

No.556 Impact Tester Model IT

*Pendulum Impact Tester up to 15J**



With optional charpy hammer & curtain for litter control



With optional charpy hammer & safety cover

■ FEATURES

- No error due to friction loss because of no pointer.
- No personal error because impact value can be read directly.
- Easy to read 5 inch color touch screen displays test results including average value, maximum value, minimum value and deviation.
- Data can be transmitted to spread sheet software via RS232C output. (Option)

**Up to 22J hammer available for Izod conforms to ISO180/JIS K 7110*

SPECIFICATIONS

Model	IT
Max. hammer capacity	15J <i>(Up to 22J for Izod conforms to ISO180/JIS K 7110)</i>
Interface	RS-232C (1port)
Touch screen	5 inch color touch screen
Test results	<ul style="list-style-type: none"> Lifting angle (β) Absorbed energy (W) Absorbed energy per unit sectional area (ak)
Units	<ul style="list-style-type: none"> kJ/m^2 kJ/m $\text{kgf}\cdot\text{cm/cm}$ $\text{ft}\cdot\text{lb/in}$
Languages	English, Japanese
Power requirement	Single-phase, AC100 to 240V, 50Hz or 60Hz, 0.2kVA
Dimensions	W600 x D360 x H1000mm
Weight	Approx. 80kg
Related standards	<ul style="list-style-type: none"> Charpy: ISO 179 (JIS K 7111), ASTM D 6110 Izod: ISO 180 (JIS K 7110), ASTM D 256 Tensile-impact: ISO 8256 (JIS K 7160), ASTM D 1822

Touch screen display

The touch screen display is divided into three main sections:

- Main menu:** Shows 'Hammer info' (Hammer No. 1: JC010J, Standard: JIS, Class: Charpy, Weighing 1.00 [J], WR: 0.536, α : 150.0, α' : 149.2) and buttons for 'Test start', 'Hammer select', 'Whiff angle', 'Data list', and 'Setup'.
- Setup:** Allows configuration of 'Machine test' (Japanese/English), 'Calculate method' (Simple/Direct compensation), 'Data output method' (PC/Printer), 'Sample break state' (Select/Unselect), 'Sample size' (Thickness/Width input), and 'gravitational acceleration' (9.79800 m/s^2). It also shows the present date and time (2013/12/13 13:53).
- Pendulum selection:** A 'Hammer select menu' with 10 options (J1010J to AB150J) and buttons for 'Contents change', '1/1', and 'Delete'.

The touch screen display also includes three detailed test and search screens:

- Impact test:** Shows 'Lot name TEST1', 'Current angle β 86.0', and 'width 1.00'. It displays 'Date: 13/12/18 15:29', 'Hammer No. 1: JC010J', 'N: 1', and 'width: 8.00 mm', 'thickness: 4.00 mm'. A large display shows '31.21' with units '[kJ/m²]'. Buttons for 'Detail of data' and 'Lot update' are visible.
- Detailed test data:** Shows 'Date: 13/12/18', 'Name TEST2', 'Hammer No. 1: J1010J'. It lists 'W[J] ak' values: Max 1.1686.334, Min 0.6119.184, Ave 0.8827.637, Standard deviation 0.227.0035. Buttons for 'Output' and 'Sample Size' are present.
- Past data search:** Prompts to 'Please touch directly when you change the search setting.' It shows 'Search start date 13-06-01' and 'Search end date 13-07-02'. It includes a grid for 'and or non' selection, 'Class Izod', 'Weighing 0.00', and a 'Name' field. A 'Search Start' button is at the bottom.

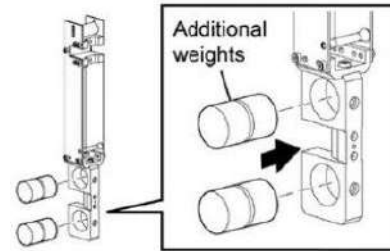
Charpy, Hammers

ISO 179 (JIS K 7111)

	Capacity	Model	Impact velocity
1	0.5J / 1J*	JCH05J	2.9m/sec.
2	2J / 4J*	JCH2J	
3	5J	JCH5J	
4	7.5J / 15J*	JCH75J	3.8m/sec.

