GABIONS
ZINC COATED

Gabions are baskets manufactured from double twisted hexagonal woven steel wire mesh 8x10 type, made of class A Zinc coated steel wire produced in compliance with SABS 1580:2010 and EN 10223-3:2013.

The management and production system is certified in compliance with ISO 9001:2015, ISO 14001:2015 (related to the environmental management system) and OHSAS 18001 :2007 (Occupational health and safety)

Gabions are used for the following purposes: retaining structures, river works, erosion control, noise barriers, architectural works.

Gabions are filled with stones at the project site to form flexible, permeable, monolithic structures such as retaining walls, channel linings and weirs for erosion control projects.

In order to reinforce the structure, all mesh panel edges are selvedged with a wire having a greater diameter (Table 3). Dimensions and sizes of Zinc coated gabions are shown in Table 1.

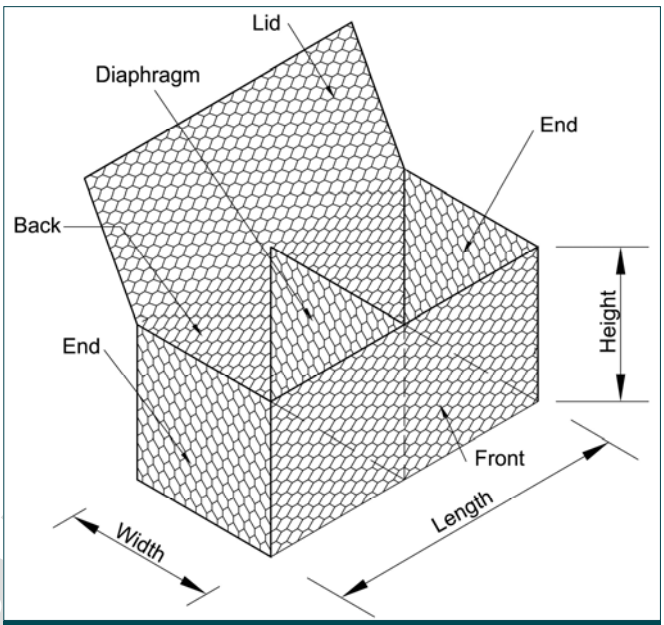

Figure 1

Steel wire mesh
The wire mesh shall be as per Table 2.

Wire
The steel wire used in the manufacture of the unit is heavily zinc coated.
All tests on wire must be performed prior to manufacturing the mesh.

1. **Tensile strength:** in accordance with SANS 675, the wire used to manufacture Gabions shall have a tensile strength between 350-550 N/mm^2. Wire tolerances are shown in Table 3.
2. **Elongation:** Elongation at fracture shall not be less than 8%, as per EN 10223-3: 2013 and SABS 1580:2010.
3. **Zinc coating:** minimum quantities of Zinc (Table3) meet the requirements of SANS 675:2011 (Class A)
4. **Adhesion of Zinc:** the adhesion of the Zinc coating to the wire must be in accordance with SANS 675:2011
5. **Outwearing accelerated ageing test:** when subjected to the neutral salt spray test ISO 9227) after 600 hours of exposure, the mesh shall not show more than 5% of DBR (Dark Brown Rust).

The tolerance on the mesh size 'M' being the distance between the axis of two consecutive twists, is according to SANS 1580:2010

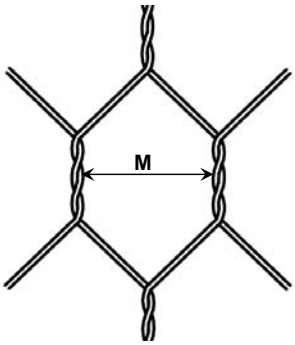

Figure 2

Example of Gabion wall

Table 1: Sizes of Gabions

Length (m)	Width (m)	Height (m)
1,0	1,0	1,0
1,5	1,0	1,0
2,0	1,0	1,0
3,0	1,0	1,0
4,0	1,0	1,0
2,0	0,5	0,5
2,0	1,0	0,5
3,0	1,0	0,5

All sizes and dimensions are nominal.
Tolerances of ± 5% shall be permitted
Other sizes are available but variation to these standard sizes are only manufactured on request and are uneconomical unless manufactured in large quantities.

