

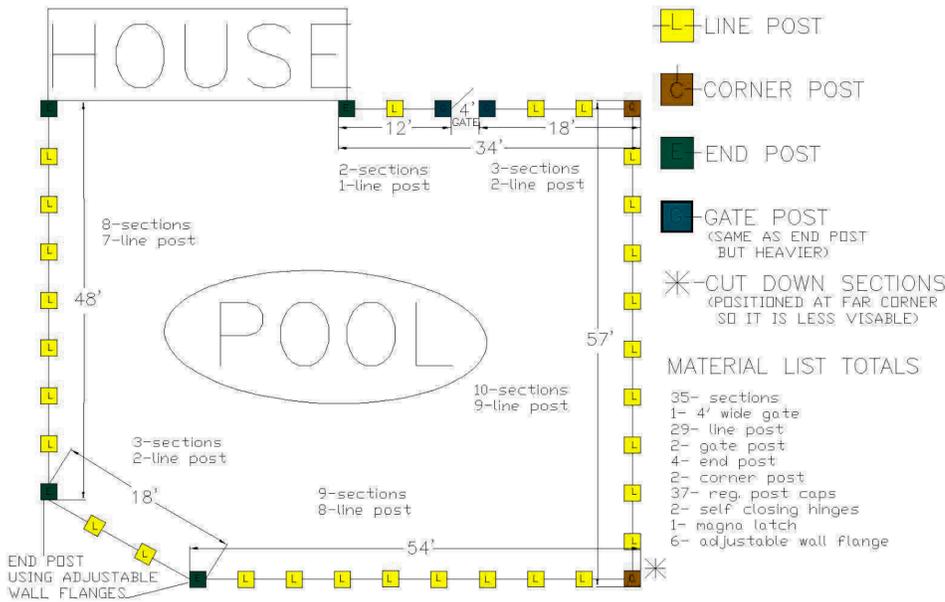
## Vanguard Aluminum Fence Installation Instructions

### Before Ordering Your Fence

- Check with your municipality for ordinances, restrictions and permits required.
- If this is a pool fence verify it will pass required codes by submitting a detailed C.A.D. drawing, available from our C.A.D. library to your local building or zoning department for approval.
- Identify the proposed fence location on your survey and submit that to your local building or zoning department for approval as well.

### Ordering Your Fence

- Select the Series, Style, Height, Color and Accessories.
- Create a simple line drawing in order to properly calculate the material required. Exact gate locations will be necessary.



### Before Installation

- You will need to call for a “mark out” to identify underground public utilities. Be aware private underground utilities such as landscape lighting, sprinkler systems, drain pipe, etc. will not be identified in this mark out.
- A survey will be needed to determine your property line.

### Tools Needed for Installation

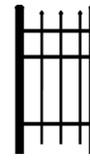
- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Mason line     | <input type="checkbox"/> Post hole digger | <input type="checkbox"/> 5/16” nut driver |
| <input type="checkbox"/> Stakes         | <input type="checkbox"/> Shale bar        | <input type="checkbox"/> Drill w/bit      |
| <input type="checkbox"/> Measuring tape | <input type="checkbox"/> Shovel           | <input type="checkbox"/> Rubber mallet    |
| <input type="checkbox"/> Level          | <input type="checkbox"/> Hacksaw          | <input type="checkbox"/> Cement           |

### Notes Regarding Installation

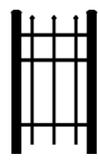
- Start with a gate post and work outwards, if there are no gates start with an end or corner post.
- Install gates after concrete has set.
- Screw sections to the posts after the concrete has set – do not over tighten.
- Face screws on sections and posts in the same direction.
- Install post caps with rubber mallet before installation or after the concrete has set to prevent the posts from shifting.
- Bottom of sections should be installed 2” from grade – this is important because of frost heave in the ground, ease of lawn maintenance and in some cases the fence height meeting BOCA code.
- The post hole depth will coincide with the included posts, you can extend the post hole depth with concrete in bottom of the post hole to exceed the frost line if necessary.
- If there are any angles in the fence layout you can use swivel brackets, but you will have to shorten the rail at the section end to keep the space between the post and the first picket within BOCA code (the same must be considered if mounting brackets are used to install your fence to pillars).

