

## INSTALLATION GUIDE FOR STANDARD HEXAGONAL WOVEN MESH GABION BASKETS & GABION MATTRESSES

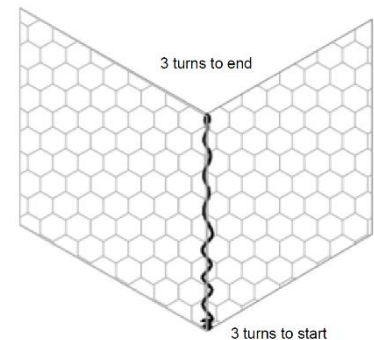
### JOINTING

**LACING WIRE:** Supplied as standard on gabion units for all joints.

Adjacent panels are joined together by a continuous lacing wire, weaving in and out of each mesh. As the wire is weaved in and out of the mesh it is pulled in the direction of weaving which then forms a tight joint.

All vertical and horizontal joints are to be laced. At the start and finish of the run of lacing, the wire should be wrapped around the panel wires 3 times.

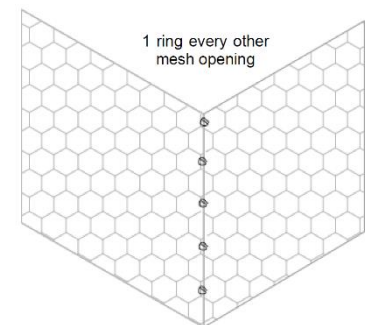
It is recommended that the maximum length to be laced is approximately 1m. This requires about 1.4m of wire. The large coils of lacing wire supplied can be cut on one side of the coil which should give sufficient length for 1m of lacing. **Do not cut all coils, as longer lengths of wire are needed for internal bracing.**



**'C' RINGS:** Supplied at an additional cost. They can be used for all jointing of units.

'C' rings are closed with a pneumatic closing tool. The pneumatic tool has to be purchased and therefore is mainly used only on larger schemes.

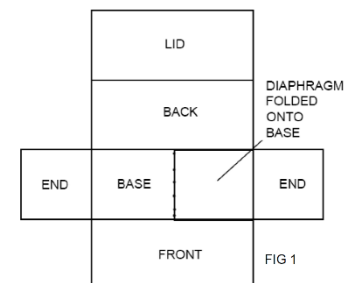
'C' rings must be fixed every other mesh opening on all joints.



### ASSEMBLY AND INSTALLATION

Units are supplied flat packed.

Open the unit out flat on a hard surface and flatten the folds used for transportation (FIG 1).



Raise the front, back, ends and diaphragms vertically, pulling the mesh upwards so that the selvedge wires at the top of the panels line up. Twist the selvedge wire extensions around the adjacent mesh panel to form the open box (FIG 1). Using one of the jointing systems, connect the adjacent vertical panels together using one of the methods of jointing (FIG 2).

Set a series of assembled units in position to the correct line, level and inclination as required by the design and form the joint to the adjacent units vertically. Where the units are coursed horizontally, joint to the unit below (FIG 3). Apply a constant tension to the end cell of the run (this takes the slack in the mesh up) until units are filled.

Machine fill the gabion unit with the correct grading of rock as outlined in the specification to 1/3rd the unit height for 1m deep units and ½ the unit height for 0.5m deep units. Fill a series of cells in a run. If large voids are visible within the cell, re-orientate the rock to minimise the voids. If a hand-packed face is required, then when placing rock to the cells, load initially to the back of the cell and then hand pick the rock for the facing. Stack and course the rock to achieve a dry stone wall appearance on the face.

Install two internal windlass bracing ties at the third widths of each external cell (windlass to span 2 meshes on external faces for vertically orientated mesh and 2 twists and 1 mesh on horizontal orientated meshes) (FIG 4).

On 1m deep units, fill the next 1/3 layer with rock and install another set of internal bracing.

Repeat the filling to the full height of the unit in layers, installing windlass ties as required at each lift (1/3rd unit height on 1m deep unit). Slightly overfill the unit and then close the lid down by jointing to all horizontal joints with lacing wire, ensuring the mesh bears down on to the rock fill.

Should bulging of the face occur, then ensure the windlass bracings are correctly installed. Loose or over-tightened ties will cause bulging to occur. Timbers or scaffold tubes can be temporarily wired to the face externally to act as a shuttering to prevent bulging and removed when filling is complete.

**Note:**

If a run of units is not filled to each level in one go, then always step down the filling at the end otherwise unit distortion will occur. This also allows further units to be connected later (FIG 5).

At no time try to completely fill one cell at a time, unless the unit has internal bracing in both directions.

**FAILURE TO FOLLOW THE ABOVE INSTRUCTIONS MAY RESULT IN A POOR QUALITY INSTALLATION THAT IS NOT ACCEPTABLE TO THE CLIENT AND MAY BE STRUCTURALLY UNSOUND.**

As well as following your own procedures for health and safety, it is essential when handling wire products that protective glasses and gloves are worn.

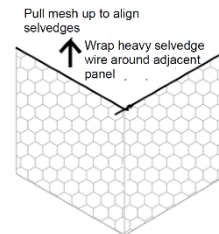


FIG 1

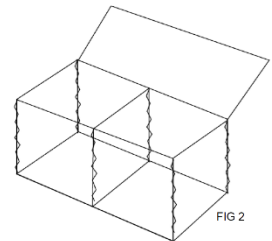


FIG 2

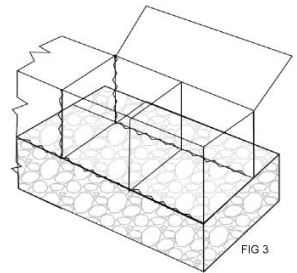


FIG 3

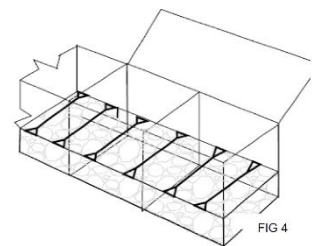


FIG 4

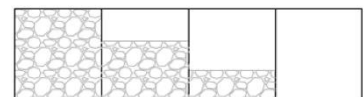


FIG 5