Post & Rail

Includes: Crossbuck, 2-Rail, 3-Rail and 4-Rail

- ALLOW 1-1/2” GAP ON HINGE SIDE OF GATE AND 1-1/4” ON LATCH SIDE OF GATE HARDWARE
- HOLD RAILS IN POST WITH LOCK RING. DEPRESS LOCK RING TABS INSERT IN RAIL AND RELEASE
- STAGGER RAIL ENDS FOR GREATER STRENGTH
- ATTACH BRACES ON BOTH SIDES OF GATE IN IDENTICAL POSITIONS

POST HOLES
- 5 x 5 POSTS = 12”
- DIG HOLES 30” MINIMUM OR TO FROST LINE

POST CENTERS
- 5 x 5 POSTS = 96”

POST SUPPORT OPTIONS
- REBAR
- SEPARATOR CLIP
- 1/2” REBAR USE (2) PIECES OF 1/2” REBAR IN HINGE, LATCH AND END POSTS. POSITION REBAR IN OPPOSING CORNERS OF EACH POST WITH REBAR SEPARATOR CLIPS
- INSERT ALUMINUM GATE POST STIFFENER INSTEAD OF POST FOR FASTER, CLEANER INSTALLATION
Variable Terrain Installation

Calculate Rise/Foot Angle

To determine the hole enlargement size, first calculate the slope rise/foot or the angle of the slope. Refer to the diagram and examples:

• Measure section length in inches
• Determine section rise by using line level and measuring vertical rise; measure rise in inches
• Divide rise by section length to get rise per inch
• Multiply by 12 to determine rise per foot

Example: 24" rise ÷ 96" length = .25 rise per inch = 3" rise per foot

Two methods for installing a fence on variable sloping terrain exist - stepping and racking.

For either method, divide slope evenly into all sections

Stepping Method

With the stepping method, the rails remain horizontal and the posts are extended to accommodate the variance in terrain. Longer end posts should be used and holes for opposite side of post can be field fabricated with template kit and router or spiral saw to accept rails.

Racking Method - 10˚ or Less

With the racking method, the horizontal rails will follow the sloping terrain.

When measuring musnipne sections, it is advisable to use a post and field fabricate the opposite side of the post to avoid a jagged fence line.

Depending on severity of rack (and specific fence style), the following field fabrication may be necessary for proper installation:

1. Enlarge holes in post to accept rails
2. Enlarge holes in rail to accept pickets
3. Shorten picket length

NOTE: Depending on severity of rack, post centers may need to be decreased. Be sure to verify prior to setting posts.

1. Enlarge holes in post to accept rails
   - Determine angle or slope
   - Place first post in hole and hold plumb
   - Place rail next to post (not in routed hole) at correct angle of grade

   • Mark rail where post crosses it on angle
   • Remove rail, measure the length of the drawn angle. Add 1/8" to this length to determine proper post hole size
- Enlarge post holes.
  NOTE: Always open bottom of top hole and top of bottom hole to maintain proper fence height.

- Holes may be cut utilizing a template kit and router or spiral saw
- Determine location of holes on opposite side of line post by laying post across side of rail (align with routed hole) and marking exit position of rail on opposite side of post
- Cut holes with template kit and router or spiral saw as previous

2. Enlarge holes in rail to accept picket
- Position rail at desired angle
- Hold picket plumb against side of rail
- Mark picket where rail crosses it on angle

- Measure the length of the drawn angle and add 1/8" to this length to determine proper rail hole size
-Enlarge holes with a spiral saw

3. Shorten picket length
- For extreme racking situations, picket ends may need to be cut to accommodate rack
- Position top and bottom rails in routed post holes
- Position picket next to rails so it is plumb and aligned with bottom side of bottom rail
- Mark position where top of picket intersects with top of top rail; subtract 3/8" and cut picket to length

NOTE: For ribbed rails - top and bottom of picket will need to be aligned with internal rib.
Routing template kit can be used to enlarge holes for racking as well as to create transitions for stepping, changing heights or styles.

