

Economical way of testing piles

The Pile Integrity Tester (PIT) from Pile Dynamics Inc. performs low strain integrity testing and can be used to test concrete piles, drilled shafts, augered piles (CFA), concrete-filled pipe piles and timber piles.

The test can be easily performed making it economically viable to test every pile on site. The PIT can detect the presence and location of cracks, necking, soil inclusions or voids and can determine pile length.

PIT has been successfully used to test piles vital to the structure such as in supporting bridges or towers, and does not require advanced planning or access tubes.

An accelerometer attached to the top or side of the pile can measure the stress wave created by the impact of a small hand-held hammer on the pile. It can also obtain measurements when the stress wave reflects back from the bottom of the pile or from a shaft cross-section change. These can pinpoint potential defects.

The PIT is light, requires only one person to operate it and run for an entire day on an internal rechargeable battery. The high resolution touch screen displays clear data screen plots and precise finger control. Test data is of high quality as a result of reduced noise electronics and a high analog digital sampling rate. The data can be evaluated in the field or transferred to a computer for further processing using the PIT-W software.

PIT comes in the velocity (PIT-V) and force velocity (PIT-FV) models. When combined with PIT-W software, PIT-FV allows a



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better evaluation of defects near the pile top, permits analysis in the frequency domain and enables wave calculations.

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