QC-639V(W) Digital Impact Tester

Standard

ASTM D256、ASTM D6110、ISO179、ISO180、ISO13802

Description

The QC-639V(W) digital impact testing machine is utilized for testing the impact resistance of polymer materials. It employs the principle of energy conversion to calculate the energy absorbed by the specimen after impact. The precision of the pendulum design directly influences the velocity and center of mass location during impact, consequently affecting the accuracy of the testing results.

The tester is equipped with a 7-inch PLC touch screen that employs an encoder to measure angles and calculate energy directly. It incorporates an integrated correction system to compensate for energy dissipation caused by air resistance and friction, thereby enhancing testing accuracy. Additionally, this machine offers the option of being used with specialized software, enabling a wide range of analysis, recording, and report generation capabilities.

Izod/Charpy represents two commonly used testing methods, and the QC-639V(W) offers the flexibility to swiftly switch pendulums and vise, catering to diverse testing requirements and adhering to various standards (ASTM & ISO).

Industry

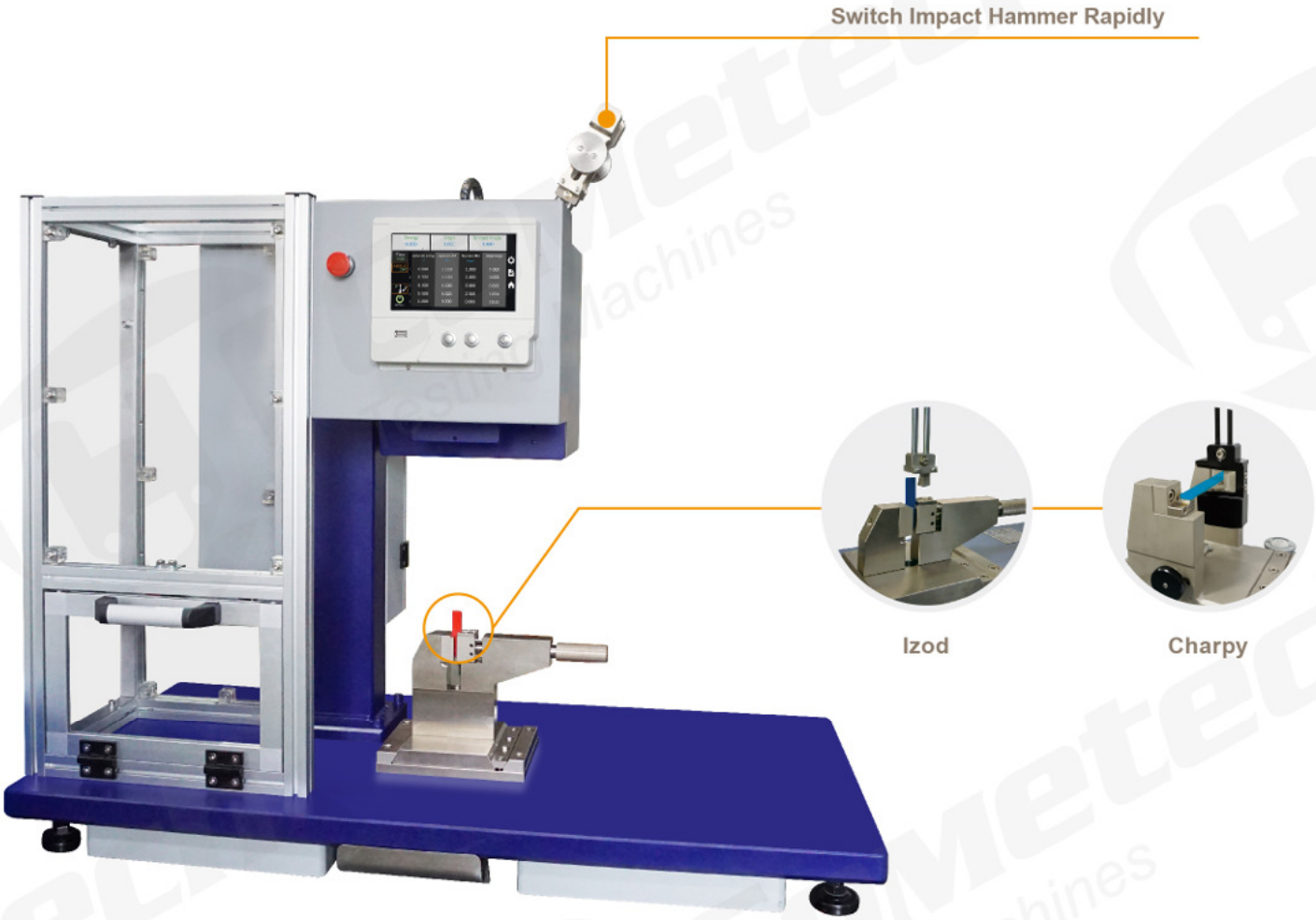
Plastic, Automotive, electronics



Izod Impact Hammer



Charpy Impact Hammer



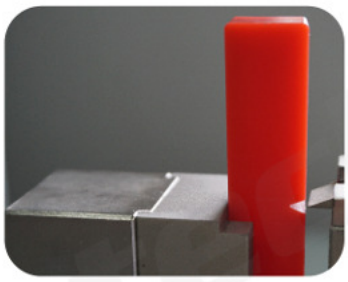
Specification

Model	QC-639V	QC-639W
Test Method	IZOD , CHARPY	
Initial Angle	150°	
