

# **AERIAL LIFT TESTING**

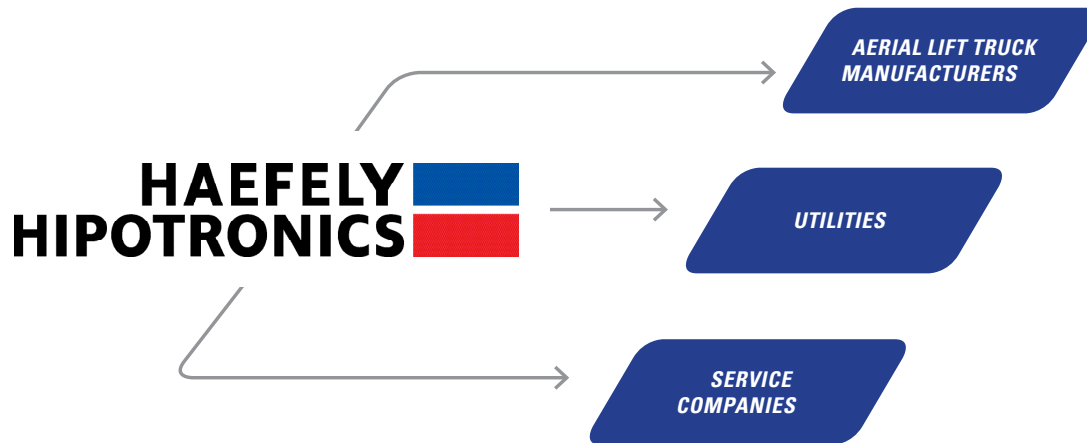
## **APPLICATION GUIDE**

[www.haefely-hipotronics.com](http://www.haefely-hipotronics.com)



## MARKET SEGMENTS

### CUSTOMER BASE FOR DIELECTRIC TESTING



## 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 occurrences:

- 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](mailto:training@hipotronics.com)



# PRODUCT LINE OVERVIEW

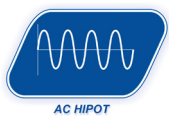
Dielectric testing confirms the electrical strength or electrical voltage withstand ability of various apparatus. Many tests are conducted by applying a voltage across the “insulator” portion of the apparatus while measuring the resultant leakage current.

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

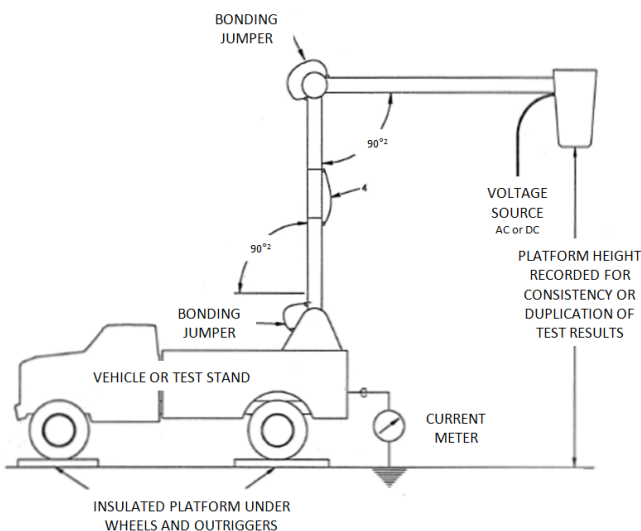
### TEST VOLTAGE



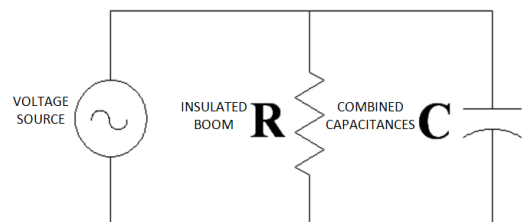
		0-30 kV	≤ 40 kV	≤ 60 kV	≤ 80 kV	≤ 100 kV	≤ 120 kV	≤ 170 kV
<b>AC Testing</b> HVT SERIES	<b>30HVT-DI</b>	•						
	<b>60HVT-DI</b>	•	•	•				
	<b>100HVT-DI</b>	•	•	•	•	•		
	<b>120HVT-DI</b>	•	•	•	•	•	•	
<b>DC Testing</b> 800 SERIES	<b>840PL-DC</b>	•	•					
	<b>880PL-DC</b>	•	•	•	•			
	<b>8120</b>	•	•	•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



**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.





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