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the specialist **e-magazine** for Düsseldorf

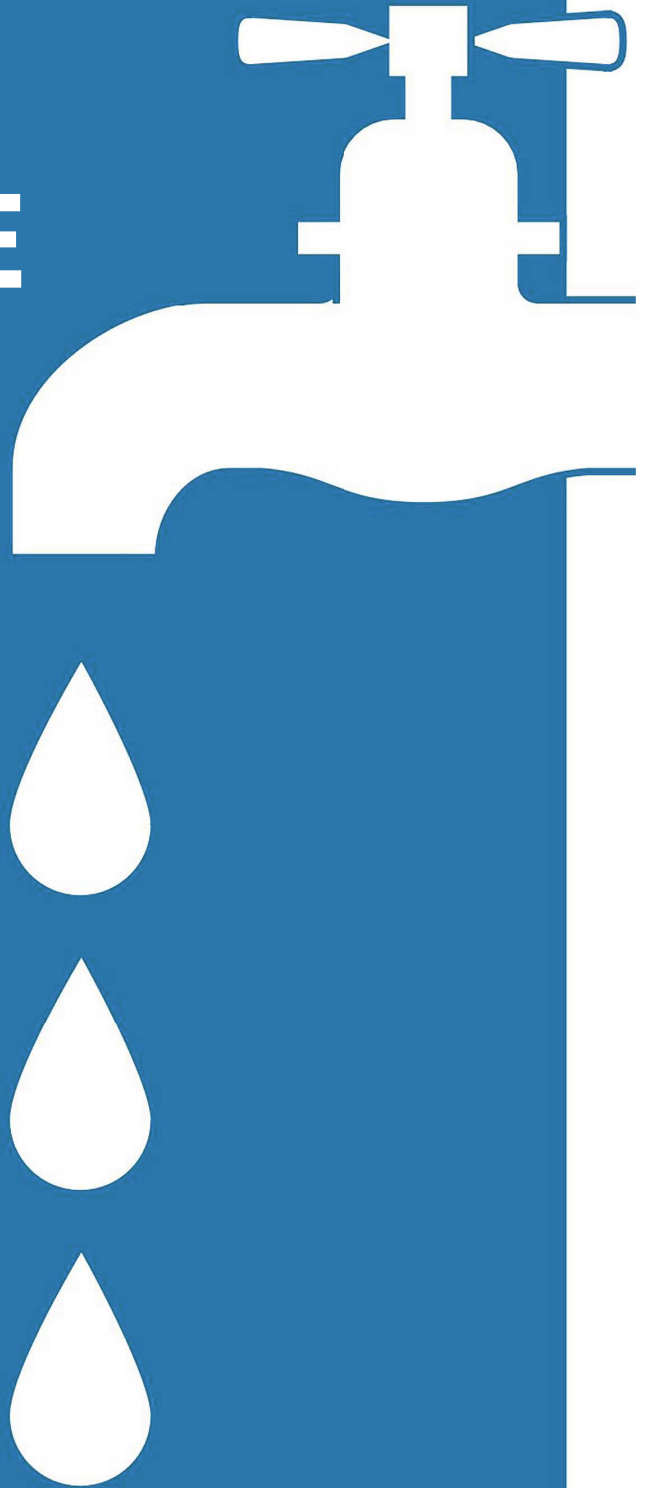
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**IN WHICH
DIRECTION ARE
WE HEADING?**

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HEALTH –
DECREASE
COSTS**



Prices for gas and electricity are currently soaring. Some people are already taking quicker showers and intend to reduce the heating temperatures and dress warmly in the winter. However, there is another way to save energy costs for hot water: By installing a so-called lime converter, up to ten percent can be saved on energy costs alone and it ensures that we can continue to consume important minerals in our drinking water. It was invented and patented by the Düsseldorf-based company ION. We met Marc and Oliver Flettner in their offices in a white Wilhelminian style villa in the middle of the Grafenberg Forest.

