

## YLD-50A vertical dynamic balancing machine



### 1、 Product Introduction

This series is a single-sided vertical balancing machine, suitable for dynamic balance verification of disc-shaped rotating parts on a single side. It is an ideal equipment for dynamic balance verification of parts such as grinding wheels, fan blades, ventilation fan blades, automotive flywheels, clutches, brake discs, brake drums, hydraulic torque converters, hydraulic couplers, etc. Simply replace the furniture where the workpiece is installed to perform balance verification. The ordinary model of this machine is driven by a dual speed motor, while the "A"

model is a variable frequency speed regulation system. It is processed by an industrial control computer, and the LCD display shows the imbalance value, phase angle, and real-time speed in real time. It is equipped with an industrial cabinet and forms a balance machine system with the mechanical part, which is convenient for parameter storage and printing. The system has high testing accuracy, reliable use, convenient maintenance, and is more advanced than other testing systems. It can be equipped with specialized fixtures such as universal fixtures and torque converters, as well as accessories such as side weight removal drilling machines, vertical weight removal drilling machines, and vacuum cleaners.

## 二、 Main technical parameters

### 1. Host parameters

model	YLD-50A
Measurement time	10s (measurement period can be set arbitrarily)
Software version	Windows 7
Display method	19 inch LCD display
source	Three phase four wire AC 380V, 50HZ
Working mode	continuity
Workpiece mass range (Kg)	3-50
Maximum diameter of workpiece (mm)	800
Balance speed (r/min)	250-1500
Motor power (KW)	one point five
Reduction rate of imbalance%	$\geq 90$

Minimum reachable residual unbalance (emar)	$\leq 3g \cdot mm/kg$
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## 2. Industrial computer parameters

Speed range:	250 rpm -1500 rpm
Phase error:	Measuring error with standard signal $< 0.3^\circ$
Amplitude error:	Measuring error with standard signal $< 1/1000$
Storage rotor number:	255
Angle decomposition number:	60
Maximum power consumption of the entire machine:	200W

## 三、Product features



### 1. Measurement system

- ★ Industrial control computer, 19 inch LCD display, Windows operating platform.
  - ★ Vertical balancing machines weighing less than 200 kilograms are equipped with our company's independently developed universal balance measurement system. The universal software functions cover all the functions of mainstream balance machine software in China, and all operations adopt a Chinese menu structure with text prompts for operation steps; Vertical balancing machine software with angle tracking function for large vertical balancing machines.
  - ★ Powerful measurement system performance: calibration of any workpiece, starting from a wide measurement speed range of 80 revolutions per minute, measuring speed blocks, stable imbalance amplitude and phase, high deduplication rate, and high sensitivity.
- The software comes with a permissible unbalance calculator, and the operator only needs to input the permissible vibration accuracy level, mass, working speed, and radius of the workpiece to calculate the allowable remaining unbalance of the workpiece by clicking on it.
- The software is completely self-developed and can be modified or added with software functions according to customer requirements.

## 2. Mechanical parts and control

The equipment adopts a cast base, vertical bracket, spindle seat, and support seat, which have sufficient rigidity and stability. The overload capacity of the same model of equipment is 20%.

The main shaft is made of 45 # carbon structural steel. After forging, quenching, and precision grinding, the axial and radial runout are both within 0.01mm; And even if the imbalance of the workpiece exceeds 30000g \* cm, the equipment can accurately measure it, and the spindle is of a bold type.

- ★ The power transmission adopts a multi wedge belt, which runs smoothly and reliably, with little impact on balance measurement.
- ★ The main spindle is equipped with a synchronous rotating dial, which is convenient for finding the angle of imbalance.

The spindle adopts a hollow structure, and the lower end of the spindle can be connected to a rotating cylinder. The workpiece can be quickly clamped through a pull rod and pneumatic chuck (or pneumatic fixture).

- ★ The equipment is of reliable quality and adopts a variable frequency speed control system. The

soft start and soft stop of the motor have a small impact on the equipment, extending its service life. The equipment can work continuously, and maintenance is simple and convenient.

#### 4、 After sales service

Jinan Hengxu Testing Machine Technology Co., Ltd. takes "providing high-quality and cutting-edge testing equipment for society" as its purpose, "service first, not promoting products for profit" as its service philosophy, and adheres to the business philosophy of "people-oriented, honest and trustworthy; eternal service, and sustainable development". We always prioritize customer needs and integrate them into all aspects of product research and development, production, installation, sales, and after-sales service.

##### 1. Equipment quality assurance

Our company guarantees that all equipment is produced by the original factory as shown in the bidding document, and guarantees that all provided equipment is brand new, meeting national standards and contract requirements, and producing high-quality products that satisfy users. Take full responsibility for the quality of the products provided by our company and provide high-quality services.

(1) Free warranty period: 12 months

(2) Starting method for the free warranty period: after passing the acceptance inspection

(3) During the free warranty period, maintenance personnel will be present 24 hours after receiving the repair notice

(4) The required components and accessories are supplied year-round.

##### 2. Service within the product warranty period

(1) All products have a warranty period of 12 months from the date of signing for qualified acceptance, with lifelong maintenance. During the warranty period, free on-site maintenance is provided, and software upgrades are free for life.

(2) When users experience performance failures during normal use, they will respond within 2 hours of receiving a device failure notification and provide a solution; If the issue cannot be resolved, a response will be provided within 24 hours, and the problem will be resolved on site within 48 hours until the equipment is used normally.

(3) During the free warranty period, the seller is responsible for all expenses incurred due to

equipment quality issues.

(4) Ensure that all equipment is installed and debugged within the time specified in the contract, provided to the purchaser for normal use, and free Chinese user manuals and training on equipment use and management are provided. Provide year-round technical support.

### 3. Service beyond the warranty period

(1) If the service life of the equipment exceeds the warranty period, the company provides lifelong free maintenance, and only charges cost fees for the parts that need to be replaced.

(2) Provide timely and free upgrades to device software, provide free information on new device features (such as devices that require upgrades), and provide relevant information technology and follow-up work.

(3) Equipment accessories and consumables are supplied at a year-round discount, with a 20% discount on regular prices.

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