

8862 LOW CYCLE FATIGUE TESTING SYSTEM

100 kN Servo-Electric Actuator

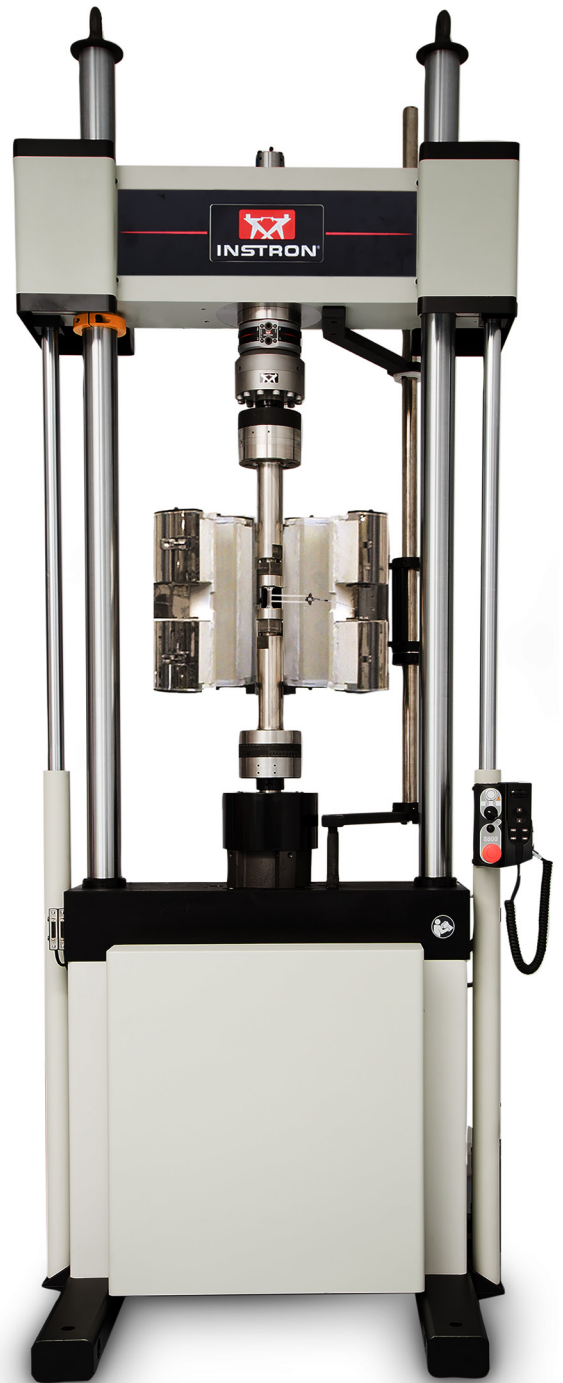
8862 systems have been the industry choice for Low Cycle Fatigue (LCF) testing for decades and are now fully integrated with our latest controller platform. Instron® has developed this system specifically to address the challenges of reverse-stress Low Cycle Fatigue and Thermomechanical Fatigue (TMF) testing. The unique actuator technology utilizes an all-electric, backlash free, ball-screw drive eliminating the need for hydraulic infrastructure to support the machine.

AN IDEAL PLATFORM FOR LOW CYCLE FATIGUE

- High capacity loading frame that maximizes lateral and axial stiffness during reverse stress testing
- Precision control achieved by our unique backlash free actuator design delivering actuator velocities down to just 1 $\mu\text{m}/\text{hour}$
- Easy installation into any lab space with minimal infrastructure requirements
- Virtually silent operation creating an ideal working environment for your operators
- Low power consumption reducing your annual cost of running tests
- Minimal maintenance required compared with a fully hydraulic system
- Integration with Uninterruptable Power Supply to protect your specimen from overloading in the event of power loss
- Patented stiffness based tuning algorithm that enables users to tune a variety of specimens in seconds

