

Water Balance Values

TOTAL ALKALINITY

The measure of a substance's resistance to change of ph

Acceptable Range: 60 – 180 ppm
Ideal Range: 80 – 100 ppm for Sodium Hypochlorite, Calcium Hypochlorite
100 – 120 ppm for Chlorine Gas, Trichlor, Dichlor

pH

The measure of whether a substance is an acid or a base

Acceptable Range: 7.2 – 7.8
Ideal Range: 7.4 – 7.6

CALCIUM HARDNESS

The measure of the Calcium Ions in the water

Acceptable Range: 150 – 1000 ppm
Ideal Range: 200 – 400 ppm

HOT WATER FACILITIES: 150-250 ppm

TEMPERATURE

These are recommended ranges (***temperature is not normally adjusted when doing S. I. problems***)

Competition	78 – 80 f
Recreation	82 – 84 f
Special Populations	86 – 88 f
Spas	Not to exceed 104 f

TOTAL DISSOLVED SOLIDS

The measure of all materials dissolved in the water (should not exceed 1500 ppm over starting level)

S.I. Index Factor: Up to 1000 ppm use 12.1 Over 1000 ppm use 12.2

RECOMMENDED DISINFECTANT LEVELS

SWIMMING POOLS

Chlorine: Typically between 1 – 5 ppm; "Ideal", according to CPO Manual, 2 – 4 ppm
Bromine: Typically between 2 – 10 ppm; "Ideal", according to CPO Manual, 4 – 6 ppm

SPAS:

Chlorine: Typically between 2 – 10 ppm; "Ideal", according to CPO Manual, 3 – 5 ppm
Bromine: Typically between 2 – 10 ppm; "Ideal", according to CPO Manual, 4 – 6 ppm