

# Installation Guide:

# Removable Mesh Pool Fencing

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Warning: Pool safety fencing is not intended to be a substitution for adult supervision. Children should never be left unattended.

# **Tools Required**

- Tape Measure
- Utility Knife
- Chalk Line
- China Marker
- Needle Nosed Pliers
- 9/64" Drill Bit
- #2 Square Drive Bit
- #2 Phillips Drive Bit
- Extension Cords
- Power Drill
- Scissors
- Hacksaw
- Core Drill
- Torpedo Level
- Water Hose
- Standard Screwdriver
- Phillips Screwdriver

# **Safety Guidelines**

- Maintain enough distance from edge of pool to allow for proper maintenance.
- Do not place fence adjacent to another structure that a child may climb upon.
- Fence should completely isolate the pool area from all exits of the house.
- All sides of the pool area should be enclosed by either the pool fence and/or another permanent barrier.

# **Installation Process**

# 1. Identify Fence Path

- a. Make sure that there is appropriate space on both the inside and the outside of the pool fence.
- b. Take the Safety Guidelines listed above into consideration.
- c. It is not always necessary to follow the contour of the pool. Try to use straight lines and/or gentle curves whenever possible. Doing so will simplify the installation process and help to ensure a clean, wrinkle-free installation.
- d. Avoid covering skimmer lids if possible.
- e. Try to run the path of the fence in solid concrete deck as much as possible. Avoid grass, dirt areas, paving stones, stepping stones, slopes and elevation changes, whenever possible. All of these situations can be addressed, but they require additional work and additional cost, so avoid them if the layout of the backyard allows it.

## 2. Determine Gate Location

- a. Determine where the gate is going to be installed. If installing a self-closing gate, make sure that there is space for the gate to swing open.
- b. The gate should always swing away from the pool to minimize the risk of a child pushing it open. The gate can be a left or right swinging gate.
- c. A common location of the gate is at the entrance to pool where the steps are located.

## 3. Mark the Deck

- a. Molding-to-Molding
  - i. A common mistake, when marking the holes in the deck, is to think in terms of "center-to center". There are times when you will want to think in terms of "center-to-center", such as when marking the gate holes, however, most of the holes that you mark, should be marked using a concept called "molding-to-molding". Think of the "path of the fence" as the path, that the fence mesh follows. The mesh attaches to the <u>outside</u> of the support poles. It <u>does not</u> run through the <u>middle</u> of the pole. Therefore, when marking the deck holes, you should think in terms of "molding-to-molding" since that is the path that the mesh follows.
- b. Letter "T" Marks
  - Mark the holes like the letter "T". As you look down at the "T" marked on the deck, the top of the "T" represents the location of the molding. The longer vertical portion of the "T" will run through the center of the hole.
    When preparing to drill, you will position the outside edge of your corebit at the intersection of the "T", with the vertical portion of the "T" running through the middle of the core-bit.
- c. Mark the Gate Holes

- i. The rectangular gate posts should be spaced anywhere from 32 <sup>1</sup>/<sub>2</sub>" to 32
   <sup>3</sup>/<sub>4</sub>" apart, center-to-center. The ideal spacing is 32 <sup>5</sup>/<sub>8</sub>", center-to-center.
- ii. The next hole, on either side of the gate post holes, should be spaced 2<sup>1</sup>/<sub>2</sub>" away, center-to center. This hole is going to be used by the first pole of a section of fencing.
- iii. Ideally, the next hole, which would be the second pole of a section of fence, should be inline with the gate post holes. This will help to maintain the alignment of the gate.
- d. Mark the Section Pole Holes
  - i. The distance between support poles will vary depending on the model of fencing that you are installing. This distance is either 30, 33 or 36 inches "molding-to-molding".
  - ii. The distance between support poles at a section break is always going to be 2-1/2 inches "molding-to-molding" (regardless of fence style).
  - iii. The number of poles per section will also vary depending on the model of fencing that you are installing. This number is either 5 or 6 poles per section.
  - iv. Begin marking the deck using the spacing appropriate for your model of fence.
  - v. Be sure to mark the deck using the "molding-to-molding" concept.

### 4. Drill the Holes

a. Hole Size

The size of the hole in the deck will vary depending on the model of fencing. The various deck hole sizes include 5%, 1% and 11%.

