

## PK Universal Material Testing Machine



With over **19 YEARS** of materials testing experience, company delivers impactful innovations to enable our users business to thrive. We are committed To delivering services which delight and usability improvements throughout the lifetime of the system.

**Universal Testing Machine** is a new material testing machine that combined with the electronic technology and mechanical transmission, it has accurate load speed, range of force measurement, Has high accuracy and sensitivity for the load, displacement measurement and control, it also can be tested the constant-velocity loading, constant- velocity displacement.



### Own Factory

Located In WanJiang  
Guanqdong  
province for 19 years



### 100+ Employees

Ahighly-educated,  
experienced, and  
diverse workforce



Representing **80  
Countries**, speaking  
**40+ languages**



**10,000+ systems**  
installed worldwide



**19+years** of engineering  
and manufacturing test  
systems since 2000



**Diverse product range**  
for nearly all global  
markets and industries

# SINGLE COLUMN UNIVERSAL TEST MACHINE

MODEL:HZ-1005B



## Meet Test Standard

- ASTM D412
- ASTM D5587-15
- ASTM D624
- ATM D5035
- ASTM D5034
- ISO 9073-3
- ISO 9073-4
- ISO 9073-18
- ISO2062 etc.
- ISO 13934-1
- More standard required, please contact us

## Partial Test Type

- Tensile Strength
- Compression
- 90° Peel Force
- 180° Peel Force
- Adhesive Strength
- Shear Strength
- Yarn Strength
- Hair Strength
- Fabric strength
- Elongation
- Etc

# SPECIFICATIONS

HZ-1005B Touch screen UTM

Single Column Tabletop Models Available:

50N,100N,200N,500N, 1kN, 2kN, 2.5KN,5KN Capacity(optional)



## Main Function

This Series machine can be applied to test lots of materials in Adhesive Tape peel ( 90 degrees and 180 degrees) , tension, compression, tear, and other small mechanical test ( within 5KN ) , such as rubber, tires, belt, shoes, plastic, film, acrylic, FRP, ABS, EVA, PU, aluminum-plastic pipe, composite materials, waterproof materials, fibers, textiles, wire and cable, paper, gold foil, ribbons, thread, spring, wood, medicine packaging materials, tapes etc.

Model	HZ-1005B
Control Mode	Computer+software Control
Maximum Load	50N,100N,200N, 500N, 1KN,2KN,2.5KN,5KN(optional )
Accurate Grade	1 grade / 0.5 grade
Effective Measuring Range	Force from 0.2% to 100% / from 0.4% to 100%
Measuring Accuracy	the value $\pm 1\%$ / the value $\pm 0.5\%$
Load Sensor	Basic configuration sensor max load: one
Effective Tensile Stroke	800mm (can be increased the tensile space according to customers requirement )
Testing Speed	From 0.01 to 500mm/min
Displacement Accuracy	Tolerance: $\pm 0.5\%$ / tolerance: $\pm 0.2\%$
Safety	Electronic-limit protection
Testing Olatform Moving Device	Fast /slow( two speeds to control ),can jog
Overload Protection	Overload 10%, automatic protection
Machine Dimension	35x50x180cm (L*W*H)
Motor	Japanese“Panasonic” or Taiwan Delta servo motor and drive
Power Supply	220V , 50HZ or according to the requirement
Power	0.4KW ( depending on different demand of force,using different motor)
Weight	About 180KG

## PKHZ Instrument

### Advantage comparison

## Another Instrument

#### Integration Aluminium Alloy Cover

Patented design, exclusive mold opening, beautiful and generous shape radian, solid and durable strength

#### Structure and Precision

Use stronger material, the average service life is 10-12 years, 0.5 LEVEL High precision certificate, New upgrade touch screen control, upgrade without price, more function.

#### Experience and After-sales Service

19 years of production experience, the boss is also a technical engineer, 100 + professional technical personnel, Perfect after-sales service system, makes you look easy.

Patented Design

Structure Comparison

Manufacturing Technique

#### Patchwork Aluminium Alloy Cover

The same industry with aluminum alloy assembly, formalist appearance, the actual assembly has gaps, weak strength

#### Structure and Precision

Thin structure, large tonnage tension machine is not guaranteed, the workmanship is not exquisite, the test accuracy is less than 0.5, traditional digital display, operation is limited.

