

PVC-U

UTM

FEP

PE-V

PVC-V

CHARPY

HDT/V

kN

PE

FNCT

MFI

PE-H



DIN

**JJ-TEST**

MFR

MVR

mm

MPa

PC

PE-UHMW

PP

ABS

°C

Tg

ISO

PE-L IZOD

PA66

ASTM

8760

GB/T



(English Edition)



# Universal Testing Machine





# Universal Testing Machine

Universal Testing Machine is suitable for quality control of various fields, including metal wire, nylon wire, plastic, rubber, textile and clothes, packaging etc, for tension, compression and bending, peel and tear test.

## STANDARDS

ISO 527, ASTM D 638 and the equivalent.

## CHARACTERS

- 1.The high stiffness frame incorporates a crosshead guidance system to prevent side loading of the test sample.
- 2.Automatic identification of load cells.
- 3.Load accuracy of  $\pm 0.02\%$  of load cell value provides high dynamic range, thereby reducing the number of load cells required to cover the full force range.
- 4.Extensometer, inner diameter measurement system and ring stiffness software are available as options.
- 5.Incorporating world proven 32-bit technology for highly accurate load measurement and rapid data acquisition.
- 6.UTM series have been authorized CE certificate.
- 7.Pass CNAS T0544,CNAS T0646 tensile tests.

## PARAMETERS

| Model    | Max. Force | Speed            | Tensile space | Crossbeam resolution | Display & Output   |
|----------|------------|------------------|---------------|----------------------|--------------------|
| UTM-1422 | 10kN       | (0.05-500)mm/min | (0-900)mm     | 0.001mm              | PC control,Printer |
| UTM-1432 | 20kN       | (0.05-500)mm/min | (0-900)mm     | 0.001mm              | PC control,Printer |
| UTM-1442 | 30kN       | (0.05-500)mm/min | (0-900)mm     | 0.001mm              | PC control,Printer |
| UTM-1451 | 50kN       | (0.05-500)mm/min | (0-900)mm     | 0.001mm              | PC control,Printer |
| UTM-2360 | 100kN      | (0.05-500)mm/min | (0-500)mm     | 0.001mm              | PC control,Printer |

## SOFTWARE

- 1.Test automation and batch testing.
- 2.The stand alone system is capable of storing up to 600 test results.
- 3.Extensive built-in library of test methods covering ASTM, ISO, DIN, EN and other standards.
- 4.User configurable test enables users to quickly build advanced multi-stage test routines using simple built-in commands.





# High & Low Temperature Universal Testing Machine

Environmental system enables the testing of material and components under a variety of real world conditions. Cooperating with environmental chamber, UTM series machines can realize variety of tests at low or high temperature.

## STANDARDS

ISO 527, ASTM D 638 and the equivalent.

## CHARACTERS

- 1.It consists of three parts: main frame,grips and moveable high & low temperature cabinet.
- 2.Import full-digital AC servo system and high rigid structure enable high precision of the measuring result. The cabinet, with a double-heat insulation glass door, is convenient to observe the test; stainless steel test cabinet is resistant to corrosive.
- 3.It is nice in appearance, high in precision and easy to operate, also different kinds of grips shall be provided according to your requirement.
- 4.This kind of tester has been authorized CE certificate.

## PARAMETERS

|                           |   |
|---------------------------|---|
| Max. Load                 | 20KN  |
| Temperature resolution    | 0.1°C   |
| Temperature range         | (-70~200)°C (Nyrogen) /(-20~200)°C (Compressor) |
| Temperature fluctuate     | ±1°C(high temp.); ±2°C(low temp.)               |
| Temperature accuracy      | 2°C   |
| Max. tensile journey      | 200mm   |
| Test speed                | (0.05~500)mm/min                                |
| Accuracy of speed         | ±0.5%   |
| Electrical requirement    | 220V 50Hz                                       |
| Display method            | PC  |
| Chamber dimension (LxWxH) | (390x700x1030)mm                                |





**JJ-TEST**

## UTM Grips



## Dumbbell Specimen Maker

This maker is used to make dumbbell, strip as well as other kinds of shape specimen with reference to different standards.

### CHARACTERS



|                              |                   |
|------------------------------|-------------------|
| Depth of specimen            | ≤70mm             |
| Width and length of specimen | customization     |
| Power supply                 | 500VA 380VAC 50HZ |
| Dimension (H×W×H)            | (400×400×440)mm   |



# Pendulum Impact Tester



## HIT Series Multi Impact Tester

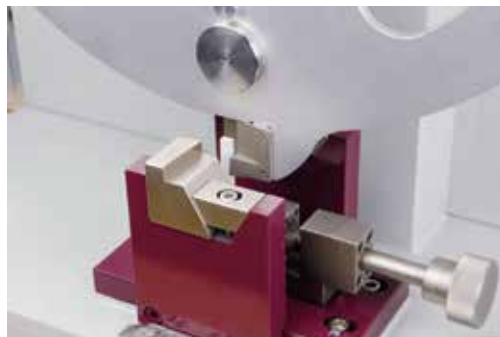
Charpy/Izod Impact Tester is a high performance impact tester designed to precisely determine the absorbed impact energy and resistance to breakage of plastic specimens.

### STANDARDS

ISO 179, ISO 180, ASTM D 256 and the equivalent.

### CHARACTERS

1. The innovative design allows this tester to be used for both Izod and Charpy test.
2. Unique and innovative design: vice and pendulum allows operator to run alternatively Charpy and Izod tests without changing the instrument geometry.
3. Impact speeds of 2.9m/s & 3.5m/s (or 3.8m/s & 3.5m/s) as well as multiple impact energies can be generated by one pendulum.
4. High mass, traditional pendulum design concentrates energy at the impact point with minimal energy loss due to vibration.
5. The electrics contain a high-resolution encoder for accurate measurement of the impact angle.
6. Touch screen control for quick and easy input of parameters, interactive software allows for users input regarding complete, partial hinge broken and non-broken samples.
7. Tester connected to PC through RS232 interface for direct data acquisition. Test data can be saved or exported using the included software package.
8. Results are automatically corrected for energy loss due to air and mechanical friction.
9. Multiple safety protection ensures the operation safety of operators.
10. Brake and Notch centering device are equipped for convenient operation.
11. Pass CANS T0645 impact test.





### Impact Testing System

Smart dimension measuring device is introduced to HIT series impact tester. Width, thickness as well as residual thickness of test sample can be exported to touch screen directly. Test result will be calculated automatically.

### PARAMETERS

| Parameters  | Model | HIT-2492  | HIT-2494  |
|---|-------|---|---|
| Impact speed  |       | 3.5m/s, 2.9m/s  | 3.5m/s, 3.8m/s  |
| Energy levels   |       | For Izod: 1J, 2.75J, 5.5J<br>For Charpy: 0.5J, 1J, 2J, 4J, 5J | For Izod: 5.5J, 11J, 22J<br>For Charpy: 7.5J, 15J, 25J, 50J |
| Measurement resolution  |       | 0.01J   |   |
| Span of Charpy  |       | 62mm  |   |
| Radius of striking edge (Charpy)                              |       | 2mm±0.5mm   |   |
| Angle of striking edge (Charpy)                               |       | 30°±1°  |   |
| Radius of striking edge (Izod)                                |       | R=0.8mm±0.2mm   |   |
| Location of striking edge above top surface of support (Izod) |       | 22mm±0.05mm   |   |



## Pendulum Impact Tester

The Impact tester is an instrument used to conduct impact tests on thermoplastic materials, in order to determine their impact fragility characteristics under specified stress conditions. There are three methods often used: Charpy, Izod and Tensile impact. These methods used differ in the way the specimen clamped and the impact energy & speed required.

### STANDARDS

ISO 179, ISO 180, ISO 8256, ASTM D 256 and the equivalent.

### CHARACTERS

Two kinds of display ways have been provided: digital and mechanical dial display. Digital display type has a function of automatical calibration of energy losses.

High precision, perfect stability and easy operation enable the tester to gain CE certificate and be sold all around the world.

