HST KASON

WAW/ WEW SERIES

Computer Control Hydraulic Universal Testing Machines

Products for Materials Testing
Worldwide Headquarters

■ **Capacity 100 - 2000kN**

Application

For static and cuasi-static test (low frequency fatigue) for high loads in many types of tests.

Specially indicated to switch test mode, thanks to its dual space design.

Double test space frame

With high structural stiffness,4 columns and 2 screws with double testing space

The upper space is intended for tensile tests, and the lower for compression, shear, bending, folding, etc.

Manufactured according to Standards EN 10002-2; ASTM E4, ISO 7500-1; DIN 51221 and BS1610 guide.

Mobile crossbar separates the two test zones and is positionable in height by means of two spindles driven by an integrated electric motor frame.

Types of specimens and materials

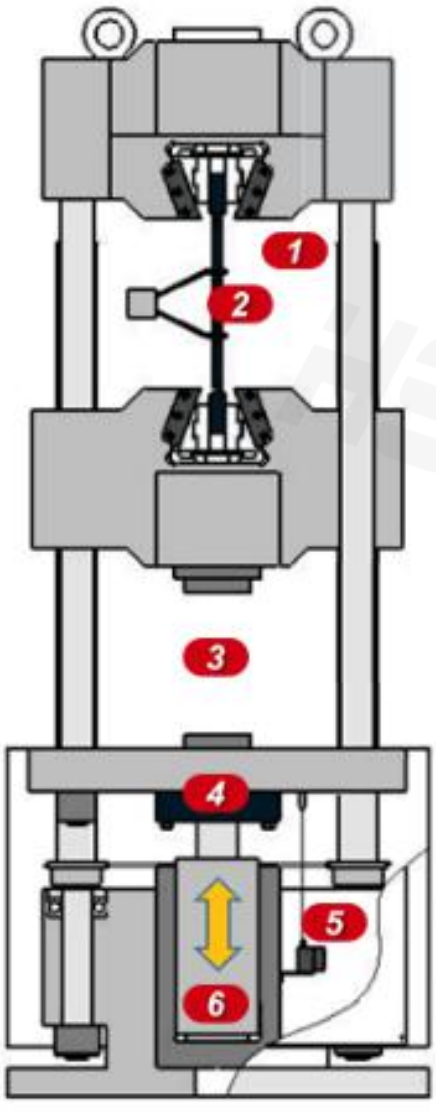
The versatility of the machine allows the testing of specimens and materials such as:

- › Round
- › Flat
- › Shouldered
- › Folding
- Threaded
- › Metals
- › Polimers
- › Composites
- › High and low temperatures
- › Cables, Chains, Ropes, building materials, etc.

Testing Modes

By using the right accessories, you can perform (among others) the following tests:

- › Tensile
- › Compression
- › Bending
- › Folding
- › Punching
- › Extrusion
- › Peeling
- › Shear test
- › High and low temperatures
- › Brinell Hardness (30 kN)



Host feature:

- Rigid 4-column load frame construction providing superior axial and lateral stiffness and minimum maintenance, low reaction at specimen failure.
- With chrome plated columns for easy cleaning and longest life.
- Lead screw dust cover: Prevent foreign objects and dust from entering the precision lead screw, and improve the durability of the screw and drive mechanism

Common sense: The differences between WAW, WEW

WAW Series is computer controlled servo hydraulic universal testing machine. The space adjusting, & test processes could be controlled by the software and the test result could be transferred to the software in the computer for further analysis. It is the most advanced series in hydraulic universal testing machines.

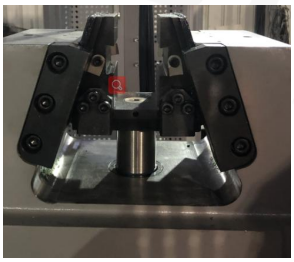
WEW Series is computer display manual control hydraulic universal testing machine. The space adjusting & force loading could be executed by manual control. The test result could also be transferred to the software for further analysis.

