

Michigan Pool Products, Inc.

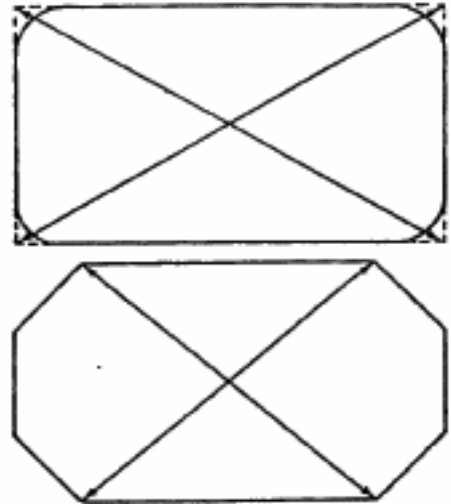
Liner Measurement Instructions

This guide will assist pool owners in measuring their pool for a vinyl liner. It is the most useful for those with rectangular or Grecian Pools. The guide is also helpful in measuring any pool with a hopper bottom or safety ledge. It is especially helpful for pool owners who do not want to empty the pool before measuring. Record all measurements to the nearest inch. The information is a collection from different sources and is not intended to be all encompassing in scope.

POOL DIAGONALS

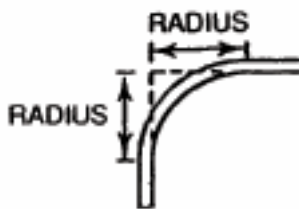
A. RECTANGLE POOLS: The cross diagonals on all rectangular pools must be measured. Pools with radius (rounded) corners must be squared before measuring. Straight edges, or string with stakes, can be used when squaring the corner. The straight edges, or string, will be extensions of where the liner snaps into the bead track (beaded liners) or the pool wall (overlap liners). A large carpenter's square can be used on smaller radius corners. The dotted lines represent the squared off corners. Of course, the squaring process is unnecessary on pools having square corners. Record both diagonals on the measuring form.

B. GRECIAN POOLS: Measure both diagonals as shown and record on the measuring form.



CORNERS

A. RADIUS CORNERS:



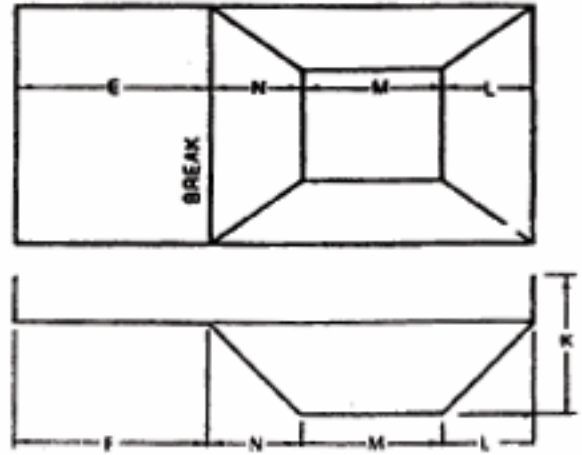
B. DIAGONAL CORNERS:



Radius corners must be squared before measuring. (See Pool Diagonal Section for assistance) The measurement for either a radius or diagonal corner must be recorded on the measuring form.

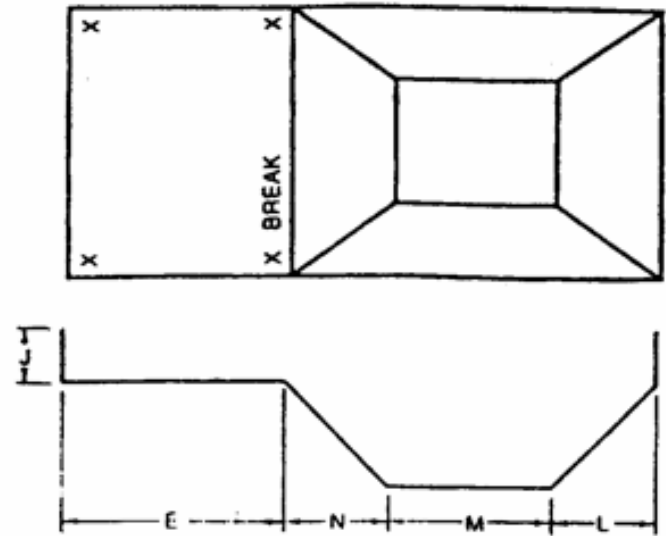
HOPPER DEPTH

A skimmer pole, vacuum pole or other type of straight edge is needed to measure the depth of the hopper floor (M). Place the straight edge in a vertical position using either the deck or the diving board. A carpenter's level should be used to verify that the pole is vertical. Mark the water line. Add to the water line the distance to the bead track (beaded hung liners) or to the top of the wall (overlap hung liners). The 2 measurements are added to determine the (K) measurement. Report on the measuring form.