### PARAMETERS

| MODEL   | NAME                            | ENERGY(J)       | SPEED(m/s) | DISPLAY      | STANDARD |
|---------|---------------------------------|-----------------|------------|--------------|----------|
| XJJ-5   | Charpy impact tester            | 0.5, 1, 2, 4, 5 | 2.9        | Dial         | ISO179   |
| XJJ-50  | Charpy impact tester            | 7.5, 15, 25, 50 | 3.8        | Dial         | ISO179   |
| XJJD-5  | Electronic Charpy impact tester | 0.5, 1, 2, 4, 5 | 2.9        | Touch screen | ISO179   |
| XJJD-50 | Electronic Charpy impact tester | 7.5, 15, 25, 50 | 3.8        | Touch screen | ISO179   |



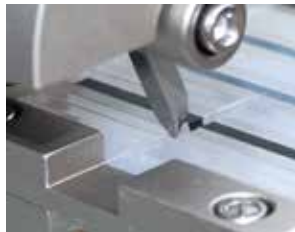
| MODEL    | NAME                             | ENERGY(J)     | SPEED(m/s) | DISPLAY      | STANDARD          |
|----------|----------------------------------|---------------|------------|--------------|-------------------|
| XJU-5.5  | IZOD impact tester               | 1, 2.75, 5.5  | 3.5        | Dial         | ISO180, ASTM D256 |
| XJU-22   | IZOD impact tester               | 11, 22, (5.5) | 3.5        | Dial         | ISO180, ASTM D256 |
| XJUD-5.5 | Electronic IZOD impact tester    | 1, 2.75, 5.5  | 3.5        | Touch screen | ISO180, ASTM D256 |
| XJUD-22  | Electronic IZOD impact tester    | 11, 22, (5.5) | 3.5        | Touch screen | ISO180, ASTM D256 |
| XJL-50   | Tensile impact tester            | 15, 25, 50    | 3.8        | Dial         | ISO8256           |
| XJLD-50  | Electronic Tensile impact tester | 15, 25, 50    | 3.8        | Touch screen | ISO8256           |
| XJJ-50A  | Charpy impact tester for pipes   | 15, 50        | 3.8        | Dial         | ISO9854           |

## Specimen Preparation Instruments



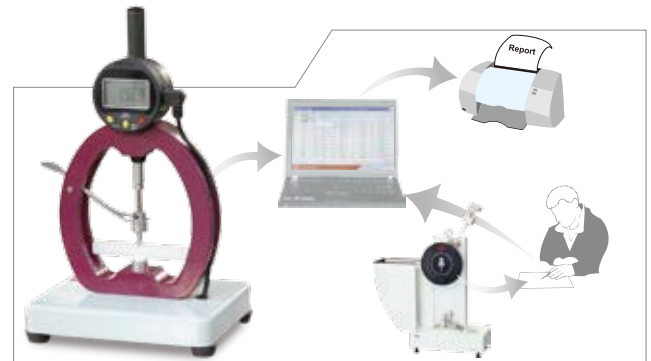
### JJANM Automatic Notch Maker

- ◆ It is designed to notch specimens for Charpy & Izod impact tests.
- ◆ 20 specimens may be clamped at one time and at least 100 specimens may be notched in 10 minutes.
- ◆ It allows a perfect reproducibility of the notches , increases working efficiency and reduces the labor intensity.



#### PARAMETERS

- ◆ Worktable stroke : 90mm
- ◆ Feed stroke: 10mm
- ◆ Feed measurement: 0-2.5mm
- ◆ Power supply: 220V/50HZ
- ◆ Specimen making capacity:100 pcs/10 min
- ◆ Dimensions: 400mm x270mmx300mm
- ◆ Knives specifications:
  - Type A:  $45^{\circ} \pm 0.2^{\circ}$   $r=0.25 \pm 0.05$
  - Type B:  $45^{\circ} \pm 0.2^{\circ}$   $r=1.00 \pm 0.05$ (optional)
  - Type C:  $45^{\circ} \pm 0.2^{\circ}$   $r=0.10 \pm 0.02$ (optional)



### Smart Dimension Measuring Device

The portable gauge is designed to determine the notch, width and depth of the specimens.

- ◆ With the functions of resetting at any point, metric-inch interconversion, max. and min. value tracking, test data automatic sampling and storage.
- ◆ Operator may input the impact energy into the software if the professional pendulum impact SW cooperated with the dial pendulum impact tester, then the impact strength can be calculated automatically, realizing the functions of intelligent impact tester (HIT model).
- ◆ Automatic test data sampling function largely increase the working efficient, avoiding the manual data input mistake.
- ◆ Cooperated with HIT series testers, the dimensions of specimen can be read directly to the tester.

#### PARAMETERS

- ◆ Measuring range: 0-25 mm
- ◆ Measuring accuracy: 0.01mm
- ◆ Resolution: 0.001 mm
- ◆ Force:  $\leq 1.5N$
- ◆ Environmental temperature: room temperature
- ◆ Dimension: LxWxH =(80 x100x170) mm
- ◆ Communicating interface: RS-232



**JJ-TEST**

## Melt Flow Indexer MFI-2322S

### STANDARDS

ISO1133-1:2011, ISO1133-2:2011, ASTM D1238 method A & B, and the equivalent.

### CHARACTERS

1. A user-friendly color touch-screen allows fast, accurate input of test parameters.
2. Automatic specimen cutting system is used to reduce the human involvement with the machine during the test and increase accuracy and repeatability of test results.
3. Supplied completely with the accessories and weights necessary for maintenance and operation.
4. Equipped with a motorized weight lifting and lowering device (WLD) that further automates the testing procedure.
5. For more sophisticated data collection, it works with JJ-TEST DMS software, which can store an unlimited amount of test results and generate desired test reports.
6. Password verify is available for some main operations in case of mishandle.





MFI-1211



MFI-1322



MFI-1221

| Model                  | MFI-2322S               | MFI-2322                | MFI-1322                |
|------------------------|-------------------------|-------------------------|-------------------------|
| Test method            | MFR&MVR                 | MFR&MVR                 | MFR&MVR                 |
| Display                | Full color touch screen | Full color touch screen | Full color touch screen |
| Specimen cutting       | Automatic               | Automatic               | Automatic               |
| Test loads applied     | Motorized               | Motorized               | Manual                  |
| Temperature range      | (50-450)°C              | (100-450)°C             | (100-450)°C             |
| Temperature control    | ≤0.2°C                  | ≤0.2°C                  | ≤0.2°C                  |
| Temperature resolution | 0.01°C                  | 0.1°C                   | 0.1°C                   |
| Timing accuracy        | 0.01s                   | 0.01s                   | 0.01s                   |
| Displacement accuracy  | ±0.02mm                 | ±0.1mm                  | ±0.1mm                  |

| Model                  | MFI-1311                | MFI-1221                | MFI-1211     |
|------------------------|-------------------------|-------------------------|--------------|
| Test method            | MFR                     | MFR&MVR                 | MFR          |
| Display                | Full color touch screen | Industrial touch screen | LCD          |
| Specimen cutting       | Automatic               | Automatic               | Automatic    |
| Test loads applied     | Manual                  | Manual                  | Manual       |
| Temperature range      | (100-450) °C            | (100-450) °C            | (100-450) °C |
| Temperature control    | ≤0.2 °C                 | ≤0.2 °C                 | ≤0.2 °C      |
| Temperature resolution | 0.1 °C                  | 0.1 °C                  | 0.1 °C       |
| Timing accuracy        | 0.01s                   | 0.01s                   | 0.01s        |
| Displacement accuracy  | --                      | ±0.1mm                  | --           |





# JJHBT Series Hydrostatic Pressure Tester



## ■ JJHBT Series Hydrostatic Pressure Tester

JJHBT is mainly used to determine the resistance of thermoplastics pipes and short-time hydraulic burst to constant internal water pressure at constant temperature. It is applicable to thermoplastic pipes intended for the conveyance of fluids. It confirms to ISO 1167-2006, ASTM D1598-2004 and ASTM D1599.

### ● CHARACTERS

1. Operating terminal with touch screen or PC for test parameter settings.
2. On less than 1 m<sup>2</sup> area, up to 50 different pressures including the pressure water supply.
3. It is intelligent to distinguish the size and material of specimen, then provide optimized pressure rising solution and algorithm.
4. High accuracy pressure control. Selectively adjustable input pressure in each individual module reduces the wearing of solenoid valves, endures a long service life.
5. All metal components that come into contact with the medium are made of high-quality stainless steel.
6. Operator-friendly display interface provides multi languages to suit the most varied customer requirements.
7. It is convenient to calibrate pressure during testing, meaning that the system may continue running during calibration (optional).
8. Multistage protections are from electric part, mechanical part as well as software.
9. Reliable data exchange via TCP/IP protocol.

