## LEAK DETECTION

FOR COMPRESSED-AIR PLANTS



User friendly Quick response time Reliable Low cost

SONOTEC 🔀

### SONAPHONE R Ultrasonic detector

# LEAK DETECTION IN COMPRESSED-AIR SYSTEMS = minimum losses!

### The situation

### The consequences

#### The solution



#### Fields of application

- Leak detection in compressedair systems, gas and vacuum facilities
- Seal integrity tests for fittings, valves, gates and especially of condenser drains
- Detection of early wear in bearings

#### Principles of operation

When leakages occur the stream of gas or liquids in pipelines gives rise to internal friction and thus to the emission of ultrasonic waves. These high frequency signals can be precisely located. In the SONAPHONE R they are transformed into audible or electrical signals.



Air sound probe / Flexible probe / Telescope with air sound probe (range 3 m)

- Compressed-air is a conservation-conscious form of energy but leakages within the system are usually fast developing and increase long term energy costs.
- Leakages at compressors, in the compressed-air piping and at the end user can cause defects.
- Badly maintained compressed-air systems waste energy. Leakages cause incremental increases in operating costs. The following losses can arise.

leak diameter mm	air loss with	energy loss	
	6 bar in I/s	kW	EUR/a1
1	1,3	0,3	324,-
3	11,1	3,1	3.125,-
5	31,0	8,3	8.367,-
10	124,0	33,0	33.264,-

 $^{1)}$  1kW x 0,14 EUR x 7.200 operating hours per year

- Reduce your energy costs by systematic leak detection!
- Use our ultrasonic leak detector SONAPHONE R. It detects leaks in your compressed-air system!



Complete leak detection kit including bearing diagnostics, seal and fitting tests

#### applications in industrial plants



SONOTEC Ultraschallsensorik Halle GmbH Nauendorfer Str. 2 D-06112 Halle (Saale) Tel. +49 (0)345 / 1 33 17-0 Fax +49 (0)345 / 1 33 17-99

www.sonotec.eu e-mail: sonotec@sonotec.de

