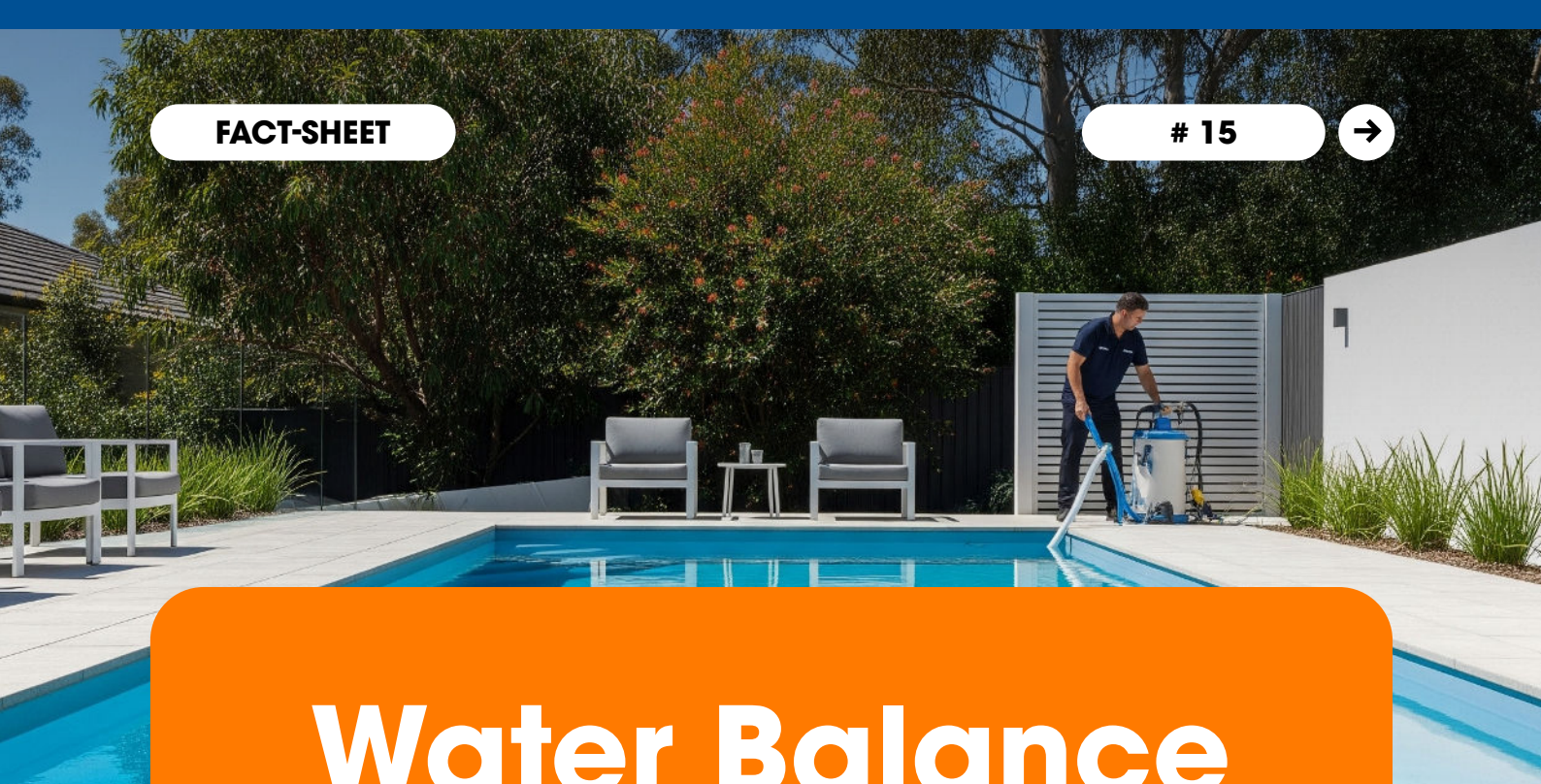




Water Balance

What is Water Balance?

Water balance refers to the proper chemical and physical equilibrium of the water in your swimming pool. Achieving the right water balance helps to maintain water clarity, protect pool equipment, prevent corrosion or scale build-up, and ensure a safe and comfortable swimming experience.

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Key Parameters for Water Balance

1. pH Level (Range: 7.4 to 7.6)

Importance: pH measures the acidity or alkalinity of the pool water.

