



blue*horizons*

Pool Care Guide

Pool Treatment Chemicals



Contents



CONTENTS

Introduction to the BOAST System	1
Understanding your pool	2
Circulation and Filtration	3
Balance your pool	4
Oxidise your pool water	9
Algae Prevention in your pool water	11
Sanitise your pool water	13
Testing your pool water	17
Beyond the BOAST System - Cleaners and Clarifiers	18
Preparing the pool for the winter	20
Safety information	20
Chemical hazards	21



Introducing the **BOAST** System - pool water care made easy

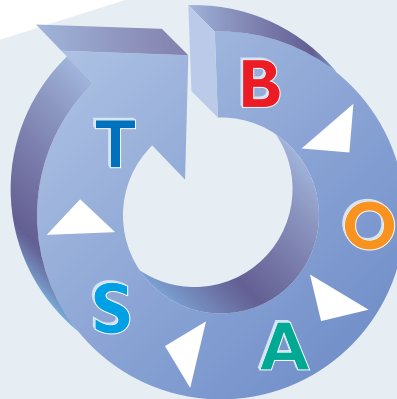
Welcome to the world of pool ownership and thank you for choosing Blue Horizons as your water treatment products. Learning and understanding how your pool works will help you achieve water that looks inviting and is clean and comfortable for you, your family and your friends to enjoy.

In this guide we will inform you about pool maintenance and water treatment using chlorine or bromine based sanitisers (disinfectants) and explain the importance of establishing and maintaining the correct chemical levels. We will also look at the role of filtration in keeping your pool water clear, bright and attractive. It is not our intention to baffle you with complicated formulas or to use jargon but to introduce you to our simple **BOAST** system of continuous pool water care that will enable you to run your pool economically and successfully. Rest assured that by using our **BOAST** programme, you will have pool water to boast about throughout the swimming season.

- B** Balance your pool water for bather comfort and maximum chemical efficiency
- O** Oxidise to establish a sanitiser level then weekly to destroy waste compounds
- A** Algae prevention, stop algae establishing themselves in your pool water
- S** Sanitise, maintain a constant sanitiser level to prevent and kill bacteria
- T** Test your water frequently, you really don't know what the levels are without testing

Separately ask for a Blue Horizons maintenance chart where you can fill in the details of your pool, this information will prove invaluable when it comes to dosing pool products, cleaning or changing filter media or talking to your pool product supplier.

At the back of the guide there is a section on pool and chemical safety, please read this thoroughly before you begin using or treating your pool, and always read and follow the instructions that are printed on the chemical containers before application.



Understanding your pool

How to calculate your pool volume

Rectangle Pool:

Cubic Metres (M³) - Length in Metres x Width in Metres x Average Water Depth in Metres

Example 9.0 Metres x 4.5 Metres x 1.5 Metres = 60.75M³

Gallons - Length in Feet x Width in Feet x Average Water Depth in Feet x 6.25

Example 30' x 15' x 5' x 6.25 = 14,063 Gallons

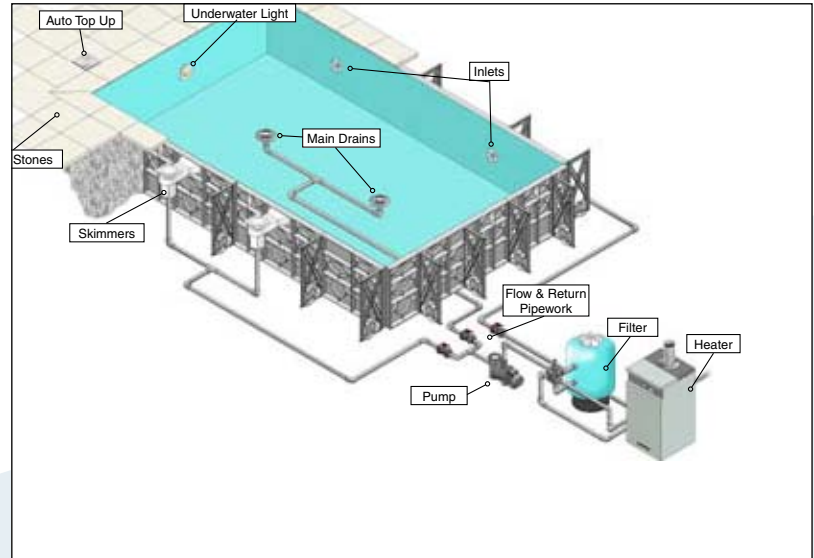
Round Pool:

Cubic Metres (M³) - Diameter in Metres x Diameter in Metres x Average Water Depth in Metres x 0.8

Example 4.5 Metres x 4.5 Metres x 1.0 x 0.8 = 16.2 M³

Gallons - Diameter in Feet x Diameter in Feet x Average Water Depth in Feet x 4.9

Example 15' x 15' x 3'6" x 4.9 = 3,859 Gallons



Useful Information

To convert	Into	Multiply By
Inches	Millimetres	25.4
Feet	Metres	0.30480
Metres	Feet	3.2808
Square Feet	Square Metres	0.0929
Square Metres	Square Feet	10.764
Ounces	Grams	28.3495
Grams	Ounces	0.03527
Pounds	Kilograms	0.45359
Kilograms	Pounds	2.20462

To convert	Into	Multiply By
Pints	Litres	0.568
Litres	Pints	1.761
Gallons	Litres	4.546
Litres	Gallons	0.22
Cubic Metres of Water	Gallons	220
Horse Power	Watts	746
Watts	Horse Power	0.00134
Kilowatts	BTU	3412
BTU	Kilowatts	0.000293

Circulation & Filtration

Assuming that your pool is now full of water and you are ready to begin preparing it for use, the first thing to consider is the circulation system. When your pump is running it draws water from the pool via the suction fittings such as the main drain(s) and skimmer(s), see Understanding your Pool on page 2, and pushes it through your filter, heater and chemical feeder before it is returned to the pool via the inlets. As water flows through the filter, particles that are suspended in it are captured and retained within the filter media – this removal of particles is essential and is how your water clarity is achieved and maintained. As the water is only filtered when it is being circulated, we would recommend that you run the pump for a minimum of eight hours per day, and for best results 24-hours a day during the swimming season.

