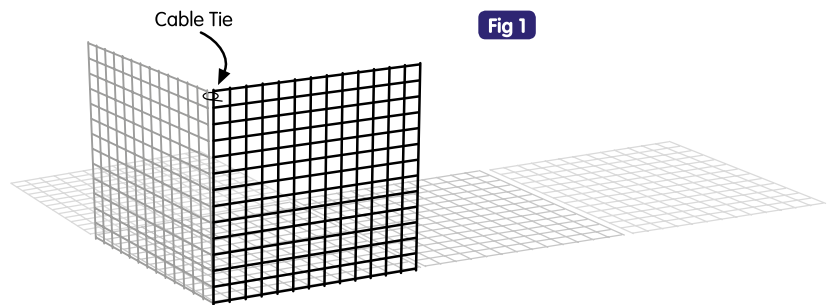


## ASSEMBLY AND ERECTION INSTRUCTIONS FOR STANDARD GABIONS

### GABION UNIT ASSEMBLY

**Gabions are supplied flat packed to site.** To assemble units, raise face, side and diaphragm panels into the vertical position and fix one cable tie securely at the top of the unit at each juncture to temporarily secure the unit in its box form.

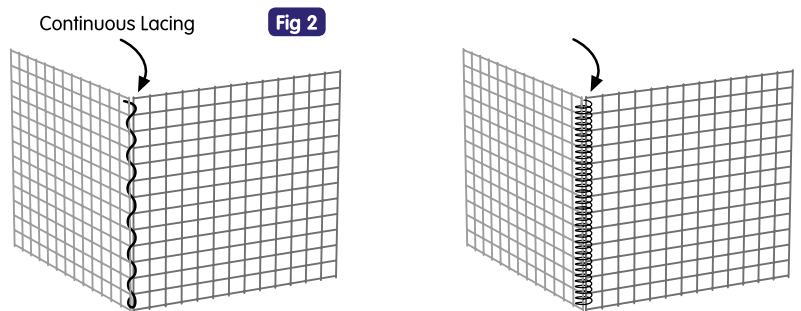


**Fig 1**

### FOR UNITS SUPPLIED WITH LACING WIRE ONLY (see fig 2) :-

For single unit construction, lace all the vertical joints together in a continuous operation looping through each mesh and pulling tight. Ensure that lacing is started and terminated with at least 3 tight loops.

For construction of a line of units, the corners of adjacent units and the joint between units can be laced in one operation. Other vertical joints should be laced as for a single unit.



**Fig 2**

### FOR UNITS SUPPLIED WITH LACING WIRE AND HELICALS (see fig 3) :-

For single unit construction, helical all the vertical joints together. The last turn at either end of the helical should be turned through 90 degrees with pliers to lock it in position.

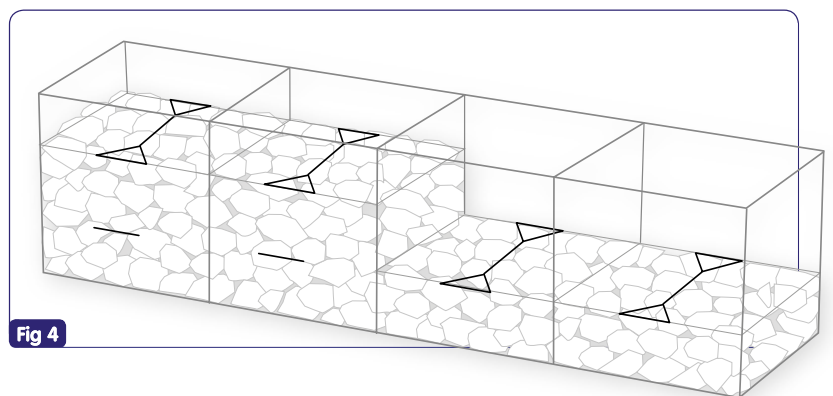
For construction of a line of units, the corners of adjacent units and the joint between units can be helicalled in one operation. Other vertical joints should be helicalled as for a single unit.

### FILLING OF GABIONS

**Gabions should be filled with a hard durable stone of grading 100mm - 150mm.**

Fill should be placed into units to the third height for 1m deep units (fig 4) and to half height for 0.5m deep units. Filling can be carried out carefully with machine.

**Internal windlass ties should be placed at the third height centrally within each cell compartment (fig 9),** the windlass should encompass a minimum of 2 meshes and no more than 3 meshes, ensure that the windlass is not too loose otherwise bulging of the face will occur and likewise not too tight to cause the mesh to bow inwards.



**Fig 4**

Repeat the filling to two thirds the height for 1m deep units and install windlass bracing.

Fill unit to full height so that when the lid is closed it bears down on the fill.

Fully lace lid down around the perimeter and across the diaphragms.

If required by specification, the face should be hand packed to give a dry stone wall appearance, to prevent any large voids being present in the fill the stone may require re-orientating.

