Shaft Area Profile Evaluator (SHAPE)

Quality Control of Shaft Radius, Volume and Verticality of Drilled Shafts and Bored Piles


SHAPE is a cost-effective quality assurance testing device used for deep foundations such as drilled shafts, slurry walls, barrettes and more to determine the excavation dimensions and verticality.

Drilled shafts are rarely ideal cylinders and irregularities can affect capacity and design. SHAPE has eight ultra-sonic signals to scan the sides of an excavation, providing a quick view of the shaft verticality, radius, shape, and drilled hole volume. SHAPE provides a fast, economical visual representation of the foundation excavation and verticality 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
- Data acquired wirelessly with the calculations of the shaft profile, determining shaft radius, volume and verticality
- Data acquisition at a rate of approximately one (1) scan per second
- Eight (8) channels scanned simultaneously
- Sitelink® Remote Technology
- Built in calibration pulse to improve accuracy
- Effective in water, polymer and mineral slurries
- Battery powered

SHAPE’s drilling stem advancement rate is approximately one (1) foot per second (300mm/sec), offering 360°, 2D and 3D profile views.
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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- Quick, cost effective views of the excavated shaft prior to concrete pouring
- 360°, 2- & 3-Dimensional profile views
- 8 channels scanned simultaneously