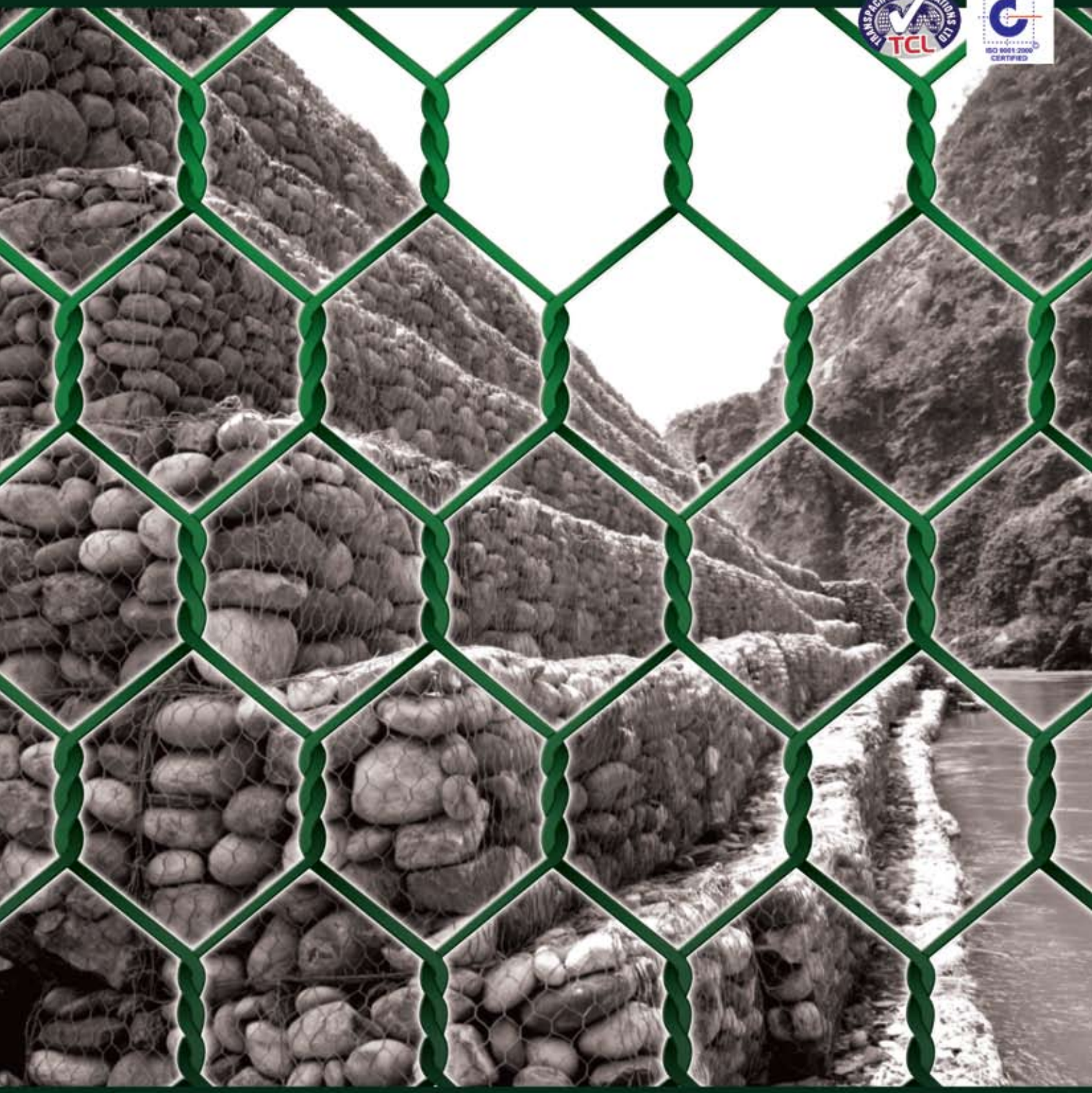
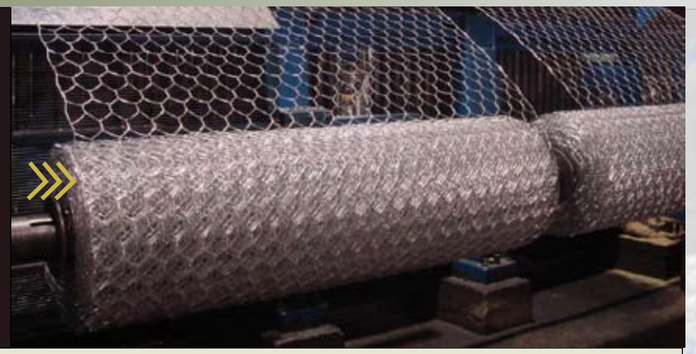
Saudagar Mal Mamman Lal Pvt. Ltd.

