



## Cable measurements – Cable fault detection and cable testing

### The Vinçotte cable fault location van contains:

- The integration of the latest new technologies such as ARM PLUS (Arc Reflection Measurement) which develops a stable arc with double pulse at the location of the defect, while the measurement is simultaneously carried out using a different controlled measuring pulse. The stable arc makes accurate measurements possible.
- This patented ARM Plus method produces accurate fault and reference curves on a large PC screen.
- Other integrated methods such as impulse current reflection, voltage decay (decay plus) enable the localisation of virtually all types of cable faults
- Equipped with ARM PLUS Burner that produces extremely precise reflection images on a large PC screen, during burning
- Large capacity impulse generator of up to 2560 J and up to 32 KV
- Safety: an integrated isolation transformer ensures a galvanic separation from the mains supply network and a three-point earthing system with permanent monitoring of the cable van potential, with alarm signal and trip command, to ensure additional protection to operators
- Own generator: the cable test van has its own emergency generator and can therefore work fully independently
- Cable connection: three-phase flexible HV cable up to 50m in length and insulated up to 80 KV

### Your tailor-made solution

#### Cable Fault Localisation

- Accurate fault location of underground and overhead cables, on high voltage and low voltage cables, as well as signalling, coaxial cables and telephone cables with measurement of distance to the fault and total length of the cable via reflection images on a large PC screen
- Accurate localisation of sheath faults on PE cables
- Fixing of the measured values through indication at the top of the location of the cable fault

#### Dielectric tests

- At 0.1Hz with test voltage of up to 54 KV on PE and other cables as per HD620, with a large power capacity in order to test long cables, with graphics of the voltage and current flow (fault current at the time of breakdown) during the test on a large PC screen
- Sheath testing on PE cables
- DC (direct current) tests of up to 80KV with graphics of the measurement voltage and current on a large PC screen

#### Cable route determination and cable identification

- Precise determination of the route and depth determination of high voltage, low voltage and signal cables using built-in and/or portable transmitters/receivers with different frequencies and modulation techniques, depending on the location of the cables

- Exact identification of a cable in a bundle of cables (for example, if cables are sawn through or relaid, etc.)

## **Additional measurements**

- Continuity measurements
- Determining the exact cable length (also possible with portable large screen reflectometer)
- Insulation measurements
- Determination of the phase sequence

## **Your result**

### **Cable van operators:**

Vinçotte has more than 35 years of experience in cable fault detection, cable route detection and cable testing. The cable test van operator regularly undergoes technical training courses conducted by the manufacturer of the cable test vans.

The operators are also active in other domains of electrical testing and inspection as well as in the high voltage and low voltage area.

As a neutral inspection and testing organisation, Vinçotte can also carry out technical expertise assessments in case of disputes.

### **Organisation:**

Vinçotte can also make interventions with the cable van very quickly on receiving a request from the customer (by phone or by email).

The operating reliability of the cable test van is ensured by regularly being subjected to a full overhaul by the manufacturer, who also makes all the necessary modifications; spare cable testing vans will be provided during this period

Area of activity: the whole of Belgium

## **Please note**

### **Standards**

Cable Testing as per NBN HD620, NBN C 33 series and other standards.

### **Regulations**

A.R.E.I. (General Regulations for Electrical Installations).

## **In which situation?**

Network operators (distribution companies), Petrochemicals, Port authorities, Steel Industries, Railways, Installers (Contractors), Engineering Offices, SMEs, Tertiary sector and Private Individuals.

Electrical cables are indispensable for the transportation and distribution of electrical energy and are to be found in all the above entities.