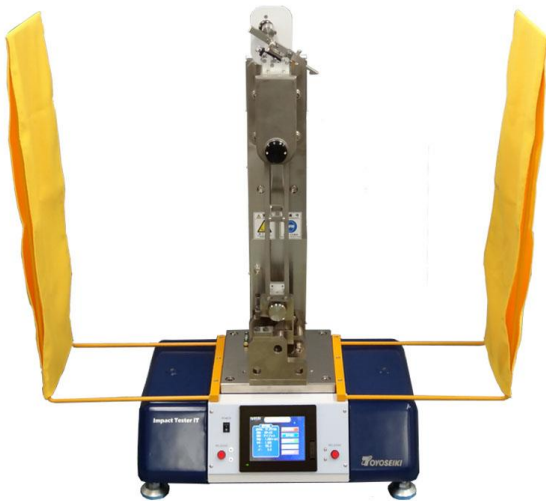
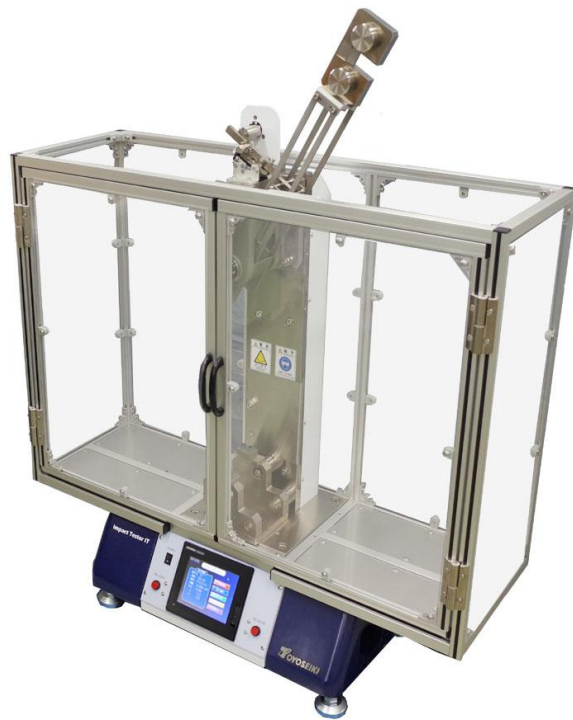


## No.556 Impact Tester Model IT

*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"> <li>■ Lifting angle (<math>\beta</math>)</li> <li>■ Absorbed energy (W)</li> <li>■ Absorbed energy per unit sectional area (ak)</li> </ul>
Units	<ul style="list-style-type: none"> <li>■ kJ/m<sup>2</sup></li> <li>■ kJ/m</li> <li>■ kgf·cm/cm</li> <li>■ ft·lb/in</li> </ul>
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"> <li>■ Charpy: ISO 179 (JIS K 7111), ASTM D 6110</li> <li>■ Izod: ISO 180 (JIS K 7110), ASTM D 256</li> <li>■ Tensile-impact: ISO 8256 (JIS K 7160), ASTM D 1822</li> </ul>

## Touch screen display

The touch screen display is divided into three main sections:

- Main menu:** Shows 'Hammer info' for Hammer No. 1: JC010J, Standard: JIS, Class: Charpy, Weighing: 1.00 [J], WR: 0.536,  $\alpha$ : 150.0,  $\alpha'$ : 149.2. Buttons include 'Test start', 'Hammer select', 'Whiff angle', 'Data list', and 'Setup'.
- Setup:** Allows configuration of 'Machine test' (Machine test), 'Display language' (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<sup>2</sup>). It also shows the present date and time: 2013/12/13 13:53.
- Pendulum selection:** A 'Hammer select menu' with 10 options (1-10) such as JI010J, JI275J, AI030J, AI060J, JC020J, JC040J, JA075J, JB150J, AB080J, and AB150J. Buttons include 'Contents change', '1/1', and 'Delete'.

The touch screen display also includes three data-related sections:

- Impact test:** Shows 'Impact test' with fields for Lot name (TEST1), Current angle ( $\beta$ : -150.0, Whiff angle: 86.0, Weighing: 1.00), Date (13/12/18 15:29), Hammer No. (1: JC010J), N (1), width (8.00 mm), and thickness (4.00 mm). A large display shows 31.21 [kJ/m<sup>2</sup>]. Buttons include 'Detail of data' and 'Lot update'.
- Detailed test data:** Shows 'The test data details' for Name TEST2, Hammer No. 1: JI010J. It displays a table of results:
 

	W [J]	ak	$\beta$ [deg.]	W [J]	ak
Max	1.1686.334	0.61119.184	80.3	0.61119.184	80.3
Min	0.61119.184	57.7	1.1686.334	57.7	1.1686.334
Ave	0.8827.637				
Standard deviation	0.227.0035				

 Buttons include 'Output' and 'Sample size'.
- Past data search:** Shows 'Past data search' with instructions to touch directly when changing settings. It includes fields for Search start date (13-06-01), Search end date (13-07-02), Class (Izod), Weighing (0.00), and Name. A grid for 'and or non' is present. Buttons include 'Return' and 'Search Start'.

