

## 2025 Manufacturer Specifications - Load Test

The testing results provided by: QC Metallurgical Inc. QC job#21HM-539 October 2021 in conjunction with Baby Guard Inc. The sample below was tested by pull testing horizontally 36" from base with accu- force 250 force gauges, s/n 62988075.

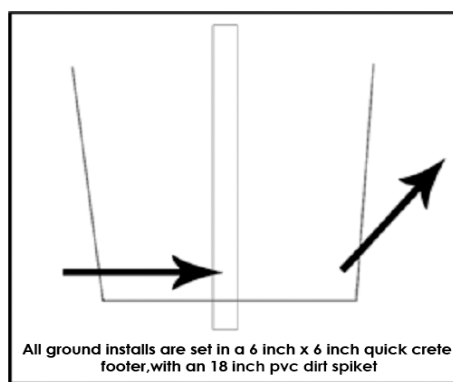
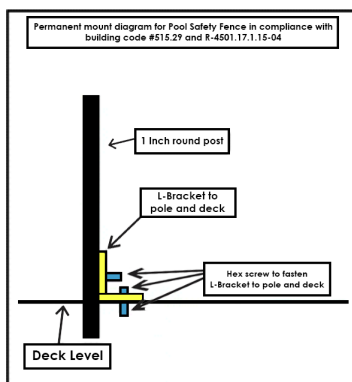
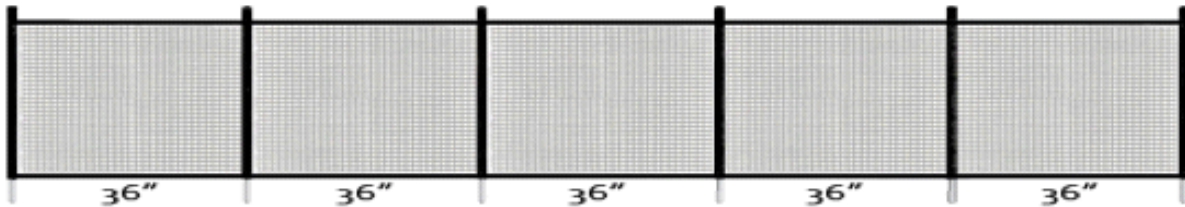
Baby Guard mesh tested tensile strength ASTM D GRAB METHOD @ 157 LBS.  
BURSTING STRENGTH MULLEN TESTER ASTM D 5034 D, 3786 and g 53 @ 257 LBS.

Completed pool fence is assembled with x-pole and Baby Guard mesh tensioned between x-poles, comprising of 6 poles per 15ft. section. Poles inserted with plastic composite sleeves into pool decking {i.e.: sand set pavers, concrete, wood} and sections connected with safety connectors. The product completely assembled and installed will withstand 321.4 LBS burst. All mesh has a minimum of 90% transparency.

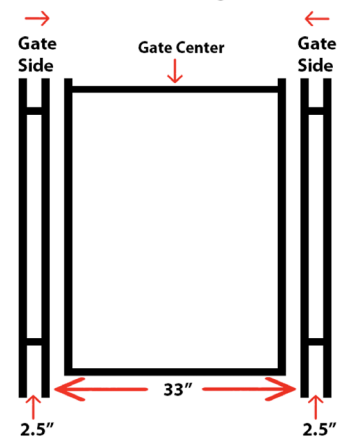
**\*\* In compliance with ASTM standard F-2286-05 \*\*** 454.2.17.1.1, 454.2.17.1.2, 454.2.17.1.3, 454.2.17.1.4, 454.2.17.1.5, 454.2.17.1.6,, 454.2.17.1.7, 454.2.17.1.8, 454.2.17.1.9, 454.2.17.1.10, 454.2.17.1.11, 454.2.17.1.12, 454.2.17.1.13, 454.2.17.1.14, ASTM D 3787, ASTM F2286-16, ASTM D 5034, ASTM F 1908, Florida Building Code 8th Ed. 2023 Sec. R4501.17.1 thru R4501.17.1.15, International Swimming Pool & Spa Code 2021 Sec. 305.0 thru 305.8 (**Testing results QC Metallurgical testing & consulting QC job#21HM- 539**)

**\*\* In compliance with California code 1159920-115929**

**\*\* Minimum fence height is 48" \*\*Fence will be installed a minimum of 20" off pool edge**



Drill the side frames leaning toward each other



# **Installation Instructions**

## **❖ Tools, Equipment & Materials**

- Before you begin installing the Pool Fence, make sure you have all of the tools and equipment needed to complete the installation.

