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Electrical Webster Hardness Tester



Overview

MDW-ZS 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.

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Serial Products Technical Parameters

| Technical Parameters | MDW-ZS10x | MDW-ZS20x | MDW-ZS6xh | MDW-ZS10xh | MDW-ZS15xh | MDW-ZS20xh | | |
|-----------------------------|----------------------------------|-----------|-----------|------------|------------|------------|--|--|
| 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) | 1~0 | 1~20 | 1~10 | 1~10 | 1~15 | 1~20 | | |
| Anvil indenter diameter(mm) | 6 | | | | | | | |

Note: h~ Hardness conversion ;x~ Fine shaft anvil diameter : 6mm

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.
- Digital display, convenient for reading the value.

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 | <u>Manual</u> | 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 | <u>0-20HW</u> | <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.

Configuration

| | <u>Item</u> | Parts Name | QTY | Remarks |
|--------------------|----------------------------|---|----------------------------|---------|
| Standard Config | 1 2 3 4 5 6 | Main unit Charger Battery Test block Special wrench User's manual | 1 1 1 1 1 1 | |
| | | Certificate | _1 | |
| | 8 | Warranty | _1 | |
| | 9 | Handle case | _1 | |

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