



Nikken PiMag Waterfall®

One of the most overlooked healing substances on our planet is water. Next to air, water is the most essential substance for the maintenance of life.

With the critical role water plays in our wellbeing, it's important to focus on the quality of the water we drink. Many water sources, whether it's from your tap or in bottles on the shelf at your store, fall into the acidic range. It's hard enough to avoid acid foods and beverages such as soda and coffee in our daily routines; your daily drinking water needs to be the balance.

Alkaline body balance can be restored by a proper acid/alkaline diet and drinking alkaline water helps replace lost minerals. Acidosis or acidity can affect a person in different ways; brittle bones, hormone problems, osteoporosis, diabetes, low energy levels or sluggishness are just some of the potential results of an imbalance.

This imbalance of pH within the body leads to the body borrowing the missing minerals from its reserves. Such minerals are magnesium, calcium, sodium and potassium that are stored and normally found in vital organs and bones.

Nikken's PiMag Waterfall has been designed and tested to create alkaline water in the pH range of between 8.5 and 9.5 while removing various chemicals and contaminants and adding numerous minerals. All of this has been accomplished through its natural gravity flow filtration system while using the water provided to you through your tap at home. Our system does not require electricity or an expensive plumbing system like many in the shops or on the internet.

During the development of the PiMag Waterfall, Nikken has run various tests to enable us to provide evidence of the benefits of our system. This document will explain the testing process and the results, along with some explanations and conclusions that will answer any questions you may have.



Alkaline water testing

With our claim that the Nikken PiMag Waterfall increases pH levels of tap water from the 7/7.5 pH level to between 8.5/9.5 pH it was important to concentrate on testing the system for the added minerals normally found in alkaline water. We arranged for our laboratory to filter 5 litres of tap water per day for 90 days and to regularly take samples of the water after filtration. We matched this against the tap water sample to calculate the net gain as a percentage.

Depending on the quality of water these results may differ slightly across Europe.

PiMag Waterfall 90 day filter test, percentage increase versus UK tap water.

	Magnesium	Sodium	Potassium	Manganese	Calcium
PiMag Waterfall	+10%	+2%	+6%	+3%	+2%

Each of the above minerals is a vital component of a healthy human diet and the increased percentages within your water will help you maintain a healthy, disease-fighting system.

ORP (Oxidation Reduction Potential)

ORP is a measure of a water system's capacity to either release or gain electrons in chemical reactions. ORP is measured in millivolts and indicates if a solution is oxidising or deoxidising. The higher the positive number the more oxidising the solution is, and a lower positive number or a negative number will denote that the solution is deoxidising and contains antioxidants.

The PiMag Waterfall was tested during the filtration of 745 litres and a measurement taken every 20 litres. The test data showed that the source tap water ORP readings were between 420mV and 580mV before filtration, and these were then reduced to between 90mV and 380mV.

Testing was completed in laboratory conditions and readings may vary in your local area.



Chemicals such as chlorine are oxidisers and our PiMag Waterfall system showed a reduction in chlorine as mentioned below:-

PiMag Waterfall percentage decrease versus UK tap water.

	chlorine
PiMag Waterfall	-90%

The combination of a higher pH and a lower ORP (oxidisation-reduction potential) reading highlights that the PiMag Waterfall creates not only alkaline water but water that has the benefits of antioxidants.

Contaminant testing

With an increase in publications that suggest our water supply is contaminated with various metals, pesticides, herbicides, insecticides and fungicides we have completed tests that show reductions in a large number of these contaminants. The process conducted in our laboratory is to deliberately contaminate the tap water with a high level of each contaminant and to then take a reading for each one after filtration.

Nikken has no information on water quality in your area. The substances removed or reduced by this device are not necessarily in your water.



Metals:-

The metals below are regularly tested for by water companies and filtered through their systems to make sure that they do not exceed the regulation PCV (Prescribed Concentration or Value). The PiMag Waterfall showed the following reductions versus UK tap water:-

Name of contaminant	% reduction
Arsenic	68%
Cadmium	87%
Chromium	90%
Lead	91%
Copper	87%
Nickel	83%
Aluminium	95%
Iron	73%
Mercury	96%

Contaminants:-

Nikken has tested 91 various contaminants and the consolidated results are shown here.

Contaminant group	Substances tested	Pimag Waterfall reduction percentages
Metaldehyde (pesticide)	1	84%
Organophosorus (pesticides)	13	61-97%
Acidics	18	70-94%
Urons	13	62-90%
Organochlorine (insecticides)	24	90-99%
Triazines (herbicides)	7	66-76%
Chlormequat (plant growth regulator)	1	72%
Trihalomethanes (THM's) / Solvents	4	72-95%
Polycyclic Aromatic Hydrocarbon (PAH)	8	80-86%
Phosphorus	1	91%
Glyphosate (herbicide)	1	80%



Conclusions

Our test results have shown that increasing the pH of tap water means an increase in minerals such as calcium, magnesium, sodium, potassium and manganese.

Calcium helps in regulating nerve transmissions, blood coagulation, and muscle contraction.

Studies have shown that magnesium in drinking water protects people with diabetes mellitus, and lowers the risk of heart disease, particularly in females.

Sodium is an essential nutrient that regulates blood volume and blood pressure along with nerve and muscle functioning.

Potassium in your diet helps balance your body pH and muscle growth while manganese is an antioxidant mineral that helps detoxification of free radicals.

Results have shown an increase in silica of 36%. There have been many scientific studies on the benefits of silica in drinking water. Many results, although not conclusive, have shown that an increase of silica can be associated with a reduced risk of dementia.

The removal of chlorine, an oxidising chemical, helps towards a better tasting and smelling drinking water and also contributes to a reduction in the ORP of tap water.

Where any contaminant residual is present in a treated water supply, the PiMag Waterfall is effective in significantly reducing the level of contamination.



Comparisons

It is very difficult to compare a Nikken Water product with a competitor due to the technology advancements found in our system and the fact that we use natural gravity filtration and not electrical assistance to create our PiMag water. With this in mind we decided to match the Waterfall to our current Water System so that you can see the benefits of the new product against our current version.

Comparison	PiMag Water System	PiMag Waterfall
Capacity	2 litres	5 litres
Replacement parts (timeframe)	1 month	3 months
pH levels	7.5/8	8.5/9.5
ORP reduction	0-50 mv	100-200 mv
Chlorine removal	59%	90%
Silica	+11%	+36%
Magnesium	+3%	+10%
Sodium	-3%	+2%
Potassium	-1%	+6%
Manganese	0	+3%
Calcium	+2%	+2%
Metals	-51% / - 87%	-68% / -96%
Contaminants	-62% / -100%	-61% / -99%

The PiMag Waterfall combines multiple-stage water filtration and Nikken PiMag technology inside a sleek, compact and attractive new styling. Larger filtration capacity along with increased replacement filter times provides you with a more economical system. Creating high pH levels and reducing Oxidation-Reduction Potential, the Waterfall helps offset the oxidising effects of many elements of the modern diet.

Overall the PiMag Waterfall is the next generation in PiMag water creation: so can you afford to be without it?