PENDULUM IMPACT TESTER
SERIES D

STANDARD

ISO 148, EN10045, ASTM E23, GB/T 229, GB/T 12778

RoboTest Series Pendulum Impact Tester Series D is used for measuring the Charpy impact resistance of metal and other materials

IMPACT ENERGY

150J, 300J, 450J, 600J, 750J

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FEATURES

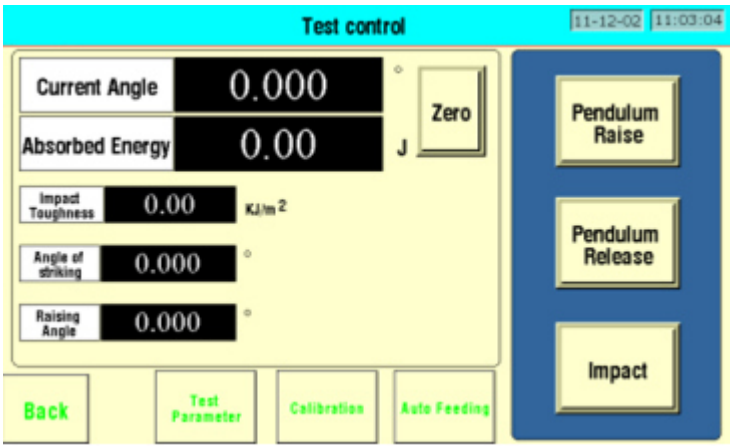
- One-body cast frame design of seat and column provide high stability and rigidity
- Front and rear columns are symmetrical. Pendulum arm is designed of cantilever beam support, with simple structure and high machined precision
- Apply high precision bearing with small friction. Absorbing energy without loading is less than 0.3%
- Double reduction gear system replaces old style drive system with high efficiency and avoiding transmission failure
- Round pendulum head design reduces windage losses to the most
- High rigid pendulum arm prevents axial and transverse vibrations
- Exchangeable pendulum is simple to change to satisfy impact energy of 150J, 300J, 450J, 600J, 750J
- Electromagnetic release of pendulum hammer and electromagnetic clutch for locking the pendulum and raising it to its initial position. A damper is equipped to prevent strong bump when clutching
- Full-closed enclosure with high safety to prevent broken sample from splitting. Protective screening has interlock door. When the door opens, most operations can't work to avoid any wrong operation
- Apply SIEMENS industrial PLC to control pendulum, and high precision Japanese made NEMICON rotary encoder to measure striker real time position. The whole system is stable, reliable and accurate
- A big touch screen monitor may real-time displays striker angle, impact energy, toughness, and other parameters. User can input specimen data and other information such as company information into this monitor. When connected to a printer, user input information and test results will be printed

- Optional computer with software control is available to realize semiautomatic operation. Operator only need charge specimens. Others can be controlled by software
- Optional specimen feeding system is available. Combined with computer and software, fully automatic operation can be realized
- Optional cooling system is available to satisfy cold specimen test down to -180℃

SPECIMEN COLLECTION AND FILTERING DEVICE

- Motorized device is used for collecting broken specimens after impact, instead of manual cleaning, which fully prevents striker from getting stuck
- Unique specimen filtering function: automatically judge and transport qualified and unqualified specimens to different collecting box

