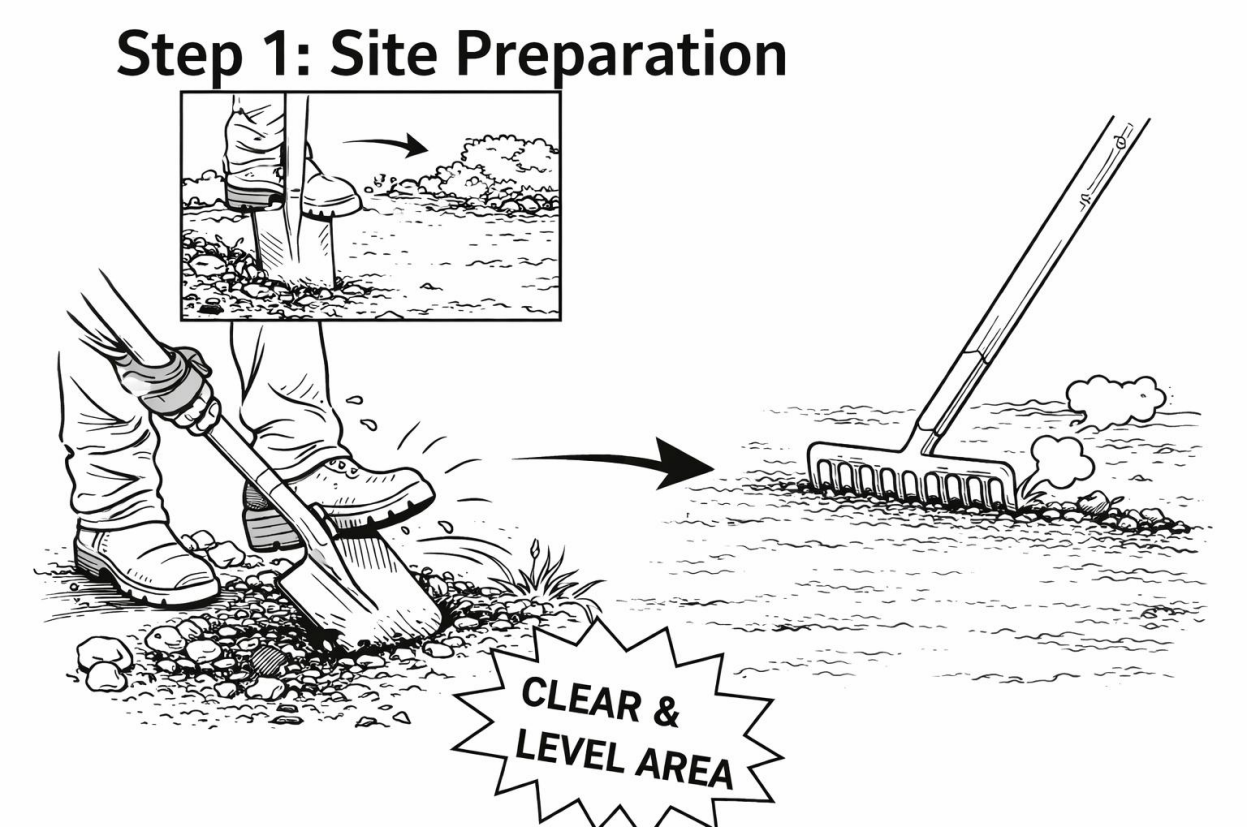
Double-Twisted Mesh Gabion Installation Manual

Tools & Materials Required:

- Pre-formed 1x1 meter double-twisted mesh gabions
- Galvanized steel wire (twisted wire)
- Wire cutters
- Gloves
- Shovel or trowel (for leveling the base)
- Measuring tape
- Rubber mallet
- Anchor pins (optional)

