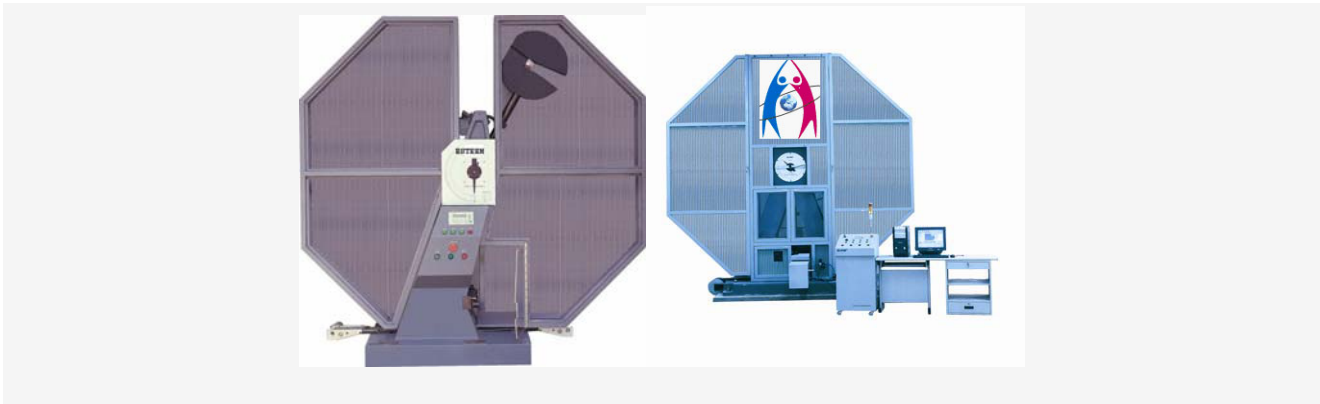


## ESTEEM INDUSTRIES INC.

### PENDULUM IMPACT TESTING MACHINE FOR METAL CHARPY IMPACT ESTA SERIES 40,000J.

#### ESTA-PIT101 PENDULUM IMPACT TESTING MACHINE



#### DESCRIPTION

The pendulum impact testing machine is a solid unit specially designed for engineering lectures. It is used for performing the notched bar impact bending test with increased impact energy up to 300Nm in normal circumstances, however in this special case we are manufacturing it to deliver 21435.936 Nm energy. Two impact energy settings are available using an additional weight on the hammer. With this unit, a quality test can be performed on different metallic materials. The unit can, however, also be used for non-metallic specimens. The notched bar impact work required to deform the specimen can be read off directly from a trailing pointer on a large scale. An electromechanical two-hand trigger increases safety for the user. As an accessory, the system can also be equipped with an electronic goniometer, a measuring amplifier and software so that measured values can be read out on a PC and evaluated there. A protection cage for the impact tester is required to ensure a safe and hazard-free operation, i.e. WP 410.50.

## **ESTA- SERIES**

The model ZBC2000 series pendulum impact tester comes from SANS pendulum impact testing machines series family, fashionable design and complete assembly with SANS high technology satisfied with impact resistance tests of metal material under dynamic loading, It is widely applied into the following industries: manufacturer of metal material, quality control of products, institutes and colleges, R&D....

*“COMPLY WITH ISO R148, ISO R83, EN10045, ASTM E23, API RP 5L3-1996 AND GB/T8363-2007”*

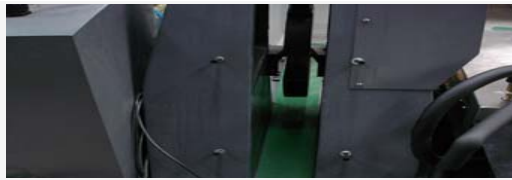
### **KEY FEATURES OF ESTA-PIT101 PENDULUM IMPACT TESTING MACHINE**

Apply industrial PLC to control pendulum, and high precision rotary encoder to measure striker real time position. The whole system is stable, reliable and accurate.

2. A mini LCD 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.
3. Traditional analogue round display inclusive of drag-pointer and scales for immediate display of the used impact energy in Joule.
4. Optional computer with software control is available to realize semiautomatic operation. Operator only need charge specimens. Others can be controlled by software.
5. Optional specimen feeding system is available. Combined with computer and software, fully automatic operation can be realized.

