

Water Ionizer Buyer's Guide

WHY DO I REALLY NEED A WATER IONIZER & WHICH ONE IS BEST?

There are two goals to this site. The first goal is to help educate you so that you can decide which technologies and functions are best for you. The second goal is to assist you in determining what alkaline water ionizer is the most appropriate for your specific application.

The technician and the water experts who put this Guide together have the background and experience to know what to look for in any machine and what to test for.

First of all let's establish why you want an alkaline water ionizer. Here are the common reasons:

- Existing health issues
- Interested in preventative health approaches
- Detoxifying the body
- Optimizing sports performance

Once we determine which of the above reasons have motivated you to start incorporating a water ionizer into your health regime, we will also need to understand what qualities you are looking for in your water ionizer system.

Here are some of the things to consider:

- Quality mid-range or high quality. Machines that are below this acceptable range are not listed.
- Performance levels of pH (alkaline) and ORP (antioxidants)
- Customer Service
- Warranty
- Features
- Options

What to look for:

- Certifications
- Endorsements
- Testimonials
- How long has the distributor been in business

Let's look at the fact that you will find all types of information and misinformation on the Internet and from the distributors themselves. Our task is to review all of the information and let you know our expert opinion. First I want to make a comment on *negative advertising*. This is where a company does not try and sell through their product's positive merits, but slanders or attacks another company's products or some other aspect of that company. This would be

like Ford trying to sell their cars by saying bad things about Chevrolet's cars or about the President of the Company. This is done when the attacking company fears the other company or is in fear that their product is not good enough to stand on its own merits. This is a clear sign that the fearful company is either run by immature management and/or by unprofessional and unethical business people. We do not support this practice and base our opinions on our quality testing procedures and thorough research.

Once we have established what your application is for your water ionizer, we want you to understand the basic components of an ionizer and what to look for. Then we will look at the features, functions and options that are available on the different models. We will then look at the different levels of quality.

First we will look at the basic components.

- **Power System.**

Remember that the heart of an ionizer is the power that is supplied to the platinum coated titanium plates.

There are two power systems that are available in all ionizers -

1. **The Transformer**

2. **The SMPS Power System** (used in Plasma & High Definition TVs)

If the company only has a transformer; guess what they say is best???

If the company only has an SMPS Power System; guess what they say is best???

Our research and testing has shown that the new SMPS Power Systems have the following positive features:

1. Better power distribution
2. Run cooler
3. Last longer
4. Lighter weight

We would suggest you look for a Company that uses the SMPS Power System. We actually talked to one Company that had the transformer on their 2007 models and the SMPS Power System on their 2009 models and they recommended the newer system. We agree with them.

- **Power to the Plates**

This is a function of the power system and is another point of controversy. Some companies claim they don't need much power and other companies tell you that you need lots of power. Some claim they are green machines and don't need much power. The bottom line is you need to have power available if it is needed for increased pH and ORP or for a higher flow of water. The machines we tested that performed the best were the ones with over 200 watts of power available. This doesn't mean they need it all the time, but when they do, it is there. There is one company that provides a power

system (it is an SMPS) that goes from 33 watts to 208 and that one tested out the best and had the highest pH and ORP readings. So really it is a Hybrid as it can be a green machine or a powerful one, depending on what is needed, as source waters can vary from area to area and you may also want to maximize the pH and ORP for your individual needs.

- **Amperage Settings**

Some ionizers have one set amperage setting and others have adjustable settings so you can optimize the results from your machine. The amperage settings determine the amount of electrical power going through the platinum-coated titanium plates. The higher power setting creates higher pH and ORP levels in the water. Multiple levels on the power settings allow adjustments to be made to optimize the performance of your machine based on your water source and other variations. This precise power distribution maximizes the Alkalization, Ionization and Detoxification capabilities. For those never having experienced the life-altering positive effects of ionization, oxygenation and alkalization you may want to start slowly introducing these benefits into your family's water. If you don't need optimum performance from your ionizer, then the single amperage setting will suffice, but our research shows that an ionizer with multiple amperage settings provides better overall performance, especially since the water in North America can vary so much.

- **Titanium Plates**

The top quality machines all have from 5 to 7 titanium plates and they are coated, dipped or sprayed with platinum. Again we have the same situation where a manufacturer will say spraying is the best and the other says platinum dipped is the best...it all depends on what they are selling as to how they respond. We feel that titanium coating via the "dipped" process is the best as it allows for better conductivity and lasts longer. The two companies that have the highest power (over 200 watts) also have the thickest plates. So look for the thickness of the platinum coating. Some companies have bigger plates but thinner coating so they are not as efficient as the normal size plates with 25% thicker coating. We also know that the company that sprays their platinum on has reduced the thickness by 50% to save money. Again, look for a company that uses the thickest coating of platinum.

- **Number of Titanium Plates**

A 7-plate machine performs about 40% better than a 5-plate machine.

A 7-plate ionizer will help your machine last longer since it has to pull less power as the additional plates distribute the power more efficiently.

