

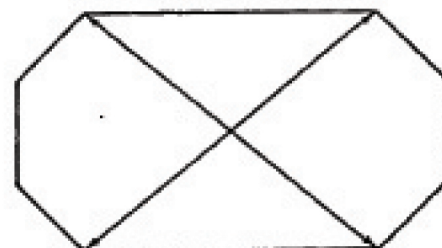
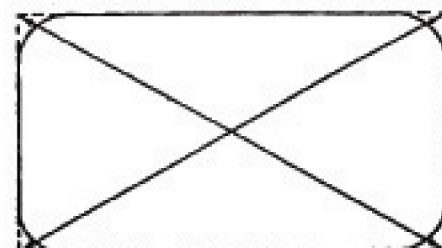
The Place for All Your Pool Needs

Pool Measuring Guide

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

POOL DIAGONALS

A. RECTANGULAR 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 for squaring up corners. The straight edges will be extensions of where the liner snaps into the bead receiver (beaded liner) or the pool wall (overlap liner). A large carpenter's square can be used on smaller radius corners. The dotted lines show where the pool corners are squared off. The squaring process is unnecessary on pools with squared corners. Record both diagonals on the measuring form.

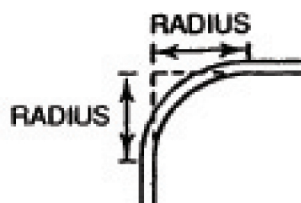


B. GRECIAN POOLS: Measure both diagonals as shown and record on the form.

CORNERS

Radius corners must be squared before measuring. The measuring for either a diagonal or radius corner must be recorded on the measuring form.

A. RADIUS CORNERS:

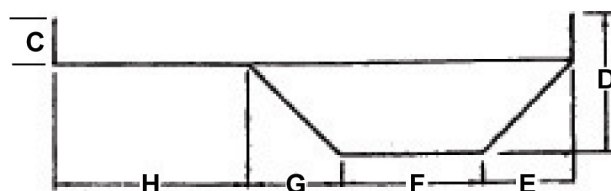
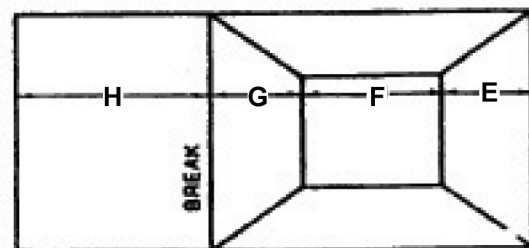


B. DIAGONAL CORNERS:



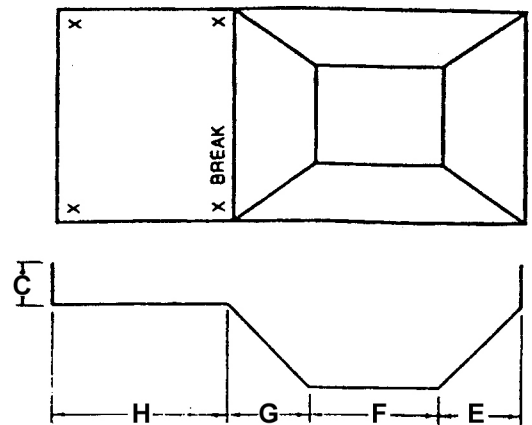
HOPPER DEPTH

A skimmer pole, vacuum pole or other type of straight edge is needed to measure a depth of the hopper floor. (F). Place the straight edge in a vertical position using either a diving board or a deck. 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 of the bead track or to the top of the wall. The two measurements are then added to determine the (D) measurement. Record on the measuring form.



SHALLOW END DEPTH

Measure each of the four spots as shown on the diagram to the right. Beaded liners are measured from the bead receiver to the bottom. Overlap liners are measured from the top of the pool to the bottom. If the four measurements don't vary by more than 1", a diagram of this area must be entered along with the measurement form. If the shallow end has more than a 2" cove, (see back page) then this area must be reported as a coved bottom pool.