An ISO 9001:2008 Company



Our Planned Progress towards quality Product

COMPANY PROFILE



SAUDAGAR MAL MAMMAN LAL was established in the year 1885 as a trading and manufacturing company for all kinds of wire and hardware products mainly:-

- Woven wire mesh.
- Chain Link Fencing & Accessories.
- Wire netting, in galvanized & S.S.Wire.

In the year 1987 to further the vision of the organization, a new company was incorporated in the name of SAUDAGAR MAL MAMMAN LAL PVT. LTD. to develop and incorporate new product range with efficient equipment to produce material of international standards. Today 'SAUDAGAR' is a pioneer manufacturer of wire products in India.

Mainly in:-

- GABION BOXES.
- GABION MATTRESSES.
- ROCK SHIELD NETTING.
- SACK GABION.

The quality of materials withstands rigid international standards, which are certified by laboratory tests carried out on our products at various occasions. The products are manufactured in a production unit equipped with the latest plant and machinery from all over the world. The product mix is manufactured under the supervision & guidance of well trained and qualified engineers to ensure that the end products quality is as per customer specifications.

Saudagar's production certified internal management and technical assistance are in the compliance with the ISO 9001:2008 and is a considered a viable alternative to costly import.


TRANSPACIFIC CERTIFICATIONS LIMITED

Certificate of Registration

This is to certify that

Quality Management System

of

SAUDAGAR MAL MAMMAN LAL PVT. LTD.

complies with the requirements of

ISO 9001:2008

Development, Manufacturing and Supply of Woven Wire Mesh, Hexagonal Wire Mesh Gabion Box Chain Link Fence, Crimped Wire Mesh and P.V.C Coated G.I Wire.

ANZSIC Code: C 2769

Nov. 15, 2010 | Nov. 10, 2013 | 6389

Date of issue | Valid until | Certificate No.

Managing Director

TRANSPACIFIC CERTIFICATIONS LIMITED


INDIAN INSTITUTE OF TECHNOLOGY, DELHI
NEW DELHI-110016, INDIA


INDIAN INSTITUTE OF TECHNOLOGY, DELHI
NEW DELHI-110016, INDIA


JAIPRAKASH INDUSTRIES LIMITED

CERTIFICATE

WHAT ARE GABIONS

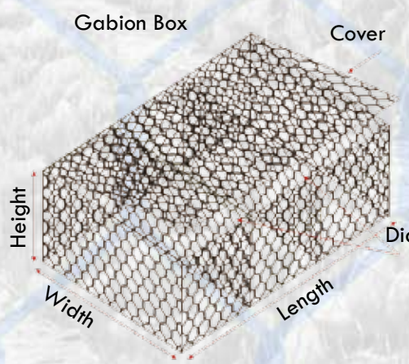
Gabions are steel wire cages that vary in sizes and are designed to abate the destructive force of erosion. Gabions are uniquely woven by twisting each pair of wires two and half times continuously providing the inherent strength and flexibility required for improving land resources.

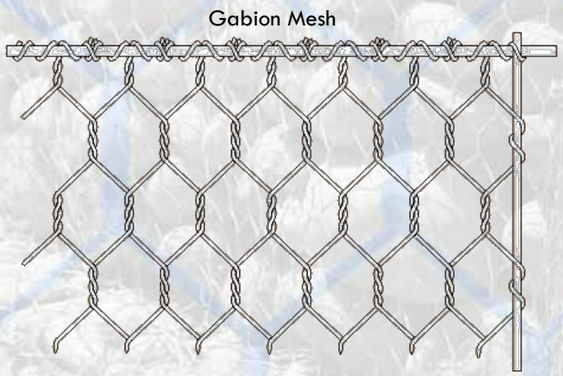
Gabion cages are designed to contain quarry run or river run stones available at the site of erection or from a nearby quarry. Cages are stacked to construct structures of great durability and flexibility. The structure is capable of carrying stress in biaxial tension.