Install 3/8" router blade and 5/8" bearing or router guide. Any substitutions may result in improper hole size or damage to the template kit.

NOTE: Template cutout size is designed to be 1/8" larger than the finished cut to allow bearing to follow the shape.

Select the appropriate template for the application.

Assemble the template as shown, configured for the desired post size (4" or 5").

NOTE: It is advisable to practice routing on a scrap piece before attempting actual cut.

Mark location of hole to be routed. Offset template cut by 1/8" to allow for bearing (i.e., if hole is to be located 3" from top of post, position edge of template 2-7/8" from top).

Tighten wing nuts. Place on a flat, firm surface to prevent tipping.

Route hole per manufacturer’s recommendations.

ALWAYS WEAR SAFETY GLASSES.

Loosen wing nut and remove template.

For situations that require a larger hole to accommodate racking, route a standard hole, loosen wing nuts and slide template to new position to route excess material.

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Glossary

Accent  Decorative addition to top of fence such as lattice.

Aluminum Channel  Aluminum structural support used as a stiffener in rails.

Auger  Hand or machine-operated tool with a screw-like shank for boring holes in soil.

Blocking  Method for supporting horizontal members, such as fence rails or gates.

Brace  Diagonal component of a gate, provides dimensional stability.

Bullet Clip  Gravity clip that is used to hold rails in posts.

Caps  Vinyl accessory placed on top of fence posts to provide a finished look and prevent water penetration.

Crimp Lock  Method for fastening rails inside posts. The rail is notched (crimped) so that it stays within the post once inserted.

EZ Set Bracket  Aluminum bracket system that fits over a steel post as an alternative installation method to secure and hold vinyl post in position.

Fence Layout  Section-by-section diagram of the proposed fence line.

Frost Line  Lowest level in soil that freezes. Frost line depth depends on winter temperatures, soil type, and vegetation cover, and varies from 0" in warm regions to 3’ or more in cold-winter areas.

Gate  Movable framework or solid structure that swings on hinges; controls entrance or exit through an opening in a fence.

Gate Post Stiffener  Structural aluminum support used in gate hinge and latch posts to solidify as an alternative to traditional concrete and rebar method.

Gloss  Describes amount of reflection or sheen on the surface of vinyl.

Good Neighbor Fence  Fence that has the same look on both sides.

Lock Ring  Circular-shaped fastener with tabs that insert into rails for holding into posts.

Opposite Gate  Used in double-gate situations; complements the primary gate; diagonal brace is mounted in the opposite direction for a pleasing, symmetrical look.

On Center (O.C.)  Measure from the center of one object (e.g., a post) to the center of the next post.

Picket  Vertical member of fence between rails.

Post  Vertical support member of fence system.

PVC  Polyvinyl chloride, the plastic resin used to manufacture “vinyl” fence.

Rail  Horizontal pieces between fence posts.

Racking  Method of installing fence on sloped terrain. Fence posts and pickets are plumb, but the rails are mounted at an angle so they parallel the grade.

Rebar  Reinforcing bar, placed in end and gate posts to vertically reinforce the fence; No. 4 rebar is 1/4” diameter.

Routing Template  A guide used for field routing posts that require hole positions other than standard.

Scalloped  Fence style in which the pickets follow a concave pattern high on both ends and low in the middle.

Slope  Degree of incline of a hillside; measured in inches of rise per horizontal inches of run (degree of rack).

Snap Cap  Decorative plastic cap and washer system used to cover the screw head.

Spacer Bar  Wood or like material used to determine fill area between sections or gates (post spacing).

Steel Channel  Galvanized steel structural support used as a stiffener in vinyl rails.

Stepping  Method of installing fence on sloped terrain. Fence rails remain horizontal, and posts are extended to accommodate the variance in the grade.

Tamp  Method of releasing air pockets in concrete by the use of repeated light blows with a mallet on outside of post or piece of lumber in post hole.

Wall Mount Brackets  Aluminum bracket system used as an alternative installation method to fasten fence rails directly to walls or other structural surface.

Weep Holes  Openings drilled in bottom rails for drainage of water.