#### <sup>5</sup>∕<sub>8</sub>" Holes

This hole size can be drilled using either a core-drill or a hammer-drill. The preferred method is a core-drill, but either is acceptable.

#### 11/3" and 11/4" Holes

These larger hole sizes require a core-drill and core-bit. Trying to use hammer drill will result in damaged concrete.

b. Drill Type

#### Core Drill

This type of drill uses a water-cooled, diamond tipped, bit that cuts a clean precise hole. It will cut through aggregate and rebar. The leveling screws of the base plate can be adjusted so that the holes can be drilled at the proper angle.

#### Hammer-Drill

This type of drill uses a masonry bit. The hole is not as clean and precise and does not handle rebar as well. A double drilling procedure is recommended (but not required) by first drilling a  $\frac{1}{4}$ " pilot hole then the  $\frac{5}{8}$ " finish hole. You will need a drill guide to help drill the holes at the proper angle.

c. Position the Bit

Assuming that you are using a 1<sup>1</sup>/<sub>8</sub>" or 1<sup>1</sup>/<sub>4</sub>" core bit, align the outer edge of the core-bit the intersection of the "T" and line up the longer, vertical portion of the "T" so that it runs directly through the center of the core-bit.

d. Angle the Drill

#### i. Straight Areas

The angle of the holes in the deck are critical to the final aesthetics of

the pool fence. Straight lines are fairly straightforward. The holes should be plum (pointed at the center of the earth). However, as the path of the fence curves, the angle of the holes will need to change. Doing so will help to maintain the proper amount of tension on the fence mesh. Too much angle, and the poles will have excessive bow (flex). Not enough angle, and the mesh will sag (wrinkle).

ii. Outside Curves

Holes for an outside curved run of fencing should lean 2 to 3 degrees away from the pool. Tighter curves may require an angle up to 5 degrees.

iii. Inside Curves

Holes for an inside curved run of fencing should angle 2 to 3 degrees towards the pool. Tighter curves may require an angle up to 5 degrees.

iv. Gate Posts

Holes for gate posts should angle 2-3 degrees towards each other. As the fence sections are connected together and the fence mesh is tensioned, the gate posts will align parallel to each other.

- e. Cut the Holes
  - i. Spin the core drill bit clockwise to attach it to the cored drill. Hand-tighten the core drill bit. The bit will lock into place while you are drilling.
  - ii. Attach the water hose to the core drill and turn it on.
  - iii. Align the core drill bit with the "T" marked on the deck.
  - iv. Adjust the base plate leveling screws to achieve the proper angle.
  - v. Start the core drill and apply pressure to the core drill bit by turning the core drill handle toward the concrete.
  - vi. Drill a hole, at the proper angle, into the concrete at each location you

marked on the deck.

- f. Remove the Concrete Cores
  - i. Remove the core from each hole using a pair of long needle-nosed pliers.
  - ii. Some of the cores will need to be "broken off" prior to removal.
- g. Install the Deck Sleeves
  - i. Make sure that the newly created hole is free of debris.
  - ii. Insert a deck sleeve into the hole.
  - iii. Pound deck sleeve in until the upper flange rests on the concrete deck.

A "sleeve install tool" should be used to prevent damage to the deck sleeve.

iv. You are now ready to install the fence.

### 5. Install the Sections

- a. Begin with one section of fencing and insert each support pole into the appropriate deck sleeve.
- b. Continue until all sections have been installed.

### 6. Install the Gate

- a. Insert the gate posts into their respective holes.
- b. Attach the gate frame to one of the gate posts using the spring loaded hinges.
- c. Attach the magnetic latch to the other gate post following instructions included with the gate latch.

## 7. Connect the Section Latches

- Walk the perimeter of the fence and connect the spring loaded section latches between each section of fencing.
- b. As each latch is connected, the fence mesh will become more taut and the

angled support poles will be pulled into alignment.

# 8. Adjust the Gate Brackets

- a. Connect and adjust the gate brackets so that the gate posts are aligned parallel with each other.
- b. The distance between the top of the gate posts should match the distance at the bottom.

# 9. Adjust the Gate Latch

- a. Adjust the gate latch as necessary following the instructions included with the latch.
- b. Be sure that the latch engages properly when the gate is closed.

# 10. Adjust the Gate Hinges

- a. Tension the hinges as necessary following the instructions included with the hinges.
- b. Make sure that the gate swings closed automatically when released.