INSTRON EXPERTISE ACROSS YOUR ENTIRE APPLICATION

- Dedicated LCF and TMF software packages make it easy to carry out complex tests and get the results you need first time, every time
- Complete alignment solutions are included on all high temperature systems. This means that you can measure and adjust loadstring alignment with the AlignPro package. The guided software will tell you exactly which adjustments are required to achieve perfect alignment
- Instron's core transducer technology is designed and manufactured by Instron in our UK centre of excellence and verified in our own on-site accredited facility
- Years of experience and expertise in the changing demands of international high temperature standards and the technical challenges of testing up to and beyond 1000 °C
- World-class control delivered by the 8800MT which is the latest in the prestigious 8800 family of dynamic digital controllers



FRAME SPECIFICATIONS

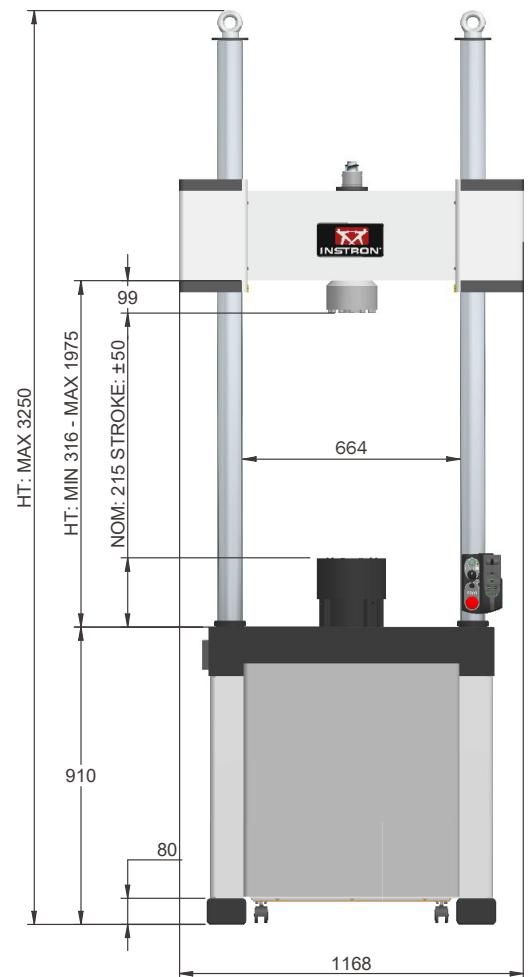
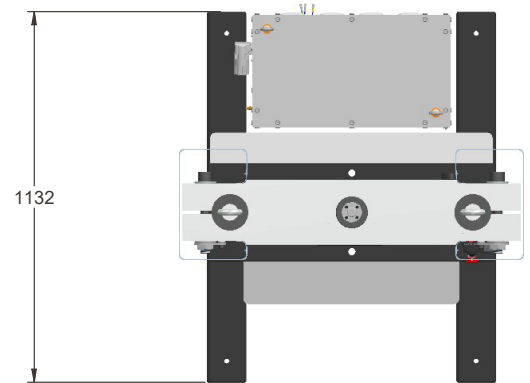
Daylight Opening (Maximum Between Load Cell and Actuator at Mid-stroke, with Largest Capacity Actuator)	mm	1660
	in	65.3
Dynamic Load Capacity	kN	Up to 100
	kip	Up to 22
Actuator Stroke (Total)	mm	100
	in	4
Actuator Force Rating	kN	100
Configuration	Twin-Column High-Stiffness Load Frame with Actuator in Lower Table	
Lift and Locks	Hydraulically-Powered Lifts and Locks	
Load Cell	Patented ₁ Dynacell™ Fatigue-Rated Load 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	
Max Actuator Speed	mm/min	300
Minimum Speed	μ/hr	1
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	595
Maximum Frame Weight (Dependant on Final Configuration)	kg	1458
	lb	3208

MECHANICAL INTERFACES

Load Cell	M30 × 2 Right Hand Female Central Thread
Actuator	M30 × 2 Right Hand Female Central Thread

ACCESSORIES

Heating	1000°C Furnace or Induction Coil
Gripping	Reverse stress pull-rods or water cooled collets
Software	Low cycle fatigue or Thermomechanical fatigue
Alignment	Mechanical alignment fixture and Alignment software
Extensometry	High temperature extensometers (12.5 mm and 25 mm GL)



Instron® 8862 Dimensions (All Dimensions are 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