MACCAFERRI

TECHNICAL DATA SHEET
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SACK GABIONS
GALVANIZED & PVC COATED

Product Description

Sack gabions are cylindrical baskets made of 8x10 or 6x8 type double twisted steel woven wire mesh, as per ASTM A975(Figs. 1, 2). Sack gabions are filled with stones at the project site to form flexible and permeable structures used in river training and various emergency works. Sack gabions are supplied with steel reinforcing wires inserted during the manufacturing process to facilitate closing during installation.
The steel wire used in the manufacture of the sack gabion is heavily galvanized soft temper steel. The standard specifications of the mesh-wire are shown in Table 2.
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 galvanized sack gabions are shown in Table 1.

Wire

All tests on wire must be performed prior to manufacturing the mesh. All wire should comply with ASTM A975, style 3 coating and galvanized. Wire used for the manufacture of Sack Gabions and lacing wire, shall have a maximum tensile strength of 75,000 psi (515 MPa) as per ASTM A641/A641M soft temper steel.

Woven Wire Mesh Type 6x8 and 8x10

The mesh and wire characteristics shall be in accordance with ASTM A975. The minimum mesh properties for strength and flexibility should be in accordance with the following:

Mesh Type	Nominal Mesh Opening D in (mm)	Mesh Tensile Strength lb/ft (kN/m)	Mesh Connection to Selvedge lb/ft (kN/m)	Punch Test lb (kN)
6x8	2.5 (64)	33.6 (2300)	700 (10.2)	4,000 (17.8)
8x10	3.25 (83)	29,00 (42.3)	1,200 (17.5)	5,300 (23.6)

P.V.C. (Polyvinyl Chloride) Coating

The technical characteristics and the resistance of the PVC to aging should meet the relevant standards. The main values for the PVC material are as follows:

- The initial property of the PVC coating shall be in compliance with ASTM A975 section 8.2.

Prior to UV and abrasion degradation, the PVC polymer coating shall have a projected minimum durability of 69 years when tested in accordance with *UL 746B Polymeric Material—Long Term Property Evaluation* for heat aging test .

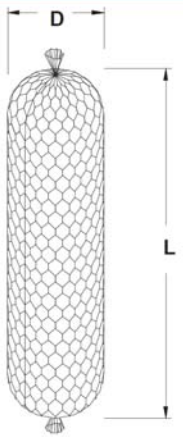

Figure 1

The tolerance on the opening of mesh 'D' being the distance between the axis of two consecutive twists, is according to ASTM A975

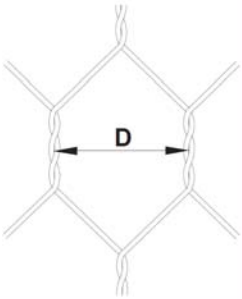

Figure 2


Figure 3—Example of Sack gabion

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Maccaferri reserves the right to amend product specifications without notice and specifiers are requested to check as to the validity of the specifications they are using.

Table 1—Sizes for sack gabions

L=Length ft (m)	D=Diameter ft (m)	Volume yd^3 (m^3)
6 (1.8)	2 (0.6)	0.70 (0.54)
9 (2.7)	2 (0.6)	1.05 (0.80)
6 (1.8)	3 (0.9)	1.57 (1.20)
9 (2.7)	3 (0.9)	2.36 (1.80)

All sizes and dimensions are nominal. NOTE: 9 ft (2.7 m) x 3 ft (0.9 m) sack gabion only produced in 8x10 mesh type.

Table 2—Standard mesh-wire

Type	D in. (mm)	Tolerance	Wire D in. (mm)
6x8	2.5 (64)	±10%	0.087 (2.2)
8x10	3.25 (83)	±10%	0.120 (3.05)

Table 3—Standard wire diameters

		Lacing Wire	Mesh Wire	Selvedge Wire
6x8	ø in. (mm)	0.087 (2.2)	0.087 (2.2)	0.106 (2.7)
8x10	ø in. (mm)	0.087 (2.2)	0.106 (2.7)	0.134 (3.4)

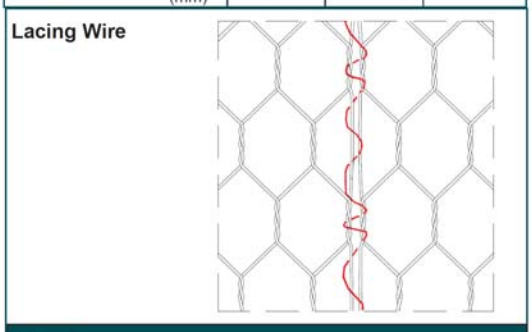

Figure 4

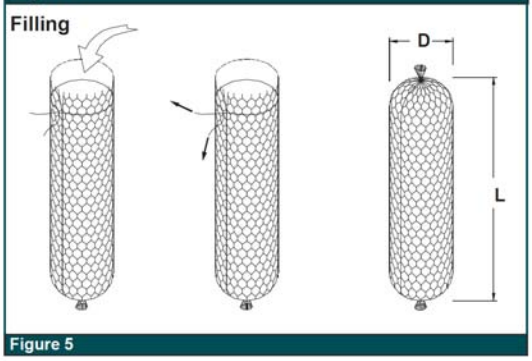

Figure 5

Table 4—Wire tolerances and coating

Wire diameter in. (mm)	0.087 (2.20)	0.106 (2.70)	0.134 (3.4)
Wire tolerance (±) ø in. (mm)	0.004 (0.1)	0.004 (0.1)	0.004 (0.1)
Min Qty/ zinc $oz/ft^2/(g/m^2)$	0.70 (214)	0.80 (244)	0.85 (259)
Wrie + PVC Diameter in. (mm)	0.127 (3.20)	1.46 (3.70)	0.174 (4.40)

Quantity Request

When requesting a quotation, please specify:

- Number of units,
- size of units (length x diameter, see Table1),
- type of mesh,
- type of coating.

EXAMPLE: No. 100 sack gabions 9 ft x 2 ft (2.7 m x 0.6 m), Mesh type 6x8, Wire diam. 0.087 in. (2.2 mm) lacing wire - galvanized and PVC coated.

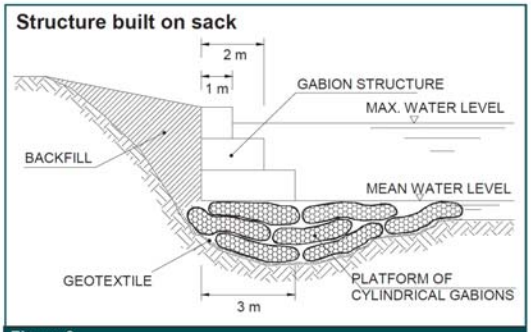

Figure 6

Figure 7