BATHING LOAD CALCULATION GUIDE

A swimming pool bathing load indicates the maximum number of bathers (i.e., people using the pool) that are allowed within the pool and on the deck. This number can be calculated if you know the surface area of the pool (measured in square feet) and the surface area of the surrounding deck. If the depth of the pool is more than 5 feet, you will also need to know the surface area of the section of the pool that is greater than 5 feet in depth. Once you know the surface areas of the pool and deck, you can use the following density factors to calculate your bathing load:

	When the pool water is 5 ft. in depth or less:	When the pool water is greater than 5 ft. in depth:
Pool with a deck that has less surface area than the pool:	15 square feet per bather	20 square feet per bather
Pool with a deck that has a surface area that is at least equal to that of the pool:	12 square feet per bather	15 square feet per bather
Pool with a deck that has a surface area that is at least twice that of the pool:	10 square feet per bather	12 square feet per bather
Spas (not dependent upon deck surface area):	10 square feet per bather	NA

If your pool has a diving board, a 300 sq. ft. area is required for each diving board regardless of the deck size. The diving area would be subtracted from the deeper area of the pool when the bathing load is being calculated (see **Example #3**).

Several examples are provided below to illustrate bathing load calculations for different pool configurations.

Note: Calculations with a fractional sum are rounded down.

Example #1:

A 75 ft. by 35 ft. pool with a maximum depth of 5 ft. and a deck equivalent to the surface area of the pool.

Bathing Load = (75 ft. x 35 ft.) ÷ 12 sq. ft. per bather

              = 2625 sq. ft. ÷ 12 sq. ft. per bather

              = 218 bathers

Example #2:

Using the same overall pool dimensions listed in **Example #1** (75 ft by 35 ft.), but with a 25 ft. by 35 ft. section of the pool that is deeper than 5 ft. The shallow section of the pool would then be 50 ft. by 35 ft., and the deck surface area is equivalent to that of the pool.

Bathing Load (shallow) = (50 ft. x 35 ft.) ÷ 12 sq. ft per bather

= 1750 sq. ft. ÷ 12 sq. ft. per bather

= 145 bathers

Bathing Load (deep) = (25 ft. x 35 ft.) ÷ 15 sq. ft. per bather

= 875 sq. ft. ÷ 15 sq. ft. per bather

= 58 bathers

Total Bathing Load = 145 bathers + 58 bathers

= 203 bathers

Example #3

Using the description for the pool in **Example #2** with the addition of a diving board (300 sq. ft. will be subtracted from the surface area of the deep section of the pool).

Bathing Load (shallow) = (50 ft. x 35 ft.) ÷ 12 sq. ft per bather

= 1750 sq. ft. ÷ 12 sq. ft. per bather

= 145 bathers

Bathing Load (deep) = (25 ft. x 35 ft.) ÷ 15 sq. ft. per bather

= (875 sq. ft. – 300 sq. ft) ÷ 15 sq. ft. per bather

= (575 sq. ft.) ÷ 15 sq. ft. per bather

= 38 bathers

Total Bathing Load = 145 bathers + 38 bathers

= 183 bathers