## **❖ Installation - Tool List**

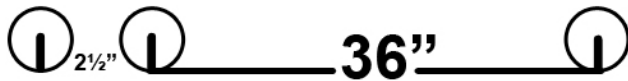
- Basic tool box
- Core drill
- 1 ¼ core drill bit
- 4' metal ruler
- 5 gallon buckets (2)
- electrical tape
- 8" needle nose pliers
- rubber mallet
- sledge hammer
- vice grips
- china markers (black and white)
- standard scissors
- cordless hand drill (12 volt)
- Phillips head drill bits (p-2)
- steel drill bits (9/64")
- masonry drill bits (1/4")
- wall anchors (#10 to attach to stucco homes)
- pipe wrench
- hex head drill bits (1/4")
- flat head screw driver
- 100' of water hose
- 100' of standard extension cords
- 50' to 100' of power cord (for core drill)

- ❖ Check and confirm the lengths of each section, i.e. (6pole section = 15ft), (5pole section = 12ft), (4pole section = 9ft), (3pole section = 6ft). Before you begin the first stage of installation, it is important to know what you will be installing.

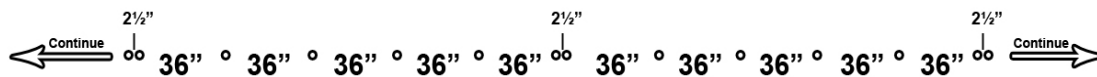
## **❖ Layout & Custom Sections**

- The layout is a crucial part of installing a Pool Fence. Pool Fences are manufactured very precisely, requiring the layout of the Pool Fence to be laid out just as precise.

- Pick a starting point to begin the layout, usually at the steps leading down into the pool (If a self-closing is being installed, see self-closing gate layout below first).
- With your template, draw 2 circles (24" from edge of water) at that starting point, 2½ inches apart from center to center.
- All measurements need to be done from center to center. Once those 2 circles are drawn, starting from the right of those circles, measure 36" for the next circle.



- Check the measurement from the edge of the water to keep the same distance between the fence and the water then mark the next circle exactly 36" from center of hole drawn to center.
- Follow these steps until you have laid out a full 6-pole section. Once you have laid out a full section, draw the next holes, 2½ inches on center. This is where one section ends and the next section begins.

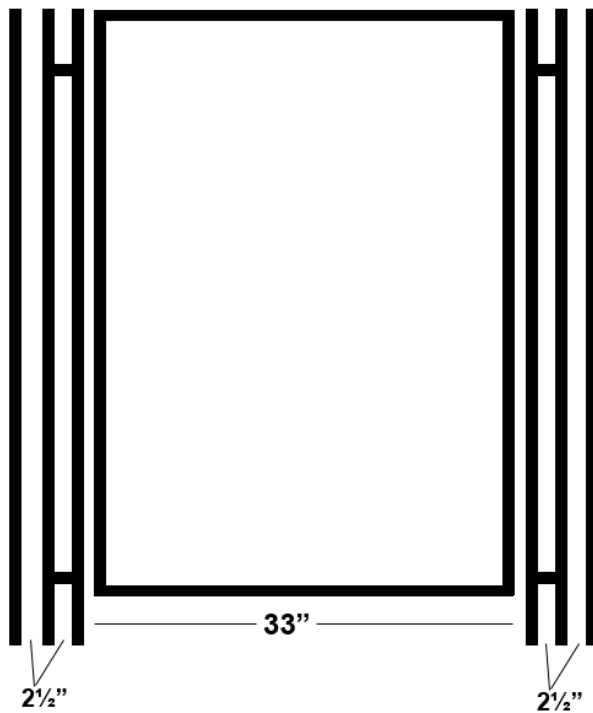


- Complete those steps until you have laid out half of the pool. Stop there and re-start at the steps, laying out to the left. Once you complete laying out the second half of the pool, you will likely have a section that has a panel that is not exactly 36". That section will need to be customized.

