

Professional  
G a b i o n  
Manufacturer

# NOVA

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## Hexagonal Gabion Products





Founded in 2014, Hebei Nova Metal Wire Mesh Products Co., Ltd has been a professional manufacturer of gabion products in China. We have 10 sets of gabion woving machine and the production ability can reach 30 thousand square meters of gabion mesh per day.

Our gabion products have passed the test of SGS according to test method of both ASTM 975 and EN 10223 standard. Our gabion products were exported to many different countries around the world in middle east, Asia, Europe and America.

Think ahead of customers, help customers to succeed, we wish to establish long-term win-win partnership with both domestic and foreign customers. The entire team at nova metal wire mesh is dedicated to provide excellent service, qualified products and competitive pricing. Nova metal wire mesh is happy to be of service to you at any time.



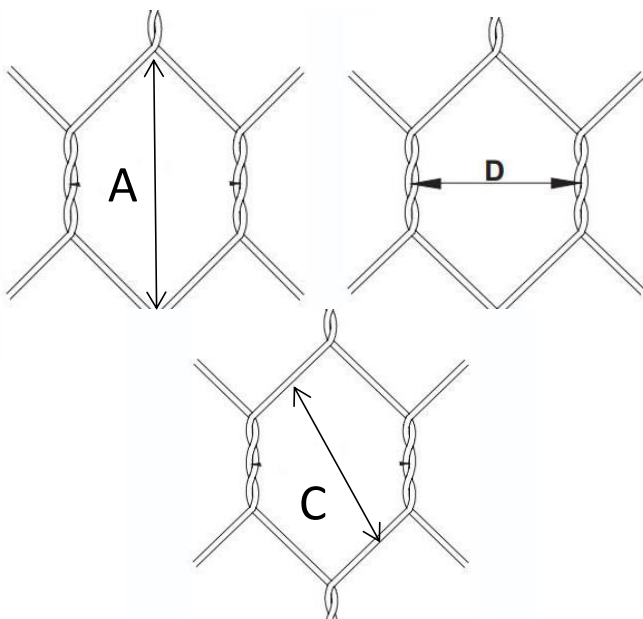


# Gabion

A gabion is a cage, cylinder, or box filled with rocks, concrete, or sometimes sand and soil for use in civil engineering, road building, military applications and landscaping. For erosion control, caged riprap is used. For dams or in foundation construction, cylindrical metal structures are used.

Gabion is woven of hexagonal shaped, double twisted steel wire - with zinc galvanization or PVC coating.

It is filled with stones at the project site to form flexible, permeable, and monolithic structure which acts to slow down water flow in drainage ditches or prohibit storm water runoff channels.



D (mm)	A (mm)	C (mm)
6	8	6
7	9	6.5
8	10	8
9	11	8.5
10	12	9.5
11	13	10
12	15	11
14	16	12
16	18	13
18	21	15
22	25	17.5





As per ASTM A975, gabion shall be manufactured with an 8 by 10 mesh type having a nominal mesh opening of 83 by 114 mm (3.25 by 4.5 in.).

Dimensions are measured at right angles to the center axis of the opening ( D = 83 mm) and parallel to the twist along the same axis. Tolerance: +/- 10 %.

Also there are other aperture sizes manufactured in our factory.

Characteristics	Gabion Box		Revet Mattresses	
	Metallic Coated	*PVC Coated	Metallic Coated	*PVC Coated
<b>Mesh Type</b>	8x10		6x8	
<b>Mesh Opening</b>	83 by 114 mm (3.25 by 4.5 in.)		64 by 83 mm (2.5 by 3.25 in.)	
<b>Mesh wire</b>	3.05 mm (0.120 in.)	*2.7 mm (0.106 in.)	2.2 mm (0.087 in.)	*2.2 mm (0.087 in.)
<b>Selvedge wire</b>	3.8 mm (0.150 in.)	*3.4 mm (0.134 in.)	2.7 mm (0.105 in.)	*2.7 mm (0.105 in.)
<b>Lacing wire</b>	2.2 mm (0.087 in.)	*2.2 mm (0.087 in.)	2.2 mm (0.087 in.)	*2.2 mm (0.087 in.)
<b>Fasteners</b>	3.0 mm (0.118 in.)	*3.0 mm (0.118 in.)	3.0 mm (0.118 in.)	*3.0 mm (0.118 in.)
<b>PVC coating thickness (Nominal)</b>	/	0.50 mm (0.02 in.)	/	0.50 mm (0.02 in.)
<b>PVC coating thickness (Minimum)</b>	/	0.38 mm (0.015 in.)	/	0.38 mm (0.015 in.)



## 1. Tensile Strength of wire

Regularly the material for gabion is low carbon steel wire (mild steel). Wire tensile strength is correspondingly 350-550KN/m<sup>2</sup>.

Gabion netting tensile strength is 50KN/M.

