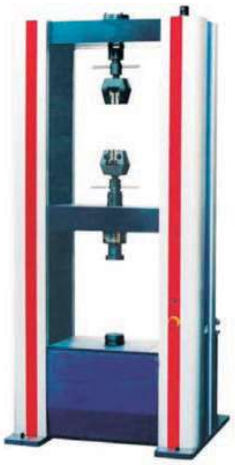
COMPUTER CONTROLLED ELECTRO-MECHANICAL UNIVERSAL TESTING MACHINE

(BALL SCREW DRIVEN)
Main Application:

EDW Series is a new kind of electronic universal testing machine produced by ENKAY, which adopts the most advanced and reliable load frame structure of ball screw electric mechanical universal testing machine of the world. The driving system adopts Japanese AC servo system and motor. The PC controlling system is able to realize the close-loop control of the parameters such as loading force, specimen deformation and crosshead stroke etc. The system realizes the screen display, online diagram drawing, testing curve changing, fold curve collation and auto analysis of test results, creation of test report. Especially, the application of the control mode can be manual control or computer programming control which makes the cyclic tests so easy.

By simply switching of different accessories, EDW series Universal testing machine can make tests on most of materials and components to suit your needs.

EDW-10E



EDW-50E

LOAD CELL
Overload protect High accuracy Force transducer

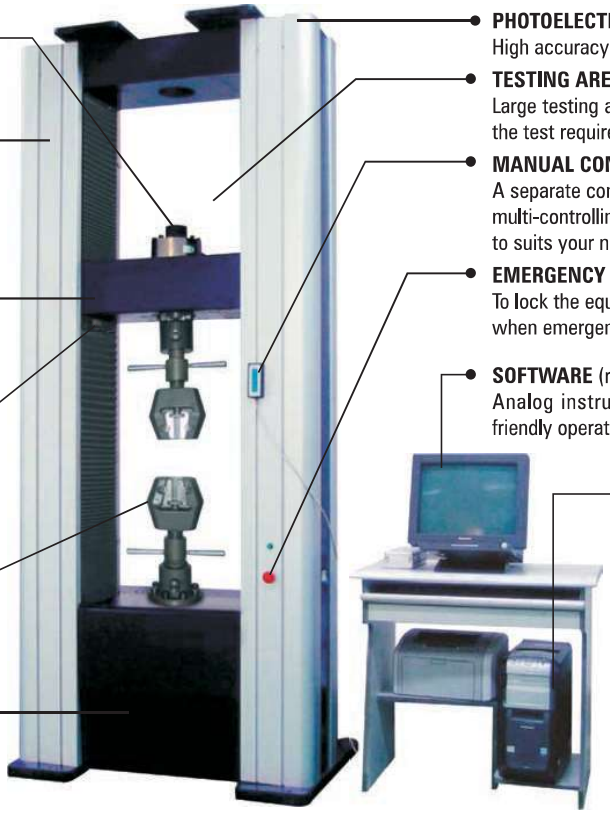
MACHINE COVER
Aluminum alloy cover and steamlined design; Optional color label on side of cover according to customized need.

CROSS HEAD & STRUCTURE
High intensity testing machine structure and crosshead, assure the accuracy during the tests.

LIMIT SWITCH
Cross head displacement restrict, Un-tangency photoelectric transducer
Safe and reliable to control

TEST ACCESSORY
Exchangeable testing accessory to satisfy different test needs. Easy and reliable to change

JAPANESE SERVO MOTOR & SYSTEM
Full digital Japanese AC servo and high accuracy servo motor, High efficiency, Low noise and stable load transmission



PHOTOELECTRIC ENCODER
High accuracy photoelectric coder

TESTING AREA
Large testing area, suitable for most of the test requirements.

MANUAL CONTROL
A separate control box is set to provide multi-controlling of crosshead up/down to suits your needs.

EMERGENCY STOP
To lock the equipment fast and reliably when emergency situation occurs.

SOFTWARE (refer to software part)
Analog instrument technology with friendly operation interface.

CONTROL CARD
(refer to software part)

Plug In PCI control card, suits all kinds of personal computer and main board. Full digital measure and control circuit provided with Load, displacement & Deformation different measuring channel. Close loop control by simple software Configuration.

Main Application

FEATURES

Complete computer controlled: The whole measuring and controlling system adopts specific PC control card used for testing machines, which has very high reliability.

Supporting multi-transducers the database management of the test data which are stored according to the standard format; facilitating other software to analyze and transfer.

Perfect programming by auto program control, every control mode can smoothly shift from one to another. Fulfilling the test requirement of all kinds of materials with every test standard home and abroad. Control software has the auto-adjusting function of test hardness, which assures that the system works with every kind of specimen hardness.

