RESONANCE TEST GAUGE

Model RTG-1

(Windows 7-10 tablet or notebook supplied by user)

Fast Digital Laboratory System!

Meets ASTM C215, ASTM C666 Standards

TEST:

- Concrete
- Stone & Rock
- Masonry
- Carbon & Graphite
- Ceramics
- Other Specimens

Designed for lab use, Olson's Resonance Test Gauge (RTG) connects to the customer's Windows device for longitudinal, flexural and torsional resonance testing of concrete, rock, asphalt and masonry (cylinders, beams and cores). Results can be exported to our Calculations Spreadsheet which automatically determines dynamic properties such as Young's modulus (E), shear modulus (G) and Poisson's ratio (ν) (meets ASTM C215 standard for resonance testing of concrete for dynamic properties and ASTM C666 standard for freeze-thaw durability testing).

OLSON INSTRUMENTS

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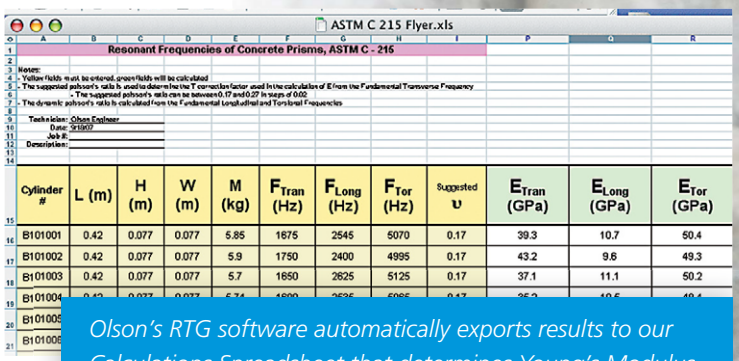
Accurate results in seconds!

Specifications

Sampling Rate	45455 samples/second
Number of Samples Acquired Per Test	1024 samples
Frequency Resolution	44.39 Hz
Nyquist Frequency	22727 Hz
ASTM C215 Minimum Required Frequency	20,000 Hz
Accelerometer Flat Frequency Response Measurement Range	20,000 Hz

Key Software Features

- Olson's RTG software for data acquisition and analysis
- Real-time waveform display while testing
- Switch between English and Metric units
- Save results for later review
- Automatic frequency calculation
- Full user selection of gain and units
- Automatic file naming feature
- The RTG-1 system must be used with a Windows 7-10 device running Olson Instruments' RTG software. ***The computer or tablet is supplied by the user.***


ASTM C 215 Flyer.xls

Resonant Frequencies of Concrete Prisms, ASTM C - 215

Cylinder #	L (m)	H (m)	W (m)	M (kg)	F_{Tran} (Hz)	F_{Long} (Hz)	F_{Tor} (Hz)	Suggested υ	E_{Tran} (GPa)	E_{Long} (GPa)	E_{Tor} (GPa)
B101001	0.42	0.077	0.077	5.85	1675	2545	5070	0.17	39.3	10.7	50.4
B101002	0.42	0.077	0.077	5.9	1750	2400	4995	0.17	43.2	9.8	49.3
B101003	0.42	0.077	0.077	5.7	1650	2625	5125	0.17	37.1	11.1	50.2

Olson's RTG software automatically exports results to our Calculations Spreadsheet that determines Young's Modulus, Shear Modulus and Poisson's ratio.

Key Hardware Features

- USB powered RTG device with built in phone plug and BNC connection
- Impact Source: 2 oz ballpeen hammer
- Receiver: 1 accelerometer, 10 mV/g
- Transducer mounting: Grease
- Includes sponge rubber mat

Included Equipment & Software:

1. **2 oz. Spherical Head Hammer**
2. **Spatula for Adhesive Grease**
3. **RTG Device, Jump Drive with RTG Software**
4. **Adhesive Grease**
5. **Accelerometer, Microdot BNC Cable, Mounting Block**
6. **Sponge Rubber Mat for Specimen Support**

« *Entire RTG system fits in this lightweight case*

About Olson Instruments

Headquartered in Wheat Ridge, Colorado, USA, Olson Instruments specializes in ***Nondestructive Evaluation*** equipment for the civil engineering industry. We are an established manufacturer of sensors and data collection systems since 1993. Olson introduces the RTG-1 as the inexpensive solution for **Concrete Resonance Testing (ASTM C215)** and **Freeze-Thaw Resistance Testing (ASTM C666)**.

Olson Engineering Inc. specializes in ***Nondestructive Evaluation and Internal Condition Assessment of Civil Infrastructure*** throughout the world as well as ***Geophysical Services*** for engineering purposes.

To learn more visit:
OlsonInstruments.com
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