According to the Netzgesellschaft Düsseldorf, (a municipal utilities company) Düsseldorf's water is in the so-called "hard" hardness range, at around 14.8 degrees German hardness (dH). Mr. Flettner, we constantly read that hard water is unhealthy. Now you claim that the opposite is the case.

Marc Flettner: Well, because it's true and has been scientifically proven. Hard water is actually healthier as it contains vital minerals. Calcium is important for the bones, teeth and blood clotting problems. Moreover, the minerals have a positive effect on nerves, muscles and arteries. The misconception that hard water is bad is very hard to get out of our heads. Our body needs the lime in drinking water, it is beneficial to our health.

But what about my washing machine and my kettle, they are not so into limescale!

Marc Flettner: That's why we have developed and perfected a patented product, so that people can drink healthy water and the machines in the household can have a longer service life.

Why is it that I have never heard of your products?

Marc Flettner: Most homeowners are not particularly concerned about their water and water treatment or just decide to use salt, electricity or chemicals. All these methods have one major disadvantage however: they filter the lime and thus important minerals out of the water. By the way, water with minerals also tastes much better.

At first glance, your product does not look particularly ground-breaking. How can a piece of metal like this transform the lime?

Marc Flettner: The secret lies in the inner workings, in its German engineering. Inside the tube there is a sacrificial anode and a special swirling device.

Sacrificial anode?

Marc Flettner: The sacrificial anode is an electrode made up of a piece of high-purity metal that would normally protect the outer skin of ships from corrosion, for example. It is actually called sacrificial as it slowly sacrifices

itself. That's why it should be replaced after five to seven years at the latest.

Okay, but how does this technology actually perform in the household?

Marc Flettner: Our patent makes it possible to trigger a chemical reaction without the use of chemicals. Our lime converter operates galvanically, which basically means electrolytically. You can compare it to a car battery that works with mineral-rich, hard water instead of distilled water. Our technology outsmarts the lime. It is already precipitated in the cold water so that it does not precipitate again later in the hot water. You need to know that lime can precipitate only once. Afterwards it is neutral and non-aggressive.

But it's still present in the pipework, isn't it?

Marc Flettner: Yes, but the ionization stimulates the lime to bind. The newly formed crystals accumulate less in the pipework and heating elements. On the contrary, they "bombard" the already existing incrustations and can thus partially reduce them. Similar to sandblasting, just more gentle. Afterwards, the ions flow off and can be ingested safely. This way, existing old deposits in pipes and new lime deposits can be partially reduced. And the limescale on shower heads and fittings can be wiped away more easily.

To be more specific: Who needs this kind of lime converter?

Oliver Flettner: Actually, everyone who has water pipes and whose drinking water hardness is between 5 and 25 degrees German

Hardness. We have now installed over 350,000 of our lime converters worldwide, in private households, residential facilities, in the hotel industry, in commerce and industrial plants.

And why is a device like this not included as standard?

Oliver Flettner: The municipal utility is only responsible up to the water meter; what happens to the water pipes after that, is the responsibility of the homeowners themselves. If limescale and rust build up in the pipes, you risk a so-called "pipe infarction" or water damage in the property. In Germany alone, limescale and rust deposits in pipes result in annual insurance claims of around 1.5 billion euros. But if the insurance pays, no one thinks about how such pipe burstages could perhaps have been prevented in the first place. That's quite a short-sighted perspective, of course, as we are all contributing members of our insurances. Furthermore, a burst pipe in the house is extremely annoying, and replacing the pipework is extremely expensive.



“My product
has always been
environmentally friendly.
I have never sold
chemicals.
And I never will sell
chemicals.”

Marc A. Flettner



In 2016, Marc A. Flettner received the European Enterprise Europe Network (EEN) Award for his work. In April, ION Deutschland GmbH was awarded the environmental quality label “Germany’s Favorite 2022” in the “Home and Garden” category. The survey was conducted by the “Süddeutsche Zeitung Institute” and “Statista”. More than 200,000 Süddeutsche Zeitung newspaper subscribers participated in the survey overall.



**water treatment
worldwide**

