

ELECTROPULS® | E20000 ALL-ELECTRIC DYNAMIC TEST INSTRUMENT

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

This all-electric test instrument provides twice the linear capacity of the popular E10000 system with 30% more torsional capacity, yet almost occupies the same footprint. The newly designed electric crosshead clamps make adjusting the test space easier and faster. As with the existing range, it includes Instron's advanced digital control electronics, a biaxial Dynacell™ load cell, and patented hassle-free tuning based on specimen stiffness.



Performance

- 20 kN (4,500 lbf) linear dynamic capacity
- 75 mm (2.95 in) Stroke
- Optical Encoder – for precise digital extension
- 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 load string alignment
- Digital control based on industry's most advanced controller



The difference is measurable®

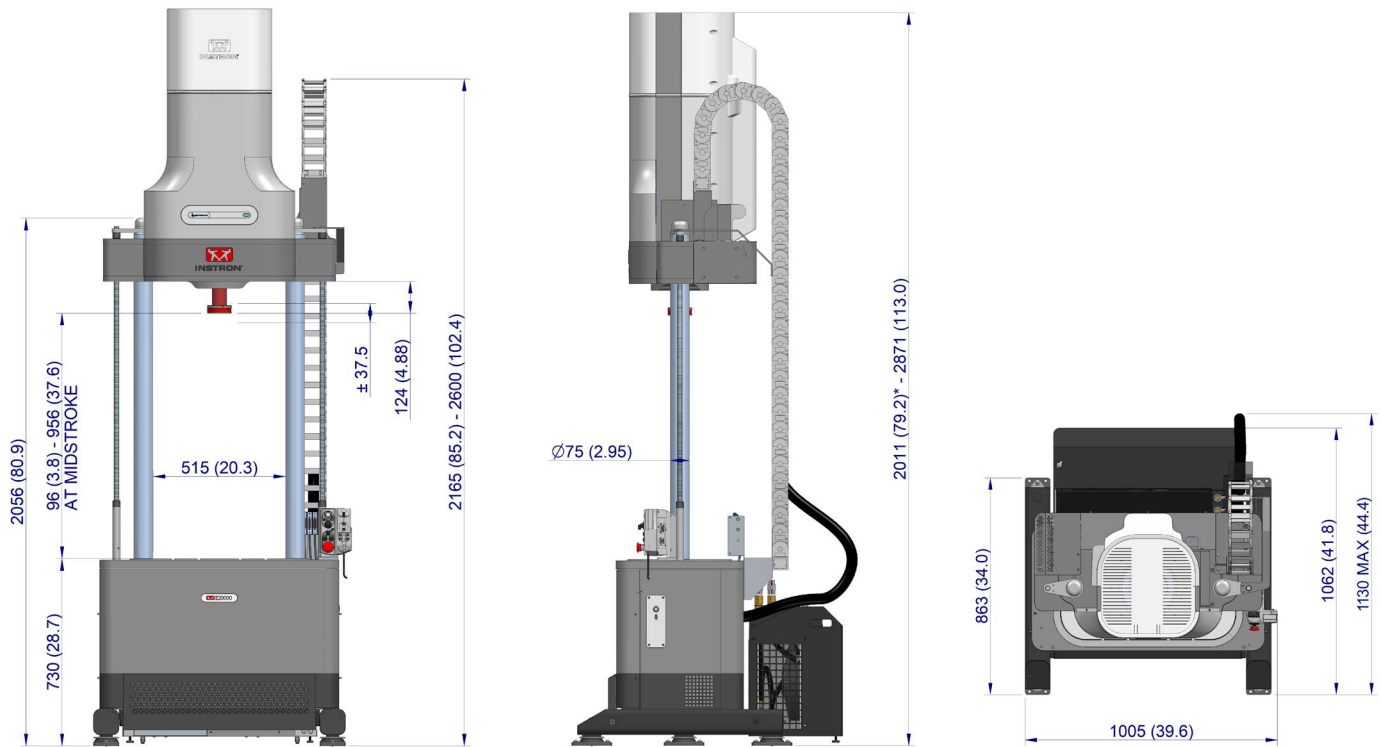
SPECIFICATIONS

Linear Dynamic Capacity	20 kN (tension or compression)*
Linear Static Capacity	±14 kN (3,150 lbf)
Stroke	75 mm (2.95 in)
Load Weighing Accuracy	±0.5 % of indicated load, 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)
Lift and Locks	Electrically powered, automatic lift and clamps

*Full reverse stress ±18kN

Dynacell™ Load Cell	±25 kN, with automatic inertia compensation
Weight	1,225 kg (2,701 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 Pneumatic Wedge-Action Grips
2742-406	② ±20 kN 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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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.