Table 2: Standard Mesh-Wire

Type	M (mm)	Tolerance (mm)	Wire Diameter (mm)
8x10	80	-4/+10	2.7 3.0

Table 3. Standard wire diameter

		Mesh wire	Selvedge wire	Lacing wire
Internal diameter 8x10	ø mm	2.7 3.0	3.4 3.9	2.2 2.5
Wire tolerance	(±) ø mm	0.06 (2.7) 0.07 (3.0)	0.07	0.06
Min. quantity of coating	gr/m^2	245 (2.7) 255 (3.0)	265 (3.4) 275 (3.9)	230

Lacing Operations

Lacing operations can be made by using the tools shown in Fig.5. Galfan coated steel rings having the following specification can be used instead of lacing wire (Figs. 3, 4):

- diameter: 3.00 mm
- tensile strength: 156-178 Kg/mm²
- Pull–apart strength > 2.0 kN

Spacing of the rings must not exceed 200 mm (Fig.4)

Quantity Request

When requesting a quotation, please specify:
• size of units (length x width x height, see Table 1)
• type of mesh
• type of coating and diaphragms
EXAMPLE: No. 100 gabions 2x1x1m - Mesh type 8x10 - Wire diam. 2.70 mm - Zinc coated - with diaphragms.

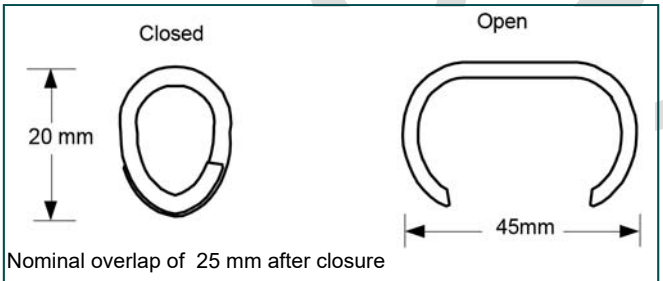

Figure 3

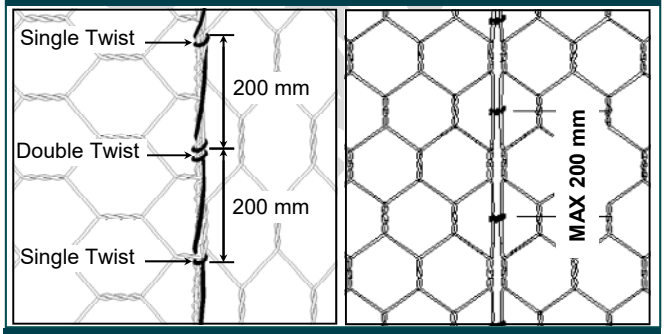

Figure 4: Lacing wire and Rings

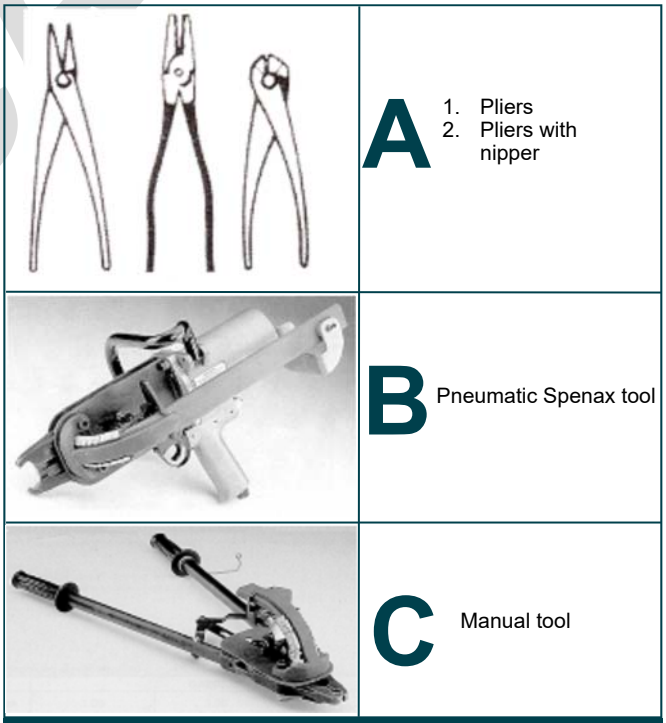

Figure 5

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