

客户的需求就是我们所做的一切

All We Do Are Clients Demand



**Technical Document**

**YS870**

**Xiamen Yangsen NC Equipment Co., Ltd**

**Address: No. 586-590 Shanbian Rd. Dongfu Industrial Zone Haicang Dist,  
Xiamen, Fujian Province, China 361027**

**Tel: (0086) --0592—6682467**

**Website: [www.cncyangsen.com](http://www.cncyangsen.com)**



## Content

1. Corporate Culture Introduction
2. Features of the whole machine
3. Optomechanical characteristics
4. Technical parameters
5. List of main accessories
6. Machine tool standard configuration
7. Machine tool selection and configuration
8. Attached tools and information list
9. Installation, commissioning, training and acceptance
10. After-sales service concept
11. Working conditions of machine tools



## **1. Corporate Culture Introduction**

Xiamen Yangsen NC Equipment Co., Ltd. is a high-tech enterprise specializing in the development, design, production and manufacture of CNC machine tools and CNC machine tools. The company is based on Taiwan's manufacturing technology, and at the same time integrates many years of manufacturing experience from many equipment manufacturers, constantly absorbing domestic and foreign. With the advanced scientific research achievements in the same industry, it has developed into an exclusive manufacturer with complete production and assembly machining centers today.

The company's products include vertical machining center, high-speed machining center, high-speed drilling and tapping machine, gantry machining center, horizontal machining center, etc. The main customer groups are precision mold manufacturing, automobile manufacturing, electronic communication industry, precision parts Processing industry and aerospace industry, etc. The company has been operating with integrity. The business philosophy of sustainable innovation, with the most cost-effective products, perfect products and perfect services, provides customers with the best solutions, creates the greatest value for customers, and enhances the competitiveness of customers' products.

In the future, the company will continue to adhere to the high-quality policy of "customer first, market first; technology-based, quality wins: the concept, to create value for customers. Innovate research, keep improving, and wholeheartedly meet customer needs and expectations.

Main business: high-speed high-precision engraving and milling machine, vertical machining center series, high-speed drilling and tapping machine, gantry machining center series, horizontal machining center series. Enterprise service: To provide better products and services, we have been working hard and persevering forever. We aim to build a brand, be honest and trustworthy, and achieve mutual benefit and win-win. We help users use equipment better through continuous technological updates and perfect service system, because of our profession we keep improving.

Technical support: professional engineers come to solve equipment selection for customers. Solve the processing requirements of various products of customers, help users choose suitable and economical solutions, and make the products selected by users more cost-effective.

Quality control: Our products have passed ISO9001 quality system and ISO14000 environmental management system certification

After-sales service: The after-sales service network all over the country is the guarantee for our products to be sold all over the country.

## 2. Machine Features:

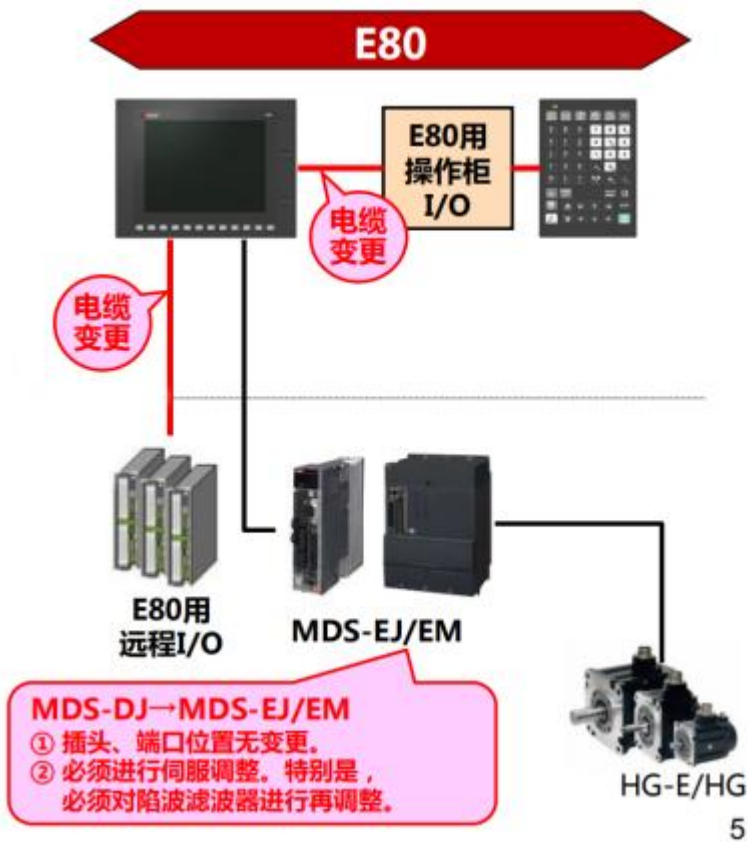


## 3. YS870 Machine Features:

1. Adopt the latest E80A system from Mitsubishi, Japan, with high speed, high precision and stable performance;
2. The standard configuration is equipped with a surrounding chip punching mechanism;
3. Machine tool parts belong to famous brands of famous factories.