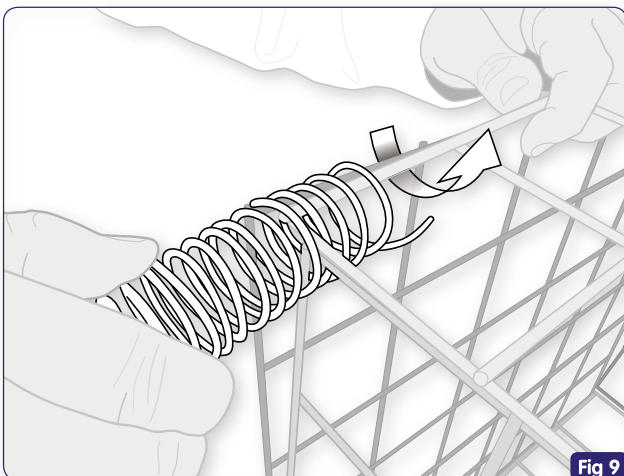
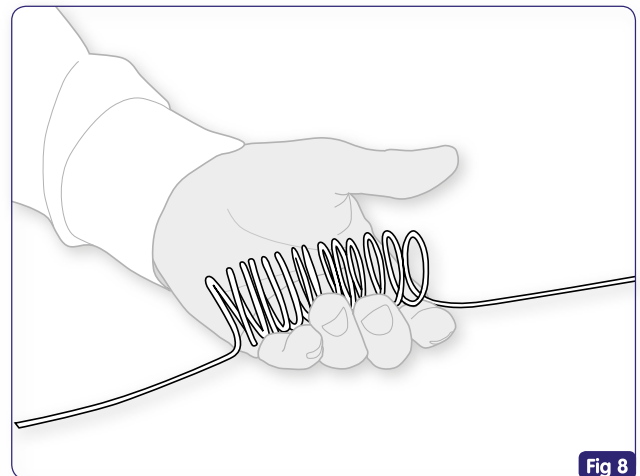
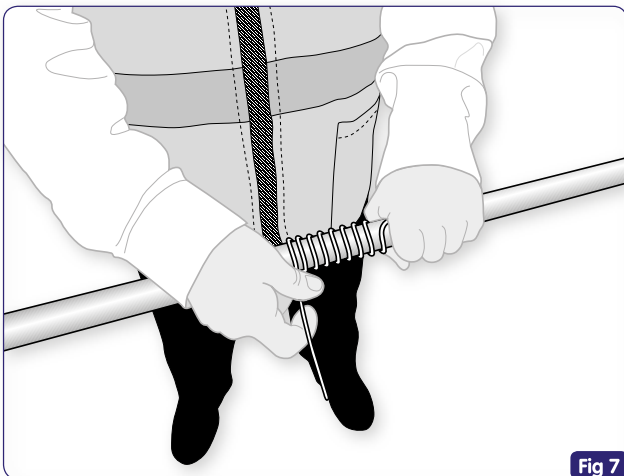
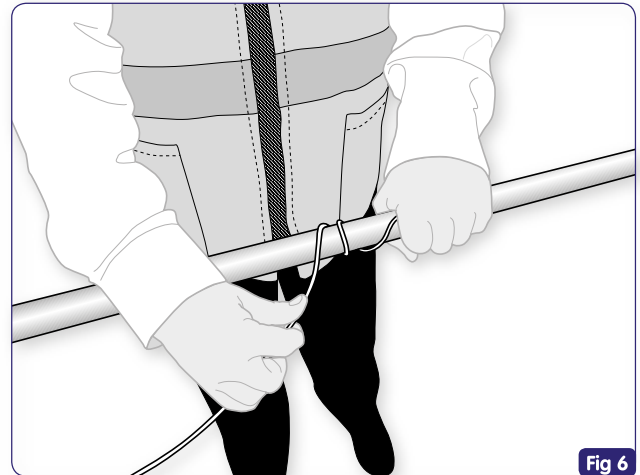
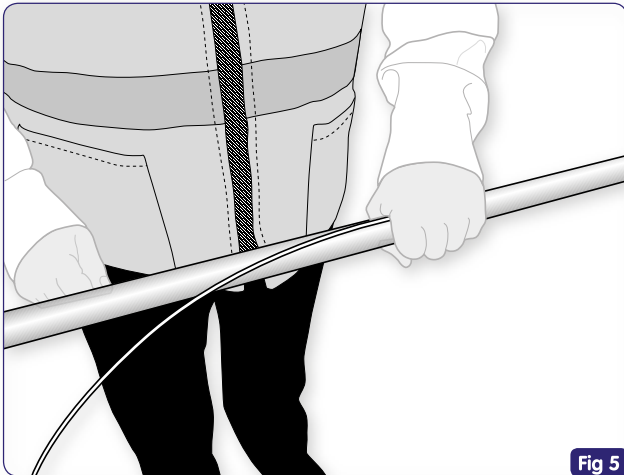
### WINDLASS BRACING TIES

Ties to be formed by wiring across two meshes at the face, back through the gabion and across 2 meshes on the rear face, with the two ends meeting within the unit and tied together such that it forms a continuous loop.

Using a flat rock inserted between the loop twist until the windlass is taught.

**Do not over tighten or leave slack otherwise deformation of the face will occur.**

## SITE MADE HELICALS



In order to make lacing easier it is possible to make a light helical from the lacing wire as per figures 5 – 9.

To form the helical use a piece of round material such as a smooth piece of broom stake or pipe. Cut a length of the wire e.g.; for a 1m joint use approx 1.3m of wire, hold the wire firmly against the pipe as fig 5, then wrap the wire around to form a spiral/helical. This should be as tight as possible so that it resembles a closed spring.

Leave approximately 100mm of wire at each end as in fig 8, slide the coils off in the palm of your hand and then proceed as in fig 9.

Once you have twisted the wire through the joint, wrap each end around a piece of steel and pull firmly until the wire closes tightly around the edge wires of the gabion, then secure the ends so that they do not unravel and trim off the excess.

**Caution:** The wire ends may be sharp so gloves should be worn, as they should be for the whole installation process.