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Simpson Strong-Tie BC46

Simpson Strong-Tie BC46 Galvanized Post Cap for 4x6 Instruction Manual

Model: BC46



1. INTRODUCTION

This manual provides detailed instructions for the proper installation and use of the Simpson Strong-Tie BC46 Galvanized Post Cap. The BC46 is designed to provide a secure and positive connection for a 4x6 wood post to a wood deck or other structural elements, enhancing the stability and longevity of your construction projects.

Key features of the BC46 Post Cap include:

- Provides a positive connection for a post to a wood deck.
- Offers a stronger connection compared to angled nailing or screw fastening.
- Reduces the chance of the post splitting and eliminates nailing into end grain.
- Designed for nominal 4x6 post sizes.

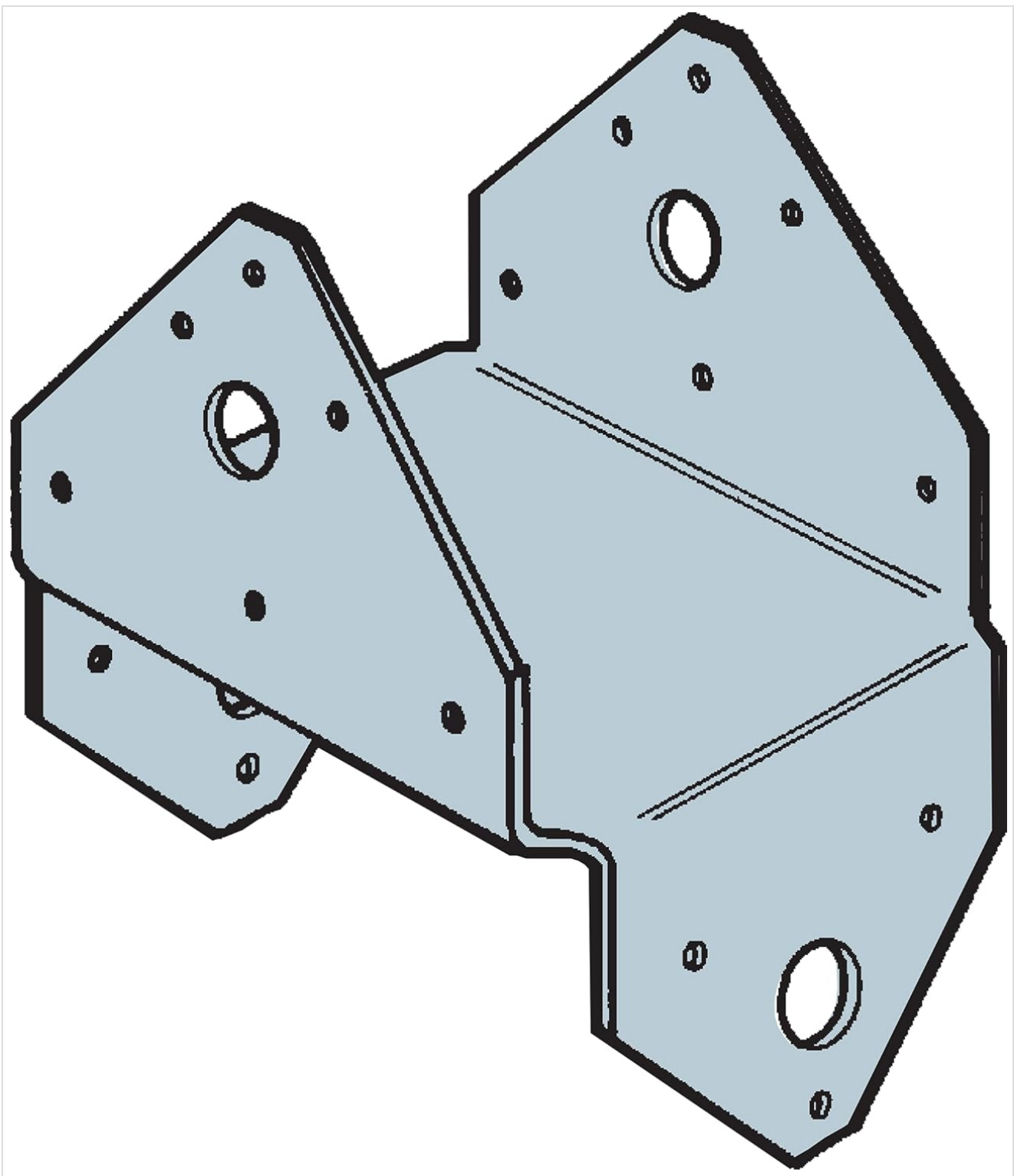


Image 1.1: The Simpson Strong-Tie BC46 Galvanized Post Cap. This image shows the overall design of the metal connector, featuring multiple pre-drilled holes for fasteners and a U-shaped channel to cradle the post.

