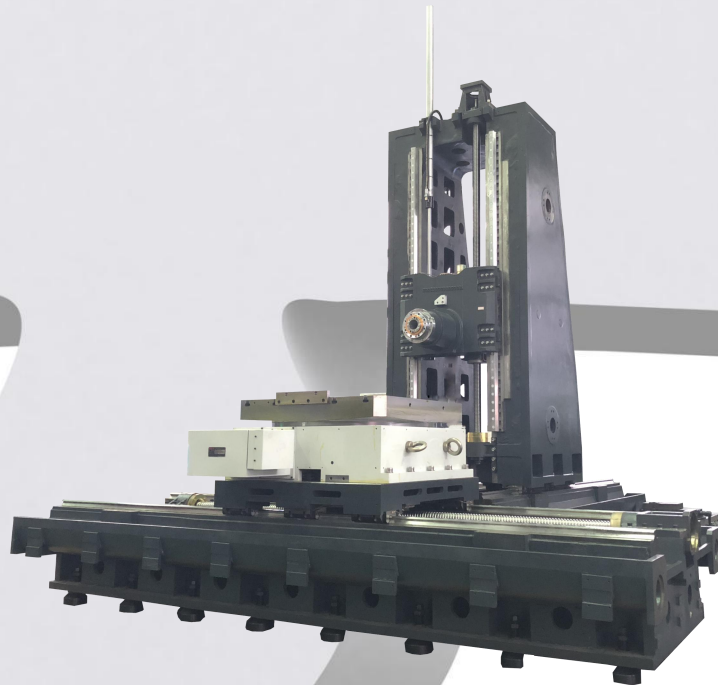


All We Do Are Clients Demand



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

**Exporting Company: Great Magtech (Xiamen) Electric Co., Ltd.**

Add: No.586-590 Shanbian Rd.Dongfu Industrial Zone Haicang Dist, Xiamen, Fujian

**Pre-sales technical information**

**YSHD-1000**

**Horizontal Machining Center**



**厦门扬森机械科技有限公司**

*Xiamen YANGSEN Machinery Technology Co., Ltd*

Province, China 361027

T: +86-592-6682467

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



## Contents

1. Company Culture
2. Machine features
3. Optomechanics features
4. Technical parameters
5. List of main accessories
6. Standard accessories
7. Optional accessories
8. List of random tools and documents
9. Installation, testing, training and inspection
10. After-sales service
11. Machine working conditions



## 1. Company Culture

Yangsen CNC equipment co., LTD., is a professional engaged in development and design, manufacturing of CNC machine tools and CNC tools of high-tech enterprises, the company on the basis of Taiwan manufacturing technology, and the equipment manufacturing enterprise many years of manufacturing experience, continuously absorb the industry at home and abroad, developed into today has perfect production and assembly processing center machine specialized manufacturers.

The company's products include vertical processing center, high-speed processing center machine, high-speed drilling tooth tapping machine, gantry processing center machine, horizontal processing center machine and other main customer groups are precision mold manufacturing industry, automobile manufacturing industry, electronic communication industry, precision parts processing industry and aerospace industry, etc. The company has always been operating in good faith. Sustainable innovation business philosophy, with the most cost-effective products and perfect products and perfect services, to provide customers with the best solution, to create the greatest value for customers, improve the competitiveness of customers.

In the future, the company will continue to adhere to the high-quality policy " customer first, market to be the first; technology first, quality win: the concept, to create value for customers. Innovative research, excellence, dedicated to meet customer needs and expectations.

Main business: high-speed high-precision carving and milling machine, vertical machining center series, high-speed drilling tooth tapping machine, gantry machining center series, horizontal machining center series.

Enterprise service: to provide better products and services, we have been working hard and always unremitting, we aim to build a brand, honest and trustworthy and reciprocal win-win, we through continuous technical update and perfect service system to help users better use of equipment, because professional we continue to progress.

Technical support: professional engineers come to the home to solve the equipment selection for customers. To solve the processing requirements of various products, help users choose suitable, economic solutions, so that users choose products more cost-effective.

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

After-sales service: the nationwide after-sales service network is the guarantee of our product sales throughout the country.

## 2. Machine features

**YSHD-1000** whole machine features.

1. The X/Y/Z axis adopts high-strength high-speed linear roller guide rails, and the rapid feed can reach 10/10/10 (m/min); the guide rails of each axis adopt imported heavy-duty roller linear guide rails, with high load bearing and stable precision;
2. The spindle motor is equipped with BiiP30/8000 high-torque generalized motor as standard. There is a unique labyrinth device and labyrinth-blowing device at the nose of the spindle, which can effectively protect the spindle and is equipped with a spindle ring spray. The maximum speed of the spindle can reach 6000rpm, which has the characteristics of high speed, high rigidity, and high precision;
3. The machine tool parts belong to a famous brand of a famous factory and are the top configuration in the industry.



