Installation Guide

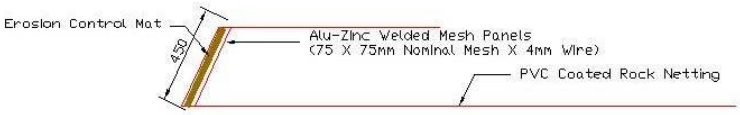
Geo-Coastal Engineering Ltd

Econ Soil Panel

1. Preparing the Formation

The surface on which the Soil Panel is placed should be level, even and firm. Excavate any soft or unsuitable material and backfill with sound material. Fill any holes, ruts or uneven areas with good material such as granular fill or concrete. Grade and compact the formation to the correct line and level. Where the surface is very uneven or soft a layer of sand or gravel (say 200 mm thick) may be placed to provide a firm and even surface.

Changes in ground level should be catered for by stepping up or down in panel height units rather than trying to bend or curve panels.



2. Laying out mesh boxes

Econ Soil Panels arrive on site partially assembled and folded flat in bundles for easy transportation. Each panel should be carefully opened out, laid flat and straightened out so the mesh is not creased.

3. Assembling

Panels are set and temporarily propped at the required front face inclination angle before tying in place using lacing wire at 500mm centres. Lacing wire allows fine adjustment and is supplied as standard.

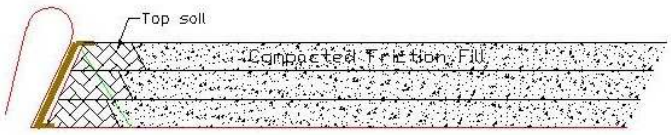
The 25mm projection of the welded mesh beyond the end of the panel may be slotted into the adjacent panel to form a lap with the adjacent panel. This also helps to maintain the required front face angle for subsequent panels.

The selvedge wire along each vertical edge on the front face of the woven mesh is clipped to the selvedge wire of the adjacent panel with CL50 clips every 200mm.

The top woven reinforcement mesh can be folded over the front of the panel and out of the way of the filling process.

Prior to filling, the bottom reinforcement mesh should be stretched to take up any slack. This is done by pinning the mesh down at the front and stretching and pinning at the tail end. Stretching can be done with a tirfor or crowbar, taking care to stretch the mesh evenly and not to damage the reinforcement mesh.

Carry out the same procedure for subsequent panels.

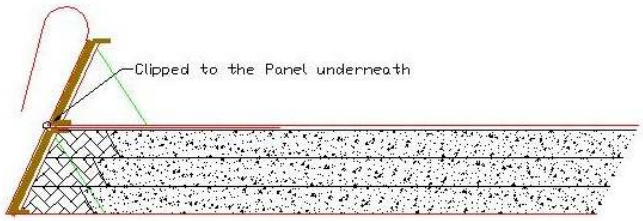


4. Filling

The topsoil is placed in layers inside the front face and should be compacted as much as possible using hand tools. This is to prevent future settlement of the topsoil and avoid deforming the front face during filling.

The friction fill can be placed in layers using a machine. Care should be taken to minimise damage to the woven reinforcement mesh during construction. The stone used should be hard and durable, well graded friction fill, as required by BS8006:1995 for all reinforced soil structures. This fill should be properly compacted in layers. We recommend a plate compactor be used close to the front face to avoid deforming the front face during filling.

When filling is complete the top mesh reinforcement is folded back over the fill and ready to receive the next layer.

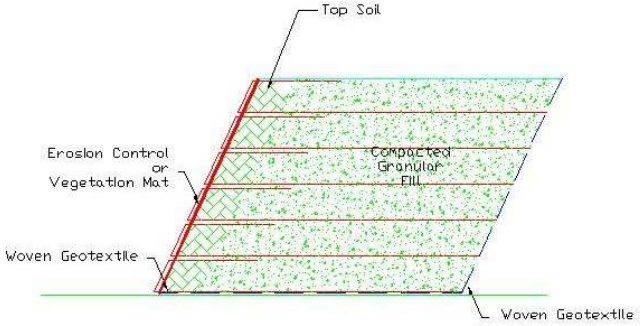


5. Subsequent layers

The next layer placed above and clipped to the layer underneath it using CL50 clips every 200mm.

Repeat steps 2,3 and 4 until the required height is reached.

Lengths of timber of steel angle can be tied to the front face to provide a straight edge to help keep the front inclination angle constant.



6. Cutting

Econ Soil Panels can be modified and cut to different heights by cutting the required amount from the top of the welded mesh panel and then just pulling and wrapping the top woven reinforcement mesh over the cut panel. There is usually no need to cut the woven reinforcement mesh.

7. Vegetation

Different grasses and plants suit different location, soil-types and orientations. Generally it is best to go with hardy and low maintenance plants. We have in-house landscaping specialists who will be able to advice you on the vegetation of the soil panel.

As in any other landscaping situation, the long term success and appearance of the vegetation is dependant on orientation, sunlight, moisture, slope angle and last but not least, maintenance. A steep slope such as this is particularly hostile to vegetation.

The level of maintenance required depends on the above factors and the required appearance.

Some locations may require an irrigation system to prevent drying out during dry summer months.