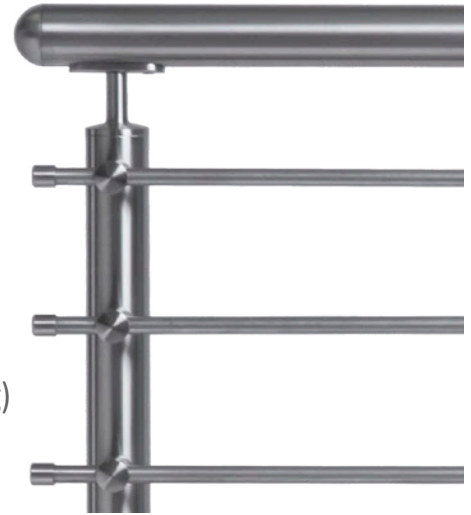


Post Railing Systems - Infill

HORIZONTAL ROUND BAR INSTALLATION

AX10.009.83000.A.SP	(12 x 1.5 mm 3000 mm 1/2" Tubing)
AX10.009.85800.A.SP	(12 x 1.5 mm 5800 mm 1/2" Tubing)
AX10.010.200.A.SP	(Bar holder for round posts)
AX10.010.205.A.SP	(Bar holder for square posts)
AX10.010.206.A.SP	(Holder for splice in bar (2 set screws))
AX10.010.082.A.SP	(Inline adjustable angle connector)
AX10.010.209.A.SP	(Inline holder for mounting to wall or ceiling)
AX10.010.081.A.SP	(End caps)
AX10.010.208.A.SP	(Cross holder for vertical Bars)



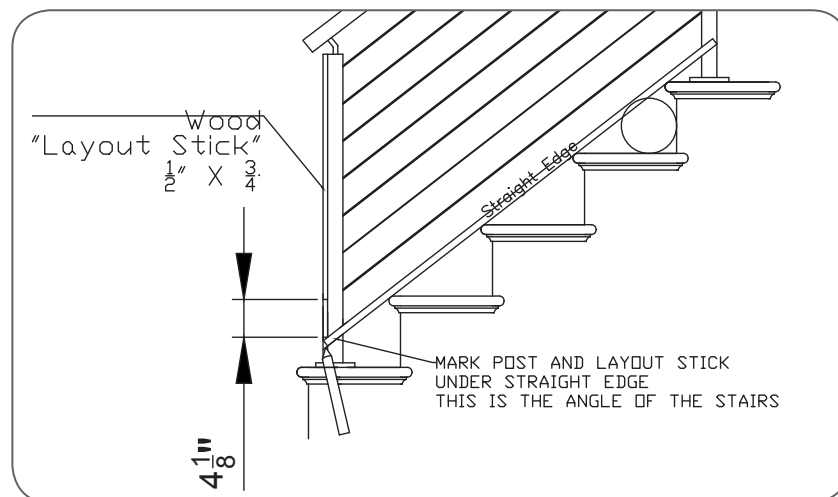
TOOLS REQUIRED

- String or chalk line
- 5.3 mm drill bit
- 6 mm tap
- #2 Philips bit
- Magnetic bit holder
- 1/8" Cobalt bit
- Tape Measure
- Cordless or electric drill
- Stainless Steel Cutting Saw (Cold Cut Saw, Bench top Portable Bandsaw, Chop Saw with Stainless Steel Cutting Blade)

For more detailed information on tools please visit:
www.axiarailing.com/recommended-tools

