

Combinations



Water leak detection and pipe location with
AQUAPHON®, **FERROPHON®**, **COMBIPHON®** and **GLASSFIBRE PROBES**

Water leak detection and acoustic pipe location

AQUAPHON®



The **AQUAPHON®** is a system to detect leaks in water supply networks. It consists of:

- ▶ Receiver **A 100**
- ▶ Test rod with miscellaneous adapters
- ▶ Various ground microphones
- ▶ Head phones
- ▶ Charging systems

In combination with the **COMBIPHON®** system it can also be used for the acoustic location of non-metallic pipes.



AQUAPHON®

ALL IN ONE:

The receiver **AF 100** features of the following:

- ▶ **AQUAPHON®** for the acoustic water leak detection
- ▶ **FERROPHON®** for the electronic pipe location
- ▶ **COMBIPHON®** for the acoustic pipe location
- ▶ **GLASSFIBRE A** for the location of non-metallic pipes

For more details see the individual brochures.

Acoustic water leak detection

When a pressurised pipe develops a leak, water flows through it at high speed and causes the pipe material to vibrate. This vibration is transmitted by the pipe and can be heard with the **AQUAPHON®** system at remote contact points, valves, stop taps, hydrants.

The leak noise passes into the surrounding soil, which can also be heard with the **AQUAPHON®**. The loudest noise indicates the position of the leak.

With this system, leaks can be detected quickly and precisely.



COMBIPHON®: Acoustic location of non-metallic pipes



The pipe to be located is set into vibration by a sound generator, Striker or Stopper, from the **COMBIPHON®** system.

Just as in the acoustic water leak detection, the loudest noise is heard with a microphone above the pipe.



Electronic pipe location



FERROPHON®

The **FERROPHON®** is a system to locate cables and other metallic conduit networks electronically. It consists of:

- ▶ Receiver **EL**
- ▶ Antenna
- ▶ Search coils
- ▶ Cable clamps
- ▶ Generators
- ▶ Head phones
- ▶ Charging systems

In combination with the **GLASSFIBRE PROBE** system it can also be used on non-metallic pipes.



/ FERROPHON®

100 combines into one unit the following systems:

• Acoustic water leak detection

• Electronic pipe location

• Electronic location of non-metallic pipes

GLASSFIBRE PROBES

• Location of non-metallic pipes

For more information on the systems, please refer to the brochures.

Electronic pipe location

An alternating current is created by a generator from the **FERROPHON®** system and is transmitted to the pipe or cable to be located.

This current creates an electromagnetic field around the cable or metallic pipe.

This electromagnetic field can be detected with the receiving components.

The electromagnetic fields surrounding power mains and pipes with cathodic protection can even be detected without a generator. Cable networks and pipelines can act as an antenna for VLF radio stations. The **FERROPHON®** can also detect this electromagnetic signal.



GLASSFIBRE PROBES



Non-metallic pipes do not produce an electromagnetic field therefore the **GLASSFIBRE PROBE** system is employed.

The glassfibre probe, containing a continuous length of copper wire, is inserted into the pipe section to be located, connected to the signal generator and traced using the **FERROPHON®**. With this method it is possible to follow the route of the pipe.

To detect the end-point of the probe a mini pig signal transmitter can be screwed onto the probe tip.



SEWERIN – Complete network services

Products and services for gas, water and energy network utilities – this is the expertise of SEWERIN.

Instrument technology

Development, production and distribution of instruments for

- ▶ gas leak detection
- ▶ gas concentration measurement
- ▶ leakage rate measurement
- ▶ warning of toxic gases, lack of oxygen and risks of explosions

AQUAPHON®

Receiver **A 100** – Electro-acoustic leak detection
Receiver **AF 100** – Electro-acoustic leak detection plus electronic pipe location

FERROPHON® EL / FERROPHON® ELH

Pipe and cable location system – avoid cable damage and wasted excavations

DUOPHON®

Combined water leak detection and cable location

SeCorr® 05

Correlative leak detection on PC basis

SeCorr® 08

Correlator with latest DSP technology for precise detection of water leaks

Stethophon® 04

Electro-acoustic leak detection

- ▶ water leak detection
- ▶ pipe and cable location
- ▶ locating ferromagnetic objects
- ▶ electronic pig location

SePem® 02

Multi-purpose logger for systematic pre-location of water leaks

Listening Stick W 50 / Membrane Geophone W 49

Acoustic water leak detection

FERROTEC®

Magnetometer for location of covered ferromagnetic objects

M 130

Electronic metal detector

Electronic Pig Location

Detectable pigs in metallic pipelines

Flow-Analysis

Pre-location of leaks and volumetric evaluation of leakage rates in water networks

Survey of distribution grids

Gas network survey

- ▶ Natural gas networks in accordance with DVGW regulations G 465-1 and G 466-1
- ▶ Heavy gas networks in accordance with DVGW regulations G 465-1

Survey of other utilities

- ▶ Water / sewage
- ▶ District heating systems
- ▶ Domestic installations (heating systems, cold and hot water)
- ▶ Locating small leaks with the "Tracergas" method


SEWERIN

Hermann Sewerin GmbH
Robert-Bosch-Straße 3 · 33334 Gütersloh
Phone: + 49 - (0) - 52 41/9 34 - 0
Fax: + 49 - (0) - 52 41/9 34 - 4 44
www.sewerin.com · info@sewerin.com

