

Information of Soil Moisture gauges

Soil Moisture Gauges are used in civil contrition to measure the density (compaction) and moisture content of the road surface during its preparation.

Several makes are being used in South Africa, amongst them are various models of the following makes

- Troxler (yellow)
- Humboldt (green)
- CPN
- Instrutek

The container (piece of equipment) has a serial number of its own and there are labels indicating the serial numbers of the two radioactive sources (Cs-137 and Am-241/Be-9) it contains. The label with serial number of the Cs-137 source appears in the rod. The other serial numbers appears on the body of the gauge.



A Troxler showing wear and tear. Its rod is pushed into a hole into the road surface



Transport box for a Troxler soil/moisture gauge with its content



Typical appearance of the rod containing the Cs-137 radioactive source (located I at the lower end of the rod of a soil gauge) as it presents itself in the scrap metal industry. The Am-241/Be-9 is much more difficult to locate and usually goes undetected into the smelter.

Note the long tongs that is used to handle it from a distance (for protection against ionizing radiation). It should be cordoned off at a distance of 6 meters. The SAPS Bomb Squad should be called to identify it and safeguard it until it can be safely retrieved. Necsa ECC should be informed. They will do a risk assessment and arrange for Necsa NLM to retrieve it.



Long tongs

Damaged rod of a soil/moisture gauge

Instrotek 3500

