



### HOW TO INSTALL RANCH RAIL

1. Take time to carefully plan your installation. Rails are typically 16' long and can span two 8' bays. Please do not hesitate to contact Tangent with any questions.
2. All materials expand and contract as temperatures change. Plastics do so more than wood. Because of this, lay out all fence rails on **flat** ground in the area where the fence is to be installed. This acclimates the rails to the ambient temperature and will take at least an hour.
3. Install posts as you would wooden posts.
4. The ends of the rails may not be square from the factory. Trim as needed.
5. Measure distance from center of installed post to center of installed post. Subtract  $\frac{1}{4}$ " and cut rail to length. This allows for  $\frac{1}{4}$ " gap between rails, butt to butt, to accommodate expansion of the rail with temperature.
6. If installing a rail over a single bay; drill two  $\frac{1}{2}$ " holes at each end of the rail. Four holes total.
7. If installing an approximate 16' rail over two bays; drill two  $\frac{1}{2}$ " holes at each end of the rail and a single  $\frac{1}{2}$ " hole at approximately the center of the rail to align with the center of the installed middle post. Five holes total.

8. The center of the fastener holes should be 1-1/4" from the ends of the rail and at least 1-1/4" from the top and bottom edge of the rail. It is very important not to position the fasteners too close to the ends or edges of the rail.

9. Drill holes only through the rails and not the posts.

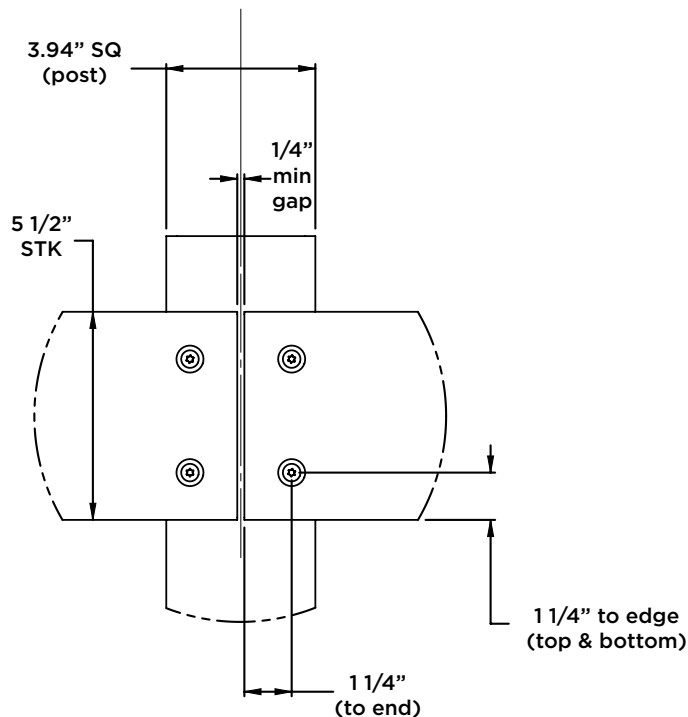
10. Depending on the fastener, pre-drilling a pilot hole into the post may be necessary. 1/4" x 1/2" deep is often all that is required.

11. Position and fasten the rails allowing **1/4" gap between rails, butt to butt.**

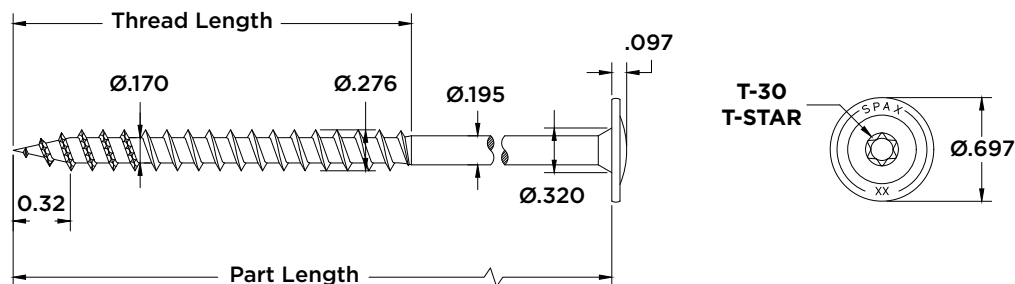
12. **Do not overtighten** the fastener or countersink the head of the lags into the rails. Let the rails hang on the shank of the lag to allow for expansion and contraction as temperatures change.

13. To attach the rails to the post, use a fastener with a 1/4" diameter shank and large diameter head, which will cover or largely cover the oversized 1/2" hole pre-drilled in the rail. Consider a low-profile head to minimize snagging or catching. The rail is 1" thick, so consider a screw 2-1/2" to 3" overall length.

14. Previous installations have used a variety of fasteners, one of which is the 1/4" x 3" long T-Star Washer Head Powerlags® by SPAX® which are available in black.



### Ranch Rail Installation



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