

# EZ50

## Materials Testing Machine

The EZ50 materials testing system combines high performance, flexibility and exceptional ease of use. It is ideal for testing applications with capacities up to 50kN (11240lbf) in tension and direct compression. The EZ50 features a twin column, twin lead screw frame, and incorporates a crosshead guidance system to prevent side loading of the sample under test. A high resolution encoder is used to measure sample extension and also to provide high accuracy speed control. The crosshead is driven by a high precision servo motor and DC servo system to achieve a wide range of speeds throughout the full load range.

The EZ50 features a multi-position control console with membrane multi-function keypad and easy to read LCD display. Test and set-up information is selectable in English, French, German, Italian, or Danish, with optional units. The machine may be programmed to perform up to ten different tests and the statistics for each test are automatically calculated. Up to six hundred results may be stored from any of the test setups. Tests may also be performed using state of the art control and analysis software NEXYGEN™ MT, via the integral RS232 interface.

A range of highly accurate, interchangeable loadcells and extensometers are available for tension, compression and cycling through zero force measurements. In addition, a wide assortment of grips, jigs and accessories are available to help you meet your testing objectives.

### FEATURES

- 10 programmable test setups
- 4 line backlit LCD
- Online statistics
- 32 bit micro controller
- Saves 600 test results
- 2 key press operation
- Data sampling rate 8 kHz
- Flash upgradable
- Easy set safety limits
- Extension resolution < 0.1 micron

### SPECIFICATIONS

|                        |   |
|------------------------|---|
| Force Capacity:        | 50kN (11240 lbf)  |
| Crosshead Speed:       | 0.1 to 250 mm/min<br>0.004 to 9.84 in/min   |
| Speed Accuracy:        | < 0.2% at steady state  |
| Travel:                | 855 mm (33.66 in)   |
| Load Resolution:       | < 0.005% of loadcell used (max)   |
| Extension Resolution:  | < 0.1micron   |
| Data Sampling Rate:    | 8 kHz   |
| Extensometer Inputs:   | Digital and analogue extensometer   |
| Data Outputs:          | Digital - RS232<br>Analogue - 10V dc max (optional)                                     |
| Load Measuring System: | Exceeds the requirements of BS EN ISO 7500-1:<br>1999. Class 0.5, ASTM E4, DIN 51221.   |
| Analysis Software:     | NEXYGEN MT Data Analysis Software and Ondio<br>Applications Builder Software (optional) |
| Supply Voltage:        | 115/230V ac $\pm$ 10% 50 - 60Hz   |
| Weight:                | 150kg (330lb)   |
| Operating Temp:        | 5° to 35°C (40°F to 95°F)   |
| Warranty:              | 1 year  |

**SPECIFICATION**  
SS-MT-6255-1103  
November 2003

**INTERNET**  
[www.ametek.com](http://www.ametek.com)  
[www.loyd-instruments.co.uk](http://www.loyd-instruments.co.uk)



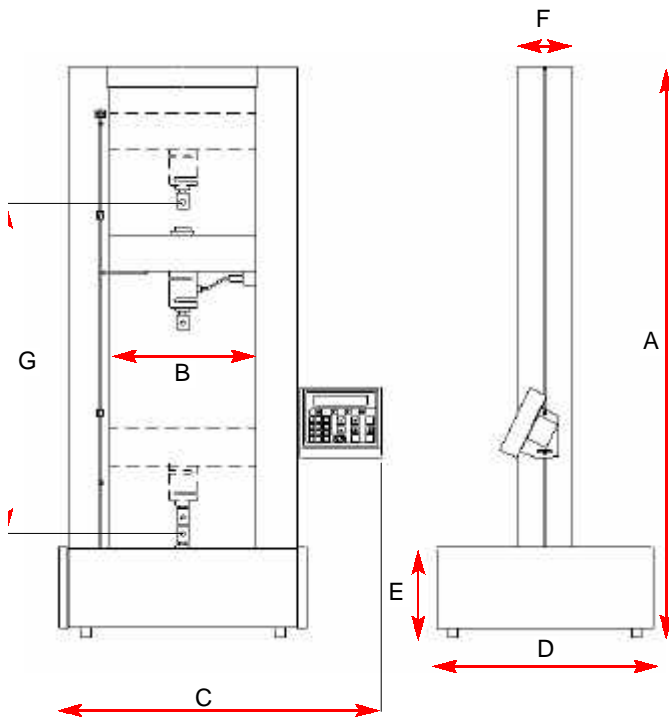
## ORDERING INFORMATION

| Model   | Part No. | Description                    |
|---------|----------|--------------------------------|
| EZ50    | 01/2830  | EZ50 with console              |
| EZ50-CC | 01/3058  | EZ50 Pogo Design* with console |

