

AC vs. DC

Waco Boom's standard dielectric test method is DC Voltage. We have a HI-POT AC tester capable of 120kV AC. DC testing is a better indicator for our process. It measures through the wall of the boom and can detect voids (entrapped air and or water) better than the AC, especially when steel weldments have not yet been attached to the bare fiberglass booms. Once the steel has been added, the AC test gives an advantage.

AC testing typically detects sharp edges as corona and is susceptible to generating currents in other metal objects in the testing area. Since these currents are not passing through the boom, it can skew the testing results by not recording all of the current leakage. Furthermore, testing of the fiberglass wall is better evaluated with DC since we use conductive rings on both the inside and outside of each end of the part. This allows the insulating gap surfaces and the wall between them to be checked simultaneously.

