TORONTECH

DIGITAL MORTAR AIR ENTRAINMENT METER

Digital Mortar Air Entrainment Meter – ToronMAM™ D

ToronMAM™ D is an advanced direct-reading mortar air content meter featuring a digital display interface built on German sensing technology. Designed for high-precision air content measurement in ordinary mortar and CA mortar applications, this instrument eliminates the readability limitations of analog gauges by presenting air content values on a clear digital screen — reducing human reading error and improving the consistency of test records on every test.

Constructed from a magnesium-aluminum-silicon alloy body with a dustproof, waterproof, and explosion-proof pressure system, the ToronMAM™ D is built for demanding field and laboratory environments. At approximately 6.2 kg with a 1-liter bowl capacity and an air content range of 0% to 100%, this mortar air tester combines wide measurement versatility with the precision required for specification-sensitive mortar quality control. The press-type snap buckle provides fast, reliable bowl sealing for efficient, high-frequency testing.

APPLICATIONS

Digital Mortar Air Entrainment Meter – ToronMAM™ D Applications

The ToronMAM™ D mortar air content meter is suited for use across a broad range of mortar types and construction quality control scenarios:

- Ordinary mortar production and QC: digital air content verification for standard cement-lime and cement-sand mortars
- CA mortar applications: precision testing for calcium aluminate and controlled-air mortar products
- Masonry construction: air entrainment checks for Type S, N, and M mortars in brick, block, and stone assemblies
- Plastering and stucco systems: digital readout supports faster QC cycles on multi-coat plaster applications
- Prepackaged mortar manufacturing: plant-level air content QC with digital recording capability
- High-frequency jobsite testing: digital display reduces read error during fast-paced construction operations

- Research and mix design laboratories: precise digital mortar air tester for formulation development and admixture studies


DIGITAL INDICATOR
VOLUME VARIABLE
RETURN
SET
FUNCTION
MENU
TORONTECH
ToronMAM™ D
Digital Mortar Air Entrainment Meter

FEATURES

Digital Mortar Air Entrainment Meter – ToronMAM™ D Key Features

The ToronMAM™ D precision mortar air tester delivers a comprehensive feature set that combines digital convenience with high-precision measurement performance:

- Digital display interface: clear on-screen air content readout eliminates analog dial reading error and inconsistency
- German sensing technology: high-sensitivity pressure sensing for stable, repeatable measurements across the full range
- Direct-reading design: digital air content percentage displayed immediately after test, no manual calculation needed
- Wide measurement range of 0% to 100%: supports standard, high-air, and specialty mortar mix specifications
- Applicable to ordinary mortar and CA mortar: broad mix type compatibility in a single instrument
- Graduated accuracy: ±0.1% (0%–5%), ±0.15% (6%–20%), ±0.2% (21%–100%)
- Dustproof, waterproof, and explosion-proof pressure system: designed for demanding field and industrial environments
- Magnesium-aluminum-silicon alloy body: lightweight, corrosion-resistant construction for long-term field use
- Press-type snap buckle: fast, secure bowl sealing for efficient, high-frequency test cycles
- 1-liter bowl volume: appropriate for mortar sample size per ASTM and international test method requirements
- Approximately 6.2 kg instrument weight: field-portable with stable bench testing performance

THEORY & METHOD

Theory and Method

The ToronMAM™ D operates on the direct-reading pressure method for determining entrained air content in fresh mortar. The mortar sample is sealed in the 1-liter bowl using the press-type buckle, and air pressure is applied to the chamber above the sample. When the equalization valve is opened, the pressurized air compresses the entrained voids within the mortar mix. Rather than displaying this pressure drop on a mechanical analog dial, the German-technology sensing system converts the measurement into a digital readout — presenting air content as a direct percentage value on the instrument's display panel.

Accuracy is graduated across three ranges: ±0.1% for 0%–5%, ±0.15% for 6%–20%, and ±0.2% for 21%–100% — ensuring meaningful precision whether testing low-air-content structural mortars or high-air specialty products. As with the analog version, the pressure gauge on this instrument is calibrated for percentage-based air content output and does not display MPa-unit readings. The digital interface supports faster data recording and reduces transcription errors compared to analog instrument reading.

TECHNICAL SPECIFICATIONS

Digital Mortar Air Entrainment Meter – ToronMAM™ D Technical Specifications

Parameter	Specification
Model	ToronMAM™ D
Bowl Volume	1 L (1,000 mL)
Air Content Range	0% – 100%
Accuracy (0%–5% range)	±0.1%
Accuracy (6%–20% range)	±0.15%
Accuracy (21%–100% range)	±0.2%

Parameter	Specification
Display Type	Digital display
Pressure Gauge Type	Dustproof, waterproof, explosion-proof
Pressure Gauge Note	MPa display not supported; percentage readout only
Sensing Technology	German technology
Main Unit Material	Magnesium-aluminum-silicon alloy
Bowl Closure Type	Press-type snap buckle
Applicable Mortar Types	Ordinary mortar, CA mortar
Instrument Weight	Approximately 6.2 kg
Test Type	Direct-reading (pressure method); high precision

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