



ZL-3016F Microcomputer controlled metal impact testing machine (150J/300J)



I **.Name:** Microcomputer controlled metal impact testing machine

II **.Model:** ZL-3016F

III **.Performance description:**

This machine is mainly used to measure the resistance of metal materials under impact under dynamic load. It is an indispensable testing instrument for metallurgical and mechanical manufacturing units. It is also an indispensable test instrument for scientific research units to carry out new material research. This series of models is also The impact testing machine is currently on the market.

1. This machine is a microcomputer-displayed semi-automatic impact testing machine. It adopts PC microcomputer control, which can realize computerized operation such as tilting, impact→measurement→calculation→screen digital display→printing, high work efficiency and high test precision. After impacting the sample, the remaining energy is automatically swayed, ready for the



next test, easy to operate, and high in work efficiency. Especially in the laboratory that continuously performs the impact test and the metallurgical and mechanical manufacturing industries that do a lot of impact tests, it can better demonstrate its superiority. The computer can calculate and absorb the shock absorption work of the material, the pendulum angle and the test average. Remote data transmission is also possible according to user needs.

2. The pendulum is designed as a U-shaped pendulum, which ensures the accuracy of the strike center and the pendulum torque is accurate;
3. The impact knife is fixed by screws, which is easy and convenient to replace;
4. It is equipped with safety protection pins and is equipped with a fully enclosed protective cover;
5. Microcomputer control, complete the whole process of pendulum, impact, automatic lifting and re-impact multiple tests according to the instructions.
6. The test machine is equipped with a load cell and an angular displacement sensor with high-speed sampling, storage and calculation functions;
7. The test machine conforms to the national standard GB/T3803-2002 "Inspection of pendulum impact tester", and the impact test of metal materials according to GB/T229-2007 "Metal Charpy Notched Impact Test Method"

IV. Main Specifications:

1. Impact energy: 150J, 300J
- 2, pendulum pre-angle: 150 °
3. Distance from the center of the pendulum shaft to the impact point: 750mm
4. Impact speed: 5.2m/s
- 5, sample support span: 40mm
- 6, the clamp fillet: R1-1.5mm
7. Impact blade fillet: R2-2.5mm R8mm
- 8, impact knife thickness: 16mm
- 9, angular accuracy: $\pm 0.1^\circ$
- 10, sample size: 10 (7.5, 5) \times 10 \times 55mm
- 11, dimensions: 650mm \times 1960 mm \times 2100mm
- 12, the test machine net weight: about 550Kg
- 13, power: AC three-phase 380V \pm 10% 50HZ 5A
14. Environmental conditions: no corrosive medium in the surrounding environment, no vibration, no strong electromagnetic field interference.



V. Main equipment configuration:

1. 300 joules of one host;
2. 150J, 300J pendulum each
3. One motor (mounted on the main unit);
4. A set of pendulum transmission devices (mounted on the host);
5. A set of automatic hanging device (installed on the host);
6. A set of insurance institutions (installed on the host);
7. A set of protective nets;
8. One supporter;
9. One of the sample centering devices;
10. A set of special measurement software;
11. Microcomputer and printer
12. A pendulum remover;
13. Four feet of screws;
14. Adjust the four pieces of oblique iron;
15. One hex wrench;
16. One of the proximity switches;

VI. Measurement and control part description:

- 1) Lenovo brand computer (17 inch LCD, 1G memory, 160G hard disk)
- 2) HP Laser Printer
- 3) Windows operating system is the working platform, screen display, mouse operation.
- 4) The software supports multiple pendulums.
- 5) Record the impact strength, impact energy, etc. The maximum and minimum average values and standard deviations can also be calculated.
- 6) Automatic processing of experimental data, automatic measurement of the swing period
- 7) The system parameters are all open, and the user-level operator grasps the core of the system in all aspects.
- 8) With perfect data analysis function, it is suitable for users to carry out various complex data analysis.
- 9) Have a complete file operating system. , test report documents, sample



documents, etc.

10) Store test data in the form of ASC code. User data can be processed by any general business report and word processing software.

11) A single computer can meet the measurement and control needs of multiple test machines by configuring cards such as AD and I/O.

12) Online tips to make your work handy.

13) Support all kinds of commercial general-purpose printers.

14) The factory settings can be stored in file format for easy recovery.

15) System upgrade is easy.

16) Measurement and control system interface display

The main window (pictured) is the software operation control center. Supervised test results management.

The test software can display the real-time virtual digital tube, monitor the energy value and the angle value, and maintain the impact energy of a blow or air swing in real time.



Print the results to Microsoft Word 2003