Perfect graphic function for the arbitrarily magnifying, decreasing, equaling, adding, indicative display and print of all kinds of test curves, the test point searching as well as the simultaneous display and print of several kinds of test curves. Data processing supposes self-disposing and input disposing of graphic human computer interaction, which facilitates the check and contrast of the test result.

The user can self -define the output of the test report, which makes the report format have very high flexibility.

Modularization design facilitates the software upgrading, function spreading as well as the second development.

Standard Accessory for WDW Series:

Tension grip jaws (Wedge action Grips)	1 set
Grips for round specimen	4pcs for each
Grips for flat specimen	4pcs for each
Compression test attachment	1 set
Bending test attachment	1 set
Tool kit	1 set
Extensometer	1 set
Photoelectric coder	1 pc
Load cell	1 pc

Data-processing system:

(ENKAY plug-in ready to use controller)	1 set
Software Wintest	1 set
PC + Printer	1 set
Servo speed adjusting system	1 set

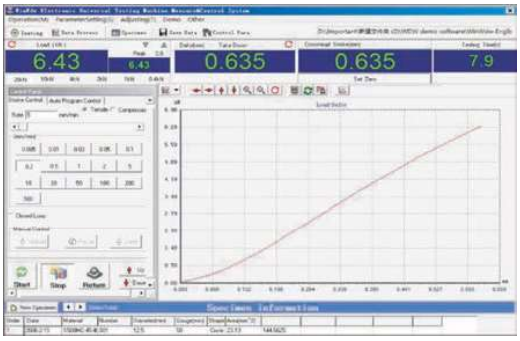
Tension

Compression

Bending

MATERIAL TESTING MACHINE EDW SERIES

SOFTWARE INTRODUCTION

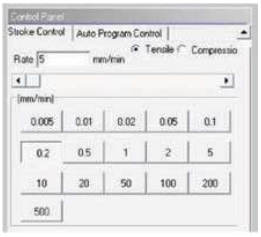


Test speed manually adjustable

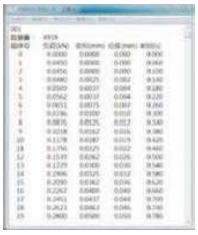
Win Test Control Software

Easy to control and friendly interface MS windows based interface, easy and fast to reach different functions, suitable for most of operators using habits. Full digital display and computer control Adopt ENKAY Controller, Fast response and reliable to parameter gathering. Realize the digital adjustment and zeroing of LOAD, DEFORM and DISPLACEMENT as well as PID parameter adjusting.

Manual or Program control of test process Win Test Software provides multi functional control mode: STROKE / PROGRAM



Single material test report



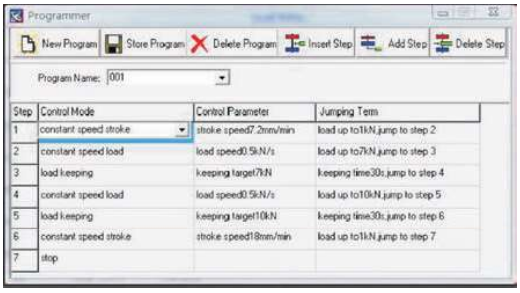
Coordinates point test report

Stroke and Program Control Mode

In stoke control mode, operator can define customized test speed to conform with different test standard. Preset limit position and return position will secure the safety and return the crosshead automatically after test finished.

In program control mode, the testing machine is controlled by conditional programs, operator can input each condition to regulate test process, software can realize constant parameter control through this function.

Batch material test report



High Performance A/D Card

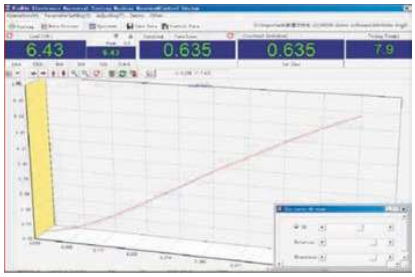
Test load and peak value display

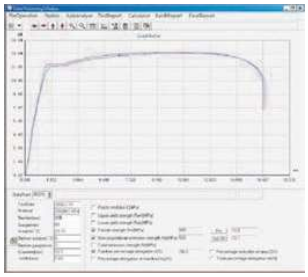
Deformation and stroke display

- Perfection of diagramming functions.
- Realize the testing diagram online display and reproduction.
- Zoom in or out the test diagram at any place with any rate.
- Auto suit the diagram according to display resolution.
- "Diagram fold" to enable with material difference analysis.
- Print "section diagram" function
- Coordinates point tracing to check the test results in each point.

Multilevel Authorization Access The software regulated different access level to protect machine calibration parameters.

Reliable to secure the information safety and easy for software maintenance.





