

July 2010

DTB's New Test Facility for Large Scale Structural Testing

Dayton T. Brown Inc. is eager to announce its brand new structural test facility. Our new facility, which provides full scale aircraft structural testing, is located in the high-bay extension area (the northeast side) of our main testing facility.



The facility includes a modular self-reacting load frame that is easily re-configurable to accommodate different types of large, high displacement structures, aircraft, wind turbine blades or UAV aircraft to mention a few. The test frame also has a built in hoist and trolley system for loading test items.

Currently the test fixture is configured with a MTS Aero ST load Controller with 32 load control channels and 96 data acquisition channels. The system is easily expandable to match customer requirements.

The load control system has state of the art load control and safety systems which insure accurate load application and test item integrity. Loads are applied using servo controlled hydraulic actuators powered by a 150HP, 50 GPM hydraulic systems. In order to accommodate the high deflections cables and pulleys are used for some loads.

The first testing conducted with this facility will be on an aircraft for FAA approval under the FAA Part 23 static test requirements. Static testing on the wing for limit, ultimate (1.5 times limit) and failure testing will be conducted along with landing gear and fuselage limit and ultimate testing. Strain gage and displacement data will be plotted in real time to allow engineers to monitor the test in real time

Find out how we can help with your structural testing needs! Contact us, we are excited to work with you!