There are generally three types of filter used for swimming pools – cartridge, sand and diatomaceous earth (D.E.), although D.E. is not commonly used these days. Cartridge filters are normally found, although not exclusively, on smaller above ground pools while in-ground pools usually have sand filters.

Cartridge Filters



Inside the cartridge filter you will find a cartridge element that the pool water flows through. As the water passes through the element the particles and debris are removed and collected within the folds of the cartridge. As the collected matter builds up, so the water flow

through the element diminishes to such an extent that it becomes time to clean it. This is straightforward, turn off the pump, remove the element from its housing, hose thoroughly with a garden hose, don't use a pressure washer as it will cause damage to the element, then soak overnight in a solution of Blue Horizons Filter Cleaner or AquaSPARKle Cartridge Cleaner or Aqua Sachets Immerse.

Sand Filters



The advantage of sand filters is that you don't have to remove and clean cartridge elements making it easier and less time consuming to maintain your filtration system. In place of the cartridge element the filter tank contains specially graded silica sand and as the water flows through it particles are trapped and retained, thus creating clear water. As more and more particles are retained so the flow of water through the filter slows down and the pressure within the tank increases, you will notice this on the pressure gauge, which is usually on the multiport selector valve or the top of the filter tank. To remove the particles trapped in the sand you need to backwash the filter, typically weekly or more frequently if the pressure gauge indicates a need to.

When you backwash a sand filter the flow of water through the filter is reversed, (rather than the pool water entering the top of the filter and percolating down through the filter sand before going back to the pool), the water comes into

the filter through the bottom rises up through the sand, dislodging debris on the top. The backwash water goes to waste, and not back into the pool.



The backwash procedure is straightforward, firstly make sure there is sufficient water in the pool – the level should be about halfway up the skimmer opening, then turn off the pump, if there is a valve on your waste line make sure this is open, turn the multiport selector valve to the backwash position and turn the pump back on. On the multiport selector valve there will probably be a sight glass, you will see that initially the water in the sight glass is dirty and / or cloudy, once the water in the sight glass is clear, about 2 – 3 minutes, you can stop the backwash by turning off the pump. After the backwash turn the multiport selector valve to rinse and turn the pump on again, wait until the water in the sight glass is clear again, 20 – 30 seconds normally, turn the pump off. If you opened a valve on the waste line you should now close it. Turn the multiport selector valve to filtration and turn the pump back on - the backwash procedure is now complete.

Although backwashing the filter removes debris caught in the filter sand it doesn't actually clean the sand, so to maintain the filters efficiency it should annually be chemically cleaned using Blue Horizons Filter Cleaner as per directions printed on the product label.

Balance your pool water

Establishing and keeping the correct water balance is important for a number of reasons:

- Chemical efficiency
- Bather comfort
- Protection of pool and plant room equipment
- Water quality and appearance
- Makes it easier and less time consuming to look after the pool

Some people believe that keeping the right pH is all that is needed to achieve the correct water balance, this isn't the case and although pH is important there are other factors that also need to be considered. In the table below we have illustrated the properties that make up water balance and the ideal levels that should be maintained.

Ideal Pool Water Levels

Calcium Hardness	Total Alkalinity	pH	Total Dissolved Solids
200 – 275mg/l	80 – 150mg/l	7.2 – 7.6	Less than 1,500mg/l



Calcium Hardness

Calcium hardness (or total hardness) is the measure of how hard or soft the water is. The level will vary depending on where your water supply comes from, for example in some parts of Scotland the water is very soft and in parts of Kent the water can be very hard. The hardness depends upon the amount of mineral salts (mainly calcium) that are dissolved in the water and the more salts there are the harder the water is.

Problems Associated with Incorrect Calcium Hardness Levels

Low calcium hardness Less than 200mg/l	High calcium hardness More than 275mg/l
<ul style="list-style-type: none"> • Corrosive water • Etching of surfaces • Staining • Foam 	<ul style="list-style-type: none"> • Scale formation • Filter calcification • Cloudy water • Lower sanitiser effectiveness

If the calcium hardness of your pool water is less than 200mg/l then it should be increased using Blue Horizons Calcium Hardness Raiser, details of dose rates can be found below:

Blue Horizons Calcium Hardness Raiser Dose Rates Table

Pool Volume	To Increase Calcium Hardness by				
	Cubic Metres	Litres	Gallons	10mg/l	25mg/l
4.55 M ³	4,545	1,000	68g	170g	340g
11.36 M ³	11,364	2,500	170g	425g	850g
22.73 M ³	22,727	5,000	340g	850g	1.70Kg
45.45 M ³	45,455	10,000	680g	1.70Kg	3.40Kg