BOC Sureserve

Expertise you can trust

The solution is clear

Carbon Dioxide technology for pH control in pools

The impact of incorrect pH balance

As the operator of a commercial swimming pool or facility that includes a pool, you definitely want optimum water conditions for your customers. Incorrect pH levels can adversely affect the disinfectant power of your chlorine as well as the health, safety and enjoyment of swimmers using your pool. Not to mention the impact on your bottom line from increased chemical and maintenance costs. Australian Standard (AS) 3633-1989 recommends that pH be maintained between 7.0- 7.8 with the optimum range being 7.2 – 7.6.

If pH is less than 7.0*

- → Eye discomfort due to accelerated formation of chloramines
- → Etching of exposed cement in cement finished pools
- → Corrosion of metal, pipes, pumps and filters

If pH is greater than 7.8*

- → Reduction of chlorine disinfecting agent
- → Increased chlorine requirement
- → Eye discomfort
- → Drying of skin
- → Cloudy water
- → Scale formation

* Source: AS3633-1989

The safe way to superior water quality

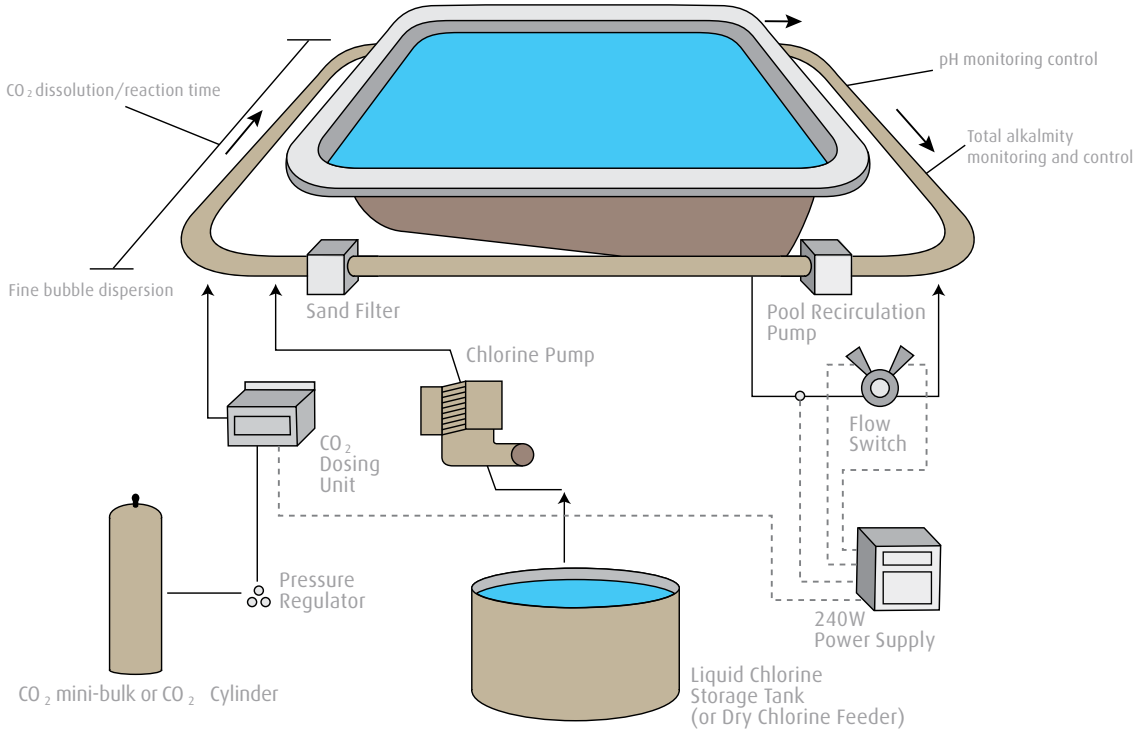
BOC makes it safe and easy for you to maintain a perfect pH balance using food grade Carbon Dioxide (CO_2) technology. When diffused in water, CO_2 forms a mild and safe carbonic acid, which works just as effectively as the more dangerous mineral acids, plus it forms a natural bicarbonate buffer to stabilise the pH level.

Why is CO_2 better for your pool than mineral acids?

Lower maintenance and repair costs, less corrosive than mineral acids on pools and pool equipment

- → Lower operating costs from reduced chlorine consumption
- → Safer handling with no chemicals involved, avoiding injuries like burns to skin and acid splashes in eyes
- → Environmentally friendly.

Tel: 08457 302 302, www.boconline.co.uk/sureserve, BOC Sureserve, Customer Service Centre, Priestley Road, Worsley Manchester M28 2UT



Is CO_2 technology suitable for all pools?

CO_2 technology has many advantages when used to control pH; however, it is of paramount importance that pool water total alkalinity (TA) is kept in the range of 100 – 120mg/l otherwise the effectiveness for pH control is reduced substantially.

To protect your staff's safety, BOC encourages customers to install a CELLAGUARD® CO_2 monitor in the confined space where the CO_2 system is installed. High concentrations of CO_2 can cause asphyxiation*. The CELLAGUARD® CO_2 monitor delivers both an audible and visual alert when potentially dangerous levels of CO_2 are detected.

BOC can provide the best solution to meet your requirements

BOC provides different CO_2 supply systems which make it simple for you to use the CO_2 technology.

- Mini-bulk – for medium to large pools. Mini-bulk is an innovative CO_2 Mini-bulk offer from BOC. It is designed to deliver a constant supply of food grade CO_2 via a range of different sized vessels. The vessels will be installed at the customers' site and will be topped up by BOC on a regular basis. Mini-bulk is a safe, efficient and peace-of-mind solution for pool operators as it eliminates the need to change heavy cylinders and reduces the risk of running out of gas.
- Cylinder or cylinder manifold – an economical solution for smaller pools or spas. BOC delivers the cylinders to your sites on a regular basis based on your demand patterns.

BOC CELLAGUARD® CO_2 Monitor

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