Parametric® Research & Control
(An ISO 9001:2015 (QMS) Certified Company)

Registered CCPL

ACCREDITED Management Systems Certification Body ACC NO. MSCB-120

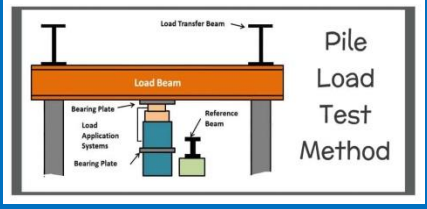
PILE LOAD TESTER (PLT) WITH DAS

Description: In order to validate the the design safety factors, pile design & lengths, **Pile Load Testing** is an important factor for the piling works that should be properly planned and factored into the project schedule and project costs at an early stage. It provides the quick and accurate monitoring of force and displacement during te test. This test is performed to confirm the design load calculations and to provide guidelines for setting up the limits of acceptance for routine tests. It also gives an idea of the suitability of the piling system. Initial Test on piles are to be carried out at one or more locations depending on the number of piles required. Load applied for the initial (cyclic) load test is 2.5 times the safe carrying capacity of the pile. Geo Technical Engineering provides pile load testing for any project by applying static and dynamic test methods as follows:

- Static pile load testing (axial and lateral)
- Dynamic compression load testing by Pile Driving Analyser (PDA)
- Pile Integrity Testing (PIT)

Static Load Testing

Static load testing is used to evaluate the load resistance behavior of deep foundations prior to structure construction. It differs from rapid and dynamic load testing in that the load is applied to the deep foundation slower. Static Load Tests can be performed to validate foundation design assumptions regarding the axial compression or axial tension resistance provided by a deep foundation element, or its deflected shape under a lateral load. Conventional readings of the applied load determined from the jack pressure gage and load cell, and deep foundation head movement determined by LVDTs, digital dial gages, or mechanical dial gages, can be combined with the SLT to determine the capacity or nominal soil resistance, the load-transfer behavior under axial loads, or deflected shape under lateral loads. The Static Load Tester also reads strain gages and vibrating wire gages.



PRC's Static Load Tester includes:

* **5/8/16 Channels (4/8/12/16 analogue and 8 digital) for each data acquisition box with smart universal inputs**
* **Remote data collection box (es) capable of being daisy-chained for a large number of sensors**
* **Wireless configuration for easy set up and remote operation • Real-time graphical presentation of load, strain, displacement, and pressure measurements**
* **LAB View based sotware which can handle compression (both top-down and bi-directional), tension, and lateral load**

Data Acquisition System with Pile Load

Pile Load testing Arrangements at Construction Site

HMI

HMI (Human Machine Interface) is a medium for information exchange and mutual communication between electromechanical system's and the user. It allows the user to complete settings through touchable images or keys on the user-friendly window. This not only offer's fast and convenient control of manufacturing automation, but also has replaced traditional controlling panel's which need extensive wiring.

Human Machine Interface (HMI) equipment provides a control and visualization interface between a human and a process, machine, application or appliance. HMIs allow us to control, monitor, diagnose and manage our application.

The Human Machine Interface (HMI) includes the electronics required to signal and control the state of industrial automation equipment. These interface products can range from a basic LED status indicator to a 20-inch TFT panel with touch screen interface. HMI applications require mechanical robustness and resistance to water, dust, moisture, a wide range of temperatures, and, in some environments, secure communication. They should provide Ingress Protection (IP) ratings up to IP65, IP67, and IP68.

Features and Benefits

- Supports high source and sink output IO capabilities up to 60mA for direct drive of LEDs.
- High-speed PWM units enable LED dimming and screen back lighting.

- Robust touch technology provides reduced wear and increased product lifetime.
- The excellent signal-to-noise ratio makes the design immune to water, moisture, or dust and enables operators to use gloves.
- Capacitive touch eases design of full hermetic or sealed products, while power efficiency minimizes heat dissipation.

TECHNICAL SPECIFICATIONS

Name	Pile Load Tester (PLT)
Make	Parametric
Developer	Parametric™ Research and Control
Model	DAS-43S
Display	Menu driven, touch screen HMI
Machine Controller	HMI Touchscreen
HMI Model	DAS-43S
HMI Size	250x320x275 mm3
Display Size	4.3 inches
On Screen Display	Date and Time RESET: Used to reset the system AUTO: Starts the system in automatic mode MAN: To operate the system in manual mode
Menu Options	EDIT: To enter the test values/parameters ZERO: To make the analog readings zero READ: To Read the ROTA serial no. & Part no.
Analogue to Digital Converter	ADC-24 bit
Settable Parameters	High and Low limits
Data Storage	64 GB through SD Card
Rear Panel	Connectors provided to connect load cell
Measurement	Sensor Inputs and sensor Output
Power Supply	Mains 220 V AC, 50 Hz, ± 10% Internal 24 V DC-4.5 amps 5 V DC-3 amps 12 V DC-1 amps
System Processor	MCU

We also manufacture:

- ✓ Design & Development of Customized requirements
- ✓ Microcontroller Based Systems for Load, Pressure, Torque, Displacement, Temperature, Multifunction Digital Indicators, Batching Systems, Data Acquisition Systems, Air Leakage

Testing System, Light Testing System, Computerization of Materials Testing Machines, Timers, Counters, Production Counter, Impact Tester, Hardness Tester.

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