

RENO MATTRESSES®



Reno Mattress®

Reno mattresses® are manufactured to SANS 1580 from hexagonal woven steel wire Mesh Type 60, commonly referred to as double twist wire mesh.

The steel wire used during the manufacture of the mattress is 2.2mm diameter to SANS 675 and is heavily zinc or zinc alloy (Galvan Zn 95Al5) coated, Class A as per SANS 1580 and has a tensile strength between 350-575N/mm². If required, a Polymer coating is extruded over the galvanised wire to provide added protection for use in aggressive environments where corrosion is present. The two types of Polymer coatings available are, PVC coating to SANS 1580 which is available in grey or tan and has a nominal thickness of 0,5 mm and PA6 Nylon coating to EN 10245-5 which comes in black and has a nominal thickness of 0,4mm.

In order to reinforce the structure, all mesh panel edges are selvaged with a wire which is a greater diameter than the mesh wire, namely a 2.7mm selvedge wire for a 2.2mm wire mesh. Reno mattresses are partitioned into cells by means of diaphragms positioned at approximately 1m centers. Dimensions and sizes of Reno mattresses® are shown in Table 2.

For more information on the wire and coatings and the mesh see TDS:

ZAF-TDS-Wire & Coatings-Eng-Rev00
ZAF-TDS-Mesh-Eng-Rev00

Filling

Reno mattresses® should be filled with rock ranging between 75 mm and 150 mm. The range in sizes may allow for a variation of 5% oversize and / or 5% undersize rock, provided it is not placed at the exposed surface. In all cases, oversize rock shall not be larger than 200 mm and the undersize rock shall not be smaller than 50 mm. Rocks shall be hard, angular to round, durable and of such quality that they shall not disintegrate on exposure to water or weathering during the life of the structure. Care should be taken when placing the stone to ensure that the Polymer coating on the Reno mattress is not damaged. All visible faces should be carefully hand-packed for appearance purposes.

Lacing

The diameter of the wire for the lacing of the mattresses as shown in Fig 3B is 2.2mm for the 2.2mm wire mesh.

In place of lacing wire, lacing operations can be made by using a Spenax tool (Figure 4B) available from our offices together with stainless steel rings (Figure 3A) having the following specifications:

- diameter: 3mm
- tensile strength: 156-178 kg/mm²

Spacing of the rings or loops must not exceed that shown in Figure 3B.

For further information on the installation of mattresses please refer to SANS 1200DK and the Maccaferri [Installation Guidelines](#) for mattresses namely:

Installation Sheet: ZAF-IS-Reno Mat: Eng. Rev.07 July 2012
Cartoon Installation Gabions and Mattresses

