

8874 BIAXIAL SERVOHYDRAULIC FATIGUE TESTING SYSTEM

25 kN/100 Nm

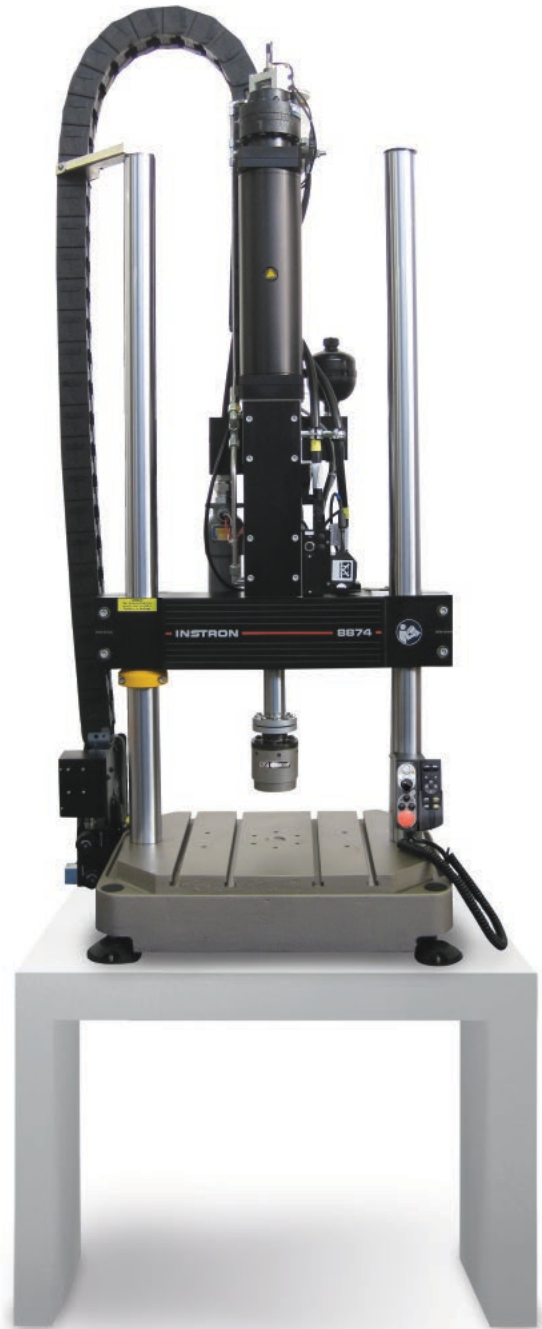
The Instron® 8874 is a compact tabletop biaxial servohydraulic testing system that meets the challenging demands of various static and dynamic tests. The system carries out axial, torsion, or combined axial-torsion tests. With the actuator in the upper crosshead and a lower t-slot table, the 8874 makes an ideal platform for testing a variety of medical devices, biomaterials, advanced materials, and other components testing.

FEATURES

- Double-acting servohydraulic actuator with force capacity up to ± 25 kN (± 5620 lbf) and torque capacity of ± 100 Nm (880 in-lb)
- High-stiffness, precision-aligned load frame with twin columns and actuator in upper crosshead
- 100 mm (4 in) of usable axial stroke and $\pm 130^\circ$ of rotation
- 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
- Patented₁ 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
- 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 8874 is supplied with a two-axis 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 axial 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	1001
	in	39.41
Dynamic Load Capacity	kN	±25
	lbf	±5620
Torque Load Capacity	Nm	100
	inlb	880
Actuator Stroke (Total)	mm	100
	in	4
Actuator Rotation	kN	±130°
Configuration	Twin-Column High-Stiffness Load Frame with Actuator in Upper Crosshead and T-Slot Base	
Lift and Locks	Hydraulically-Powered Lifts and Manual Locks	
Load Cell	Patented ¹ Dynacell™ Fatigue-Rated Load Cell with Capacity to Suit Actuator	
Load Weighing Accuracy	±0.5% of Indicated Load or ±0.005% of Load Cell Capacity (1-100%), Whichever is greater	
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
	kg	287
Frame Weight	kg	287
	lb	634

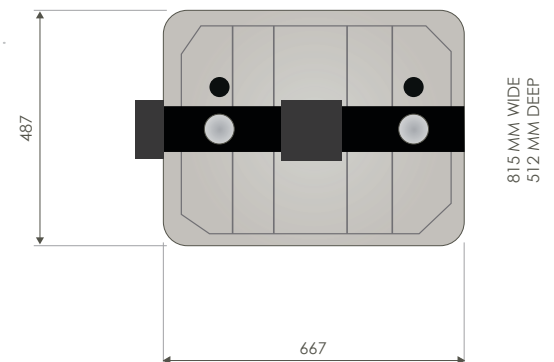
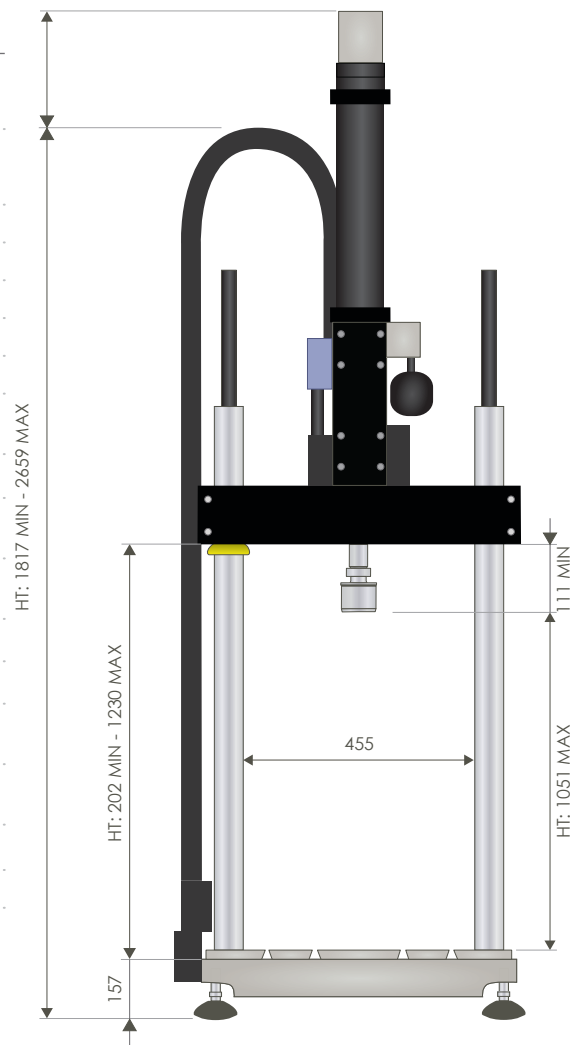
MECHANICAL ACCESSORIES

Load Cell	6 × M8 on 75 PCD
Actuator	6 × M8 on 75 mm PCD 6 × 9 mm Diameter Through Holes on 75 mm PCD
Table and Crosshead	4 × M10 Holes on a 280 mm × 90 mm for Accessory Mounting 6 × M10 x 20 Deep on 100 mm PCD (Table) with 40 mm Location Diameter 4 × M10 T-Slots Running Front to Back, Spaced 80 and 100 mm from Centerline
Table and Crosshead	4 × M10 Holes on a 280 mm × 90 mm for Accessory Mounting 6 × M10 x 20 deep on 100 mm PCD (Table) with 40 mm Location Diameter

ACCESSORIES

8260C	±25 kN / ±100 Nm Fatigue Rated Hydraulic Wedge Grips
--------------	--

1) US Patent Number 6508132



Instron® 8874 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