



Data Sheet

HTB 625Z

HTB 625Z**Low Load Digital Brinell Hardness Tester**

- > Low Load Digital Brinell Hardness Tester with direct-viewing display, stable performance and good reliability. 8 test force and 9 Brinell testing scales, 2 objectives 5x and 10x for measurement; automatic shifting between indenter and objectives; dwell time pre-set and light source intensity regulation; automatically display the testing indentation length, hardness value; test result can be printed out by the built-in printer; According to the requirements the tester can be equipped with CCD or Video measuring system.

**Application**

- > Suitable for cast iron, steel products, non-ferrous metals and soft alloys etc. Also suitable for some non-metal materials such as rigid plastics and bakelite etc.

Reference standard

- > ISO 6506, ASTM E10-12, JIS Z2243

Table 1

Standard block hardness range	Displayed value allowed tolerance %	Displayed value allowed repeatability %
≤125	±3	3
125<HBW ≤ 225	±2.5	2,5
>225	±2	2



Model	HTB 625Z
Technology	Load cell closed loop - Load electronic controlled
Load selection	Control panel keyboard
Main loads	1kgf, 5kgf, 6.25kgf, 10kgf, 15.625kgf, 30kgf, 31.25kgf, 62.5kgf
Dwell time	0~60s
Loading time	8s
Loading speed (indenter descending speed)	0.04mm/s
Test force tolerance	±1.0%
Test cycle type	Semi-automatic type: Manual - focus, measure of indentation Automatic - load, dwell, unload, show of the hardness value (after measure step)
Hardness scales	HBW5/62.5, HBW2.5/62.5, HBW2.5/31.25, HBW2.5/15.625, HBW2.5/6.25, HBW1/30, HBW1/10, HBW1/5, HBW1/1
Hardness test range	3.18 ~ 653HBW
Hardness resolution	0.01HBW
Repeatability hef/%	≤125, ±3% 125 < HBW ≤ 225, ±2.5% > 225, ±2%
Scale conversion	With table, according to ASTM E140
Turret type	Automatic
Eyepiece microscope	10x
Objectives	5x,10x
Optical path	2
Illumination	LED light
Microscope min. measuring unit	5x: 0.5µm - 10x: 0.25µm
Microscope max. measurement length	5x: 2.4mm - 10x: 1.2mm
Measurable min. indent/indentation	0.24mm
Indenters	ø 1mm, ø 2.5mm, ø 5mm hard alloy steel ball indenter
N. of indenters	1
Nose cone support diameter	6.35mm
Vertical test capacity	170mm
Horizontal test capacity	130mm
Anvils dimensions	Large plane test table ø 108mm V-Shaped test table ø 40mm
Max. weight on anvil	100kg
Z axis movement	Manual
Z axis speed	Manual
Display type	LCD
Display dimensions	3"
Input mode	Control panel keyboard
Displayed data	Hardness value, D1, D2, dwell time, test number, test force
Statistics or functions	Max, min, average value
Data storage	Temporary session memory, 96 tests
Data output	Hyperterminal session format (.HT)
Energy saving mode	Yes
Printer	Built-in printer
Interfaces	1x RS232
Safety device	Emergency switch
Operation temperature	10~30°C
Operation rel. humidity	≤65%
Weight	35kg
Dimensions	530x200x630mm
Power supply	230V, 50Hz
Voltage variance	±10%
Absorbed power	500W

Standard accessories		
Model	Description	Q.ty
BT-DE10X	10x digital measuring eyepiece	1 pc
BT- 5XOB	5x objective	1 pcs
BT-10XOB	10x objective	1 pcs
BI-1	Hard alloy steel ø 1mm ball indenter	1 pc
BI-25	Hard alloy steel ø 2,5mm Ball Indenter	1 pc
BI-5	Hard alloy steel ø 5mm ball indenter	1 pc
BT-LTT108	Large plane test table ø 108mm	1 pc
BT-VTT40	V-Shaped test table ø 40mm	1 pc
HB-90120HBW2.562.5	Hardness block 90-120 HBW 2.5/62.5	1 pc
HB-180220HBW130	Hardness block 180-220 HBW 1/30	1 pc
BT-4RS	Horizontal regulating screw	4 pcs
BT-LV	Spirit level	1 pc
BT-PC	Power cable	1 pc
BT-SK	Service keys	1 set
BT-ADC	Anti-dust cover	1 pc

Optional accessories	
Model	Description
BI-10	Hard alloy steel ø 10mm ball indenter
BT-V10S	V1.0 System
BT-LCDMD	LCD measuring device
BT-CCDMS	CCD Measuring system
BT-WB	Work bench
BT-APP	Additional printer paper roll

Brinell hardness blocks

Model	Range
HB-BW2.5/62.5	90-450 HBW 2.5/62.5
HB-BW1/30	150-250 HBW 1/30



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