1. Space for Tension test
2. Extensometer Measure Elongation
3. Space for Compression/Bend/Shear/Flexure
4. Load Cell
5. Displacement Sensor
6. Oil Cylinder (Piston)

Front-Opening Hydraudic Grips

Front-Opening front wedge grips make it easy to insert and remove specimens for increased productivity and operator safety. Interchangeable design allows limited number of jaw faces to accommodate a large range of specimen sizes

■ Half-Opening



■ Full-Opening

■ Strand Tensile testing

■ Compression Testing

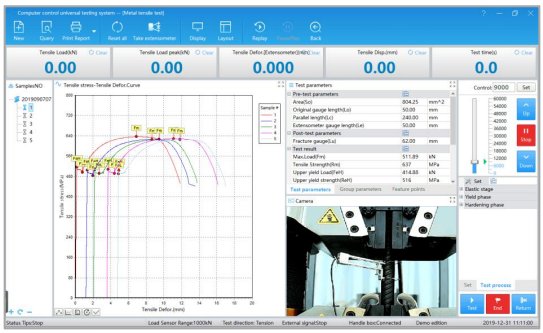
Different With other companies' products

Ours: Upper and lower jaw support & specimen clamping method:built-in clamping device, the specimen clamping is more stable, and the specimen breaking neutral will be better.

Other compaines: External clamping device, small clamping force, uneven clamping speed, easy to hurt the experimenter

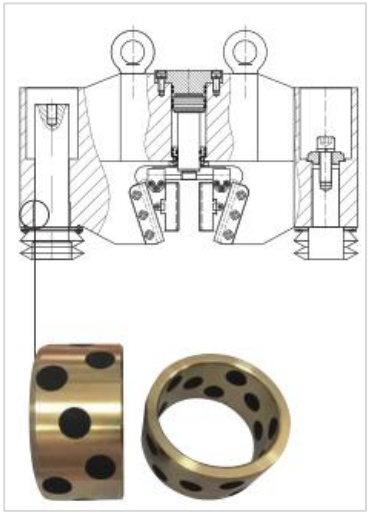
Lead screw dust cove

Safe protect cover

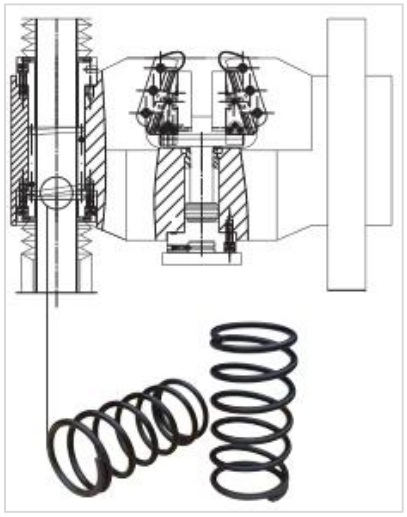


The software has a recording function: can effectively record and play back the entire test experiment process

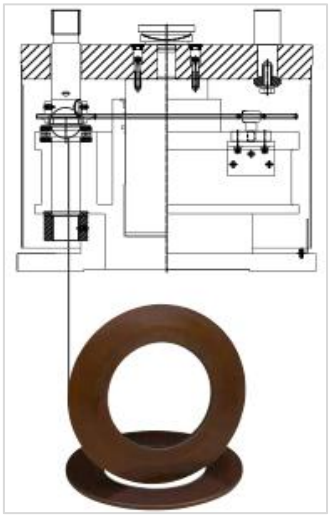
Other company machinedon't have these feature



■ Self lubricating bearing



■ Backlash structure

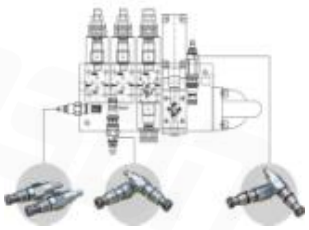


■ Shock absorption and noise reduction

Oil source design

Our company	Other companies
	
The entire steel plate is directly mounted and fixed to the workbench, which improves the firmness, durability and ease of use, and eliminates the noise generated by the sample.	