2. SAFETY INFORMATION

Always prioritize safety when working with construction materials and tools. Failure to follow safety guidelines can result in injury or property damage.

- Wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and hearing protection.
- Ensure your work area is well-lit and free of obstructions.
- Use tools correctly and only for their intended purpose.
- Consult local building codes and regulations before beginning any construction project.

- This product is not recommended for non-top-supported installations (such as fences or unbraced carports) unless specifically engineered for such applications.

3. PRODUCT COMPONENTS

The Simpson Strong-Tie BC46 Post Cap is a single-piece, galvanized steel connector. Each unit consists of:

- One (1) BC46 Galvanized Post Cap: Designed to fit a nominal 4x6 wood post.
- Fasteners: **Not included.** Appropriate Simpson Strong-Tie fasteners (e.g., nails or screws) must be purchased separately. Refer to the Simpson Strong-Tie website or product packaging for recommended fastener types and sizes.

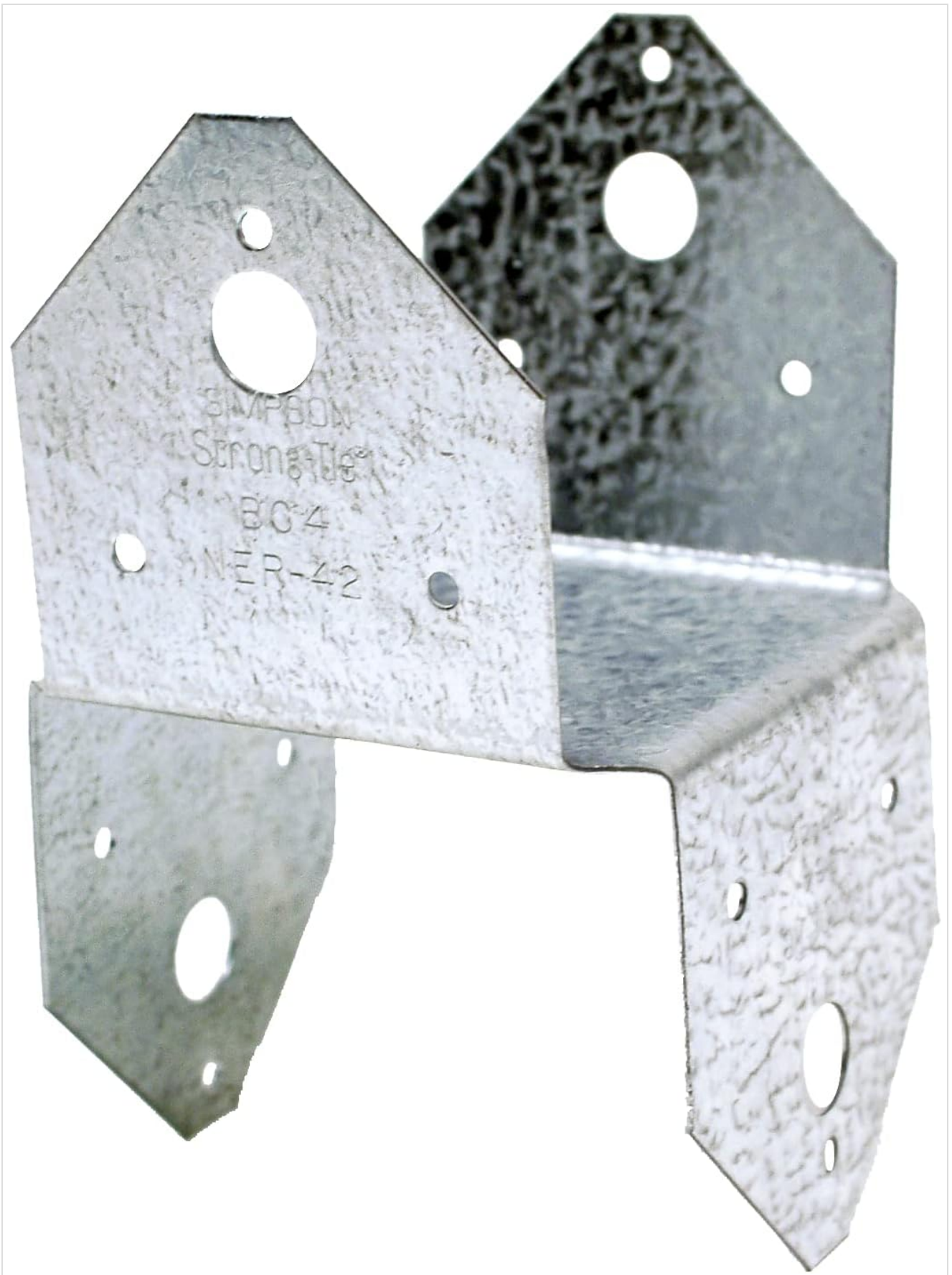


Image 3.1: A close-up view of the BC46 Post Cap, highlighting the galvanized finish and the various pre-punched holes for fastener application.

