

Why You Should Clean Your MONRO-JET® After Every Use

Formation of particles and stones

Excerpt from a long-term test report with a MONRO-JET® F25 by Flow-Tech

Pressure: 2300bar

Water Filtration: 1my

Duration: 4 days, 34 hours of use altogether

After the experiment was aborted, a large number of particles were found in the collecting basin. For this reason, the formed particles and the water that was used were examined. In general, formation of particles, especially silicates, is possible in high-pressure water. Since silicates do not pose a risk to human nutrition, they are not detected in a drinking water analysis. The solubility for silicates in the water, which is still given under ambient pressure, is already headed toward zero at a pressure of 15 MPa and results in crystal deposition. After finishing the water jet test, at two spots samples of the formed particles were removed and dried at ambient temperature. Those were predominantly crystalline, white-colored particles. Two stereomicroscope images are shown in fig. 4.

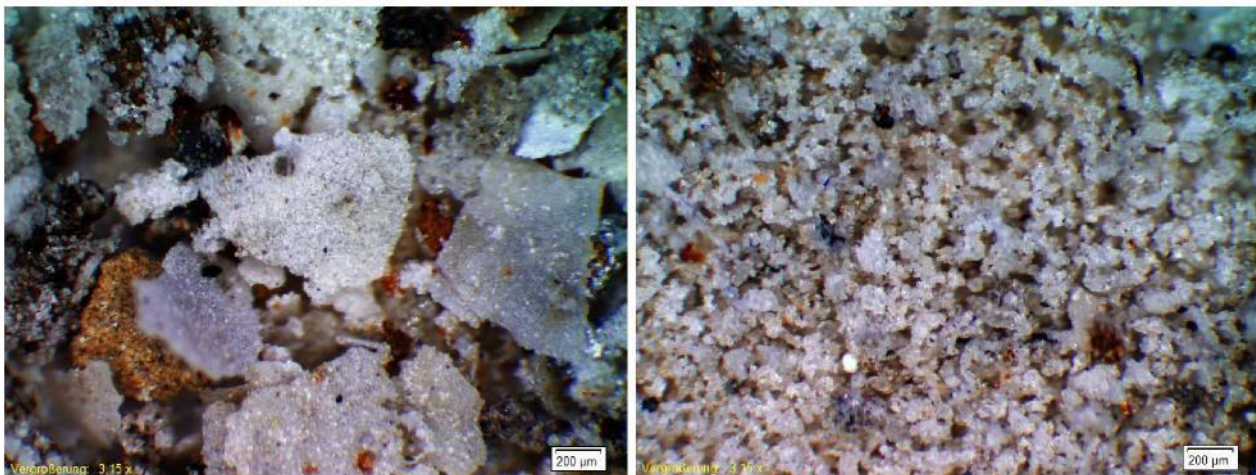


Fig. 4: Stereomicroscope images of the formed particles

Using energy-dispersive X-ray spectroscopy (EDX), a further study of the element composition was carried out on two samples. Figure 5 shows the results.

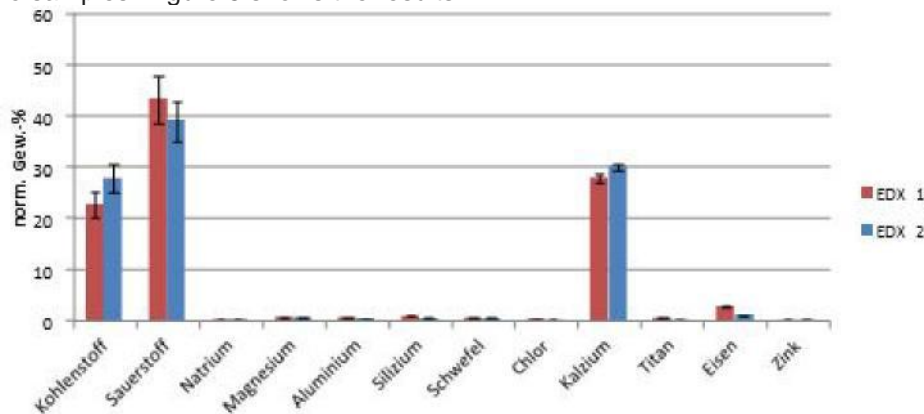


Fig. 5: Examination of the element composition of the particles by help of EDX

Also in your water are dissolved minerals, which crystallize at a working pressure of 1'500 bar and considerably reduce the durability of all water devices. That is why daily care pays for itself!