



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Mechanical Testing Machine Manufacturer

Web: www.jnzz.cn



Product Catalog:

- Electronic Universal Testing Machine: Single-arm (100-5000N)
- Electronic Universal Testing Machine: (10-100KN) Gantry floor-standing type
- Electronic Universal Testing Machine: (200-600KN) Gantry floor-standing type
- Electronic Universal Testing Machine: (10-100KN) Gantry tabletop
- Electronic Universal Testing Machine: (200-600KN) Gantry tabletop
- Hydraulic Universal Testing Machine: Type C (Turbo Worm Drive)
- Hydraulic Universal Testing Machine: Type D (four columns, two screws, chain drive)
- Microcomputer control electro-hydraulic servo universal testing machine
- Microcomputer control electro-hydraulic servo pressure testing machine
- Semi-automatic impact testing machine
- Microcomputer control pendulum impact testing machine
- Cryopreservation Impact Testing Machine
- Impact specimen notch broach
- Impact specimen cryometer
- Impact Specimen Notch Projector

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Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Electronic Universal Testing Machine

Series: Single-arm (100-5000N)



Product Advantages:

- The speed of moving the beam during the test can be changed automatically according to a pre-set program or manually;
- Automatically switch to the appropriate range according to the load size to ensure the accuracy of the measurement data;
- Automatic calibration: The system can automatically realize the calibration of the accuracy of the value;
- Automatic saving: At the end of the test, the test data and curves are automatically saved;
- Process realization: the test process, measurement, display and analysis are all completed by the microcomputer;



Product Introduction:

● Host part:

- The main engine of the single-arm structure absorbs the production of Japanese Shimadzu and German technology, with an exquisite appearance, and the frame structure is formed by the upper beam, middle beam, lower beam and bottom panel through ball screws, ensuring the rigidity of the frame structure. The use of a fully digital AC servo motor drives the high-precision ball screw transmission without backlash through the noise-free synchronous toothed belt, ensuring its smooth loading, no gaps, and high transmission efficiency.

- Limit switch: with limit protection function, automatic shutdown after reaching the limit;

- Test accessories: the high degree of automation of the test process and dozens of different accessories can meet the testing requirements of various materials;

● Control part:

- Test force measurement: The use of high-precision and high-stability spoke tensile pressure strain sensor, with high-precision measurement amplification system, ensures the high accuracy of the test force. According to user needs, multiple sensors can be used to achieve a wider range of measurement of test force;

- Displacement measurement device: using photoelectric encoder, displacement accuracy $\leq \pm 0.5\%$;

- Software control system: using brand computer, the control system software is based on Windows operating system, which has the characteristics of fast running speed, clear interface and simple operation, which can meet the testing needs of different materials. Physical properties can be tested on various materials according to international standards, national standards or industry standards. (Optional touch screen LCD digital display controller).



Technical parameters:

Model	WDW/WDW-S		
Structural form	Single-arm		
Max test force	1KN	2KN	5KN
Grade	Level 1 (Level 0.5)		
Operation method	Microcomputer control/LCD digital display		
Precision ball screw accuracy	All precision ball screw pairs are ground and processed		
Force value measurement range	2%-100% of the maximum test force or 0.4%-100% of the maximum test force		
Test force accuracy	Better than the indicated value $\pm 1\%$ ($\pm 0.5\%$ special selection)		
Deformation display error	$\pm 1\%$ (or $\pm 0.5\%$)		
The mini resolution of the force	0.01N		
Beam displacement accuracy	$\pm 1\%$ ($\pm 0.5\%$)		
Deformation accuracy	Better than $\pm 1\%$ ($\pm 0.5\%$)		
Speed regulation range	0.01-500mm/min		
Test distance	600 mm (can be customized according to customer requirements)		
Test space adjustment mechanism	AC servo motor, low noise synchronous belt drive		
Execute standard	GB/T2611		
Protection function	Overload protection, limit protection		
Power supply	220V		
Work environment	Room temperature -45°C , humidity 20%-80%		
Fixture form	According to customer requirements, suitable fixtures are configured.		
Overall dimensions	500*550*1200 (mm)	500*550*1200 (mm)	500*550*1200 (mm)
Weight (kg)	160	160	160
Motor power (kw)	0.4	0.4	0.4



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Electronic Universal Testing Machine

Series: (10-100KN) Gantry floor-standing type



Product Advantages:

- The speed of moving the beam during the test can be changed automatically according to a pre-set program or manually;
- Automatically switch to the appropriate range according to the load size to ensure the accuracy of the measurement data;
- Automatic calibration: The system can automatically realize the calibration of the accuracy of the value;
- Automatic saving: At the end of the test, the test data and curves are automatically saved;
- Process realization: the test process, measurement, display and analysis are all completed by the microcomputer;



Product Introduction:

● Host part:

- The gantry floor-standing main engine, absorbing the production of Japanese Shimadzu and German technology, exquisite appearance, is composed of the upper beam, middle beam, lower beam and bottom panel through two pairs of ball screws to form a frame structure, ensuring the rigidity of the frame structure. The use of a fully digital AC servo motor drives the high-precision ball screw transmission without backlash through the noise-free synchronous toothed belt, ensuring its smooth loading, no gaps, and high transmission efficiency.

- Limit switch: with limit protection function, automatic shutdown after reaching the limit;

- Test accessories: the high degree of automation of the test process and dozens of different accessories can meet the testing requirements of various materials;

● Control section:

- Test force measurement: The use of high-precision and high-stability spoke tensile compression strain sensor, with high-precision measurement amplification system, ensures the high accuracy of the test force. According to user needs, multiple sensors can be used to achieve a wider range of measurement of test force;

- Displacement measurement device: using photoelectric encoder, displacement accuracy $\leq \pm 0.5\%$;

- Software control system: using brand computer, the control system software is based on Windows operating system, which has the characteristics of fast running speed, clear interface and simple operation, which can meet the testing needs of different materials. Physical properties can be tested on various materials according to international standards, national standards or industry standards.