STEPS REQUIRED

1. Use Sharpie to mark under straight edge on side of newel post layout trim (see fig.)

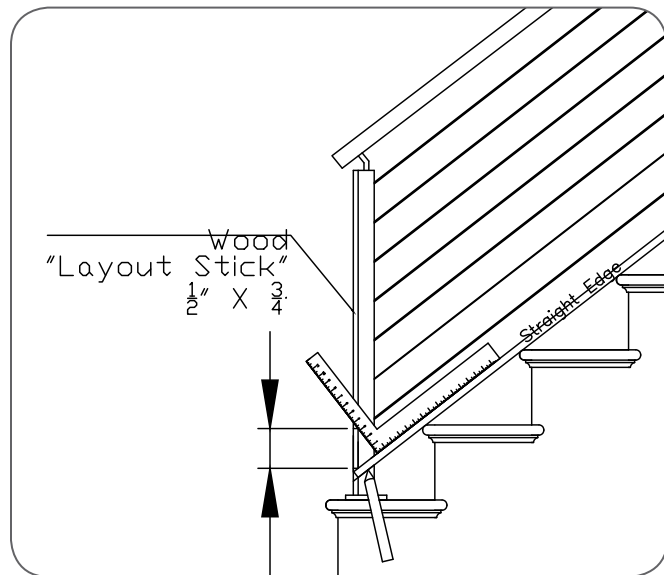
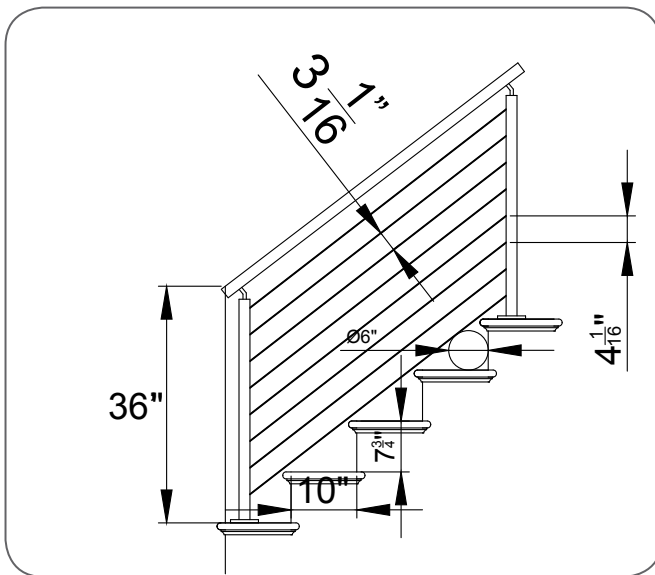


2. Layout spacing for bar from mark note the bottom horizontal bar should not be more than approximately 3/4" above nosing on a typical staircase or triangle section on open treads will be more than the 6" Sphere allowed by code. See IRC Code R312.3 Guard Opening Limitations. Required guards shall not have openings from the walking surface to the required guard height which allow passage of a sphere 4 inches (102 mm) in diameter. Exceptions: 1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a guard, shall not allow passage of a sphere 6 inches (153 mm) in diameter. 2. Guards on the open sides of stairs shall not have openings which allow passage of a sphere 4 3/8 inches (111 mm) in diameter.

3. Layout horizontal bar so that they are a maximum $3 \frac{15}{16}$ " apart to meet Code. We Recommend $3 \frac{1}{4}$ " apart to allow for flexing of the bar and still pass inspection. Note: On stairs do not measure spacing up the post vertically. The spacing should be measured perpendicular to the handrail angle. The vertical measurement varies depending on the angle of your stairs.

4. Place straight edge or piece of trim on nosing of stairs and measure from the bottom of the straight edge to the bottom of first horizontal bar holding tape measure perpendicular to straight edge.

You can also use a small framing square (see fig.)



5. After marking bottom hole on bottom and top newel post only, run a string line or chalk line from post to post from each mark. Pull string tight so it is straight and tape or clamp to end posts.

6. Mark Intermediate posts where string crosses center of newel posts.

7. Clamp long straight edge to newel post on 1st bar mark on end post and intermediate posts make sure it's on the line on all posts.

8. Measure from straight edge to second bar holder location perpendicular to straight edge using tape measure or square. Mark all posts including intermediate.