#### Experience and After-sales Service

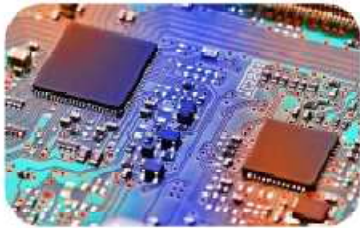
Many companies do not have physical factories, or small companies, late start, lack of experience, can not provide perfect after-sales service



# APPLICATION INDUSTRY

## Different Industry

It is widely used in wire and cable, hardware, electronic and electrical equipment, packaging, printing, medical equipment, textiles and leather, clothing, shoes, rubber and plastic products, colleges and universities; research laboratories; inspection arbitration, technical supervision departments and many other industries, it is the basic equipment for quality management and physical tested.



The Mainboard Chip



Wire and Cable



Package



Printing



Mobile Phone



Water Bottle



Adhesive Tape



Film



Leather



Shoes



Fabric



University and Quality  
inspection institute

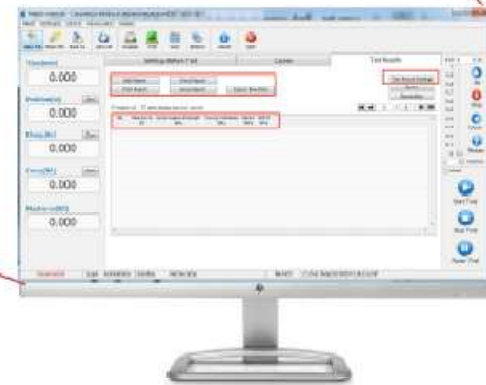
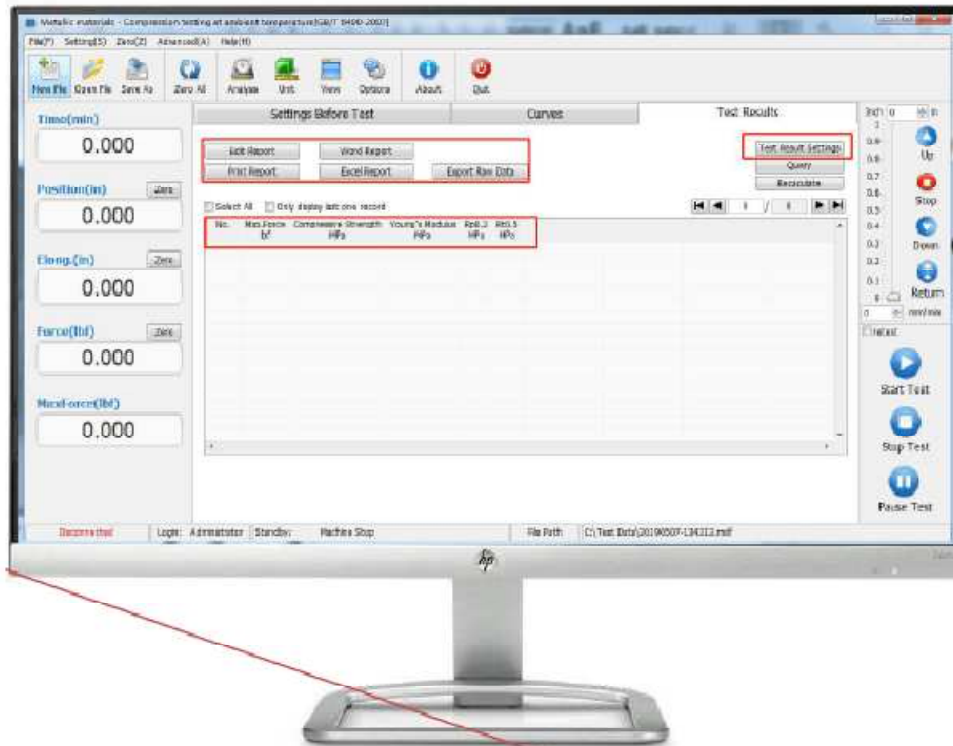
# Real Picture

