

THE AEC 1113- HCD CREEP TESTER

PRODUCT DESCRIPTION

THE AEC 1113- HCD CREEP TESTER is floor standing dual column mainly used for testing of various samples of Ferrous & Non Ferrous Metals, in Tensile/ Creep tests etc. as per national and international standard like ASTM E139, IS 694:2010, IS 1554(P-1&2):1988, 7098(P-1&2):1988, 9968(P-1&2):1988, 8783(All Parts),398(P- 1 to 5) etc.

THE AEC 1113- HCD CREEP TESTER is calibrated by NABL/ Govt. accredited laboratories with calibration certificate.

PART NUMBER

THE AEC 1113- HCD CREEP TESTER

FEATURES:-

- **THE AEC 1113- HCD CREEP TESTER** fully encased, ergonomically designed and precision sliding bearing on four hard chromium plated columns for zero play/ backlash type with for increased lateral stiffness and linear crosshead travel.
- Lever ratio 20:1 with automatic lever beam leveling device with manually operating draw head motor and electrically to move up and down.
- Spirit level on top of lever arm in for horizontal position of the beam.
- Draw head moves down automatically during testing
- De-clutch the motor assembly from the gear assembly then specimen assembly moved up and down manually by hand wheel.
- Test over the temperature range of 100°C to 1000°C with an accuracy of ± 5 deg C.
- Accuracy of load $\pm 0.5\%$ of the full load cell capacity without affecting the resolution of the data as per IS: 1969, DIN EN ISO 7500-1 (DIN 51220, DIN 51302).
- Digital strain measurement via LVDT with least count 0.001 mm and calibration of LVDT with accuracy of $\pm 0.5\%$.
- Automatically shut off the Electrical power to the machine after breaking specimen.
- Simple in construction and control for easy operation and maintenance.
- Wide range of grips to suit variety of materials and shapes.



SAFETY FEATURES:

All safety device/parameters duly approved by National/International bodies as per their directives.

- Control panel visible indication and software language in English.
- Dual level mechanical limit switches in front of machine.
 - ❖ First level switch stop the crosshead.
 - ❖ Second level limit switch cut the power to the machine.
 - ❖ First level limits ever fail in the future.
- Frame structure capacity 150 % extra of working capacity of load frame.
- Automatic motor drive alarms to monitor over/under voltage, current, and temperature.
- Automatic transducer for Over temperature and over travel protection,
- Emergency stop switch in front of the machine.

SPECIFICATIONS

MODEL	AEC1113- HCD 100KGF	AEC1113- HCD 250KGF	AEC1113- HCD 500KGF	AEC1113- HCD 1000KGF
Maximum Capacity (kgf)	100	250	500	1000
Power supply single phase	200-240V & 50Hz	200-240V & 50Hz	200-240V & 50Hz	200-240V & 50Hz

ACCESSORIES:

All grips, accessories and fixture as per national and international standard.

- Upper and lower loading bars (Pull rods) diameter as per rated capacity model and operating temperature up to 1100°C (like Mar-M-247 / M-246 super alloy).
- Threaded specimen adaptors with M6 to M20 operating temperature up to 1100°C (like Inconel-718/ Mar-M-247 / M-246 super alloy).
- Split furnace-3-zone vertical split cylindrical furnace with mountings, embedded Kanthal Al heating element wire wound, 3 zone,3kW, 220V, operating temperature of ambient to 1000°C. Overall length is 300 mm and bore diameter of 150 mm. The split furnace mounted as a tubular furnace in the creep machine.
- Three zone temperature controller with thyristor power pack and programmable Eurotherm controller Temperature ambient to 1000°C with accuracy $\pm 1^{\circ}\text{C}$, zero voltage switching programmable controller with PID microprocessor, L.ED temperature indications, individual zone power indication, R type thermocouple sensors and power supply 200 to 240 VAC, 50/60 Hz, 1 Ph.
- High temperature nickel anti-seize compound paste

- LVDT with cable and connector with signal conditioner with 0-10 V DC output and digital display.
- Data logger for logging LVDT, thermocouples and load cell signals and interface with PC and software of machine controlled 05 machine at a time.
- Round button adaptors for M6 to M20 size specimens.
- Tensile grips desired capacity for round and flat tensile test pieces like wedge grip, wise grip, self clamping grip and screw grips etc
- All cables, cards, wires and interfacing system.
- Compatible latest Computer with printer and UPS
- Instruction/ operation & maintenance/service manual with circuit diagram/drawings for the Machine in English language soft and hard copy wit IQ/OQ and PQ.

FOR COMPUTERISED

COMPUTER CONTROLLER, INTELLIGENT CONTROL UNIT (DATA ACQUISITION) AND SOFTWARE:

It is user friendly multifunctional & fully customized software. It is a menu driven and window 7/ latest version based with graphical user interface.

- Basic materials measurement, test control, report generation
- Analysis & control of test result & generation of load extension curve.
- Real time numerical displays (digital or analog) for test data as well as facilities for generating graphs and tables of processed test results. Graphical user interface as per the Microsoft windows standards.
- Security with user login passwords.
- Auto and manual scaling option of plots.
- Two different results tables one is input parameters and output parameters.
- Live runtime test plots with automatic scaling and zoom-in/out.
- Recall test data previously done.
- Storage and retrieval of test data.



COMPUTERISED OPERATION

THE DATA BASE STARTS TO LOAD

- **Enter a user Name.**
- **Enter a Password.**
- **Click LOGIN / ENTER.**

FEATURES :- (THE VIEW OF FUNCTION ACCORDING TO THE ICONS)

- **OFFLINE:** - Click to make ONLINE, It turns to MACHINE IDLE.
- **STOP:**-it can uses to STOP test, start, up, down etc. (Emergency stops also)
- **START A TEST:**-make a TEST.
- **UP:**-CROSS HEAD.
- **DOWN:** - CROSS HEAD.
- **RESET LOAD:**-Before and After a TEST.
- **RESET DISP.:**-Before and after a TEST.
- **CAL:**-AUTO CAL.
- **GRAPH SET:** - One can adjust GRAPH according to the required LEVEL.
- **INPUT:**-Enter ALL INPUTS before a TEST.
- **ADMIN:** is Used for selection of test modes.
- **COMM SETTING:**-Select Required COMPORT.
- **REPORT:**-One can view ALL TYPES OF REPORTS.
- **Exit:** - From TEST WINDOW



An ISO 9001-2015 Certified Company
ASHIAN, 831, WESTEND MALL DISTRICT CENTRE, JANAKPURI, NEW DELHI-110058
PH: 91 9871112859 FAX: 91 11 25542160 MOBILE NO.: 91 9212112859
E-MAIL: info@ashianengineers.com, sales@ashianengineers.com
www.ashianengineers.com, www.ashianecom.com