Technical parameters:

Model	WDW/WDW-S			
Structural form	Gantry floor-standing type			
Max test force	10KN	20KN	50KN	100KN
Grade	Level 1 (Level 0.5)			
Operation method	Microcomputer control/LCD digital display			
Precision ball screw accuracy	All precision ball screw pairs are ground and processed			
Force value measurement range	2%-100% of the maximum test force or 0.4%-100% of the maximum test force			
Test force accuracy	Better than the indicated value $\pm 1\%$ ($\pm 0.5\%$ special selection)			
Deformation display error	$\pm 1\%$ (or $\pm 0.5\%$)			
The mini resolution of the force	0.01N			
Beam displacement accuracy	$\pm 1\%$ ($\pm 0.5\%$)			
Deformation accuracy	Better than $\pm 1\%$ ($\pm 0.5\%$)			
Speed regulation range	0.01-500mm/min			
Test distance	600 mm (can be customized according to customer requirements)			
Test space adjustment mechanism	AC servo motor, low noise synchronous belt drive			
Execute standard	GB/T2611			
Protection function	Overload protection, limit protection			
Power supply	220V			
Work environment	Room temperature -45°C , humidity 20%-80%			
Fixture form	According to customer requirements, suitable fixtures are configured.			
Overall dimensions	710*550*1700 (mm)	710*550*1700 (mm)	785*550*1850 (mm)	785*550*1850 (mm)
Weight (kg)	450	450	500	550
Motor power (kw)	0.75	0.75	0.75	1.5



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Electronic Universal Testing Machine

Series: (200-600KN) Gantry floor-standing type



Product Advantages:

- The speed of moving the beam during the test can be changed automatically according to a pre-set program or manually;
- Automatically switch to the appropriate range according to the load size to ensure the accuracy of the measurement data;
- Automatic calibration: The system can automatically realize the calibration of the accuracy of the value;
- Automatic saving: At the end of the test, the test data and curves are automatically saved;
- Process realization: the test process, measurement, display and analysis are all completed by the microcomputer;



Product Introduction:

● Host part:

- The gantry floor-standing main engine, absorbing the production of Japanese Shimadzu and German technology, exquisite appearance, is composed of the upper beam, middle beam, lower beam and bottom panel through two pairs of ball screws to form a frame structure, ensuring the rigidity of the frame structure. The use of a fully digital AC servo motor drives the high-precision ball screw transmission without backlash through the noise-free synchronous toothed belt, ensuring its smooth loading, no gaps, and high transmission efficiency.

- Limit switch: with limit protection function, automatic shutdown after reaching the limit;

- Test accessories: the high degree of automation of the test process and dozens of different accessories can meet the testing requirements of various materials;

● Control section:

- Test force measurement: The use of high-precision and high-stability spoke tensile compression strain sensor, with high-precision measurement amplification system, ensures the high accuracy of the test force. According to user needs, multiple sensors can be used to achieve a wider range of measurement of test force;

- Displacement measurement device: using photoelectric encoder, displacement accuracy $\leq \pm 0.5\%$;

- Software control system: using brand computer, the control system software is based on Windows operating system, which has the characteristics of fast running speed, clear interface and simple operation, which can meet the testing needs of different materials. Physical properties can be tested on various materials according to international standards, national standards or industry standards.



Technical parameters:

Model	WDW-100	WDW-200	WDW-300	WDW-500	WDW-600
Structural form	Gantry floor-standing type				
Max test force	100KN	200KN	300KN	500KN	600KN
Grade	Level 1 (Level 0.5)				
Operation method	Microcomputer control				
Precision ball screw accuracy	All precision ball screw pairs are ground and processed				
Force value measurement range	2%-100% of the maximum test force or 0.4%-100% of the maximum test force				
Test force accuracy	Better than the indicated value $\pm 1\%$ ($\pm 0.5\%$ special selection)				
Deformation display error	$\pm 1\%$ (or $\pm 0.5\%$)				
The mini resolution of the force	0.01N				
Beam displacement accuracy	$\pm 1\%$ ($\pm 0.5\%$)				
Deformation accuracy	Better than $\pm 1\%$ ($\pm 0.5\%$)				
Speed regulation range	0.01-500mm/min			0.01-300mm/min	
Test distance	600 mm (can be customized according to customer requirements)				
Test width	600mm	600mm	600mm	650mm	650mm
Test space adjustment mechanism	AC servo motor, low noise synchronous belt drive				
Execute standard	GB/T2611				
Protection function	Overload protection, limit protection				
Power supply	380V				
Work environment	Room temperature -45° C, humidity 20%-80%				
Fixture form	According to customer requirements, suitable fixtures are configured.				
Overall dimensions	1050*700*2100 (mm)	1100*770*2550 (mm)	1100*770*2650 (mm)	1150*770*2900 (mm)	1150*770*2900 (mm)
Weight (kg)	1100	1600	2000	3500	3500
Motor power (kw)	1.5	3	4	5	5



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Electronic Universal Testing Machine

Series: (10-100KN) Gantry tabletop



Product Advantages:

- The speed of moving the beam during the test can be changed automatically according to a pre-set program or manually;
- Automatically switch to the appropriate range according to the load size to ensure the accuracy of the measurement data;
- Automatic calibration: The system can automatically realize the calibration of the accuracy of the value;
- Automatic saving: At the end of the test, the test data and curves are automatically saved;
- Process realization: the test process, measurement, display and analysis are all completed by the microcomputer;



Product Introduction:

● Host part:

- The Gantry tabletop main engine, exquisite appearance, is composed of the upper beam, middle beam, lower beam and bottom panel through two pairs of ball screws to form a frame structure, ensuring the rigidity of the frame structure. The use of a fully digital AC servo motor drives the high-precision ball screw transmission without backlash through the noise-free synchronous toothed belt, ensuring its smooth loading, no gaps, and high transmission efficiency.

