



TEST REPORT

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Report Number: 2475-17001
Report Issued: September 29, 2017 **Project No.:** 28587
Client: Swiss Aqua Technologies SK s.r.o.,
Obereggerstrasse 50,
Berneck, Switzerland, CH-9442 **Contact:** František Pancurák
Date of Testing: August 29, 2017 to September 14, 2017.

- Line 1) Stainless steel heating element, without water softener (untreated)
- Line 2) Stainless steel heating element, with IPS Kalyxx device.
- Line 3) Copper heating element, without water softener (untreated).
- Line 4) Copper heating element, with IPS Kalyxx device.

Note: Lines 2 & 4 were connected to the same IPS Kalyxx device (by a Tee).

During a period of 11 days, 4 times per day (at 8 AM, 11 AM, 1 PM and 4 PM), a 30 liters of water each time was drained and refilled simultaneously. Except the 2 weekend days, only 3 water exchanges were done (at 8AM, 12PM and 4PM).

Before each water draw, the hot water temperature was measured and registered, average of 65.2°C (min: 65.0°C / max: 65.5°C). During each water refill, the cold water temperature was measured and registered, average of 17.2°C (min: 16.9°C / max: 17.7°C). On daily basis, the water hardness was verified and registered, average of 17.9° dH (min: 17.51° dH / max: 18.06° dH).

At the end of the 11-day test, the heating elements were left drying and then taken out from the tanks. The lime scale, which was attached to the heating elements, were mechanically scraped off and weighed.

Finding:

Line number	1	2	3	4
Weight of deposited limescale (g)	0.7133	<u>0.1759</u>	4.7843	<u>1.1336</u>

From these results, it's concluded that the IPS Kalyxx reduced 75.3% limescale deposit on stainless steel heating element, and 76.3% limescale deposit on copper heating element.

Scope of Testing: The purpose of the testing is to determine if the tested sample of the water softener, IPS Kalyxx, reduces the limescale deposit on the surfaces of heating elements of water heaters per Test Protocol by Swiss Aqua Technologies SK s r.o.

Tested by,

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Reviewed by,

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