This all-electric test instrument provides twice the linear capacity of the popular E10000 system, yet almost occupies the same footprint. The newly designed electric crosshead clamps make adjusting the test space easier and faster. As with the existing range, it includes Instron's advanced digital control electronics, a biaxial 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 load string alignment
- Digital two-axis control based on industry's most advanced controller



The difference is measurable®

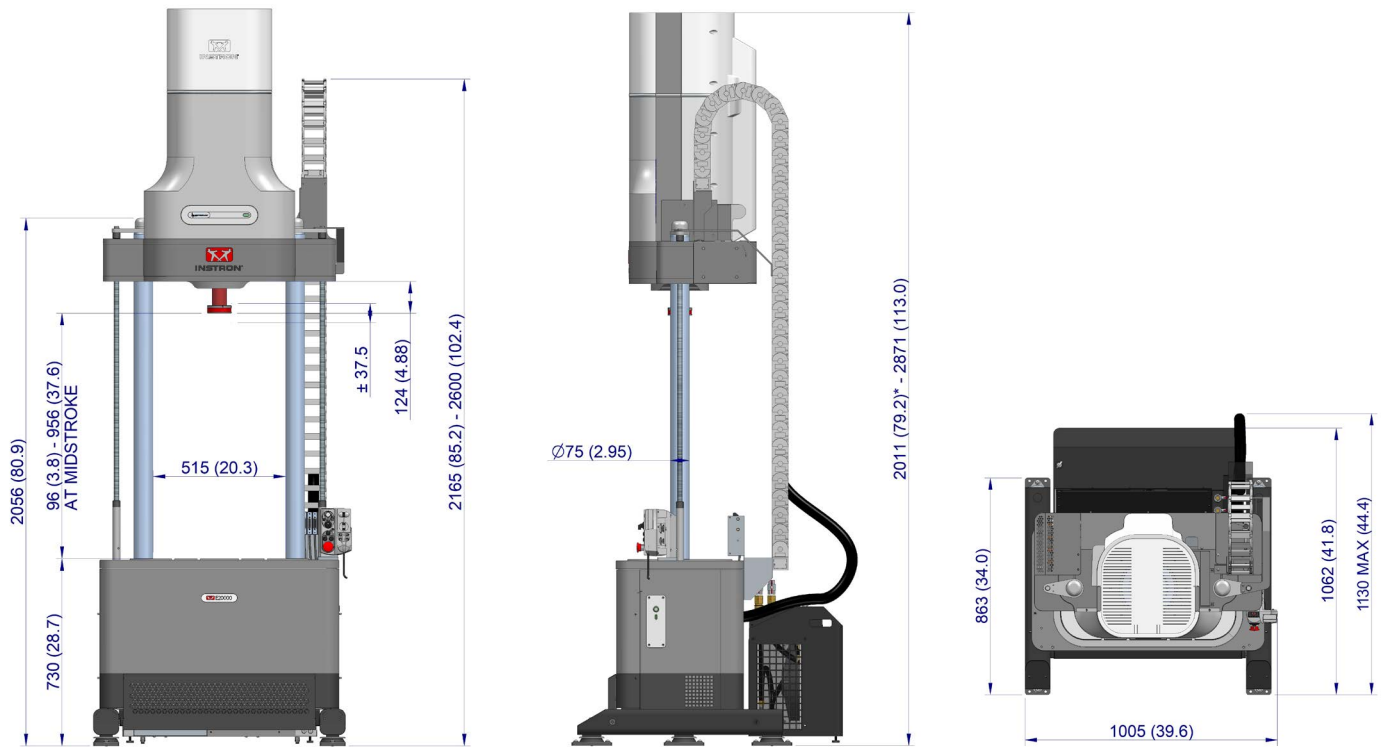
SPECIFICATIONS

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)

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