\* Note "Pogo Design" denotes machine configured to perform tests mounted above floor standing compression cage

### Machine Dimensions

|   |                | mm   | in    |
|---|----------------|------|-------|
| A | Machine Height | 1565 | 61.61 |
| B | Working Width  | 404  | 15.91 |
| C | Machine Width  | 893  | 35.16 |
| D | Machine Depth  | 596  | 23.46 |
| E | Base Height    | 240  | 9.45  |
| F | Column Depth   | 150  | 5.91  |
| G | Maximum Travel | 855  | 33.66 |



### STANDARD ACCESSORIES

#### LOADCELLS:

5 N (1.12lbf)  
 10 N (2.25 lbf)  
 20 N (4.5 lbf)  
 50 N (11.25 lbf)  
 100 N (22.5 lbf)  
 500 N (112.5 lbf)  
 1000 N (225 lbf)  
 2500 N (562.5 lbf)  
 5000 N (1124 lbf)  
 10 kN (2248 lbf)  
 20 kN (4496 lbf)  
 30 kN (6744 lbf)  
 50 kN (11240 lbf)

#### ITEM

XLC-0005-A1  
 XLC-0010-A1  
 XLC-0020-A1  
 XLC-0050-A1  
 XLC-0100-A1  
 XLC-0500-A1  
 XLC-1000-A1  
 XLC-2500-A1  
 XLC-5000-A1  
 XLC-10K-A1  
 XLC-20K-A1  
 XLC-30K-A1  
 XLC-50K-A1

#### MODEL

01/2946  
 01/2360  
 01/2950  
 01/2361  
 01/2480  
 01/2362  
 01/2419  
 01/2363  
 01/2364  
 01/2365  
 01/2417  
 01/2360  
 01/2367

#### EXTENSOMETERS:

A comprehensive range of contacting and non contacting extensometers are available. For further information see specification sheet number : SS-MT-6603

#### SOFTWARE:

NEXYGEN MT Software Package  
 NEXYGEN MT/ONDIO Software Suite

40/0658  
 40/0695

#### GRIPS & FIXTURES:

All grips up to a capacity of 50 kN (11240 lbf) can be fitted.

#### MISCELLANEOUS:

##### Standard

RS232 Cable, 9 Pin  
 Cable, Control Console (External)  
 Operators' Manual  
 Hex Key, 5 mm (0.2 in)  
 Spanner Wrench, 42 mm (1.65 in)  
 Anchor Pin, 5/8 in  
 Anchor Pin, 1/4 in  
 Grip Pin, 5/8 in Eye End  
 Grip Pin, 1/4 in Eye End  
 Loadcell Mounting Adapter, M12  
 Loadcell Mounting Adapter, M20

09/0639  
 09/0710  
 01/2839  
 92/0293  
 SPT/0244/00  
 PIN/0258/00  
 PIN/0257/00  
 PIT/0169/00  
 PIN/0061/00  
 ADT/0150/00  
 ADT/0151/00

##### Optional

RS232 Adapter, 9 Pin to 25 Pin  
 Splinter Shield with electrical interlock

ADT/0140/00  
 01/3095



## TEST AND CALIBRATION INSTRUMENTS

#### UK

Lloyd Instruments Ltd  
 12 Barnes Wallis Rd  
 Segensworth East, Fareham,  
 Hampshire, PO15 5TT  
 UK

#### America

AMETEK TCI Division  
 8600 Somerset Drive  
 Largo,  
 Florida 33773  
 USA

#### Far East

AMETEK Singapore Pte Ltd  
 10 Ang Mo Kio Street 65  
 #05-12 Techpoint  
 SINGAPORE 569059

#### France

Lloyd Instruments SA  
 3 avenue des Coudriers,  
 Zone d'activite de l'observatoire,  
 78180 Montigny-Le-Bretonneux  
 FRANCE

#### Germany

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