

Accuracy is The
Underlying Strategy



eFRM-90 Electromechanical Load Frame

Future of Fiber Reinforced Concrete Testing

The GCTS eFRM-90 is a precision-controlled electromechanical 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. Its 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 for the industry.



Axial Load Capacity (kN)	Max Speed (mm/min)	Horizontal Opening (mm)	Vertical Opening (mm)
90	50	405	1209

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eFRM - Servo Controlled Electromechanical Load Frame

Description

Electromechanical load frame with exceptional control and accuracy design for precise testing. Two-column vertical standing assembly and threaded columns for cross head adjustment. Servo control with closed-loop feedback from any of the eight (8) input channels or real-time calculation function. The eFRM load frames can accommodate a large range of fixtures. GCTS offers a vast library of apps for specific test standards or customized procedures to meet unique testing needs.

Several eFRM models available with the following specifications:

- 100mm stroke
- (4) AD channels with input range from $\pm 2.4\text{mV}$ to $\pm 20\text{V}$
- Accommodates strain gages, load cells, pressure transducers, etc.
- (4) AD channels with $\pm 10\text{V}$ fixed range
- 5VDC or 10VDC excitation
- 24 bit resolution
- Simultaneous sampling rate of up to 1kHz



The following table includes the available models with the particular specifications:

Model	Load Capacity (compression) [kN]	Load Capacity (Tension) [kN]	Maximum Speed [mm/min]	Maximum Horizontal Opening [mm]	Maximum Vertical Opening [mm]
eFRM-20	20	20	100	279	750
eFRM-50	50	40	75	405	1209
eFRM-90	90	40	50	405	1209
eFRM-90STF					
eFRM-20D	20	20	600	279	750