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QUERCUS MAGNAE A GLANDIBUS CRESCANT



THE OFFICIAL MOUTHPIECE OF THE AQUAVIC IONISER USER'S GROUP

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www.aquavic.com.au

Phone / Fax: + 61 3 9723 4223

aquavic@optusnet.com.au

From the Director:

Isn't it funny just how quickly attitudes and prejudices change. Not so many years ago, the RWI* was vigorously 'bagging' anything that resembled a fresh water system (many still do) - and now they're becoming keen advocates. Open any pool industry trade magazine now and you'll find any number of adds promoting "*fresh water, no chlorine, low salt, minerals, mountain stream experience, backwash to gardens etc.*" in fact, almost exactly what we've been promoting for the past 15 years - and others a decade before that. The very same claims that caused the APVMA to do their infamous 2004 after-hours 11 page fax out to all ioniser manufacturers, with the threat of a \$66,000.00 threat for non-compliance.

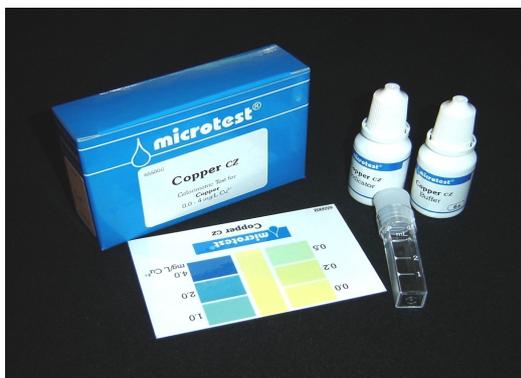
When the dust finally settled, and the AAT found that ioniser's were not as black as some would paint them (*it was found, surprise, surprise, that contrary to misinformation so freely peddled by our detractors, that they had a long and enviable record of nil adverse health events*) our most vigorous opponents have now chosen to jump on the fresh water pools bandwagon. It's taken a while, but they've finally realised what you, our customers, have know for decades - you don't want chlorine and / or the complex chemical solutions to everything that ails your pools and spas. You simply want low maintenance, low chemical, drinking-quality water. Nothing more. Nothing less.

Ah well, we do get a warm fuzzy feeling and smug satisfaction knowing that we've been about 10 years ahead of the industry's major players. Makes it all worthwhile really. Thank you, our loyal customers, for your on-going support, particularly so in the difficult days in 2004/2005. It is very much appreciated.

How's your water?

And now for something completely different. In a domestic pool situation, the only practical way of determining the performance of your ioniser is to measure the (free) copper levels in the water, and to that end, we supply an excellent quality Australian-made copper test kit. **(Pic: 1)** Yes, they are a tad pricey, but they are virtually laboratory grade, and if used and stored as directed, have around 70 to 80 tests per kit, which gives them a life expectancy of around 3 years and excellent value for money.

If ever there was a compelling reason to do an occasional check of your copper levels, the pic below gives a reason why. The chickens of one of our customers came home to roost with a vengeance recently when he thought "*I don't feel like cruising down the Derwent today, I might as well check the copper level.*" Imagine his surprise when he finally got around to testing the water and found that it was about 4 times the maximum recommended level. **(Pic: 2)** The upside is that as he was destroying electrodes at such an alarming rate, we'd be supplying replacements long before their use-by date. Great for our electrode sales. Not so good for his pocket. This owner now has the dubious honour of taking the (non-existent) prize for the highest concentration of copper in any domestic pool or spa that we've ever come across.



Pic: 1



Pic: 2

Footnote: After several decades in the industry, the only other example that we've come across was an indoor pool which returned a reading of > 5.0 mg/L ie more than 10 times the optimum working level. Fortunately, this fully tiled indoor pool was being used for the owner's racing greyhounds and not the owner's family. Of interest is that, in spite of the elevated readings, neither showed any signs of staining.

Swim Spas:

Way back in issue 13:2 (Still accessible as a download on our website) we announced the release of a fully self-contained ioniser spa pack which was based on our New Millennium Series 1. It worked very well and several were installed in various locations and we were quietly confident that they would be well accepted by spa owners who were seeking the low chemical experience. The only downside was that three holes that had to be drilled into the shell for the extra jets. This was not a problem with older spas, but as it almost certainly voided the maker's warranty on new spas, it was not so well received. We persevered for a while, but lack of interest finally caused the project to be shelved and written off to experience.