SHALLOW END DEPTH

Measure each of the 4 spots as indicated by the 'X's' on the diagram. Beaded hung liners are measured from the bead track to the bottom. Overlap hung liners are measured from the top of the pool to the bottom. If the 4 measurements do not vary by more than 1" then average the total and report as 'J' on the measuring form. If the measurements differ by more than 1", a diagram of this area must be submitted along with the measuring form. If the shallow end has more than a 2" cove, (see back page) then this area must be reported as a covered bottom pool.



FLOOR LENGTH SEGMENTS

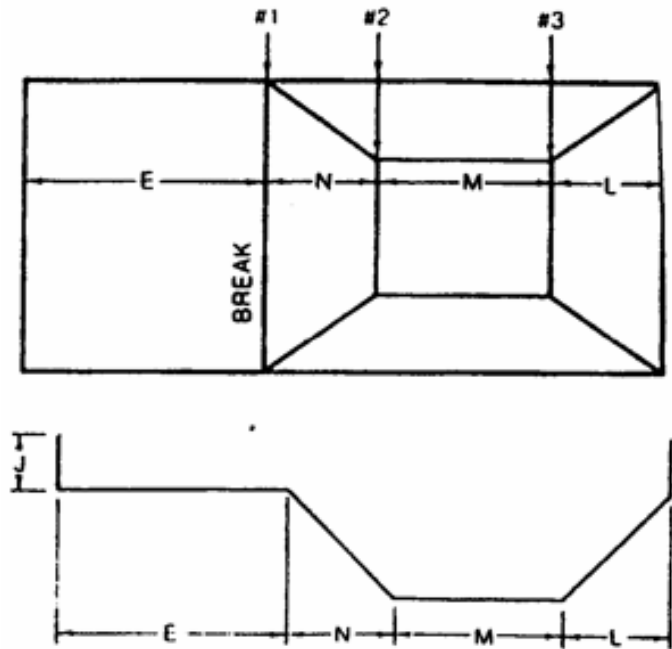
STEP A: With a straight edge, vacuum pole, etc. locate the spot where the shallow flat portion (E) meets the break (N). Lean the straight edge so that it rests on the sidewall of the pool. It must be parallel with the end wall. Mark this spot with chalk (#1). Measure from the end wall to this chalk mark to determine (E).

STEP B: With the straight edge, locate the spot where the break slope (N) meets the flat bottom (M). Rest the straight edge on the sidewall so that it is parallel with the end wall. Mark this spot with chalk (#2). Measure between chalk marks #1 and #2 to determine (N).

STEP C: With the straight edge, locate the spot where the flat bottom (M) meets the hopper slope (L). Rest the straight edge on the sidewall so that it is parallel with the end wall. Mark this spot with chalk (#3). Measure between chalk marks #2 and #3 to determine (M).

STEP D: Measure between chalk mark #3 and the end of the pool to determine (L).

Report length segments on the measuring form. Take all measurements on a horizontal plane. Do not measure the actual slopes.