Manual control box: Stainless steel hand control box: more durable, can control the rise and fall of moving beams and cylinders, clamping and loosening of jaws



USA SUN Cartridge valve

The US SUN cartridge valve effectively reduces the probability of oil leakage in the hydraulic system and improves the stability of the hydraulic system.

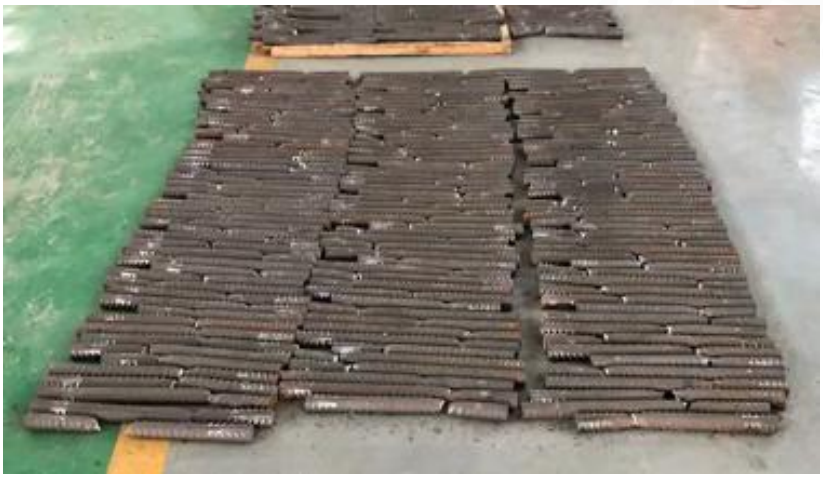
External independent controller: The external independent controller replaces the traditional test machine PCI or PCIE board and power amplifier. It effectively avoids data loss caused by computer damage or loss, saves maintenance costs, and is more convenient to install and replace. **Other companies:**PCI plate card

DV: Customers can add cameras, the software has a recording function: can effectively record and play back the entire test experiment process

Power strip, oil pressure indication, computer USB connection: The pressure gauge is divided into clamping pressure and system pressure, which can indicate the workingpressure in real time.

Equipped with monitoring system: provides a stable output power. When the power supply is abnormal(missing phase, wrong phase sequence, wrong wiring) the indicator light of the monitoring system will be off.

Check before delivery



customer feedback

Specifications

Model	WAW-1000D
Control Way	Constant stress uniform deformation constant displacement three closed loop control and program control dealing
Number of Screw drivers	4
Max. Load(KN)	1000
Load Accuracy	≤± 1% (≤± 0.5% optional)
Load Range	2%~100%FS
Load Resolution	1/300000
Deformation Measurement Range	2%~100%FS
Deformation Accuracy	≤± 1%
Displacement Resolution	0.01mm
Testing speeds (mm/min)	0.1~70
Adjustable crosshead speed(mm/min)	350
Displacement Error	≤±0.5%
Max. Piston Stroke(mm)	200 (250 optional)
Max. Tension Test Space (mm)	950
Max. Compression Test Space	700
Column Effective Spacing(mm)	560 (580optional)
Clamping Method	Hydraulic Automatic Clamp
Flat Specimen Clamping Width(mm)	100*100
Compression Plate Size	Φ 160mm
Bending Roller Distance	450mm
Width Of Bending Rollers	120mm
Power Supply	3-phase, AC380V, 50Hz (Can Be Customized)

Load Measurement Accuracy :
±1% of reading to 1/50 of load weighing system capacity meets or exceeds the requirements of the following standards: ISO 7500-1, EN 10002-2, ASTM E4, JIS B7721. (±0.5% for optional)

