WATER LEAK DETECTION

SO SMALL THEY ARE BARELY EVEN NOTICEABLE, OR ELSE HIDDEN AWAY UNDERGROUND, MOST WATER LEAKS OCCUR OUT OF SIGHT AND OUT OF MIND.

But over time even the smallest trickles of water can spiral into a serious problem for your business. Not only do you risk major repair bills for water damage, you can also see your water bills soar because of all the water being wasted.

Whether caused by general wear and tear, bad plumbing, faulty pipes or accidental damage, water leaks are a leading cause of unnecessary costs on water bills. Fortunately, at little cost to your business, H2O Building Services has the expertise to identify water leaks quickly and effectively, meaning the problem can be solved before any serious damage is caused.

As part of our commitment to saving clients money, H2O Building Services will carry out a water leak investigation as part of a site survey. Our experts use the very latest techniques to detect even the tiniest of leaks. If any are detected, we will recommend action to make water leak repairs* which will stop the water waste and save you money.

Call our water engineering specialist now, and start saving 0845 658 0948.

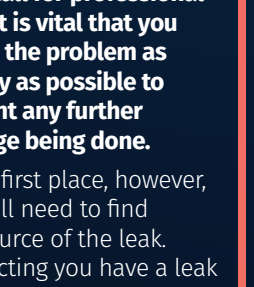
HOW WATER LEAKS OCCUR

- **Damage to water pipes is extremely common, and can have any number of causes, including:**
- Age and general deterioration
- Weather erosion
- Heavy vibration from traffic
- Poor connection of joints and valves
- Accidental damage, e.g. from work being carried out around them
- Damage caused by animals.

ENVIRONMENTAL IMPACT

As well as hurting your premises and your wallet, water leaks carry an environmental cost. In the UK, with our characteristically damp climate, we do not tend to think of water as a finite resource. And with regular stories of devastating floods caused by torrential rainfall, the biggest issue we face from water would seem to be we have too much of it, not too little.

But the truth is, the planet only has a limited amount of water, and it is the responsibility of us all, even in the wetter parts of the world, to look after it. With rapid population growth, increasing life expectancy, more intensive farming techniques used to irrigate dry areas and, of course, global warming, the planet's water resources are facing intense pressure.



To put this into context, experts suggest that our water usage has doubled in the past 50 years. If we keep using it at this rate, it is thought that by 2030 demand for water will be 40% above what is currently available to us. With drought becoming an ever-increasing problem for countries across the world, the implications are only going to get worse.

A barely detectable leak may seem like it has no bearing on global water availability. But add them all together, across every property on the planet, and the waste becomes enormous. That is why companies and corporations have a responsibility for ensuring that water is being used efficiently in a way which considers the broader environmental impacts.

WATER LEAK DETECTION EQUIPMENT AND TECHNIQUES

Ground microphones are the most common equipment used to detect and locate a water leak. As mentioned, if you do have a water leak, there's often an audible sign of it in the form of running or dripping water. The ground microphones work to amplify this sound, making it much easier to identify and pinpoint its location. Ground microphones are highly sensitive and can be used through thick walls or floorboards, with a wide monitoring range allowing large areas to be examined at once. Overall, they are much more effective than pressing your ear against the wall in the vague direction of the drip.

L.N.C – Leak Noise Correlation. This technique once again uses sound to find the exact location of a leak. It uses sensors that mark out the area the leak is thought to be in. By comparing the sounds picked up from each sensor, a computer can calculate the precise location. The system can be calibrated to take into consideration all kinds of variables, including the size of the pipe and the material it is made from, to increase the accuracy of the results. This method can be used to find multiple leaks on a single pipe, and for scanning very large areas.