## ❖ Self-Closing Gates

### • Laying Out The Gate

- Determine the location of your self-closing gate. Mark 2 holes 33" on center. From the left hole, measure 2 ½ inches and mark another hole. Those 2 holes are the gates side frames. Measure another 2 ½ inches and mark another hole. That is the first hole of the next section. Repeat on the right.



- **Assembling The Gate**

- Slide elbows on to the vertical and horizontal poles so that your gate is in the shape of the rectangle. On the back side of that frame, fasten the supplies self-tapping screws to secure the frame. Do that for all 4 corners. Once the frame is assembled, lay the gate down and assemble the supplies gate mesh onto the gate frame using needle nose pliers. Pull the mesh tight to pull out any wrinkles or waves. You are now ready to hang the gate onto the side frames. Using the hinges that come supplied with the self-closing gate lock, with the self-tapping screws, fasten the center frame onto either the left or the right side frame. After the hinges have been fastened on the gate frame, you are ready to attach the gate lock. On the front side of the gate side frame, opposite from hinges, attach the gate lock guides (the smaller one of the two) about 6 inches from the top of the pole. Slide gate lock so that the handle is even with the top of the pole. From underneath the lock slide the longer of the two guides up behind the lock and screw onto the pole with the self-tapping screws.

- **Drilling the Self-Closing Gate**

- To ensure proper operation of the gate, you will need to drill the gate poles with an angle towards each other.