- Limit switch: with limit protection function, automatic shutdown after reaching the limit;

- Test accessories: the high degree of automation of the test process and dozens of different accessories can meet the testing requirements of various materials;

● Control section:

- Test force measurement: The use of high-precision and high-stability spoke tensile compression strain sensor, with high-precision measurement amplification system, ensures the high accuracy of the test force. According to user needs, multiple sensors can be used to achieve a wider range of measurement of test force;

- Displacement measurement device: using photoelectric encoder, displacement accuracy $\leq \pm 0.5\%$;

- Software control system: using brand computer, the control system software is based on Windows operating system, which has the characteristics of fast running speed, clear interface and simple operation, which can meet the testing needs of different materials. Physical properties can be tested on various materials according to international standards, national standards or industry standards.



Technical parameters:

Model	WDW			
Structural form	Gantry tabletop type			
Max test force	10KN	20KN	50KN	100KN
Grade	Level 1 (Level 0.5)			
Operation method	Microcomputer control/LCD digital display			
Precision ball screw accuracy	All precision ball screw pairs are ground and processed			
Force value measurement range	2%-100% of the maximum test force or 0.4%-100% of the maximum test force			
Test force accuracy	Better than the indicated value $\pm 1\%$ ($\pm 0.5\%$ special selection)			
Deformation display error	$\pm 1\%$ (or $\pm 0.5\%$)			
The mini resolution of the force	0.01N			
Beam displacement accuracy	$\pm 1\%$ ($\pm 0.5\%$)			
Deformation accuracy	Better than $\pm 1\%$ ($\pm 0.5\%$)			
Speed regulation range	0.01-500mm/min			
Test distance	600 mm (can be customized according to customer requirements)			
Test width	400mm (Customizable)			
Test space adjustment mechanism	AC servo motor, low noise synchronous belt drive			
Execute standard	GB/T2611			
Protection function	Overload protection, limit protection			
Power supply	220V			
Work environment	Room temperature -45°C , humidity 20%-80%			
Fixture form	According to customer requirements, suitable fixtures are configured.			
Overall dimensions	780*590*1700 (mm)	780*590*1700 (mm)	780*590*1900 (mm)	780*590*1900 (mm)
Weight (kg)	450	450	550	550
Motor power (kw)	0.75	0.75	0.75	1.5



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Electronic Universal Testing Machine

Series: (200-600KN) Gantry tabletop



Product Advantages:

- The speed of moving the beam during the test can be changed automatically according to a pre-set program or manually;
- Automatically switch to the appropriate range according to the load size to ensure the accuracy of the measurement data;
- Automatic calibration: The system can automatically realize the calibration of the accuracy of the value;
- Automatic saving: At the end of the test, the test data and curves are automatically saved;
- Process realization: the test process, measurement, display and analysis are all completed by the microcomputer;



Product Introduction:

● Host part:

- The Gantry tabletop main engine, exquisite appearance, is composed of the upper beam, middle beam, lower beam and bottom panel through two pairs of ball screws to form a frame structure, ensuring the rigidity of the frame structure. The use of a fully digital AC servo motor drives the high-precision ball screw transmission without backlash through the noise-free synchronous toothed belt, ensuring its smooth loading, no gaps, and high transmission efficiency.

- Limit switch: with limit protection function, automatic shutdown after reaching the limit;

- Test accessories: the high degree of automation of the test process and dozens of different accessories can meet the testing requirements of various materials;

● Control section:

- Test force measurement: The use of high-precision and high-stability spoke tensile compression strain sensor, with high-precision measurement amplification system, ensures the high accuracy of the test force. According to user needs, multiple sensors can be used to achieve a wider range of measurement of test force;

- Displacement measurement device: using photoelectric encoder, displacement accuracy $\leq \pm 0.5\%$;

- Software control system: using brand computer, the control system software is based on Windows operating system, which has the characteristics of fast running speed, clear interface and simple operation, which can meet the testing needs of different materials. Physical properties can be tested on various materials according to international standards, national standards or industry standards.



Technical parameters:

Model	WDW-200G	WDW-300G	WDW-500G	WDW-600G
Structural form	Gantry tabletop			
Max test force	200KN	300KN	500KN	600KN
Grade	Level 1 (Level 0.5)			
Operation method	Microcomputer control			
Precision ball screw accuracy	All precision ball screw pairs are ground and processed			
Force value measurement range	2%-100% of the maximum test force or 0.4%-100% of the maximum test force			
Test force accuracy	Better than the indicated value $\pm 1\%$ ($\pm 0.5\%$ special selection)			
Deformation display error	$\pm 1\%$ (or $\pm 0.5\%$)			
The mini resolution of the force	0.01N			
Beam displacement accuracy	$\pm 1\%$ ($\pm 0.5\%$)			
Deformation accuracy	Better than $\pm 1\%$ ($\pm 0.5\%$)			
Speed regulation range	0.01-500mm/min			
Test distance	600 mm (can be customized according to customer requirements)			
Test width	600mm	600mm	700mm	700mm
Test space adjustment mechanism	AC servo motor, low noise synchronous belt drive			
Execute standard	GB/T2611			
Protection function	Overload protection, limit protection			
Power supply	380V			
Work environment	Room temperature -45°C , humidity 20%-80%			
Fixture form	According to customer requirements, suitable fixtures are configured.			
Overall dimensions	1200*850*2550 (mm)	1200*850*2650 (mm)	1300*850*3000 (mm)	1300*850*3000 (mm)
Weight (kg)	1600	2000	3500	3500
Motor power (kw)	3	4	5	5