Water leak detection tracer gas techniques. It is also possible to use gas to help identify any potential problems. In these cases, a combination of nitrogen and hydrogen gas is injected into the mains water supply. If there is a leak, the gas will then escape from the faulty areas of the pipe. A gas detector is then used to help identify the source of the problem and locate the exact places that the gas is leaking from. This process can be repeated in a number of different areas until all the potential sources of leaks have been properly identified

THE IMPACT OF A WATER LEAK

As most pipes inside a property are located either inside walls or under the flooring, a leak can cause huge problems. Water seeping into surrounding materials may cause everything from mould to grow to structural damage.

Unfortunately, the fact that most pipes are hidden away in walls and ceiling cavities, or underground outside the property, means detection and repair are not easy. Many leaks are not spotted until significant damage has already been done. And then getting access to the pipes can be difficult and costly, requiring walls and floors to be ripped out, or ground excavation to take place.

COST IMPACT OF WATER LEAKS

In terms of repair costs, how expensive a water leak is very much depends on how quickly it is detected. If it is picked up more or less straight away, the damage will be minimal, and so the repair bill will be kept under control. If left for a significant amount of time, however, so that the seeping water can start to do significant structural damage, the cost impact can be significant. These might include costs for:

- Removing fungal growth which can pose health risks to the people working inside the property
- Replacing rotten wooden structures and soft furnishings
- Removing and replacing stone and brickwork which has become saturated with damp
- Redecoration following repair.

On top of these risks, water leaks can also lead to hikes in your water bill. As most commercial water use is metered, water bills and the costs incurred are determined by the amount of water used. A water leak can cause a huge amount of wastage that will then translate into bigger bills.

It is not uncommon for people to spot a problem when they suddenly see a spike in their water bills. However, as utility bills often include a number of different costs and standing payments, many people simply accept and pay the bills without fully understanding what they are being charged for.

HOW TO DETECT A WATER LEAK

Because so much piping is hidden away within walls, under floors and buried underground, accurate water leak detection is a specialist task for qualified professionals. You also want peace of mind that leaks will be tackled effectively in the least invasive way possible, fixing the problem properly once and for all.

There are a few common warning signs which can give away the presence of a leak:

- A permanently leaking toilet
- Bad smells coming from the floor or near a drain. This could indicate the presence of stagnant water that has collected as a result of a leak which is unable to flow away
- Damp or darker patches on your walls or ceilings
- Cracks or spots on your walls
- Paintwork peeling or bubbling
- A constant sound of dripping or running water
- A sudden surge in your utility bill.

METHODS OF WATER LEAK DETECTION

If you have any suspicion that you may have a water leak, call for professional help. It is vital that you tackle the problem as quickly as possible to prevent any further damage being done.

In the first place, however, you will need to find the source of the leak. Suspecting you have a leak is one thing; discovering exactly where the crack or faulty join is takes skill, experience and specialist equipment.

H2O's water leak detection service aims to identify the source of leaks at a minimal cost to your business. The quicker we hone in on the problem, the sooner we can recommend how to fix it in the most efficient, least invasive and cost-effective manner possible.

CASE STUDY

Holiday Park, West Wales

The minimum combined night flow through the meters supplying the Holiday Park has been consistently over 5 cubic metres per hour, suggesting leakage or other unidentified water consumption on the network around the park.

This equates to an unaccounted cost to site of approximately:

£13.30 per hour

£319.20 per day

£2,234.40 per week

and over the course of one year, an unaccounted excess cost of £116,508.

The park contains approximately 600 accommodation units, together with leisure amenities including swimming pool, bar/restaurant and owners area. There are also several other accommodation areas including flats and cottages on the park.

Potential Annual Saving:

£116,508

CLICK HERE for the full in-depth Survey Report

Watch the Video here!

Suspect you have a water leak at your business premises? H2O Building Services has qualified water engineers on hand who can help save you huge amounts in potential water damage repairs and excess water bills. Call now on **0845 658 0948** alternatively, you can email us at **info@h2obuildingservices.co.uk.**

www.h2obuildingservices.co.uk

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