MACCAFERRI PRODUCT SPECIFICATIONS AND QUALITY CONTROL – HIGH STANDARD INSTALLATIONS

Rock Filling and Rock Type

Particular care shall be exercised when hand packing against the visible faces of Gabion boxes. Only rock of the specified type and size shall be used as per *AS2758.4-2000* so as to obtain an even-faced finish. As per the Maccaferri installation guide, the Gabions shall be tensioned with a fence tensioner or similar and filled in layers to prevent deformation and bulging with a minimum of four bracing wires installed and tensioned windlass–style else 3.4mm preformed "U" shaped bracing wires per square metre of front face.
In order to produce a Gabion with straight "architectural lines" temporary timber or steel formwork will be required. The type and technique used will vary depending on the demands of the project and the client's requirements. Advice pertaining to formwork is obtainable from Maccaferri.

Ensure that the correct quality, grading and quantity of rock is available for the completion of the works. Rock used should be clean, sufficiently durable and should be obtained from a commercial crushing source or as per engineer's specification. For gabions, the rock should be well graded between 100mm and 250mm. For Reno Mattresses (units up to and including 300mm thick) the rock should be well graded with a minimum rock size of 75mm and a maximum rock size of two-thirds the thickness of the mattress, or 250mm, whichever is the lesser. The rock should be angular and have a minimum Specific Gravity of 2.4 (Basalt, granite or similar)

A well packed gabion ensures better performance of the gabion structure. Once filled, gabions typically have a void ratio (e) of 0.3

Quality Control

A series of 2 x 1 x 1 Gabions (*quantity and location to be determined by the Engineer)* are to be constructed on the site close to the proposed structure. These units will be used for quality control purposes throughout the duration of the Gabion works. The superintendent shall inspect these Gabions in the company of the contractor's representative and the Gabion manufacturers representative with a view to establishing the acceptable standard to which all subsequent Gabions must be constructed. Under no circumstances shall any further Gabion construction take place until this *"Quality Control Test Gabion"* has been deemed by the superintendent to have been constructed to the acceptable standard.

Gabion Specification

Gabions shall be **"Maccaferri"** type manufactured from double twisted, hexagonally woven wire mesh of nominal 80x100 mesh, with 3.4mm o/d frame wire and 2.7mm o/d mesh wire, complete with diaphragms at 1m centres. All components to be mechanically connected at the production facility with minimum connection strength requirements as per Table 2 of ASTM A975.
All wire is mild steel, Galmac coated (95% Zinc + 5% Aluminium Mischmetal Alloy) to the requirements of ASTM B750-99 and heat bonded through extrusion with an additional 0.5mm heavy duty grey PVC coating. Gabions must have a valid British Board of Agrément (BBA) certificate for Galfan + PVC woven mesh to demonstrate a life expectancy of 120 years. This certificate must be provided as part of the project QA documentation.

Reno Mattress Specification

Reno Mattresses shall be **"Maccaferri Castoro"** type manufactured from double twisted, hexagonally woven wire mesh of nominal 60x80 mesh, with 2.4mm o/d frame wire and 2.0mm o/d mesh wire, complete with diaphragms at 1m centres. Diaphragms shall consist of two layers of mesh having the base of the Mattress and the diaphragms manufactured from one continuous mesh panel. All components (except the lid) to be mechanically connected at the production facility with minimum connection strength requirements as per Table 2 of ASTM A975.
All wire is mild steel, Galmac coated (95% Zinc + 5% Aluminium Mischmetal Alloy) to the requirements of ASTM B750-99 and heat bonded through extrusion with an additional 0.5mm heavy duty grey PVC coating. Reno Mattresses must have a valid British Board of Agrément (BBA) certificate for Galfan + PVC woven mesh. This certificate must be provided as part of the project QA documentation.

Woven Mesh Specification (For Terramesh Structures)

Mesh shall be **"Maccaferri"** type manufactured from double twisted, hexagonally woven wire mesh of nominal 80x100 mesh, with 3.4mm o/d frame wire and 2.7mm o/d mesh wire.
All wire is mild steel, Galmac coated (95% Zinc + 5% Aluminium Mischmetal Alloy) to the requirements of ASTM B750-99 and heat bonded through extrusion with an additional 0.5mm heavy duty grey PVC coating. Woven mesh must have a valid British Board of Agrément (BBA) certificate for Galfan + PVC wire. This certificate must be provided as part of the project QA documentation.

PLEASE CONTACT GROUNDTECH ON (03) 9386 1721 FOR FURTHER INFORMATION OR VISIT OUR WEBSITE:- WWW.GROUNDTECHGEO.COM.AU