

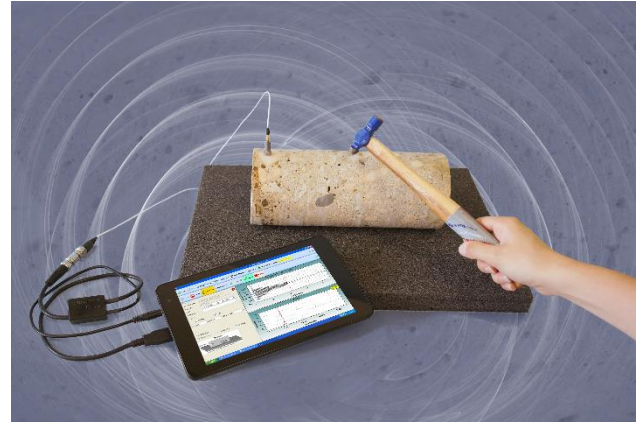
Resonance Modulus Tester

The Resonant Tester (RT-2) is a simple, rugged, battery powered unit designed for easy, fast, and reliable operation to find; Young's modulus, shear modulus and Poisson's ratio of concrete, rock, masonry, carbon and other cylindrical (inc. cores), or beam specimens, as well as the dynamic properties for freeze-thaw durability. Consisting of three simple components, this digitally based handheld RT-2 tester is faster, simpler, easier and more economical than older analogue vibrator technology. The RT-2 system must be used with a Windows 7-10 device running the Olson Instruments' RTG software. The tablet is not included.

Applications

The Olson Instruments Resonant tester is a complete unit designed primarily to conduct and supplement ASTM C215 "Standard Test Method for Fundamental Transverse, Longitudinal, and Torsional Resonant Frequencies of Concrete Specimens" and ASTM C666 "Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing" respectively.

It meets the stringent guidance of these standards. The dynamic Young's modulus, shear modulus and Poisson's ratio of concrete, rock, masonry, carbon and other cylinder, beam and core-shaped specimens can be obtained in seconds and used by Structural Engineers in the design of concrete structures as well as the specifications for mix design.



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.



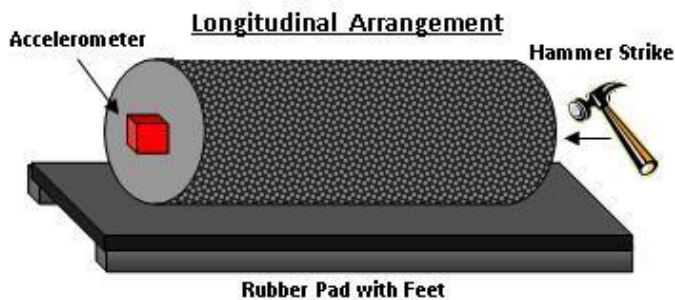
Hardware Features

- 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

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Data Collection

A series of three tests must be taken longitudinal, transverse and torsional arrangements. The accelerometer is simply mounted to the test specimen by glue or grease and is then placed on the rubber pad. Then the unit is turned on and the specimen is then struck with the hammer and the results are recorded and saved for analysis.



Form Supplied

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



Technical Specifications

Frequency Resolution	52 Hz
Maximum Number of Tests Stored	100
Nyquist Frequency	26,000 Hz
ASTM C215 Minimum Required Frequency	20,000 Hz
Processing Time for 1 Test	Approx. 10s
Battery Run Time	Approx. 6 Hrs
Battery Recharge Time (can operate while charging)	6 Hrs
Accelerometer Flat Frequency Response Measurement Range	20,000 Hz
High Accelerometer Resonant Frequency for Small Rock Cores	70,000 Hz
High Nyquist Frequency Option for Small Rock Cores	54,000 Hz

About PCTE

PCTE have over 30 years' experience in the measurement and testing of construction materials. PCTE can provide more than just the equipment, they can provide expert training. PCTE have a service centre in Sydney in which they can provide calibration, repairs and warranty repairs.

Other Equipment

PCTE supply three main ranges: NDT, Lab and Geotech Instrumentation.

NDT includes: Rebound Hammers, Covermeters, Ultrasonics, GPR, Corrosion Testing, Coating Testing and Foundation Testing

Lab includes equipment for: Concrete, Cement, Aggregate, Soil, Asphalt and Metal

Geotech Instrumentation includes: Strain Gauges, Piezometers, Inclometers, Extensometers, Tiltmeters, Load Cells and Dataloggers