



Pile Installation Recorder

Pile Installation Recorder (PIR-Q)

For quality control of ACIP and CFA piles

Cost Effective. Real Time. Accurate.

An Automated Monitoring Equipment that assists in the installation of augered cast-in-place (ACIP)/continuous flight auger (CFA) and drilled displacement piles by displaying pumped grout/concrete as a function of depth in real time. PIR is a cost-effective way to reduce the uncertainty of concrete volume placement.

The equipment may be installed on any drilling rig, including those operating with low headroom. As the rig proceeds from pile to pile, the operator easily monitors the installation of every pile on the job in real time displaying:

- Grout volume pumped versus depth
- Grout line pressure
- Auger tip depth
- Auger torque, rotation, crowd and withdrawal rate
- Incremental drilling time / drilling rate
- Start and stop times



- Records and displays accurately measured, pumped grout volume and auger depth in real time, optionally with grout pressure or torque measurements and RPM
- Installation log results printed immediately on a small field printer
- Data collection can be monitored remotely in real-time
- May be installed in any type of dedicated or general purpose drilling rig equipment
- Can be used in low headroom applications

PIR-PLOT software allows data analysis with a depth increment different than the one used in the field. PIR-PLOT summary report includes:

- Actual and theoretical volumes
- Total length drilled
- Duration of drilling, grouting, and total installation
- Starting and return head
- Actual and requirement percent of neat line

PIR-PLOT graphs the following quality control variables versus depth:

- Grout pressure
- Grout volume
- Drilling rate
- Withdrawal rate
- Torque pressure
- Percent of neat line
- Drilling resistance

The key parameters for a precise installation are pumped grout volume and auger depth. The PIR accurately records and displays both in real time. The flow tube-meter combo eliminates the need to send the raw grout flow data over a cable, which can make the data susceptible to inaccuracies if the cable is damaged.

The PIR flow tube-meter combo can be utilized as a drop-in replacement for the flow tube and meter in existing PIR systems.



SiteLink® (Remote Testing)

- A cost and time efficient alternate to traditional on-site testing
- Real time field to office data transmission via Internet
- Simple field setup



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.