

Making testing more comfortable

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. Test procedures require filling the tubes with water, and testing all possible paths between tubes. The probes will be pulled many times (15 for a shaft with six tubes). Even rugged field engineers wearing water resistant gloves can become quite uncomfortable after pulling the wet cables by hand a few times.

Pile Dynamics 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 organised 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 12 V power source. ■

Enquiry: sales@pile.com



The Cross Hole Analyzer with motorised reels.