### ● GALLERY



JJHBT-22050



JJHBT-22010

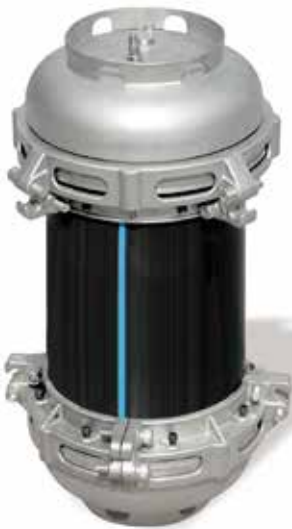


JJHBT-21010

● PARAMETERS

| Model               | JJHBT-22 Series                                | JJHBT-21 Series                            | JJHBT-3 Series                                 |
|---------------------|--|--|--|
| Pressure range      | 0.2Mpa to 10Mpa<br>(16Mpa/20Mpa as option)     | 0.2Mpa to 10Mpa<br>(16Mpa/20Mpa as option) | 20Mpa to 200Mpa                                |
| Pressure resolution | 0.001Mpa<br>(0.01bar or 1PSI)                  | 0.001Mpa<br>(0.01bar or 1PSI)              | 0.001Mpa<br>(0.01bar or 1PSI)                  |
| Pipe diameter rang  | Φ2-Φ1600                                       | Φ2-Φ1600                                   | Φ2-Φ500  |
| Test stations       | 3,5,10,20<br>(others on request)               | 3,5,10,20<br>(others on request)           | 1<br>(others on request)                       |
| Control mode        | Industrial PC<br>(touch screen)                | LED & PC                                   | Industrial PC<br>(touch screen)                |
| Printing mode       | Saved on removable device,<br>print through PC | print through PC                           | Saved on removable device,<br>print through PC |
| Timing range        | 0-10000h                                       | 0-10000h                                   | 0-10000h                                       |
| Time resolution     | 1s   | 1s   | 1s   |
| Timing mode         | Counter-up, counter-down                       | Counter-up, counter-down                   | Counter-up, counter-down                       |

## JJEC-A Series Endcaps



*Easy to mount, perfect sealing and long-lasting.* Thanks to the patented structure, JJEC-A endcaps are particularly rapid to assemble and disassemble without any special tools even on chamfered and oval pipes.

Hollow-out design has reduced the weight drastically compared to the standard endcaps. Further, it is easier for observation and operation.

JJEC-A are manufactured with anti-corrosive materials and fit regardless of the pipe wall thickness.



● PARAMETERS

Diameter range: 10 to 1600mm

Connection: 1/4" male connection and bleed valve

Max. test pressure: up to 100bar depending on standard, specification and pipe sample diameter.





# JJTANK Thermal Tank

JJTANK thermal tanks are mainly used to determine the resistance of thermoplastics pipes and short-time hydraulic burst to constant internal water pressure at constant temperature. It is applicable to thermoplastic pipes intended for the conveyance of fluids. It is suited to various pipe specimens.

## CHARACTERS

1. Optimal material selection. Inner container, outer protection plate as well as the lid are made of high quality stainless steel. Further, all the components that come in contact with medium are also made of high-quality stainless steel.

2. Tanks are constructed around a heavy section steel frame providing an extremely rigid platform.

3. Optimised heating capacity and excellent thermal insulation reduced energy consumption rate. even when the water temperature up to 95 °C the outer cover is still at room temperature. It helps to enhance the security and save more than 70% of power consumption.

4. Unique steam collection device keeps steam and heat in the test tank and protect against injury.



5. Automatic water filling design ensures full tank capacity during the whole time.

6. Lids are opened by hydraulics and opening degree can be adjusted dependent on operator's requirement.

7. Quick couplings simplify the connection of the test specimens.

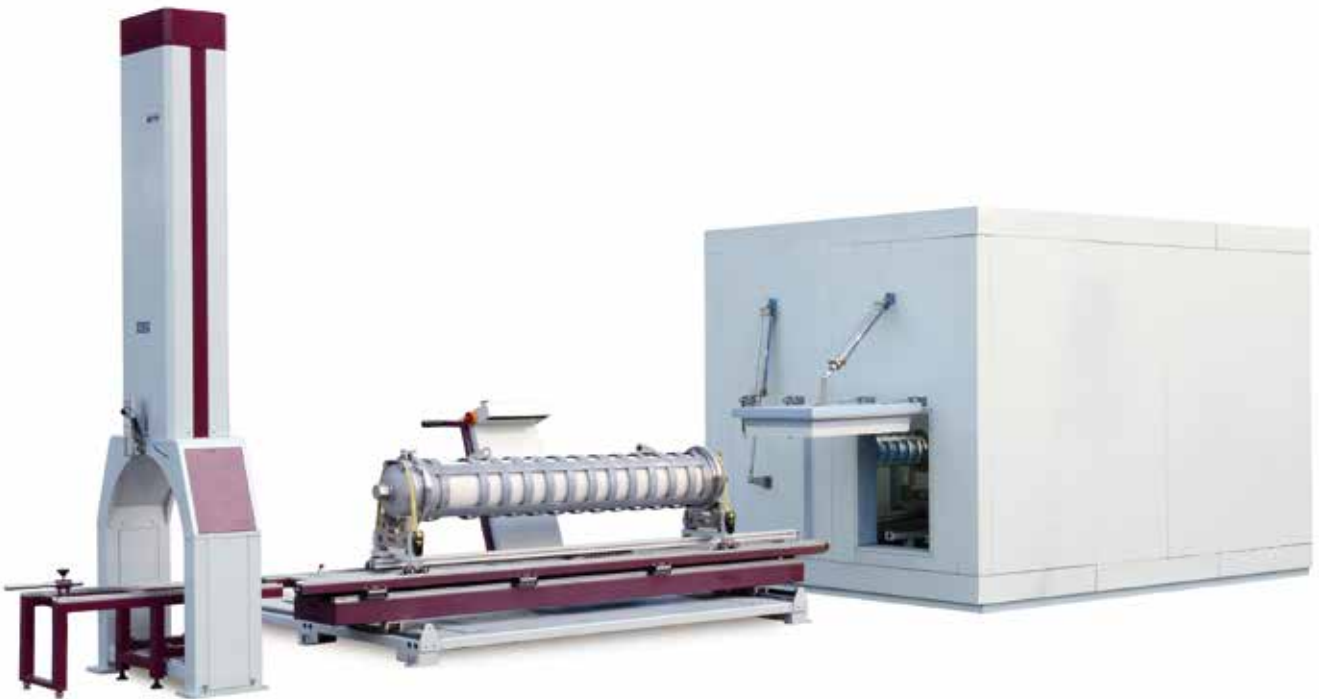
8. Outer protection plates can be removed to access serviceable parts such as circulation pump, heating elements etc.

Thanks to the unique design that service and maintenance can be performed when tanks filled with water.



## PARAMETERS

|   |                   |
|---|-------------------|
| Temperature range   | 15°C ~ 95°C       |
| Temperature control accuracy                                | ±0.1°C            |
| Temperature uniformity                                      | ±1°C              |
| Temperature fluctuation during automatic level compensation | Less than 0.1°C   |
| Lid opening   | Pneumatic opening |
| Level compensation  | Automatic         |



# Rapid Crack Propagation (RCP)



## Rapid Crack Propagation (RCP)

RCP is used to determine the critical pressure or critical temperature for rapid crack propagation.

### STANDARDS

ISO 13477 《Thermoplastics pipes for the conveyance of fluids — Determination of resistance to rapid crack propagation (RCP) — Small-scale steady-state test (S4 test)》

### RCP Test Unit

#### CHARACTERS

1. Rational structure and accurate impact speed. There is energy storage device in basic unit, which shall convert elastic potential energy into kinetic energy, that the impact speed range can be controlled between 1m/s and 20m/s.
2. Industrial control terminal was introduced and colorful touch screen display provides more information to operator, such as sample pretreatment time, pipe inside current pressure, impact speed, length of crack and test temperature, etc.
3. Fast pressure filling and accurate pressure control. For pipes DN200 to DN500, setting pressure can be arrived within 30s.



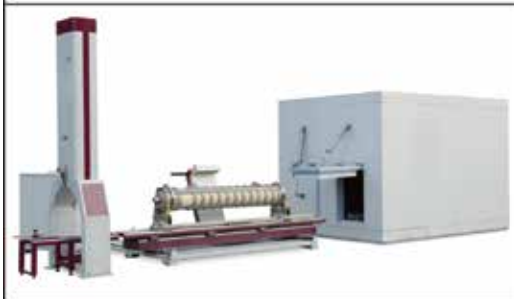
4. Thanks to the module design, system can be updated and extended to be suitable for different sizes of pipes.

5. High rigid frame enhance the bearing strength of system and multiple buffers in the frame reduce impact force from the high velocity striker, so that the component connection keep perfect after repeated trials.
6. High-efficiency and reliable energy storage system. Energy storage system with a high storage speed and striker lifting system can be locked firmly or released quickly.
7. The easily adjustable support and the simple assembly & positioning system with quick coupling saves time and has proved to work outstandingly well in operation with samples.
8. Automatic security confirmation system. It means the correct locations of the test sample and the striker blade are identified automatically, so that the collision of the sample assembly with the striker blade is prohibited and the blade will not be released when the sample is not in position.



## RCP Low Temperature Conditioning Cabinet

1. Automatically-activated doors are provided. For time-saving reasons, the assembly goes into and out of the conditioning cabinet through the pneumatic opening door.
2. Ultralow temperature and high efficiency. Temperature can drop to -30 within 10min and multiple groups of samples can be treated simultaneously.. Temperature can be monitored and regulated automatically.
3. There are independent sample delivery rails for cooling stations. Unique sealing design for the cabinet avoid freezing phenomenon between sealing strip and cabinet.
4. Excellent thermal insulation system helps to enhance the security and save power consumption.
5. Multiple safety protection systems, including escape and alarm device for operator.



