

# FINDING SWIMMING POOL LEAKS

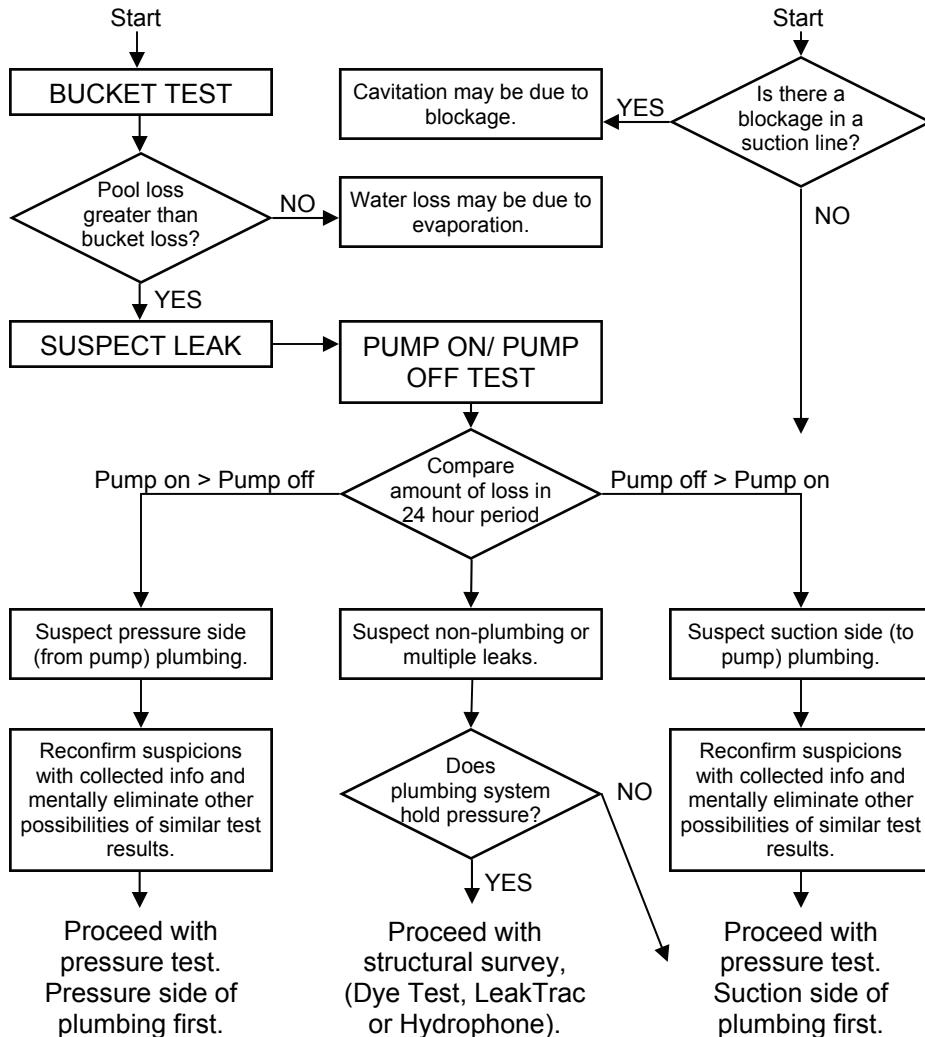
## INFORMATION GATHERING STEPS

### OBSERVATIONS:

- Excessive chemical usage
- Algae growth
- High water bills
- Dropping water level

### OBSERVATIONS:

- Air or dirt blown into pool
- Air in pump



## Information Gathering

### Preliminary Information

1. Type of pool?
2. Age of pool?
3. Pool builder?
4. Normal pool activity?
5. Attached spa?
6. Infloor cleaner lines? waterfalls? fountains? solar heater?
7. Recent construction activity?
8. Recent natural occurrences? (earthquake, cold winter, etc.)
9. Other leak detections done?

### Bucket Test

(To determine if water loss is due to evaporation or a leak.)

1. Fill pool to normal level.
2. Fill bucket and place in pool.
3. Mark level in pool and bucket.
4. Operate pool as when initial loss was noted.
5. Measure water levels in bucket and pool after 24 hours.
6. If pool loss > bucket loss there is a leak.

### How much is it losing in gallons? - (A good indication of leak size.)

$$\text{Inches of water loss due to leak (pool loss less bucket loss)} \times .62 \text{ gallons/inch per square foot} \times \text{Square footage of pool surface}$$

### Pump On/Pump Off Test - (A good indication of what part of the pool is leaking.)

Compare results of bucket test done while the pump is running to results when the pump is off. If necessary, isolate individual flow systems, (for example spa only, cleaner lines only, fountain only, etc.)

- Pump On loss > Pump Off loss → Suspect pressure side plumbing
- Pump Off loss > Pump On loss → Suspect suction side plumbing
- Pump Off loss = Pump On loss → Suspect pool shell, liner, or fittings

### Observations At Pool

1. Air in pump or blown into pool?
2. Any visible leaks at equipment?
3. Leaky backwash valve?
4. Other leaky "inter-system" valves?
5. Signs of deck movement?
6. Tile popping out?
7. Mushy spots in lawn?
8. Signs of water damage?
9. Water line marks inside of pool?
10. Other?

### Common Structural Leak Areas

(to check with dye tester)

1. Tile line
2. Skimmer bond to pool
3. Skimmer throat
4. Lights - conduit, grounding screw, niche bond to pool
5. Pipe openings into pool
6. Cracks
7. Vinyl liners (use LeakTrac)
8. Main drain and hydrostatic valve