Grace INSTRUMENT
SCIENTIFIC INNOVATIONS • INDUSTRIAL SOLUTIONS

M7910
Cement Compression Tester

10770 Moss Ridge Rd., Bldg. B, Houston, TX 77043 USA • Phone: 713-783-1560 • Fax: 713-974-7144

Compact Compression Frame Designed to Handle All Load Types

The *Grace Instrument M7910 Cement Compression Flexural Tester* is designed to test the compressive strength and flexural strength of cement under pressurized conditions. Using a hydraulic pump, an electronic control system, and standardized compression devices (also known as jigs) as needed, the *M7910* can compress standard-strength concrete samples of cylinders, cubes, or blocks according to API standards and ISO specifications. *The M7910* is available in several different models with various add-on modules for test flexibility.

The *M7910*'s programmable digital control system configures test sequence algorithms to precisely determine compressive strength. A dual measuring range in the same test chamber permits both flexural (low capacity range) and compression (nominal range) tests. Two pressure transducers, one sensitive to higher strengths and one sensitive to lower strengths, perform accurate testing on samples with high or low strength values. Testing data can be saved and retrieved from the unit using a USB flash drive or SD card.

Additionally, the unit features a 5.7-inch PC-based, on-board, color touchscreen which provides user-friendly, accurate testing. The *M7910* is compact in size compared to other compression/flexural testers, maximizing laboratory space when placed on the lab floor. Certain models can even be placed on a benchtop. The *M7910* is very mobile and can be easily moved from lab to lab. For operator safety, the *M7910* includes an emergency switch at the top of the unit.

Operational Features

- *Steel load frame assembly.*
- *Accurate, user-friendly 5.7-inch color touchscreen.*
- *Maximum vertical height between platens is 185 mm (~7.3 in).*
- *Platens diameter is 153 mm (~6 in) or 165 mm (~6.5 in).*
- *Precise compressive strength measurement based on API/ISO standards.*
- *Electronic control system allows programming of ramping algorithms and test sequences.*
- *Emergency shutoff switch located at top of unit.*
- *Performs flexural and compression tests on cement samples.*
- *Optional servo strain feature (sold separately) allows users to manage automatic servo-control while evaluating various test measurements such as load/strength, displacement, and strain.*

Specifications:

Dual Measuring Range	Up to 250/15 kN **or** Up to 500/15 kN
Ram Travel	Approximately 45 mm (~1.8 in)
Power Supply	110V AC at 50 Hz **or** 220V AC at 60 Hz
Max Vertical Height Between Platens	185 mm (~7.3 in)
Platen Diameter	153 mm (~6 in) **or** 165 mm (~6.5 in)
Accuracy	Grade 1 – ±1% or Better
Standards	API Spec 10A/ISO 10426
Weight	Approximately 700 lb (317 kg) *Varies per model.*

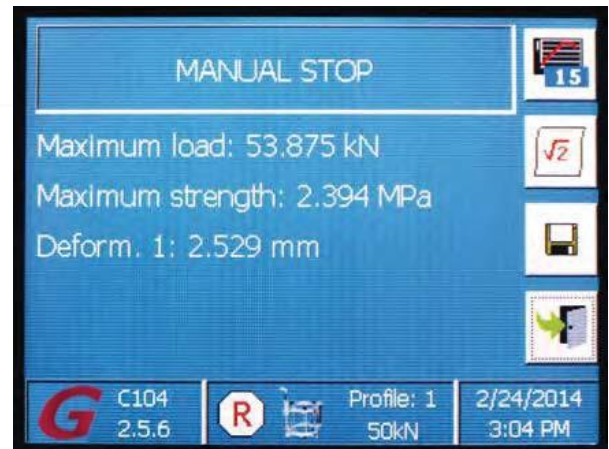*Many Different Configurations Available for All Your Compression and/or Flexural Testing Needs**

*Models displayed may vary with select specifications.

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Many Different Jigs Available for All Your Compression and/or Flexural Testing Needs*

*Jigs displayed may vary with select specifications.

COMPRESSION DEVICE (JIG)	TEST/SAMPLE SPECIFICATIONS				
MODEL	TEST TYPE	STANDARDS	SAMPLE MATERIAL	SAMPLE SHAPE	SAMPLE DIMENSIONS
MACH7910001	Compression	EN 196-1	ASTM C349	ISO 679	Cement	Prism	40.1 mm x 40 mm x 160 mm
MACH7910002	Compression	EN 1051-11	Cement	Prism	40.1 mm x 40 mm x 160 mm
MACH7910003	Compression	DIN 1164	Cement	Prism	40.1 mm x 40 mm x 160 mm
MACH7910004	Compression	GOST 26798.1	Cement	Prism	20 mm x 20 mm x 100 mm
MACH7910005	Compression	ASTM C109, C1194	Cement	Cube	50 mm x 50 mm x 50 mm
MACH7910006	Compression	BS 4550	Cement	Cube	70.7 mm x 70.7 mm x 70.7 mm
MACH7910007	Flexural	EN 196-1	EN1015-11	DIN 1164	ISO 679	Cement	Prism	40.1 mm x 40 mm x 160 mm
MACH7910008	Flexural	GOST 26798.1	Cement	Prism	20 mm x 20 mm x 100 mm
MACH7910009	Flexural	ASTM C348	Cement	Prism	40 x 40 x 160 mm

User-Friendly Touchscreen Interface

Test Results Screen Example