日本SHOWA注油器



SMC气源处理装置



欧易交换器



大功率水泵



施耐德电气元器件



日机LED照明灯



高亮LED带蜂鸣警示灯



刀库

### 3. Optomechanics features



#### Optomechanics features:

1. The worm gears and worms of the indexing single machine tool and the indexing exchange table are all connected by keys, and the link is reliable and stable. (The worm gear of the original machine tool is connected by a tensioning sleeve. Because of the alternating load here, the worm gear has already slipped 1. The worm gears and worms of the indexing single machine tool and the indexing exchange table are all connected by keys, and the link is reliable and stable.
2. The spiral chip conveyor interface is reserved in the machine, and the cutting flushing device is equipped to automatically discharge the chips in time, avoiding the thermal influence of the chips on the machine tool, and ensuring the high precision of the machine tool processing;
3. It adopts the internationally popular inverted T-shaped moving column, the overall bed structure, the reasonable layout of the reinforcement optimizes the chip removal structure and improves the guide rail lubrication recovery system, which improves the overall rigidity and appearance quality of the casting.
4. The wood mold of the casting adopts aluminum-wood combination, resin sand casting, and workbench HT300.

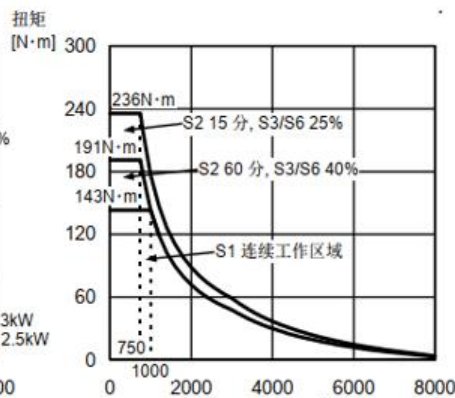
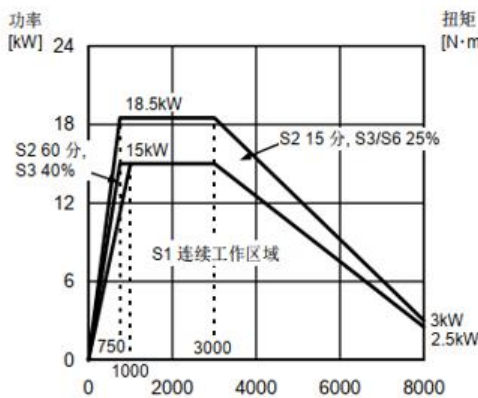
5. Worktable parameters

| Worktable parameters     |     |           |
|--------------------------|-----|-----------|
| Worktable size(L*W)      | mm  | 1000×1000 |
| Min table indexing       | deg | 1°        |
| Max table load           | kg  | 5000      |
| T-Slot                   | -   | 5-22×200  |
| Number of pallets        | PC  | 1         |
| Maximum turning diameter | mm  | Φ2200     |
| Maximum turning height   | mm  | 1435      |

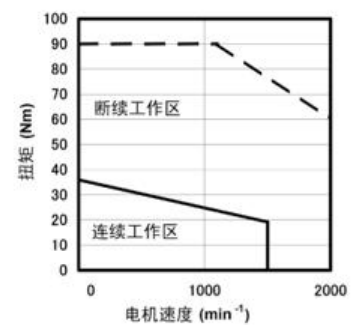
5、Triaxial and Spindle Torque Charts

| 系统   | 0i-MF Plus (5) | 额定功率kW | 额定扭矩N.m | 最大扭矩N.m |
|------|----------------|--------|---------|---------|
| X轴   | βiS 40/2000-B  | 3      | 36      | 90      |
| Y轴   | βiS 40/2000-B  | 3      | 36      | 90      |
| Z轴   | βiS 40/2000-B  | 3      | 36      | 90      |
| 主轴SP | βiIP 30/8000-B | 15     | 143     | 236     |