9. Remove straight edge.

10. Measure distance on bottom post between bottom bar holder mark and 2nd bar holder mark.

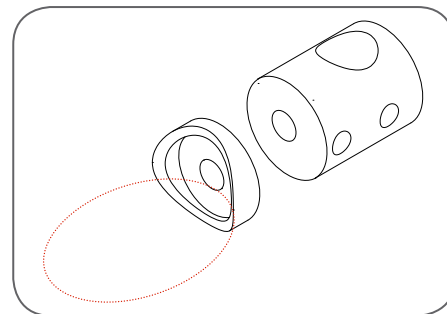
This is the measurement to repeat spacing vertically up the post for remaining bar holder locations. Mark top and bottom post only or end posts and use string or chalk line stretched tight to mark intermediate bar holder locations on each row. This will ensure each bar is straight when completed.

- 11. When all bar holder locations are marked use 3/8" or 1/2" center punch and make a firm tap at each bar holder location.** A slight indentation should be created.
- 12. Using an electric or cordless drill, drill pilot holes with 1/8" cobalt drill bit at each mark on the newel post.** Be sure to use 2 to 3 drops of cutting fluid on bit for each hole as drilling.
- 13. Next, switch to a 5.2mm drill bit and drill all holes again.** Be sure to use a couple of drops of cutting fluid in each hole to keep the bit from burning the Stainless, this will also ensure the drill bit will last longer.
- 14. Once all holes are drilled with 5.2mm bit make sure there are no metal burrs sticking out of metal post.** Use drill bit to clean burrs by sticking bit back into hole and running in and out of hole several times.
- 15. Install 6mm Tap into Drill Chuck of drill.** Adjust drill to slowest speed gear or if variable speed, keep RPM'S low, push tap into hole. Be sure to apply a few drops of cutting fluid while tapping each hole. Be sure drill is in forward gear. Be sure tap is level and square as you are tapping. Stop drill before drill chuck hits newel post, put drill in reverse and back the tap out slowly. Repeat several times to be sure threads are clear of any burrs.
- 16. After all holes are tapped, clean any oil/grease from the newel post with degreaser.** Remove blue tape from newel posts and install bar holder at each location.

- 17. Install bar Holder, remove back section of bar holder by loosening the set screw with an Allen wrench.**



AX10.010.200.A.SP



- 18. Remove back section of holder and place on newel post over each drilled and tapped hole.**
- 19. Install 6mm Screw provided to hold back section in place.** Be sure to apply Thread Lock adhesive on screw threads as you are installing screw. Tighten snug but do not over tighten.
- 20. Install outer section of bar holder onto back section and tighten so bar holder does not fall off but still can be twisted and stays at any angle.**
- 21. After all bar holders are installed, measure, cut and install horizontal bar tubing or bar to desired length.** Allow for overhang at each end to allow for end caps on each bar past the end post bar holders (see fig.)



22. Once all Bars are cut, install one bar sliding through bar holders and tightening outer set screw to secure bar in holder. Be sure to tighten inner set screw on each bar holder as you are installing each bar as to not miss any set screws.

23. Install end caps and or adjustable fittings on bar ends and transitions as you are installing using anaerobic adhesive in inside of end cap and apply to bar. Clean any excess glue immediately.
Tape end cap to bar until glue dries (allow 24 to 48 hours for glue to fully cure).

24. After all bars are installed and glue is dry, clean all bars, posts and railing using degreaser, Use Scotch Brite pad to remove any small scratches by sanding with pad with the grain of stainless.



AX00.080.505



Step 1

Degreaser

AX00.080.515



Step 2

Cleaner/Polish

AX00.080.510

25. Reclean all stainless rail with cleaner polish.

26. Tap or bang on rail with closed fist to check for rattles (loose screws).
If rattle is detected, locate the rattle (loose screw) and tighten.

27. Remove all fingerprints and clean for final inspection.

28. For exterior applications, apply passivator fluid using cloth rag and wipe onto stainless railing, posts, etc.



Step 3 (required for exterior)

Polish/Passivator

AX00.080.517