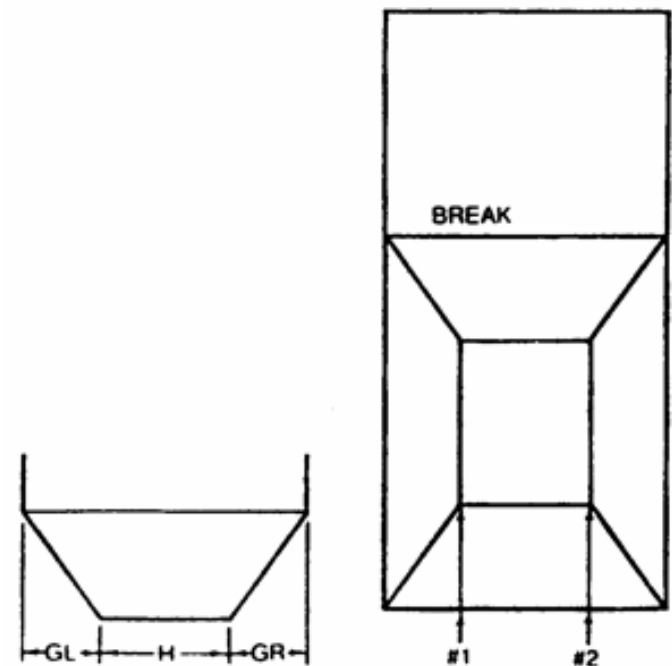
FLOOR WIDTH SEGMENTS

STEP A: With a straight edge, locate the spot where the sidewall slope (GL) meets the flat bottom (H). Lean the straight edge so that it rests on the end wall of the pool. It must be parallel with the sidewall. Mark this spot with chalk (#1). Measure from the side wall to the chalk mark #1 to determine (GL).

STEP B: With the straight edge, locate the spot where the flat bottom (H) meets sidewall slope (GR). Lean the straight edge so that it rests on the end wall and is parallel with the sidewall. Mark this spot with chalk (#2). Measure between chalk marks #1 and #2 to determine (H).

STEP C: Measure between chalk mark #2 and the sidewall to determine (GR). Most likely, GL and GR are exactly the same. If so, report on the 'G' space. If not, report on separate paper.

Report width segments on the measuring form. Take all measurements on a horizontal plane. Do not measure the actual slopes.



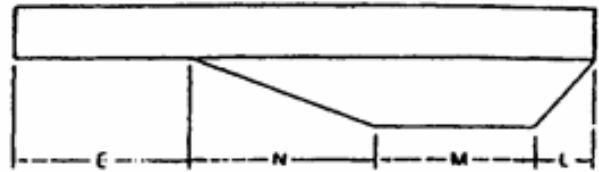
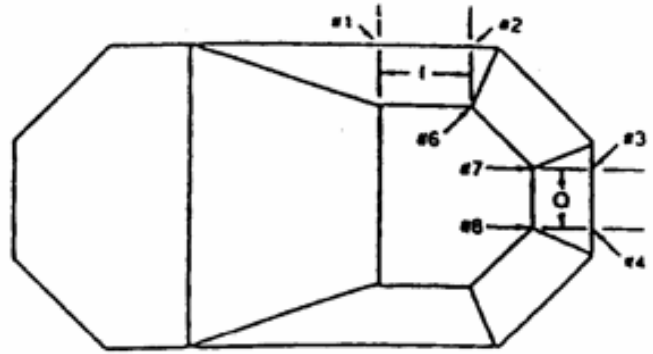
DEEP END WALL (GRECIAN POOL)

STEP A: With a straight edge, locate the spot where the break slope (N) meets the flat bottom (M). Lean the straight edge so that it rests on the sidewall and is parallel with end wall. Mark this spot with chalk (#1).

STEP B: With the straight edge, locate the spot where the flat bottom (M) intersects with point #6. Lean the straight edge so that it rests on the sidewall parallel with the end wall. Mark this spot with chalk (#2), Measure between chalk marks #1 and #2 to determine (I).

STEP C: With the straight edge, locate point #7. Lean the straight edge so that it rests on the end wall and is parallel with the sidewall. Mark this spot with chalk #3.

STEP D: With the straight edge, locate point #8. Lean the straight edge so that it rests on the end wall and is parallel with the sidewall. Mark this spot with chalk (#4). Measure between chalk marks #3 and #4 to determine (Q).



