Shaft Area Profile Evaluator for Dry Holes (SHAPE®-AIR)

Wireless Data Acquisition of Drilled Shaft Radius, Volume and Verticality in a Dry Shaft

Fast. Accurate. Cost Effective.

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

SHAPE®-AIR has eight Lidar Sensors 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 a dry hole.

SHAPE®-AIR offers:

- Quick connection to Kelly bar or can be used with an optional winch system
- Multi-channel Lidar sensor device to scan the sidewalls of a dry excavation
- Wireless data acquisition at a rate of approximately one (1) scan per second
- Eight (8) channels scanned simultaneously
- Effective in dry, open holes or shafts
- Sitelink® Remote Technology
- Battery powered

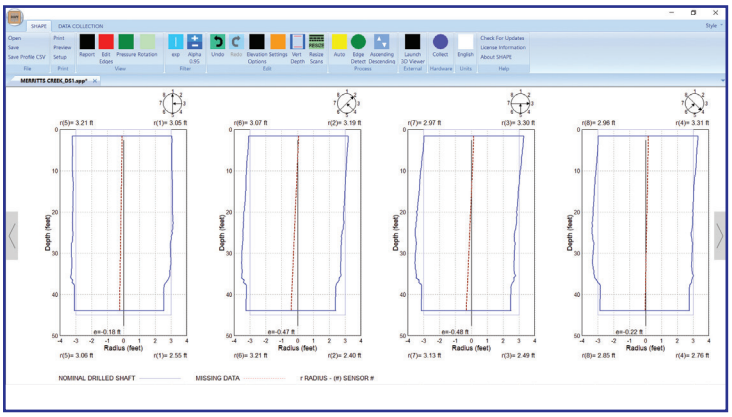
SHAPE®-AIR's drilling stem advancement rate is approximately one (1) foot per second (0.3m/sec), offering 360˚, 2D and 3D profile views.

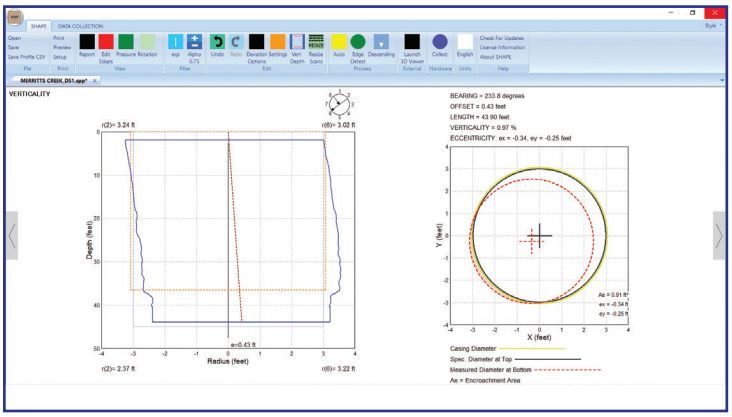
SHAPE®-AIR Data Collection Software

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

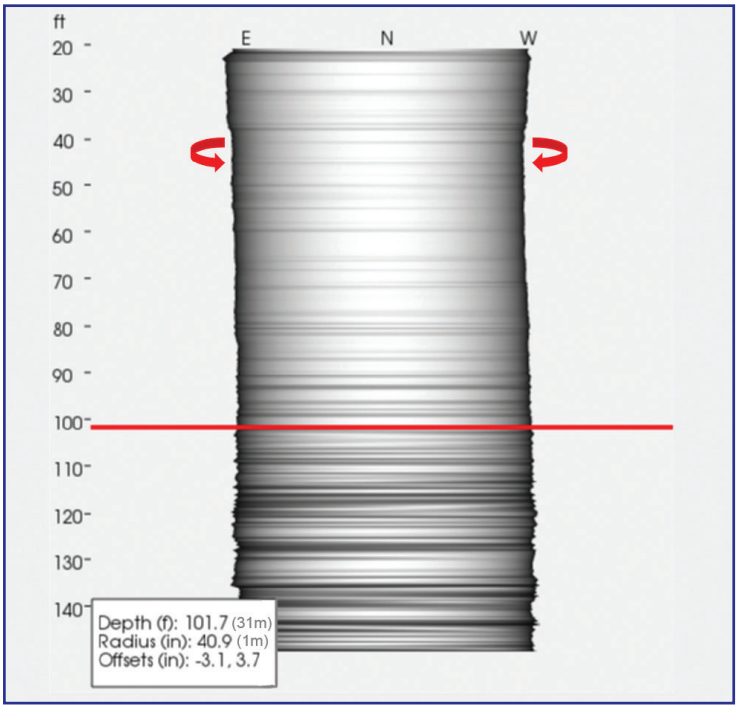
- Edit Edges - select edges for the circle fit process
- Depth measured by Lidar sensor
- Sensor Data – view measured pulses
- Report – view the sensor profiles containing their verticality and eccentricity information

The program produces a 3-dimensional image of the boring by calculating the distance between each sensor and the excavation wall.





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



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.

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