



# BPS INSTRUMENT

## TENSILE TESTING MACHINE

Universal Testing Machine

HD-7005A Microcomputer  
Multi-Function Load Testing machine

### Combination instrument:

The machine is suitable for testing the mechanical properties of various materials, semi-finished products and finished products, such as interpolation, stretching, compression, bending, stripping, tearing and so on.

This machine USES servo motor and Windows window control system, the operation is simple and convenient, Windows Chinese Windows software screen set. All data can be stored in test conditions, travel curve, life curve, inspection report, etc.), and is a reliable high-performance testing instrument.

### Data Acquisition and Control System

BPS Testing Machines are controlled by TM2101 on computer to displayed real time graph and values

### Force Measurement

Calibrated, in class of machine not over than class 1, load meets or exceeds the following standards:  
with certificate of calibration EN 7500-1 (Optional)



High Quality Loadcell  
(Optional)



## **Main Function and Features:**

- Each station is controlled independently, without any influence
- Can preset the number of hits, to the pre-set value stop function
- Products can be tested at the same time for durability and conduction testing
- Pressure adjustable, equipped with a dynamometer, can accurately control the impact strength
- High-speed test, the fastest rate up to 6 times per second, uniform speed, test completion time can be mastering
- Test conditions can be set by computer and stored. Check the Settings from the dropdown menu or enter the data directly. (including type of test, direction of motion measurement, range of load measurement, range of stroke measurement, location of stroke origin, original point detection of each waiting, number of times of air pressure);
- Printing and storage of graphs (displacement curve, load attenuation curve, check report)
- Dual protection functions of heavy element overloading protection and software protection
- The test upper and lower limit can be entered, and the machine will stop automatically if it exceeds the specification.
- Weight unit shows N, lbf, gf and KGF can switch freely
- Storage of test data on hard disk (each data can be stored, no limit)
- The contents of the inspection report title can be modified at any time ( both in English and Chinese)
- The graph report, the text report can be specified by the customer name and LOGO



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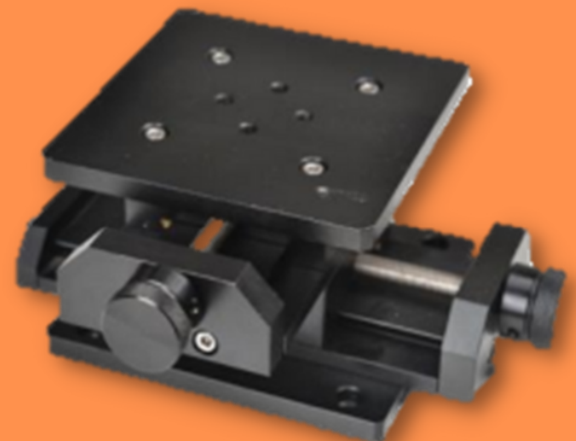
### Expand testing major projects:

- Testing the attenuation curve analysis of connector plug life
- Test of insertion force and displacement of connector products and output force and displacement.
- Test of USB plug life curve analysis
- HD-7005A test equipment clamps can perform many Normal test tasks such as connector whole row plug test, single PIN hold test, connector product insert Force and displacement test, connector output Force and displacement test, connector single hole plug test, connector Normal Force test, compression test and tensile failure test.
- HD-7005A test equipment tension, pressure, bending tear, stripping test
- HD-7005A test equipment tension, tensile, compressive, three point/four points static pressure, bending force test
- The HD-7005A test equipment is equipped with the dynamic impedance test system, which can test the dynamic impedance and draw the "load-impedance-travel curve" at the same time when testing the interpolation force.

### Products fixture (Can be designed for special sample):



Multi-function fixed



Large X-Y  
mobile platform



the heart device



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### Software interface diagram:

\*\*\*\*\* AUTOMATIC MEASUREMENT INSTRUMENT \*\*\*\*\*

System Recipe Zero Test View Setting Printing Language Help

Recipe: 123

Force(g) -1.28 Zero Elong.(mm) 0.00 Zero Resistance(Ω) NaN

Types of Force: Pressure

Elong. Origin Direction: Pressure(go&back)

Force Range: 350 g

Elong. Range: 2 mm

Elong. Origin Location: Force zero

Elong. Origin Range: Detect origin

Test Speed: 30 mm/min

Test Total Times: 10000

Waiting Position: Above 1 mm

Waiting Time: 0 s

Turn Pause Time: 0 s

Stop Position: Above 1 mm

No load Times: 0

No Load Elong.: 0 mm

No Load Speed: 0 mm/min

Test Result Save

☐ No Save ☐ Result ☒ Result/Waveform

Completed Times: 72

Start Time: 2015-11-11 14:30:00

End Time: 2015-11-16 10:20:35

| Order | Test Item                   | Label | Force Upper | Force Lower | Elong. Upper | Elong. Lower | Resi. Upper | Resi. Lower |
|-------|-----------------------------|-------|-------------|-------------|--------------|--------------|-------------|-------------|
| 1     | Peak Force 1(go)            | Pk1   | 0           | 0           | 0            | 0            | ---         | ---         |
| 2     | Valley Force(go)            | Bm1   | 0           | 0           | 0            | 0            | ---         | ---         |
| 3     | Click Load Difference Ratio | Cf/Cr | 0           | 0           | 0            | 0            | ---         | ---         |
| 4     | Peak Force 1(back)          | rPk1  | 0           | 0           | 0            | 0            | ---         | ---         |
| 5     | Valley Force(back)          | rBm1  | 0           | 0           | 0            | 0            | ---         | ---         |