Test Report Creation

- The Win Test provide different way to create test report
- Single material test report
- Batch material test report
- Customized test report
- Coordinates point test report

MAIN TECHNICAL SPECIFICATION

- Perfection of diagramming functions Realize the testing diagram online display and reproduction.
- Zoom in or out the test diagram at any place with any rate.
- Auto suit the diagram according to display resolution.
- "Diagram fold" to enable with material difference analysis.
- Print "section diagram" function
- Coordinates point tracing to check the test results in each point.

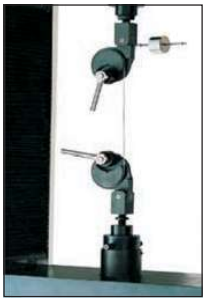
Specification	EDW-300E	EDW-200E	EDW-100E	EDW-50E	EDW-20E/10E/5E	EDW-2E/1E
Features	Adopting speed-adjusting system and motor full digital measuring and controlling system					
Intensity (kn/mm)	600	400	300	250	60	10
Lood range	0.4%-100% of the max load					2-100% of the max load
Accuracy of test load	<+ (accuracy level + 0.5%					<+1%
Frame accurtacy	all of the assembles are mode in high precision processing centre mochine tools. guarantee the accuracy of the machine					
Precision of Ball Screws	16μm/300mm E level all the ball screw are mode by miling					
Accuracy of deformation	<+ 1% withing the 2%-100% full range of the extensometer					
Crosshead strake accuracy	0.001mm					0.001mm
Accuracy of indication Value of test load	<+1% (accuracy level + 0.5%)					
Reslution of load	1/200000 of the max load force					
Scope of deformation measure (normal extensometer)	2%-100%FN					
Accuracy indcation of deformation (normal extensometer)	within +0.5% of indication volue					
Scope of deformation Measure (High deformation extensometer)	10mm-800mm					
Accurocy Indcation of deformation (High deformation externsometer)	with the +0.5% of the volue					
Resolution of crosshead stroke	0.001mm					
Adjustment scope of test speed under load control mode	0.005-5%FN/S					
Accuracy of test speed under Load control mode	Test Speed <0.05% F/s. within the +25 of the preset value while Test Speed>0.05%FN/s. within the +0.5% of the preset value					
Adjustment scope of deformation rate	0.005-5%FN/S					
Accuracy of deformation rate	Test Speed <0.05% F/s. within the +25 of the preset value while Test Speed>0.05%FN/s. within the +0.5% of the preset value					
Accuracy of stroke speed	Test speed<0.001mm/min. withing the 1.0% of installed value. while test speed> 0.001mm/min. withing the 1.0% of installed value.					
Scope ofthe consistant load deformation and displocement contral	0.5%-100%FN/S					
Accurocy of the consstant load deformation and displocement contrial	Installed value>10%Fb.within the 0.1% of the installed value: while installed value<10%Fb.within the 0.1% of the installed value:					
Length of the test space (mm)	600	600	600	600	600	800
Width of the test space (mm)	575	600	600	575	370	350
Dimension (mm)	1110x785x2525	1110x770x2558	1010x770x2210	945x654x2176	775x500x1717	520x350x1500
Test accessory	Standard accessary with different customized test accessiry					
Weight (kg)	2000	1560	1100	700	250	100
Power (Kw)	5	3	1.5	1.3	0.4	0.5
Type of machine		Floor type			Table/floor type	Single column table type

OTHER IMPORTANT ACCESSORIES (FREQUENTLY USED OPTIONAL ACCESSORY)


Automatic Hydraulic Tension Grip


High-low Temperature Chamber


Elevated Temperature Furnace


Steel Wire Winding Tension Grip


Step-type Gripping Jaws


Shear attachment


Film & Paper Tension Grip


Puncture Attachment


Eccentric Wheel Tension Grip


E900a Auto Clamp Tenson Grips


High Deformation Extensometer

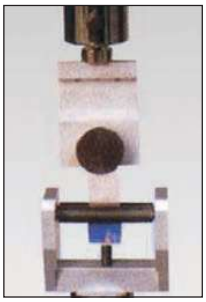

Spring Tension Grip

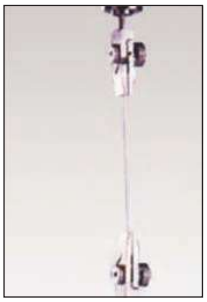

Manual Tension Grip


Opposite Clamping Grip

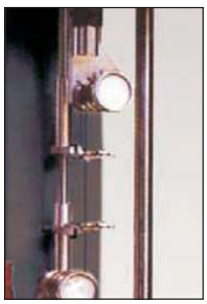

Load Cell


Small Deformation Extensometer


Peeling Test Grip


Rope & String Grip


Hard Steel Wire Grip


Silk & Thread Tension Grip


Bending Test Attachment for Automobile Bumper


Belt Shape Tension Test Attachment


Metal Piece Cupping Test Accessory


Pneumatic Opposite Clamping Grip