

Dynamic Balancing Machine

Taian AEM Machinery Co.,Ltd

Contact: Mr. Simon Sang

Tel / WhatsApp / Wechat: +86 188 8826 0296

Email: simon-balancer@hotmail.com | simon_balancer@163.com

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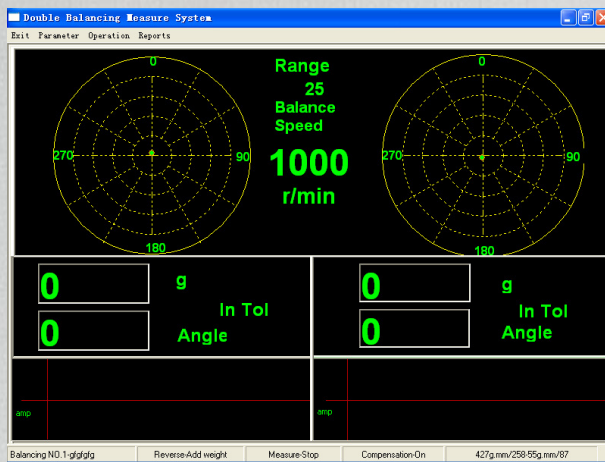


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Product Overview



Dynamic Balancing Principle

Definition

Dynamic balancing machines are used to measure the size and position of the unbalance of rotating objects (rotors), ensuring smooth operation.



Minimum Achievable Residual Unbalance

The minimum value of the remaining unbalance that the balancing machine can achieve for the rotor, an index measuring the highest balancing capacity and precision.



Unbalance Reduction Rate

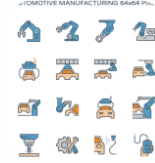
The ratio of the amount of unbalance reduced after one correction to the initial amount of unbalance, reflecting the efficiency of the correction process.

Wide Range of Applications



Aerospace

Detecting unbalances in aircraft engines to ensure flight safety.



Automotive Manufacturing

Balancing wheels and drive shafts for vehicle stability and comfort.



Wind Power Generation

Improving energy conversion efficiency of wind turbines.



Construction Machinery

Ensuring the efficient and stable operation of large machinery.

Our Product Series



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Hard Bearing Horizontal Belt Drive Balancing Machine



Hard Bearing Horizontal Universal Joint Drive Balancing Machine



Drive Shaft Balancing Machine



Vertical Balancing Machine



Turbocharger Rotor Soft Bearing Belt Drive Balancing Machine



Automatic Positioning Balancing Machine



Double Drive (Belt & Universal Joint) Balancing Machine

YYQ Hard Bearing Belt Drive Balancing Machine



Drive Method

Belt Drive, suitable for various rotor types.



Workpiece Weight Range

0.05kg to 10000kg, wide coverage.



Min. Residual Unbalance

≤ 0.5 gmm/kg, high balancing precision.



Unbalance Reduction Rate

$\geq 90\%$, excellent correction efficiency.

High Precision • Wide Range • Efficient Correction

YYQ Series Technical Specifications

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YYW Universal Joint Drive Balancing Machine



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YYW Series Heavy-duty Balancing System



Drive Method

Universal Joint Drive, high torque transmission, suitable for large and heavy rotors.



Workpiece Weight Range

5kg to 50000kg, specifically designed for heavy workpieces balancing.



Min. Residual Unbalance

≤ 1 gmm/kg, ensuring high balancing precision even for heavy rotors.



Unbalance Reduction Rate

$\geq 90\%$, providing high efficiency correction for various heavy components.