βiIP 30/8000-B



βiS 40/2000-B



**4. Technical parameters**

| Subject                | Specification                         | Unit   | YSHD-1000                         |
|------------------------|---------------------------------------|--------|-----------------------------------|
| Travel                 | X/Y/Z-axis                            | mm     | 2000/1500/1600                    |
|                        | Spindle Nose to worktable             | mm     | 50-1450                           |
|                        | Spindle center to Column              | mm     | 300-1900                          |
|                        | Three-Axis Guideway                   |        | Roller guide                      |
| Worktable              | Worktable Size (LW)                   | mm     | 1000*1000                         |
|                        | Maximum Table Load                    | kg     | 5000                              |
|                        | Table Screw                           | No/mm  | 1°*360                            |
| Spindle                | Spindle Type (Model number / mounting | mm     | BBT50                             |
|                        | Spindle Speed                         | rpm    | 6000                              |
|                        | Spindle Drive Type                    |        | Belt                              |
| Feedrate               | Rapid Traverse(X/Y/Z)                 | m/min  | 10/10/10                          |
|                        | Cutting Feedrate (X/Y/Z)              | mm/min | 10-10000                          |
| Tool Changer (Options) | Automatic Tool Changer                |        | chain cutter                      |
|                        | Type of Tool Shank                    | type   | BT50                              |
|                        | Tool Storage Capacity                 | tools  | 40                                |
|                        | Max. Tool Diameter (Adjacent)         | mm     | 125                               |
|                        | Max.Tool Diameter (Empty)             | mm     | 250                               |
|                        | Max.Tool Length                       | mm     | 600                               |
|                        | Tool Change Time                      | sec    | 10                                |
| Motor                  | Spindle Motor                         | kw     | BiiP30/8000                       |
|                        | Three-Axis Servo Motor                | kw     | βis40/2000/βis40B/2000/βis40/2000 |
|                        | Cutting water pump motor              | m/h-m  | 4-60                              |
| Accuracy               | Accuracy                              | mm     | 0.012                             |
|                        | Repeatability                         | mm     | 0.008                             |
| Power Required         | Power Requirement                     | kva    | 40                                |
|                        | Air Pressure Requirement              | Kg/cm  | 6~8                               |
| Other                  | Gross Weight                          | t      | 25                                |

**5.List of main accessories**

| No. | Name   | Quantity | Manufacturer         | Specification Model                 |
|-----|--|----------|----------------------|-------------------------------------|
| 1   | CNC system                                   | 1        | Japan FANUC          | OI-MF Plus                          |
| 2   | Spindle servo motor                          | 1        | Japan FANUC          | BiiP30/8000                         |
| 3   | X, Y, Z servo motor + A axis + exchange axis | Each 1   | Japan FANUC          | βis40/2000/βis40B/2000/βis40/2000   |
| 4   | Spindle front bearing                        | 1 set    | Japan KOYO           | 7020*4                              |
| 5   | Spindle rear bearing                         | 1 set    | Japan KOYO           | 7020*2                              |
| 6   | X, Y, Z axis screw bearings                  | Each 1   | Japan NSK            |                                     |
| 7   | X,Y,Z axis ball screw                        | Each 1   | Japan/Germany/Taiwan | Ø63*P12*C3/Ø63*P12*C3<br>Ø63*P12*C3 |
| 8   | Spindle unit                                 | 2        | Japan/Germany/Taiwan | 55                                  |
| 9   | Tool magazine (optional)                     | 2        | Japan/Germany/Taiwan | 55                                  |
| 10  | Cutting fluid pumps                          | 2        | Japan/Germany/Taiwan | 55                                  |
| 11  | Automatic lubrication system                 | 1 set    | Taiwan               | BBT50                               |
| 12  | Main pneumatic components                    | 1 set    | Okada/YANGSEN        | 40T chain                           |
| 13  | Main electrical components                   | 1 set    | YANGSEN              | LDPB4V-60-1350W                     |
| 14  | Spindle unit                                 | 1 set    | SKF                  | 4L                                  |
| 15  | Tool magazine (optional)                     | 1 set    | SMC                  |                                     |
| 16  | Cutting fluid pumps                          | 1 set    | Schneider            |                                     |
| 17  | Heat Exchangers                              | 1        | Ouyi                 |                                     |
| 20  | CNC turntable                                | 1        | Genron / Okada       | 1000*1000                           |
| 21  | Hydraulic station                            | 1        | Taiwan               |                                     |

If the supplier cannot supply, it will be replaced with the brand of the same quality.