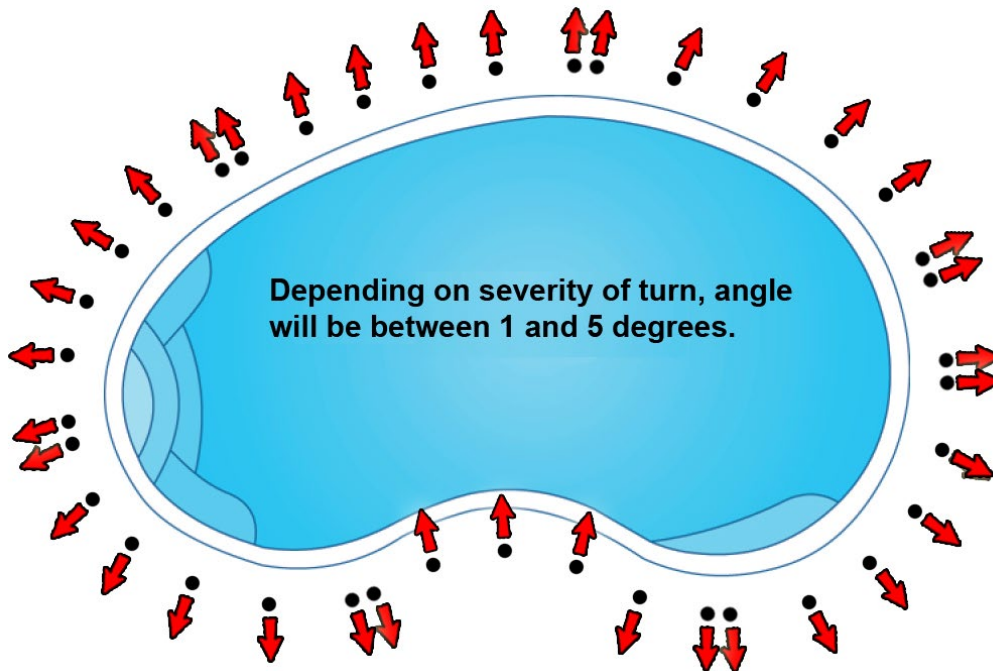
- ❖ **Customizing Sections**

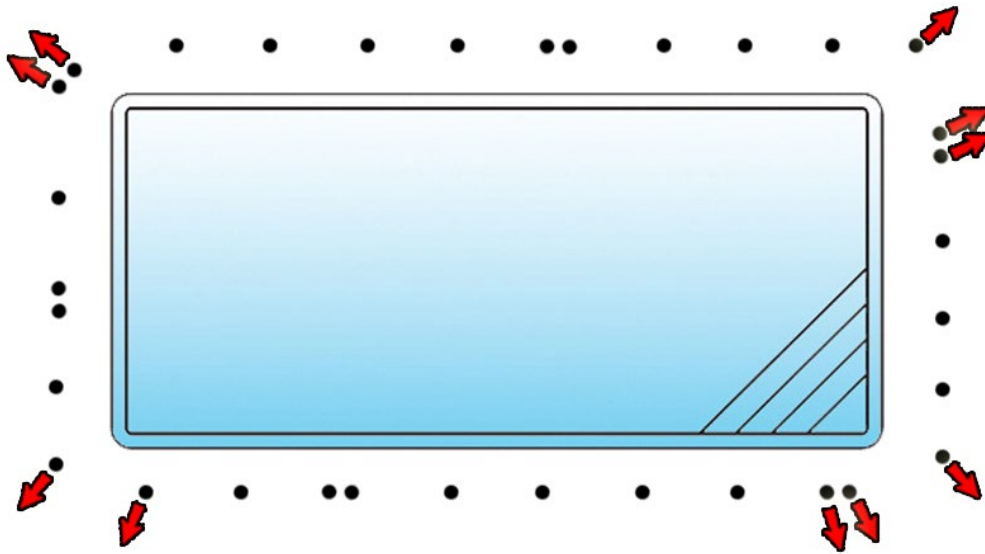
- To customize a section, figure out where on your section the custom panel is. Mark on the mesh the exact distance that the custom panel needs to be.
- From that mark on the mesh, make another mark 1 inch further away from the custom panel.

- Fold the mesh on that second line and fold the mesh so that the mesh is folded over the first mark you made
- Attach a pole onto the first line of folded piece of mesh. **Wait until job is complete and section is installed to trim off excess mesh.** You are now finished with the layout and custom portions of the installation

#### ❖ Drilling

- Before you begin to drill the holes, make certain that your core drill has a leveling bubble. It is important to have this so that you can be certain that when you drill a hole, it will have the correct angle (In, Out or Straight).
- All holes that you drill will have one of those 3 angles. “In” meaning the pole will be drilled leaning in towards the water. “Out” meaning the pole will be drilled leaning out away from the water. “Straight” meaning the pole will be drilled straight up and down.
- There is an easy trick to determine the amount of lean you will need when you are drilling on an angle. Stand over the marked hole you are about to drill and draw an imaginary line to the third hole. If the 2<sup>nd</sup> hole falls a little to the *right* of the imaginary line then lean the drill a little to that side. If the 2<sup>nd</sup> hole falls a little to the *left* of the imaginary line then lean the drill a little to that side. If the 2<sup>nd</sup> hole falls in a straight line then drill with no angle (Straight up and down).





- Once you've determined all of your angles, you are ready to start drilling.
- Hook up your extension cords and hoses. Position your drill over a circle that you laid out, set the drill bit down very lightly, push down on the motor until the teeth of the bit grab hold of the deck (It is very important to set the drill bit down exactly on the circle that you have drawn).
- Once you have completed the first hole, crank your drill up and move on to the next hole.
- Double holes should be drilled with a slight angle towards each other as well.
- Adjust angling pegs to reach the necessary angle. You may also lean the drill to reach the necessary angle, but if you do lean the drill it is important to hold that angle the whole time while drilling that hole.
- Continue that process until you have drilled a few sections.
- Turn off your drill, detach the water hose and rinse out the deck where you have drilled so far. The drilling residue that comes out onto the deck will stain the deck if it dries. Just wash off the deck and continue drilling until all holes are drilled.

