Labnics

Bottle Burst Tester

NBBT-100

www.labnics.com | info@labnics.com

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1. Introduction

Bottle Burst Tester NBBT-100 sensor can accurately measure pressures from 0 to 6 MPa. It operates effectively within a temperature range of 5 to 50°C. It is equipped with a high-quality touch screen with one-button operation for improved functionality. This tester includes glass sheets and water collection boxes for enhanced flexibility. This unit is highly automated, ensuring efficient and operation for enhanced performance.

2. Features

- Designed for stability and durability
- Complies with ISO 7458:2004ITD
- Equipped with a micro printer
- Automatic pressurization
- Alarm prompts

3. Specifications

Model	NBBT-100
Measuring sensor range	0 to 6Mpa Safe overload 7.2Mpa
Comprehensive error	<0.5%FS
Display accuracy	0.0001Mpa
Measurable bottlenecks	Ø 26mm(Support customized fixtures according to bottles)
Operating temperature	5 to 50℃
Linear rate boost	0.4-0.58±0.1Mpa/s (5.8±1bar/s), adjustable
Pressure medium	Water
Power consumption	0.8KW（Built-in leakage protector)
Power supply	220V/50HZ /Single phase
Dimensions	600 × 400 × 1240 mm
Weight	136kg

4. Applications

Bottle Burst Tester NBBT-100 is used to assess the pressure resistance of bottles by testing their bursting point. It is commonly used in the packaging, beverage, and pharmaceutical industries.

5. Installation

Installation and Commissioning

Correctly install the power cord, air pipe interface, and on-site air source interface, inlet and outlet water pipe joints.

6. Working Principle

This product consists of a controller, a force sensor, a pressure sensor, a touch screen, a drive mechanism, a deceleration transmission mechanism, a printer, and other parts. The force measurement system uses a high-precision force sensor and is equipped with a high-speed ADC sampling monitoring system to collect, display, monitor faults, process data, and send communications during the test process.

The motion part is driven by a variable frequency motor and is driven by a deceleration steering mechanism. It has high motion speed accuracy, high positioning accuracy, and accurate motion speed control.

The body support structure uses a thickened steel structure and aluminum profile support. It has good rigidity, small deformation during the test process, and more accurate test data.

7. Operations

7.1 Test Operation

1) Enter the Test Interface

The instrument displays a welcome interface when it is powered on; click "Welcome" to switch to the test interface. If no operation is performed, it will automatically switch to the test interface after 20 seconds.

The switch on the right side of the instrument can be kept on all the time. When using it, press the red button at the bottom of the screen (clockwise rotation).

