

## REINFORCED ECOLOGS

### Material Delivery

Reinforced EcoLogs are cylindrical biodegradable rolls lined with BioMac coir blanket, bound together with twine and lined with hexagonal woven mesh made of galvanised PVC coated wire (Figure 1). Reinforced EcoLogs are manufactured with all components mechanically connected at the production facility. The bundles are compressed and strapped together at the factory for easy shipping and handling. Lacing wire is supplied in coils. Ring fasteners (Figure 3) are shipped in boxes which must be stored in a dry environment.

### Assembly

The folded units shall be taken out from the bundle and placed on a hard flat surface. They shall be unfolded and rolled out to a cylindrical shape of diameter 300 mm and length of 2 m.

The longitudinal overlap is laced together by using lacing wire and tying with alternate double and single loops (Figure 2). Double loops shall be made at intervals not greater than 300 mm. The end of the lacing wire shall be secured by again looping and twisting the wire around itself. Pliers (Figure 4), may be used to create tight joints. The other end of the Reinforced EcoLog shall be closed by pulling tightly on the bottom spiral wire. Care should be taken to avoid damaging the wire coating. When steel ring fasteners are used, the custom made Maccaferri Manual Spenax Tool (Figure 4) is required and available for hire. Rings shall be spaced at 100 mm centres (Figure 2).

### Filling

Since Reinforced EcoLogs are designed to reduce erosion and assist in germination, establishment and anchorage of the vegetation they can be filled with organic matter or a combination of rocks and soil. Once filled, the open end is closed by pulling tightly on the top spiral wire and looping and twisting the wire around itself, as described above.

### Placement and Installation

Reinforced EcoLogs shall be placed so that there is direct and firm contact with the soil. Any large rocks and obstructions should be removed. Any existing plants should be protected and where possible additional disturbance should be avoided.

Reinforced EcoLogs shall be placed parallel to the stream bank or shoreline and perpendicular to the direction of overland flow. Stakes with a minimum diameter of 40 mm can be used to secure the Reinforced EcoLogs. Rocks for the Reinforced EcoLogs shall be hard, angular to round, durable and of such quality that they shall not disintegrate on exposure to water or weathering during the life of the structure. Care shall be taken to avoid damaging the wire coating.

Adjacent units of Reinforced EcoLogs can be joined together end to end using lacing wire. Unless otherwise specified in the project specifications, the Reinforced EcoLogs should be keyed-in 1 m to 2 m.



Figure 1

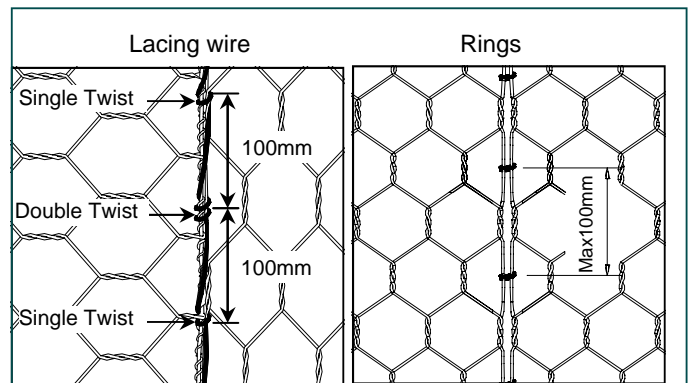


Figure 2

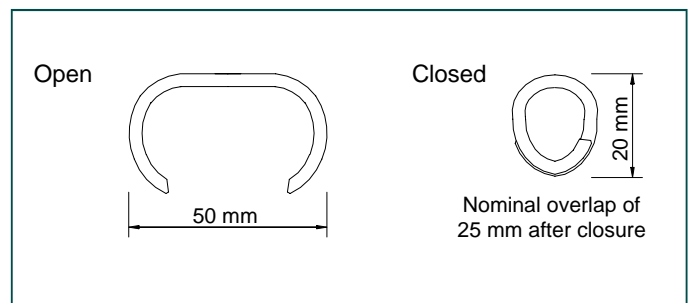


Figure 3



Figure 4



Figure 5



Figure 6