## RCP Sample Delivery Unit

As the standard laying down the “crack initiation shall follow within 3 minutes of removal of the test pipe from the conditioning”, limited time is available to position test sample and to increase the internal pressure. For this reason we offer a complete electric sample delivery unit.

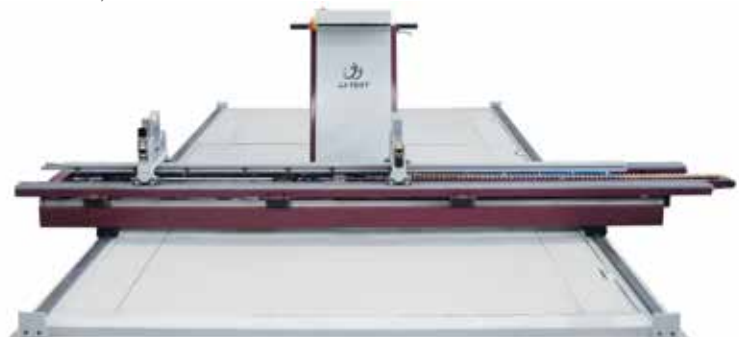
### ● CHARACTERS

#### **1.High accuracy and high delivery speed.**

Thanks to the positioning system and automatic driven system, sample can be picked up from the conditioning cabinet within 30s.

#### **2.PLC control terminal and colorful touch screen.**

Integrated monitoring during testing and provides customer more information, such as cooling temperature, pretreatment time, sample inlet& outlet, etc.





## RCP End Caps

It consists of front & rear sealing part, limiting ring, baffles, o-rings, etc. A variety of specifications are selected, including  $\Phi 63\text{mm}$ ,  $\Phi 110\text{mm}$ ,  $\Phi 160\text{mm}$ ,  $\Phi 250\text{mm}$ ,  $\Phi 315\text{mm}$ ,  $\Phi 400\text{mm}$  and  $\Phi 500\text{mm}$ .

### CHARACTERS

1. Seal parts, limitation ring and internal baffles are connected to each other, together with sample shall be fixed on the v-support on sample supporting seat. So that blade can impact the slotted area on test pipe.
2. Unique design makes the weight much lighter and with higher rigid which can bear 3 Mpa pressure.
3. Patented structure ensures easy mounting and perfect sealing. It is also fast and easy to change to another pipe size or SDR.

### PARAMETERS

|   |                   |   |
|---|-------------------|---|
| Test pipe sizes                                 |                   | $\leq \Phi 315\text{mm}$ or $\leq \Phi 250\text{mm}$ (or other sizes on request)                              |
| Impact speed of striker blade                   |                   | 3 selectable speeds (10m/s, 15m/s or 20m/s) Or set speed arbitrarily within 5m/s -15m/s, at the step of 0.5/s |
| Speed accuracy                                  |                   | $\pm 0.5\text{m/s}$   |
| Pressure  | Pressure medium   | Nitrogen (equipped by user)   |
|   | Range             | $\leq 2.5\text{ MPa}$   |
|   | Accuracy class    | Grade:0.5   |
| Control mode                                    |                   | PLC control and touch screen display  |
| Striker blade release                           |                   | Pneumatic   |
| Pneumatic energy storage                        |                   | Motor-driven  |
| Speed measurement                               |                   | Independent measurement, serial communication interface   |
| Storage mode                                    |                   | USB Stick   |
| Power supply                                    |                   | 220VAC 50Hz 1KW   |
| Compressed air interface                        |                   | 3/8 " quick coupling, high pressure hose  |
| Compressed air supply                           |                   | 3~4Mpa (equipped by user)   |
| Security protection                             |                   | IP55  |
| Basic unit                                      | Weight            | 400kg   |
|   | Dimension (L×W×H) | (830×710×2420)mm  |
| External Rail                                   | Weight            | 100kg   |
|   | Dimension (L×W×H) | (3000×370×75)mm   |
| Main controller                                 | Weight            | 50kg  |
|   | Dimension (L×W×H) | (450×500×1300)mm  |
| <b>RCP Low temperature conditioning cabinet</b> |                   |   |
| Test stations                                   |                   | 2 or 4 (can be customized)  |
| Cubage  | 2 stations        | 10.5m <sup>3</sup>  |
|   | 4 stations        | 20 m <sup>3</sup>   |
| Test pipe sizes                                 |                   | $\leq 315\text{mm}$   |
| Temperature control range                       |                   | RT~-30℃   |
| Temperature display accuracy                    |                   | 0.1℃  |
| Temperature control accuracy                    |                   | $\pm 3^\circ\text{C}$   |
| Cooling power                                   | 2 stations        | 5P, Hourly cooling capacity: 10.7KW   |
|   | 4 stations        | 8P, Hourly cooling capacity: 17KW   |
| Overall dimension (L×W×H)                       | 2 stations        | (2220×3000×2300)mm  |
|   | 4 stations        | (4140×3000×2300)mm  |
| Power supply                                    |                   | 380VAC 50HZ 5KW   |
| Weight  |                   | 650kg   |
| <b>RCP sample delivery system</b>               |                   |   |
| Control mode                                    |                   | PLC control and touch screen display  |
| Number of test station                          |                   | 2 or 4 (can be customized )   |
| Sample delivery                                 |                   | Pneumatic and motor-driven  |
| Sample delivery distance (Automatic)            |                   | 3400mm  |
| Sample delivery speed                           |                   | 370mm/s   |
| Longest time for sample delivery                |                   | 21s   |
| Compressed air supply                           |                   | <0.8Mpa (equipped by user)  |
| Power supply                                    |                   | 220VAC 50HZ 300W  |



## JJAST Piping System Joints Leak Tightness Tester

It is used to determine the leak tightness of elastomeric sealing ring type of joints for buried thermoplastic non-pressure piping systems.

### STANDARDS

ISO 4422-2: 1996, ISO 13844: 2000 and the equivalent.

### PARAMETERS

1. Industrial color LCD display is convenient to input and check test information, including test parameters, test results and test curves ,etc.
2. Test data can easily be exported to user's PC via USB stick for further processing and report generation.
3. Hydraulic type pipe deflection device at radial direction ,high precision digital gauge display as well as the self-aligning centering function ensure operation easier.
4. Different supporting-blocks are introduced for different pipe fittings.
5. Angular deflection at four directions can be collected.
6. Unique design for sample clamping system makes the sample installation more convenient.



|  |  |
|--|--|
| Test station                             | 1  |
| Pipe diameter(DN)                        | (63~400)mm                                   |
| Pressure range                           | 0~(-0.08)MPa                                 |
| Pressure display accuracy                | 0.001MPa                                     |
| Pressure control accuracy (MPa)          | -0.01±0.002,-0.03±0.0015,-0.08±0.002         |
| Max. angle of deflection                 | 3°   |
| Main frame Overall dimensions(mm)        | 3600×600×1300                                |
| Pressure control cabinet dimensions (mm) | 800×400×1100                                 |
| Power supply                             | 220 (1-15%) VAC~220 (1+10%) VAC, 50Hz, 1.0kW |



# JJWTM Wall Thickness Measurement

It can be used to determine wall thickness for pipes(PE, PB, PEX-AI-PEX,etc) at the max. axial depth of 400mm.

## STANDARDS

ISO3126:2005---Plastics piping systems---Plastics components---Determination of dimensions.

## CHARACTERS

### 1.High accuracy

High precision micro gauge was introduced to collect test data, Locking device ensures gauge beam and sample touching perfectly, that test result more accurate.

### 2.Easy to operate

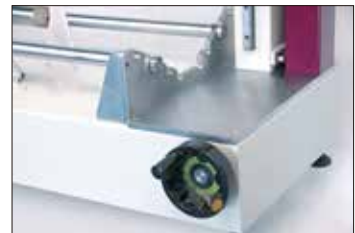
Hand wheel and high-precision guide channel control . In order to work for samples with different sizes, the height of test arm can be adjusted freely. Also the sample is located on sliding rail , that the test range in axial direction can be adjusted.

### 3. Scientific structure

Equipped with dial gauge lifting system,it can be used to protect dial gauge from the sample when they were contacted.