Automatic clamping of optional styles:





Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Hydraulic Universal Testing Machine

Series: Type C (Turbo Worm Drive)



Product Advantages:

- The clearance adjustment mechanism makes the moving beam have the most reasonable working position and stress state;
- The load sensor effectively improves the test range and force accuracy;
- The cylinder downward structure can reduce the height of the main engine, reduce the test center of gravity, and reduce the damage to the machine by the breaking impact;
- The photoelectric encoder can accurately measure the distance traveled by the beam;
- The hydraulic clamping device can adjust the clamping speed autonomously;
- The built-in control card based on PCI technology reduces the connection and improves real-time control and real-time acquisition functions and product stability;



Product Introduction:

- Host part:
 - Double column, double screw frame structure. The column is equipped with a ring groove to facilitate the large adjustment of the test space. The upper test space is used for tensile testing, and the lower test space is used for compression, bending, and shear testing.
- Drivetrain:
 - The lower beam lifting adopts disc motor, worm gear, and nut rotation to drive the beam to lift and lift to achieve the adjustment of stretching and compression space. The lower beam is equipped with a lead screw gap elimination mechanism to reduce the impact of lead screw gap on the test results.
 - The main cylinder adopts clearance sealing, load sensor force measurement;
- Control software:
 - This machine is equipped with easy-to-operate and full-featured general test software. The test can be completed very conveniently, so as to further improve the test efficiency. The test results can query and print curves and related test data, which is an ideal testing equipment for industrial and mining enterprises, scientific research units, colleges and universities, engineering quality supervision stations and other departments.
- Hydraulic system:
 - Tabletop control cabinet, manual or computer control of the test process (for loading and unloading of tests), computer display relevant data and print relevant curves and reports. Improved silent hydraulic source, shock absorbing oil tank, hydraulic integrated block can make the hydraulic source achieve low noise, beautiful appearance, easy maintenance and easy repair.



Technical parameters:

Model	WAW-300C	WAW-600C	WAW-1000C
Max test force	300 (KN)	600 (KN)	1000 (KN)
Effectively stretches the space	600mm	600mm	600mm
Compress space	500mm	500mm	500mm
Circular specimen clamping range	Φ 10-32mm	Φ 13-40mm	Φ 26-60mm
Flatten the gripping range of the specimen	0~15mm	0~30mm	20-40mm
The max clamping width of the flat specimen	76mm	80mm	70mm
Piston stroke	250mm	200mm	200mm
Net spacing between two lead screws	530mm	650mm	650mm
Two lead screw center spacing	600mm	740mm	760mm
Column diameter	φ 70mm	φ 90mm	φ 110mm
Lead screw specifications	T65X8	T85X12	T100X10
Dimensions	1000*600*2330mm	1180*750*2633mm	1200*780*2870mm
Weight	2200KG	3100KG	4900KG



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Hydraulic Universal Testing Machine

Series: Type D (four columns, two screws, chain drive)



Product Advantages:

- The clearance adjustment mechanism makes the moving beam have the most reasonable working position and stress state;
- The load sensor effectively improves the test range and force accuracy;
- The cylinder downward structure can reduce the height of the main engine, reduce the test center of gravity, and reduce the damage to the machine by the breaking impact;
- The photoelectric encoder can accurately measure the distance traveled by the beam;
- The hydraulic clamping device can adjust the clamping speed autonomously;
- The built-in control card based on PGI technology reduces the connection and improves real-time control and real-time acquisition functions and product stability;



Product Introduction:

● Host part:

- The main engine adopts a cylinder lower type main engine, four columns, and a double lead screw frame structure. The column is equipped with a ring groove to facilitate the large adjustment of the test space. Due to the use of four-column frame structure for large-size specimen compression test, the stability of the main engine structure is excellent. The upper test space is used for tensile testing, and the lower test space is used for compression, bending, and shear testing;

● Transmission System:

- The lower beam is lifted by cycloidal reducer, sprocket, chain, and lead screw pair drive to realize the adjustment of tension and compression space;
- The main cylinder is sealed by a sealing ring, and the load sensor measures the force;
- This machine is equipped with easy-to-operate and full-featured general test software. The test can be completed very conveniently, so as to further improve the test efficiency. The test results can query and print curves and related test data, which is an ideal testing equipment for industrial and mining enterprises, scientific research units, colleges and universities, engineering quality supervision stations and other departments.

● Hydraulic system:

- Tabletop control cabinet, manual or computer control of the test process (for loading and unloading of tests), computer display relevant data and print relevant curves and reports. Improved silent hydraulic source, shock absorbing oil tank, hydraulic integrated block can make the hydraulic source achieve low noise, beautiful appearance, easy maintenance and easy repair.



