

Water vitalisation with positive side effect

In a Berlin apartment building with 33 flats, an ion-exchanger (salt) that was used as a descaling device for the water system broke down in 2007. The repair was estimated to cost approximately 4'500 Euro. The management company for the building, Köpfle Consult, came across Penergetic in its search for alternatives. Penergetic's local technical advisor, Mr Jerry Letzat, was asked to present his alternative, Penergetic water vitalisation, at the next residents' meeting.

At the information evening it quickly became apparent that most tenants had recurring limescale problems. The water hardness level the area is 4 (very hard, more than 21,3 °dH), which for Berlin is rock-hard indeed. After the presentation of the AquaKat and its effects, which have been proven by neutral trade companies, 32 of the 33 owners who were present voted in favour of the installation of an AquaKat XXL. This

is a particularly large version of the device that is able to work on even large amounts of water flowing past it. One of the decisive factors was a return clause, so that there was no risk for the owners. They were advised that a loss of vitality could also occur when heating water in the individual apartments, as some of them are equipped with electric or gas-fired continuous-flow water heaters.

Penergetic also offers a solution for this problem: the AquaKat M, which is attached directly after the boiler and before the tap. In early December of 2007 the installation was carried out at the cold-water inlet in the basement. The first feedback from various owners to the management company which came back as early as the first week of 2008, was that limescale could be removed easily from kettles in particular and likewise sinks and toilet bowls could be cleaned much easier.

Hardness level	Total hardness in mole	Total hardness in degrees
1 soft	0 to 1,3 mmol/l	0 - 7 °dH
2 medium hard	1,4 to 2,5 mmol/l	7 - 14 °dH
3 hard	2,6to 3,8 mmol/l	14 - 21 °dH
4 very hard	over 3,8 mmol/l	or > 21 °dH

0,56 °dH (German degree of hardness) are equivalent to 1 °fH (French degree of hardness)



The residents of the apartments in the Wittelsbacher Strasse 25 also stated that the water was pleasantly fresh and tasted lively. This was emphasised across the board, since the previous salt-based descaling device gave the water a rather insipid taste. By this stage, residents were calling on an almost daily basis to have the small AquaKat installed in their apartments to balance out the vitalisation loss from their water heaters. The management company decided to install the AquaKat in some of their other properties.



Eckhart Ott,
PENERGETIC representative in
Germany

Two wheelbarrows full of limescale removed from water pipes

Mrs Reseda Binder, manager of a company that has been specialising

in paraffin rings for the textile industry since 1913, has been using PENERGETIC water vitalisation technology in the production plant's cooling system since 2004. After a few weeks, due to some blocked jets, it became apparent that limescale deposits seemed to be getting detached from the pipe walls. A specialist company was hired to check the inside of the cooling pipes under the building with a camera. They found that heaps of loose limescale deposits were lying in the pipes. According to Ms Binder such a thing had never been seen before. Altogether, two wheelbarrow loads of limescale were removed from the pipes. Since then, the water flows freely. Excess limescale now accumulates in the backflow pool after the cooling tower from where it can be easily removed. Ms Binder is very satisfied with the AquaKat and decided to have another one of the devices installed for the heating system.