

CHUM

Cross Hole Ultrasonic Monitor



The CHUM (Cross Hole Ultrasonic Monitor) uses the Crosshole Sonic Logging CSL testing method to perform high-resolution quality control of deep foundations.

- Up to 150m (450') deep
- Tomography ready complimentary
- Standards: ASTM D6760, AFNOR NF P 94-160-1
- Integrated support for DFI CSL Rating Criteria

Applications

For testing pile integrity using the CSL method, of medium to large size piles, with supporting access tubes. CHUM also supports 3D Tomography covered in this catalog.

Fast and Reliable Crosshole Deep Pile Foundations Testing



Reliable

- 100% QA tests at 16-atmosphere pressure, vibration, and extreme temperature.
- The CHUM case can tolerate drops and shocks.
- 3 years warranty!
- Rugged connectors, cables & sensors
- 10 years free software upgrade



Easy to Use

- Usually, no training is needed, and the system can be self-taught in hours. (No expensive training days)
- Supports AGC (Automatic Gain Control) for simple, fast, and accurate performance in dynamic conditions.



Top Performance

- Up to 150m (450') deep. (Deeper optional)
- A clean signal on 3m and more on solid concrete.
- Highest SNR. Delivers the cleanest signal in the industry.
- Productivity - 4 tubes X 25m piles - 8 such piles tested in 2 hours!



CHUM – Technical Specification

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° 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 AFNOR NF P 94-160-1	Meets (complies) or exceeds
Technical	Transducers	Dual-Purpose transceivers, 50kHz nominal, pressure-tested housing, 25mm diameter.
	Cables	Heavy-duty polyurethane wound on a 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 150m
	Tube spacing	Up to 5m in good concrete
	Productivity	Up to 3000m/Day by a single operator
	Storage	Unlimited
Requirements	Computer (Minimum)	Windows XP/Win7/Win10/Win11. 800x600 resolution or higher
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	3DT - Three-dimensional tomography (Also provided as a service over e-mail)
	Miscellaneous	12V DC car battery power adapter