Optimal testing range	Izod 1-12J ASTM Charpy 1-12J ISO Charpy 1-5J	Izod 1J-25J / Charpy 1J-25J (Opcional: 50J)
	Recommended testing range: Between Pendulum Capacity 10%- 80%	
Angle	Min display angle 0.05 degree	
Operation	■ With 7-inch touchscreen display allows for direct reading of impact energy values ■ With the capacity to store 50 sets of data ■ The vise is equipped with a position mechanism for more precise specimen positioning ■ Capable of accommodating various vises to satisfy IZOD and CHARPY tests ■ Multiple unit display is available	
Accessories	Hammer Calibration Report for, Operating Manual, Hex Wrench Set	
Power Supply	110 - 240 V / 5 A	
Dimension	Full Cover 110 x 50 x 110 cm Half Cover 110 x 50 x 77 cm	Full Cover 110 x 50 x 117 cm Half Cover 110 x 50 x 117 cm
Weight	Full Cover 290 Kg Half Cover 260 Kg	Full Cover 370 Kg Half Cover 340 Kg

Testing Procedure

1. Specimen Alignment

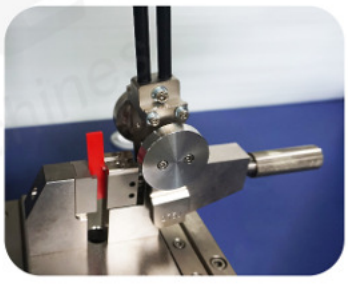
Choose the CHARPY/IZOD fixture according to the requirement. The specimen vise is equipped with a positioning mechanism to ensure the precise placement of the specimen, thereby ensuring that the impact point is centered on the specimen

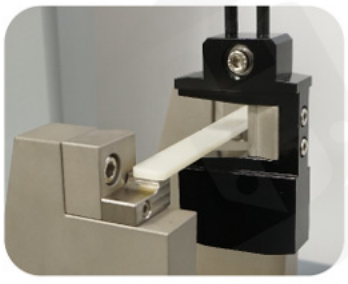




2. Initiating the Test

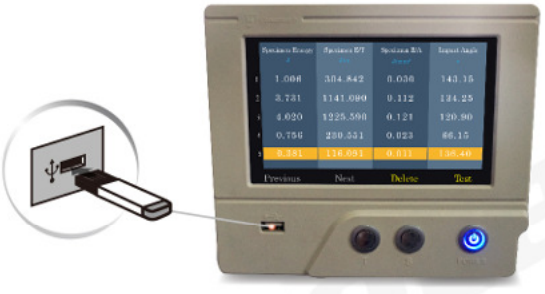
Impart an impact on the specimen using the pendulum, a process further facilitated by its automatic release feature, thereby enhancing the testing process's ease





