ELECTROPULS® E1000 ALL-ELECTRIC DYNAMIC TEST INSTRUMENT

The ElectroPuls® E1000 is a state-of-the-art, all-electric test instrument designed for dynamic and static testing on a wide range of materials and components. It includes Instron® advanced digital control electronics, Dynacell™ load cell, Console software, and the very latest in testing technology – hassle-free tuning based on specimen stiffness, electrically operated crosshead lifts, a T-slot table for flexible test set ups and a host of other user-orientated features. Powered from a single-phase supply it requires no additional utilities for basic machine operation (for example, pneumatic air, hydraulics, or water).

FEATURES

- Patented, oil-free linear motor technology for clean conditions
- Designed for both dynamic and static testing on a variety of materials and components
- High dynamic performance, capable of operating at over 100 Hz
- ±1000 N dynamic load capacity and ±710 N static load capacity
- Electrically powered from single phase main supply, no need for hydraulic or pneumatic air supplies
- Temperature-controlled air-cooling system
- High-stiffness, precision-aligned twin column load frame with actuator in upper crosshead
- Versatile T-slot table for regular and irregular grips and specimens
- Compact instrument - frame requires less than 0.15 m² (1.6 ft²) of desk space

HARDWARE AND SOFTWARE INTERFACES DESIGNED TO PUT YOU IN CONTROL

- Console software control interface - engineered with Instron's knowledge of machine usability
- Rigidly mounted control pod with critical controls and emergency stop at your fingertips
- Electrically powered crosshead lift system with manual lever clamps for ease of test space adjustment
- System status indicator shows system conditions (off, on, emergency stop, and fault)
- Compact instrument - frame requires less than 0.15 m² (1.6 ft²) of desk space

HIDDEN TECHNOLOGY DESIGNED TO IMPROVE YOUR TEST

- Patented stiffness-based loop tuning system
- Unique actuator bearing system maintains load string alignment when offset or lateral loads are induced by specimens or fixtures
- An optical encoder for precise digital extension control and a dedicated position channel for set up and end of test
- Digital controller based on the industry's most advanced controller
- Dynacell advanced load cell technology for faster testing and reduction of inertial errors

A HIGH LEVEL OF VERSATILITY

- Readily adjustable test space to suit a wide variety of specimens, grips, fixtures, and accessories
- 60 mm (2.36 in) stroke for a wide range of tests, as well as ease of specimen set up
- Offset diagonal coloumn configuration provides optimum access to the test area
- Compatible with WaveMatrix™2, Bluehill® Universal* and Application Specific software
- Compatible with a large range of grips, fixtures, chambers, saline baths, video extensometers, and other accessories

*Only supported in desktop mode

INSTRON®
The difference is measurable®

SPECIFICATIONS

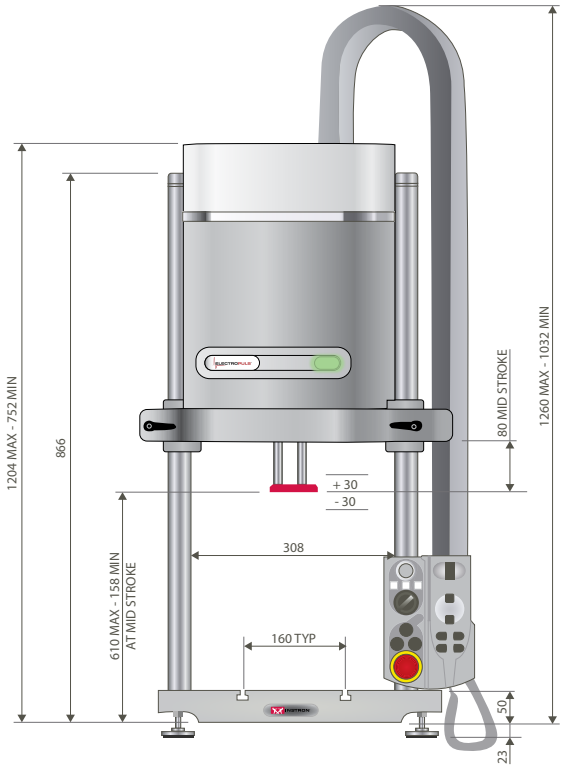
Dynamic Capacity	±1000 N (±225 lbf)
Static Capacity	±710 N (±160 lbf)
Stroke	60 mm (2.36 in)
Load Weighing Accuracy	±0.5 % of indicated load or ±0.005 % of load cell capacity, whichever is greater
Daylight Opening	610 mm (24 in) maximum with actuator at mid stroke
Configuration	Diagonal twin-column with actuator in upper crosshead
Mounting	Tabletop: Vertical (Horizontal with optional mounting kit)
Lift and Locks	Electrically powered lifts with manual lever clamps
Load Cell	±2 kN Dynacell™ mounted to base
Weight	92 kg (202 lb) [frame only] 40 kg (88 lb) [controller]
Electrical Supply	100 VAC to 140 VAC 20A single phase 50/60 Hz 220 VAC to 240 VAC 10A single phase 50 Hz
Cooling	Temperature-controlled air cooling
Operating Temperature	+10 to +30˚C (+50 to +86˚F)

INTERFACES

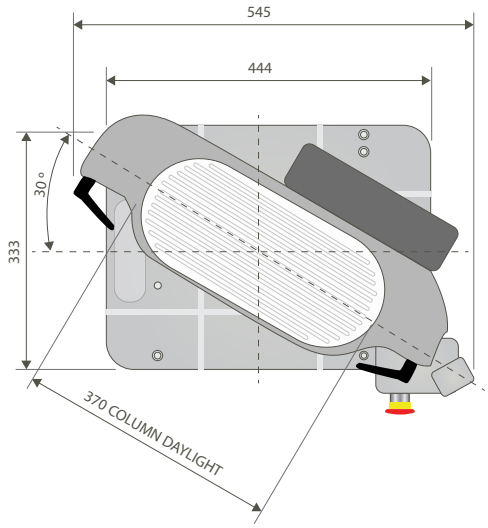
Actuator	M6 x 1 right hand central thread 3 x M6 on 57 mm PCD
T-Slot Table	M6 x 1 right hand central thread 3 x M6 holes on 57 mm PCD 6 x M10 holes on 100 mm PCD 4 x M10 holes on a 280 mm x 90 mm accessory rectangle 4 x M6 T-slots spaced 80 mm from center

ACCESSORIES

1300-311	High Stiffness Support Table
1300-301	Safety Screen for E1000 test instrument
2742-102	±1 kN (±225 lbf) fatigue-rated mechanical wedge grip
2742-103	±1 kN (±225 lbf) fatigue-rated pneumatic wedge grip
2718-013	Pneumatic grip air kit for dynamic systems
2840-117	3 kN Compression Platens



E1000 dimensions: front view



E1000 dimensions: plan view

www.instron.com

Worldwide Headquarters
825 University Ave, Norwood, MA 02062-2643, USA
Tel: +1 800 564 8378 or +1 781 575 5000

European Headquarters
Coronation Road, High Wycombe, Bucks HP12 3SY, UK
Tel: +44 1494 464646