## ❖ Installing the Fence

### • Installing Sleeves

- After you get done drilling all your holes it is time to install the sleeves. Take your long needle nose and pull out all the cores you just drilled. Put the sleeve in the hole and hit the sleeve with a rubber mallet until it is level with the ground. The sleeve should fit perfectly. In the event that a sleeve can be easily removed from the hole, a few wraps of electrical tape around the outside of the sleeve will serve as a bonding gasket and will ensure a snug fit.

### • Putting Up the Fence and Connecting Them Together

- When you are done putting all the sleeves into the deck, go around your pool and put in all the sections of fence. Now it is time to install the latches. You will notice on the end poles of each section of fence that there is no screw in the second hole. That is where you will install the hooks and eyes (latches). Simply walk around to each end pole with your cordless drill

and a 9/64 drill bit and make the hole a little bit bigger. After you do that simply install the hook to one end pole and the eye to the opposite pole. Squeeze the two poles together and connect it. Continue to do that until all the sections of fence are secured. Remember the last section that you connect will be your cut piece.

- If the custom section does not fit correctly, unscrew the custom panel and adjust mesh accordingly. Once the custom section fits correctly, simply trim off excess mesh and your installation is now complete.

## **WARNING**

**Swimming Pool Fences are not a substitute for adult supervision!**

- Layers of protection such as fence, wall or natural barrier around your pool can help reduce unauthorized use.
- Check with local building codes to be sure you are in compliance with fencing laws.

# QC Metallurgical, Inc.

## Testing & Consulting Services

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### INSPECTION REPORT

Revised 10/11/2021, 03/27/2025

DATE October 4, 2021

QCM JOB# 21HM-539 CUSTOMER Baby Guard Inc.

DESCRIPTION Pool Fence Assy.

CUSTOMER ORDER# Verbal MATERIAL

INSPECTION SPECIFIED Bursting Strength of Textiles Testing

APPLICABLE SPECIFICATIONS/STANDARDS ASTM D 3787, ASTM F 2286-16, ASTM D 5034, ASTM F 1908, Florida Building Code 8<sup>th</sup> Ed. 2023 Sec. R4501.17.1.1 thru R4501.17.1.15, International Swimming Pool & Spa Code 2012 Sec. 305.0 thru 305.8.

### RESULTS OF INSPECTION

#### **TESTING RESULTS**

Q.C. Metallurgical Inc. performed performance testing and inspections on Baby Guard Premium Fencing for Baby Guard Inc.

The assy. that was submitted for testing was made up of a 15 ft. long, 6 pole section of safety fencing. The fence measured 48" in height. The pole wall measured 0.056" and the diameter measured 0.995". The length was 52 ¾". The assy. was mounted 36" apart with 3" embedded in concrete with a maximum of 1" of a gap at the bottom of the fencing, as per the manufacturing instructions and listed standards.

Vertical load testing of the mesh is acceptable per standards.

Impact testing of the assy. is acceptable per standards.

Pole load testing is acceptable per standards.

In 2003 the tensile strength average was reported by Independent Textile Testing Labs as 233lbs. This is acceptable. The bursting strength was also reported as 149 lbs. A lab known as QLab performed the accelerated weather testing in October of 2003. This was also found to be acceptable. These third party reports were provided by Baby Guard Inc. In conclusion, the safety fence performance was within the guide lines of listed specs. and the results of the third party testing is accurate.

QC Metallurgical testing results are as follows:

Mesh Tensile Strength 100 lbf.: 232.7 lbs. average

Mesh Burst Strength 150 lbf.: 149 lbs. average

Mesh Uplift Test 20 lbs.: No tearing or damage

Impact Testing on 12" length, 2" away @ 36" height: No damage

Pole Strength 52 lbs @ 36": No permanent deformation at 52 lbs.

Pole Failure: At 78.5 lbs. it cracked and fractured.

  
Jerry Iacofano