

## Recommended by the world UT NDT inspection association for training and examination Core technology with independent intellectual property rights, certificate of CE, GOST and etc.. Recommended by the world UT NDT inspection association for training and examination

# **Electrical Webster Hardness Tester**



#### **Overview**

MDW-ZJ series electrical Webster hardness tester, they are smart designed and can do fast NDT test of workpiece on site. Micro electrical motor can apply the strength, It can do the test by pressing the switch, reduce the labor intensity of testing personnel, it adopts new technology of calibration without dismantle and indenter protection device, improve the accuracy. Digital display can make you read more clear. It is the best choice of testing batch products and been widely used in each process of aluminum production test, acceptance inspection and products quality inspection, as well as in engineering quality inspection and technical supervision departments. It is a necessary device in raising qualification rate and saving cost.

## Serial Products Technical Parameters

Technical Parameters	MDW-ZJ6x	MDW-ZJ10x	MDW-ZJ15x	MDW-ZJ20x
Measurement range	0~20HW			
Accuracy	0.5HW			
Accurate measurement range	5~18HW			
Resolution	1HW			
Hardness range(HRE, HV)	25 ~ 110HRE, 58 ~ 131HV			
Test material	Aluminum alloy(1100~7075 Series)			
Thickness range(mm)	1~6	1~10	1~10	1~20
Anvil indenter diameter(mm)	6			

#### Features

- Portable and easy to read values, can do fast hardness test of aluminum alloy.
- Easy to learn, no high-skill skills of the operation requirements, the human operation of the measurement results less impact, very suitable for the production site for rapid hardness testing of materials;
- Can do fast NDT test on site of sale or work.
- Micro electrical motor can apply the strength, reduce the labor intensity of testing personnel.
- Indenter protection device can eliminate misoperation, rise the accuracy.
- Calibration without dismantle make the calibration more simple.
- The pre-pressing device makes the test in a vertical angle and avoid the inaccuracy of misplaced.
- One key operation can test the hardness automatically.
- The distance of anvil and indenter can be adjusted, can test workpiece of various thickness.

#### Working Principle

MDW-ZJ series Webster hardness tester adopts indentation principle. Under pressure, the indentation is inversely proportional to the material hardness. HW is short for hardness of Webster, when the value is 16, it means the hardness is 16HW. The value can be read on the dial and can be changed into HV, HR. If the sample hardness is out of range, the needle will point at 20, if the range is too low, the needle will not move and it will stay at 0.

## Application

- Aluminum outer material
- Doors and windows curtain wall, decoration works
- Tourism, sports, stationery aluminum processing
- Aluminum tubes, aluminum, aluminum, aluminum rods and other aluminum products production and processing

### Applied condition

- Sample surface should be clean and clean without oil, the surface of the dirt, especially fine sand will greatly affect the measurement accuracy;
- Sample surface coating will seriously affect the measurement accuracy, with sandpaper or solvent to remove the coating after the hardness measurement;
- The instrument should be used in environments with strong vibrations, damp and corrosive gases;
- This series of products according to the different thickness of the four models available for users to choose, different models have different display and measurement range. User according to the shape size and thickness of the sample to select the appropriate The instrument is measured.

## The Comparison Table of Webster Hardness Tester

Model	MW-20 Series	MSW-20 Series	MDW-ZJ Series	MDW-ZS Series
Testing Method	Manual	Manual	Electrical	Electrical
Display	Mechanical	Digital	Mechanical	Digital
Change stylus	By yourself	By yourself	By manufacturer	By manufacturer
Full scale calibration	Manual	Manual	Press calibration key	Press calibration key
Standard calibration	Calibration block	Calibration block	Calibration block	Calibration block
Maximum allowable error	±0.5HW	±0.5HW	±0.5HW	±0.5HW
Measurement range	0-20HW	0-20HW	0-20HW	<u>0-20HW</u>
Accuracy	0.5HW	0.5HW	0.5HW	0.5HW
Accurate measure range	5-18HW	5-18HW	5-18HW	5-18HW
Working principle	Indentation	Indentation	Indentation	Indentation
Connection	Integrated	Integrated	Separated	Separated

Notes : M means Mitech, W means Webster, S means digital, D means electrical, Z means not customized, J means mechanical display.

Configu	iration			
	Item	Parts Name	QTY	Remarks
Standard Config	1	Main unit	_1	
	_2	Charger	_1	
	3	Battery	1	
	4	Test block	1	
	5	Special wrench	_1	
	6	Allen wrench	1	
	7	User's manual	1	
	8	Certificate	1	
	9	Warranty	1	
	10	Handle case	1	