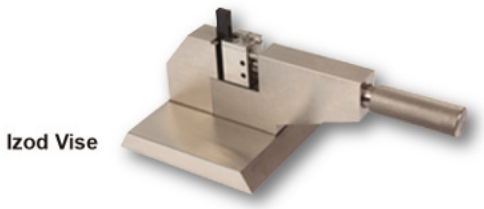
3. Data Acquisition

Impact data will be recorded on the display, and energy data will be automatically adjusted using the machine's built-in compensating mechanism for air resistance and frictional energy loss. The display unit has the capacity to store up to 50 sets of data, and the test data can also be exported to a computer via a USB connection.



Optional accessories

Izod Impact Test



Izod Vise



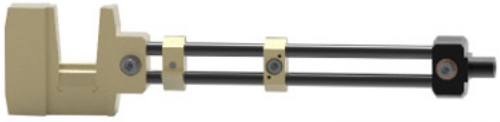
Izod Hammer

Standard	Hammer P/N	Capacity	Striking velocity
ISO 180	IP-0102-F0A	1J	3.5m/s
	IP-0272-F0A	2.75J/5.5J	3.5m/s
	IP-1102-F0A	11JJ/22J	3.5m/s
	IP-2502-G0A	25J	3.5m/s
	IP-2502-G0A	50J	3.5m/s
ASTM D256	IP-0102-F0A	1J	3.46m/s
	IP-0272-F0A	2.75J/5.5J	3.46m/s
	IP-1102-F0A	11J/22J	3.46m/s
	IP-2502-G0A	25J	3.46m/s
	IP-2502-G0A	50J	3.46m/s

Charpy Impact Test



Charpy Vise

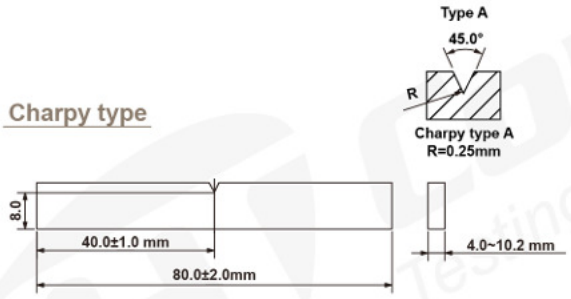


Charpy Hammer

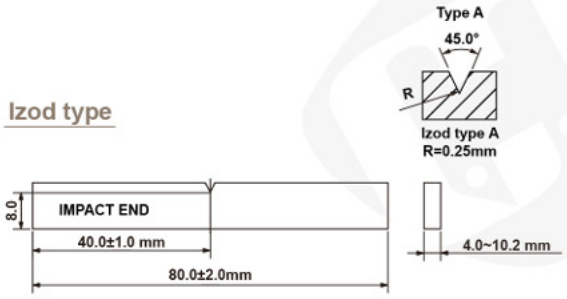
Standard	Hammer P/N	Capacity	Striking velocity
ISO 179	IP-0103-F0I	1J	2.9m/s
	IP-0203-F0I	2J	2.9m/s
	IP-0403-F0I	4J	2.9m/s
	IP-0503-F0I	5J	2.9m/s
	IP-0753-F0I	7.5J	3.8m/s
	IP-1503-F0I	15J	3.8m/s
	IP-2503-T0I	25J	3.8m/s
	IP-5003-G0I	50J	3.8m/s
ASTM D6110	IP-0103-F0A	1J	3.46m/s
	IP-0273-F0A	2.7J	3.46m/s
	IP-0553-F0A	5.4J	3.46m/s
	IP-1103-F0A	10.8J	3.46m/s
	IP-2203-F0A	21.6J	3.46m/s