4. Japanese Mitsubishi CNC system;



Significantly improve the basic performance - CNC dedicated CPU

Equipped with Mitsubishi Electric's unique high-speed processing capability. Processing program processing capability and PLC

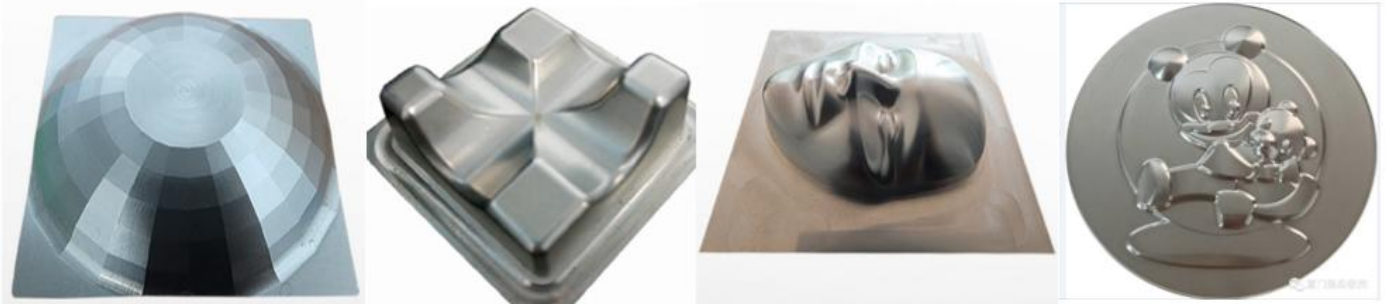
The improvement of processing capacity shortens the cycle time, and the NC-drive system

High-speed optical communication enables high-precision machining.

The SSS control function that can realize high-speed, high-precision, and high-quality processing improves the engraving and milling machine and glass processing

High-precision machine control, shortening cutting and non-cutting time

**Processing sample pieces:**



### **3. Optomechanical characteristics**

#### **YS870A-E80 Optomechanical characteristics:**

1. Independent research and development of the latest optical machine, the workbench area is 800mm×700mm;
2. The bed is made of high-grade cast iron;
3. "Π"-shaped integral casting structure, heightened and widened, and the weight of the bed is up to 3.8 tons;
4. The spindle speed can reach 18000r/min;
5. The XYZ axis adopts high-strength, high-speed and high-precision silver rail;
6. The three-axis adopts Taiwan Shangyin lead screw, which is pre-tensioned to prevent heat stretching and provide excellent positioning accuracy and rigidity of the machine tool;
7. Convex base, lighter front end, more compact foot support, better overall rigidity, and more stable processing;
8. The spindle box is integrally formed, and the flange spindle improves the rigidity of the machine tool

**4. Technical parameters:**

Items	Specification	Unit	YS870A
Travel	X/Y/Z Axis	mm	800/700/300
	Spindle nose to table distance	mm	130-430
	Column Width mm	mm	810
	Track Form		Screw Guideway
Worktable	Table size (L*W)	mm	800*700
	The Max. load capacity of the workbench	kg	400
	T-slot	No/mm	5-16×120
Spindle	Spindle taper hole (model/installation size)	mm	BT30
	Spindle RPM	rpm	18000
	Spindle drive mode		Electric spindle
Feedrate	X/Y/Z axis rapid feed	m/min	15/15/12
	Max cutting feed	mm/min	12000
Motor	Electric spindle	kw	7.5
	3 axis servo motor	kw	HG103, HG103, HG153B
	Cutting water pump motor	m/h-m	4-60
Accuracy	Positioning Accuracy	mm	±0.005
	Repeatability	mm	±0.003
Power Requirement	Power requirements	kva	9
	Air source requirements	Kg/cm	6~8
Machine Size	L*W*H	mm	2100*2650*2550
	Weight	t	4.2
Linear Track	Width	mm	35
Screw	Diameter	mm	32
Matching system			E80A

#### 4. List of main accessories

NO.	Item	QTY	Brands	Specification
1	CNC system	1	Mitsubishi	E80A
2	Electric spindle	1	YANGSEN	7.5KW
3	X, Y, Z servo motor	1	Mitsubishi	HG103, HG103, HG153B
4	Main shaft front bearing	1	Youte	
5	Spindle rear bearing	1	Youte	
6	X, Y, Z axis screw bearings	1	Japan NSK	
7	X, Y, Z axis ball screw	1	Taiwan Hiwin	
8	X-axis linear guide	2	Taiwan Hiwin	
9	Y-axis linear guide	2	Taiwan Hiwin	
10	Z axis linear guide	2	Taiwan Hiwin	
11	oil cooler	1	Rico	
12	switching power supply	2	Ming Wei	Taiwan
13	Cutting fluid pump	1	YANGSEN	4-60
14	automatic lubrication system	1	Proton	2L
15	electrical terminal	1	Wanke	Germany
16	Main pneumatic components	1	Taiwan AirTAC	
17	main electrical components	1	Schneider	
18	X, Y, Z axis coupling	1 Each	Japan NBK	
19	heat exchanger	1	Ou Yi	
20	flashlight	1	Nikki/Owen	