**TABLE 5 Tensile Strength for Temper Designation (SI Units)**

Wire Diameter, mm	MPa		
	Soft <sup>A</sup>	Medium <sup>A</sup>	Hard <sup>A</sup>
0.20 to under 2.00	515 max	485 to 690	620 to 825
2.00 to under 2.50	515 max	485 to 655	585 to 795
2.50 to under 4.70	485 max	450 to 620	550 to 760
4.70 and over	485 max	415 to 585	515 to 715



## 2. Surface treatment of wire

Surface Finishing is very important for Gabion. As it matters directly with corrosion resistance of Gabion, especially when environmental condition is severe (such as in saltwater).

- Type 1 - Zn Coating, class 3 (conforming to ASTM 641/ 641M)
- Type 2 - (Zn-5AL-MM) coating (Zn 5 % Aluminum & mischmetal alloy) which is called Galfan (Zn-10Al-MM wire is also popular).
- Type 3 - Mesh wire /lacing wire /stiffeners is Zn coated / or Galfan, plus PVC.coating.
- Type 4 - Aluminum coating conforming to ASTM A809.

\* Type 1/2/3 are the most regular types.

\* Corrosion resistance comparison: Zn-10AL-MM > Zn-5AL-MM > Zn coating

# NOVA Gabion Mesh

## Typical gabion sizes

Typical Gabion Sizes (SI Units)				
Length, m	Width, m	Height, m	Number of Cells, each	Volume, m3
2	1	1	2	2
3	1	1	3	3
4	1	1	4	4
2	1	0.5	2	1
3	1	0.5	3	1.5
4	1	0.5	4	2
2	1	0.3	2	0.6
3	1	0.3	3	0.9
4	1	0.3	4	1.2

Typical Gabion Sizes (Inch-Pound Units)				
Length, ft	Width, ft	Height, ft	Number of Cells, each	Volume, yd3
6	3	3	2	2
9	3	3	3	3
12	3	3	4	4
6	3	1.5	2	1
9	3	1.5	3	1.5
12	3	1.5	4	2
6	3	1	2	0.67
9	3	1	3	1
12	3	1	4	1.33

Tolerance (prior to filling) - For length & width & height: within +/-5 %

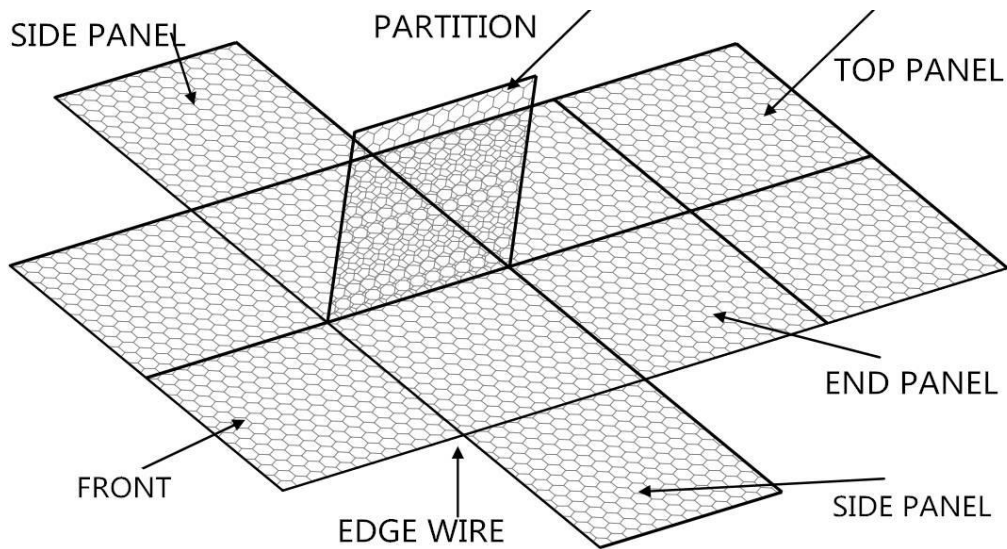
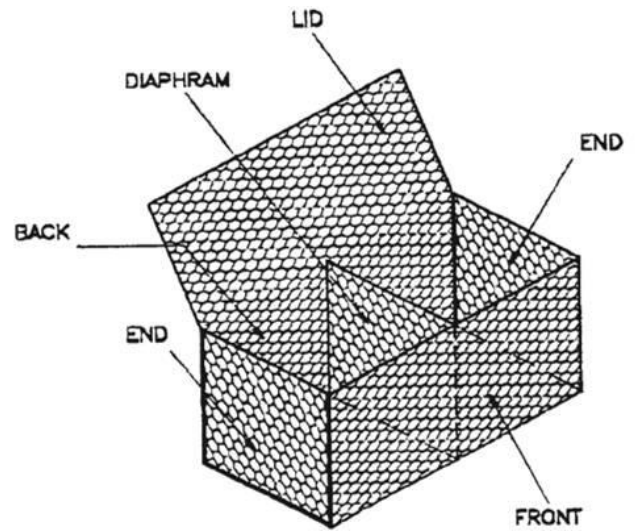


# Gabion Basket / Box

Gabion box is made of woven hexagonal shaped, double twisted steel wire mesh - with zinc galvanization or PVC coating.

It is filled with stones at the project site to form flexible, permeable, and monolithic structure which acts to slow down water flow in drainage ditches or prohibit storm water runoff channels.

Also it can be used along high way / railway to prevent rock falling down, or as retaining walls.



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