

FROM *the* PILE

Pile Dynamics: New accessory for Cross Hole Sonic Logging

Cross Hole Sonic Logging (CSL) is one of the most popular testing methods to evaluate integrity of drilled shafts. It involves inserting probes – two at a time – in tubes built into the shafts especially for the test.

The probes, on spooled cables, are lowered to the bottom of the shafts and pulled back up. As they travel along the shaft, one of the probes emits a sonic wave, and the receiver probe picks it up after it travels through the concrete. The intensity and time of arrival of the wave at the receiver probe is indicative of concrete quality.

The test is typically performed in shafts with at least four access tubes, but sometimes as many as 10, the company stated in a news release.

Test procedures require filling the tubes with water, and testing all possible paths between tubes. Remember your combinatorial analysis and you'll figure out that those probes will be pulled many times (15 for a shaft with six tubes). Even rugged field engineers wearing water resistant gloves become quite uncomfortable after pulling the wet cables by hand a few times.

Pile Dynamics, Inc. has solved this problem by designing a Motorized Probe Deployment System (Automated Reels) that works with its CSL testing equipment: the Cross Hole Analyzer.

In addition to sparing the testing engineer from constantly handling wet and often cold cables, the Motorized Probe Deployment System keeps the cables neatly organized on the spool, and allows the tester to gather information at a consistent speed (this reduces the possibility of missed data points due to too fast a pull). The system is powered by either an eight hour duration battery or by an external 12V power source.

In addition to the Cross Hole Analyzer and its Motorized Probe Deployment System, Pile Dynamics produces several other quality assurance and quality control products for the deep foundations industry. Its products are recognized throughout the world as the ultimate solutions for testing and monitoring of deep foundations. The company is based in Cleveland and has commercial representatives worldwide. For more information, visit www.pile.com.



Cross Hole Analyzer