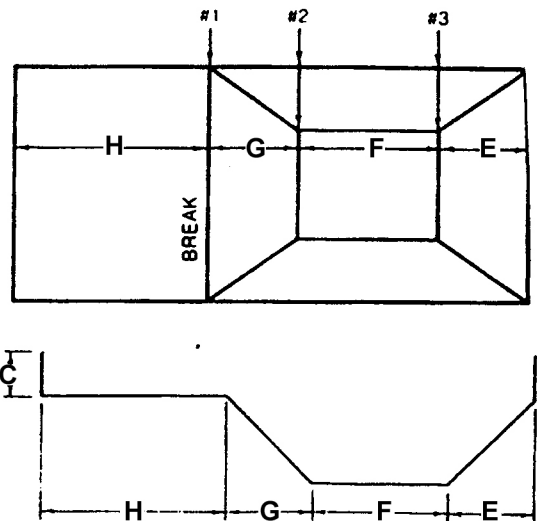
FLOOR LENGTH SECTIONS

STEP A: With a straight edge, locate the spot where the shallow flat portion (H) MEETS THE BREAK (G). 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 the chalk mark to determine (H).

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

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

STEP D: Measure between chalk marks #3 and the end of the pool.



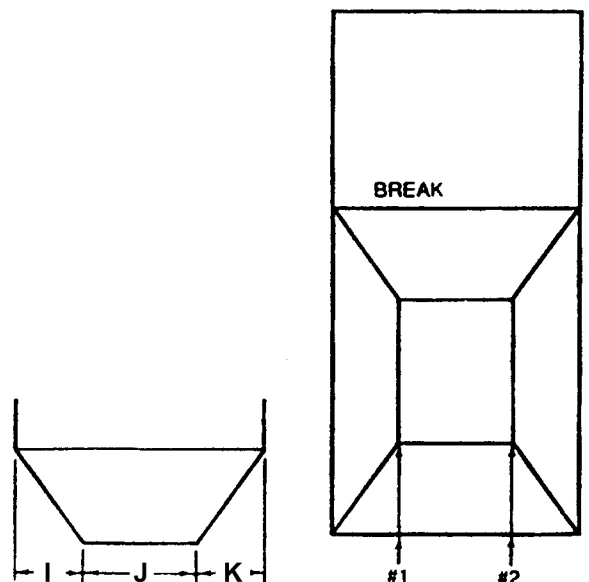
Report length segments on the measurement form. Take all measurements on a horizontal plane. Do not measure the actual slopes.

FLOOR WIDTH SECTIONS

STEP A: With a straight edge, locate the spot where the sidewall slope (I) meets the bottom (J). 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 (#1). Measure from the chalk mark #1 to determine (I).

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

STEP C: Measure between chalk marks #2 and the sidewall to determine (K). Most likely, I and K are exactly the same.



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

DEEP END WALL (GRECIAN)

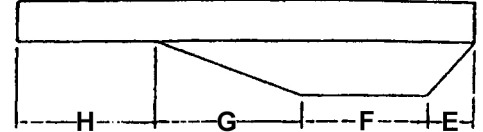
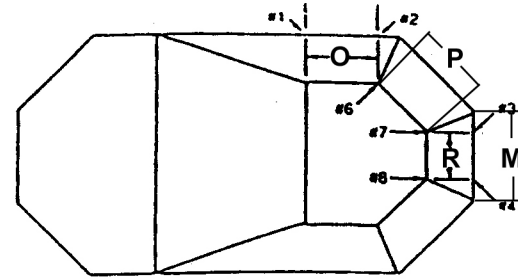
STEP A: With a straight edge, locate the point where the break slope (G) meets the flat bottom (F). Lean the straight edges so that it rests on the sidewall and is parallel with the end wall. Mark this spot (#1).

STEP B: With the straight edge, find the spot where the flat bottom (F) intersects with point #6. Lean the straight edge so that it rests on the sidewall parallel with the end wall. Mark this spot (#2), and then measure marks #1 and #2 to determine (O).

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

STEP D: With the straight edge, find point #8. Lean the straight edge so that it rest on the end wall and is parallel with the sidewall. Mark this spot #4.

STEP E: Measure diagonal of hopper bottom

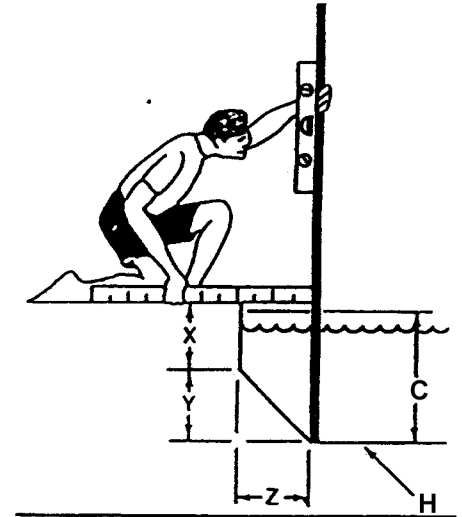


COVERED BOTTOM

STEP A: Letter (J) has been determined. (Shallow end depth). Measure from the bead receiver (beaded liner) or from the top of the pool (overlap liner) down to where the cove (Y) begins. Subtract (X) from (C) to determine (Y).