A 5-plate machine is adequate for most consumers and the 7-plate is for people who want to be able to maximize the pH and the ORP of their drinking water to receive the greatest health benefits.

If you want the ability to be able to optimize the pH and ORP and want the machines to last longer and have a better flow rate, then choose the 7-plate system.

- **MESH versus Flat Titanium Plates**

More debate in this area...which is best???? There are two theories on this. The first theory is that the flat plate technology is better because there is more surface area. The second theory is that the water flowing in and out of the MESH surface provides longer contact time and increased electrolysis. Both are theories until they are tested. We found that the MESH plates performed better. There is one company that does offer either flat plates or a combination of 5 MESH plates and 2 flat plates. The latter one had the best test results for both the pH and the ORP.

- **Size of Titanium Plates**

Another area of controversy, but more complex, is the size of the titanium plates. I think that if you have bigger titanium plates, with the MESH Technology, along with a good power system (SMPS) and also enough wattage to power those plates, you would have the best system out there. Unfortunately, that combination of features is not available at this time. So with that in mind, you have three choices:

1. Mid-size plates, with a thicker platinum coating, utilizing the SMPS Power System and the power (over 200 watts) to create high pH and ORP
2. Bigger plates, with a thinner platinum coating, with the SMPS Power System but limited power (85 watts) and a mid-range pH and ORP
3. Bigger plates with a transformer and the power (over 200 watts) and a mid-range pH and ORP.

Since our research shows the SMPS Power System lasts longer and the ability to have the higher pH and ORP is important, we believe that the #1 choice would be a higher power system that is adjustable, with the thicker platinum coating and the MESH Plate Technology. This ionizer also attains the highest ratings for pH and ORP production.

- **Filtration**

This all-important feature determines how many contaminants are removed from your source water. If you are on city/county treated water, along with harmful contaminants is the concentration of chlorine, chloramines and other severe sanitizing chemicals that are used in municipal water systems disinfecting processes. There is a new concern as well for heavy metals, psychiatric drugs and other contaminants being flushed into water systems nationwide. The better your filtration system, the safer your family is from contaminants and sediment in most water systems. Some of the systems we reviewed and tested had single internal filter systems; some had dual internal filter systems; and one Company provided the dual internal

filters with an additional pre-filter for the highest level of filtration. This company, being a water filtration company, has over 100 different filters for various applications. They also provide a free water report on your source water so that you know what potential contaminants you are dealing with. And if needed, they even provide the most critical pre-filter at no charge. Our research showed that the three (3) filter system provided the cleanest water. Another new contaminant is chloramine and that is addressed by filters using the Vitamin C Ceramic block filter system that is in some of the ionizer's interior filters. Another option for areas that have multiple contaminants is using a reverse osmosis (RO) system but you must use a mineral cartridge to re-mineralize the water before it goes into the ionizer. One of the companies offers a 5-stage RO system at a very reasonable price, so consider that option. The last option for clean water is the use of a FloJet Pump that allows you to pump water from a 5-gallon bottle of spring water. This is the system I use at my residence and I use the RO system at my office. It's nice to have options for cleaning up the water, as this is one of the primary concerns of most consumers.

- **Hard Water**

This is a good time to talk about hard water. Here is the Wikipedia definition:

Hard water is the type of water that has high mineral content (in contrast with *soft water*). Hard water minerals primarily consist of calcium (Ca^{2+}), and magnesium (Mg^{2+}) metal cations, and sometimes other dissolved compounds such as bicarbonates and sulfates. Calcium usually enters the water as either calcium carbonate (CaCO_3), in the form of limestone and chalk, or calcium sulfate (CaSO_4), in the form of other mineral deposits. The predominant source of magnesium is dolomite ($\text{CaMg}(\text{CO}_3)_2$). Hard water is generally not harmful unless it is used with an alkaline water ionizer.

The worst enemy of an ionizer is hard water, as the minerals will build up on the titanium plates as scale. It is IMPORTANT to also know that you CANNOT use an ionizer when the water source is connected to a water softener. Many new houses have a third valve under the sink that will bypass the water softener and give you tap water. BUT this means that it is still hard water. With this in mind, there are several options to handle this. The first would be to locate a "hard water" pre-filter and I know one of the ionizer manufacturers will supply this free of charge if you tell them you have hard water. The second approach is to use one of the reverse osmosis (RO) systems that we talked about earlier. This approach removes the majority of all contaminants and also removes the high proportion of minerals that cause the water to be "hard". Just remember to add that post-mineral cartridge to add the 74 minerals back into the water so that it can be alkalized, ionized and micro-clustered. These minerals are not going to make the water "hard" and will be a healthy addition to the water.

Second we will look at the choices you have in options.