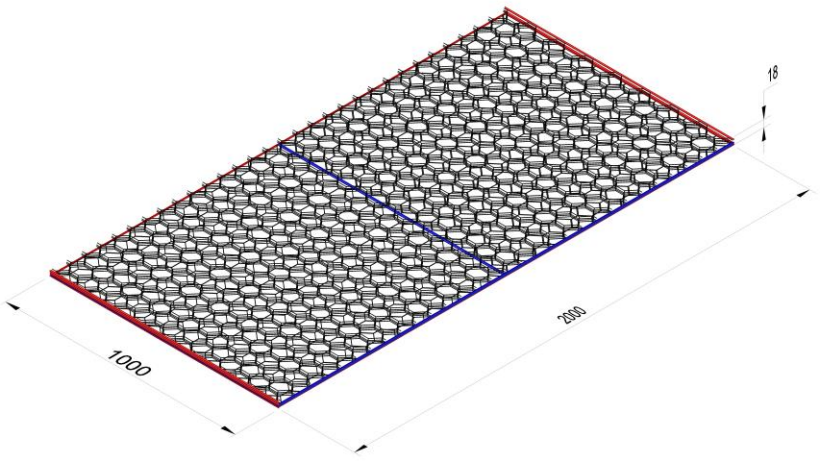
Step 1: Site Preparation

1. **Clear the area**: Begin by clearing the area where the gabion will be installed. Remove any debris or obstacles that could interfere with the installation process.
2. **Level the ground**: Use a shovel or trowel to level the ground where the gabion will sit. The surface should be as smooth and flat as possible.

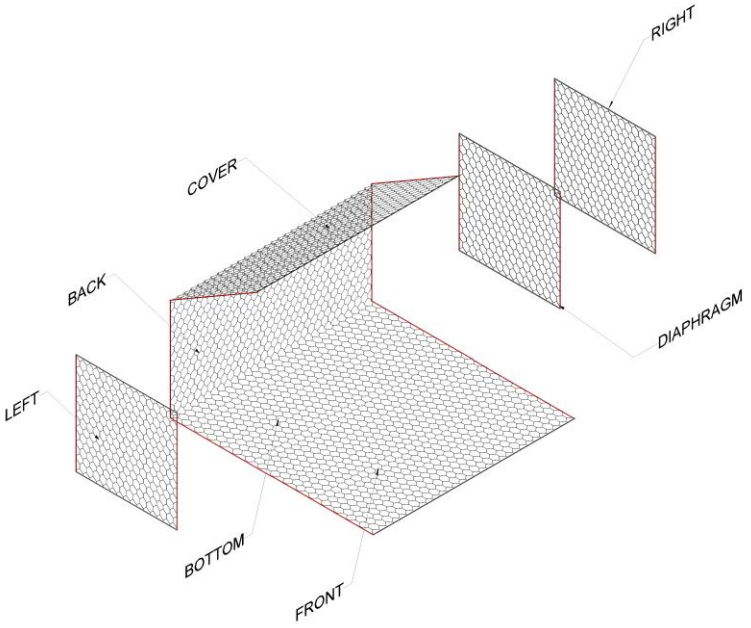


Step 2: Assembling the Gabion

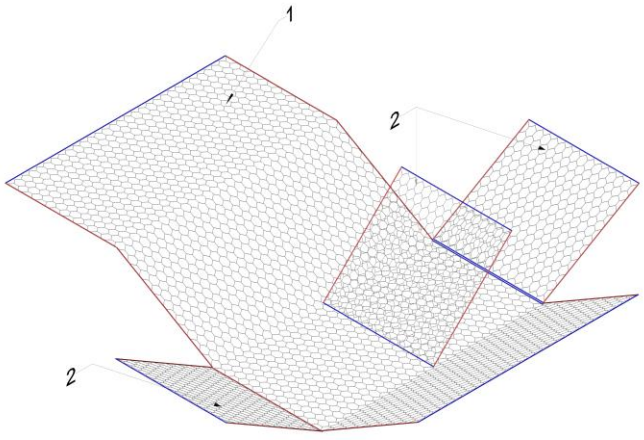
1. Mesh if Brought to Site in folded form.



