“One More Time!” – Reusing Treated Water // Argentina

“Corrugated packaging production uses quite a lot of water, and we always try to reduce demand on local sources,” says Pablo Leon, Plant Manager at the Smurfit Kappa Coronel Suárez corrugated plant in Argentina.

“But we were using over 1,600 m$^3$ of water per month, so the Process Control and Maintenance team set themselves the challenge of reducing fresh water consumption by 30%, to reduce the strain on the environment.”

Even for a corrugating plant of Coronel Suárez’s capacity, 1,600 m$^3$ is a lot of fresh water, but an investigation soon found a culprit. The liquid ring vacuum pump – part of the water treatment system, ironically enough – had the highest consumption of fresh water. It needed fresh water because, after treatment, particles of the filtrating volcanic earth (expanded perlite) were present in the treated water. Whilst these were environmentally neutral, they had an abrading effect on the delicate pump. As Pablo says, “Our treated water has always been the best quality, but it wasn’t good enough for our pump!”

However, a synergy with different projects became available. The Process Control department had been improving the quality of the treated water so it could be used in different parts of the production process. “In order to hang onto our water, it has been treated to a standard beyond what was legally required,” comments Pablo. “So, we thought, perhaps it would now be good enough for our pump.”

It was – the pump now uses no fresh water, and using treated water on the pump’s seal has led to a reduction of 61% in general fresh water use – more than twice the target. “We get our money’s worth out of our treated water,” says Pablo. “Using it one more time before returning it to the environment.”

Water reduction achievement

61%