Technical parameters:

Model	WAW-300DX	WAW-600D	WAW-1000D	WAW-2000D	WAW-3000D
Max test force	300KN	600KN	1000KN	2000KN	3000KN
Effectively stretches the space	600mm	700mm	700mm	1000mm	850mm
Compress space	520mm	600mm	600mm	850mm	700mm
Circular specimen clamping range	10-20、20-32 (mm)	10-18、18-29、29-40 (mm)	13-30、30-45、45-60 (mm)	15-30、30-55、55-70 (mm)	15-30、30-50、50-70、70-90 (mm)
Flatten the gripping range of the specimen	2-13、13-25 (mm)	2-16、16-30 (mm)	0-20、20-40 (mm)	10-40、40-70 (mm)	2-25、25-50、50-75 (mm)
The max clamping width of the flat specimen	75mm	90mm	100mm	120mm	140mm
Piston stroke	200mm	200mm	250mm	250mm	250mm
Net spacing between two lead screws	455mm	495mm	515mm	700mm	770mm
Two lead screw center spacing	520mm	570mm	600mm	820mm	900mm
Column diameter	55mm	70mm	80mm	100mm	110mm
Lead screw specifications	Tr65*7	Tr75*8	Tr85*8	Tr120*14	Tr130*14
Dimensions	750*650*2000 (mm)	800*750*2150 (mm)	900*890*2350 (mm)	1300*1090*3150 (mm)	1300*1090*3290 (mm)
Weight	2000KG	2500KG	3500KG	8600KG	10500KG



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Hydraulic Universal Testing Machine

Series: SHT microcomputer control
electro-hydraulic servo



Product Advantages:

- The clearance adjustment mechanism makes the moving beam have the most reasonable working position and stress state;
- The load sensor effectively improves the test range and force accuracy;
- The cylinder downward structure can reduce the height of the main engine, reduce the test center of gravity, and reduce the damage to the machine by the breaking impact;
- The photoelectric encoder can accurately measure the distance traveled by the beam;
- The hydraulic clamping device can adjust the clamping speed autonomously;
- The built-in control card based on PCI technology reduces the connection and improves real-time control and real-time acquisition functions and product stability;



Product Introduction:

● Host part:

- Double space structure, between the upper and lower beams is the stretching space, and between the lower beam and the test bench is the compression space. The tensile compression test conversion is quite convenient; Semi-open clamp account, high strength, no deformation, suitable for steel mill to stretch rebar and other specimens with large workload; There is a liner between the jaw plate and the clamp account, which effectively protects the jaw plate from wear and tear.

- The upper and lower beams are made of cast steel, which has high strength and good safety;

● Transmission System:

- The lower beam is lifted by a motor through a reducer, a chain drive mechanism, and a lead screw auxiliary transmission to realize the adjustment of tension and compression space;

- The main cylinder is sealed by a sealing ring, and the load sensor measures the force;

● Hydraulic system:

- Flat oil source control cabinet, manual or computer control of the test process (for loading and unloading of test), computer display relevant data and print relevant curves and reports. Improved silent hydraulic source, shock absorbing oil tank, hydraulic integrated block can make the hydraulic source achieve low noise, beautiful appearance, easy maintenance and easy repair;

- VXD's high-speed data acquisition technology is used for high-speed data acquisition; Its high integration, powerful control, data processing ability, and high reliability are incomparable to other processor testing machines;

- Except for the power interface, all other interfaces use standard USB interfaces, plug and play interfaces, which can be hot-swapped, that is, have plug-and-play functions; Interface characteristics can be set online by the software. Make the layout of each interface integrated and reasonable, easy to plug and unplug.



Technical parameters:

Model	SHT-4305	SHT-4605	SHT-4106	SHT-4206
Max test force	300KN	600KN	1000KN	2000KN
Effectively Stretches the space	750mm	800mm	800mm	1000mm
Compress space	670mm	700mm	700mm	850mm
Circular specimen clamping range	10-20、20-32 (mm)	10-18、18-29、 29-40 (mm)	13-30、30-45、 45-60 (mm)	15-30、30-55、 55-70 (mm)
Flatten the gripping range of the specimen	2-13、13-25 (mm)	2-16、16-30 (mm)	0-20、20-40 (mm)	10-40、40-70 (mm)
The max clamping width of the flat specimen	75mm	90mm	100mm	120mm
Piston stroke	200mm	200mm	250mm	250mm
Net spacing between two lead screws	420mm	500mm	515mm	730mm
Two lead screw center spacing	500mm	580mm	600mm	850mm
Column diameter	60mm	70mm	80mm	110mm
Lead screw specifications	Tr65*7	Tr75*8	Tr85*8	Tr120*14
Dimensions (mm)	820*570*2080	940*650*2460	900*670*2515	1370*820*3150
Weight (KG)	1600	2300	3500	7500



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Hydraulic Pressure Testing Machine

Series: Microcomputer control
electro-hydraulic servo



Product Advantages:

- Four columns, fixed beams, high strength of the main engine. Column electroplating process, beautiful and non-rusty;
- The cylinder piston gap is sealed for durability, and the high-precision sensor is located on the outside of the cylinder for easy maintenance and replacement;
- The integrated oil source control cabinet is clean and beautiful;
- imported servo valve and imported oil pump, which improves the reliability of the system and reduces the cost of use;
- The computer controls the test process, which is stable and reliable, and easy to operate.



