

Central Spindle Electromechanical Testing Machines

LFM-C TOP up to 100 kN

The Table-Top LFM-C Series are modular constructed and can easily be optimized for customer's requirements. The electromechanical drive is centrally located on upper crosshead what makes this series suitable for a wide range of demanding applications from materials to component or finished goods testing.

These state-of-the-art testing systems using the latest technology, as all our testing machines, providing uncompromising quality and therefore representing a range of accurate and reliable testing machines.

All models are suitable for closed loop static constant load, monotonic, cyclic or alternating loadings and feature rigid load frame construction with high stiffness and precision aligned for virtually any test including tension-, compression- or bending tests on different specimen and materials.



Key Features

- Modular design, easily adaptable to specific test requirements
- Flexible system with crosshead mounted central-drive
- Rigid machine frame with high stiffness providing superior axial and lateral stiffness and guarantees robust, durable and long-term operation
- Central drive with, backlash-free ball screw assembly provides high load capacity, high positioning accuracy and repeatability
- Controlled by a high responsive, AC servomotor to drive the central electromechanical actuator providing faster starts and stops, best control, and highest accuracy at a extremely low noise level
- On-point, in-service lubrication
- Precision strain gauge load cell mounted on (moveable) crosshead optionally available Alignment Fixture mounted between crosshead and load cell with related alignment verification equipment
- Digital movable crosshead encoder for high resolution, high accurate crosshead measurement and closed loop control
- Adjustable end-stops in both (UP/DOWN) directions for the optimal protection of operator, test sample and machine
- End-stops for maximum travel protection
- Durable structured coating (or paint)
- Use of high quality components and assemblies of reputable companies
- The machine is free-standing on shock absorbers, requiring no special foundations

Modular

Thanks to the modular design, the LFM-C testing machines can be easily and cost-effectively adapted and optimized to your testing requirements. Due to this flexibility, these testing machines are used in a wide range of applications. The modular design enables us to adapt these test systems to virtually any of your requirements including compression, bend or tensile tests of various materials, transducer calibration, testing of components or finished goods etc.

Versatile

The LFM-C series can be configured with a variety of grips & fixtures, extensometers and other accessories to meet the exacting test needs from quality control to research and development.

Reliable & Durable

w+b LFM-C Series combines proven load-frame design available in numerous high-stiffness configurations using high quality components and assemblies coupled with a generous dimensioning.

Latest Drive Technology

The LFM-C Series Test Systems are closed loop controlled through the latest high-resolution, high-speed digital control system PCS8000. The PCS8000 ultra-high-speed closed loop control and data acquisition rate on all channels combined with 24-bit high resolution transducer conditioning rate is achieved by a 64-bit processor running at 1 GHz.

Advanced Closed-Loop Control

As control channel available are any connected inputs as well as virtual (calculated) channels that might open many new opportunities to your application. The versatile concept of the PCS8000 is based on latest technology and supports applications with virtually no limits.

Fast mounting of Grips & Fixtures

For additional load Cells via standardized Mounting-Stud with counter nut. Providing easy, quick and accurate mounting of any accessories with mounting-stud with Pin. The supplied counter (lock) nut provides backlash-free accessories mounting.

The mounting-stud is standardized and will fit to w+b accessories

Specimen & System Safety

Specimen Protect function prevents your specimen from being damaged during setup and gripping.

The LFM-C Test Systems are protected against overload and provide the ability to set limits for load, crosshead travel, strain or any other connected transducer preventing damage to your system, load cell and grip or fixtures. Mechanical end-stops and adjustable travel limits stop the crosshead at set points.

Operator Safety

Our LFM-C series of test systems fully comply with the safety requirements of the EC Machinery Directive and are supplied with the related EC Declaration.

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Machine Safety

Provides highest level of machine safety including overload protection of the frame, overload protection of the load cell, two-channel safety circuit according to the machinery directive.



Configurable & Extendable

The modular design enables us to adapt these tests systems to virtually any of your requirements. Configure your test system to meet your unique needs of today and extend it in the future when your test needs would change.

Everything from a Single Source

Thanks to our decades of experience in testing machine construction, maintenance and calibration, we can offer you an all-round service for your testing machines and systems. This minimizes failures and ensures compliance with standards. We offer preventive maintenance, on-site repairs, overhauls and repairs in our factory, machine relocations and recommissioning, spare parts, software updates & upgrades, training and modernizations.

More than 45 Years Experience

Owing to over 45 years of experience in the production of electromechanical test systems our servohydraulic test systems includes a numerous of features and achievements guaranteeing operational efficiency, safety and reliable testing with minimum down-time.

Modular & Flexible

The modular design enables us to adapt these tests systems to virtually any of your requirements. Common customizations include:

- Other test speeds
- Extended vertical or horizontal test spaces
- Multifunctional T-slot base platen to clamp grips or fixtures, components or finished goods
- Additional second working space
- Extending to fully automatic robotic system