4. INSTALLATION INSTRUCTIONS

Follow these steps for proper installation of the BC46 Galvanized Post Cap:

1. **Prepare the Post and Beam:** Ensure the 4x6 wood post and the connecting beam or deck joist are cut to the correct lengths and are free from defects. The surfaces where the cap will attach should be clean and flat.
2. **Position the Post Cap:** Place the BC46 Post Cap over the end of the 4x6 post. The cap should fit snugly around the post. Ensure the cap is oriented correctly to receive the connecting beam.

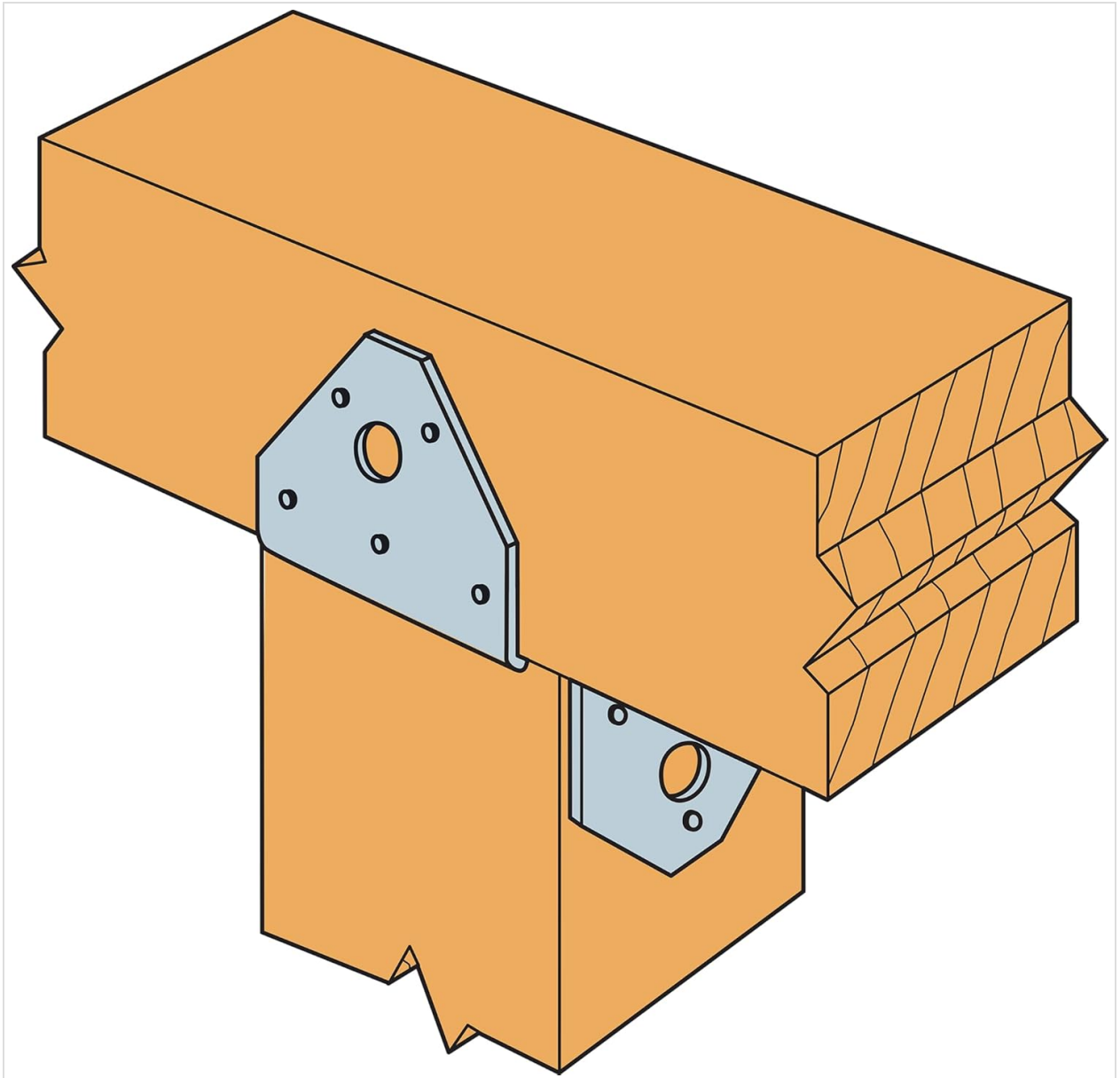


Image 4.1: Diagram illustrating the BC46 Post Cap positioned on a 4x6 post, ready to receive a connecting beam. Note the pre-drilled holes for fasteners.