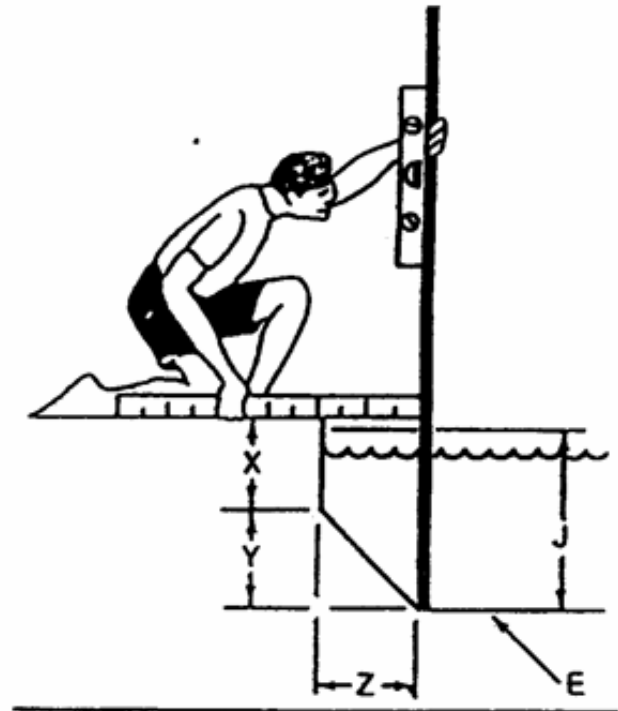
With these two measurements, the manufacturer can design the entire deep portion of the pool.

COVERED BOTTOM

STEP A: Letter (J) has been determined. (Shallow End Depth). Measure from the bead track (beaded hung liners) or from top of the pool (overlap hung liners) down to where the cove (Y) begins. Subtract (X) from (J) to determine (Y).

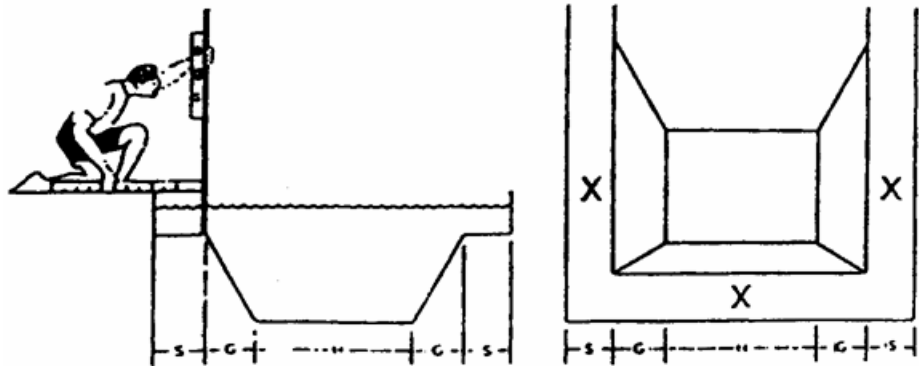
STEP B: With a pole, locate the spot where (Z) meets the floor (E). Use a carpenter's level to verify that the pole is vertical. Measure from the pool wall to the pole to determine (Z).

STEP C: If the cove along the sidewall differs from the end wall cove, please notate on separate paper and include with the measuring form.



SAFETY LEDGE

Locate the spot where the safety ledge (S) meets the hopper slope (G). Place a straight edge at this spot and, with carpenter's level, verify that the straight edge is vertical. Measure from the sidewall to the straight edge to determine (S).



It is best to test this measurement at several points around the pool as indicated by the X's. If the ledge measures differently at other spots, average the total measurements to determine (S).

CHECKLIST

ELIMINATE COMMON MEASURING AND REPORTING ERRORS

Were the floor length and width measurements taken on a horizontal plane? (Measuring the actual slopes will give incorrect readings)

Verified every measurement even though the original pool specifications sheet is available? (Quite often, pools are not built precisely to the original specs.)

Were the pool diagonals measured? (The liner manufacturer can adjust the liner to accommodate pools that are not square)

Were the corners measured? (A measurement is needed for both radius and diagonal corners).

Did you record the measurements in feet and inches? (Delivery time is delayed if measurements are recorded in either all inches or in metric).

Determining pool depths: Was the measurement taken from the bead track for beaded hung liners?
Measurement taken from the top of the pool for overlap hung liners?

Were both depth measurements reported ('J' and 'K')?

If the pool has a safety ledge, was the measurement reported (S)?

Was the liner type reported: beaded hung or overlap recorded?

If the liner is overlap hung, was the length of the overlap recorded?

If the pool has a covered bottom, were all 3 measurements recorded (X, Y and Z)?

Was the gauge and liner finish categories recorded?

If the pool is an oval, was the total perimeter recorded?