### 4.Specialize Software

Friendly operation interface, system can record wall thickness and describe it in a test curve, also Max. wall thickness , min. wall thickness & average wall thickness can be acquired and be saved automatically.



|                               |                |
|-------------------------------|----------------|
| Sample diameter range         | Φ40mm ~ Φ630mm |
| Pipe thickness                | 0 ~ 50mm       |
| Test range in axial direction | 0 ~ 400mm      |





**JJ-TEST**



## Notch Milling Machine

### STANDARDS

ISO 13479:1997 «Polyolefin pipes for the conveyance of resistance to crack propagation-Test method for slow crack growth on notched pipes(notch test)»

### CHARACTERS

1. With Industrial PLC control and moveable Large size full color touch screen display terminal.
  2. Module design for the whole system, and milling knife is over the test piece, it is easy to observe.
  2. In order to control cutting speed, servo system is introduced to control knife rotation speed and feeding speed,
  3. Mandrel hoisting structure ensures the parallelism between cutting knife and pipe , also the repeatability of notch depth.
  4. It adopts double knife structure for the upper part of system, each knife can be lifted independently.
- Notice: If the wall thickness of pipe is bigger than 50mm, spiral cutter will be used before V shape cutter. Spiral cutter is optional.
5. 60° V-type hard alloy cutter ensures the end surfaces smooth



|                          |   |
|--------------------------|---|
| Pipe diameter range      | Φ63mm ~ Φ630mm  |
| Max. length of pipe      | 1800mm  |
| Notch length             | 50mm ~ 650mm  |
| Wall thickness of sample | > 5mm   |
| Milling cutter diameter  | 200mm; Number of teeth: 20; Rotation rate of motor: 703rpm; |

# Pipe Cutting and Chamfering Machine JJPCM-01



It is mainly used for cutting and chamfering big pipes. Cooperating with pipe extrusion production line, makes it an ideal machine for pipe manufacturer, as well as for quality inspection and research institution

## ●CHARACTERS

1. Filling in the domestic blank. With the advantages of well performance, high automation, humanized protective devices, easy operation and fine appearance.
2. Wide pipe application range, modular design, high rigidity, pneumatic clamp, planetary cutting method.
3. Easy assembly and good seals thank to the smooth and even cutting surface.
4. Cutting and chamfering are completed synchronously, largely increasing work efficiency and reducing working strength.
5. The rotating motor, acts automatically after sample well-clamped, stops automatically while compaction released, which is a protection to the operator.
6. Electronic soft-start function provides the torque for stable start-up at low speed, which reducing the electromagnetic shock to the power supply system.

## ●PARAMETERS

|                                 |   |
|---------------------------------|---|
| Diameter range                  | Φ90-Φ630  |
| The chamfering angle            | 15°   |
| Dimension                       | 1580mm×1030mm×1830mm  |
| Power supply of main frame      | 380 (1-15%) VAC~380 (1+10%) VAC 4kW , three phases and five lines |
| Power supply of scrap collector | 380 (1-15%) VAC~380 (1+10%) VAC 3kW, three phases and five lines  |





## Static Constant Loading Tester for Thermoplastic Manhole

Static constant loading tester is mainly used to determine the resistance to the axial static constant load of plastic manhole.

A constant force is steadily loaded on the axial direction of the manhole for the specified time, when test is finished, observing the sample appearance (deformation, collapse, crack or crazing), determine the deformation in axial direction and calculate the deformation ratio of manhole.

JJICL is also suitable for ring stiffness test, flattening test, ring softness test of thermoplastic pipes.



### STANDARDS

BS EN 13598-1:2003 and the equivalent.

### PARAMETERS

1. Gate-type structure with super high rigidity, test speed can be controlled in a wide range, seamless ball bearing ensures high accuracy and stable performance.
2. Imported digital AC servo system has been introduced, piecewise linear correction method ensures high accuracy and stability of system.
3. Bridge structure of load sensors avoids side loading especially for big pipes.
4. Unique type inner diameter measuring system tracks the deformation of inner diameter. It is easy to install sample and carry out measurement
5. With protection functions of overload, over current, over force as well as over temperature, also multi protection methods have been set in mechanical & electrical part and software system.
6. Module design satisfies customers' requirement on extended function. Compression, bending, Ring stiffness, Ring flexibility, Flatten, Shear and Creep ratio tests can also be carried out on this tester.
7. The system is highly intellectualized, whole test procedure will be recorded automatically.



### PARAMETERS

|                                 |                          |                                   |            |
|---------------------------------|--------------------------|-----------------------------------|------------|
| Max test force                  | 200kN, 350kN or 600kN    | Control accuracy of constant load | ±1%        |
| Force accuracy                  | ±1%                      | Max. journey                      | 2500mm     |
| Force display resolution        | 1/200000 FS              | Max. dimension of manhole base    | φ1600mm    |
| Crossbeam displacement accuracy | ±1%                      | Timing range                      | 0h ~ 9999h |
| Test speed                      | 5 ~ 200mm/min (stepless) | Timing accuracy                   | ±0.1%      |
| Speed error                     | ±1%                      | Security protection grade         | IP55       |
| Control range of constant load  | 5%-100%FS                |                                   |            |



## Buckling Resistance Tester for Thermoplastic Manhole

JJRBT-1 series buckling resistance tester is used to simulate the conditions when manhole is buried underground and check its resistance to the force from underground water.

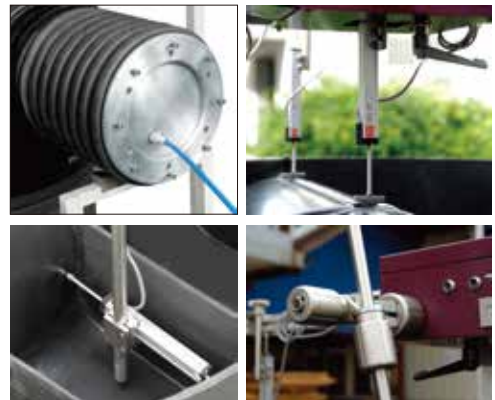
Seal and vaccumize the sample between 20℃-25℃, keep the internal negative pressure stable for more than 1000h,measure the deformation of the sowchannel side and bottom, then extrapolate the deformation occurred after 50 years by least square method.

### STANDARDS

BS EN 14830:2006 , BS EN 13598-2:2009 and the equivalent.

### PARAMETERS

- 1.High efficiency vacuum system provides a wide negative pressure range of -70kPa to 0kPa .
- 2.Specialized end caps are suitable for various of pipe samples.
- 3.Cantilever lifting structure is introduced to expand the testing space, making a wide range of manholes from  $\Phi 315\text{mm}$  to  $\Phi 1200\text{mm}$ .
- 4.Deformation sensors adjustable to different directions, are applicable to the conditions of uneven samples or reinforced sample surface.
- 5.Industrial control terminal and colorful touch screen display provide more information to operator, e.g. pressure-time and deformation-time curves, leakage detection. Once there is leakage or unstability on sample, vaccum pump will stop working automatically.
- 6.Test data can be exported through USB port.
- 7.Test data will be saved automatically in case of abnormal interruption. Test time will be continued after system up to setting pressure.



### PARAMETERS

| Item                   |                                | Parameter  |
|------------------------|--------------------------------|--|
| Manhole diameter range |                                | 315mm~1200mm   |
| Pressure               | Vacuum pressure range          | -80kPa~0kPa  |
|                        | Pressure control accuracy      | 2%   |
|                        | Connector to vacuumPump        | 1/4"× $\Phi 10$ , hose connector                     |
| Deformation            | Range                          | 0mm to 75mm (up to 150mm, on customer's requirement) |
|                        | Deformation measuring accuracy | 1mm  |
| Timing                 | Range                          | 0h~9999h   |
|                        | Accuracy                       | 1min   |
| Others                 | Security protection grade      | IP55   |
|                        | Power supply                   | 220VAC-15%~220VAC+10% 50Hz 150W                      |
|                        | Overall dimension (L×W×H)      | (2000×1400×3150)mm                                   |
|                        | Weight                         | 400kg  |
|                        | Footprint                      | 7500mm×2000mm  |

# JJICI Manhole Impact Tester

JJICI manhole impact tester is used to test the impact performance of manhole base and manhole wall.

Test procedure: release the weight at a height of 2.5m, make it fall free to impact the center of the sowchannel in the manhole base. The radius of curvature of impact weight is 50mm and mass is 1kg. After impact, check whether manhole base is damaged.



## STANDARDS

BS EN 13598-2:2009 and the equivalent.

## PARAMETERS

1. Vacuum system is introduced to lift the weight, with big suction and high efficiency.
2. With the functions of measuring instantaneous impact velocity, automatic catching impact weight and anti-rebounded.
3. System frame with the adjustable cantilever structure and open test space, makes it easier for sample installation.
4. Actions before impact : the weight is lifted into the protection tube by suction, then the protection tube is fixed automatically at a position of the sowchannel center, click "impact" button to release the impact weight. Actions after impact: the weight is caught automatically and lifted into the protection tube again.
5. Protection tube is installed vertically and with the internal wall roughness less than 0.8. The friction is very low which ensure the real impact velocity no less than 95% of theoretical value.
6. Protection tube location checking system is installed at the bottom of protection tube, which ensures the tube stop at the position of 50mm above the impact point on sample; Also, the position can be controlled at any point on customer's requirement.
7. Dual redundancy design of the limit sensor ensures control more safety.