Strain Measurement Accuracy:
±1% of reading to 1/50 of full scale with most ASTM E83 class B or ISO 9513 class 0.5 extensometers meets or exceeds ASTM E83, ISO 9513, and EN 10002-4. (±0.5% for optional)

Speed Accuracy:
Set speed<10% Max. Speed: ±1% Optional: Set speed “10% Max. speed:±0.5%

Position measurement accuracy:
±1% of reading or 0.01 mm, whichever is greater. Optional: ±0.5% of reading or 0.001 mm

Power supply:
Optional voltages 220/240VAC, 50-60 Hz, Power must be free of spikes and surges exceeding 10% of the nominal voltage.

Operating Temperature:
0 to +38° C (+32 to +100° F)

Humidity Range:
10% to 90% non-ondensing,

GLW-1000G Strand universal testing machine :Test Space (1350mm)

Video show: https://youtu.be/-RIFnamPX0k , https://youtu.be/X0WRE7_EoTo

Accessories

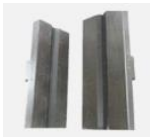
● Tensile fixture

Grip capacity	Grip type	Standard grip Range(mm)	Optional grip Range(mm)
1000kN	Round samples	Φ13-Φ26, Φ26-Φ45	Φ6-Φ13
1000kN	Flat samples	0-20mm	20-40mm
1000kN	Strand Tensile (optional)	9.5-21.6mm	Φ13-Φ26, Φ26-Φ45


Tensile fixture


Comoression fixture


Bend fixture


Strand Tensile

● Compression fixture

Grip capacity	Sizes	Operational temperature °C
1000kN	Φ160mm	0-40


Shear fixture


Chain tensile


bolt tensile

● Bend fixture — Optional

Grip capacity	Sizes	Operational temperature °C
1000kN	Φ10mm or other	0-40

● Shear fixture — Optional

Grip capacity	Sizes	Operational temperature °C
1000kN	Φ10mm or other	0-40


Controller


DOLI

● Bolt/ Stud/Nut tensile fixture — Optional

Grip capacity	Sizes	Operational temperature °C
1000kN	M10\M12\M14\M16\M18\ M20\M22\M24\M27\M30	0-40


Germany-HYTOS


ITALY ATOS valve

● Other Accessories

Item	Standard	Optional
External independent Controller	Our company ETC225	DOLI
Servo control valve	Germany-HYTOS	ITALY ATOS valve
Moter	WNM	ABB
Pump	ITALY 'MARZOCCHI" pump	Germany ECKERLE
Plug-in valve	USA SUN	/
Load sensor	Pressure cell	Spoke shape load cell
Test software	Our company	DOLI
Camera	/	√
Hand-held controller	Our company	DOLI
Computer	HP	Other Brand
Printer	HP	Other Brand
Safety door	√	/


'MARZOCCHI" pump


Germany ECKERLE


USA SUN


Pressure cell


Load cell

Precise measurement of displacement (Optional)

Electric Extensometer-YYU series

Standard: EN ISO 3376 , ASTM D 6775-02 , ISO 37

Specifications:

Gauge length:10, 25, 50mm

Total travel:800mm

For textiles, plastics and rubbers etc.

Electric Extensometer for Pre-stressed

Gauge length:600mm

Max deformation:5,10,25mm

Strain gauge resistance: 350 ohms

Output sensitivity: about 2mV/V

Bridge voltage value: acuities 6V (dc, ac all can)

MF automatic extensometer-MFL-300B,500B

EN 10002 Class 0.5

Stroke:300mm; 500mm

Gauge length: 10 … 300 mm ;10 … 300 mm

Resolution: 1 or 0.1 µm

Linearity:0.005 %

Axial Extensometer – Model 3542

Excitation: 5 to 10 VDC recommended, 12 VDC or VAC max.