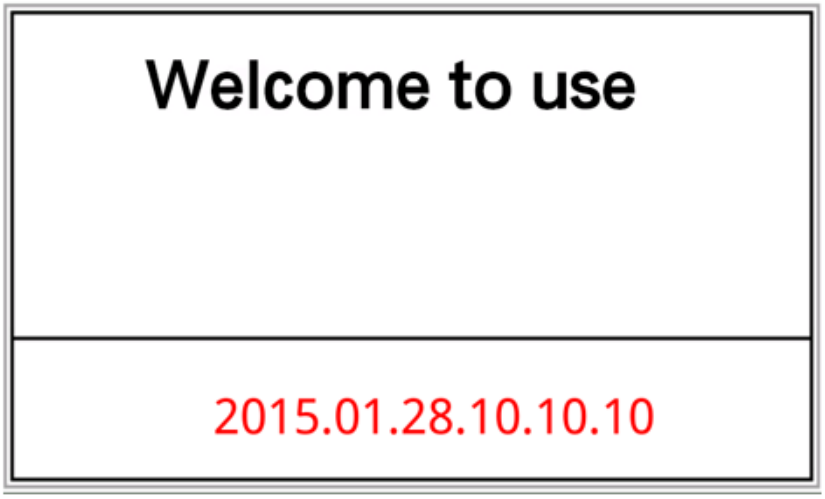

Figure-1

2) Test Parameter Interface

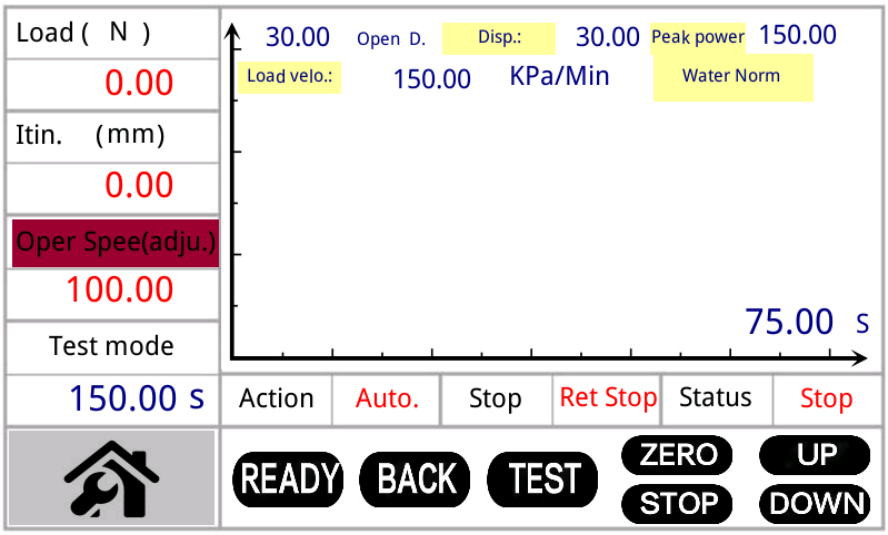

Figure-2

Peak force: The maximum value reached during the test
Load rate: Test setting target value 1
Test mode: A pass through
Operation speed: Motor operation speed
Deformation: Deformation of the specimen during the test
Force value: Pressure during the test
Preparation: Prepare for water injection
Return: Return to the position after the test
Test: Start the test
Stop: Terminate the test
Reset: Reset the current pressure value

7.2 Parameters that need to be set before preparing each test mode

Accessibility: Select test mode, set point value, target value 1, hold time, and water injection time
Destructive: Select experimental mode, target value 1, water injection time,
Passability: Select experimental mode, set point value, target value 1, hold time, water injection time
Destructive: Select test mode, target value 1, water injection time
Internal pressure resistance: Select test mode, operation speed, fixed point value, hold time, and water injection time

7.3 Start the experiment

A **permeability:** Click the setting icon (wrench) in the lower left corner of **Figure 2** - system parameters (set the test mode and corresponding parameters) - switch to A permeability test mode (as shown in **Figure 3**) - return (return to the test interface in **Figure 2**) - prepare (start water injection, stop when the set water injection time is reached) - test - stop (stop when the set holding time is reached) **Figure 4**) - result query - print.

