

Pressure optimisation in the network

Extend the lifetime, reduce leakage losses and save energy



Increased knowledge about the pressure and pressure surges in the distribution network has a significant impact on the water utility's business.

With detailed knowledge about damaging pressure surges and the general network pressure, you can optimise the pressure in order to secure customer satisfaction, limit the number of leaks or bursts and minimize the energy consumption of the pumps. A pressure reduction causes less water to be forced through cracks in the pipes resulting in a distinct reduction of water loss from leakages. Moreover, managing the pressure is relevant for asset management. By lowering the pressure and thereby limiting the number of pressure surges, the utility can "calm" the network and avoid unnecessary stress of the components in the distribution network to prolong the lifetime.

Measuring pressure directly in the network

Location, location, location

When a water utility measures pressure in the network, there are several considerations that need to be taken into account in order to obtain useful measurements. The most important factor is where the pressure is measured. If the measurement of pressure is done within the individual households, you will miss a significant amount of information.

Due to the dimensional differences between the distribution network and the earth- and service pipes, pressure surges are suppressed considerably, which means that you, in effect, cannot register these properly.

In addition, local changes in pressure and flow in the household has a tendency to interfere with the measurement. Therefore, it is more relevant to conduct the measurements directly in the distribution pipes.

Limit damaging pressure surges

Detect leakages and bursts in advance

Monitoring the pressure can provide you with knowledge about damaging pressure surges and variations, which can cause bursts in the distribution network. Thus, you will be able to identify the sources and eliminate them, resulting in fewer pipe bursts and lowering the associated costs.

The measurement speed is crucial

The character of the pressure meter is important in order to obtain a good and useful result. In order to register the rapid pressure surges, which cause several bursts, it is necessary to have a high resolution where the momentary pressure is recorded several times per second. Only by having measurements in sufficient high resolution, you will get a complete picture of the condition of the network.