Output: 2 to 4 mV/V, nominal

Linearity: ≤0.15%

Temperature Range: -40 -+100 ° C

Cable: Integral, ultra-flexible cable, 2.5 m (8 ft) standard

Long Gauge Length Extensometers – Model 3543

Excitation: 5 to 10 VDC recommended, 12 VDC or VAC max.

Output: 2 to 4 mV/V nominal, depending on model

Linearity: ≤0.15% of full scale measuring range

Temperature Range: Standard is -40 to +100 ° C

Cable: Ultra-flexible cable, 2.5 m (8 ft) standard

High Temperature Extensometers – Model 3549

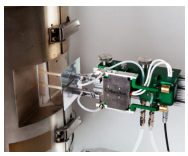
Excitation: 5 to 10 VDC recommended, 12 VDC or VAC max.

Output: 1.5 to 2 mV/V,

Linearity: ≤0.15%

Temperature Range: Standard (-ST) is to 1200 ° C (2200 ° F),

Cable: Integral, ultra-flexible cable, 2.5 m (8 ft) standa



Video Extensometers-Mercury RT

Features: Non-contact;2D and 3D measurement

Range: ISO 9513 Class 0.2, 0.5, 1, 2, -

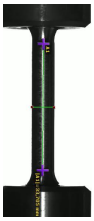
ASTM E 83 Class A, B-1, B-2, C, D, E

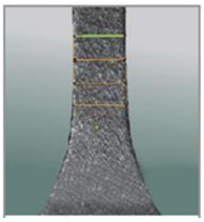
FOV:2-2000mm Gage length:0.01-800 %

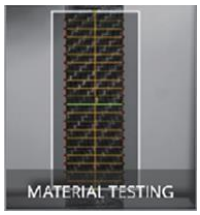
Resolution:0.1-50** um Analog output: 10-16 bit

Digital output:RS232/422/485, TCP/IP

Data rate: 0.1-10 000 Hz







Testing in Controlled Environments (Optional)

High and low Temperature test chamber-HDT-70

Temperature range:

-70°C~280°C(compressor)

Inner chamber size:

250*200*600

Can be customized according to customer requirements

High Temperature test chamber

Temperature range:

＋20°C~150

Inner chamber size:

250*200*600

Can be customized according to customer requirements

High and low Temperature test chamber-HDT-70

Temperature range:

-100°C~280°C(compressor)

Inner chamber size:

250*200*600

Can be customized according to customer requirements

High Temperature Electric Furnace

Temperature range: ＋200-1100°C

Heating method:

Three sections of electric wire heating

Dimension：Φ300*420mm

Heath Inner Diameter：Φ80mm*360mm

Measurement controller HCT-225

External independent controller:

It replaces the traditional PCI or PCIE board and power amplifer of the testing machine

Advantages:

Fasier installation and replacement

Improve the USB communication between the controller and computer, communication speed and system stability.

Operation Sofware -PREF TEST

Test process: Selection a test--Enter the test scheme selection--Input the sample information--Start to test-end of the test

