Accuracy is The Underlying Strategy

GCTS TESTING SYSTEMS

Introducing the GCTS eFRM-90:

Future of Fiber Reinforced Concrete Testing

The GCTS eFRM-90 is a Precision-Controlled electro-mechanical loading frame designed for post-crack performance testing of Fiber Reinforced Concrete (FRC). This system combines precision with versatility, offering unmatched closed-loop control of net deformation, crack mouth opening (CMOD) or any other real time calculated parameter. It's compact design, cost-effective and user-friendly design makes it a smart option for commercial labs. GCTS offers a broad spectrum of standard and customized tests, as well as fixtures and predefined Apps. Whether you intend to perform Q/C commercial work or research testing, the eFRM-90 promises accuracy, adaptability, and affordability, truly setting a gold standard in the industry.

Key Features

- Precise closed-loop control
- Economical electro-mechanical load frame
- User-friendly Apps to perform EN 14651, ASTM C1609, C1399, and many more
- Easy to use – Ideal for commercial labs.
- 90 kN axial load capacity
- 50 mm/min max speed
- Horizontal opening: 405 mm
- Max vertical opening: 1209 mm

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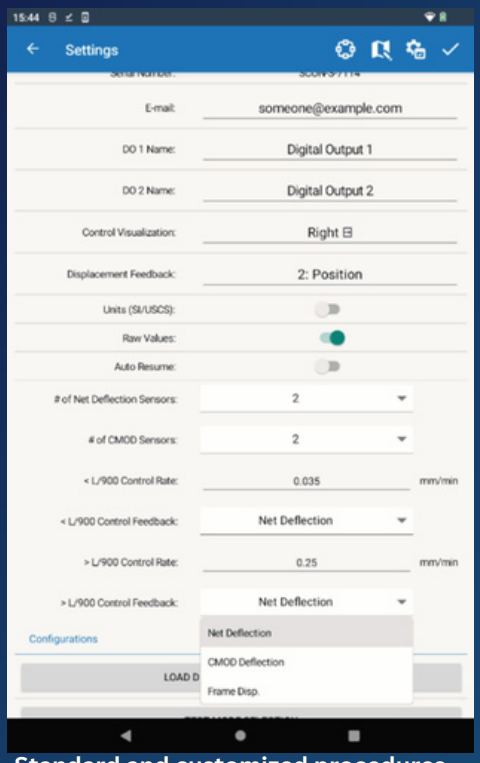
6103 South Maple Avenue Tempe, Arizona 85823, USA

- **Precise Closed-Loop Control:** The eFRM-90 allows for precise closed-loop control of net deformation or crack mouth opening, enabling accurate measurement and control of critical parameters during testing.
- **Flexible Control Options:** You can easily change the feedback control mid-test from Load, displacement, net deflection, or CMOD, making it adaptable to various testing scenarios.
- **Cost-Effective Solution:** This system offers an economical option for commercial labs, eliminating the need for expensive and complex test setups.
- **User-Friendly:** Designed with ease of use in mind, the eFRM-90 is ideal for both seasoned professionals and newcomers to concrete testing.
- **Comprehensive Testing Capabilities:** It can perform a range of standard tests such as EN 14651, ASTM C1609/C1609M-19, and customized beam tests. Additionally, it offers a library of Apps to perform different ASTM and EN standards, including unconfined compression and indirect tension tests.
- **Directional Control:** The system excels in controlling displacement along the direction of the least principal stress, making it suitable for brittle materials like concrete and rock.
- **Flexural and Direct Tension Testing:** It is particularly well-suited for flexural and Direct Tension Tests (DTT) by accurately measuring and controlling crack opening, ensuring stable post-peak control.
- **Customizable Procedures:** Standard testing procedures can be easily customized, allowing for a combination of feedback control variables that can switch mid-test based on predefined threshold values or peak reversals.
- **Additional Testing Capabilities:** The eFRM-90 is compatible with fixtures and application software for measuring the modulus of elasticity, Poisson's ratio, indirect tension, and more.
- **Complex Loading Paths:** This system can handle complex load or deformation paths, making it valuable for studying the intricate behavior of fiber-reinforced concrete under cyclic tension-tension and tension-compression loading.

GCTS 3 & 4 Point Bending Flexural Fixture

Modulus and Poisson's Ratio Measurements



Standard and customized procedures

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