GAS WATER PRESSURE

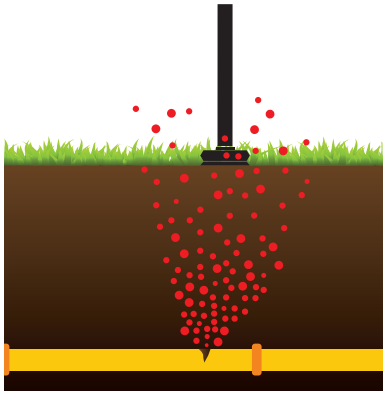
Esders

VSS 15

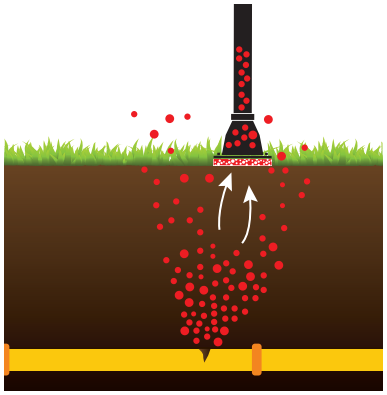
Mobile vacuum suction system for extrem sensitive gas detection.

What is the current situation?

As we know, the process of detecting gas leaks is as follows: The gas enters the soil and spreads there. Diffusion processes and the different densities of the soil air and gas cause the gas to finally rise to the surface of the ground. Sealed or wet surfaces are more difficult for the gas to pass through. Leaks can only be localized if the gas rises to the surface of the ground „voluntarily“ and in sufficient quantities.



Bell probe



Vacuum-probes

And this is where vacuum technology helps.

Before the gas reaches the surface, it has collected in the ground and lies there as if absorbed by a sponge in higher concentrations than on the surface of the ground. To get meaningful indications on the gas detector even in particularly difficult situations, these cushions of gas are vacuumed.

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How does vacuum technology work?

A vacuum pump with a suitable suction system is used here. The important thing is to coordinate the suction and vacuum power and to achieve a seal with the ground to prevent unwanted dilution of the gas sample. Just a small partial flow from the extracted gas sample, but with a high concentration of gas, is made available to the gas detector for analysis.

How much does it really help?

Firstly, it saves time. Imagine using gas detectors in the tracer gas method and receiving the results hours earlier with cohesive soil, a wet ground and compacted surface. And secondly, it is sometimes the only way of detecting the gas at all. If nothing is detected on the surface of the ground, this does not mean that there is no leak to find. Under controlled conditions (tests), realistic situations from practice were simulated. These results showed that, where NO gas was detected WITHOUT vacuum, up to FULL scale readings were detected WITH vacuum. Real situations prove this.

	**Vacuum-probes-system** Ready-to-use package consisting of a carrier system/rucksack with vacuum technology and a vacuum probe set for all surfaces. The heart of the system is the rucksack with vacuum pump, filter, changeable rechargeable battery and electronics box. The professional rucksack carrier system ensures that work can be carried out without straining the back. The storage features are particularly useful, e.g. for holding a drinks bottle and DIN A4 compartments for plans/ documents.
	**Muli** For long periods of work, we recommend the foldable transport roller.
	**Charger for changeable** rechargeable battery Complete with connection cable and metal bush
	**Changeable rechargeable battery** Complete with connection cable and metal plug

	**Vacuum probe bell** For an optimal seal, even on uneven ground. Stainless steel design with coarse filter and integrated water barrier.
	**Vacuum probe pinhole** With conical rubber seal for probe holes. Stainless steel design with coarse filter and integrated water barrier
	**Vacuum probe upper part** Upper part of the vacuum probe with adapted bell probe. Vacuum pressure gauge and button for switching the vacuum pump on and off.
	**Broach** If an adequate vacuum is not achieved with the vacuum bell probe (rough surface, large amounts of vegetation). A quick and useful tool. For extremely solid or hard surfaces, the impact piston probe or the drilling machine are required

TECHNICAL DATA

Max. negative pressure	780 mbar
Vacuum gauge	-1 to 0 bar
Operating time (rechargeable battery)	approx. 3 hours
Charging time 230 V	approx. 5 hours
Weight of complete backpack	approx. 8,8 kg

Technical specifications subject to change! Status 2020/06

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