

The Humboldt Geotechnical Lab

The unique concept behind the design of Humboldt's geotechnical lab equipment is accentuated by our dedication to modular design and data acquisition. All of Humboldt's primary geotechnical machines feature an integral 4-channel data logger, which allows our equipment to function as stand-alone work stations, part of a lab-wide computerized system, or anything in-between. Coupled with this is our dedication to the development of our own test-specific software, which allows you to control, collect data and run reports for all the machines in your lab.

Stand-Alone Solution

As a stand-alone solution, our geotechnical testing machines provide a simple, efficient method of obtaining test results, regardless of the size of your testing operation. No more tracking dial or digital gauge readings and making notes, our machines independently record, store and print test data. What this means for you is, if you simply want to record your test data and print it out to a printer or chart recorder, you can do that without the need for a computer. This also provides you with a great deal of versatility in setting up a lab, as well as dealing with setting up satellite labs, on-site, field locations and experimental processes; allowing you to quickly set up an independent station without having to deal with computers, loggers and networks. This stand-alone feature can also be very advantageous in a lab where you are utilizing computer-controlled machines and your computer crashes. In this scenario, because your data is being recorded and stored independently of the computer, your data is not lost and you can continue to run your tests and record your data without any downtime.

Computerized Control and Data Acquisition

In a computerized system with data acquisition, Humboldt's unique design concept for geotechnical testing equipment really reveals its strengths. In this type of setup, the same machines, which we used in the stand-alone solution can be connected to a computer running our HMTS software, which now allows you to control the actual test operations, monitor test data in real-time, capture and store test data, as well as view actual test data curves in real-time with our test-specific software modules.

Stand-Alone

The HM-3000 Load Frame used in a stand-alone mode provides you with excellent control and data-logging capabilities, while it provides you with a load frame capable of almost any type of testing you may encounter.



Computerized Control

Humboldt's design concept lets you daisy-chain our geotechnical testing equipment together, allowing you to control and collect data from all the testing machines in your lab from an individual computer station, simultaneously, in real-time.



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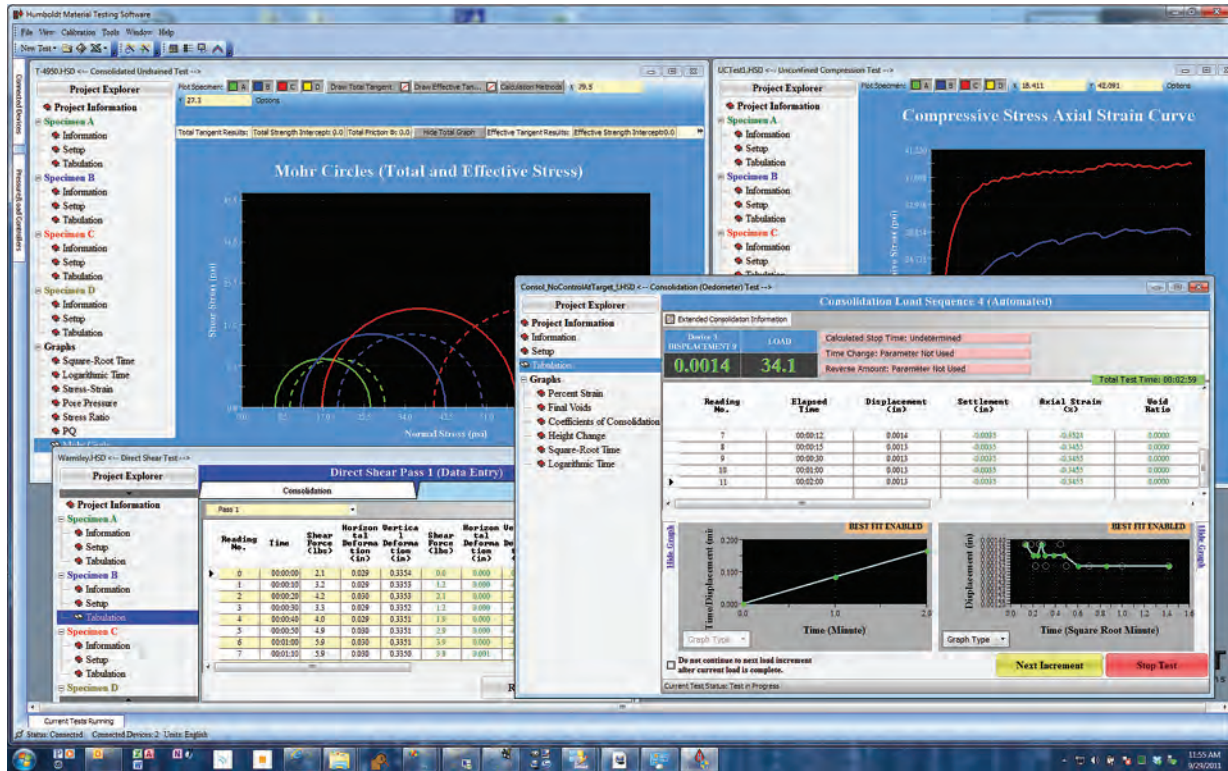
HM-2750A.3F



HM-2560A.3F



HM-4155



In a computer-controlled lab you can run myriad tests at the same time all from one computer or a number of computers, if you choose. Our highly flexible system allows you to run a bank of consolidation test machines or several triaxial tests, several direct shear tests and some consolidation tests at the same time, from the same computer, all in real-time; so you can monitor the data collection of all your tests as they run simultaneously.

Flexibility

Because our test equipment include integral data loggers, adding to a system is plug and play. You can quickly add machines to your computerized system or leave them as stand-alone stations, while still being able to export test data to computers. Our internal data loggers also make it extremely easy to move testing equipment from lab to lab quickly and easily. If you have a special project and want to move a machine to a field location, just pack it up and ship it. When it gets there you'll have the same data logging and control functions you enjoyed in your primary lab.

And, with the use of our MiniLoggers, you can also utilize existing equipment, even from other manufacturers as part of your system with full data logging capabilities.

HMTS software provides you the ability to control all your tests from a single computer simultaneously. You can monitor all your tests in real-time, watching the data as it is recorded and graphed.

HMTS Software

HMTS Software

From a single operation to controlling a complete geotechnical lab, Humboldt Material Testing Software (HMTS), in conjunction with compatible Humboldt testing equipment, provides a complete solution for the acquisition, recording and presentation of testing data. HMTS works in conjunction with Microsoft Excel to present test data in easy-to-read Excel workbook format files, which can be evaluated directly or sent to any computer using Microsoft Excel.



HM-2900.3F



HM-2450A.3F



HM-2325A.3F