



Shaft Area Profile Evaluator

Shaft Area Profile Evaluator (SHAPE®)

Wireless Data Acquisition of Drilled Shaft Radius, Volume and Verticality

Fast. Accurate. Cost Effective.

Drilled shafts are rarely ideal cylinders, and irregularities can affect capacity, durability and performance. SHAPE® is a cost-effective, quality assurance testing device used for deep foundations such as drilled shafts, bored piles, slurry walls, and more to ensure the design intentions are satisfied for the project.

SHAPE® has eight ultra-sonic signals to scan the sides of an excavation, providing a quick and economical view of the shaft verticality, radius, shape, and drilled hole volume, prior to placing concrete in wet conditions.

SHAPE® offers:

- Quick connection to Kelly bar or can be used with an optional winch system
- Multi-channel ultrasonic device to scan the sidewall condition of wet pour drilled shafts
- Wireless data acquisition at a rate of approximately one (1) scan per second
- Eight (8) channels scanned simultaneously and built in calibration pulse to improve accuracy
- Effective in water, polymer and mineral slurries
- Sitelink® Remote Technology
- Battery powered

SHAPE's drilling stem advancement rate is approximately one (1) foot per second (0.3 m/sec), offering 360°, 2D and 3D profile views.

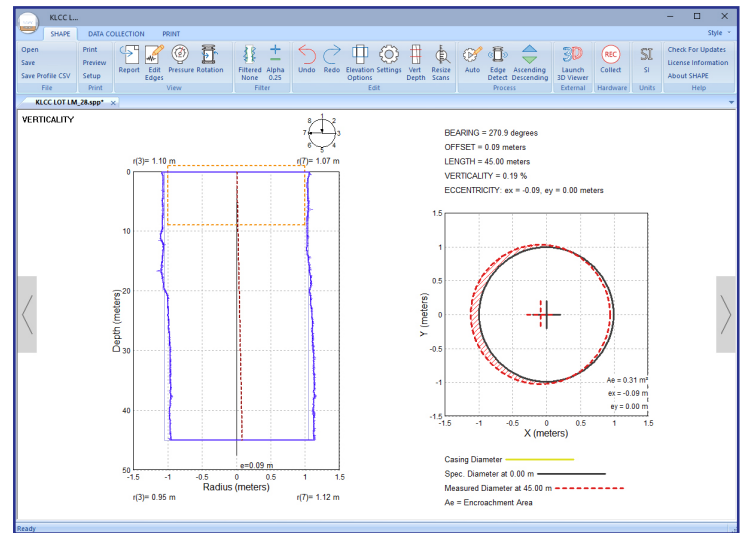
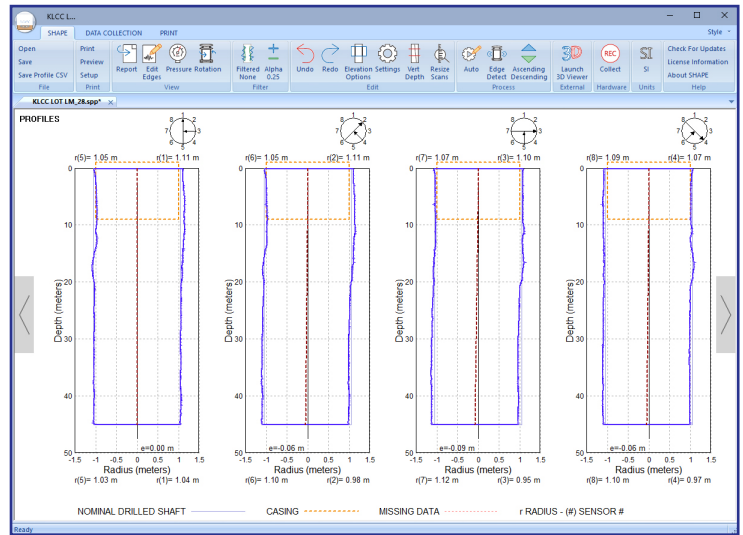


SHAPE® Data Collection Software

SHAPE® software generates reports based on data collection during testing. The software allows users to view or edit the collected data with the following features:

- Edit Edges – select edges for the circle fit process
- Pressure – view how the pressure increased during descension and decreased during ascension
- Sensor Data – view measured pulses
- Report – view the sensor profiles containing their verticality and eccentricity information

The program produces a 3-dimensional image of the boring by calculating the distance between each sensor and the excavation wall. The SHAPE® calculates the distance by measuring the wave speed in slurry at each measurement depth.



- Quick, cost effective views of the excavation to ensure design intentions
- 8 ultra-sonic signals providing 360°, 2- & 3-Dimensional profile views
- Wireless data acquisition

SHAPE® with Cable Connection

The SHAPE with Cable Connection can be deployed via winch system for data collection during testing. The connector cable provides real-time data during deployment for quick testing results.

Pile Dynamics, Inc. (PDI) is the world leader in developing, manufacturing and supplying state of the art QA/QC products and systems for the deep foundations industry. The company is headquartered in Cleveland, Ohio, USA, with offices and representatives worldwide. For additional information visit us at www.pile.com or contact info@pile.com.