6. Optional cooling chamber is available to satisfy cold specimen test down to -100 degree C.
7. One-piece cast frame design of seat and column provide high stability and rigidity.
8. Front and rear columns are symmetrical. Pendulum arm is designed of cantilever beam support, with simple structure and high machined precision.
9. Apply high precision bearing with small friction. Absorbing energy without loading is less than 0.3%.
10. Double reduction gear system replaces old style drive system with high efficiency and avoiding transmission failure.
11. Round pendulum head design reduces windage losses to the most. Striking bit is fixed by bolts and wedge pressing blocks, and easy to change. High rigid pendulum arm prevents axial and transverse vibrations.
12. Exchangeable pendulum is simple to change to satisfy impact energy of 150J, 300J, 450J, 600J, 750J under normal conditions but in this specialized case it would be made to the extent of 40,000 J.
13. Electromagnetic release of pendulum hammer.
14. Electromagnetic clutch for braking the pendulum and lifting to it to its initial position. A damper is equipped to prevent strong bump when clutching.
15. Be equipped with full-closed enclosure with nice appearance and high safety

### 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.

## OPTIONAL SPECIMEN FEEDING SYSTEM AND COOLING CHAMBER



### FEATURES

- Specimen rack can accommodate 40 pieces specimen
- Cooling chamber can accommodate 40 pieces specimen
- The modular system makes an economical adaptation to specific customer requirements possible
- Pneumatic actuation provides high positioning accuracy of the automatic specimen feeding, eliminating human influences
- Reproducibility of the testing requirements even over a long operating time, no influences through different operators
- Smoothly connected to impact tester, fully automatic, laborsaving, high productivity and safety

## CUSTOMIZED MODEL FOR METAL DT TEST

Only used for dynamic tear testing (DT test) of metallic materials, impact energy is 40,000J.

- Fully automatic control allows program input only by pressing the buttons.  
Easy to operation and high efficient.
  - Automatically brake after impact then raise the pendulum and lock.
- Compatible control panel and display can satisfy customer's requirements. It can display impact absorbing energy, pendulum raising angle, energy loss and continuous impact frequency.
- High impact energy is suitable for black metal test with more impact ductility, such as steel and alloy.
- It fully complies with ASTM E604 <Standard Test Method for Dynamic Tear Testing of Metallic Materials>




**Note:**

*DT test is to determine absorbed energy by dynamic tear specimens in Charp impact test in accordance with relative standards (I.e. dynamic tear energy means the dynamic tear resistance of specific thickness metallic material), and to determine fiber fracture surface ratio.*

## ESTA-PIT101 PENDULUM IMPACT TESTING MACHINE

### TECHNICAL SPECIFICATIONS OF ESTA SERIES

<b>MODEL NO</b>	 <p style="text-align: center;"><b>ESTA-PIT101 PENDULUM IMPACT TESTING MACHINE</b></p>
MAX IMPACT ENERGY (J)	40,000 Joules
PENDULUM MOMENT (Nm)	21435.936
Distance from Striking center to support center	6,900 mm
Raising angle	135° Degree
Angle resolution	0.1° Degree
Impact Speed	9.689 m/s
Anvil span	1350 +/- 0.8mm
Radius of Anvil	101.6 +/- 0.8mm
Angle of taper of Anvil	11° Degree

Radius of Striker Edge		101.6+/-0.8mm
Angle at Tip of Striker		30" Degree +/-1" Degree
Width of Striker		296 mm
Specimen Dimensions		(1448+/-16mm)*(324.8+/-8mm)*40~128+/-8m
Dimensions( LXWXH)		15040mm*10940mm*14640mm
Weight (Net)		32,500 Kgs
Power Supply		Three Phase 380V+/-10%  OR  440 V+/- 10%
<b>STANDARD ACCESSORIES</b>		<ul style="list-style-type: none"> <li>☐ <b>Main frame, One set (Including one piece Photoelectric encoder)</b> <ul style="list-style-type: none"> <li>☒ <b>LCD Monitor, One set</b></li> <li>☒ <b>Dial Display: One set</b></li> </ul> </li> <li>☒ <b>Charpy Pendulum: One piece</b></li> <li>☒ <b>Charpy support and Anvil :One set</b></li> <li>☒ <b>Base adjusting device, One set</b> <ul style="list-style-type: none"> <li>☒ <b>Safety shield, One set</b></li> <li>☒ <b>Motorized, One set</b></li> <li>☒ <b>Printer One set</b></li> </ul> </li> <li>☒ <b>Tool Kit : One set(Neumatic)</b></li> <li>☒ <b>Automatic Specimen feeding system</b></li> <li>☒ <b>Specimen collection and Filtering Device.</b> <ul style="list-style-type: none"> <li>☒ <b>Computer and Software</b></li> <li>☒ <b>Cold Chamber</b></li> </ul> </li> </ul> <p><i>Also as First time Business Gesture, we have decided to provide you our complete range of INNOVATIVE HMI (TFT) Control panel, to provide you Digital Data Controller and Loger to measure pressure and other details which would also provide you the option to download all the details straight onto the "PEN-DRIVE" for value of \$USD 1,000 FOR Absolutely free of cost.</i></p>