3. **Secure the Post Cap to the Post:** Using the recommended Simpson Strong-Tie fasteners (e.g., 10d common nails or Strong-Drive® screws), drive fasteners through all designated holes in the post cap into the 4x6 post. Ensure fasteners are driven flush with the surface of the cap.

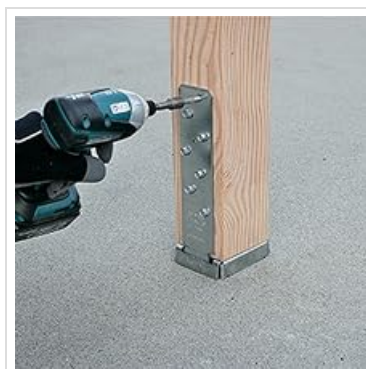


Image 4.2: A worker using a power drill to drive fasteners through the pre-drilled holes of a post cap into a wooden post,

securing the connection.

4. **Attach the Connecting Beam:** Once the post cap is securely fastened to the post, position the connecting beam or joist into the cap. The beam should rest firmly within the cap's channel.



Image 4.3: A Simpson Strong-Tie post cap installed on a wooden post, with a horizontal beam securely seated within the cap's upper channel, demonstrating a completed connection.

5. **Secure the Connecting Beam:** Drive the recommended fasteners through the remaining designated holes in the post cap into the connecting beam. Ensure all fasteners are fully seated.



Image 4.4: A Simpson Strong-Tie post cap securely installed on a wooden deck, connecting a vertical post to the deck structure, with all fasteners in place.

For specific fastener schedules and detailed installation drawings, always refer to the official Simpson Strong-Tie website or product literature.

5. OPERATION AND FUNCTION

Once properly installed, the Simpson Strong-Tie BC46 Galvanized Post Cap functions as a critical structural connector. It provides a strong, mechanical connection between a 4x6 vertical post and a horizontal beam or joist. This connection resists uplift, lateral, and downward forces, contributing to the overall stability and safety of the structure. The galvanized coating offers corrosion resistance, extending the lifespan of the connector in various environmental conditions.

6. MAINTENANCE

The BC46 Galvanized Post Cap requires minimal maintenance. Periodic inspection is recommended to ensure the integrity of the connection:

- **Visual Inspection:** Annually inspect the post caps for any signs of corrosion, bending, or damage.
- **Fastener Check:** Verify that all fasteners remain securely in place and are not loose or corroded.
- **Wood Condition:** Check the surrounding wood for rot, insect damage, or excessive splitting that could compromise the connection.

If any damage or significant corrosion is observed, consult a qualified professional for assessment and repair or replacement.

7. TROUBLESHOOTING

Most issues related to post caps stem from improper installation or selection. Here are common concerns and their resolutions:

- **Loose Connection:**

Issue: The post or beam feels wobbly or not securely attached.

Resolution: Ensure all fasteners are of the correct type and length, and are fully driven into the wood. Verify that the post and beam dimensions match the cap's specifications (nominal 4x6). Re-check the installation steps.

- **Corrosion:**

Issue: Rust or degradation of the galvanized coating.

Resolution: While galvanized, extreme or harsh environments can accelerate corrosion. Ensure the product is suitable for the specific environmental conditions. If significant corrosion occurs, the cap may need replacement. Regular inspection can help identify issues early.

- **Post Splitting:**

Issue: The wood post is splitting where the cap is attached.

Resolution: The BC46 is designed to reduce splitting by avoiding end-grain nailing. Ensure correct fasteners are used and not over-driven. If splitting occurs, it may indicate issues with the wood quality or excessive stress on the connection. Consult a structural engineer.

8. SPECIFICATIONS

Manufacturer	Simpson Strong-Tie
Model Number	BC46-10 (for a pack of 10, individual unit is BC46)
Nominal Post Size	4" x 6"
Material	Galvanized Steel
Product Dimensions	Approximately 8 x 6.5 x 10.38 inches (for the product as packaged)
Item Weight	Approximately 0.01 ounces
ASIN	B012GX40M2

Note: The listed item weight of 0.01 ounces appears to be an error in the source data. Actual weight for a steel connector would be significantly higher.

9. WARRANTY AND SUPPORT

Simpson Strong-Tie products are manufactured to high standards. For specific warranty information, please refer to the official warranty document:

[Simpson Strong-Tie Warranty \(PDF\)](#)

For technical support, product inquiries, or further assistance, please visit the official Simpson Strong-Tie website or contact their customer service department directly.

[Visit the Simpson Strong-Tie Store on Amazon](#)