Product Introduction:

- Microcomputer controlled electro-hydraulic servo pressure testing machine is a high-precision material compressive testing machine. The electromechanical and hydraulic integration equipment of the test. It is composed of four parts: test host, oil source (hydraulic power source), measurement and control system, and test equipment. It is suitable for metallurgy, building materials, aviation, aerospace, colleges and universities, scientific research units and other fields. Replace the corresponding test aids, and the product can also complete the compressive strength test of metal materials and other non-metallic materials;
- The testing machine has a force closed-loop servo control function, which can achieve equal load loading. It can achieve long-term load maintenance, high load holding accuracy, and can set complex compression test procedures, especially suitable for test sites that need to work continuously for a long time. It can realize the automatic operation of the test process, dynamically display the test force value, loading rate change, test curve, use the microcomputer to analyze and process the data, judge a set of test results, and automatically store and print.
- Main engine: It adopts a four-column frame structure, and the upper pressure plate adopts spherical sub-aligning. High-precision one-way cylinder, high-precision spoke load sensor;
- Oil source system: with fast oil return device, it can quickly improve work efficiency;
- The integral oil source cabinet is composed of hydraulic pump station, oil source control, host control, computer host, etc., with large piston diameter, low noise, high dead weight, suitable for automatic control.
- Measurement and Control System:
 - The closed-loop servo control operating system composed of electrical controller, proportional servo valve, force sensor, measurement and control box, computer and installed test software can set and select various test procedures through the computer, can automatically and accurately control the test process, and automatically measure the test force parameters at each stage. It can realize equal rate loading and unloading, and has interfaces and functions for automatic detection of displacement and deformation.



Technical parameters:

Model	YAW-1000D	YAW-2000D
Max test force	1000KN	2000KN
Testing machine level	0.5	0.5
Effective force measurement range	2%–100%	2%–100%
The error of the test force	$\pm 0.5\%$	$\pm 0.5\%$
The max distance between the upper and lower platens	0–320mm	0–400mm
Upper and lower platen sizes	320*310mm	400*390mm
The left and right spans of the columns	$\geq 320\text{mm}$	$\geq 400\text{mm}$
Max stroke of the working piston	100mm	100mm
Power supply	380V for three-phase five-wire system	380V for three-phase five-wire system



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Semi-automatic Impact Testing Machine

Series: JB- (W) 300B/500B



Product Advantages:

- JB-300B/500B semi-automatic impact testing machine test result degree plate pointer display;
- The operation adopts semi-automatic control, and the remaining energy after impacting the specimen is used to automatically swing, which is easy to operate and has high work efficiency;
- JB-W300B/500B microcomputer controlled semi-automatic impact testing machine display mode is dual display: degree plate pointer and computer display;
- Using monolithic control, it can realize integrated operations such as swinging, positioning, impact, measurement, operation, digital display, result, printing, etc., with high work efficiency and high measurement accuracy;
- Experimental results such as impact absorption work and impact toughness can be printed.



Product Introduction:

- The semi-automatic impact testing machine is used to determine the impact resistance of metal materials under dynamic load. In order to judge the performance of the material under dynamic load. This machine uses the remaining energy after the impact specimen to automatically swing, easy to operate, high work efficiency, safe and reliable, suitable for all kinds of laboratories to do impact tests has been widely used in metalworking, machinery, aerospace, quality supervision and other industries.
- Microcomputer screen display semi-automatic impact testing machine, using PC microcomputer control, electric swing, impact, microcomputer measurement, calculation, screen digital display results and printing, etc., high work efficiency and high test accuracy. After impacting the specimen, the remaining energy can be used to automatically swing to prepare for the next test, which is easy to operate and has high work efficiency.
- Its superiority can be better reflected in the laboratory that continuously does impact tests and the metallurgy, machinery manufacturing and other industries that do a large number of impact tests. The computer can calculate and digitally display the impact absorption work, impact toughness, pendulum angle and test average, and print the current test data and test average.
- It complies with the national standard GB/T3808-2002 "Inspection of pendulum impact testing machine", and the impact test of metal materials according to the national standard GB/T229-2020 "Charpy Pendulum Impact Test Method for Metallic Materials", and conforms to ASTM E23.

Technical parameters:

Model	JB-300B	JBW-300B
Impact energy	150J、300J	150J 、300J
Impact speed	5.2m/S	5.2m/S
Raising the horn	150°	150°
Bearing span	40mm	40mm
Radius of the fillet of the bearing	R1~1.5mm	R1~1.5mm
Impact knife fillet radius	R2~2.5mm	R2~2.5mm
Pendulum torque (impact constant)	80.3848N.m, 163.7695N.m	80.3848N.m, 163.7695N.m



Technical parameters:

The pendulum rotates the center to the impact point distance	750mm	750mm
The inclination angle of the bearing surface of the specimen bearing	0°	0°
Impact knife angle	$30 \pm 1^\circ$	$30 \pm 1^\circ$
Impact knife thickness	16mm	16mm
Specimen size	10×10 (7.5 or 5) ×55mm	10×10 (7.5 or 5) ×55mm
Power supply	380V、180W	380V、180W
Energy display method	Dial	Dial, microcomputer
Dimensions (mm)	2124×725×1340mm	2124 mm×725 mm×1340 mm
Weight	450kg	450Kg



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Pendulum Impact Testing Machine

Series: JBW-150-750C
(Microcomputer control)



Product Advantages:

- The integrated design of the main frame and the base, and the overall casting and processing overcame the weak link of the split connection of the fuselage and the base and improved the stability of the test;
- The body absorbs less energy, and the measurement results are closer to the real absorption work of the specimen. More suitable for high energy shocks;
- The main engine adopts high rigidity design, and each stressed component has been analyzed and designed by finite elements, and has been precision processed and tested;
- The machining center processes the front and rear bearing holes and anvil mounting positions at one time to ensure that the front and rear bearing holes are symmetrical, and to ensure that the distance from the axis of the swing shaft to the strike point is accurate.