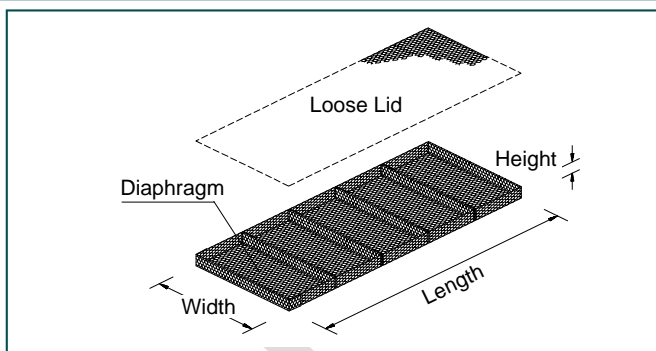


Figure 1

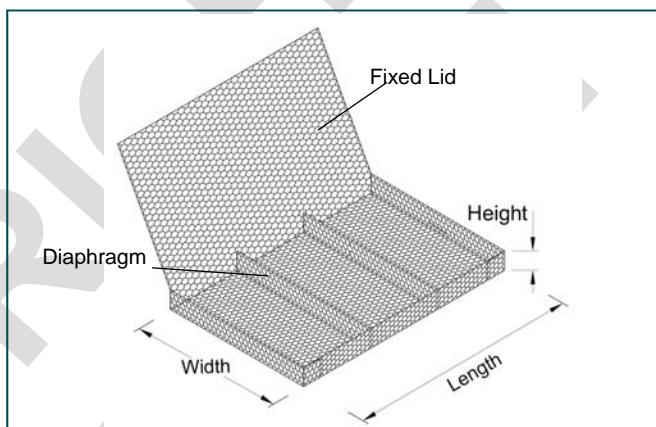


Figure 2

| STANDARD MESH TYPE 60 | |
|-----------------------|---|
| | <p>b is the distance between the axis of two consecutive twists according to SANS 1580. b = 60 Tolerance -4 +10</p> |

Table 1

| STANDARD RENO MATTRESS SIZES | | |
|------------------------------|-----------|------------|
| Length (m) | Width (m) | Height (m) |
| 2,0* | 1,0 | 0,30 |
| 3,0* | 1,0 | 0,30 |
| 6,0 | 2,0 | 0,17 |
| 6,0 | 2,0 | 0,23 |
| 6,0 | 2,0 | 0,30 |

Tolerances : Height, Width: ±5%; Length: ±5%
All sizes and dimensions are nominal.
* Lids pre-attached.

Table 2

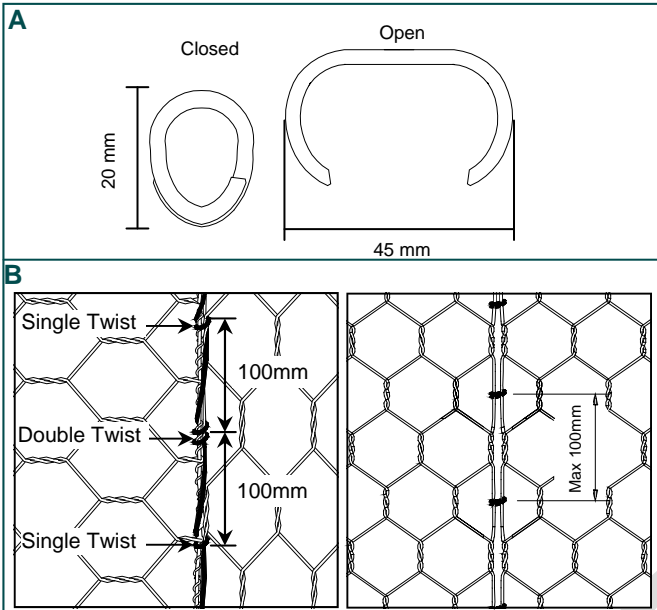


Figure 3

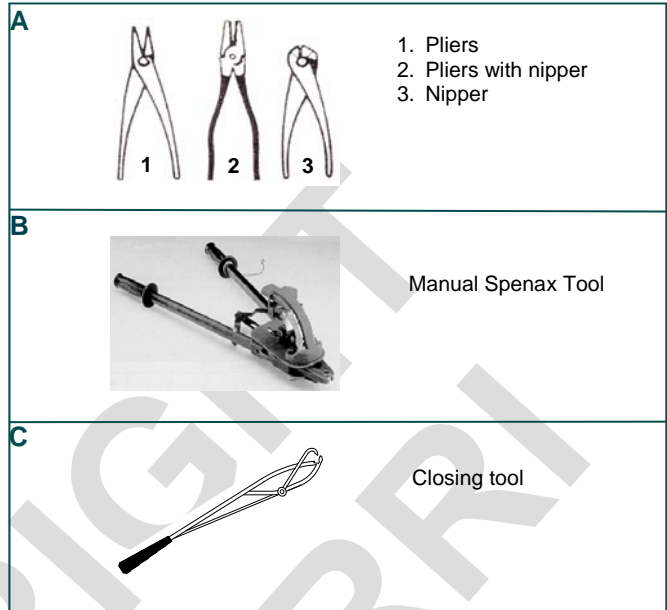


Figure 4



Figure 5

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