

Testing Solutions for Insulation Materials.

EPRO Gallspach GmbH



Routine and Scientific Testing
for VPI / RR Insulation Materials.



EPRO - InsulationTest // Easy TanDelta



EPRO - InsulationTest // TanDelta



EPRO - InsulationTest // Premium



Certificates and Approvals:

- ISO 9001 Quality Management System
- Accredited Calibration Authority according to EN ISO / IEC 17025
- GOST Pattern Approval Certificate of Measuring Instruments
- PTB On-Site Verification of the Accuracy of a Current and Voltage Measuring System of an Accredited Calibration Laboratory



Testing Solutions for Insulation Materials.



Sold & Serviced in North America by:



8526 Virginia Meadows Drive
Manassas, VA 20109
Phone: +1 (703) 365-2330
hvsales@hvtechnologies.com
www.hvtechnologies.com



Tan Delta

Smart Tan Delta Testing for
Solid Insulation Materials.

Smart Tan Delta Testing for Solid Insulation Material!



This machine is an unique, easy and cost efficient device for **Tan Delta testing of solid insulation materials** under controlled temperature and pressure. This machine benefits from the **big experience of EPRO in automated test systems**. The included software is field proven, intuitive and easy to operate.

»Machine Parts«

- 01 opening door with safety contact
- 02 warning lights „safe / hot / danger“
- 03 emergency stop button
- 04 test voltage transformer and electronic power source inside
- 05 induction heated bottom electrode
- 06 induction heated top electrode
- 07 pneumatic pressure cylinder



The electrodes are made of stainless steel and can be dismantled very easy for cleaning purposes.

The Machine Highlights:

Covered Standards:

- DIN / IEC 60093_1993
- ASTM D150-98
- Other standards can be defined

AC Voltage:

- Amplitude adjustable 0 ... 630 VAC*
- Frequency adjustable 10 ... 1000 Hz
- Output 45 VA
- *2.000V version available, other voltage or power on request.

Pressure:

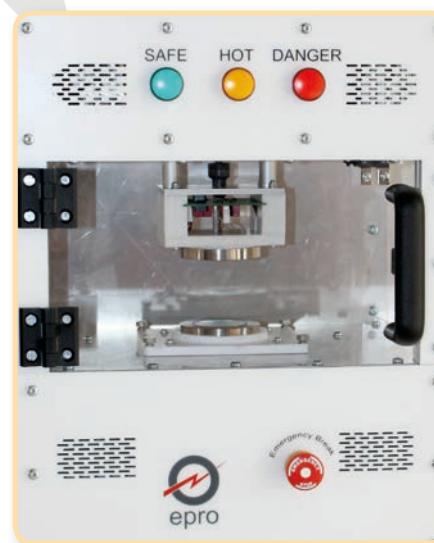
- Pressure on probe adjustable from 20 to 1000 g/cm²

Temperature:

- Induction heating, Power 250W
- All electrode parts seperately regulated
- Temperature adjustable from ambient to 200 °C
- Temperature regulation fully automatic
- Time to reach 200 °C from 25°C approx. 15 minutes (12°C/min)

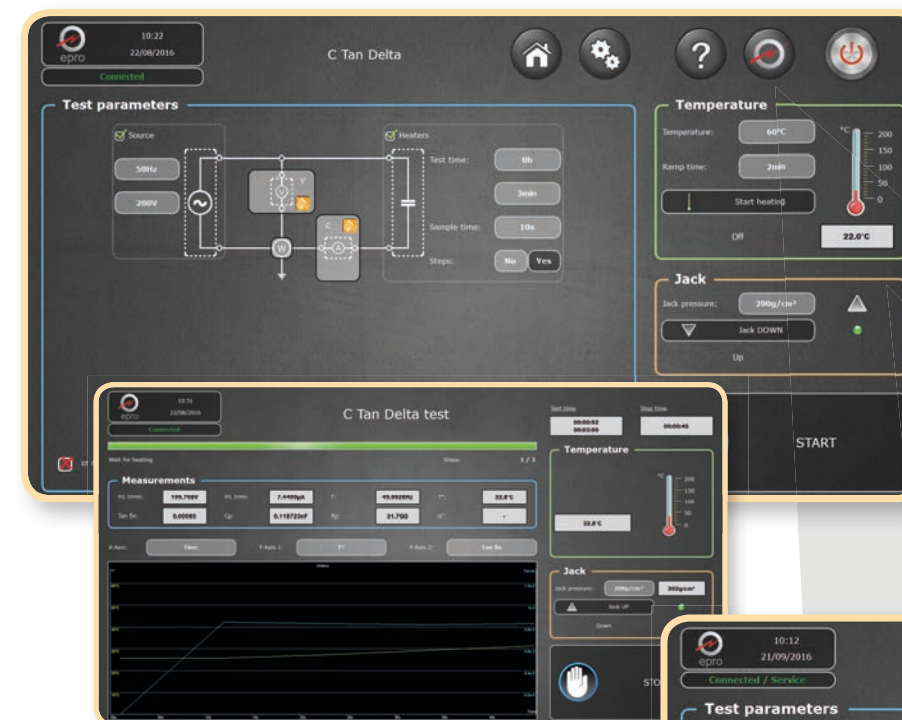
Safety:

- Door contact
- Emergency stop
- Safety lamps



»Software«

All values and complete machine control is done via the included PC software (PC not included in delivery volume). The measured values are **recorded in real time** and saved in **Microsoft Excel format**. Values for **capacitance, Tan Delta, temperature, pressure, power factor** and **test time** are recorded, and can be graphically displayed in function of other parameters.



»PC Requirements«

- Quadri core processor, minimum i5
- 2 Pcs. Of free USB ports
- Minimum screen resolution 1600 x 900 pixel
- Operating system Microsoft Windows® XP / Vista / 7 / 8 / 10
- Microsoft® .Net framework client 4.0

Measurement Accuracy:

Capacitance Range:	10 pF ... 1,5 nF
Capacitance:	± 0,1% Rdg ± 1 pF between 50 pF and 1,5 nF
Loss factor Tan Delta:	± 0,01% Rdg ± 1.10 ⁻⁴ between 50 pF and 1,5 nF
Temperature control:	± 3,0 °C between 10 °C and 79 °C ± 5,0 °C between 80 °C and 200 °C
Temperature measurement:	± 1,0 °C between 10 °C and 79 °C ± 2,0 °C between 80 °C and 210 °C

»Measurement Process«

- The electrodes are closed with max. pressure (without test object) for heating
- After heating the electrodes are opened and the test object is placed
- Start of the test
- It is also possible to process a test from cold to hot
- Frequency or voltage ramp available
- User specific temperature profile