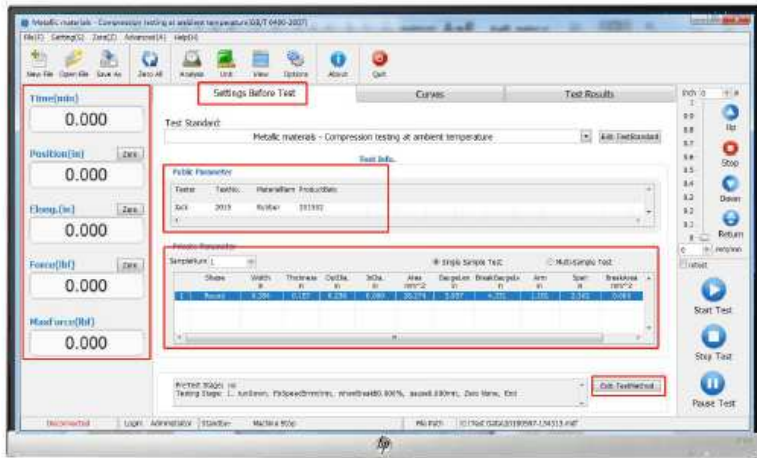
In stock



# TEST SOFTWARE

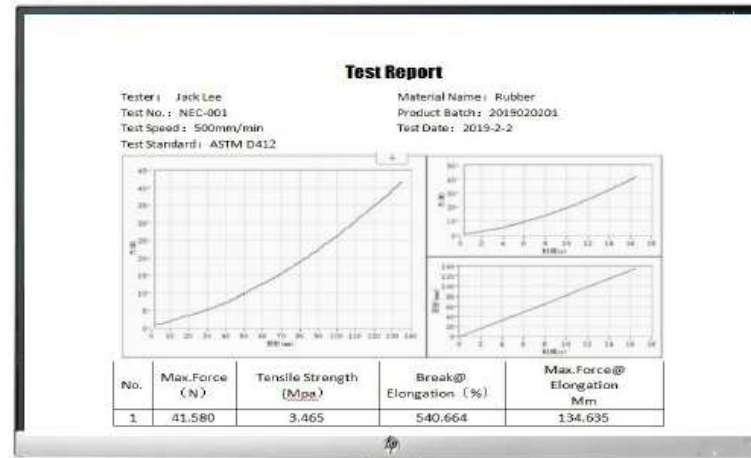
RealTest Tensile/Compression/Shear/Etc





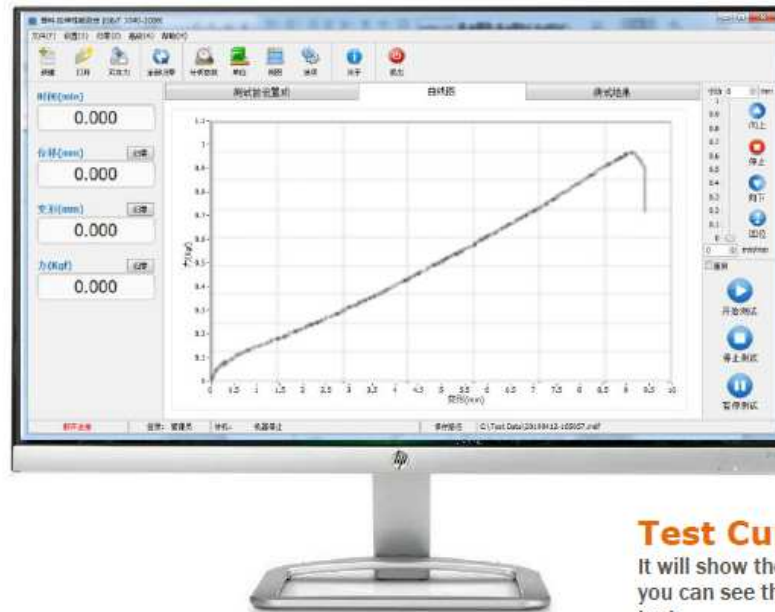
## Software Main Interface

A computer software interface, display test data, setup method, sample size



## Test Result

To show test information, including test person, test standard, test curve, test max load etc., can add your company LOGO and company name, easy to edit.



## Test Curve

It will show the test data synchronously, and you can see the curve change during the test



