

## 3.8 GABION



Figure 3.13. Gabion (Source: Modular Gabion Designs)

### Overview

**Description:** Gabions are rectangular wire mesh boxes that are filled with rock. They are used for channel revetments, retaining walls, check dams, bridge abutments, culvert headwalls, and almost any place where a heavy, flexible reinforcement is necessary.

**Problem identification:** Erosion measures are needed on steep banks adjacent to waterways, on buildings where right-of-way is limited, or where erosive soils are present.

**Design Purpose:** To use a material that is strong, flexible, and effective in the control of erosion.

**Associated practices:** For use in waterways, bank stabilization, and areas needing a permeable building block.

**Installation:** The mesh boxes or baskets are available in a wide range of sizes. The gabion is normally filled with four- to eight-inch rock, which usually is dumped mechanically and filled in place. The filled gabion becomes a large, flexible, and permeable building block. The baskets are corrosion-resistant, strong, and durable, and when filled they become flexible blocks from which a wide range of structures can be built.

**Maintenance/inspection:** Periodic inspection should be done to look for signs of undercutting or excessive erosion at the transition areas. Make necessary adjustments for problem areas.

**Design life:** Permanent.

**Estimated costs:** Cost varies with rock material selection and excavation costs