HAEFELY HIPOTRONICS

AERIAL LIFT TESTING

APPLICATION GUIDE

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reliable precision.

HUBBELL HIGH VOLTAGE TEST SOLUTIONS

MARKET SEGMENTS

CUSTOMER BASE FOR DIELECTRIC TESTING

HAEFELY HIPOTRONICS

- AERIAL LIFT TRUCK MANUFACTURERS
- UTILITIES
- SERVICE COMPANIES

DIELECTRIC TESTING

For utility and service companies, electrical maintenance testing of aerial lifts (bucket trucks) is crucial for maintaining safety. The voltage withstand ability - or dielectric breakdown - of this equipment should be tested regularly to ensure insulation integrity.

Proper testing and recording of test results can detect existing issues and prevent future hazards.

HAEFELY HIPOTRONICS' **dielectric test equipment** can be used to identify failures which may be caused by the following occurences:

- Contamination of insulator surfaces
- Chemical (internal and external) deterioration of the insulator
- Aging and degradation of the fiberglass or rubber insulating material
- Moisture absorption
- Incipient faults and internal voids, as a result of ionization caused by partial discharge
- Improper insulating material with inadequate dielectric constants or voltage withstand ability

TRAINING OPPORTUNITIES

AERIAL LIFT TESTING COURSE

Sign up for our "Aerial Lift Testing" course, offered through our training program. This course provides step-by-step training on how to test the electrical strength of boom insulators (per ANSI Standard A92.2) as well as a variety of related topics.

EDUCATION IS POWER

training@hipotronics.com



PRODUCT LINE OVERVIEW

Dielectric testing confirms the electrical strength or electrical voltage withstand ability of various apparatus. Many tests are conducted by applying a voltage across the "insulator" portion of the apparatus while measuring the resultant leakage current.

See FIGURE 1 for an example of a test set-up. A simplified RC circuit is also shown below (FIGURE 2) to represent resistance in parallel with a capacitance. The resistor represents an insulated boom, while the parallel capacitor actually represents many small capacitances. These capacitances may be caused by outside factors such as the test leads, grounding planes or corona effects. FIGURE 2 represents a model RC circuit.

We manufacture both **AC and DC hipots** for these types of testing applications.

SAFE AND RELIABLE





		TEST VOLTAGE						
		0-30 kV	≤ 40 kV	≤ 60 kV	≤ 80 kV	≤ 100 kV	≤ 120 kV	≤ 170 kV
AC Testing HVT SERIES	30HVT-DI	•						
	60HVT-DI	•	•	•				
	100 HVT-DI	•	•	•	•	•		
	120HVT-DI	•	•	•	•	•	•	
DC Testing 800 SERIES	840PL-DC	•	•					
	880PL-DC	•	•	•	•			
	8120	•	•	•	•	•	•	
	8170	•	•	•	•	•	•	•



FIGURE 1 | Model Dielectric Test Configuration (ANSI Standard A92.2)

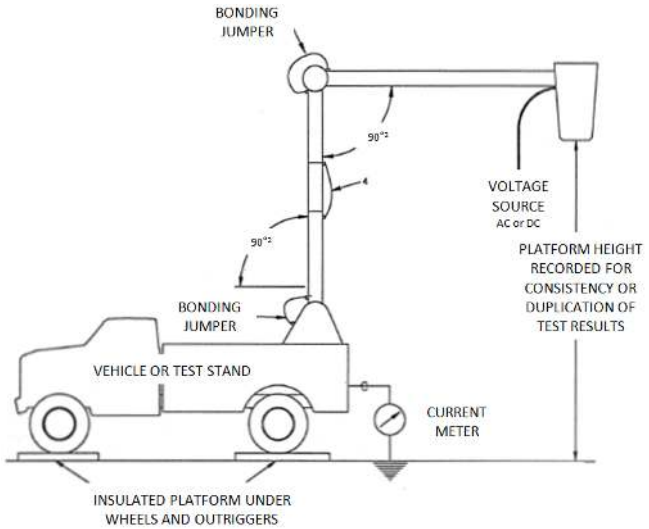
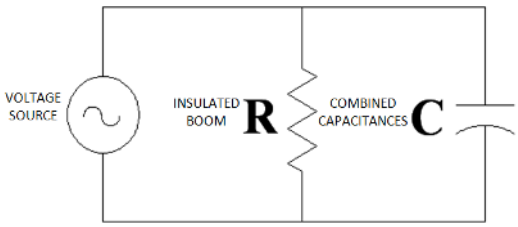


FIGURE 2 | Model RC Circuit



Scan the image using your smartphone to get access to more testing information from our whitepapers and datasheets.



OFFICES:

Europe
Haefely Test AG
Birsstrasse 300
4052 Basel
Switzerland

☎ + 41 61 373 4111
🖷 + 41 61 373 4912
sales@haefely.com

China
Haefely Test AG Representative Beijing Office
8-1-602, Fortune Street
No. 67, Chaoyang Road, Chaoyang District
Beijing, China 100025

☎ +86 10 8578 8099
🖷 +86 10 8578 9908
sales@haefely.com.cn

North America
Hipotronics, Inc.
1650 Route 22 N
Brewster, NY 10509
United States

☎ +1 845 279 3644
🖷 +1 845 279 2467
sales@hipotronics.com

HAEFELY HIPOTRONICS has a policy of continuous product improvement. We therefore reserve the right to change design and specification without notice.