## PARAMETERS

| Item   | Parameter                          |
|--|------------------------------------|
| Manhole base diameter range ( Sowchannel impact) | Φ315mm~Φ1600mm                     |
| Manhole base diameter range ( Side wall impact)  | Φ315mm~Φ1400mm                     |
| Impact height                                    | 2.5m                               |
| Type of impact striker                           | d90                                |
| Mass of impact striker                           | 1.0kg                              |
| Protection tube lifting journey                  | 1.5m                               |
| Protection tube lifting speed                    | 1.2m/min                           |
| Impact striker lifting method                    | Vacuum suction                     |
| Test speed measuring device                      | Optional                           |
| Outside dimension                                | 1.95m×1.42m×4.70m(L×W×H)           |
| Air resource                                     | 0.5MPa-0.8MPa, compressed air      |
| Power supply                                     | 220(1-15%)VAC~220(1+10%)2.5kW 50Hz |
| Weight   | 1200kg                             |

# Manhole Mechanical Properties Tester

JJICM manhole mechanical property tester is designed to determine the performance of inspection chamber, manhole frame as well as manhole wall. It can be used to test shear strength and the axial loading performance of manhole base; It can also be used to test Ring stiffness, flatness and ring flexibility test.

## STANDARDS

BS EN 13598-1:2003, ASTM D 2412-2002.

## PARAMETERS

1. Gate-type structure with super high rigidity, test speed can be controlled in a big range, seamless ball bearing ensures high accuracy and stable performance.
2. Imported digital AC servo system has been introduced, piecewise linear correction method ensures the high accuracy and stability of system.
3. Bridge structure of load sensors enhance the anti bias for big pipes.
4. Unique cable type inner diameter measuring system track the deformation of inner diameter. It is easy to install sample and carry out measurement
5. With protection functions of overload, over current, over force and over temperature, and multi protection methods have been set in mechanical & electrical part and software system.
6. Module design satisfies customers' requirement on extended function.



## PARAMETERS

|  |                              |
|--|------------------------------|
| Max. Test force                                      | 30kN (Dual-screw)            |
| Load accuracy  | ±1%                          |
| Load resolution                                      | 1N                           |
| Crossbeam resolution                                 | ±1%                          |
| Test speed   | 0.5~200mm/min (Stepless)     |
| Speed tolerance                                      | ±1%                          |
| Pipe diameter range for Ring stiffness test          | Φ200mm~Φ2000mm               |
| Inner diameter measurement range                     | Φ300mm~Φ2000mm               |
| Inner diameter measuring accuracy                    | ±0.5%                        |
| Compression plate dimension                          | 450mm×400mm                  |
| Manhole base diameter range                          | Φ315mm~Φ1200mm               |
| Width of steel belt                                  | 100mm                        |
| Power supply   | 220VAC 50Hz 1.5kW            |
| Safety protection grade                              | IP55                         |
| Dimension of basic frame (exclude compression plate) | 1360mm x650mm×3400mm (L×W×H) |
| Mass of basic frame                                  | 600Kg                        |
| Dimension of shear test device                       | 1450mm×1450mm×2700mm (L×W×H) |
| Mass of shear test device                            | 300Kg                        |
| Covering area  | 2000mm×1500mm                |



**JJ-TEST**

## ***HDT/Vicat Tester***

The tester is used to determine the Heat Deflection Temperature or the Vicat Softening Point. All the specimens are charged with a constant load and immersed in a bath, where temperature is increased at a standard velocity.

The attained heat resistance rate of plastic material is a widely required parameter for product characterization, for quality control, as well as for evaluating their conformity to the previewed applications.

### STANDARDS

ISO 2507,ISO 75,ISO 306,ASTM D 1525,ASTM D 648 and the equivalent.



## **HDT/V 3116**

HDT/V 3116 ranks top-class in the world, which is embodied in the following advantages:

1. Automatic lifting mechanism provides stable and reliable performance.
2. The performances of specimen frame lift, offload, limit space, load can be finished during the lifting procedure, which make the breakthrough in the world.
3. The dispersion of testing result for standard sample is smaller

than 0.5°C, even under the smallest load condition. This technology has ranked among the international top level.

4. As exclusive design in the world, automatic smoke exhaust system has been designed to guarantee user's health and not contaminate the environment.

5. Application of digital micrometer with communication interface brings the top class performance in mechanic & electronic controlling ability and software technology.

6. Temperature protective circuit, being independent of the controlling system, is designed to protect the tester when the temperature of medium exceeds using range.

7. Controlled by PC or touch screen, equipped with JINJIAN4.0 software to control and test temperature and deformation, describe and record test curves, output testing result, save historical data as well as print out testing report etc.



## PARAMETERS

- ◆ Temperature controlling range: RT~300℃
- ◆ Heating rate: 120℃/h, 50℃/h;
- ◆ Error of heating rate: less than ±1%/6min
- ◆ Max. temperature error: ±0.5℃
- ◆ Numbers of temperature measuring point : 6
- ◆ Numbers of test station: 6
- ◆ Thermal expansion coefficient of test stations: 0.005mm/100℃
- ◆ Deformation measuring device: digital gauge with communication interface
- ◆ Deformation measuring range: (-1~9)mm
- ◆ Span of sample supports: 64mm, 100mm
- ◆ Max. deformation measuring error: 0.005mm
- ◆ Medium: methyl silicone oil
- ◆ Cooling method: natural cooling (temperature more than 150℃); Water cooling or natural cooling (temperature less than 150℃)
- ◆ With upper temperature setting function, it will stop heating when the temperature reaches the setting value
- ◆ Power supply: 7.5KW 220VAC 50HZ



| MODEL      | STRUCTURE  | STATION | TEMP. MEASURE POINT | DISPLAY & OUTPUT    | TEMP. RANGE       |
|------------|------------|---------|---------------------|---------------------|-------------------|
| HDT/V-110X | TableType  | 2, 3, 4 | 1                   | Touch Screen        | Room temp.-- 300℃ |
| HDT/V-111X | TableType  | 2, 3, 4 | 2, 3, 4             | Touch Screen        | Room temp.-- 300℃ |
| HDT/V-120X | TableType  | 2, 3, 4 | 1                   | PC control, Printer | Room temp.-- 300℃ |
| HDT/V-3216 | Table Type | 6       | 6                   | PC control, Printer | Room temp.-- 300℃ |
| HDT/V-3116 | Table Type | 6       | 6                   | Touch Screen        | Room temp.-- 300℃ |





## JJTCT Thermal Cycling Tester

The Thermal Cycling Tester is mainly used to determine the leakage status of composite pipes & fittings when subjected to specified cycling times under specified internal pressure load.

### STANDARDS

ISO 10508, ASTM F 1335-98 and the equivalent.

### DESCRIPTION

Thermal Cycling Tester consists of following elements:

- ◆ Sample chamber
- ◆ Cold water tank (with chiller & heat exchanger), hot water tank with heaters
- ◆ Electric control panel
- ◆ Flow measurement and regulation (optional)

### CHARACTERS

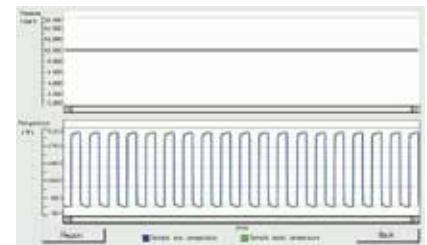
1. High temperature and high pressure only exist in the sample and short piping, that all the electric parts in circulation line work at normal pressure to attain a long service life.
2. Lockable transparent folding doors make samples installation more easily and allow easy access to all samples from three sides.
3. Testing control and monitoring of individually station takes over PLC and touch screen terminal. Testing results are easily transferred to Microsoft Excel for further processing.
4. Individual circulation time, flow rate and pressure can be selected.



5. It provides the test constancy as regards to temperature, pressure and flow rate as well as lowering the energy consumption.
6. Several reliable safeguard, e.g. liquid level measuring devices, emergency stop switch and cord switch ensure the tester to be out of action in time if the test fails or piping system bursts. Doors shall be locked during testing period
7. High quality Grundfoss pumps are used to provide pressure in sample strings. Automatic water filling design ensures full tank capacity during the whole time.
8. Pre-stress system was introduced to apply the initial tensile stress (optional).
9. Quick calibration. System enables pressure calibration and temperature calibration during testing , it means that system may continue running during calibration.

**PARAMETERS:**

- ◆ Pressure range: 4.00bar~12.00bar (0.400Mpa~1.200Mpa)
- ◆ Pressure control accuracy:  $\pm 0.05$  Mpa
- ◆ Number of test stations: 6
- ◆ Alternation time between hot and cold water: <60s
- ◆ Cycle period: 300s~1800s
- ◆ Number of cycles: selectable 1~100000
- ◆ Temperature range (cold water): 20°C to RT (selectable)
- ◆ Temperature range (hot water): RT to 95°C (selectable)
- ◆ Temperature control accuracy (cold water):  $\pm 2^\circ\text{C}$
- ◆ Temperature control accuracy (hot water):  $\pm 1^\circ\text{C}$
- ◆ Temperature display error: 1 °C
- ◆ Temperature Uniformity:  $\pm 1^\circ\text{C}$
- ◆ Max. total cross-sectional dim. of all connected test samples: 6200 mm<sup>2</sup> (2×Φ63)/4200 mm<sup>2</sup> (1×Φ63)
- ◆ Power supply: 380VAC 50Hz 25KW
- ◆ Overall dimensions(L×W×H): (5200×3200×2100)mm (6 stations)
- ◆ Installation dimension(L×W×H): (6000×4000×3000)mm





## UTM-0400 Electronic Tensile Machine

This machine is specially designed for plastic film and rubber, for yield stress, yield elongation, breaking stress, breaking elongation and tensile strength tests.