# PART OF NORMAL TEST TYPE

## Testing Systems



**Rubber Tensile Testing**  
With Rubber Extensometer



**Metal Tensile Testing**  
With Metal Extensometer



**3 Point Bending Testing**  
For Pills or other



**Tear Strength Testing**  
For Shoes or Leather



**90° Peel Testing**  
For Adhesive Tape



**180° Peel Testing**  
For Adhesive Tape



**Compression Testing**  
For Spring



**Film Puncture Testing**  
For Film

# PART OF GRIPS

HZ-1005B



Plate Grip



Eccentric Grip



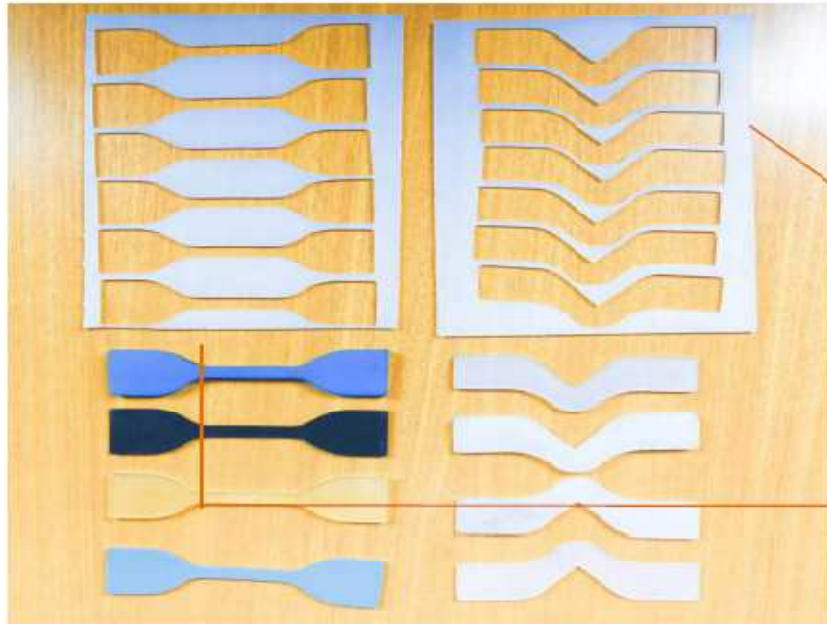
Compression Platen



Winding Grip

# STANDARD SAMPLE

More Cutter Connect Us

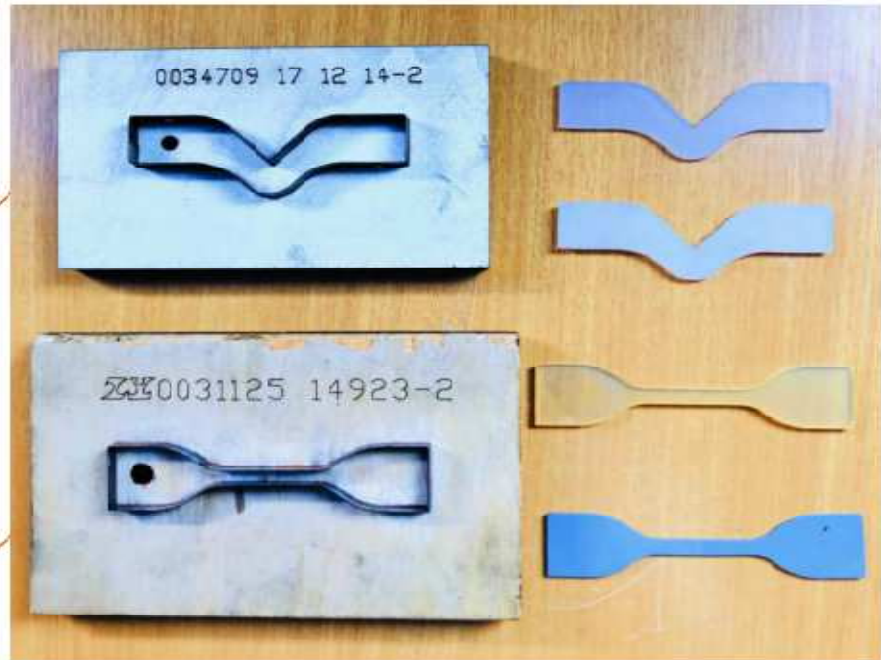


ASTM D 638 Right-Angle (90°) sample

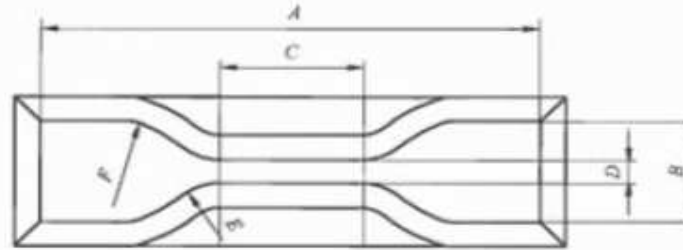
ASTM D 412, ISO 37 Dumbbell sample

ASTM D 638 Right-Angle (90°) Cutter

ASTM D 412 ISO 37 Dumbbell Cutter



# Dumbbell Cutter Size for Reference



Dimensions of Standard Dumbbell Dies<sup>^</sup> (Metric Units)