YYW Series Technical Specifications

Model	YYW-160A	YYW-300A	YYW-500A	YYW-1000A	YYW-1600A	YYW-3000A	YYW-3000S	YYW-5000A	YYW-10000A	YYW-20000A	YYW-30000A	YYW-50000A
Range of workpiece weight (kg)	5-160	10-300	20-500	20-1000	30-1600	100-3000	50-3000	200-5000	300-10000	500-20000	800-30000	1200-50000
Max. diameter of workpiece (mm)	Φ 950	Φ 1200	Φ 1500	Φ 1500	Φ 1800	Φ 2400	Φ 2000	Φ 2400	Φ 2400	Φ 2400	Φ 3000	Φ 3200
Distance between two bearing (mm)	60-1420	60-1700	70-1600	70-2300	100-2300	300-3000	150-3000	300-2960	340-5100	340-5100	400-6200	400-6200
Bed frame length (mm)	2400	2900	2900	3600	3600	4300	4300	4300	3400 (Two-section bed)	3400 (Two-section bed)	4000 (Two-section bed)	4000 (Two-section bed)
Support shaft diameter (mm)	Φ 10-90	Φ 10-90	Φ 20-120	Φ 20-120	Φ 20-120	Φ 40-120, Φ 180-300	Φ 20-120, Φ 120-240	Φ 40-180, Φ 180-300	Φ 50-200, Φ 200-360	Φ 50-200, Φ 200-360	Φ 80-300, Φ 300-500	Φ 80-300, Φ 300-500
Balancing speed (r/min)	300-1100	300-1100	300-1100	200-1100	150-1100	253/435/708/1140	253/435/708/1140	253/435/708/1140	253/435/708/1140	253/435/708/1140	173/312/515/799/1190	173/312/515/799/1190
Minimum residual imbalance							≤1gmm/kg					
Imbalance reduction rate (%)							≥90%					
Motor power	2.2Kw	5.5Kw	5.5Kw	7.5Kw	11Kw	11Kw	11Kw	18.5Kw	45Kw	55Kw	75Kw	75Kw
Speed mode	Frequency speed regulation						Four-speed mechanical speed change + internal gear speed control					
Drive mode	Universal Joint Drive											
Universal joint torque	60Nm	60Nm	120Nm	120Nm	120Nm	300Nm	300Nm	300Nm	300Nm and 2500Nm (two sets)	300Nm and 2500Nm (two sets)	700Nm and 4000Nm (two sets)	700Nm and 4000Nm (two sets)
Work voltage	AC 3 phase 380V 50/60Hz											

Note: Specifications are subject to change without prior notice.

Drive Shaft Balancing Machine



Balancing Machine Product View



Application

Specifically designed for automotive drive shafts.



Correction Method

Supports single-section double-sided, two-section three-sided, or three-section four-sided simultaneous correction.



Max. Workpiece Weight

Capable of handling workpieces up to 2000kg.



Balancing Speed

Variable speed range from 500 to 3000 r/min for precise balancing.

Drive Shaft Balancing Machine Technical Specifications

Model	Max. Weight (kg)	Max. Length (mm)	Correction Method	Speed (r/min)	Residual Unbalance
YDB-50A	50	1400	Single section double-sided	500-3000	≤5 g.mm/kg
YDB-100A	100	1800	Single section double-sided	500-3000	≤5 g.mm/kg
YDW-50A	50	1600	Single section double-sided	500-3000	≤5 g.mm/kg
YDW-100A	100	2000	Single section double-sided	500-3000	≤5 g.mm/kg
YDW-100A II	50	2000	Single-section double-sided or two-section three-sided	500-3000	≤8 g.mm/kg
YDW-200A II	100	2500	Single-section double-sided or two-section three-sided	500-3000	≤20 g.mm/kg
YDW-300A II	100	3000	Single, two-section three-sided or three-section four-sided	500-3000	≤20 g.mm/kg
YDW-2000A	118	2000	Single section double-sided	800-1000	≤20 g.mm/kg

Specifications are subject to change without prior notice. For detailed customization, please contact technical support.

Vertical Balancing Machine



INDUSTRIAL GRADE PRECISION



Structure Design

Vertical design with compact footprint, ensuring easy operation and space saving.



Application Scope

Ideal for disc-shaped workpieces: flywheels, grinding wheels, clutches, and brake discs.



Workpiece Weight Range

Capable of handling a wide range from 0.1kg up to 5000kg with high accuracy.



Correction Method

Flexible correction support for both single-sided and double-sided unbalance correction.