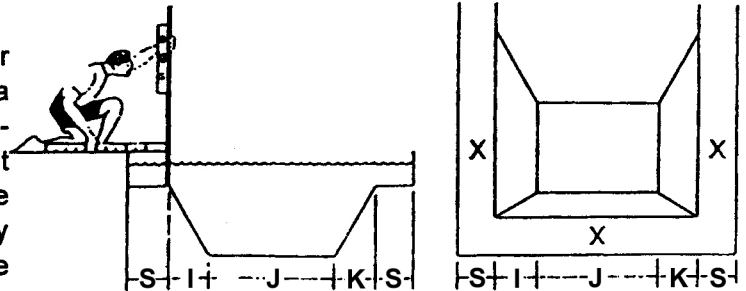
STEP B: With a pole, locate where (Z) meets the floor (H). Use a carpenter's level to verify that the pole is vertical. Measure from the pool wall to the pole to determine (Z).

STEP C: If the cove along the sidewall is different from the end wall cove, please note on a separate piece of paper and include with the measuring form.



SAFETY LEDGE

Locate the spot where the safety ledge (S) meets the hopper slope (I). Place a straight edge at this spot and, with a 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).



VINYL LINER INSTALLATION GUIDE

MATERIALS NEEDED FOR INSTALLATION

Normally, only household tools and materials are needed. **TOOLS:** Screwdriver, utility knife, industrial vacuum cleaner, ice pick, garden hose, staple gun and broom. **OTHER ITEMS:** 2" non-asphalt duct tape, masking tape, rags and possibly gaskets and gasket cement.

PREPERATION OF POOL STRUCTURE

1. Check the pool shell and remove all stones, twigs or other objects that might damage the vinyl liner. The deck must be swept clean before removing the new liner from the carton.
2. All wall and corner sidewall seams in metal, plastic or wood pools must be covered with non-asphalt duct tape.
3. Cement the inside gaskets for the skimmer, return fittings, etc. prior to liner installation. It's very important that all openings are properly sealed. Outside gaskets, those under faceplates are not installed until after the liner is in place.
4. Standing water must be removed from the bottom of concrete, granite, fiberglass or other non-porous pool shells. If it's not removed, the liner will float while being filled with water and the fit of the liner may be affected.
5. Use duct tape to cover any exposed coping edges, coping clips, or any other sharp edges on the deck.
6. If you have a sand bottom, it must be dampened, troweled and firmly tamped. Ideally, there should be 2"-3" of smooth surface sand (mason sand, river silt, round #60 mesh or comparable). Install liner while sand is damp. If the pool is masonry, it might require smoothing by applying a thin coat of plaster or comparable material.
7. Liners should be installed when the temperature ranges 60 degrees or higher due to stretching of the vinyl. If the installation is to be done at lower temperatures, store the liner at room temperature for 48 hours, or more, prior to installation.

GENERAL INSTRUCTIONS

1. The liner must be hung from the pool deck. Do not get into the shell while hanging! Footprints, in the bottom of the sand, will be created and are difficult to smooth out after the liner is in place. Generally, 2-4 people are needed for positioning the liner.
2. Place the liner carton on the deck (center of the deep end) so that the arrow is pointing towards the pools. The liner is packed so that it will unfold with minimum handling.
3. With 2 people, unfold the liner towards the outside corners of the pools.
4. Locate the shallow end corners at the top. With a person on each corner, grab a fold of material and walk the liner toward the shallow end. Two additional people will feed the liner.
5. Lower the corners into the pool making sure that the liner doesn't fall into the pool.
6. Corners should be tight into the sidewall. Verify that the hopper portion is in the deep end and the shallow portion is in the shallow end. Make sure that the liner is right side up.

SPECIFIC INSTRUCTIONS

BEADED LINERS

1A. Locate the exact position of the corners. They should be marked with a pen line on the underside of the sidewall near the top and directly above the bottom corner. Both the pen line and the bottom of the corner must be positioned in the middle of the pool corner.

1B. Using finger pressure, insert the liner bead into the receiving corner channels. *DO NOT* use sharp objects or tools to insert the bead.

1C. After the corners are positioned, move to the center of either the sidewall or endwall. Start inserting the bead into the receiving channel working toward the corner. Never work from corner to corner.