**If any supplier cannot supply it, it will be replaced by a brand of the same quality.**





## 6. Machine tool standard configuration

NO.	Specification	NO.	Specification
1	Fully Enclosure Guard	11	Rigid Tapping
2	Automatic tool setting instrument	12	Network Transmission and SD Card
3	Spindle Coolant Nozzles	13	Air Gun
4	Coolant System	14	Auto Off
5	Leveling Bolts and Pads	15	Tool Box
6	Safety Door	16	
7	Heat Exchange for Electric Cabinet	17	
8	Work Light	18	
9	Water Gun	19	
10	Warning Light	20	

## 7. Machine Tool Selection and Configuration

NO.:	Items	NO.:	Items
1		9	
2		10	
3		11	
4		12	
5		13	
6		14	
7		15	
8			

If the user chooses other special configurations, please contact the technical department.

## 8. List of attached tools and materials

No.:	Item	Specification	QTY	Remarks
1	Allen Wrench	1.5-10	1 Set	
2	Screwdriver	Slotted	1 Each	
3	Screwdriver	Phillips	1 Each	
4	Raw Tape		2 Rolls	
5	Glass Glue	Porcelain white	1 Bottle	
6	Electronic Handwheel		1 PCs	
7	Card Reader		1 PCs	
8	Memory Card		1 PCs	
9	Cable	5 Meters, 20 Meters	2 Pieces	
10	Snap Ring		1 PCs	
11	Screw		1 Package	



12	Machine Tool Ground		1 Stick	
13	Bellows Connector		1 PCs	
14	Toolbox		1 PCs	
15	Floor Mat		1 Set	
16	Operation Manual		1 PCs	
17	Certification		1 PCs	

## **9. Installation, commissioning, training and acceptance**

1. Installation and commissioning: After the machine tool arrives at the customer's factory, our service engineer will go to the customer's factory in time to carry out installation and commissioning and on-site training.
2. Customers can choose to send operators to our company to be responsible for the preliminary training for about a week, and then our company will conduct on-site training at the customer's place during installation and commissioning.
3. Acceptance: Accuracy acceptance, according to the ex-factory accuracy inspection table provided by the supplier, inspect the items that are conditionally inspected at the customer's place, and test the inspection items that do not meet the inspection conditions, such as positioning accuracy, spindle taper hole accuracy inspection stick test etc., no testing shall be carried out at the buyer's place, or the buyer shall send personnel to the supplier's factory for inspection and acceptance through negotiation between the two parties.

## **10 Xiamen Yangsen NC Equipment After-sales Commitment Letter**

1. Pre-sales service: Janssen's sales team will provide users with the best processing solutions, including machine tool selection, option configuration, tool and fixture selection, lubricating oil, cutting fluid management and other series of services. And can provide turnkey projects.
2. Maintenance response time: Our company has a service team of up to 50 people and is equipped with a complete service vehicle. After receiving the user's notification of failure, we will respond within 8 hours.
3. Parts inventory: Janssen has a special production workshop and parts inventory in Xiamen, with strong strength and complete inventory. There are commonly used parts inventories in each office to provide users with the fastest repair parts.
4. Machine tool maintenance: All machine tools within the warranty period enjoy free maintenance services,



and machine tools outside the warranty period can purchase maintenance services at an economical and reasonable price. And PCs can plan equipment management and maintenance processes according to customer needs.

5. Maintenance charges after the warranty period: The charging standard is clearly marked and the real price is charged, only the cost is charged, and the user is served with the concept of openness, fairness and fairness. After the maintenance period, our company is responsible for providing spare parts at preferential prices for a long time, and the maintenance service fee time is not more than 48 hours;

6. Ad hoc old user service department: closely track the use of machine tools, and deal with maintenance complaints in a timely manner.

7. Maintenance supervision: the general manager also serves as the director of the after-sales service department, supervises the quality of maintenance services in real time, and protects the rights of customers.

8. Warranty: From the date of acceptance of the equipment, a one-year warranty period is provided. During the warranty period, our company is responsible for free maintenance for equipment failures caused by users. If the fault is caused by improper use by the user, the cost fee will be charged after the service.

## **11. Machine Tool Working Conditions**

1. Three-phase AC power supply: 380V±10%, -15%; 50Hz±1Hz
2. Ambient temperature: 8 ~ 40C°
3. Relative humidity: ≤80%
4. Air pressure: 0.6 ~ 0.8 MPA

## **Xiamen Yangsen NC Equipment Co., Ltd**

The company's products are constantly being developed and improved, and specifications may be changed without notice. Some images in this document may contain optional items.

The pictures in this document are for reference only, and the actual product shall prevail.