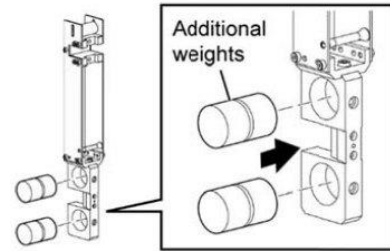
## Charpy, Hammers

### ISO 179 (JIS K 7111)

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

\*Using additional weights

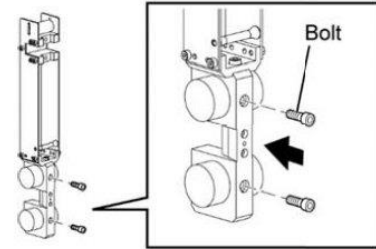
**Bold face:** Short length hammer



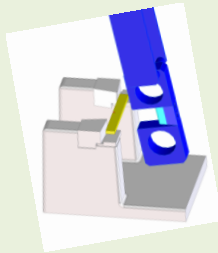
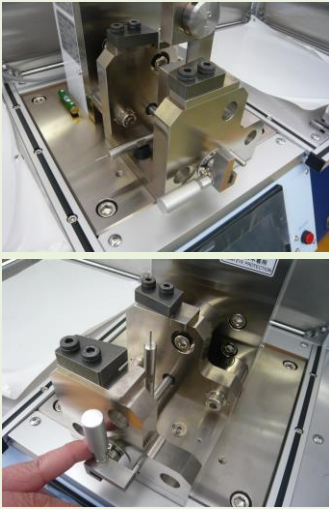
### ASTM D 6110

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

\*Using additional weights



## Charpy, Fixtures

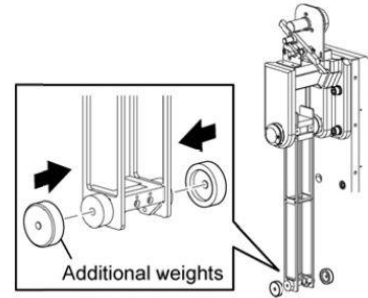
	Name	Model	
1	Charpy fixture For ISO 179 (JIS K 7111) <ul style="list-style-type: none"> <li>■ Specimen length (l): 80mm</li> <li>■ Specimen width (b): 10mm</li> <li>■ Specimen thickness (h): 4mm</li> <li>■ Span: 62mm</li> </ul>	JCHBAS	
2	Charpy fixture with centering unit For ISO 179 (JIS K 7111) <ul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

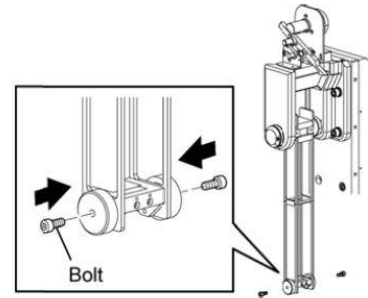
\*Using additional weights



### 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) &amp; ASTM D 256</p> <p><b>ISO 180</b></p> <ul style="list-style-type: none"> <li>■ Specimen length (l): 80mm</li> <li>■ Specimen width (b): 10mm</li> <li>■ Specimen thickness (h): 4mm</li> </ul> <p><b>ASTM D 256</b></p> <ul style="list-style-type: none"> <li>■ Specimen length (l): 63.5mm</li> <li>■ Specimen width (b): 12.7mm</li> <li>■ Specimen thickness (h): Please specify</li> </ul>	IZBASE	

