INSTRON®

The difference is measurable®

8872 SERVOHYDRAULIC FATIGUE TESTING SYSTEM

25 kN

The Instron® 8872 is a compact tabletop servohydraulic testing system that meets the challenging demands of various static and dynamic testing requirements. With the actuator in the upper crosshead and a lower t-slot table, the 8872 makes an ideal platform for a variety of medical devices, biomaterials, advanced materials, and other component testing.

FEATURES

- Double-acting servohydraulic actuator with force capacity up to ±25 kN (±5620 lbf)
- High-stiffness, precision-aligned load frame with twin columns and actuator in upper crosshead
- 100 mm (4 in) of usable stroke
- Designed for both dynamic and static testing on a variety of materials and components
- Choice of hydraulic configuration and dynamic performance to suit application
- Adjustable upper crosshead with hydraulic lifts and manual locks fitted as standard for easy adjustment of daylight
- Patented$_1$ Dynacell™ load cell technology for faster testing and reduction of inertial errors
- Compact tabletop servohydraulic fatigue testing system – frame requires less than 0.4 m² (4.3 ft²) of space
- Hydrostatic bearing actuators for higher side-load resistance or material critical applications, such as low-cycle fatigue
- Designed to be used with the 3520 Series of Hydraulic Power Units
- Compatible with a large range of grips, fixtures, chambers, video extensometers, protective shields, and other accessories
- Patented stiffness based tuning algorithm that enables users to tune a variety of specimens in seconds

CONTROLLER AND SOFTWARE

The Instron 8872 is supplied with a digital 8800MT controller that provides full system control including features such as stiffness based tuning, amplitude control, specimen protect, 19-bit resolution across the full range of transducers,and adaptive control technology. It also allows access to WaveMatrix 2 Dynamic Testing Software, Bluehill® Software for static tests and other application specific software, such as the Fracture Mechanics suite.

FRAME SPECIFICATIONS

Daylight Opening (Maximum Between Load Cell and Actuator at Mid-stroke, with Largest Capacity Actuator)	mm	1017
	in	40
Dynamic Load Capacity	kN	±25
	lbf	±5620
Actuator Stroke (Total)	mm	100
	in	4
Actuator Force Rating	kN	25
Configuration		Twin-Column High-Stiffness Load Frame with Actuator in Upper Crosshead and T-Slot Base
Lift and Locks		Hydraulically-Powered Lifts and Locks
Load Cell		Patented[1] Dynacell™ Fatigue-RatedLoad Cell with Capacity to Suit Actuator
Load Weighing Accuracy		±0.002% of Load Cell Capacity or 0.5% of Indicated Load, Whichever is Greater - Down to 1/250th of Full Scale
Hydraulic Pressure Supply (Required)	bar	207
	psi	3000
Electrical Supply		Single-Phase Mains 90-132 or 180-264 V 45/65 Hz with Power Consumption 800 VA Max
Operating Environment		+10 to +38 °C (+50 to +100 °F) with 10 to 90% Humidity Non-Condensing
Frame Stiffness	kN/mm	260
Maximum Frame Weight (Dependant on Final Configuration)	kg	287
	lb	634

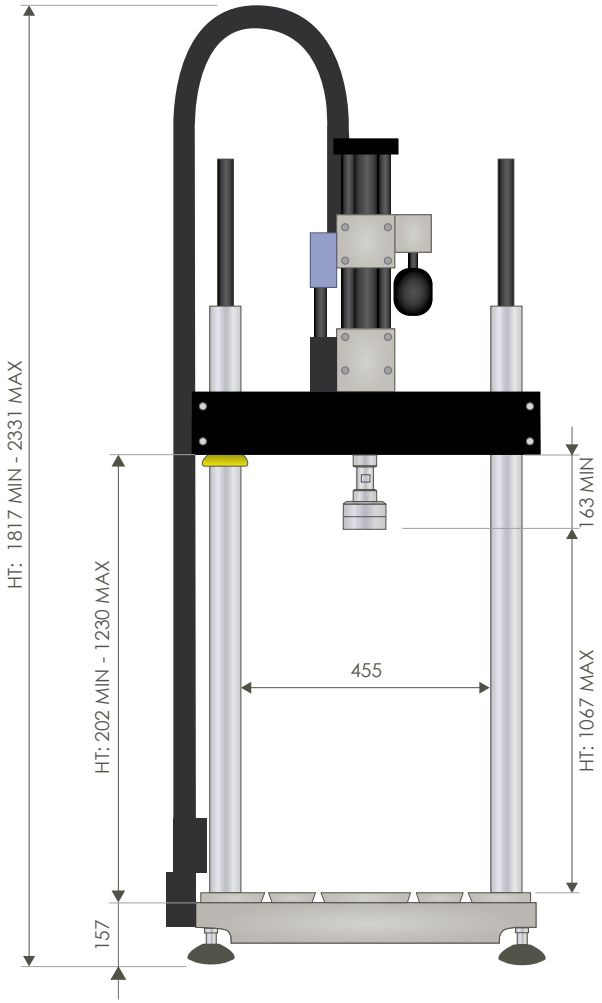
MECHANICAL INTERFACE

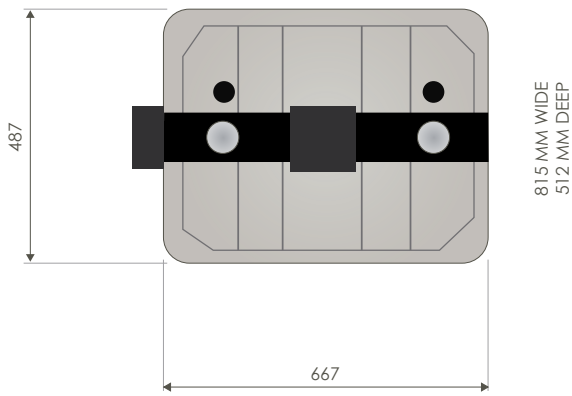
Load Cell	M20 × 1.5 Right Hand Central Thread
Actuator	M20 × 1.5 Right Hand Central Thread
Table and Crosshead	4 × M10 Holes on a 280 mm × 90 mm for Accessory Mounting 6 × M10 × 20 Deep on 100 mm PCD (Table) with 40 mm Location Diameter 4 × M10 T-Slots Running Front and Back, Spaced 80 and 100 mm From Center Line

ACCESSORIES

2742-301	±30 kN Fatigue-Rated Hydraulic Wedge Grips
2780-118	Fracture Mechanics Grips for 12.5 mm Wide Compact Tension Specimen
2810-181	3-Point Fatigue-Rated Bend Fixture
2810-184	4-Point Conversion Kit for 2810-181
2840-119	150mm (6 in) Diameter Compression Platens

1) US Patent Number 6508132





Instron® 8872 Dimensions (All Dimensions in mm)

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