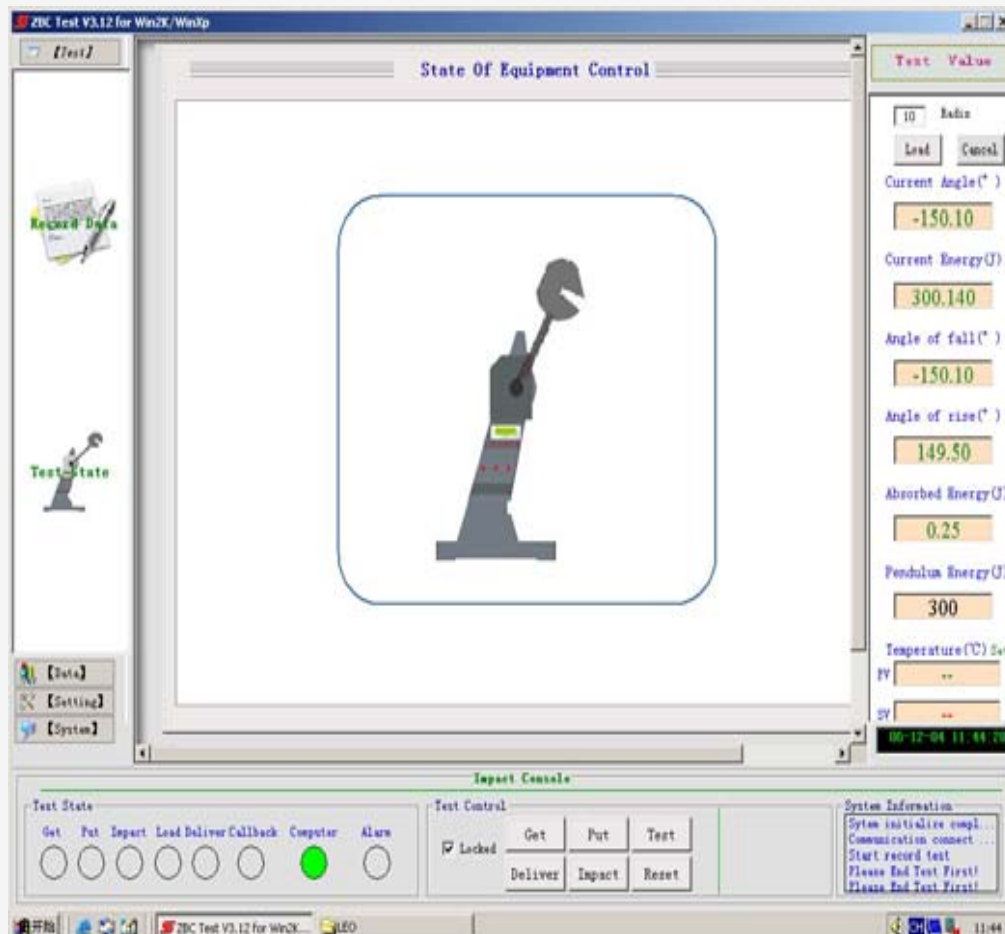
### TECHNICAL SPECIFICATIONS OF COLD CHAMBER

MODEL NO	ESTA-CC-103 COLD CHAMBER  optional	ESTA-CC-102 COLD CHAMBER  included
Cooling method	liquid nitrogen (LN <sub>2</sub> )	Compressor
Temperature range	Ambient~-100°C	Ambient~ -60°C
Cooling speed	20 minutes From ambient to -100°C	80 minutes from ambient to -60°C
LN <sub>2</sub> cylinder capacity	15L/160L (customer order)	-----
Weight	200Kg	80Kg
Power supply	Single-phase, 220V2A 50Hz	Single-phase, 220V8A 50Hz
Space for specimen	120mmX120mmX80mm (LXWXH)	120mmX120mmX80mm (LXWXH)
Specimen accommodation	120 pieces Charpy specimen	120 pieces Charpy specimen
Temperature gradient	≤0.5°C	≤0.5°C
Temperature vibration	≤±1°C	≤±1°C
Temperature accuracy	0.3°C	0.3°C
Temperature resolution	0.1°C	0.1°C
Cooling medium	Liquid nitrogen	anhydrous alcohol (99.7%)

*NOTE: ESTA-CC-103 COLD CHAMBER IS OPTIONAL, THERE WOULD BE ADDITIONAL CHARGES FOR THIS COLD CHAMBER, AS THIS IS NOT INCLUDED IN THE PACKAGE*

## SOFTWARE

The ZBC Test software provides real-time display pendulum raising angles, impact energy and other parameters. All operations can be completed in the software, like pendulum raising, releasing, impacting, and returning. Test results can be saved automatically to Access database, or easily exported to Excel. The software is simple and easy to operate.





## PAYMENT TERMS COMMON FOR ALL THE ABOVE MENTIONED MODELS

### PAYMENT TERMS :

#### Who are our Bankers and what are our Banking particulars?

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#### Our Bankers are:

Union Bank Of India,  
SCF-3, Sector 21-C, Chandigarh,  
UT, INDIA.  
SWIFT CODE: UBININBBCHA

**Esteem Industries INC. A/C No.: 398905010050309**

May you like to Transfer Payment (T/T) to us, then depending upon the currency of remittance kindly choose one of the following methods:

#### **PAYMENT PROCEDURE FOR USD \$**

**PAYMENT PROCEDURE** : For making SWIFT Transfer payment of US\$ \_\_\_\_\_, please give the following information to your bank:

#### **Intermediary Banks:**

1. Citibank. New York ,Swift code: CITIUS33