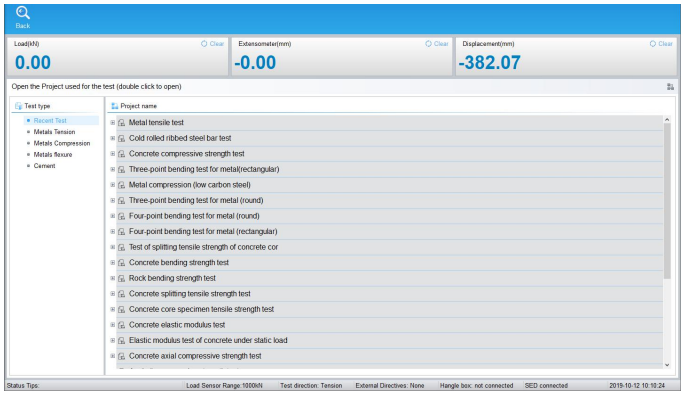


Fig.1 Test Selection Interface

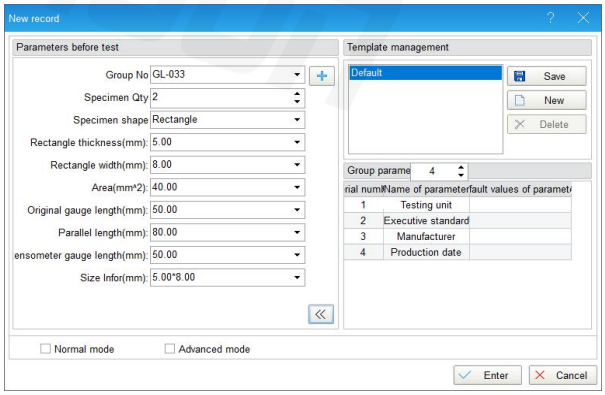


Fig 2. Input the sample information

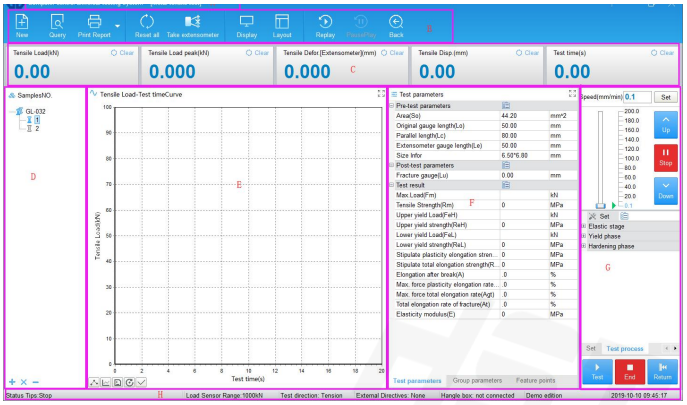


Fig 3. Start to test

PREF Test software

- Pack, running under Windows™, specially developed by KASON to be used in universal testing machines.
- In metal tensile test, Can automatically obtain Fel、Feh、Fp、Ft、Fm、Rel、Reh、Rp、Rt、Agt、Z、A、Rm, etc，Also can carry on the artificial recognition of for Fel, Fm, etc. and print the results accordingly.
- Curve point traversal functions: Through the mouse click on the curve of force and deformation values, to obtain various parameters of each point.
- Automatic analysis: Finish test, the system automatically analysis, statistical test results.
- Recording function: can effectively record and play
- back the entire test experiment process

HST GroupTest Instruments Co.,Ltd

Tensile Test

Report No.: 20190704-1559

Sample delivery unit		Test Date	2019-07-04
Executive Standard		Tester	
Test temperature	50%	Test Humidity	50%
Machine Number	A001	Equipment range	

Test data

No.	Dia. mm	Fm kN	E GPa	Rm MPa	Rp(0.2) MPa	At %				
01	10.00	52.2	160	665	412.77	8.61				
02	10.00	52.6	360	670	427.80	20.26				

Test curve

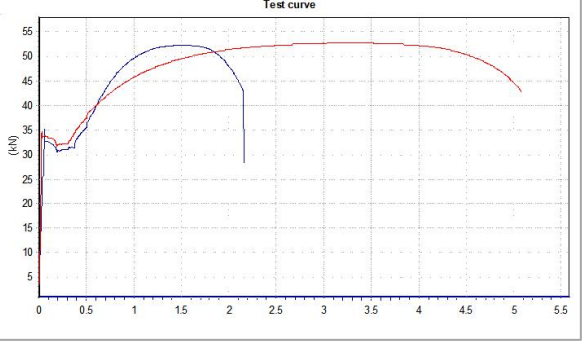


Fig 3. Test report

Fig 4. Record video

Our customers are located in more than 150 countries around the world

Latin America

(Mexico) Industria Lt
SIMIL CUERO PLYMOUTH SA DE CV
Dirceu Gomes
Núcleo Empresarial Huechuraba
Facultad de Ciencias Químicas (FCQ)
Casagrande Motori Ltda
Engº Douglas Köech Branco

