

12 Steps To Insure Proper Water Testing

Following is a review of the 12 steps required to insure proper water testing:

- *Use a representative water sample* — The location in the pool where the water sample is taken has a significant bearing on the representative chemical determinations. Water samples should be taken at least 18 inches below the water surface in areas away from the return line. Insert a clean plastic bottle, bottom-side up, to the required depth and turn the bottle top side up to receive the sample of water for testing.

- *Use the proper sample volume* — Accurate measurements cannot be assured if the sample size is not correct. All water samples, put into a sample container and filled to a marked fill line, display a curvature at the surface of the water. This curvature is called the meniscus and is due to wetting of the sides of the container by the sample water. Always fill the container

tion, colored solutions remaining in the test cell may stain the sides of the cell, compromising color interpretation. Finally, replace reagent bottle caps and securely tighten to avoid external contamination.

- *Follow the manufacturer's instructions* — As with any piece of equipment, manufacturers spend a considerable amount of time and money to insure that their products work correctly. The instructions tell users how to properly operate the product.

- *Never interchange reagents from other kits or other manufacturers.*

- *Be sure to use the correct amount of reagent required for the test.*

- *Test water immediately after sampling* — If the sample sits for as little as one minute after removal, values may decrease, especially when testing sanitizer levels.

so that the low point of the meniscus rests on the fill mark. Have the fill line at eye level when filling the sample container.

- *Match colors* — Matching colors in color metering determinations is done by holding the comparator up to northern light.

- *Swirl, swirl, swirl* — Proper results depend on either color comparisons or detection of a color change (endpoint). For this to happen, reagents must be thoroughly mixed in the water sample. When titrating, the sample must be swirled after each drop of reagent is added to see if the color change is permanent (the endpoint has been reached).

- *Use the correct drop size* — When adding any reagent drop-wise to a water sample, hold the dropper bottle vertically (straight up and down). Holding the bottle at an angle while adding may distort the drop size and lead to inaccurate results. Static electricity sometimes builds up around the dropper tip, reducing the drop size and resulting in a false high reading. To correct this problem, simply wipe around the dropper tip with a clean, damp cloth or paper towel to remove the static electricity.

- *Prepare for the next test* — After testing, flush out sample cells with tap or fresh water to avoid any residual from interfering or contaminating the next test. In addition,

- *Always wait one complete filtration cycle after chemical treatment to test the water.*

- *Always use a plastic container to collect the water sample* — Glass containers may accidentally break.

Service technicians who have difficulty following these simple steps may want to seek help through the use of some of the newer technologies, such as test strips or electronic test meters.

Test strips are now widely available that perform any number of water condition checks, many combined on the same strip to further ease the process.

The same is true for electronic meters, which are small enough to slip conveniently into a shirt pocket. In addition to monitoring the water's condition on a number of parameters, the meters display the readout on an easy-to-read LED and some can even be equipped to printout the readings for later reference.

The validity of these newer test methods is increasing to a point where they can be trusted to give an accurate and complete picture of pool or spa water condition.

Regardless of the method of testing chosen, the most important thing is that the test is performed — and performed correctly. ■