

## WELD MESH GABION BASKETS, PANELS AND MATTRESSES

### Introduction

**Weld Mesh Gabion** boxes and mattresses complement our range of **Woven Mesh Gabion** boxes and mattresses to provide a valid and effective technical solution in the design, construction and maintenance of a variety of protective structures. They can provide effective, economical and environmentally acceptable solutions to a range of civil engineering problems.

Weld Mesh Gabions are more aesthetically pleasing and quicker and cheaper to install than Woven Mesh Gabions

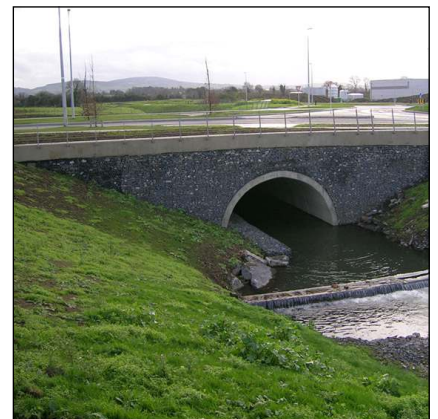
### Applications

- Retaining wall structures
- River and canal training works
- Erosion and scour protection; roadway protection; bridge protection
- Hydraulic structures, dams and culverts
- Coastal embankment works
- Rockfall and soil erosion protection
- Architectural feature retaining walls
- Architectural cladding for walls



### Advantages

- Blends easily and harmoniously with the natural surroundings.
- Low cost alternative to concrete or masonry structures.
- Very high resistance to natural forces due to better tensile strength.
- Can withstand any unpredictable movement or settlement without loss of stability.
- Simple and speedy installation, making it cost effective.
- Quality finish and appearance is more aesthetically pleasing.
- More rigid than woven mesh resulting in a more uniform finish when built.
- Quicker and cheaper to install than Woven Mesh gabions because no pre-stretching required.
- Special gabions sizes and mesh configurations such as gabions with 4mm Ø front mesh and 3mm Ø mesh elsewhere can be assembled to order.
- Easy to vegetate



## Specification

Weld mesh gabion are manufactured from cold drawn steel wire and strictly conform to BS1052:1986 for tensile strength. It is then electrically welded together and Hot Dip Galvanised or Alu-Zinc coated to BS443/EN10244-2, ensuring a longer life. Alu-Zinc coated gabions typically last 3-4 times longer than galvanised gabions. The meshes can then be PVC coated to safeguard against corrosion and other weathering effects, especially when the gabions are to be used in salty and highly polluted environments.

Lacing wire shall be provided separately for site assembly. Lacing Spirals (see photos below), Alu-Zinc and stainless steel "C" rings are also available at extra cost if required.

Welded mesh gabions are also available in Cylindrical and Sac form with diameters of 0.65m, 0.95m and in lengths of 2.0m and 3.0m.

All our fusion bonded PVC coated Welded mesh gabions are designed to be equivalent to the requirements of the DETR, HA MCHW, Volume 1 Specification of Highway Works, Clause 626. Standard colours are Green and Grey. Other colours on special request.

Stainless Steel gabions are available to special order.

## Special and Easybuild Gabions

We assemble all our welded mesh gabions to order, giving the flexibility to supply non-standard sizes and configurations with a minimal lead in time.

The most popular non-standard configuration are gabions with a heavier front and rear mesh panels. We refer to these as Easybuild configuration gabions. The stronger front face makes the gabions easier and quicker to fill. It is also improves the appearance of the wall by keeping a more uniform front face and is more resistant to being damaged by vandals.

## Gabion Sizes

Nominal Box sizes (m)	No. of diaphragms (no.)	Capacity per box (m3)	Standard mesh sizes (mm)	Standard wire diameter (mm)
1.0x1.0x0.5	Nil	0.50	50.8 x 50.8	Heavily Galvanised or Alu-zinc coated wire 2.0, 3.0, 4.0, 5.0 <b>OR</b> PVC coated on Heavily Galvanised or Alu-zinc coated wire 2.0/2.5, 3.0/3.5, 3.8/4.3,
1.0x1.0x1.0	Nil	1.00	76.2 x 76.2	
1.5x1.0x0.5	Nil	0.75	101.6 x 101.6	
1.5x1.0x1.0	Nil	1.50		
2.0x1.0x0.5	1	1.00		
2.0x1.0x1.0	1	2.00		
3.0x1.0x0.5	2	1.50		
3.0x1.0x1.0	2	3.00		
4.0x1.0x0.5	3	2.00		
4.0x1.0x1.0	3	4.00		

## Mattress Sizes

Nominal Box sizes (m)	No. of diaphragms (no.)	Capacity per box (m3)	Standard mesh sizes (mm)	Standard wire diameter (mm)
3.0x2.0x0.15	2	0.90	50.8 x 50.8	Heavily Galvanised or Alu-zinc coated wire 2.0, 3.0, 4.0, 5.0 <b>OR</b> PVC coated on Heavily Galvanised or Alu-zinc coated wire 3.0/3.5, 3.8/4.3
3.0x2.0x0.225	2	1.35	76.2 x 76.2	
3.0x2.0x0.30	2	1.80	101.6 x 101.6	
4.0x2.0x0.15	3	1.20		
4.0x2.0x0.225	3	1.80		
4.0x2.0x0.30	3	2.40		
5.0x2.0x0.15	4	1.50		
5.0x2.0x0.225x	4	2.25		
5.0x2.0x0.30	4	3.00		
6.0x2.0x0.15	5	1.80		
6.0x2.0x0.225	5	2.70		
6.0x2.0x0.30	5	3.60		

All box sizes are approximated to the nearest half metre. Actual dimensions are dependant on the mesh grid size. Other sizes also available on request.



## Gabion Boxes

Gabion boxes are designed on the principle of mass earth retaining wall. The strength of the wire mesh helps to withstand the forces generated by the retained soil

## Gabion Mattresses

Gabion mattresses can be used on level ground or slopes for erosion/scour protection.

