

ELECTROPULS® | E20000 LINEAR-TORSION ALL-ELECTRIC DYNAMIC TEST INSTRUMENT

The Instron® E20000 is the latest addition to the ElectroPuls family, with 20 kN linear capacity and 130 Nm torque capacity.

The all-electric test instrument has twice the linear capacity of the popular E10000 system but in virtually the same size package. The all-new, electric crosshead clamps make adjusting the test space size easier and faster. As with the existing range it includes Instron's advanced digital control electronics, bi-axial Dynacell™ load cell and patented hassle-free tuning based on specimen stiffness.



Performance

- 20 kN (4,500 lbf) linear dynamic capacity
- 130 Nm (1150 in-lb) torsional dynamic capacity
- 75 mm (2.95 in) Stroke
- Optical Encoder – for precise digital extension / rotation (5 nm resolution)
- High dynamic performance – up to 100 Hz



Versatility

- Dynamic and Static testing capabilities from one machine
- Compatible with WaveMatrix™3, Bluehill® Fracture, Bluehill Universal and other application software
- Common test accessories available as standard
- Compact footprint – requires less than 1.2 m² (13 ft²) of floor space for the entire system



Sustainability

- Quiet – improved working environment
- Oil free - clean, with no test contamination
- Uses a fraction of the power of traditional hydraulic systems



Usability

- Automatic, electrically operated crosshead lift and clamps
- Intuitive software – easy to set up
- Patented, Stiffness Based Tuning – simplifies testing



Innovation

- State of the art energy recovery and storage system reduces heat dissipated in laboratory
- Unique actuator bearing system maintains loadstring alignment
- Digital two-axis control based on industry's most advanced controller



The difference is measurable®

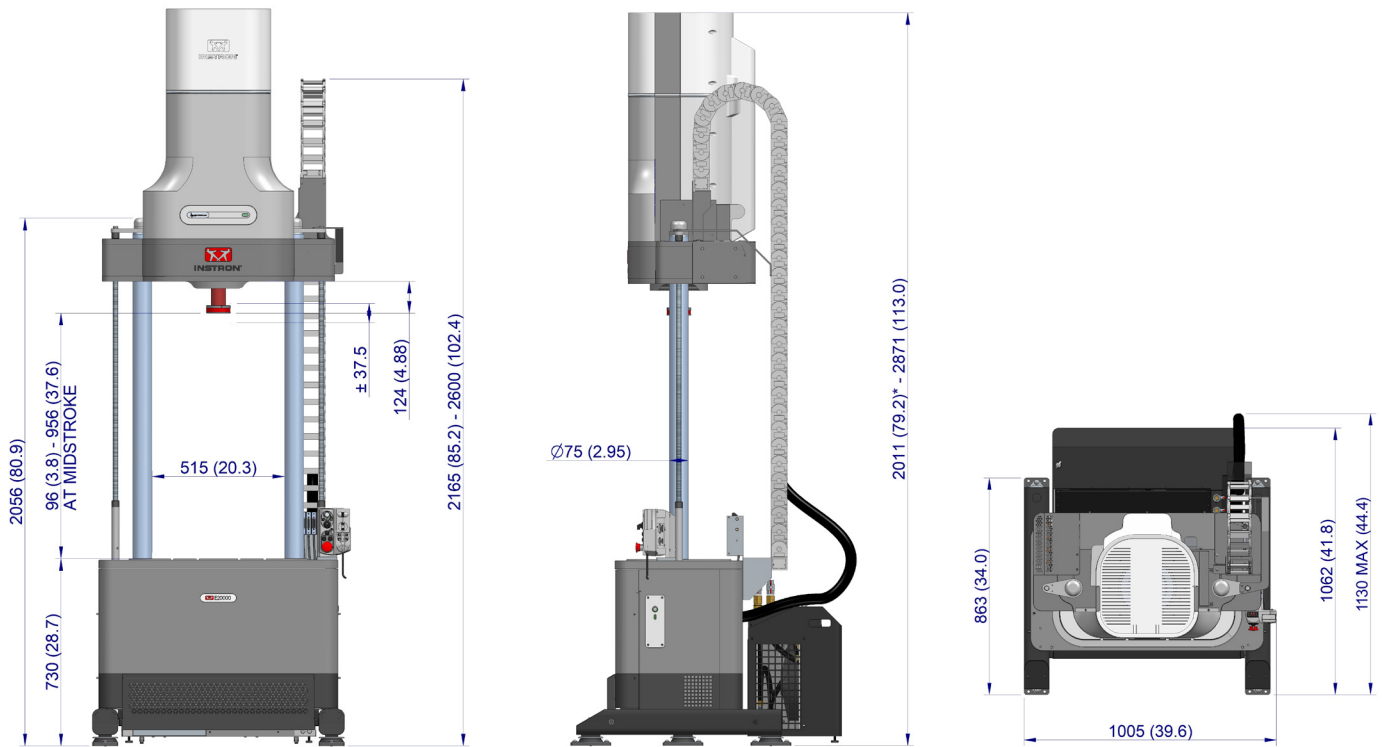
SPECIFICATIONS

Linear Dynamic Capacity	20 kN (tension or compression)*
Linear Static Capacity	±14 kN (3,150 lbf)
Torsional Capacity	±130 Nm (1150 in-lb)
Stroke	75 mm (2.95 in)
Rotation	±135° as standard, ±16 revolutions
Load and Torque Weighing Accuracy	±0.5 % of indicated load or torque, or ±0.005 % of load cell capacity, whichever is greater
Daylight Opening	956 mm (37.6 in)
Configuration	Twin-column, floor standing with actuator in crosshead
Column Separation	515 mm (20.3 in)

*Full reverse stress ±18kN

Lift and Locks	Electrically powered, automatic lift and clamps
Dynacell™ Load Cell	±25 kN, ±150 Nm, with automatic inertia compensation
Weight	1,288 kg (2,840 lb)
Electrical Supply	3 Phase 380V to 480V ±10%
Cooling	Temperature controlled air cooling
Operating Temperature	+10 to +30°C (+50 to + 86°F)**
Height	Max: 2871 mm (113 in) Min: 2165 mm (85.2 in)
Width	1005 mm (39.6 in)
Depth	1130 mm MAX (44.4 in)

**Performance restricted operation from +30°C to +40°C (+80°F to +104°F)



All dimensions in mm (inches)

ACCESSORIES

1300-305	Interlocked guard for E20000 Test Instrument
2718-013	Pneumatic grip air kit for E20000
2742-405	① ±20 kN ±130 Nm Linear-Torsion Pneumatic Wedge-Action Grips
2742-406	② ±20 kN ±130 Nm Linear-Torsion Mechanical Wedge-Action Grips
3117-082	③ ElectroPuls Pullrod kit
3119-605	④ Environmental Chamber
2810-500	⑤ 20 kN 3-Point Bend Fixture
2810-505	⑤ 4-Point Bend Conversion Kit
2840-030	⑥ 20 kN Compression Platens



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