1D. After inserting the entire bead into the receiving channel, recheck the corners to make sure that they remain in the proper position. Proceed to step 2.

OVERLAP LINERS

1A. Overlap liners are made with enough extra sidewall material to allow for installation. The overlap material should

ideally be stapled to the backside of the nailing strip.

1B. To properly install the corner, it is necessary that the sealed-in area of the overlap section be in the proper position on top of the nailing strip. The corner must be positioned in the middle of the pool corner. When properly positioned the square piece of material, sealed into the corner, will bisect the angle of the corner.

1C. To staple the liner, start with the corner first. Extend the overlap section over the nailing strip until it touches the deck. Fold it back over the top and staple on the deck side through the double layer of material.

1D. After the corners have been installed, the rest of the liner is stapled into position. Start at the middle of a wall and work toward a corner. *DO NOT* staple from corner to corner. Staple at 12" intervals. Proceed to step 2.

STEP 2:

1. Gently pull the liner into position so that the bottom fits exactly into the shell. The bottom should fit flat without excessive folds. If walking into the pool, be sure to remove shoes to eliminate shoe prints. Remove any object that may fall between the liner and pool wall.
2. Place small sandbags, or smooth bottomed buckets filled with sand or water in each corner in the shallow part of the pool. Also place two additional along the shallow end wall at the point where the wall meets the floor. This reduces the possibility of the liner over stretching. Sandbags/buckets should also be placed at the bottom riser if the pool has vinyl-covered steps.
3. When the liner is positioned properly, pull away approximately 6" of the bead with in 12" of any corner, (if overlap, remove approximately 6" of staples). Insert the vacuum cleaner until the hose reaches the bottom of the sidewall (usually 40"-42"). Close the opening with rags and duct tape. Two vacuums speeds up liner positioning and also helps the liners fit.
4. Start vacuum(s). It normally takes 20-30 minutes for the liner to be drawn into place. While the vacuum is running, continue to reposition the liner to eliminate as many wrinkles as possible. If there is too much vacuum to reposition the liner, turn it off, position the liner, and restart it. Do not start filling with water until the liner is in perfect position and is held in place by the vacuum and sandbags/buckets. The addition of water will eliminate most small wrinkles. Large wrinkles, which fold over, are not uncommon and cause no damage to the liner.
5. Start adding water into the deep end with the garden hose. Use a gentle stream of water so that indents are not made in the sand underneath the liner. Continue to use the vacuum cleaner. After there is several inches of standing water in the deep end, the hose can be turned to full pressure. Leave the vacuum on until there is 12" of water in the shallow end. It is helpful if you pull the vacuum hose upwards as water fills the pool.
6. Install the main drain, If there is one, after 8-12 inches of water has collected in the deep end. With your hands pressing on the liner at the main drain opening, locate the screw holes and puncture with a sharp object. Install the top gasket and faceplate making sure that the faceplate is tightly secured. The center diameter can now be removed with a utility knife.
7. Continue to work out the wrinkles while the pool fills with water. Don't fill the pool so fast that the remaining wrinkles can't be removed. Wrinkles are almost impossible to remove once they have been covered with water.
8. Remove the sandbags/buckets when the water has reached 6-12 inches in the shallow end of the pool. Continue to use the vacuum until the water has neared the top. At this point the water can be turned off and the bead (overlap) can be reattached. Overlap liners; staples can be removed at any time to fix wrinkles. After the pool has been filled, the overlap material should be restapled at 2-3 inch intervals around the perimeter of the pool.
9. Do not install faceplates for skimmers, returns, light fixtures, etc. until the water level reaches 3" below the opening. Premature installation might result in the liner tearing away from the opening due to stretching as the water level increases. Install faceplates using the same directions as seen in #7.
10. Continue filling pool until the water reaches the desired level.

CHECK LIST- 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).
- Did you verify every measurement even though the original pool's spec sheet was available? (Pools may not be built to the original specs).
- Were the pool diagonals measured? (The liner can be made 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 metric).
- Determining pool depths: was the measurement taken from the bead receiver? Was measurement taken from the top of the pool for the overlap liner?
- Were both depth measurements reported ('C' and 'D')? If the pool has a safety ledge, was the measurements reported (S)?
- Was the liner type reported: beaded or overlap recorded?
- If the liner is overlap, was the length of the overlap recorded?
- If the pool has a covered bottom, were all 3 measurements recorded (X, Y and Z)?
- Were the gauge and liner finishing categories recorded?
- If the pool is an oval, was the total perimeter recorded?

Notes . . .