ISO Sample Dimensions

Charpy type

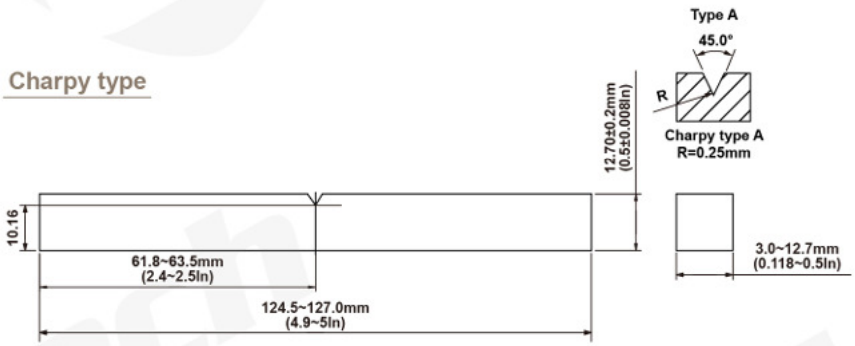


Izod type

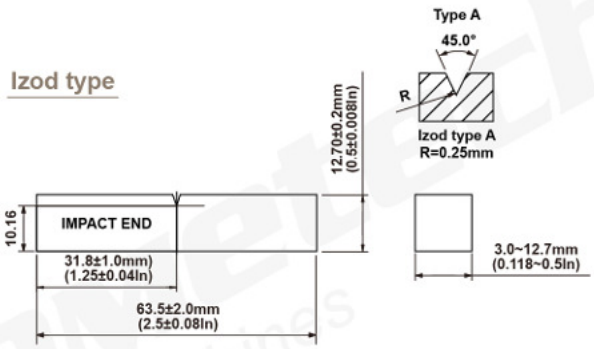


ASTM Sample Dimensions

Charpy type



Izod type



Display (Standard)

- Display (Standard)
- Data Information: Data Information: Data can be exported via USB
- Test Settings:Built-in ISO, and ASTM standards, support the test by changing the relative impact hammers and vises
- Languages: Chinese, English, Japanese
- Metric/ Imperial units conversions available
- Resistance verification and energy compensation calibration can be performed









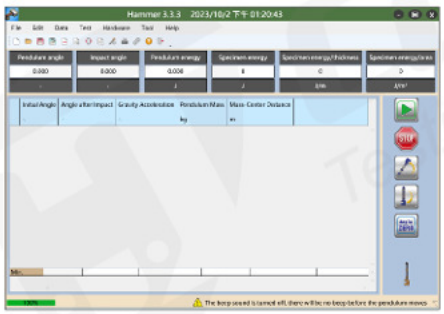


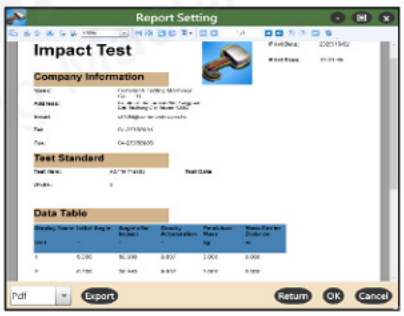


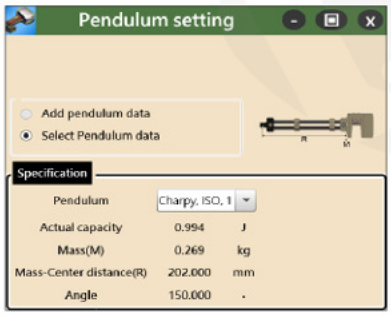
Software (Optional)

- Test data can be exported via USB
- Test Configuration: Built-in ISO and ASTM testing standards, allowing for various tests such as Izod or
- Charpy by simply changing the hammer and vices
- Resistance verification and energy compensation calibration are available
- Modular Test Configuration
- Test reports can be generated and exported









*Relevant product QC-640A Impact Specimen V-Notcher
*Cometech reserves ultimate modification right of product specification

Cometech Testing Machines

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