

Modular Gabions

Welded Gabions

Private dwelling, Omaha Beach, New Zealand

Client: Good Brothers Construction

Date: June 2002

For this project we supplied the Modular Welded Gabions featured in our June 2002 Newsletter. Manufactured in the USA, these gabions are made for coastal environments with a three layer protection system. First the 3 mm steel wire is hot dipped galvanised, then a corrosion protection primer is applied, followed by a heavy fusion bonded PVC coating.

The client required black wire as the project used gabions in a less than traditional manner. The gabion baskets were constructed into a wall of 9 m high which was erected right around the front of the cliff top property it was designed to protect.

Large stones were carefully placed into each basket and the wall built completely using single modules of 900 mm x 450 mm x 450 mm. The mesh is 75 mm x 75 mm square.

The object of this particular gabion wall is to allow light and air to penetrate at a controlled rate. This is exactly what the welded steel gabion is designed to do, that is to function as a building block to form a monolithic, permeable structure of any size or shape.

The finished gabion wall has immensely improved the aesthetics of the house, and has provided the owner with a unique environment offering complete privacy and protection from the elements.

There are many advantages in using modular welded gabions. Besides the quality, strength and speed, we can supply gabions in roll stock form allowing tremendous flexibility in terms of size and assembly, thus eliminating the need for double panelling. The welded steel modular gabion is widely used in river and highway engineering as retaining structures.



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Welded Gabions

Honey Centre and Cafe, Waimauku, New Zealand

Client: Terrafirma

Date: December 2002

Herceg Architecture & Design Ltd has creatively applied Permathene welded wire Gabions in their designs. Over the past few years gabions are being used in new and revolutionary ways, including being used as signboard stand, an appliqué design on a fireplace, retaining walls around the BeesOnLine Ltd building, and a large wall around a coastal residency property which offered both privacy and a weather screen.

Modular Gabion has great aesthetic design possibilities. They can be used effectively and economically in parks along highways and around bridge approaches to create walkways, rock gardens, patios and terraces. Gabions beautify the banks of lakes and ponds and accent trees and other plantings. In fact, their application to decorative landscaping is limited only by the ingenuity of the landscaper or the architect. Gabions can be vegetated offering a new technique in bio-engineering for strength and beauty.

Permathene gabions are easily handled and installed on site. Permathene engineering staff gave technical support to the contractor on site at the start of the project. Gabion construction is simple and does not require skilled labour. Gabion installations are more economical than rigid or semi-rigid structures.

Terrafirma has successfully completed the gabion project with ease. In one area the architect used the gabion baskets stacked 4m high x 0.457m wide x 13.6m length clad to 240mm thick block support wall. Using 12mm x 125mm galvanized dynabolt with square galvanised washers at 1m centers, they provided attractive and natural building blocks for decorative landscaping. Spiral connectors and dimensional accuracy eliminate time consuming hand tying of baskets hence welded mesh assemble in 1/2 to 1/3 the time of twisted mesh. Any size or shape can be constructed from single roll of mesh with no effect on structural quality of corrosion resistance.

Terrafirma were pleased with the support they got from Permathene technical staff. In addition to welded gabions, Versicell Interlocking Modules were also supplied for the same job. Drainage modules were used on the roof garden area of the building. Lightweight and offers efficient drainage solution for the roof garden applications. They have high compressive strength and are easy to install on site.



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