2. Bank of America. New York, Swift code: BOFAUS3N
3. Bank of New York. New York, Swift code: IRUTUS3N
4. Standard Chartered Bank. New York, Swift code: SCBLUS33
5. JP Morgan Chase Bank. New York, Swift code: CHASUS33
6. American Express Bank. New York, Swift code: AEIBUS33

#### **Beneficiary Bank:**

Union Bank Of India,  
SCF-3, Sector 21-C, Chandigarh,  
UT, INDIA.  
Swift Code: UBININBBCHA  
Beneficiary: Esteem Industries INC

**Account No. 398905010050309**

Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.

#### **PAYMENT PROCEDURE FOR GBP £**

**PAYMENT PROCEDURE** : For making payment of Sterling Pound £ \_\_\_\_\_, please give the following information to your bank:

#### **Intermediary Banks:**

1. National Westminster Bank. London, Swift code: NWBKGB2L
2. HSBC London (Midlands), Swift code: MIDLGB22

Beneficiary Bank: Union Bank Of India,  
SCF-3, Sector 21-C, Chandigarh,  
UT, INDIA.

Swift Code: UBININBBCHA

Beneficiary: **Esteem Industries INC**

**Account No. 398905010050309**

Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.

**PAYMENT PROCEDURE FOR EURO**

PAYMENT PROCEDURE : For making payment of Euro \_\_\_\_\_, please give the following information to your bank:

**Intermediary Bank:**

1. Commorz Bank Dusseldorf Germany, Swift code: COBADEDD
2. Bank commercial Italiana, Swift code: BCITITMM
3. Societe Generale Paris, Swift code: SOGEFRPP
4. ABN Amro Bank. Amsterdam, Swift code: ABNANL2A

Beneficiary Bank: Union Bank Of India,  
SCF-3, Sector 21-C, Chandigarh,  
UT, INDIA.

Swift Code: UBININBBCHA

Beneficiary: **Esteem Industries INC**

Account No. 398905010050309

Bank charges (fees) would be shared by buyer. Please fax us a copy of Transfer advice so that we can track payment.

Note: Please make sure we are INFORMED before and after sending any payment to our Bank Account.

**E-MAIL : [INFO@ESTEEM.IND.IN](mailto:INFO@ESTEEM.IND.IN)**