- Layout sections and posts to help determine where cut sections will be needed, use cut sections in least noticeable areas.
- You may want to balance the layout in certain situations, for instance if you have a 10' run, you can install 2 – 5' cut sections rather than 1 – 6' section and 1 – 4' section.
- When cutting sections to size remember to allow enough extra rail to slide in the post.
- When sections meet at a corner post, rails from one of the sections will need an extra notch to fit inside the post.
- The sections are made to rack between 6" to 8" per 6' long section.
- If you need to rack the sections steeper, you can order double punch sections at no extra charge, (up to 12" rack per section) or you can step down the sections, in which case you will need to order necessary end posts and brackets.
- When cutting down sections, balance the space between the fence picket and post equally for a more uniform appearance.

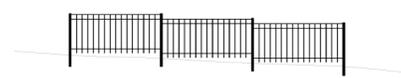
WRONG



RIGHT



Racking Sections



Stepping Sections Down

### Install Fence

- Clear any obstructions.
- Using stakes at the ends and corners, run a string line to follow during installation.
- Post hole spacing for sections measured on center are as follows:

Reliant Series	72 1/2"	2 Rail Pool Fence	72"
Avant Series	96"	Industrial Series	70 3/4"
- Dig your first post hole set that post plumb and fill with concrete to within 2" to 4" of the ground level.
- Measure the distance for your second hole using the table above as reference for post spacing, mark and dig your second post hole.
- With your first section insert rails into the first post. Then insert rails into the second post, add concrete and plumb the second post, check the section rail height and make adjustments as necessary before concrete hardens. Continue installation in this manner.
- It may be necessary to put in a few section screws to keep the rails in the posts during installation.
- Install section to post, section to post "as you go", don't get too far ahead, it will be easier to make adjustments.
- Check gate openings carefully, the gate posts must be plumb and level in height.
- Gate post opening sizes are measured **inside to inside** the gate posts.

Single Gate	Opening	Double Drive Gate	Opening
3' WIDE	36 1/4"	6' WIDE	71 3/4"
4' WIDE	48 1/4"	8' WIDE	95 3/4"
5' WIDE	61 1/4"	10' WIDE	121 3/4"
6' WIDE	72 1/4"	12' WIDE	143 3/4"
- Visually check the rails follow the terrain in a pleasing manner and that the pickets on the fence are parallel to the posts.

### Install gates

- Determine which direction you want the gates to open – BOCA code for pools requires gates to open outward.
- Install gates so rails line up with section rails.
- Hinges should be mounted near the top and bottom rail or approximately 6" from the top and bottom.
- A 1/8" shim is included if you need to make opening slightly tighter, if you have the recommended openings you will not need them, the shims can also be used to take up bolt space on a column mount.
- Screw the large flat plate of hinge on the post and be sure it is mounted so the gate opens in the direction you want.
- Screw the smaller L shaped bracket to the gate frame.
- Hinges should be at the same tension for proper operation.
- Loosening the allen set screw releases spring tension and allows for tension adjustment via the bolt head, it also permits disassembly for spring removal, retighten the set screw to lock bolt head tension.
- Install the plastic caps on the hinges for protection.
- Install latches per package instructions.
- Drop rods for double drive gates typically are installed on the inside and on the gate leaf opposite the latch, remember to set the "u" shaped bracket at the top and high enough to keep the drop rod off the ground when opening gate.

### Other questions you may need to address

- If core drilling into a concrete slab use a hydraulic cement.
- It is not recommended installation into or on retaining block walls, rather you should back up the fence line for normal in ground installation.