# EQUIPMENT RENTALS

Doble offers a variety of flexible, cost-effective rental options to meet your short-term test equipment needs. Doble rental solutions include:

- Next day delivery in many locations.
- Weekly and monthly rental options.
- Engineering consulting and recommendations available for apparatus test procedures, data analysis and apparatus condition.

With deliveries to your facility as quickly as the next day, short-term rentals are ideal for those in need of an extra unit during times of heavy workload or to cover an immediate need for equipment. Doble engineers provide support for all rental equipment and are ready to assist you with technical questions and test result consultations.

How Do I Rent? To learn more about Doble's short-term rental program, email rentals@doble.com.

M4100 INSULATION ANALYZER

## EQUIPMENT RENTAL OPTIONS

## **OFF-LINE TESTING & ASSESSMENT**



The Doble M4100 Insulation Analyzer's combination of test capabilities and artificial intelligence analysis software makes it the power industry's most trusted Power Factor/Tan-Delta instrument

SOFTWARE: DTAPro Version 7 software is included in the rental CONTROLLER: Add a Doble Universal Controller (DUC), which comes pre-loaded with Doble Test Assistant (DTA) software

ACCESSORIES: Insulation analysis accessories are also available to rent



### M5400 SWEEP FREQUENCY RESPONSE ANALYZER

The Doble M5400 Sweep Frequency Response Analysis test set investigates the mechanical and electrical integrity of transformers, reactors and other equipment containing windings. Use it to help determine if a transformer is mechanically or electrically damaged, if it can go back in service after a fault or if it has been damaged during transit.

**SOFT WARE:** SFRA software is included with your M5400 rental

**CONTROLLER:** Add a Doble Universal Controller (DUC), which comes pre-loaded with SFRA software



#### **TDR900 CIRCUIT BREAKER TEST SYSTEM**

The Doble TDR900 is an entry-level, portable circuit breaker test set. Use the TDR900 to verify control circuit, check motion of moving parts, validate time of operation and demonstrate results of circuit breaker maintenance.

**SOFTWARE:** T-Doble software is included with your TDR900 rental **CONTROLLER:** Add a Doble Universal Controller (DUC), which comes pre-loaded with T-Doble software

## **PROTECTION TESTING**

#### F6150 POWER SYSTEM SIMULATOR



Doble's F6150 Power System Simulators are your versatile solutions for testing IEC 61850-based protection devices and schemes.

**SOFTWARE:** Your rental can include Protection Suite Pro software for an additional charge **CONTROLLER:** Add a Doble Universal Controller (DUC), which comes pre-loaded with Protection Suite Pro software

## INSULATION ANALYSIS ACCESSORIES



#### **TYPE C RESONATOR**

Used to assist with testing large specimens such as motors, generators and cables, the Type C Resonator provides extra current needed for high voltage test levels. Pair the Type C Resonator with the M4100 to extend its charging current range and test high capacitance apparatus.



#### M4110 LEAKAGE REACTANCE MODULE

The M4110 Leakage Reactance Model is an accessory that measures and calculates both perphase and three-phase equivalent leakage reactance and loss. Use with the Doble M4100 to measure the short circuit impedance of transformers.

### VANGUARD INSTRUMENTS









#### TRF-250 TRANSFORMER TURNS RATIO INSTRUMENT

The TRF-250 is Vanguard's fourth generation transformer turns ratio tester. This latest design provides a higher turns-ratio test voltage of 250Vac, provides a wireless Bluetooth PC interface, and features a 44-key "QWERTY"-style membrane keyboard.

#### **TRM-403 TRANSFORMER WINDING RESISTANCE INSTRUMENT**

The TRM-403 is a three phase transformer winding resistance meter that allow the user to connect all test cables to the transformer bushings. The TRM-403 can provide a fast and stable reading of very large transformers by utilizing a 60Vdc power supply.

#### DMOM-200 MICRO-OHMMETER

The DMOM-200 S3 is Vanguard's fourth generation, microprocessor-based, true DC microohmmeter. It is designed for testing EHV circuit-breaker contact resistances, bushing contact joints, welding joints, or for any low-resistance measuring application.

#### EZCT-2000C

The EZCT-2000C is Vanguard's third-generation microprocessor-based current transformer test set. Designed specifically for CT testing, the EZCT-2000C can greatly increase productivity and save time during the commissioning stage.



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Specifications are subject to change without notice. Doble is ISO certified. Doble is an ESCO Technologies Company. PUBLISHED: MARCH 2019