Product Introduction:

- The semi-automatic impact testing machine is used to determine the impact resistance of metal materials under dynamic load. In order to judge the performance of the material under dynamic load. This machine uses the remaining energy after the impact specimen to automatically swing, easy to operate, high work efficiency, safe and reliable, suitable for all kinds of laboratories to do impact tests has been widely used in metalworking, machinery, aerospace, quality supervision and other industries.
- Microcomputer screen display semi-automatic impact testing machine, using PC microcomputer control, electric swing, impact, microcomputer measurement, calculation, screen digital display results and printing, etc., high work efficiency and high test accuracy. After impacting the specimen, the remaining energy can be used to automatically swing to prepare for the next test, which is easy to operate and has high work efficiency. Its superiority can be better reflected in the laboratory that continuously does impact tests and the metallurgy, machinery manufacturing and other industries that do a large number of impact tests. The computer can calculate and digitally display the impact absorption work, impact toughness, pendulum angle and test average, and print the current test data and test average.
- It complies with the national standard GB/T3808-2002 "Inspection of pendulum impact testing machine", and the impact test of metal materials according to the national standard GB/T229-2020 "Charpy Pendulum Impact Test Method for Metallic Materials", and conforms to ASTM E23.

Technical parameters:

Model	JBW-150-750C				
Max impact energy	150	300	450	600	750
Scope of effective use	10%–90%FS				
The pendulum is pre-raised angle	150°				
The distance from the axis of the pendulum axis to the center	750mm				
Impact speed	5. 24m/s				
Meet the specimen specifications	10×10×55mm			10×7. 5×55mm	
	10×5×55mm			10×2. 5×55mm	
Energy display method	Dials, LCD screens, microcomputers				
Motor power	1. 5kW				
Power supply	Three-phase five-wire system, 380V±10%, 50Hz				
Usage environment	No vibration and no dust; room temperature (15–25° C); Humidity< 70%				



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Cryopreservation Impact Testing Machine

Series: JBW-150-750CD
(Microcomputer Control Pendulum Type)



Product Advantages:

- The microcomputer-controlled low-temperature automatic impact testing machine is fully automatic control, and the pendulum, hanging, feeding, positioning, impact and temperature adjustment settings are all electrical and mechanical control;
- Equipped with a special sample feeding device for automatic sample feeding and automatic end face positioning of specimens;
- The specimen from furnace to impact time is not more than 2 seconds, which meets the requirements of the metal low-temperature Charpy impact test method;
- The microcomputer can calculate and display the impact absorption work, impact toughness, pendulum angle and test average of the material.



Product Introduction:

Microcomputer control pendulum automatic ultra-low temperature series impact testing machine is a testing machine with high stiffness host, microcomputer control, automatic temperature control, automatic sample feeding and positioning, automatic measurement and recording, according to ISO 148:1998, GB/T 3808-2018 "Inspection of Pendulum Impact Tester" and other design and manufacturing. It fully meets the requirements of domestic and international impact testing standards for metal materials. It is powerful, stable and reliable, accurate in testing, and easy to operate. It is an ideal test equipment to test the impact resistance of metal materials under dynamic loads and judge the toughness and brittleness of materials.

Technical parameters:

Model		JBW-150-750CD				
Max impact energy		150J	300J	450J	600J	750J
The pendulum is pre-raised angle		150°				
Impact speed		5.24m/s				
The distance from the axis of the pendulum axis to the center of the stroke		750mm				
Specimen specifications		10×10×55mm				
Energy display method		Dials, LCD screens, microcomputers				
Refrigeration method		liquid nitrogen				
Temperature control range		+30°C~-196°C				
Constant temperature accuracy		±1°C				
Cooling speed		+30° C~-196° C, not more than 60 minutes				
Effective workspace		Cold room space: 250×56×11 (L×W×H) mm				
Cooling chamber capacity		20 (expandable up to 40)				
Sample delivery method		Pneumatic				
Positioning method		Pneumatic				
Dimensions	Host	Protective mesh 2220×900×2220 (L×W×H) mm				
	Refrigeration part	700×260×460 (L×W×H) mm				
	Electrical cabinets	960×620×830 (L×W×H) mm				
Power	Main motor	0.37kW				
	Refrigeration	1.5kW				
Power supply		Three-phase five-wire system, 380V±10%, 50HZ				
Usage environment		No vibration and no dust; room temperature (15-25° C); Humidity< 70%				



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Impact specimen notch broach

Series: UV-2Y



Product Advantages:

- The impact specimen notch broaching machine is the only tool in China that can process qualified specimen notches except optical curve grinders;
- Due to the principle of one-time broaching and forming, its processing identity is excellent, which can ensure that the processed specimen gap is 100% qualified;
- This series of products is divided into: impact specimen notch manual broach (single tool), and impact specimen notch hydraulic electric broaching machine (double tool) and other types;
- It can meet international standards such as American standard, European standard ASTM, E23-02A, EN10045, ISO148, ISO083 and so on.



Impact specimen notch hydraulic broaching machine

In the material notch impact test, the processing of the V-notch (or U-notch) is the key issue whether the test can be carried out, and this broaching machine provides you with an ideal special equipment that can absolutely guarantee 100% qualified 2mm V-shaped and 2mm U-shaped notches.

This broach is driven by oil pump hydraulic cylinder mode, can be configured according to user requirements V-shaped or U-shaped broach, specimen notch is processed and formed at one time, two standard specimen notches can be successfully drawn at a time, broach is made of special materials, special process precision processing and manufacturing, high hardness, good wear resistance, long service life, easy operation. The processed V-shaped notch and U-shaped notch can meet the relevant national standards, due to the principle of broaching and molding, its processing identity is excellent, which can ensure that the processed specimen notch is 100% qualified.

