ASLT Automatic Static Load Test System

Hardware and Software Specification

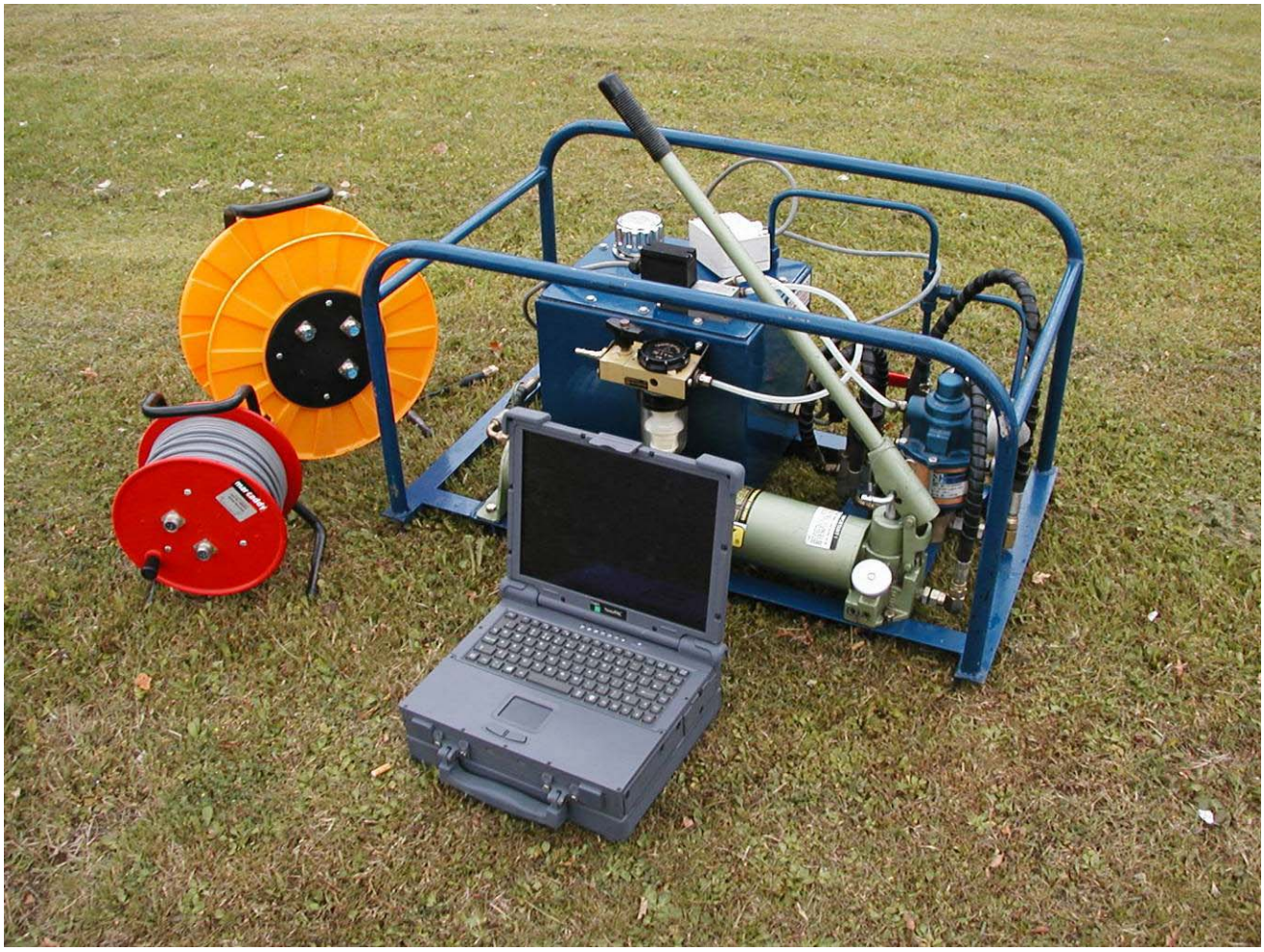
THE SYSTEM

The traditional method of carrying out a static load test is to hire a jack, load cell, hydraulic pump and a few dial gauge indicators, install on the pile and leave a foreman to apply and maintain the load manually sometimes non-stop over a period of over 24 hours. Under these circumstances, it is almost impossible to maintain the required load accurately with the additional danger of having to work directly under live loads whilst taking dial gauge readings. There is however, an alternative!

Testconsult's ***' Automatic Static Load Testing System'*** is controlled by a portable computer which follows the load testing cycle you have chosen. The computer takes readings via a data logger of load and pile movement, and controls the applied load using an air/hydraulic load maintainer. All readings are taken remotely in complete safety and stored automatically.

The main advantages of the system are :

- Accurate error free load application
- Automatic logging of readings in safety
- Quick and professionally presented test reports



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HARDWARE

Data Collection Computer

The system is supplied with an all metal, weatherproof notebook computer, with a 600MHz mobile Pentium™ III CPU, which contains a data acquisition card. It comes with a 64 WHr Ni-MH battery, a 100-240VAC 47-63Hz power adapter, a 10-20VDC car battery charging lead and padded carry case. The computer has Windows 98 operating system together with the powerful SLAP (Static Load test Analysis Program) software pre-installed and all the usual notebook interfaces for peripherals. The unit weights 6.5Kg and can easily be carried as hand luggage. Loading templates can be supplied to suit the client requirements and local specifications.

Load Maintainer

The system is able to maintain load to within 1% of the target load, and contains failsafe features which would enable the operator to restart the system in the event of power failure without loosing any data. The system is able to operate using any 700 bar jack or even a combination of jacks. The load maintainers air pump can be powered using either a site compressor or nitrogen bottles and is supplied complete with all necessary hoses, batteries and leads. Thm also incorporates a manual hydraulic pump, to take the initial slack out of the system.

Load Cell

A load cell is supplied to suit the clients specification, complete with all connection leads.

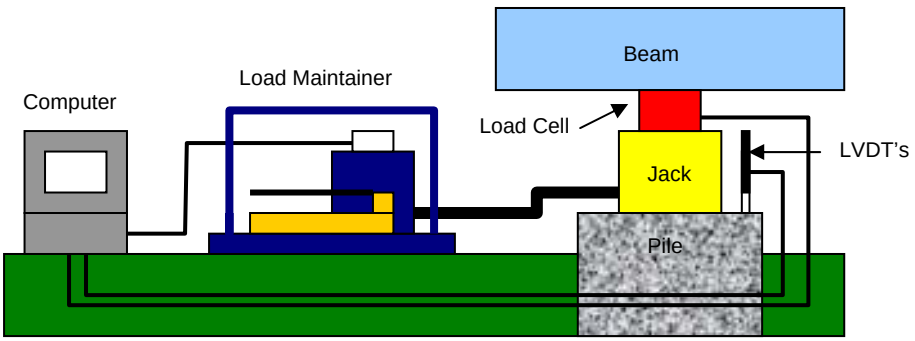
Jack

The system can be supplied with or without a standard 700 bar jack. The specification will be to suit the clients requirements.

Displacement Transducers

4 No LVDT displacement transducers are supplied with the system, each with a 100mm range and a resolution of 0.01mm.

Connectors : Waterproof Lemo or Jaeger connectors with non-interchangeable configuration.
Navigation : Menu system which prompts the operator.
Calibration : The ASLT unit is supplied with a calibration certificate.
Options : An optional extra is to have a communications module linked through the mobile phone network to a web serve. A remote engineer could then view the progress of the load test on the internet and this could be made available to the any other party as required, with a password. Also, an additional LVDT can be supplied to measure movement of the reaction frame.



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