

# Electrical tests laboratories



# Electrical tests

## laboratories

Several laboratories specifically designed for all your electrical tests

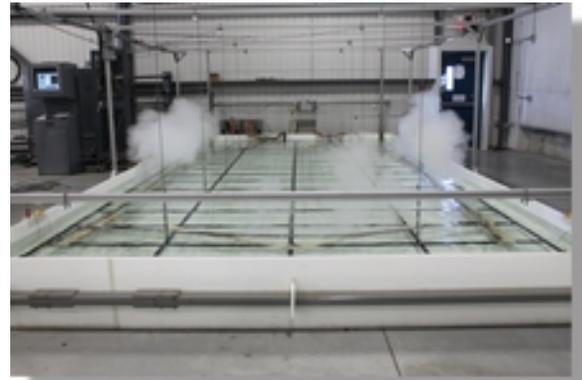
### HIGH POWER LABORATORIES - 3 BENCHS DEDICATED TO ELECTRICAL AGEING

In order to test your electrical equipments, we expose them to ageing cycles in water. Water cooling is faster and more stressful for connectors, which optimizes tests and results reliability. Those tests can also be performed in the air, upon request.

All our ageing tests are performed respecting *ANSI C119.4 and CSA C57 standards*

#### **Bench 1 - Technical characteristics**

- current : 5000A
- voltage : 10V
- length : 8m
- width : 4m
- depth : 0,40m
- maximum mechanical force upon demand : 5 metric tons
- measurements : temperatures, current, voltage, electrical resistances, mechnaical tension, linear shifting
- software : Labview
- other : water cooled until 5°C



#### **Bench 2 - Technical characteristics**

- current : 5000A
- voltage : 10V
- length : 3m
- width : 1,60m
- depth : 0,40m
- measurements : temperatures, current, voltage, electrical resistances
- software : Labview
- other : water cooled until 5°C



#### **Bench 3 - Technical characteristics**

- current : 5000A
- voltage : 10V
- length : 2m
- width : 1,20m
- depth : 0,40m
- measurements :  
temperatures, current, voltage, electrical resistances
- software : Labview
- other : water cooled until 5°C



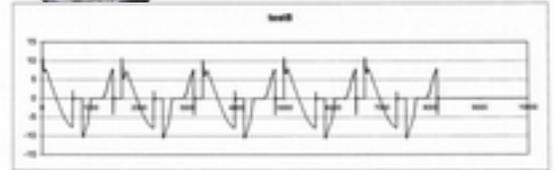
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### HIGH POWER LABORATORIES - SHORT-CIRCUIT - 55kA

#### Technical characteristics

- current : 55kA
- voltage : 12,5V
- measurements : temperatures, current, voltage, electrical resistances
- software : Labview



### INSULATED GLOVES TEST LABORATORY

#### Technical characteristics

- current : primary - 80A / secondary - 300mA
- voltage : primary - 240V / secondary - 50kV
- length : 7m
- width : 2m
- height : 2m
- software : Labview

*For more information, please see dedicated pamphlet.*



#### NOTES

Our engineers master all the softwares used to test calibrate and repair, which allows them to be able to **adapt to customers' needs**.

Upon request, we can **combine mechanical and electrical tests**. We can also create fully customised test laboratories, according to your demands.

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### HIGH VOLTAGE LABORATORY - 70 kV

Specifically designed to calibrate your electrical equipments as well as perform dielectrical tests

#### Technical characteristics

- voltage : 70kV
- length : 8m
- width : 7,50m
- height : 7m
- measurements : currents, voltages, electrical resistances
- Other : **distributor with eight 70 kV exits**



Technical description of the different equipments in our High Voltage Laboratory

#### Voltage divider - multimeter

System calibrated from 0 kV to 69 kV with stages of 10 kV per minute, uncertainty evaluated at +/- 1% + 3 figures resolution on the multimeter.

#### Voltage transformer 70 kV

Type VCM 138 to 60 Hz, report from 1000 to 1, heating power of 4 KVA, high voltage 69000 Volts.

#### Voltage transformer 15 kV

14400 Volts to 60 Hz, report from 120 to 1.

#### Electrical measure calibrator

DC voltage : 0 to 1100 V; AC voltage : 0 to 1100 V; DC current : 0 to 1.9999 A; AC current : 0 to 1.9999 A; Resistance : 1 Ohm to 10 Mohms.

#### Voltage generator 70 kV

With voltage variation and leakage current measurement with uncertainty of 1%.

#### Testing machine for insulated gloves and other tools

Liat tester, maximum voltage 40 V DC, leakage current measurement with uncertainty of 2%

#### Testing machine hot sticks

Isolating test for hot sticks

#### Micro-ohmmeter

Micro-ohmmeter DRM-40 with 8 measurement ranges : 20  $\mu\Omega$ , 200  $\mu\Omega$ , 2 m $\Omega$ , 20 m $\Omega$ , 200 m $\Omega$ , 2  $\Omega$ , 20  $\Omega$  et 200  $\Omega$

#### Insulated gloves inflator

With compressed air, 4 rotating positions in use and able to test every class of gloves

#### Assembly for dielectrical tests in water

Capacity of 264 litres, voltage level from 0 to 69 kV - 60 Hz

#### Assembly for pneumatic dielectrical tests

With 8 sequential positions remotely controlled, voltage level from 0 to 69 kV – 60 Hz

#### Assembly for real and induced voltage

Real voltage test from 0 to 69 kV and induced voltage from 100 V to 20 kV.

#### Assembly for voltage detectors calibration

Voltage detectors calibration according to the CEI 61243 norm, voltage level from 0 to 60 kV – 60 Hz

#### Assembly for dielectrical tests on parallel bars

To check voltage detectors protection against diversion according to the CEI 61243 norm, voltage level from 0 to 60 kV – 60 Hz