Technical parameters:

Model	UV-2Y
Notch type of machining specimen	V-shaped, U-shaped (2mm)
Process specimen size	10×10×55 (mm)
Broaching speed	2.0m/min
Broach stroke	340 mm
Broach material	W18Cr4V (Replaceable Custom High Strength Material)



Specimen Notch Hydraulic Broaching Machine (American Standard 5mm)

This broaching machine is driven by oil pump hydraulic cylinder mode, can be configured according to user requirements V-shaped or U-shaped broach, specimen notch is processed and formed at one time, two standard specimen notches can be successfully drawn at a time, broach is made of special materials, special process precision processing and manufacturing, high hardness, good wear resistance, long service life, broaching machine knife box is optimized design, 2mm、3mm、5mm knives are interchangeable, at any time to meet the needs of users to process different specifications of notches, easy to operate. The processed V-shaped notch and U-shaped notch can meet the relevant national standards, due to the principle of broaching and molding, its processing identity is excellent, which can ensure that the processed specimen notch is 100% qualified. It can meet international standards such as American standard, European standard ASTM, E23-02A, EN10045, ISO148, ISO083 and so on.

Technical parameters:

Model	UV-2Y I
Notch type of machining specimen	V-shaped, U-shaped
Depth of machining notch	2mm、3mm、5mm
Process specimen size	10×10×55mm 5×10×55mm
Processing specimen accuracy	±0.05mm
Broaching speed	2.5m/min
Broach stroke	390mm (5mm) 340mm (3mm) 340mm (2mm)
Dimensions	450×680×1400
Motor power	0.75KW



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Impact specimen cryometer

Series: DWC-40/60/80



Product Advantages:

- The impact specimen cryometer adopts the imported Taikang double compressor refrigeration technology, adopts the principle of thermal balance and circulation stirring method to achieve automatic and uniform cooling and constant temperature of the specimen;
- This equipment is simple and convenient to operate, and has high working efficiency, which is the most ideal specimen cooling and insulation equipment in the low-temperature impact test of materials. It can also be used for other low-temperature detection and testing work.



Technical parameters:

Model	DWC-40	DWC-60	DWC-80
Temperature control range	Room temperature $\sim$ -40 $^{\circ}$ C	Room temperature $\sim$ -60 $^{\circ}$ C	Room temperature $\sim$ -80 $^{\circ}$ C
Constant temperature accuracy	< 0.5 $^{\circ}$ C	< 0.5 $^{\circ}$ C	< 0.5 $^{\circ}$ C
Cooling rate	+30 $^{\circ}$ C $\sim$ 0 $^{\circ}$ C 约1.8 $^{\circ}$ C/min 0 $^{\circ}$ C $\sim$ -20 $^{\circ}$ C 约0.8 $^{\circ}$ C/min -20 $^{\circ}$ C $\sim$ -40 $^{\circ}$ C 约1.5 $^{\circ}$ C/min -- --	+30 $^{\circ}$ C $\sim$ 0 $^{\circ}$ C 约2.0 $^{\circ}$ C/min 0 $^{\circ}$ C $\sim$ -20 $^{\circ}$ C 约1.5 $^{\circ}$ C/min -20 $^{\circ}$ C $\sim$ -40 $^{\circ}$ C 约1.0 $^{\circ}$ C/min -40 $^{\circ}$ C $\sim$ -60 $^{\circ}$ C 约0.7 $^{\circ}$ C/min --	+30 $^{\circ}$ C $\sim$ 0 $^{\circ}$ C 约2.0 $^{\circ}$ C/min 0 $^{\circ}$ C $\sim$ -20 $^{\circ}$ C 约1.5 $^{\circ}$ C/min -20 $^{\circ}$ C $\sim$ -40 $^{\circ}$ C 约1.0 $^{\circ}$ C/min -40 $^{\circ}$ C $\sim$ -60 $^{\circ}$ C 约0.7 $^{\circ}$ C/min -60 $^{\circ}$ C $\sim$ -80 $^{\circ}$ C 约0.5 $^{\circ}$ C/min
Max form factor	800 $\times$ 510 $\times$ 480 mm	900 $\times$ 505 $\times$ 850 mm	900 $\times$ 510 $\times$ 850 mm
Effective workspace	120 $\times$ 120 $\times$ 70 mm	120 $\times$ 120 $\times$ 70 mm	120 $\times$ 120 $\times$ 70 mm
The number of specimens that can be loaded	>60 (Impact specimen size: 10 $\times$ 10 $\times$ 55mm)	>60 Impact specimen size: (10 $\times$ 10 $\times$ 55mm)	>60 Impact specimen size: (10 $\times$ 10 $\times$ 55mm)
Digital timer	1 second $\sim$ 99 minutes, resolution 1 second	1 second $\sim$ 99 minutes, resolution 1 second	1 second $\sim$ 99 minutes, resolution 1 second
Cooling medium	Ethanol or other antifreeze	Ethanol or other antifreeze	Ethanol or other antifreeze
Power supply	220 $\sim$ 240V, 1.0KW	220 $\sim$ 240V, 50Hz, 1.5KW	220 $\sim$ 240V, 50Hz, 2.0KW



Jinan Zhongzheng Testing Machine Manufacturing Co., Ltd

Impact Specimen Notch Projector



Product Introduction:

- A special optical instrument specially designed to check the processing quality of Charpy V-type and U-shaped impact specimens to determine whether the notch processing of the detected impact specimen is qualified, and its advantages are easy to operate, intuitive inspection and comparison, and high efficiency.

Technical Parameters:

Projection screen diameter	180mm
Instrument magnification	50X
Light source	12V 100W
Power supply	220V 50Hz
Dimensions	515×224×603mm
Weight	20kg