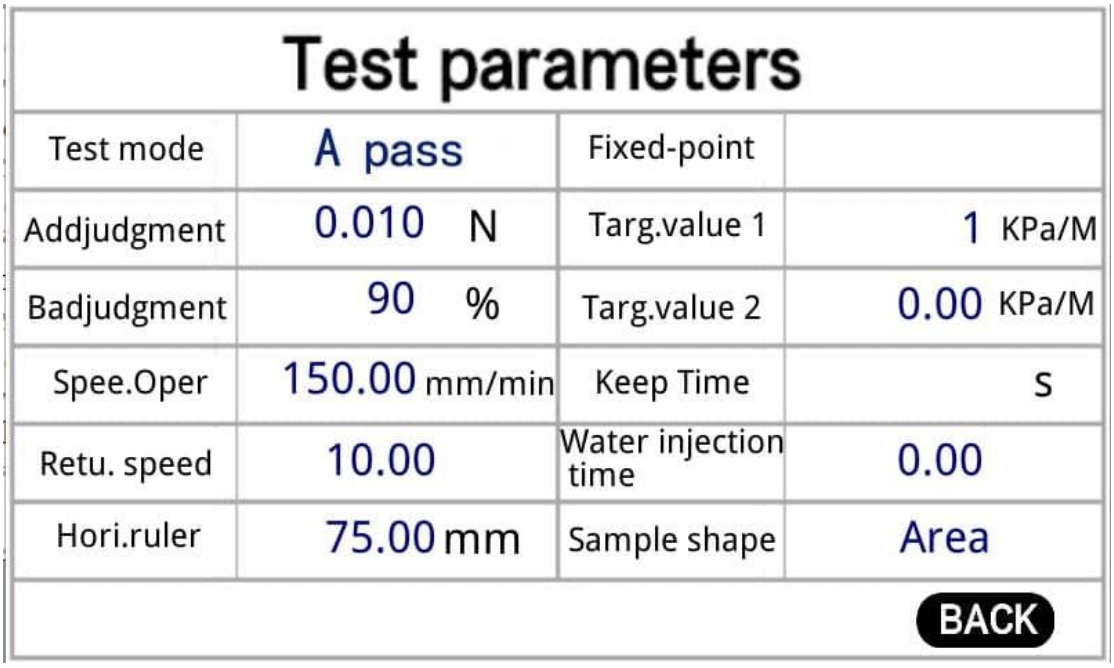

Figure-3

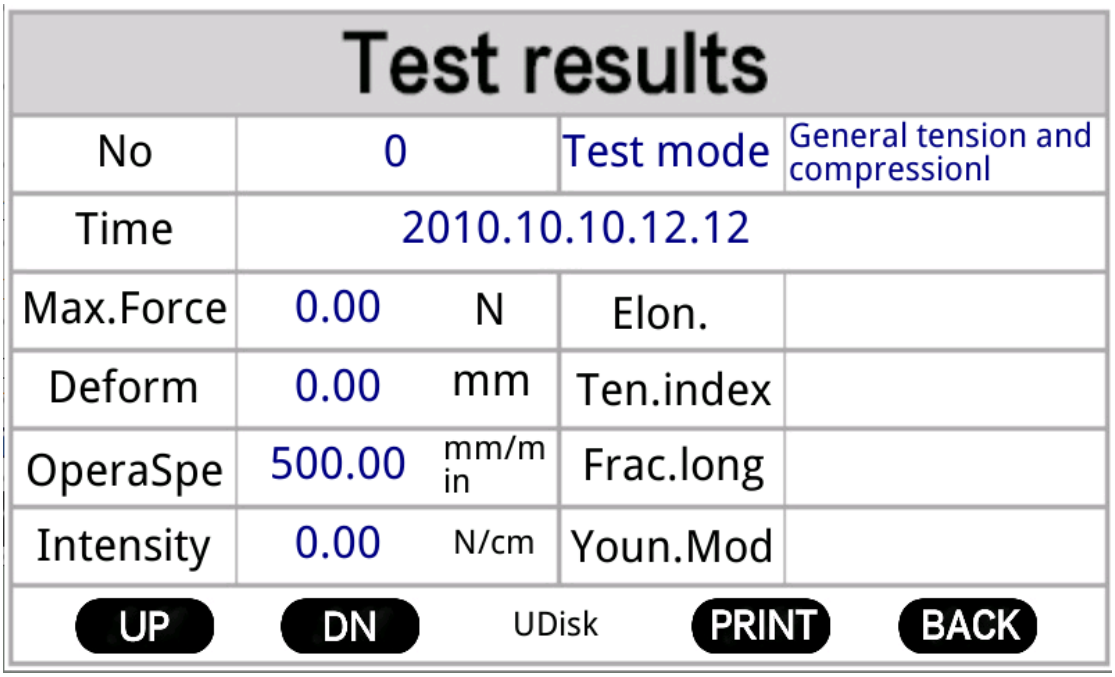

Figure-4

7.4 Result Query

Click the icon in the lower left corner of the test interface and select "Result Query" to enter the test result interface. Click "Return" to return to the test interface.

8. Accessories

Standard Accessories

Fixture -φ26mm for the bottle

Labnics Ltd.
Unit 2D Station House, 1 Pembroke Broadway, Camberley,
Surrey GU15 3XD United Kingdom
Email: info@labnics.com | Website: www.labnics.com