WIDE DISPLAY



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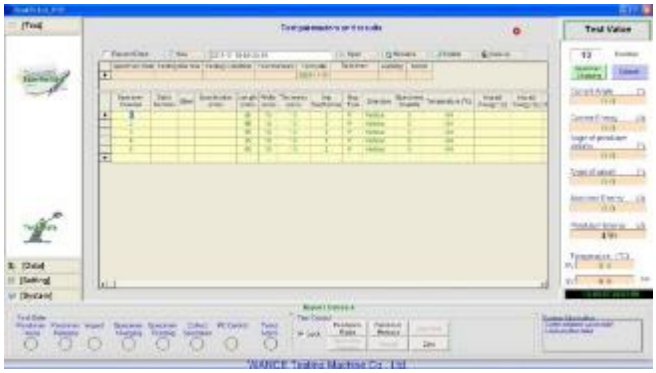
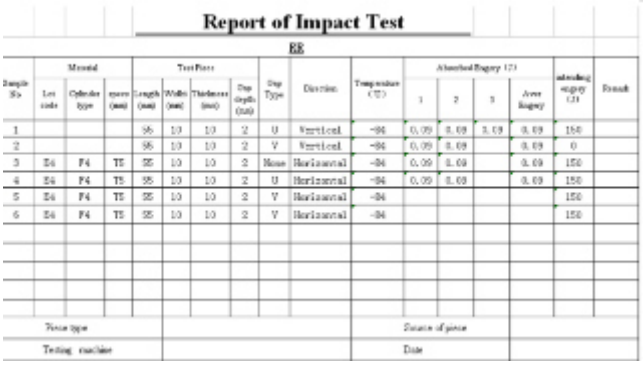
PROFESSIONAL SOFTWARE

This software is designed specifically for testing metals to Charpy standards. Software provides an easy-to-use method for gathering, calculating and storing impact test results. The test result can be printed and exported to EXCEL for review.



DISPLAY FEATURES

- Status of system limits
- Real-time display of hammer status
- Hammer set up and verification allows for hammer weight input
- Displays potential/impact energy
- Displays theoretical velocity
- Encoder resolution of 0.025°



Report of Impact Test

TEST REPORT

- Template can be customized according to requirements
- The report can be exported to EXCEL for review

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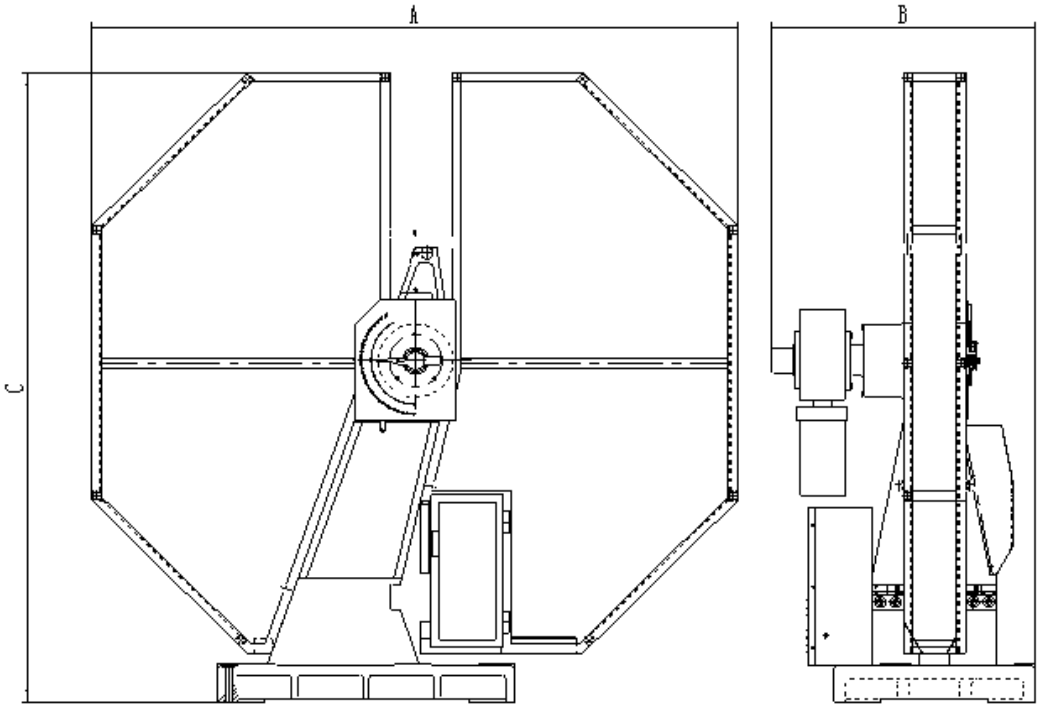
SPECIFICATIONS