### STANDARDS

ISO 527, ASTM D 638, ISO 37 and equivalent.

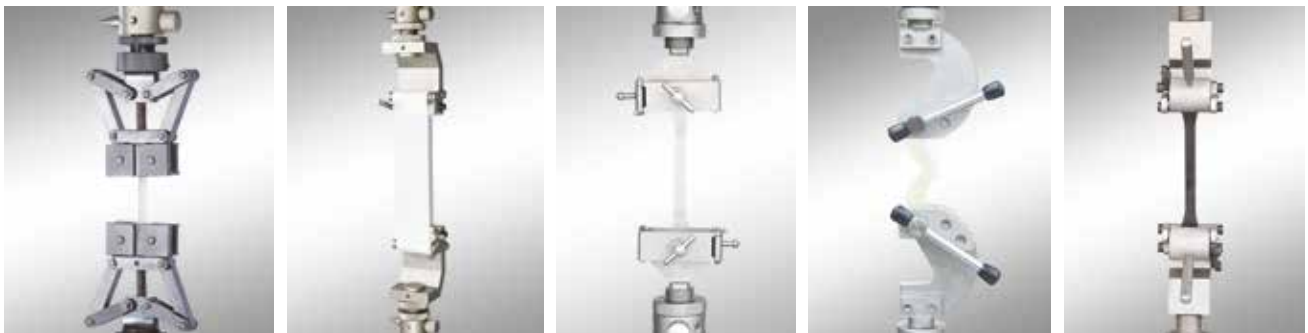
### PARAMETERS

1. High working speed: tensile and returning speed may reach to 4000mm/min, largely increase the working efficiency.
2. Multiple safety protection systems: limit position protection, overload protection, emergency stop, etc.
3. Automatic identification of load cells.
4. Load accuracy of  $\pm 0.02\%$  of load cell value provides high dynamic range, thereby reducing the number of load cells required to cover the full force range.
5. Small tabletop footprint with a large and flexible work space.



### Date analysis testADT software

1. Large built-in library of test methods meet international test standards.
2. Intuitive user configurable test facility.
3. Provides seamless data transfer to excel or html format.
4. Possible to analyze and display test data in user definable ways.
5. Updated on line for free.



●PARAMETERS

|   |  |
|---|--|
| Max Force   | 500N   |
| Accuracy grade  | one  |
| Force measuring range   | 0.2%-100%FS  |
| Relative force error  | ±1%  |
| Force resolution  | 1/300000   |
| Deformation measuring range                                   | 0.2-100%FS   |
| Relative deformation error                                    | ±1%  |
| Deformation resolution  | 1/300000   |
| Relative error of crossbeam displacement                      | ±1%  |
| Large deformation resolution                                  | 0.0125mm   |
| Displacement resolution                                       | 0.01mm   |
| Test speed range  | 1mm/min-5000mm/min   |
| Max. tensile space  | 900mm  |
| Stress (force) rate control range                             | 0.005-5%FS/S   |
| Relative error of stress (force)                              | ±1% of set value   |
| Strain (deformation) rate control range                       | 0.02-5%FS/S  |
| Relative error of strain (deformation)                        | Within ±2% (if rate < 0.05%FS)<br>Within ±0.5% (if rate ≥ 0.05%FS) |
| Crossbeam speed range   | 1mm/min-5000mm/min   |
| Relative error of crossbeam speed                             | Within ±1.0% of set value  |
| Stress (force),strain (deformation) and displacement maintain | 0.5%-100%FS  |
| Stress (force) and strain (deformation) maintain              | Within ±0.1% (≥10%FS )<br>Within ±1% (< 10%FS)                     |
| Power supply  | 220VAC-15%-220VAC+10% 50Hz 0.5kVA                                  |
| Dimension(LxWxH)  | 450 mm×550 mm×1650mm   |
| Net weight  | Approx. 80kg   |



## Plastic Film Cutting Machine

It is mainly used to make strips of bidirectional tensile film(BOPP,BOPC,BOPET,BOPA), unidirectional tensile film and composite membrane.

|                                  |                                  |
|----------------------------------|----------------------------------|
| Width of specimen: 10mm×6,15mm×4 | Cutting thickness: ≤0.25mm       |
| Error: ≤±0.1mm                   | Dimension: LxWxH=(290×230×150)mm |
| Length of specimen: 160mm        | Weight: 15kg                     |





**JJ-TEST**



JJFWI-111



JJFWI-112

## FWI Series Falling Weight Impact Tester

The tester is mainly used to determine the resistance to external blows of the thermalplastics pipes of circular crosssection. Test pieces are subject to blow from a falling striker, of specified mass and shape, dropped from a known height onto specified positions around the circumference of the test piece. The true impact rate of the batch, or production run from an extruder, is estimated. The maximum value acceptable for the TIR is taken to be 10%. There are two test methods: round-the-clock method and staircase method.

### STANDARDS

ISO3127,BS EN1411,BS EN744,ASTM D2444 and the equivalent.

### CHARACTERS

- 1.Catching rate of anti-rebound device is 100%.
- 2.Imported AC servo system guarantes the high locating precision and fast rising speed.
- 3.Impact height may be set between 50 and 2000mm, also impact height may be calibrated automatically.
- 4Automatic security devices are provided in this instrument (specimen door,anti-rebound and striker window safeguard etc).

### PARAMETERS

#### **For ISO 3127(Model:JJFWI-111)**

- ◆ Test specimen:  $\Phi 10\text{mm}-\Phi 630\text{mm}$
- ◆ Impact height: 50-2000mm, with the display error within  $\pm 2\text{mm}$
- ◆ Overall dimensions:  $L \times W \times H = (1100 \times 600 \times 3800) \text{ mm}$
- ◆ Energy losses:  $< 0.25\%$
- ◆ Masses of strikers: (0.25-16)kg, tolerance  $\pm 0.5\%$
- ◆ Rising speed: 12m/min
- ◆ Electrical power supply: 220V/50Hz, 110V/60Hz(please specify)

#### **For ASTM D 2444(Model:JJFWI-112)**

- ◆ Test specimen:  $\Phi 10\text{mm}-\Phi 630\text{mm}$
- ◆ Impact height: 50-3000mm, with the display error within 2mm
- ◆ Type of tup: Tup A, B and C
- ◆ Mass of tup: 2.7kg,5.4kg,9.1kg,13.6kg
- ◆ SPH.R of tup: SPH.R12.7mm,SPH.R50.8mm,SPH.R6.3mm
- ◆ Overall dimension: $L \times W \times H = (1100 \times 655 \times 5030) \text{ mm}$
- ◆ Electrical power supply: 220V/50Hz, 110V/60Hz(please specify)



# JEST Elongational Stress Tester

It is designed to determine the elongational stress of ultra high molecular weight Polyethylene (PE-UHMW) molding and extrusion material. The elongational stress is a characterization of the melt viscosity of PE-UHMW moulding powder, whose melt flow rate cannot be determined by the method specified in ISO1133 because of its extremely high molecular weight.

## STANDARDS

ISO11542-2:1998 and the equivalent.

## CHARACTERS

1. Six individual controllers, one for each station;
2. Automatic smoke exhaust system provides a good test environment.
3. Temperature protective system runs independently of the controlling system, is designed to prevent the test temperature not exceed the limit point.
4. Programmed test operation can realize the functions of automatic timing to release the brake rigging and automatic recording the test time.
5. Tensile stress-time double logarithm curve can be plotted automatically, internal linear regression method can calculate the tensile stress  $F(150/10)$  automatically.
6. Software is capable of plotting displace-time, temperature-time and temperature-time curves, analyzing the tensile course, as well as saving and classifying test datum.

## PARAMETERS

- ◆ Temperature:  $(150 \pm 0.5) ^\circ\text{C}$
- ◆ Tensile Travel:  $(90 \pm 1) \text{ mm}$
- ◆ Load: 100, 120, 150, 180, 200, 250, 300, 350, 400, 500, 600, 700, 800g
- ◆ Timing accuracy: 0.1s
- ◆ Displacement Resolution: 0.01mm
- ◆ Displacement accuracy: 0.1mm
- ◆ Test Stations: 6
- ◆ Capacity: 36L
- ◆ Controlling method: PC
- ◆ Heating medium: methyl silicone oil
- ◆ Automatic lifting system for specimen supporter and smoke exhaust system
- ◆ Power supply: 220VAC 50HZ





**JJ-TEST**



## JJRST Series Ring Stiffness Tester

The tester is used to determine ring stiffness, ring softness and compression of thermoplastic pipes having circular cross-section. It conforms to the requirements of all kinds of plastic pipes, such as structured-wall pipes, PE corrugated pipes, helically wound pipes, etc.