*Using additional weights

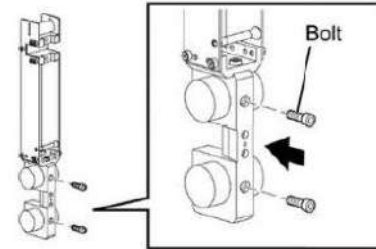
Bold face: Short length hammer



ASTM D 6110

	Capacity	Model	Impact velocity
1	1J / 2J*	ACH1J	3.46m/sec.
2	3J / 6J*	ACH3J	
3	8J / 15J*	ACH8J	

*Using additional weights



Charpy, Fixtures

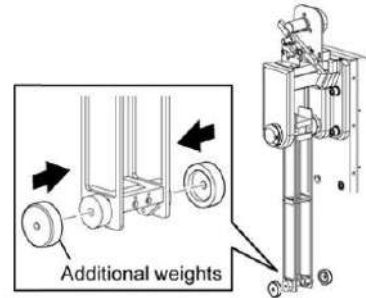
	Name	Model	
1	Charpy fixture For ISO 179 (JIS K 7111) <ul style="list-style-type: none"> ■ Specimen length (l): 80mm ■ Specimen width (b): 10mm ■ Specimen thickness (h): 4mm ■ Span: 62mm 	JCHBAS	
2	Charpy fixture with centering unit For ISO 179 (JIS K 7111) <ul style="list-style-type: none"> ■ Specimen length (l): 80mm ■ Specimen width (b): 10mm ■ Specimen thickness (h): 4mm ■ Span: 62mm 	JCBAST	
3	Charpy fixture For ASTM D 6110 <ul style="list-style-type: none"> ■ Specimen length (l): 127mm ■ Specimen width (b): 12.7mm ■ Specimen thickness (h): Please specify ■ Span: 101.6mm 	ACHBAS	

Izod, Hammers

ISO 180 (JIS K 7110)

	Capacity	Model	Impact velocity
1	0.5J / 1J*	JIZ05J	3.5m/sec.
2	1J	JIZ1J	
3	2.75J / 5.5J*	JIZ27J	
4	11J / 22J	JIZ11J	

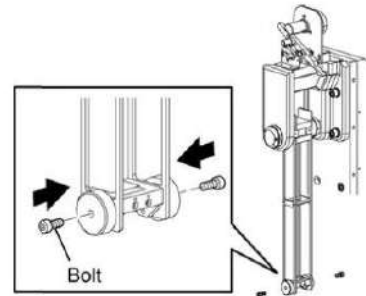
*Using additional weights



ASTM D 256

	Capacity	Model	Impact velocity
1	1J / 2J*	AIZ1J	3.46m/sec.
2	3J / 6J*	AIZ3J	
3	8J / 15J*	AIZ8J	

*Using additional weights



Izod, Fixture

	Name	Model	
1	<p>Izod fixture For ISO 180 (JIS K 7110) & ASTM D 256</p> <p>ISO 180</p> <ul style="list-style-type: none"> ■ Specimen length (l): 80mm ■ Specimen width (b): 10mm ■ Specimen thickness (h): 4mm <p>ASTM D 256</p> <ul style="list-style-type: none"> ■ Specimen length (l): 63.5mm ■ Specimen width (b): 12.7mm ■ Specimen thickness (h): Please specify 	IZBASE	

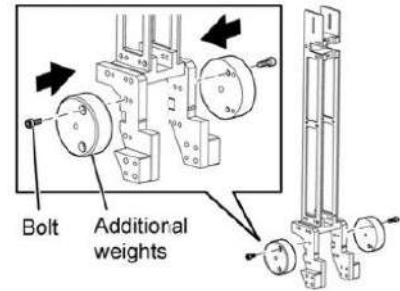
Tensile-Impact, Hammers

ISO 8256 (JIS K 7160)

	Capacity	Model	Impact velocity	Remarks
1	2J / 4J*	JTA2J	2.9m/sec.	In-base (Method A)
2	7.5J / 15J*	JTA75J	3.8m/sec.	In-base (Method A)
3	2J / 4J*	JTB2J	2.9m/sec.	In-head (Method B)
4	7.5J / 15J*	JTB75J	3.8m/sec.	In-head (Method B)

