

CONCRETE AIR METER



Concrete Air Meter - ToronCAM™ S

ToronCAM™ S is a professional-grade concrete air meter designed for accurate, on-site measurement of air content in fresh concrete using the direct-reading pressure method. Built for durability and precision, this air entrainment meter is constructed from a magnesium-aluminum-zinc alloy body with all-copper operating valves — a combination that delivers both corrosion resistance and long service life under demanding field conditions.

With a 7,000 mL measuring bowl and a measurement range of 0% to 10%, the ToronCAM™ S concrete air tester meets the performance requirements of ready-mix operations, construction site QC teams, and independent testing laboratories. Four factory pre-calibrated initial pressure points give operators flexibility to adapt to site conditions while maintaining consistent, traceable results. This air meter for concrete is a reliable standard tool wherever entrained air content monitoring is required.

APPLICATIONS

Concrete Air Meter - ToronCAM™ S Applications

The ToronCAM™ S air meter concrete testing instrument is suited for a wide range of applications in the construction and concrete testing industry:

- Ready-mix concrete batch plants: routine air entrainment meter testing before truck dispatch
- Transportation infrastructure: pavement, bridge decks, and structures requiring freeze-thaw durable concrete
- Commercial and residential construction sites: quick field verification of air-entrained mix performance
- Precast concrete manufacturing: production-line quality assurance for air-entrained mixes
- Independent testing laboratories: standardized concrete air tester for ASTM compliance testing
- Government and DOT project oversight: specification compliance verification on public works projects



FEATURES

Concrete Air Meter – ToronCAM™ S Key Features

The ToronCAM™ S air entrainment meter is built with a comprehensive feature set for professional concrete testing:

- Rugged magnesium-aluminum-zinc alloy body: durable, lightweight, and corrosion-resistant for field use
- All-copper operating valves: precision-machined for long-term reliability and leak-free sealing
- 7,000 mL measuring bowl: standard capacity for testing typical fresh concrete samples
- Measurement range of 0% to 10%: covers the full spectrum of air-entrained concrete specifications
- Aggregate compatibility up to 40 mm: accommodates a wide range of concrete mix designs
- Graduated test error performance: 0%–4% $\pm 0.2\%$, 5%–8% $\pm 0.25\%$, 9%–10% $\pm 0.3\%$
- 0.1 MPa maximum pressure gauge range: complies with precision pressure gauge standards
- Pure copper pressure gauge mechanism with graduation value of ± 0.1 for fine-resolution readings
- Four factory pre-calibrated initial pressure points: selectable based on environment and operator preference
- Manual exhaust method: simple, controlled pressure release for reliable, repeatable results
- Universal bubble level: ensures proper instrument leveling before each test as required by standard protocols

THEORY & METHOD

Theory and Method

The ToronCAM™ S uses the pressure method to determine the air content of freshly mixed concrete. In this procedure, the concrete sample is placed in the sealed measuring bowl and a controlled initial air pressure is applied from the air chamber above. When the equalizing valve is released, the pressurized air compresses the entrained voids within the concrete

sample. The gauge reads the resulting pressure differential directly as a percentage of air content — making field interpretation immediate and straightforward.

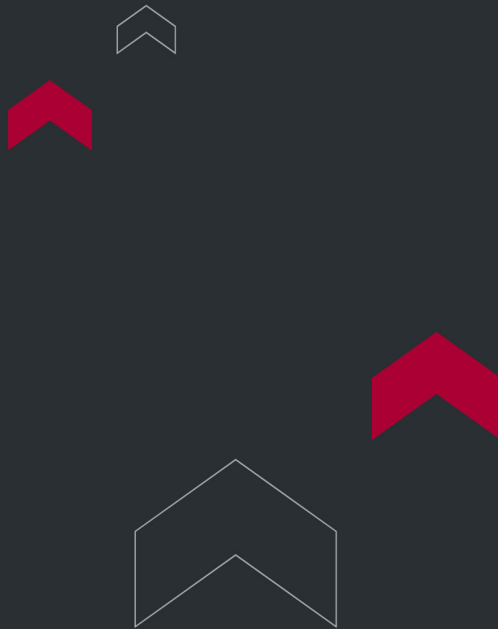
This concrete air meter supports the single direct-reading method and includes a manual exhaust system for controlled pressure release. The universal bubble level built into the instrument ensures proper leveling before each test, which is a requirement for accurate readings under ASTM and related international protocols. The instrument's pure copper pressure gauge mechanism and fine graduation value of ± 0.1 further reinforce measurement confidence on every test.

TECHNICAL SPECIFICATIONS

Concrete Air Meter - ToronCAM™ S Technical Specifications

Parameter	Specification
Model	ToronCAM™ S
Measuring Bowl Volume	7,000 mL
Air Content Measurement Range	0% - 10%
Maximum Aggregate Particle Size	≤40 mm
Main Unit Material	Magnesium-aluminum-zinc alloy; copper operating valves
Test Error (0%-4%)	±0.2%
Test Error (5%-8%)	±0.25%
Test Error (9%-10%)	±0.3%
Max Pressure Gauge Range	0.1 MPa
Pressure Gauge Material & Graduation	Pure copper mechanism; graduation value ± 0.1

Parameter	Specification
Initial Pressure Points	4 (factory pre-calibrated; selectable per environment/operator)
Air Exhaust Method	Manual
Instrument Leveling Method	Universal bubble level



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