HydroBurst
Bursting Strength Tester

HydroBurst adopts hydraulic drum explosion (elastic diaphragm method) to determine the expansion force and expansion degree of materials such as knitted fabrics, woven fabrics, nonwoven fabrics and laminated fabrics, elastic woven fabrics, paper, etc., when they are subjected to simultaneous force in the warp, weft and all directions, or the resistance of materials to expansion and breaking. HydroBurst realizes accurate control of the speed of expansion and breaking by one-time pre-testing. Equipped with high precision sensors and intelligent recognition system for test cups, the HydroBurst provides higher precision and more efficient testing, and the sensor has a longer service life.

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Power
220/110V 50/60Hz

Weight
130kg

Dimension
830*500*660 mm(L*W*H)

- **One pre-test can accurately control the bursting speed**
  The full servo hydraulic system is controlled by AI algorithm, together with precise screw drive, only by one pre-test, the machine can reach the expansion speed within the standard requirements of 20s.
- **High Precision Sensor**
  The pressure measurement part uses high-precision pressure sensors, and the precision can reach 0.2 level.
- **Smart recognition system for test cups**
  When replacing the test cup for testing, the system will automatically recognize the model of the current test cup and automatically switch the test parameters without manual input changes, greatly improving work efficiency.
- **Longer service life of sensor**
  The use of Panasonic laser displacement sensors, easy to replace the test cup, and the sensor is not easy to damage. (traditional top-rod type, there is a possibility that the rod will be bent, resulting in damage to the sensor).
- **Smart Bursting Strength Test**
  The instrument connects to the SmarTexLab APP via IoT on a smartphone or computer. It then connects to ERP/LIMS through an API. The instrument can also connect directly to ERP/LIMS. Test orders and standards can be sent to the instrument. The sample information can be read by scanning the code. The program can be automatically selected and tested. After the test, a digital raw record will be created. It will include the test process, results, temperature, and humidity. This record will be uploaded to the system. It will be summarized with other tests to output a report. All relevant parties can view the report in real-time. The operator can remotely monitor the status of multiple tests. They can also modify the test requirements, get a reminder before the test ends, and stop or repeat the test. You can use online chat to get quick support from ChiuVention customer service. Also, receive reminders to calibrate, maintain, and replace consumables on the instrument. Lastly, perform OTA remote upgrades regularly.

Specifications

Model No.	1.CV.142.01 CV142 HydroBurst Bursting Strength Tester
Testing mode	fixed-speed bursting, fixed-pressure bursting, fixed-expansion bursting, and fixed-time bursting.
Measurement range	0-10 MPa ±1%(with test cup ≤ 10cm²)
	0-3 MPa ±1%(with test cup = 50cm²)
	0-1 MPa ±1%(with test cup = 100cm²)
Testing rate	50-500 ml/min
Hydraulic medium	7.HY.004 glycerin 500ml/1pc

Test cup mode、Fixture mode and related dimensions

Test Cup 1(Standard) 2.Z.CV 142.01 7.3cm²(Dia.30.5mm±0.2mm)
Lower fix ture base 1(Standard)
2.Z.CV 142.11 7.3cm²(Dia.30.5mm±0.2mm)

Test Cup 5(Standard) 2.Z.CV 142.05 50cm² (Dia.79.8mm±0.2mm)
Lower fix ture base 5(Standard)
2.Z.CV 142.15 50cm² (Dia.79.8mm±0.2mm)

Test Cup 2(Optional) 2.Z.CV 142.02 7.55cm²(Dia.31mm±0.2mm)
Lower fixture base 2(Optional)
2.Z.CV 142.12 7.55cm²(Dia.31mm±0.2mm)

Test Cup 4(Optional) 2.Z.CV 142.04 10cm² (Dia.35.7mm±0.2mm)
Lower fixture base 4(Optional)
2.Z.CV 142.14 10cm² (Dia.35.7mm±0.2mm)

Test Cup 6(Optional) 2.Z.CV 142.06 100cm² (Dia.113mm±0.2mm)
Lower fix ture base 6(Optional)
2.Z.CV 142.16 100cm² (Dia.113mm±0.2mm)

Test diaphragm(optional) 4.M.020 Dia.148mm*1.6mm(10pcs/box)
Maximum expansion height 65mm±1mm
(with test cup of 50cm² also can be used for 70mm±1mm)
Operating environment temperature 20°C±5°C, humidity:50%~70%.

Installation conditions air supply pressure of 5~8 bar
(ensure that the air is clean and dry)

Specification \ Standard		FZ/T01030 -2016MethodB	GB/T7742.1 -2005	ISO13938 -1-2019	ASTMD3786/ 3786M-18(2023)	EN 12332 -2-2002
Test Fixture	7.3cm² (ϕ30.5mm)	✓	✓	✓	✓	–
	7.55cm² (ϕ31±0.75mm)	–	–	–	✓	–
	10cm² (ϕ35.7±0.5mm)	–	✓	✓	–	✓
	50cm² (ϕ79.8mm)	–	✓	✓	–	–
	100cm² (ϕ113±1mm)	–	✓	✓	–	✓