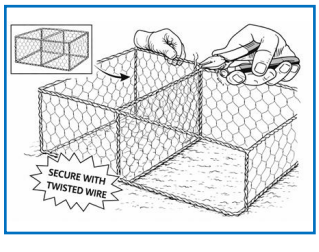
2. The mesh is unfolded to achieve the flat, expanded configuration illustrated in the view below. In this unfolded layout, the diaphragm component is positioned centrally, serving as the midpoint of the mesh assembly. The two lateral side panels are symmetrically arranged at either end of the mesh, flanking the diaphragm on both the left and right sides to complete the full spread of the structure.



3. The process begins with the mesh laid out flat in its fully unfolded state, where the diaphragm and side panels are carefully placed at their designated positions — the diaphragm at the center and the two side panels at both ends of the mesh. Once all components are correctly aligned and seated, the mesh is then folded around them, enclosing the diaphragm and side panels within its structure while the top portion of the mesh is deliberately left open to allow access for subsequent operations. After the folding is complete, the side panels and diaphragm are firmly fastened to the mesh using twisted wire ties or C-pins, which are threaded through and around the mesh and its components, then twisted or clipped securely into place to ensure the entire assembly holds together as a stable and cohesive unit, as illustrated in Figure 1.1

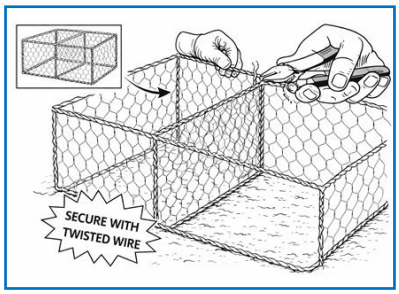


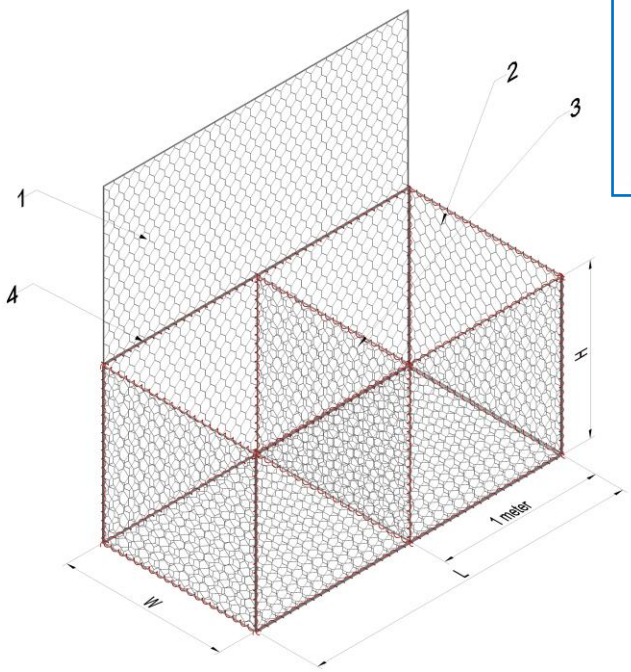
1.1

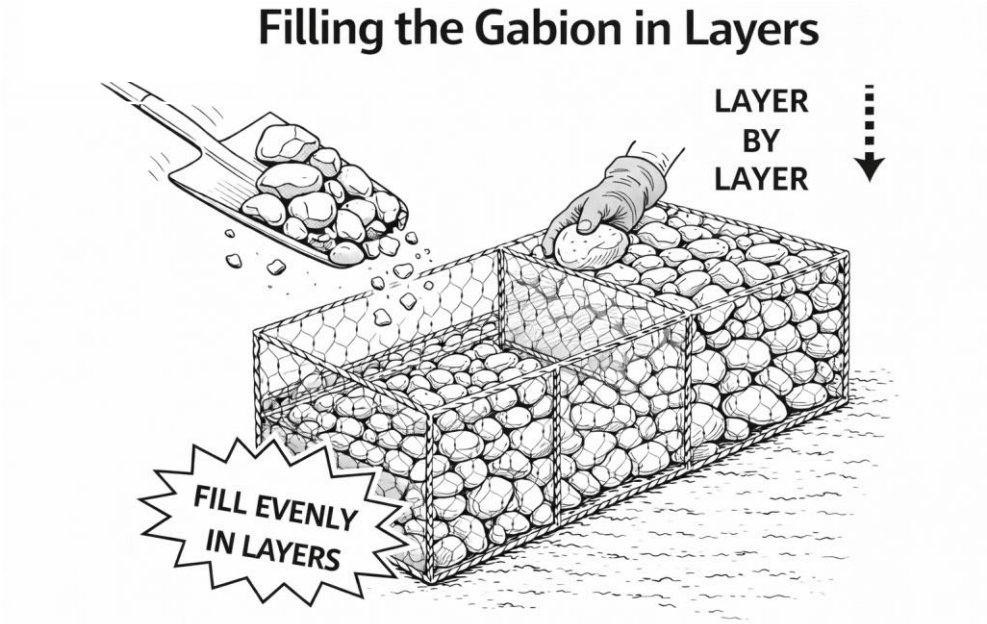


4. Once the gabion box is fully assembled, it is secured and fastened using twisted wire ties or C-pins to ensure the structure remains firm and intact. Following the securing of the gabion box, the filling process begins, where both portions of the box are filled with stones or suitable filling material in a systematic layer-by-layer manner, gradually building up the fill from the bottom to ensure even distribution and proper compaction throughout the entire structure.

