MACCAFERRI

TECHNICAL DATA SHEET

Rev: 01, Issue Date 08.01.2005

American Units

SACK GABIONS
GALVANIZED

Product Description

Sack gabions are cylindrical baskets made of 8x10 or 6x8 type double twisted steel woven wire mesh, as per ASTM A975-97 (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

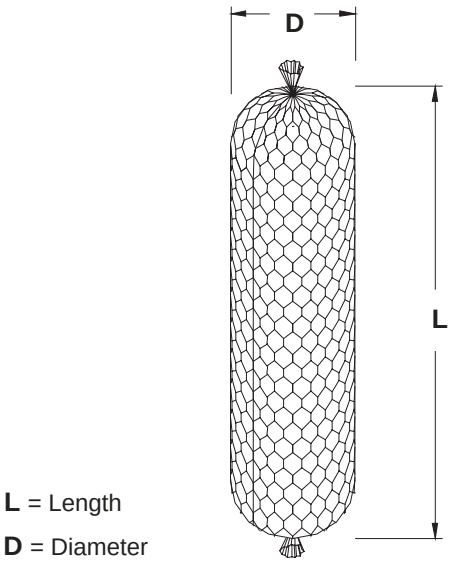
All tests on wire must be performed prior to manufacturing the mesh. All wire should comply with ASTM A975-97, style 1 coating and galvanized. Wire used for the manufacture of Sack Gabions and lacing wire, shall have a maximum tensile strength of 75,000 psi (515 MPa) as per ASTM A641/A641M-03 soft temper steel.

Woven Wire Mesh Type 8x10 and 6x8

The mesh and wire characteristics shall be in accordance with ASTM A975-97 Table 1, for Mesh type 8x10, the nominal mesh opening is D = 3.25 in. (83 mm) and for type 6x8, D = 2.5 in. (64 mm) as per Fig. 2.

The minimum mesh properties for strength and flexibility should be in accordance with the following:

- *Mesh Tensile Strength* shall be 3500 lb/ft (51.1 kN/m) and 2300 lb/ft (33.6 kN/m) for mesh type 6x8 minimum when tested in accordance with ASTM A975-97 section 13.1.1.
- *Punch Test* resistance shall be a minimum of 6000 lb (26.7 kN) and 4000 lb (17.8 kN) for mesh type 6x8 when tested in compliance with ASTM A975-97 section 13.1.4 .



L = Length

D = Diameter

Figure 1

The tolerance on the opening of mesh 'D' being the distance between the axis of two consecutive twists, is according to ASTM A975-97

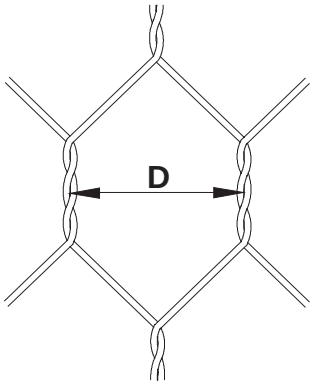


Figure 2

Figure 3—Example of Sack gabion

Figure 4—Example of Sack gabion

MACCAFERRI

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 yd³ (m³)
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/Zinc	2.5 (64)	±10%	0.087 (2.2)
8x10/Zinc	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)	0.120 (3.05)	0.153 (3.9)

Table 4—Wire tolerances and coating

Wire diameter	in. (mm)	0.087 (2.20)	0.106 (2.70)	0.120 (3.05)	0.153 (3.90)
Wire tolerance (±) ø in. (mm)		0.004 (0.1)	0.004 (0.1)	0.004 (0.1)	0.004 (0.1)
Min Qty/ zinc	oz/ft²/(g/m²)	0.70 (214)	0.80 (244)	0.85 (259)	0.90 (275)

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 8x10, Wire diam. 0.087 in. (2.2 mm) lacing wire - galvanized.

Lacing Wire

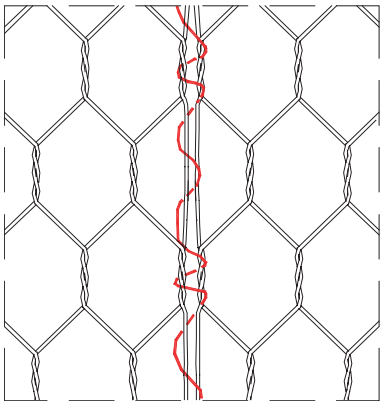


Figure 5

Structure built on sack

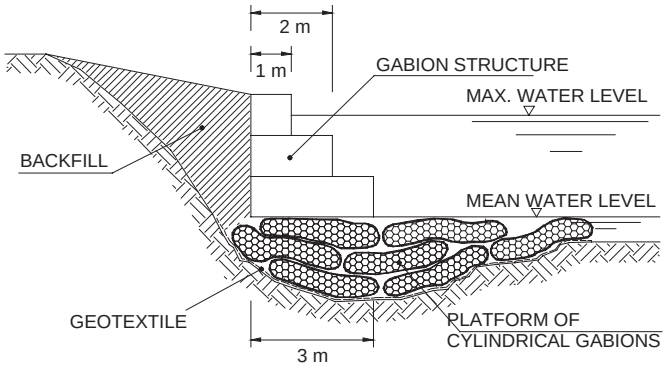


Figure 7

Filling

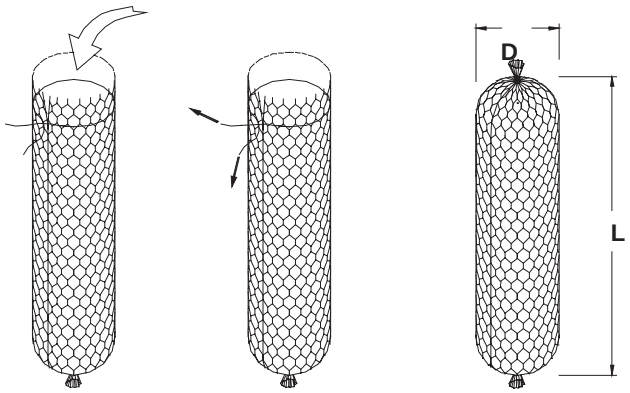


Figure 6

Figure 8

10303 Governor Lane Boulevard
Williamsport, MD 21795-3116
Tel: 301-223-6910
Fax: 301-223-6134

MACCAFERRI INC.

email: hdqtrs@maccaferri-usa.com
website: www.maccaferri.com

3650 Seaport Boulevard
West Sacramento, CA 95691-3400
Tel: 916-371-5805
Fax: 916-371-0764