*Using additional weights

Bold face: Short length hammer

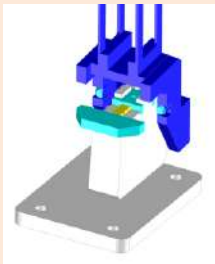


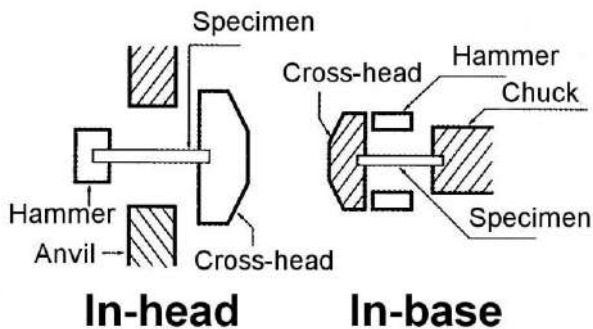
ASTM D 1822

	Capacity	Model	Impact velocity	Remarks
1	1J / 2J*	ATB1J	3.46m/sec.	In-head
2	3J / 6J*	ATB3J		
3	8J / 15J*	ATB8J		

*Using additional weights

Tensile-Impact, Fixtures

	Name	Model	
1	Tensile-Impact fixture For ISO 8256 (JIS K 7160) Method A (In-base)	JTABAS	
2	Tensile-Impact fixture For ISO 8256 (JIS K 7160) Method B (In-head)	JTBBAS	
3	Tensile-Impact fixture For ASTM D1822 (In-head)	ATBASE	



Tensile-Impact, Cross-heads

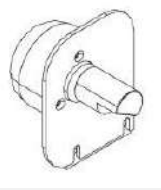
ISO 8256 (JIS K 7160)

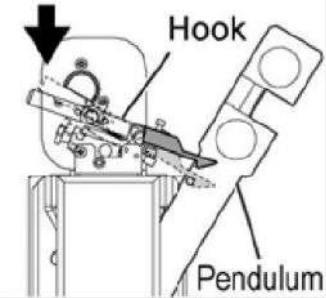

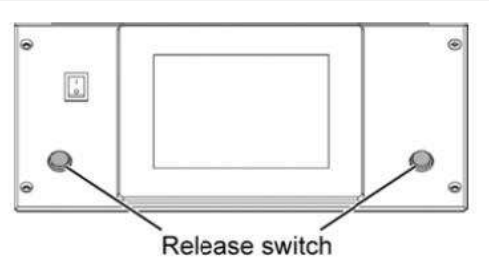
	Name	Model
1	In-base (Method A), 15g	JTA015
2	In-base (Method A), 30g	JTA030
3	In-base (Method A), 60g	JTA060
4	In-head (Method B), 15g	JTB015
5	In-head (Method B), 30g	JTB030
6	In-head (Method B), 120g	JTB120

ASTM D 1832

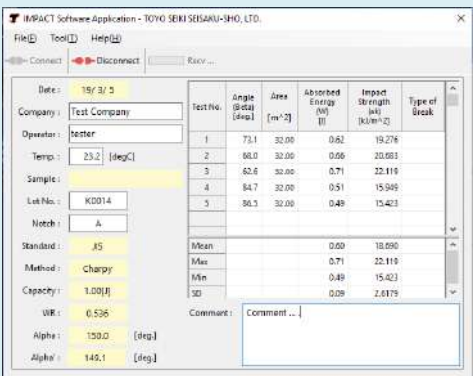

	Name	Model
1	In-head, for 1J / 2J	ATB1
2	In-head, for 3J / 6J	ATB3
3	In-head, for 8J / 15J	ATB8

■ **OPTIONS (Other than hammers & fixtures)**

Name	Model	Photo
Hammer release devise	H-REL	 <p data-bbox="1110 376 1321 434">Rotary solenoid for pendulum release</p>

Standard feature	Hammer release device (Option)
	 
<p>Press down the hook by hand to release the pendulum.</p>	<p>Press both the release buttons on the front panel. The hook will be released by solenoid, and then the pendulum will be released.</p>

Name	Model	Photo
Safety cover	ITSC	
Safety cover (Fully covered type with inter-lock)	ITSC-H	
Curtain for litter control	WAKU	
Anchor weight (Necessary for hammer of 15J or greater)	ANCHOR	
Mini thermal printer Paper width: 80mm	P	