North America

Tungsten Heavy Powder & Parts
PCMI Manufacturing Group
Lightning Rod & Pipe LLC
CellScale Biomaterials Testing
LES OUTILS DIAMANTÉS DTG, INC.
COO A.L. Patterson Inc.

Oceania

ACME Operations Pty Ltd
Pultron Composites Ltd
Fulcrum SP Materials Ltd.
A K UNICARGO INTERNATIONAL
Long Pipes Pty Ltd

Middle East

African Industries Group
RTC TEC Couplings Technology
Hayat Communications
Team General Trading LLC
Ahmed alsarraj sons company
TARKHIS KARANE NOANDISH

Europe

Imcon Pro Service SRL
Optilus rafal Siadak
Chevalier Technologies Limited
Dunze GmbH
University of Birmingham
Antolin Investment Co.,Ltd
Dycomet Europe BV
ROBERT LAMINAGE

CIS

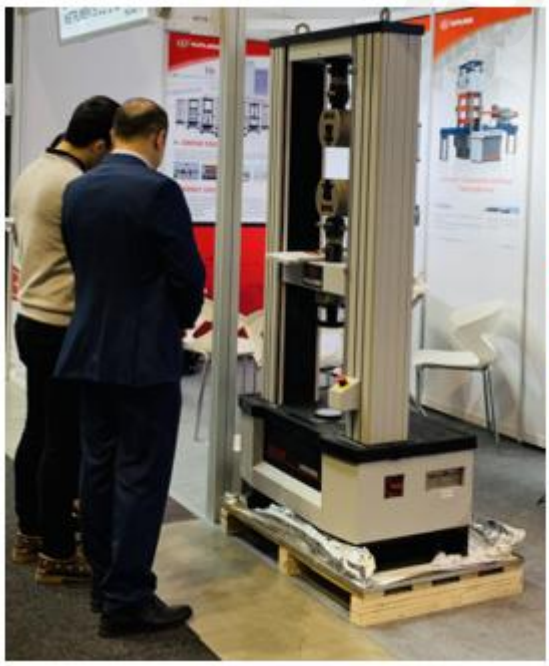
RID DOOEL SKOPJE
Estonia Logistics Ltd.
ООО Дека-С
ООО "Уфагидромаш"