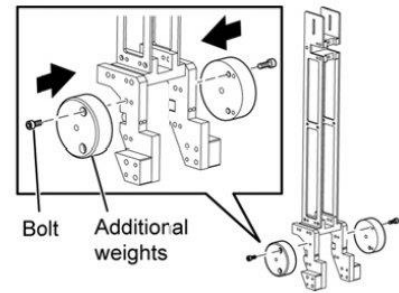
## Tensile-Impact, Hammers

### ISO 8256 (JIS K 7160)

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

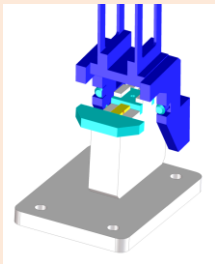


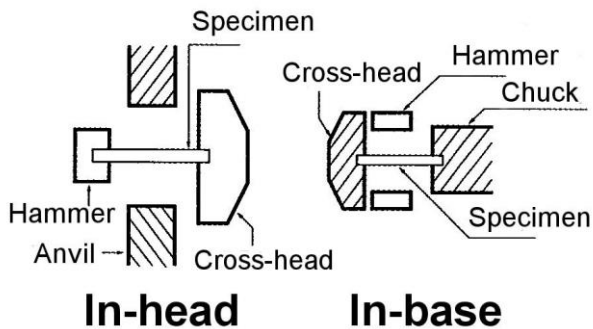
### ASTM D 1822

	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)**

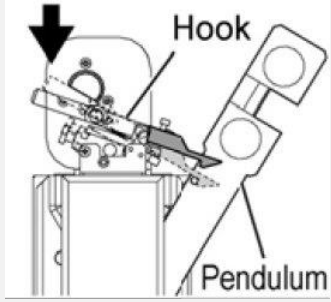

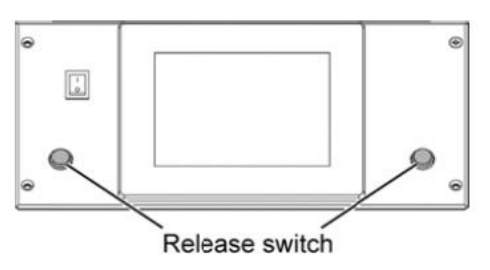
	<b>Name</b>	<b>Model</b>
1	In-base (Method A), 15g	JTA015
2	In-base (Method A), 30g	JTA030
3	In-base (Method A), 60g	JTA060
4	In-head (Method B), 15g	JTB015
5	In-head (Method B), 30g	JTB030
6	In-head (Method B), 120g	JTB120

### **ASTM D 1822**

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

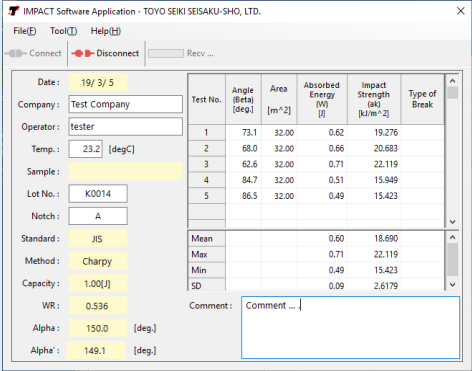

**■ OPTIONS (Other than hammers & fixtures)**

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>Hammer brake</p>	<p>ITBK</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**

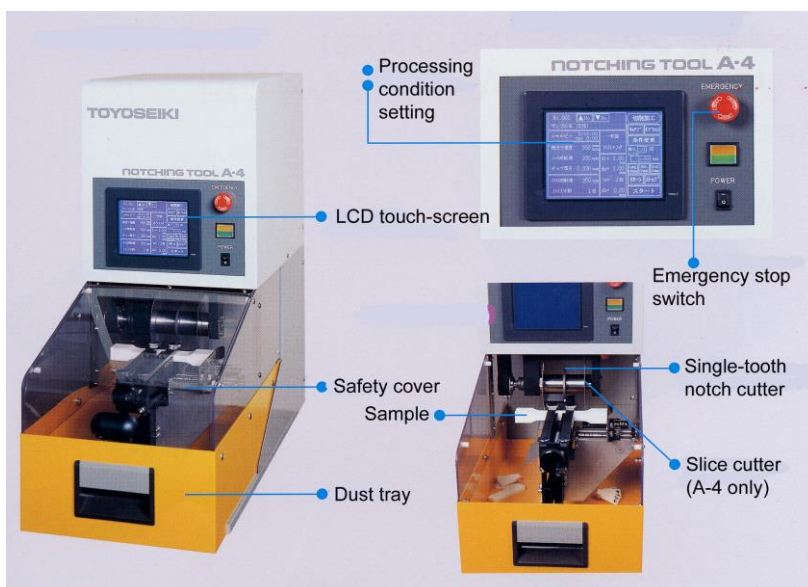
### ■ APPLICATION

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"> <li>■ Notching</li> <li>■ Specimen's ends slicing</li> </ul>	<ul style="list-style-type: none"> <li>■ Notching</li> </ul>
Specimen clamp	<ul style="list-style-type: none"> <li>■ Length: 63.5 to 200mm</li> <li>■ Height: 3 to 15mm</li> <li>■ Thickness: Max. clamp clearance 100mm (=4mm x 25 specimens)</li> </ul>	
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"> <li>■ Diameter: Ø75mm</li> <li>■ Angle: 45°</li> <li>■ Tip-radius: 0.25mm</li> <li>■ Material: SKH (High speed tool steel)</li> <li>■ Single-tooth type</li> </ul> (1 piece included as a standard)	
Standard slice cutter	<ul style="list-style-type: none"> <li>■ Diameter: Ø100mm</li> <li>■ Thickness: 1mm</li> <li>■ Material: SKH (High speed tool steel)</li> </ul> (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"> <li>■ Safety cover with interlock</li> <li>■ Emergency stop switch</li> </ul>	
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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