

**Capacity (number of people allowed in the pool)**

**Pool Capacity = surface area / 20**

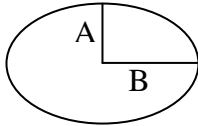
**Spa Capacity = surface area / 10**

**Surface Area:**

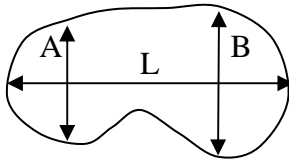
Rectangular Pool Area = (Length) x (Width)

Circular Pool Area = (Radius) x (Radius) x 3.14

Oval Pool Area = (A) x (B) x 3.14



Kidney Pool Area = (A+B) x (L) x 0.45



**Volume (gallons) = (surface area) x (average depth) x 7.48**  
(spa volume: to account for steps, multiply **volume** by 0.66)

**Flow rate / Turnover**

Check flow meter routinely to see make sure the pool/spa meets the required flow rate. Insure that the flow meter is properly sized for the pipe to which it is attached.

\*All water in a **pool** should run through the filtration system a minimum of once every 6 hours when pool is open for use.

**Required Flow Rate (gpm) =  $\frac{\text{Pool Volume (gallons)}}{360 \text{ (minutes)}}$**

All water in a **spa** should run through the filtration system a minimum of once every 30 minutes when spa is open for use.

**Required Flow Rate (gpm) =  $\frac{\text{Spa Volume (gallons)}}{30 \text{ (minutes)}}$**

**Water Turbidity**

Bottom and main drain shall always be clearly visible at the deepest part of the pool or spa.

\* (8 hour turnover required on pools built prior to 1982)  
(1 hour turnover required for wading pools)

**Required Chemical Standards**

**Free Chlorine minimum required:**

**1.5 ppm** with stabilizer

**1.0 ppm** with no stabilizer

**pH:**

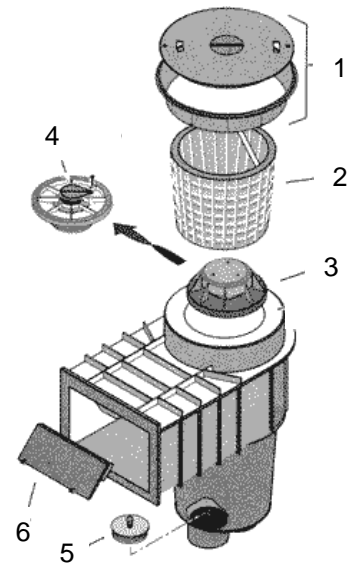
**7.2** minimum, **8.0** maximum

**Cyanuric Acid (stabilizer)**

**100 ppm** maximum

**Pool Skimmer Diagram**

1. Skimmer lid and collar
2. Basket
3. Float Valve assembly
4. Trimmer Valve – located on underside of float valve assembly
5. Check Valve
6. Weir



**Electrical**

Motors and heaters are required to be bonded and grounded.

**Bonding** - A visible copper wire attached to all conductive parts to reduce voltage differential.

**Ground** - Ground wires provide a path to earth ground, preventing a person from being severely shocked in the event of equipment failure. This grounding electrode may be a water pipe, driven ground rod, or the steel frame of the building. (May not be visible)

**California Code of Regulations Title 22, Chapter 20 Section 65523 Operation Records**

“The operator of each pool open for use shall keep a daily record of information regarding operation including readings of disinfectant residual, pH and maintenance procedures...cyanuric acid shall be measured a minimum of once per month...”

**California Code of Regulations Title 22, Chapter 20 Section 65505 Plans and Specifications**

“(a) A person proposing to construct, reconstruct or alter a swimming pool or auxiliary structure or equipment shall submit legible plans and specifications to the enforcing agent for review and written approval prior to commencing work and in advance of the issuance of any building, plumbing or electrical permit.”

**Environmental Health Plan Review:** Phone (916) 874-6010 / Fax (916) 874-6825 / [www.emd.saccounty.net](http://www.emd.saccounty.net)