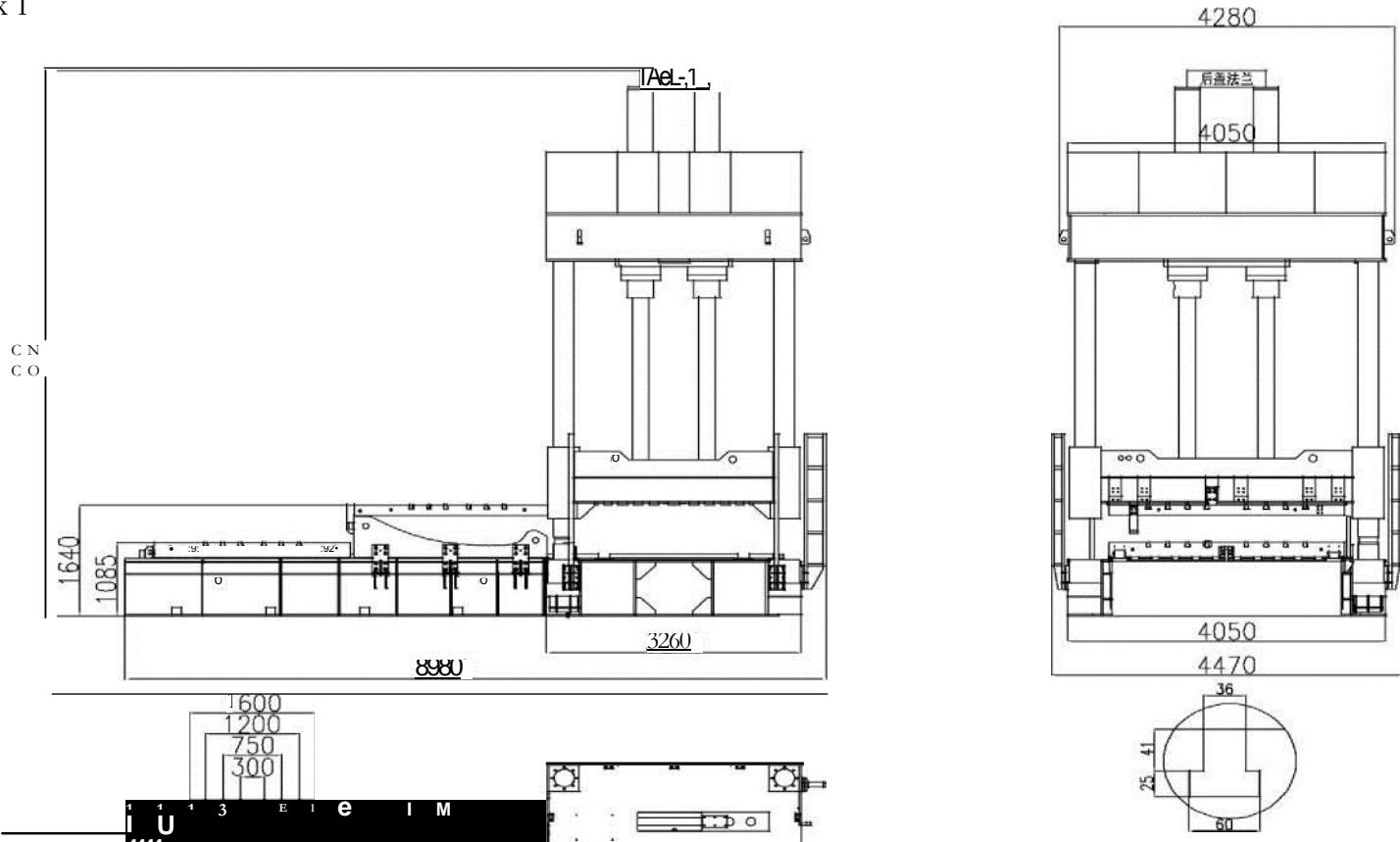
1	Magnetic template
2	servo motor
3	Hydraulic clamp
4	Infrared alarm device

10. Coating of machine tool

1	Dominant hue	Sample from supplier or buyer provides color sample
2	Safe area	Warning color

<p>Buyer:</p> <p>Representative:</p> <p>Seller: NingBo Shunxing Machinery Manufacturing Co., Ltd</p> <p>Representative:</p> <p>SX400JM-3025YC</p>	<p>Date: Month Day Year</p> <p>Date: Month Day Year</p>
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Annex 1



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