



HOW TO SISTER A DAMAGED RAFTER



What is “Sistering” in wood work?

This SOP shows you how to “sister a rafter”. That means adding new wood up against a damaged roof rafter to make it strong again. We do this when the rafter has problems like:

- Water damage or wood rot
- Small cracks or splits
- Termite or bug damage
- Old wood that is soft or weak



Why Sistering Is Important

Sistering gives the roof extra strength and helps the damaged rafter regain its strength to do its job. It keeps the roof safe and solid for years to come and is less expensive than replacing the entire rafter.

Important: If a rafter has a crack through the whole board or the entire structure is gone sistering may not work. Sistering works when it can bring strength from another section of the rafter up

Tools and Materials Needed:

- Tape measure
- Circular saw
- Hammer or nail gun
- 3" nails
- Safety glasses and gloves
- Sister board (same size as the rafter - usually 2x4, 2x6 or 2x8)
- Ladder or scaffold (as needed)



Step 1: Check the Damage

Look at the rafter carefully:

- If it's a small crack or a bit of rot or small soft spot, sistering is okay.
- If the rafter is very rotten or broken in half, stop and call your Project Manager before doing anything else.



Step 2: Pick your board size

- Use the same size wood as the damaged rafter. Usually a 2" by 4", 2" by 6" or 2" by 8"
- Make sure the board is straight and strong.



Step 3: Measure and Cut

- Measure and cut so the new board goes 3'-4' past on either side of any damage.
- Cut straight with a circular saw



Line It Up and Nail It Tight

Place the sister board **right next to** the damaged rafter.

- Make sure it's straight, tight, and flat against the rafter.
- Use 3-inch nails., Nail every 12 inches along the whole board.
- If damage is really bad, sister a second board on the other side of the rafter too.





Check Your Work

- The sister board should be solid with no gaps.
- The rafter should feel strong and not move or flex.



Important Notes

- If you aren't sure if the rafter can be sistered, call your Project Manager before continuing.
- Never leave a rotten or broken rafter without support.
- Always communicate fully with homeowners regarding wood replacement before proceeding. Sometimes this can change aesthetics like on rafter tails and must be communicated ahead.

Final Check:

- Sister board must be the same size as the existing rafter and solid (no major defects or twists).
- Sister board must extend at least 3 feet past the damaged area on both sides.
- Fasten with 3" framing nails, placed every 12 inches along the length.
- Finished job should look clean, straight, and safe.



How to Sister a Damaged Rafter

Watch this training video

Why This Matters at Trust Roofing

Strong framing means a strong roof. At Trust Roofing, we fix it right the first time so our customers are safe and happy. Strengthening rafters when needed the correct way is key.