3.10 Which devices does a qualified leak locator need?

A qualified leak locator, who works for water supplies, should have the following devices:

- One or several data logger to determine momentary water losses, possibly also a ultrasonic flow measurement device in case no other flow measurement device is available.
- Listening rod for pre-locating, mostly in connection with ground microphone, if possible the digital version with sound saving
- Correlator with two radio transmitters as well as automatic determination of the sound velocity, hydrophone
- Flow measurement device with pressure gage to determine the zero-consumption
- Gas-detecting device for forming gas (can also replace the insertion of air)

Depending on the manufacturer this equipment cost approximately 20.000 Euro. With this equipment a qualified leak locator is able to guarantee an excavation and/or reduction.

3.11 Excavation guarantee

A sensible and effective use of the devices mentioned above – even if only partially – nowadays enables a leak locator to perform the procedure of leak locating so that no false excavation will occur. Vice versa one can say that by preventing false excavations a good leak locator distinguishes himself from a bad one.

Some leak locators have turned to offer an excavation guarantee to show their efficiency. Excavation guarantee in this case does not only mean that in case of a false excavation the leak locator will perform a second search free of charge but also that the leak locator will accept part of the false excavation's costs (up to a certain amount). In order to achieve this goal these leak locators will only approve an excavation when the probability of the excavation being in the right spot is at least 99%. In order to ensure this, every leak has to be located through at least 3 different leak locating procedures – independent from each other, and all localization results have to be the same. In such a case one will be able to issue an excavation guarantee.

If one uses the ground microphone, for instance, one will achieve a probability of the order of 90% for the excavation being right.

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