- Too Low (Acidic): Causes skin/-eye irritation, corrosion of pool equipment.
- + Too High (Alkaline): Reduces chlorine effectiveness, causes scaling and cloudy water.

Adjustment: Add pH increaser (soda ash) or pH decreaser (dry acid) to adjust levels.

2. Total Alkalinity (TA) (Range: 80-125 ppm (parts per million))

Importance: Alkalinity acts as a buffer to stabilize pH levels.

- Too Low: Causes pH to fluctuate rapidly.
- + Too High: Leads to difficulty in adjusting pH and potential scaling.

Adjustment: Add sodium bicarbonate (baking soda) to increase, or muriatic acid to decrease.

3. Calcium Hardness (CH) (Range: 175-250 ppm (concrete pool) and 200 – 300ppm (fiber-glass pool))

Importance: Measures the amount of dissolved calcium in the water.

- Too Low: Water is corrosive, can damage pool surfaces and equipment.
- + Too High: Causes scale formation, cloudy water, and stains on surfaces.

Adjustment: Add calcium chloride to increase or drain and refill with soft water to decrease.

4. Salt and/or Mineral Levels

For saltwater pools, salt levels should be between 2700–3400 ppm. Mineral pools often use magnesium, with levels ranging from 1250–1500 ppm. Regularly test and adjust these levels to maintain optimal water balance and prevent cloudy or corrosive water. Always follow manufacturer recommendations for specific systems.

5. Stabilizer (Cyanuric Acid - CYA) (Ideal Range: 30–50 ppm)

Importance: Protects chlorine from UV degradation in outdoor pools.

- Too Low: Chlorine breaks down too quickly, reducing its effectiveness.
- + Too High: Reduces chlorine's sanitizing ability, leading to algae growth and cloudy water.

Adjustment: Add cyanuric acid to increase or dilute water by partially draining and refilling to decrease

Balance = *Bliss*

6. Chlorine Level (1.0-3.0 ppm)

Importance: Chlorine sanitizes the pool, killing bacteria, algae, and pathogens.

- Too Low: Increases risk of algae growth and water-borne illnesses.
- + Too High: Causes eye/skin irritation and unpleasant pool odors.

Adjustment: Add chlorine tablets, liquid chlorine, or shock treatment.

7. Cloudy Water

Cloudy Water can be formed due to inadequate sanitizer levels, inadequate filtration time or algae formation. Again, it is important to seek the advice of a professional pool shop to determine the correct product to fix the issue.



8. Algae formation

Algae thrive in pool water that is not properly sanitized, causing cloudiness, slippery surfaces, and even potential damage to the pool's finish and equipment. Algae can spread quickly if the pool's chemical balance is off, especially in warm water.

- + Too High: If algae levels are unchecked, they can turn the water green (in the case of green algae), cause yellow or brown stains (mustard algae), or result in black, stubborn spots (black algae). This not only affects the aesthetic appearance of the pool but also leads to clogging the filtration system and decreased chlorine efficiency.

Adjustment: To control algae growth, maintain proper chlorine levels, ensure the pool has good circulation and filtration, and regularly brush the pool's surfaces. For visible algae, use the appropriate shock treatments and algaecides to kill the algae and restore the pool's clarity. Regular cleaning and brushing, especially in corners and shaded areas, are also critical for prevention.

9. Low sanitiser levels

Low sanitizer levels can cause bacterial and algae growth, leading to cloudy water. This may result from insufficient chlorine or high stabilizer (CYA) levels. To correct, add chlorine or shock the pool, and reduce CYA if it's too high. Ensure proper water circulation by cleaning filters and adjusting pump settings. Regular testing helps maintain balanced sanitizer levels.



How to Test Water Balance

- **Test Strips:** Simple and fast, but less accurate than liquid testing.
- **Liquid Test Kits:** More accurate and can test for a wider range of chemicals.
- **Digital Testers:** High accuracy and easy-to-read results but can be expensive.

Preventing Water Imbalance

- **Regular Testing:** Test pool water at least once a week, and more frequently during peak swimming season.
- **Proper Filtration:** Keep the pool's filter running for adequate circulation and filtration.
- **Avoid Overusing Chemicals:** Always follow recommended dosages to prevent over-chemicalization.
- **Keep Pool Clean:** Regular cleaning (skimming, vacuuming) helps maintain chemical balance.