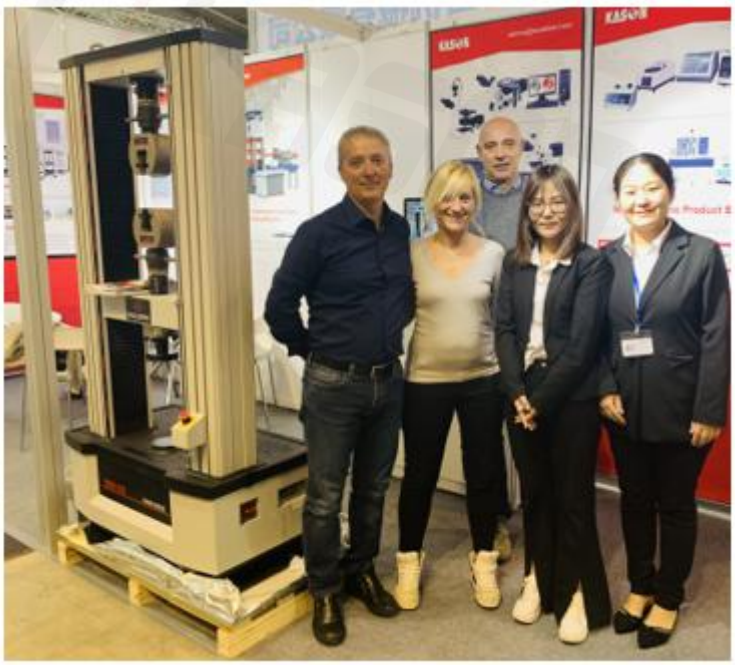
Exhibition

Exhibition in Russia

Exhibition in Dubai

Exhibition in Russia





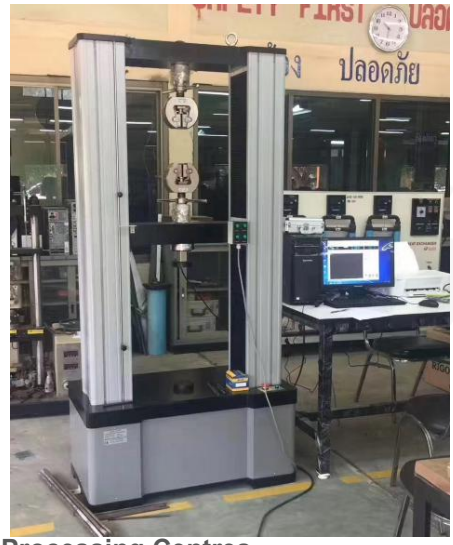
Exhibition in Stuttgart

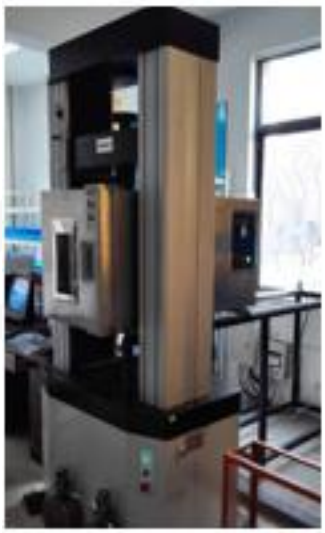
Customer use site












Processing Centres



Agent training meeting

Our workshop

QUALITY ASSURANCE

1. The guarantee period with FOC within 1 year (not including expendable parts cost and transport & travel fees)

1.1 During the guarantee period, HST shall supply free maintenance or replacement for the damaged part (just for non-expendable part) caused by non-human reasons;

1.2 If any quality problems occur within the guarantee period, and HST must provide on-site service, the transport and travel expense shall be borne by buyer;

1.3 If any big quality problems occurs out of the guarantee period, HST will provide a maintain service, the transport and travel expense shall be borne by buyer, also charge for a favorable price for new parts;

1.4 HST will provide a lifetime favorable price to the buyer for expendable & non-expendable parts used in system operation, equipment maintenance;

2. The following conditions need to be paid reasonably even in the guarantee period:

2.1 Natural disaster

2.2 Operating mistakes

2.3 Voltage is not fit for our manual

2.4 Uninstall without our guides

2.5 Damaged for borrowing to others

2.6 Damaged for without authorized machine modification

2.7 Damaged for without authorized calibration

2.8 Without authorized transshipment mistake

3. Attentions: the machine cannot be used following situations:

3.1 Vibration, rocking place.

3.2 Direct sunlight.

3.3 Hot, dusty, damp places.

3.4 To ensure safe, AC supply of the machine should be well grounded.

3.5 Do not use strong solvents (such as: benzene, nitro oil) washing machine.

3.6 Do not inject water and debris into the machine to prevent damage to electrical components and electrical shock.

3.7 Machine’s disassembly and debugging can only be measured by the State Department approved the units and the company, other people not allowed to overhaul.

NO. 4915, West Jingshi Road, Jinan 250012, PR CHINA.
Tel:+86-531-86113769 Fax:+86-531-86113759
Mobile: +0086-15866777590
Email:sunny@hssdtest.com
www.hssdgroup.com www.utmchina.net