



BANBROS ENGINEERING PVT. LTD.

The Precision Measurement People

ADVANCED DIGITAL VICKERS HARDNESS TESTER



- *VALUE*
- *VERSATILITY*
- *PERFORMANCE*

BVH-AT-8P/MT-8P SERIES

**DESCRIPTION:**

Digital Macro Vickers hardness tester is a high-tech and new product combining the optics, mechanic and electric features. It improves the precision of the test force and the repeatability and stability of the indicating value. With digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test force, indentation length, dwell time, test numbers, conversion scale, date and time. As long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. With built-in printer & RS232 interface, and equipped with data statistic and storage function.

APPLICATION:

- Widely used to test the hardness of all kinds of metal materials (steel, nonferrous metals, tinsel, cemented carbide, sheet metal, etc.)
- Surface layer/coating (Carburization, nitriding, decarburization layer, surface hardening layer, galvanized coating, etc.)
- Glass, chip, ceramic, plastic and rubber, etc.

TECHNICAL SPECIFICATION:

Model No.		BVH-5/10/30/50AT-8P	BVH-5/10/30/50MT-8P
Turret		Automatic turret	Manual turret
Hardness scale	BVH-5AT-8P BVH-5MT-8P	HV0.3, HV0.5, HV1, HV2, HV3, HV5 0.3, 0.5, 1, 2, 3, 5kgf (2.94, 4.90, 9.80, 19.6, 29.4, 49N)	
	BVH-10AT-8P BVH-10MT-8P	HV0.3, HV0.5, HV1, HV3, HV5, HV10 0.3, 0.5, 1, 3, 5, 10kgf (2.94, 4.90, 9.80, 29.4, 49, 98N)	
	BVH-30AT-8P BVH-30MT-8P	HV1, HV3, HV5, HV10, HV20, HV30 1.0, 3.0, 5.0, 10, 20, 30Kgf (9.8, 29.4, 49.0, 98.0, 196, 294N)	
	BVH-50AT-8P BVH-50MT-8P	HV1, HV5, HV10, HV20, HV30, HV50 1.0, 5.0, 10, 20, 30, 50Kgf (9.8, 49.0, 98.0, 196, 294, 490N)	
Hardness conversion		HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T	
Hardness range		8-2900HV	
Min measuring unit		0.01μm	
Force loading		Automatic loading - dwell - unloading	
Eyepiece		10X digital eyepiece with built-in encoder, auto calculate	
Objective		Standard: 10X, 20X (both lens can be used measuring & observe)	
Magnification		Standard: 100X, 200X	
Dwell time		1-99S	
Data output		8 inches touch screen, Built-in Printer, RS232 Interface	
Test space		160*135MM (H*D)	
Power supply		AC220V+5%, 50-60Hz	
Standard		ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2	
Size & N.W		600x220x700mm; 55kg	
Packing & G.W		800*470*800mm; 78kg	



STANDARD ACCESSORIES:

Item Name	Q'ty	Item Name	Q'ty
Main Instrument	1 set	Level	1 piece
10X Digital Micro Eyepiece	1 piece	Power Cable	1 piece
10X / 20X Objective lens	Each 1 piece	Fuse 2A	2 pieces
Vickers diamond indenter	1 piece	Dust cover	1 piece
Large / medium / V shape testing table	Each 1 piece	Warranty card	1 piece
Horizontal Regulating Screw	4 pieces	Manual book	1 piece
Weights of HV5 & HV10	3 pieces	Weights of HV30 & HV50	4 pieces

OPERATION INTERFACE OF HARDNESS TESTER :

Main interface

Data storage



Magnification and Hardness automatic correct

Load automatic correct

Calibration

Magnification:

Load(Kg):

Pulses: X Y

Hardness

Force Calibration

STD: kg

Test: kg

Micro Vickers / Knoop Hardness Measurement Software (Optional purchase)

The screenshot shows the 'Hardness Tester' software interface. On the left, a grayscale image displays a diamond-shaped indentation on a surface, with a grid overlay. Below the image, the coordinates 'X: 997 Y: 508' are shown. On the right, a data table displays hardness test results. The table has columns for '#', 'Hardness', 'Hardness Type', 'Qualified', 'D1(um)', 'D2(um)', and 'Davg'. The current HV value is 732.8 and HRC is 61.5. Below the table are buttons for 'Edit', 'Delete', 'Clear', 'Statistics', and 'Report'. At the bottom, there are controls for 'Machine Control', 'Statistics Info', and 'Album', including an 'Impress' button, 'Turret' controls, and input fields for 'Force' (1kgf), 'Objective' (40X), 'Hardness Level' (Middle), 'Lightness' (6), and 'Load Time(s)' (5). The status bar at the bottom indicates 'System Status: Normal' and 'Camera Status: Off'.

#	Hardness	Hardness Type	Qualified	D1(um)	D2(um)	Davg
1	742.4	HV	YES	50.047	49.909	49.975
2	740.5	HV	YES	49.665	50.418	50.041
3	744.6	HV	YES	49.772	50.039	49.905
4	757.0	HV	YES	49.771	49.220	49.495
5	732.8	HV	YES	49.879	50.733	50.306