



## Water leak location using hydrogen gas

**PrimeTrace** is a gas detection system for locating leaks in all type of materials used for water pipes. Hydrogen detection is a proven method for use on even the smallest leaks.

### Benefits

- Increased sensitivity with two sensors;
  - Semi-conductor sensor gives fast response with resolution of 0.1 ppm H<sub>2</sub>
  - Thermal mass sensor for safe recognition of higher H<sub>2</sub> concentrations
- Sensors mounted in PrimeTrace unit and protected from moisture by two filters
- Integrated vacuum pump for increased sensitivity
- Choice of lightweight probes
- Optional Injection Kit enables optimum gas dissolution into the water for maximum detection time

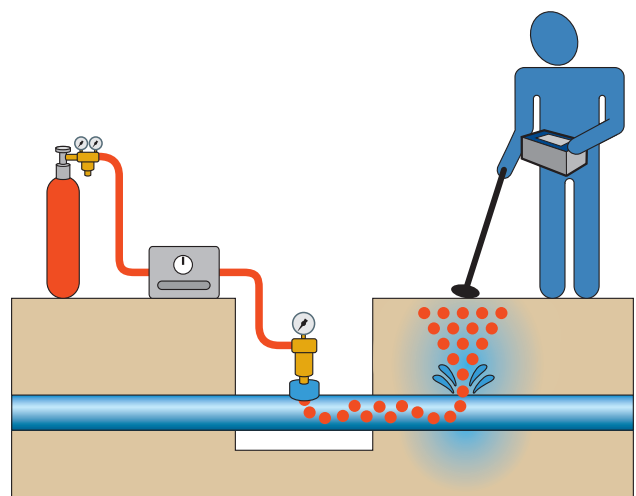
### Technology

Electro-acoustic methods are often used to locate water leakage. Some leaks are not detectable with this method; often in plastic pipes. For locating these leaks the application of tracer gas can be successful. This method involves pumping a hydrogen mixture into the pipe via a hydrant or similar connection. This gas travels with the flow of water and escapes at a leak. A combination gas of 5% hydrogen and 95% nitrogen is used which is commercially available at a low price. It is neither combustible nor poisonous. As it is the smallest element hydrogen has the property of leaking from the smallest holes and as it is lighter than air it travels upwards; through soil or flooring to be detected above the leak.



### Operation

The location of the strongest concentration of hydrogen is easily determined using the indicator on the display of the *PrimeTrace* device. Depending on the actual H<sub>2</sub> concentration different scales and sensors are used. One scale is for very low concentrations (0 - 1000 ppm H<sub>2</sub>) and the other for pinpointing higher concentrations (0 - 5% H<sub>2</sub>). This important feature avoids a temporary contamination of the high sensitive sensor.





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### Injection kit

The Injector Kit enables optimum dissolving of the gas into the water for effective gas use. The Injection Box enables the control and measurement of the tracer gas flow into the pipe. The kit includes pressure gauge and a pipeline connection piece.



### Probes

- Carbon bell probe for general surfaces
- Carbon hole probe for use in small holes
- Carpet probe (optional) for fixed hard surfaces

### Products

PrimeTrace system	RXG 890
Injector kit	RXG 891
Carpet probe	RXG 892



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