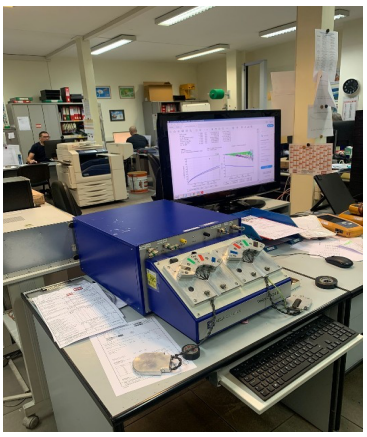
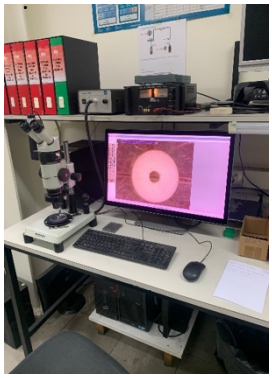
CAVEL - a European **product** made in Italy

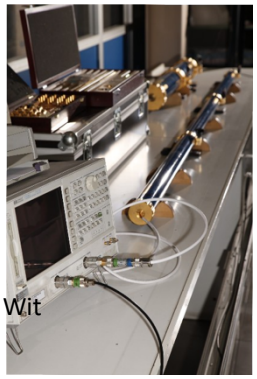
Typical CAVEL Laboratory checks



The Laboratory of Italiana Conduttori Srl, systematically completes a comprehensive and detailed analysis of the following characteristics: Construction, Weight, Physical Dimensions, Mechanical Strength, Electrical Resistance of conductors, Impedance, Capacitance, Attenuation Losses, and Structural Return Losses (SRL). In addition, thanks to the purchase of the new AESAVEGA analyzer we are able to measure all electrical characteristics of data transmission cables from cat 5e to 8 up to 4 Ghz.

Measurement and Equipment Details





The Laboratory houses all the equipment required to perform the following measurements:

- Elongation, Breaking Load and Compression, using Shimadzu dynamometer.
- Laser Dimensional measurements , millesimal micrometers and a profile meter.
- Impedance, Capacity in Water, Linear Attenuation, and SRL (Structural Return Loss), up to 4.8 GHz, using four network analyzers
- Impedance and Screening Attenuation measurements (up to 120 dB and 3 GHz), using:
  - "Bedea" Triaxial System for both drop and distribution cables and
  - for measurements on terminated cables (ropes) with the Bedea "tube in tube" system.

- Weight, with a high-precision set of scales
- Optical tests using a microscope (up to 50x magnification), coupled with CCD camera and large screen
- Electrical Resistance measurement, Capacity measurement and Impedance and Inductance measurements, with WAYNE-KERR analyzer bridge
- Resistance to UV Rays and Aging Tests, using two Climatic Chambers
- Shore Hardness and Specific Weight of the plastic materials
- Measurements with TDR (Reflectometer), to look for individual faults on the cable
- Insulation Resistance, up to 3 Gohm
- Insulation voltage, up to 12 kV_{dc}
- Certification and testing of LAN cables using FLUKE DSX-8000 instrument
- LAN impedance and attenuation measurement using AESA VEGA Network analyzer

Lionello Loris Bronzo
General Manager.
CAVEL – Italiana Conduttori Srl

Gropello Cairoli, 11/7/2023