Vertical Balancing Machine Specs

Type	Model	Wrkpc Weight (kg)	Wrkpc Diameter (mm)	Balance Speed (r/min)	Min. Residual Unbalance
Single side vertical balancing machine	YLD-5A	0.1-5	500	100-900	≤1.5gmm/kg
	YLD-16A	0.3-16	500	100-900	≤1.5gmm/kg
	YLD-42A/Q	3-42	≤ø800	100-800	≤2gmm/kg
	YLD-100A/Q	5-100	≤ø800	100-800	≤2gmm/kg
	YLD-200A/Q	10-200	≤ø800	100-800	≤2gmm/kg
	YLD-300A	15-300	≤ø1100	80-700	≤3gmm/kg
	YLD-500A	25-500	≤ø1200	80-700	≤3gmm/kg
	YLD-5000A	300-5000	≤Φ1400	80-700	≤3gmm/kg
Double sides vertical balancing machine	YLS-42A(Q)	3-12	≤ø800	100-800	≤2gmm/kg
	YLS-100A(Q)	5-100	≤ø800	100-800	≤2gmm/kg
	YLS-200A(Q)	10-200	≤ø800	100-800	≤2gmm/kg

Turbocharger Rotor Soft Bearing Belt Drive Balancing Machine



A high-precision balancing solution designed for turbocharger rotors



Application Scope

Specifically engineered for dynamic balancing of turbocharger rotors.



Drive Method

Soft bearing belt drive system ensures zero damage to the rotor surface.



Workpiece Weight Range

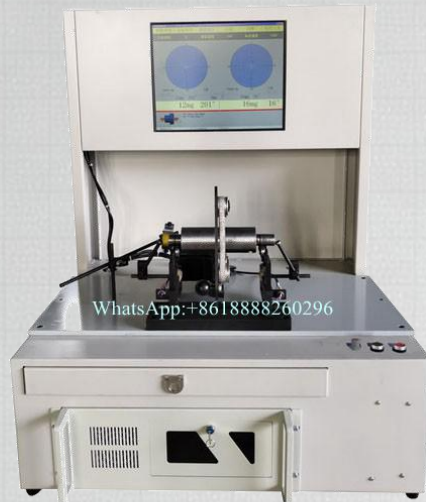
Accommodates rotors from 0.1kg up to 10kg in weight.



Min. Residual Unbalance

High precision performance with ≤ 0.5 gmm/kg residual unbalance.

Automatic Positioning Balancing Machine



Core Feature

Automatically locates the unbalance angle, eliminating manual searching and greatly improving efficiency.



Application

Suitable for mass production of small precision rotors.



Workpiece Weight Range

0.05kg to 3kg (covers most small precision components).



Min. Residual Unbalance

≤ 0.5 gmm/kg (High precision balancing performance).

Double Drive (Belt & Universal Joint) Balancing Machine



Drive Method

Combines belt drive and universal joint drive for flexible switching.



Core Advantage

One machine meets the balancing needs of different rotor types, reducing equipment investment costs.



Workpiece Weight Range

Wide range coverage from 2kg up to 5000kg, suitable for various industrial applications.



Min. Residual Unbalance

Belt Drive: ≤ 0.5 gmm/kg; Universal Joint Drive: ≤ 1 gmm/kg, ensuring high precision balancing.

Double Drive Balancing Machine Specs

Model	Drive Type	Workpiece Weight Range (kg)	Min. Residual Unbalance (g.mm/kg)
YYH-160A	Belt	2 - 160	≤ 0.5
YYH-160A	Universal Joint	5 - 160	≤ 1
YYH-300A	Belt	5 - 300	≤ 0.5
YYH-300A	Universal Joint	10 - 300	≤ 1
YYH-500A	Belt	10 - 500	≤ 0.5
YYH-500A	Universal Joint	20 - 500	≤ 1
YYH-1000A	Belt	10 - 1000	≤ 0.5
YYH-1000A	Universal Joint	20 - 1000	≤ 1
YYH-1600A	Belt	320 - 1600	≤ 0.5
YYH-1600A	Universal Joint	30 - 1600	≤ 1
YYH-3000A	Belt	50 - 3000	≤ 0.5
YYH-3000A	Universal Joint	100 - 3000	≤ 1
YYH-5000A	Belt	200 - 5000	≤ 0.5
YYH-5000A	Universal Joint	200 - 5000	≤ 1



Customization Service

We understand that each customer's needs are unique. Therefore, we offer flexible customization services. We can make reasonable structural adjustments and parameter optimizations to standard equipment according to your specific requirements.



Structural Adjustments- Adapt to workpiece diameter & length



Parameter Optimization- Cover shaft diameter range needs



Perfect Match- Ensure equipment fits production needs

Contact Us



Contact Person:Mr. Simon Sang



Tel / WhatsApp / Wechat:+86 188 8826 0296



Email:simon-balancer@hotmail.com



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We look forward to hearing from you for further inquiries and cooperation opportunities.