UV Light Technology

Our research shows that many municipal and private water companies use this technology. We understand that ionizers neutralize the majority of contaminants and we also know that people are very concerned with the purity of their drinking water. With this in mind and after talking to many people, we feel that this is a good option to add to your water ionizer system. We read one website that talked about the possibility of broken glass as a health hazard, so we contacted the manufacturer and were informed that they have sold thousands of systems with zero problems and only positive feedback. They also informed us that there is a safety feature designed into the system to prevent that. Here are some of the positive benefits:

Effectively kills bacteria, viruses, mold spores, fungi, oocysts (cryptosporidium and giardia), and other microbiological contaminants

- Perfect for Well Water users
- Destroys the parasite “cysts” that can make it past chlorine & other disinfectants.
- UV radiation can be an effective viricide and bactericide.
- Disinfection using UV radiation is commonly used in wastewater treatment
- Approved by the EPA for safe drinking water treatment
- Safe for pets and children, no hazardous chemicals
- Purification at water tap

Counter top or Under the Counter Models

People want to have choices in what they do. Many people want a counter top alkaline water ionizer because then they can easily disconnect it and take to elsewhere. But a lot of people want to keep their countertops clear (especially women) and the option of having an under counter version is a great thing. We have several companies that provide this option – one has an adapter system (not legal in some states) and others have versions that were built to be under the counter. One of the companies now has a “convertible” model that allows the counter top to convert to an under counter model. The under counter model can also convert to a counter top model for traveling and vacation homes.

Thousands of these have been sold and reports show that they perform very well.

Third, let us look at Certifications

Certifications:

The most important certification would be the Underwriters Laboratories (UL).

Here is the Wikipedia definition:

Underwriters Laboratories Inc. (UL) is a U.S. non-profit privately owned and operated product safety testing and certification organization. Based in Northbrook, Illinois, UL develops standards and test procedures for products, materials, components, assemblies, tools and

equipment, chiefly dealing with product safety. UL also evaluates and certifies the efficiency of a company's business processes through its management system registration programs.

UL is approved for such testing by the U.S. federal agency OSHA.

This certification is on all major equipment products in the USA and we feel that this is a vital certification. Only the more established manufacturers qualify to receive this certification and have taken the time and large expense to obtain it.

There are other certifications that are important, so make sure the machine you pick has these:

KFDA - Korea Food and Drug Administration for Medical Device Registration in Korea

ISO – Look for ISO Certification 9001

NRTL – Nationally Recognized Testing Laboratories.

CE – European Conformity Certification.

IEC – International Electrotechnical Commission

WQA - Water Quality Association – certified manufacturer

ISO 14001 – International Organization for Standardization.

Endorsements:

BBB – Better Business Bureau

Also look for endorsements from consumer agencies and health organizations, as well as known scientists and Doctors.

Testimonials:

We are not against testimonials at all, but remember that these are subjective opinions and may be motivated by other considerations. Normally all the ones we have seen are about the great health results people have attained and since we have personally seen results and talked to people on many occasions, we feel that they should be given some consideration.

The Distributor of the Ionizer

The length of time the distributor has been in business and how they treat their customers is very important to me. Look for one who has been around at least 4 or more years and has an established business presence. I have nothing personal against MLM companies, but you do not get the best value through them as the prices are inflated due to their multi-layered payout systems.

How Long Has the Company Been Distributing in North America?

We have followed ionizers for many years and we have noticed several things. One is that it takes at least 1 to 2 years for a new company to get all the "kinks" out of it and have it running optimally. So if a new company comes out, it is best to wait until it has proven itself.

Now let's look at the different price ranges.

Water Ionizers in the \$500 to \$995 range

These models are the low-end systems and are the basic entry level machines in the market place. The quality of the components and materials is sacrificed to keep the prices down. They normally have a shorter warranty period as well. All of these use the old-fashioned transformers and have 5 plates and the platinum coating is thinner than the higher quality models. They are definitely "bare bones" models without the features or functions of the better models. Their performance is also relatively low and their rate of returns for warranty defects is high. One of the manufacturers of these low-end models is also known not to provide much warranty service.

Water Ionizers in the \$1000 to \$1500 range

These are your reliable mid-range models that provide a pH and ORP level that is adequate for a person who wants to use the ionized alkaline mineral water to maintain their present-day good health. Look for 5 plates and definitely a SMPS Power System, as they are more reliable. These are not the high performance models and usually have only one internal filter. They may not be adequate if your source water is below par. They also do not have many of the functions and features that the better models have and cost restrictions will limit the quality of the materials they are manufactured from.

Water Ionizers in the \$1500 to \$2000 range

These models normally use the higher quality materials and incorporate many of the best functions and features. Look for 7 plates in this price range and for the higher quality SMPS Power System. In general these will provide the best results and are for people who have health challenges or who are looking to optimize their health or sports performance. In this range, you will find a variety of functions and options that will enhance the performance of your water ionizer. The under counter versions of these machines will typically run about \$500 to \$600 above what their counter top version costs.

We hope this information has been helpful to you.

If you would like more information on ionizers, we recommend you contact a Water Ionizer Expert. Here are a few recommendations:

Juan - www.ExpertoDeAguaalcalina.com 800-696-8908

James - www.WaterIonizerExpert.com 800-920-3792