

CHUM



The **CHUM (Cross Hole Ultrasonic Monitor)** uses the Crosshole Sonic Logging (CSL) method (ASTM D6760-16) to perform high-resolution quality control on deep foundations. The system uses an ultrasonic wave sent from an emitter to a receiver while both are pulled through water-filled access tubes embedded in the concrete. The measured arrival time and energy are directly related to concrete quality.

Additional methods supported by the CHUM are Single Hole Ultrasonic Testing (SHUT) and Tomography (two- and three-dimensional).

Main features:

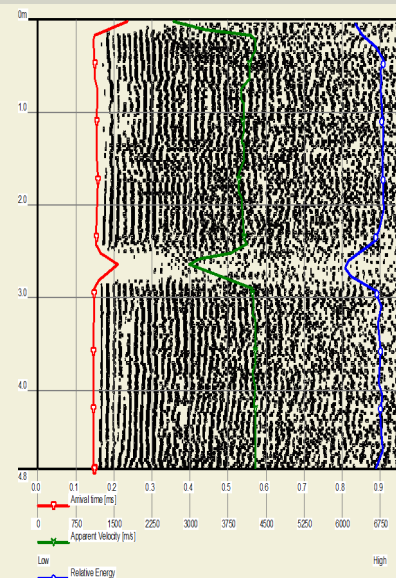
- Easy to use; The user-friendly software makes it possible to master the CHUM in less than a day. No additional expensive training required
- Powerful tomography features
- Unlike other system based on an embedded computer (which may soon become obsolete), CHUM connects to the USB port of your regular notebook computer or Tablet PC.
- Automatic Gain Control (AGC)
- Standard Relative Energy (RE) display

The basic CHUM package includes everything required to perform CSL and 2D tomography:

- The CHUM instrument, two ultrasonic transducers, two 50m cable reels, two depth meter pulleys, cables and AC power adapter
- Optional: 100m/150m cable reels, 3D tomography
- Testing, analysis and reporting software
- Interpretation assistance package
- 10 years of free software upgrades
- 3 year warranty on hardware

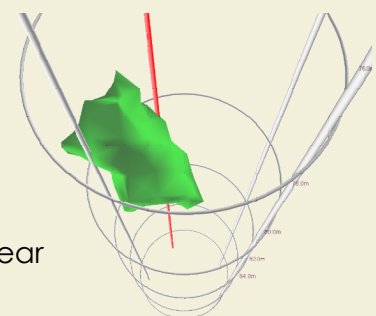


The **CHUM** system
(computer not included)



Typical output

3D tomography is available as a free on-line service for 1 year



CHUM - Technical Specifications

Physical	Housing	Rugged, Environment-proof, water-resistant housing.
	Dimensions	430mmL x 325mmW x 105mmH (instrument only)
	Weight	3.8 kg (instrument only)
		5.0 kg (instrument with typical tablet)
		16.0kg (Typical shipping)
	Temperature range	Operating : -25°C to 60°C Storage : -40°C to 70°C
Power	Internal	Rechargeable Lithium Ion battery 11.1V 4.4Ah (two days of typical use)
	External	100-240V AC operation/charging
Standards	ASTM D6760 –16	Meets or exceeds
Technical	Transducers	Dual-Purpose transceivers, 50kHz nominal, pressure-tested housing, 25mm diameter
	Cables	Heavy-duty polyurethane wound on reel
	Sample rate	500kHz (2µs resolution)
	Gain	8 level automatic gain control (AGC)
	Depth meters	Two 24-bit counters. <0.1% error
Performance	Pile lengths	1m to 145m
	Tube spacing	Up to 5m in good concrete
	Productivity	Up to 3000m/Day by a single operator
	Storage	Unlimited
Requirements	Computer (Minimum)	Windows XP/Vista/Win7/Win10. 800x600 resolution
Output	Reporting	Arrival time, energy and wave speed curves, "waterfall" presentation, fuzzy-logic and 3D tomography
	Language	Multi-lingual user-interface and reporting
Options	Cable reels	50m, 100m, 150m and custom lengths
	Software	Three-dimensional tomography (Also provided as a service over e-mail)
	Miscellaneous	12V DC car battery power adapter