Channel: 01 Current AD: 8457983 Resistance: NaN Ω

Short Resi. AD: 8430346 Short Resi. Value: 0 Ω Get

Standard Resi. AD: 9629440 Standard Resi. Value: 1000 Ω Get

Save Return

Force sensor: ZKJ1 Z Axis: ☒ X Axis: ☒ Y Axis: ☒

Force Units: g R Sensor: None

Z Axis Jog Operation

UP(L) UP(M) UP(H) UP DN(L) DN(M) DN(H) DN

LIMIT Back Left SLOW Right Front LIMIT

#### HD-7005A Microcomputer Multi-Function Load Testing machine Parameter

|                                     |                              |                                    |               |
|-------------------------------------|------------------------------|------------------------------------|---------------|
| Maximum Testing Force (kgf)         | 5, 10, 20, 50, 100, 200, 500 | Minimum reading value of load (gf) | 0.01          |
| Test units can be selected (mm/min) | 0-300                        | Adjustable stroke of fixture X Y   | X:70mm Y:70mm |
| Maximum travel of Z axis            | 500mm                        | Movement range of X and Y axis     | 0-75mm        |
| Transmission mechanism              | ball screw                   | Minimum fine tuning distance       | 0.01mm        |
| Drive motor                         | high precision motor         | Power                              | AC 220V       |

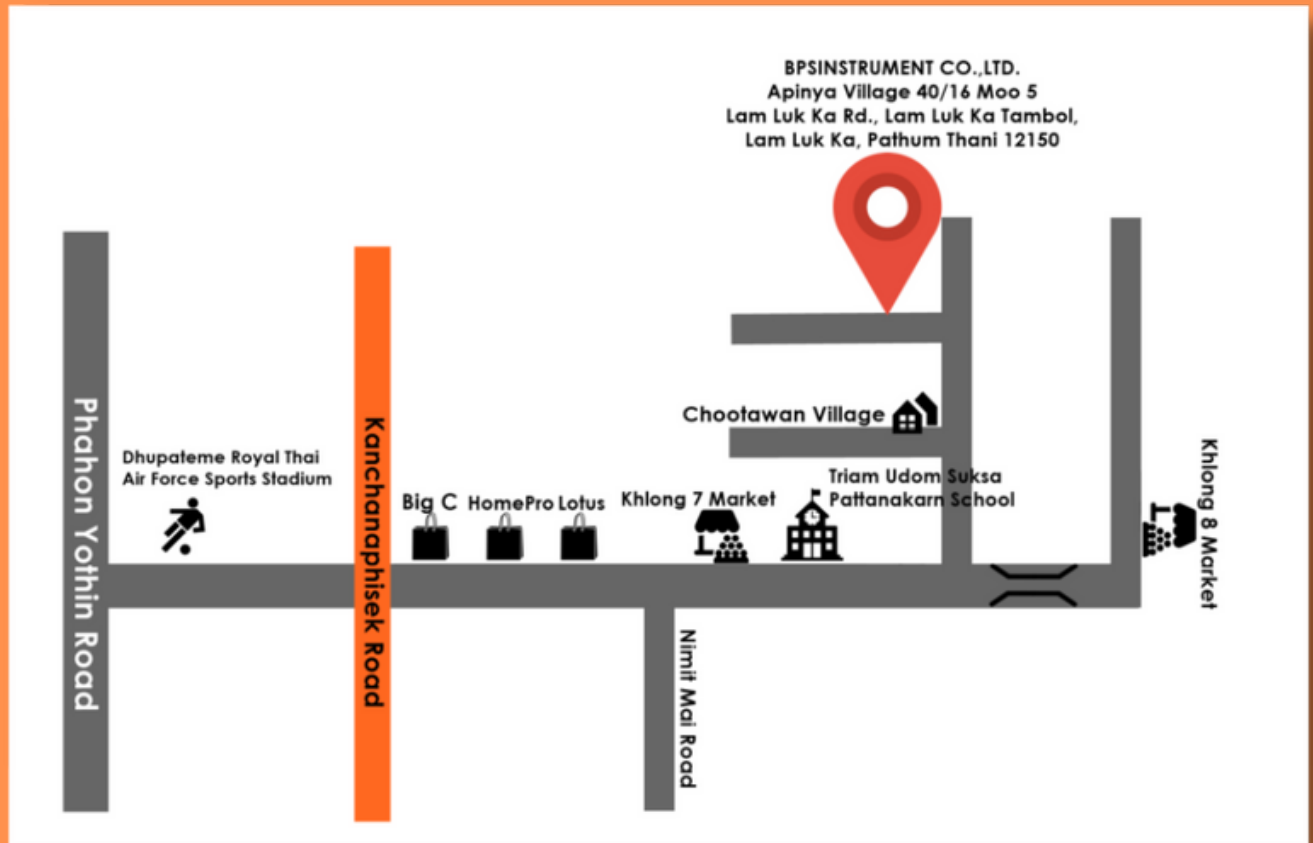


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