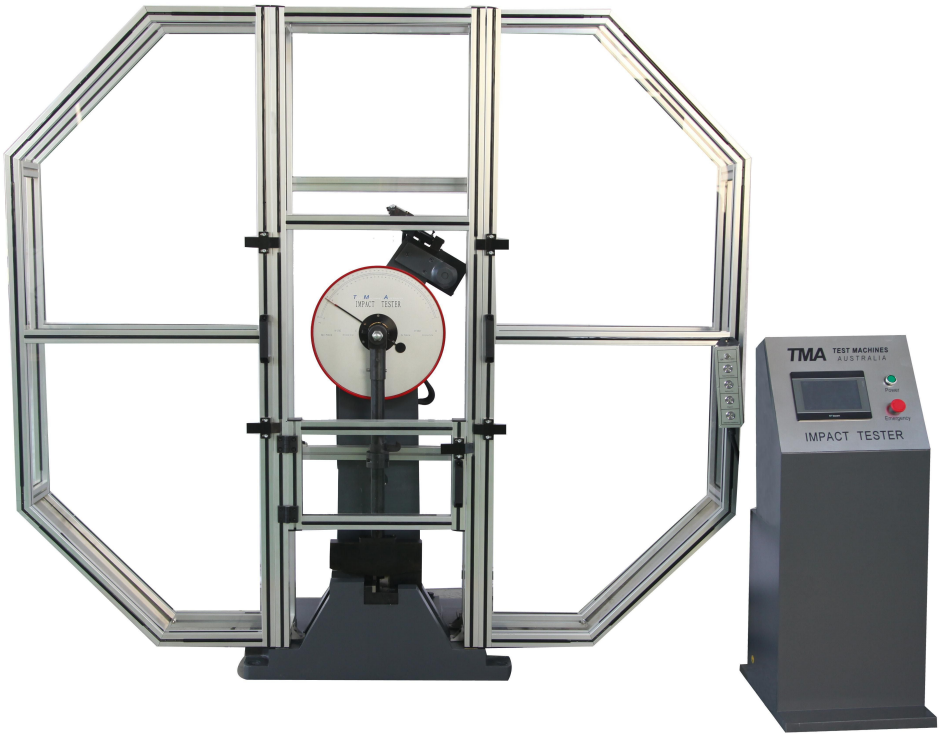
# TMA-JB-300S Digital Display Charpy Impact Testing Machine

## 1. Brief Information

- This equipment is used to measure the resistance of metal materials to impact under dynamic load in order to judge the properties of the material under dynamic load.
- Using the difference between the potential energy before the impact of the pendulum and the remaining potential energy after the impact is displayed on the dial, to obtain the absorption work of the sample. The maximum impact energy is 300J, and also attached one pendulum of 150J, and the cross section of the sample used is (10 × 10) mm.
- The operation adopts semi-automatic control, easy to operate, high working efficiency.
- Using the residual energy after the pendulum breaking the sample, it can automatically raise the pendulum, and it can reflect its superiority when continuously performing specimen impact test. It is mainly used in measurement and quality inspection, technical supervision departments, metallurgy and iron and steel, machinery manufacturing, pressure vessels, automobile production, universities, research institutes and other industries.




Picture for reference

## 2. Applicable standards (please consult us about other applicable standards)

- GB/T 3808-2018 Verification of pendulum-type impact testing machines
- GB/T 229-2007 Metallic materials-Charpy pendulum impact test method
- JJG 145-2007 Pendulum Impact Testing Machines
- ASTM E23-2018 Standard Test Methods for Notched Bar Impact Testing of Metallic Materials (can meet the standard while equip with American standard pendulum)
- ISO148.1-2016 Metallic materials—Charpy pendulum impact test—Part 1:Test method
- ISO 148-2: 2016 Metallic materials—Charpy pendulum impact test-Part 2: Verification of test machines
- ISO148.3-2016 Metallic materials—Charpy pendulum impact test—Part 3: Preparation and characterization of Charpy V-notch test pieces for indirect verification of pendulum impact machines
- ISO R83 Steel-Charpy impact test (U-notch)

## 3. Technical Specification

| Mode | | TMA-JB-300S | |
|---|---|---|---|
| Max. Impact energy | | 300J | 150J |
| Dial scale range and indexing value | Energy range | 0-300J | 0-150J |
| | Indexing value for each cell | 2J | 1J |
| Pendulum torque | | M=160.7695N • m | M=80.3848N • m |
| Pendulum preparing angle | | 150° | |
| Pendulum shaft center of rotation to the impact point distance (sample center) | | 750mm | |
| Impact speed | | 5.2m/s | |
| Specimen support span | | 40mm | |
| Round corner of support jaw | | R (1.0–1.5)mm (1mm is special ordered.) | |
| Blade curvature radius | | R (2.0–2.5)mm (8mm is special ordered.) | |
| Specimen holder support surface angle | | 11° | |
| Impact blade angle | | 30° | |

| | |
|---|---|
| Impact blade thickness | 16mm |
| Measuring angle range | 0-360° |
| Angle resolution | ≤0.06O |
| Specimen dimension | 10×10×55 mm (Thickness 7.5mm, 5mm is special ordered.) |
| Machine host weight | 420kg |
| Power supply | Three phase five-wire, 415V 50Hz 400W |

## 4. Standard configurations

- Machine host: one set
- Pendulum hammer 150J, 300J each one piece
- LCD digital display controller one piece
- Span alignment device one piece
- Specimen centering device one piece
- Remover (for changing pendulum use) one piece
- Anchor bolt (for fix machine base) four pieces
- Semi--enclosed protective net one set

**For further information please contact:**

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