### STANDARDS

ISO 9969-2007, ISO9967 and equivalent.

### CHARACTERS

1. Double-column high rigidity structure, wide range of speed control
2. Advanced closed-loop AC servo control system enables to increase the controlling accuracy and stability. High resolution AD sampling circuit is introduced to collect testing datum, even the peak value will not be lost.
3. Two/Four sensors are connected in a bridge way to strengthen the deflection resist of big pipes, also reduce mangling rate of load sensor.
4. Unique design of inner diameter measuring system makes specimen easy to install and measurement correct & direct.
5. Connect the tester to PC via RS232 to control test and download the test data, PC software may realize the functions of test data storage, statistics, analysis and test results printout. Creep test also can be realized (optional).
6. Multi protection functions from mechanical & electrical design and software, including over-load, over-current and over-temperature.

### PARAMETERS

| Type   | JJRST-1411                                  | JJRST-1412         |
|--|---|--------------------|
| Max. load                                      | 30kN (50kN, 100kN option)                   |                    |
| Accuracy grade                                 | 0.5   |                    |
| Load resolution                                | 1N  |                    |
| Load accuracy                                  | ±0.5%                                       |                    |
| Crossbeam resolution                           | 0.001mm                                     |                    |
| Crossbeam accuracy                             | ±0.5%                                       |                    |
| Crossbeam speed                                | 0.50mm~200mm/min                            |                    |
| Speed Accuracy                                 | ±1%   |                    |
| Pipe diameter range                            | Φ110mm~Φ2000mm                              | Φ110mm~Φ3000mm     |
| Pipe scope for inner diameter measuring system | Φ200mm~Φ2000mm                              | Φ200mm~Φ3000mm     |
| Accuracy of inner diameter measuring system    | ±1%   |                    |
| Specimen width                                 | 1000mm                                      |                    |
| Power supply                                   | 220 (1-15%) VAC~220 (1+10%) VAC 50Hz 2.0 kW |                    |
| Dimension(LxWxH)                               | (650×1360×3400) mm                          | (650×1360×4300) mm |
| Weight   | 600Kg                                       | 700kg              |
| <b>Creep Ratio Test(option)</b>                |   |                    |
| Constant load accuracy                         | ±1%   |                    |
| Timing range                                   | 1~9999h59min59s                             |                    |
| Timing resolution                              | 1s  |                    |
| Timing error                                   | 0.1%±s                                      |                    |



## Environmental Stress Cracking Tester

### ● APPLICATION

It is used to determine the susceptibility of ethylene plastics, as defined in terminology D883, to environmental stress-cracking when subjected to the conditions specified in ASTM D1693-01, under certain conditions of stress and in the presence of environments such as soaps, wetting agents, oils, or detergents, ethylene plastics may exhibit mechanical failure by cracking.

Bent specimens of the plastic, each having a controlled imperfection on one surface, are exposed to the action of a surface-active agent. The proportion of the total number of specimens that crack in a given time is observed.

### ● STANDARDS

ASTM D1693 and the equivalent.



## JJPOT Pipe Opacity Tester

This tester mainly used to determine the opacity of pipes and fittings. It is an ideal device for pipe manufacturers, research and inspection institution.

### ● STANDARDS

ISO 7686:2005 and the equivalent.

### ● CHARACTERS

1. High accurate parallel optical source ensures a stable result.
2. Various sample supports and rasters can be provided for pipes with different diameters.
3. Automatic calibration and three-point measurement can be done successfully.
4. May save up to 1000 groups of test data automatically.
5. Print out the report via a micro-printer.
6. Brilliant touch screen offers user-friendly interface.

|                       |         |                         |                 |
|-----------------------|---------|-------------------------|-----------------|
| <b>Diameter range</b> | Φ20~Φ40 | <b>Power supply</b>     | 220V 50HZ 500W  |
| <b>Resolution</b>     | 0.01%   | <b>Dimension(L×W×H)</b> | (460×240×510)mm |
| <b>Accuracy</b>       | < 0.05% | <b>Weight</b>           | 30 Kg           |





## Full Notch Creep Tester (FNCT)

FNCT is used to determine the stress cracking resistance of polyethylene materials in any environment. A test specimen in the form of a square-section bar with coplanar notches in each face at the center, is subjected to a static tensile load in a temperature-controlled environment, for example air, water, surfactant solution. The geometry of the specimen is such that plane strain conditions are obtained and brittle failure occurs under appropriate tensile load and temperature conditions. The time for this brittle failure to occur after loading is recorded.

### STANDARDS

- ISO 16770 Full notch creep test
- ISO 899 Tensile creep (Optional)
- ISO3501 Test of resistance to pull out of joints between polyethylene pressure pipes and fittings (Optional)

### CHARACTERS

1. 6 individual controllers, one for each station.
2. Individual test bath for each station, temperature and force can be set individually.
3. High accuracy of the regulation of force and elongation.
4. Automatic diagnosis and with protective function.

### PARAMETERS

- |  |  |
|--|--|
| ◆ Number of stations: 3-6  | ◆ Time accuracy: $\pm 1$ min   |
| ◆ Force application: brushless servomotors, one for each station | ◆ Temperature controlling range: RT ~ 95°C (with cooling system)     |
| ◆ Force range: 20-5000N, selectable independently                | ◆ 50°C~95°C (without cooling system)                                 |
| ◆ Force resolution: 0.1N   | ◆ Temperature resolution: 0.1°C                                      |
| ◆ Force accuracy: $\pm 1\%$                                      | ◆ Temperature error: $\pm 1^\circ\text{C}$                           |
| ◆ Tensile travel: Max. 200mm                                     | ◆ Thermal bath: stainless steel                                      |
| ◆ Displacement accuracy: $\pm 1$ mm                              | ◆ Sample dimensions: 100mm×10mm×10mm, 100mm×10mm×4 mm, 90mm×6mm×6 mm |
| ◆ Displacement resolution: 0.027mm                               | ◆ Overall dimensions: L×W×H=(1620×730×1750)mm                        |
| ◆ Time range: up to 10000h                                       | ◆ Electrical supply: 380V, 50HZ, 15KW                                |
| ◆ Time resolution: 1s  |  |



## XJB-30 Falling Dart Impact Tester

This tester is used to test the characters of film in the fields of quality control department, R&D department, laboratories, film manufacturers, etc.

### STANDARDS

ISO 7765-85, ASTM D 1709 and the equivalent.

### CHARACTERS

1. Clamp the specimen automatically.
2. Anti-rebound device ensures 100% catching rate.
3. Multi interlocking safety device is a safeguard against misoperation.

### PARAMETERS

- ◆ Impact energy: 30J.
- ◆ Impact height: Method A is 660mm and Method B is 1500mm.
- ◆ Diameter of dart head:  $d=38\text{mm}\pm 1\text{mm}$  in Method A,  $d=50\text{mm}\pm 1\text{mm}$  in Method B.
- ◆ Mass of the dart: 50g to 2000g, increasing by 5g.
- ◆ Mass accuracy of the dart: 0.5%.
- ◆ Inside diameter of the clamp: 125mm.
- ◆ Outside diameter of the clamp: 150mm.
- ◆ Dimension(L×W×H):(600× 500×2200)mm



## JJADT Apparent Density Tester

This tester is designed to determine the apparent density of granules and powder. It is ideal for raw material quality control applications.

| MODEL     | STANDARD           | MODEL     | STANDARD           |
|-----------|--------------------|-----------|--------------------|
| JJADT-11  | GB/T3402           | JJADT-14B | ASTM1895, method B |
| JJADT-12  | GB1636             | JJADT-14C | ASTM1895, method C |
| JJADT-13  | GB/T3402 & GB1636  | JJADT-21  | ISO 21060-2007     |
| JJADT-14A | ASTM1895, method A |           |                    |



## XR-14 Mechanical Stability Tester

This tester is used to determine the mechanical stability of rubber latex concentrate, also suitable for prevulcanized rubber latex concentrate. It is an essential instrument required to improve the quality of rubber latex. It conforms to ISO 35 and the equivalent.

|                          |                   |                            |            |
|--------------------------|-------------------|----------------------------|------------|
| <b>Stirring speed</b>    | (14000±200) r/min | <b>Display error</b>       | ≤0.1%      |
| <b>Resolution</b>        | 1 r/min           | <b>Display method</b>      | LED        |
| <b>Max. revolution</b>   | 20000 r/min       | <b>Min. revolution</b>     | 2000 r/min |
| <b>Power requirement</b> | 220V 50Hz 2KW     | <b>Working temperature</b> | 10°C ~40°C |