However, while we were taking our winter break, a call from Andrew of "Arctic Spas Down Under" in Melbourne's Westmeadows caused us to have a rethink. He had been speaking with a contact in WA who had installed one of our New Millennium Series 1 ionisers in his spa some years ago, and so impressed was he with it that he suggested that they may be suitable for swim spas.

We eventually made contact from the wilds of Vancouver Island and agreed to follow up his call with a site visit when we returned. The meeting was arranged and it soon became obvious that installing a Series 1 in his swim spas would be a very simple matter as some of the plumbing was extant (negating the need to drill holes in the shell) and there was plenty of room to install the all-important hardware items ie the low wattage circulating pump, the ioniser, the flowcell, and some pipework. And once this was done, it all looked very much at home, almost as if it was meant to be there. **(Pic: 3)**

The Archillie's heel of retro fitting New Millennium ionisers to spas was the need to have absolute control over their extremely low run times (approx. 1.0 hr/1000 litres/week) but, in this instance, this was no obstacle at all. Some minor program changes to the spa's operating system and all functions - including those of the ioniser and circulating pump - were now able to be flat-screen controlled via wifi.

The icing on the cake was that results were exactly what Andrew was looking for. The spa's original CD ozonator and the ioniser worked in perfect synergy to produce crystal clear sanitised water **(Pic: 4)** with very few supporting chemicals required - and with the all-important copper levels absolutely controllable via the swim spas flat screen controller. **Pic: 5** is an overview of Andrew's display spa. Of particular interest is the fully insulated "CovanaLegend" cover which can be raised or lowered at the touch of a button, further enhancing the unit's already spectacular thermal coefficient which was engineered to suit Canada's extreme climate. If they work in Canada, they'll most certainly work anywhere Down Under.



Pic: 3



Pic: 4



Pic: 5

Ozonators:

And whilst on the subject of ozonators, up until now they were something we've avoided, but our involvement with "Arctic Spas Down Under" has caused us to have a rethink. But before we get too involved, we need to have not-too-technical look at ozone, with particular emphasis on just what an ozonator is, and how an owner can measure its performance.

Ozone is a naturally-occurring extremely poisonous, blue coloured gas which can be found in the stratosphere, which is, fortunately, a very long way from a typical spa owner, and therefore unlikely to be a problem. When artificially generated on terra firma by UV or CD and introduced into pool or spa water, it's an excellent oxidiser – second to none - but the downside is that it has a very short active life which is measured in seconds (*ionisers are measured in weeks*) and is also very much influenced by water temperature (*ionisers are not affected one jot by high water temperatures*). That's fine so far, but how do you determine whether it's actually doing anything if it's not supposed to be present in a water sample taken from your pool? The short answer is that, if the system is working as designed.....you can't!

A popular misconception of spa / hot tub owners is "I know its working because the green light's on and I can see the bubbles." Not necessarily so! The presence of bubbles simply confirms that air is being drawn in via the venturi (UV systems) and released into the water. Nothing more. Nothing less. Whether the

bubbles contain ozone or not is another matter entirely. The bottom line is that, unless the ozonator is over-producing (you can smell it) the average spa owner has no way of knowing whether his ozonator is working or not. Fortunately, Andrew is very much aware of this shortcoming, and has a test rig which measures the performance of every ozonator they sell. It can also be used for on-site specific ozonator performance testing if required. The recommended testing frequency is at least once every 12 months.

Having now satisfied ourselves that the ozonator is definitely working, we now introduce an Aquavic ioniser, and the synergistic results are spectacular as we now have the combination of a highly potent but short lived ozone, and the extremely strong residual protection of Aquavic's "Pool Algacide and Sanitising System"* a combination unique to **Arctic Spas Down Under**. For further information contact Andrew at arcticspas@optusnet.com.au or via the website www.arcticspasdownunder.com.au

Hint:

If you're ever tempted to use a popular nappy bleach to treat a problem in your spa – don't! You may well finish up with a pool or spa that looks rather like **Pic: 6**. They may be bubbles, which, by definition, are delicate little envelopes of air, but they are anything but delicate and very difficult to remove. Very tenacious indeed!



Pic: 6

And in closing, we recently received a request for a pair of electrodes from a long time customer who was running one of our original ION-01 ionisers in his indoor pool. When asked about the performance of his veteran ioniser, he confessed that, other than topping up the water occasionally, *he had added absolutely no chemicals to the water whatsoever for the past 18 months – and the water was crystal clear*. With results like that, is it any wonder that there was such a vitriolic attack on us back in 2004.



The Director

* Recreational Waters Industry.

** APVMA approval number 61690.