<p>Data export software</p> <p>Note: Spread sheet software is required. (Spread sheet software is not included)</p>		 <p>The screenshot shows the IMPACT Software Application interface. It includes a menu bar (File, Tool, Help), a status bar (Connect, Disconnect, Recv...), and a main data entry area. The data entry area contains fields for Date (15/3/5), Company (Test Company), Operator (jeter), Temp. (23.2 [degC]), Sample, Lot No. (K0014), Notch (A), Standard (JIS), Method (Charpy), Capacity (1.00[J]), WK (0.536), Alpha (150.0 [deg]), and Alpha' (149.1 [deg]). A table displays test results with columns for Test No., Angle (beta) [deg], Area [cm²], Absorbed Energy [J], Impact Strength [kJ/m²], and Type of Break. Summary statistics for Mean, Max, Min, and SD are also provided.</p>
<p>Hammer brake</p>	<p>ITBK</p>	 <p>The image shows a blue and silver impact testing machine. A hammer is mounted on a vertical shaft, and a yellow safety shield is positioned to the right of the machine. The machine has a control panel with a screen and buttons.</p>
<p>Power cord, Type B</p>	<p>AC-U</p>	<p>For USA etc.</p>
<p>Power cord, Type F (CEE7/4)</p>	<p>AC-C</p>	<p>For Germany etc.</p>
<p>Power cord, Type F</p>	<p>AC-K</p>	<p>For Korea</p>
<p>Power cord, Type G (BS1363)</p>	<p>AC-B</p>	<p>For UK etc.</p>
<p>Power cord, Type I</p>	<p>AC-G</p>	<p>For China</p>

No.628 Notching Tool

Model **A-4 / A-4E**

Advanced milling type notcher for Izod/Charpy specimens



A-4..... Notching + Specimen's ends slicing
A-4E..... Notching only

■ APPLICATION

The Notching Tool, A-4 series are miniature, computerized, numerically controlled milling machine for preparing a variety of notched specimen bars. All operations except mounting and dismounting of the sample are automatic. It automatically positions, cutter according to sample and notch dimensions.

The instrument employs a precision servo motor control system with a touch screen control display. Safety interfaces protect the operator from accidents. The cutter speed and table travel speed can be optimized for the sample material. (*Fixed cutter speed for A-4E*)

The instrument can store up to 99 (16 for A-4E) user-defined cutting programs.

Bars can also be automatically cut from the ISO multipurpose specimen (*A-4 only*).



SPECIFICATIONS

Model	A-4	A-4E
Notching system	Single-tooth, Milling type (conforms to ISO 2818) Automatic operation except sample mounting & dismounting	
Processing items	<ul style="list-style-type: none"> ■ Notching ■ Specimen's ends slicing 	<ul style="list-style-type: none"> ■ Notching
Specimen clamp	<ul style="list-style-type: none"> ■ Length: 63.5 to 200mm ■ Height: 3 to 15mm ■ Thickness: Max. clamp clearance 100mm (=4mm x 25 specimens) 	
Machining conditions	99 programs	16 programs
Notch height setting motor (Z axis)	Stepper motor with precision ball screw	
Notch height setting	3 to 14.99mm, 0.01mm steps	
Table feed motor (X axis)	Stepper motor with precision ball screw	
Table feed rate	50 to 1200mm/min.	
Cutter motor (Rotational speed)	AC servo motor (200 to 900rpm)	Synchronous motor (50Hz:300rpm, 60Hz:360rpm)
Standard V notch cutter	<ul style="list-style-type: none"> ■ Diameter: Ø75mm ■ Angle: 45° ■ Tip-radius: 0.25mm ■ Material: SKH (High speed tool steel) ■ Single-tooth type (1 piece included as a standard)	
Standard slice cutter	<ul style="list-style-type: none"> ■ Diameter: Ø100mm ■ Thickness: 1mm ■ Material: SKH (High speed tool steel) (1 set included as standard)	-----
Specimen's ends slicing length	Standard: 80mm (ISO179, 180, 8256) Option: 63.5mm (ASTM D256)	-----
Safeguards	<ul style="list-style-type: none"> ■ Safety cover with interlock ■ Emergency stop switch 	
Power requirement	Single-phase, AC100V, 50Hz or 60Hz, 0.8kVA	Single-phase, AC100V, 50Hz or 60Hz, 0.3kVA
Compressed air requirement	Max. 0.8MPa (For optional cooling device)	
Dimensions	W300 x D700 x H700mm	
Weight	Approx. 65kg	

Specifications are subject to change without notice.



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