Dimension	Units	Tolerance	Die A	Die B	Die C	Die D	Die E	Die F
A	mm	±1	25	25	25	16	16	16
B	mm	max	40	40	40	30	30	30
C	mm	min	140	140	115	100	125	125
D	mm	±6 <sup>B</sup>	32	32	32	32	32	32
D-E	mm	±1	13	13	13	13	13	13
F	mm	±2	38	38	19	19	38	38
G	mm	±1	14	14	14	14	14	14
H	mm	±2	25	25	25	16	16	16
L	mm	±2	59	59	33	33	59	59
W	mm	±0.05, -0.00	12	6	6	3	3	6
Z	mm	±1	13	13	13	13	13	13

<sup>^</sup> Dies whose dimensions are expressed in metric units are not exactly the same as dies whose dimensions are expressed in U.S. customary units. Dies dimensioned in metric units are intended for use with apparatus calibrated in metric units.

<sup>B</sup> For dies used in clicking machines it is preferable that this tolerance be ±0.5 mm.

FIG. 2 a (continued)

Dimensions of Standard Dumbbell Dies<sup>^</sup> (U.S. Customary Units)

Dimension	Units	Tolerance	Die A	Die B	Die C	Die D	Die E	Die F
A	in.	±0.04	1	1	1	0.62	0.62	0.62
B	in.	max	1.6	1.6	1.6	1.2	1.2	1.2
C	in.	min	5.5	5.5	4.5	4	5	5
D	in.	±0.25 <sup>B</sup>	1.25	1.25	1.25	1.25	1.25	1.25
D-E	in.	±0.04	0.5	0.5	0.5	0.5	0.5	0.5
F	in.	±0.08	1.5	1.5	0.75	0.75	1.5	1.5
G	in.	±0.04	0.56	0.56	0.56	0.56	0.56	0.56
H	in.	±0.08	1	1	1	0.63	0.63	0.63
L	in.	±0.08	2.32	2.32	1.31	1.31	2.32	2.32
W	in.	±0.002, -0.000	0.600	0.250	0.250	0.125	0.125	0.250
Z	in.	±0.04	0.5	0.5	0.5	0.5	0.5	0.5

<sup>^</sup> Dies whose dimensions are expressed in metric units are not exactly the same as dies whose dimensions are expressed in U.S. customary units.

<sup>B</sup> For dies used in clicking machines it is preferable that this tolerance be ±0.02 in.

FIG. 2 b (continued)

# ATTENTION TO DETAIL

Confidence in your Result



## Load Cell Construction

The highest quality mechanical and electrical components ensure the maximum level of performance, producing the most accurate results.



## Load-string Alignment

Precision concentricity ring and alignment pins for base adapter and load cell, self-aligning grips, optional specimen centering device.



## Machine Integrity

Preloaded ballscrews, precision guidance columns, symmetrical drive system, on-board diagnostics/real-time error checking, ISO 9001 accredited.

# | SUPPORT FOR THE LIFE OF YOUR EQUIPMENT

Our reliable testing systems can run 24 hours a day, 7 days a week, 365 days of the year. However, if something does go wrong, or you have a question, we offer a variety of resources to ensure you receive the assistance you need as soon as you need it.



## You Can Count on Us

- Represented in more than 80 countries, speaking 40 different languages
- Our on-site and laboratory calibration and verification processes are ISO 9001 accredited throughout China, North America, Brazil, Australia, China, Japan, Korea, Singapore, India, Thailand, and Taiwan



## Enhanced Technical Support a “Touch” Away

- Connect provides easy remote screen sharing and service request submissions to reduce support times
- Connect allows simple test method and file transfers to keep systems up to date
- Expert consultants provide tailored solutions and traditional hotline access
- Additional services like preventative maintenance, calibration, training, emergency repair, and service parts insure confidence that you can keep systems running and get date in a timely fashion



## Stay at the Forefront of Materials Science

- Training courses available on-site or in one of our Regional Training Centers
- Utilize our Applications Engineering Lab or Custom Solutions Group for the latest technological advances in materials testing
- Our state-of-the-art Calibration Laboratory offers a comprehensive range of accredited calibration and verification services complying with ASTM, ISO, and Nadcap standards for: force, speed, strain (extensometers), displacement, impact, temperature, torque, creep, strain gauge channel, alignment, and verification of all UTM instruments.