Model		RPIT452D	RPIT752D
Type		Type D	
Maximum energy		450J	750J
Optional pendulum		150J, 300J	300J, 450J, 600J
Angle of striking		150°±1°	
Angle measurement resolution		0.025°	
Distance from the axis of support to the center of		750mm	
Velocity of striking		5.24m/s	
Support	Support span	40mm	
	Radius of curvature of supports	1mm	
	Angle of taper of supports	11°±1°	
Striking knife	Radius of striking edge	2mm	
	Angle of striking tip	30°	
	Thickness of striker	16mm	
Specimen dimension		55mm×10mm×10mm	
Weight		900kg	
Dimension(A x B x C)		2124mm×835mm×2100mm	
Power requirements		3-phase, 5-line, AC 380V±10%	



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STANDARD CONFIGURATIONS

Name	Description	Model		
		RPIT452D-2 RPIT752D-2	RPIT452D-3 RPIT752D-3	RPIT452D-4 RPIT752D-4
Framework	Frame	√	√	√
	Pendulum lock/release system	√	√	√
	Driving system	√	√	√
	Angle measurement system	√	√	√
	SIMENS PLC control	√	√	√
	Dial gauge display	√	√	√
	Touch screen	√	√	√
	Protection shield	√	√	√
Software			√	√
Communication cable to PC	RS232		√	√
Accessories	Span block Specimen centering block Centering tongs inside-hexagonal spanner Anchor bolts wedge block	√	√	√
Instrumented impact system (model: IIS105)	Data sampling card Data Conditioner Instrumented test software			√

OPTIONAL PENDULUMS

Name	Description	Compatible Model
Charpy pendulum & specimen support (striking knife: R2/R8)	150J	RPIT452D-2, RPIT452D-3
	300J	RPIT452D-2, RPIT452D-3, RPIT752D-2, RPIT752D-3
	450J	RPIT452D-2, RPIT452D-3, RPIT752D-2, RPIT752D-3
	600J	RPIT752D-2, RPIT752D-3
	750J	RPIT752D-2, RPIT752D-3
Please specify ISO striker or ASTM striker		

OPTIONAL INSTRUMENTED PENDULUMS

Name	Description	Compatible Model
Instrumented Charpy pendulum & specimen support (striking knife with 30kN force transducer: R2/R8)	150J	RPIT452D-4
	300J	RPIT452D-4, RPIT752D-4
	450J	RPIT452D-4, RPIT752D-4
	600J	RPIT752D-4
	750J	RPIT752D-4
Please specify ISO striker or ASTM striker		

OPTIONAL COOLING SYSTEM

Name	Model	Description	Accessories
Low temperature specimen auto-feeding system	LTC601A-2	-60℃~ambient Cooling method: air compressor	Specimen auto-feeding system Low temperature chamber Air compressor
	LTC102B-2	-100℃~ambient Cooling method: liquid nitrogen	Specimen auto-feeding system Low temperature chamber Liquid nitrogen cylinder
	LTC182B-2	-180℃~ambient Cooling method: liquid nitrogen	
Manual cooling system	LTC601A-1	-60℃~ambient Cooling method: air compressor	Low temperature chamber Air compressor
	LTC801A-1	-80℃~ambient Cooling method: air compressor	
	LTC102B-1	-100℃~ambient Cooling method: liquid nitrogen	Low temperature chamber Liquid nitrogen cylinder
	LTC182B-1	-180℃~ambient Cooling method: liquid nitrogen	

OPTIONAL NOTCH BROACHER

Name	MODEL
Notch making machine	NSM201B

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