1.2

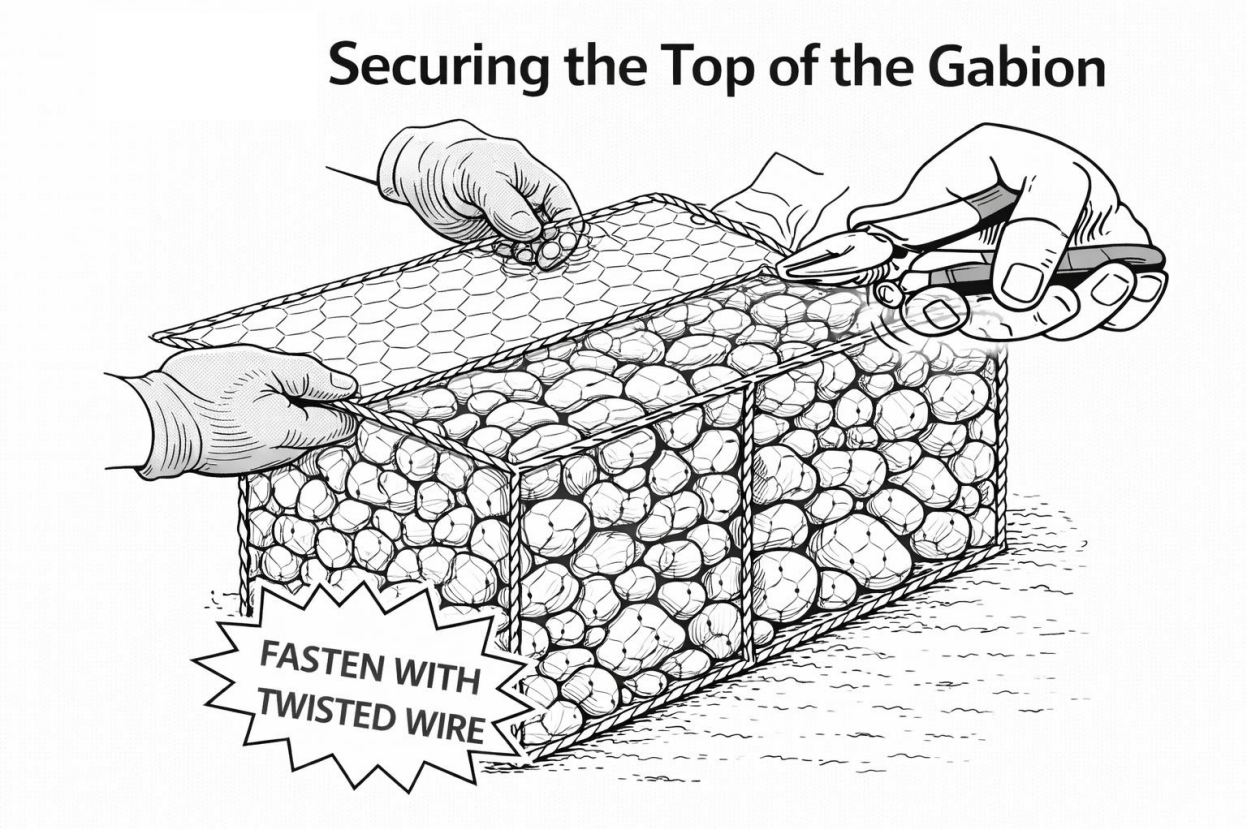






Step 5: Securing the Top of the Gabion

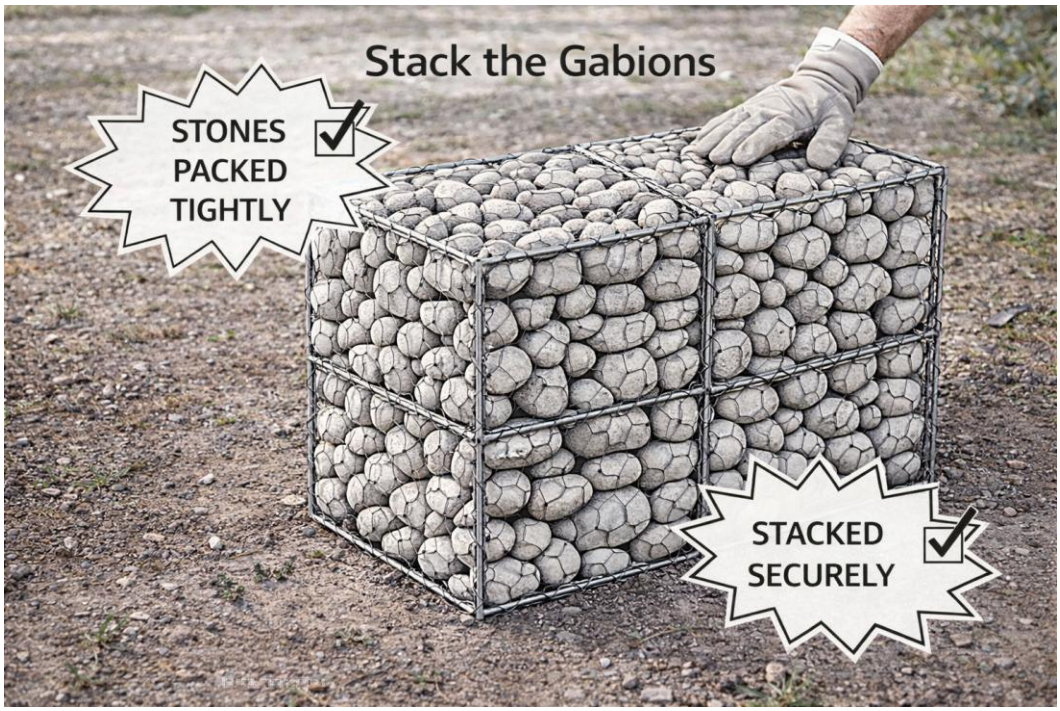
1. **Secure the top**: Once the gabion is filled, close the top by twisting the wire tightly around the mesh panels to seal the opening.
2. **Ensure the closure is tight**: Make sure that all edges are secure, and the wire twists are tight to prevent any stones from escaping.



Step 6: Stacking the Gabions

1. **Stack the gabions**: If you're constructing a multi-layered structure, place the filled gabions one on top of the other.

2. **Securing stacked gabions**: Use additional wire or anchor pins to fasten the gabions together and ensure they remain stable during use.



Step 7: Inspection & Maintenance

1. **Inspection**: After installation, check the gabion to ensure it is stable and properly assembled.
2. **Periodic maintenance**: Regularly check for any shifting or dislodged stones, especially after extreme weather conditions, and make adjustments as needed.