## 6. Standard accessories

| No. | Name                                       | No. | Name                                  |
|-----|--|-----|---------------------------------------|
| 1   | Fully enclosed shroud                      | 13  | Warning light (with buzzer)           |
| 2   | Automatic lubrication system               | 14  | Footer blocks                         |
| 3   | Tool box                                   | 15  | Work Cooling System                   |
| 4   | Work Light                                 | 16  | Network transfer and CF card function |
| 5   | Electrical box heat exchanger              | 17  | Chip Conveyor                         |
| 6   | Spindle air curtain dust protection system | 18  | Disc oil-water separator              |
| 7   | Machine cleaning water gun                 |     |                                       |
| 8   | Rigid tapping                              |     |                                       |
| 9   | Iron cutter and chip storage               |     |                                       |
| 10  | M30 automatic power-off device             |     |                                       |
| 11  | Portable chip blowing air gun              |     |                                       |
| 12  | Rigid tapping                              |     |                                       |

## 7. Optional accessories

| No. | Name  | No. | Name          |
|-----|---|-----|---------------|
| 1   | Siemens, Mitsubishi CNC systems and other CNC     | 8   | Tool magazine |
| 2   | Spindle oil cooling device                        | 9   |               |
| 3   | Three-axis optical scale                          | 10  |               |
| 4   | Electrical cabinet thermostat control device (air | 11  |               |
| 5   | Chip fluid water cooling device                   | 12  |               |
| 6   | Automatic tool inspection device                  | 13  |               |
| 7   | Oil mist recovery system                          | 14  |               |

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

## 8.List of random tools and document

| No. | Name                      | Specifications or markings | quantity | Remark |
|-----|---------------------------|----------------------------|----------|--------|
| 1   | Allen key                 | 1.5---10                   | 1        |        |
| 2   | Screwdriver               | Flathead                   | 1        |        |
| 3   | Screwdriver               | Phillips                   | 1        |        |
| 4   | Thread seal tape          |                            | 2        |        |
| 5   | Glass cement              | Porcelain white            | 1        |        |
| 6   | Manual Pulse Generator    |                            | 1        |        |
| 7   | Card Reader               |                            | 1        |        |
| 8   | Memory card               |                            | 1        |        |
| 9   | Data cable                | 5 meters, 20 meters        | 2        |        |
| 10  | Bail wire                 |                            | 1        |        |
| 11  | Screw                     |                            | 1        |        |
| 12  | Triode                    |                            | 1        |        |
| 13  | Corrugated pipe joints    |                            | 1        |        |
| 14  | Hold-all                  |                            | 1        |        |
| 15  | Foundation bolt           |                            | 6        |        |
| 16  | Instruction book          |                            | 1        |        |
| 17  | Certificate of conformity |                            | 1        |        |



## 9. Installation, testing, training and inspection

1. Installation and commissioning: After the machine tool reach the customer factory, our service engineer will go to the customer factory in time and conduct installation, debugging and on-site training.
2. Customers can choose to send operators to the company to be responsible for the early training for about a week, and the company will provide working meals, transportation expenses and accommodation at their own expense. Then the company in the customer installation and debugging field training.
3. acceptance: precision acceptance, according to the supplier to provide the factory accuracy inspection table, in the customer conditional inspection, inspection, to do not have the inspection conditions of inspection items, such as positioning accuracy, spindle cone hole accuracy inspection rod test, not in the buyer, or negotiate by the buyer to the supplier factory for testing acceptance.

## 10. After-sales service concept

1. Pre-sale service : Yangsen'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 works.
2. Repair reaction time : Our company has a service team of up to 100 people, and equipped with a complete service vehicle, after receiving the user notice, the response within 2 hours.
3. Parts inventory: Yangsen has a special production workshop and parts inventory in Xiamen, strong strength, complete inventory, commonly used parts inventory in each office, to provide users with the fastest maintenance parts.
4. Machine maintenance: All the machine tools within the warranty period enjoy free maintenance service, and the machine tools outside the warranty period can be purchased at an economical and reasonable price. And according to customer needs, planning equipment management, maintenance process.
5. Charge for maintenance after the warranty period: The charge standard is clear, only the cost, to open, fair, fair concept service users.
6. Special old user service department: Closely track the use of machine tools and handle maintenance



complaints in time.

7. Maintenance supervision: The general manager is also the director of the after-sales service department to supervise the maintenance service quality in real time and protect the rights of customers.

## **11. Working conditions of machine tools**

1. Three-phase AC power supply:  $380V \pm 10\%$ ,  $-15\%$ ;  $50Hz \pm 1Hz$
2. Ambient temperature: 8~40C
3. Relative humidity: 80%
4. Pressure of air source: 0.6 ~ 0.8 MPA

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

The company's products are constantly developed and improved, and the specifications may be changed without notice. Some pictures in this material may include a selection item.

This information picture is for reference only, subject to the actual product. We will be as accurate as possible, but we are not responsible for errors or missing information.