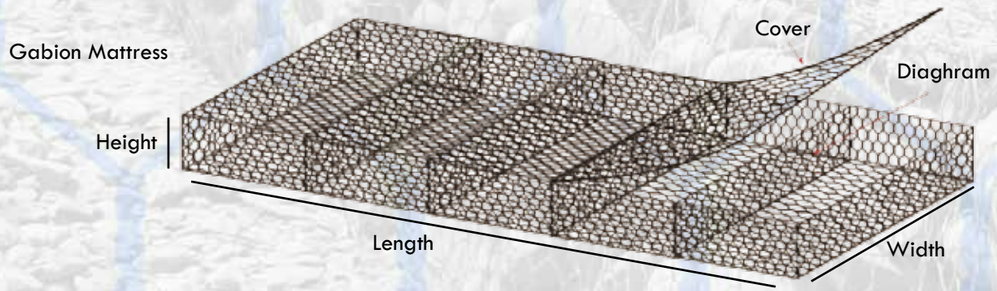
DIFFERENCE BETWEEN GABION AND MATTRESSES

GABIONS boxes and MATTRESSES consist of rectangular units, fabricated from a double twisted hexagonal mesh. Filled with stones, gabions become large, flexible and permeable elements from which a broad range of structures may be built. GABIONS and MATTRESSES are widely used for hydraulic and geo-technical control such as retaining walls, riverbank protections, weirs, channel linings etc.

GABIONS or MATTRESSES are divided into cells with diaphragms, whose function is to reinforce the structure. The MESH is reinforced an all edges with wires of a larger diameter to strengthen the gabions and facilitate the assembly and installation.





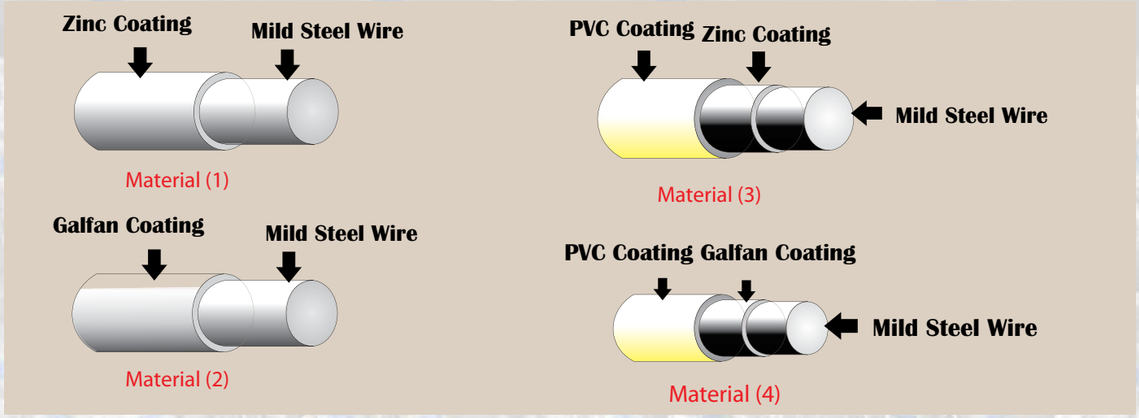


INTERNATIONAL STANDARDS

ASTM	975-97	Specification for Double Twisted Hexagonal Mesh Gabion and Gabion Mattresses
BS EN	10223:1998	Specification for Double Twisted Hexagonal Mesh Gabion and Gabion Mattresses

GABIONS SPECIFICATION

Gabion Boxes are steel wire cages designed to contain stones available at the site to abate destructive forces of erosion. They are made of hexagonal netting uniquely woven by twisting adjacent wires two by two, alternatively forming a twist to the right and to the left. The tight helical winding of two wires around each other measured as each revolution of the two wires over 180 ; the wire rotate only in one direction. In the place of manufacturing it should be manufactured in galvanized wire, PVC coated wire and Zn + Allu coated (GalfAn)



Available mesh sizes with wire diameter of gabion boxes and Mattresses:-

	NO OF TWIST	MESH SIZE	WIRE DIA	SELVEDGE WIRE	LACING WIRE
		MM	MM	MM	MM
1	DOUBLE / TRIPPLE	100 X 120	2.70	3.40	2.20
2	DOUBLE / TRIPPLE	100 X 120	3.00	4.00	2.20
3	DOUBLE / TRIPPLE	100 X 120	3.00	5.00	2.00
4	DOUBLE / TRIPPLE	100 X 120	3.20	3.90	2.20
5	DOUBLE / TRIPPLE	100 X 120	3.40	4.00	2.40
6	DOUBLE / TRIPPLE	100 X 120	3.80	5.00	2.00
5	DOUBLE	80 X 100	2.70	3.40	2.00
6	DOUBLE	80 X 100	3.00	4.00	2.00
7	DOUBLE	80 X 100	3.00	4.00	2.20
8	DOUBLE	80 X 100	3.00	5.00	2.00
9	DOUBLE	60 X 80	2.20	2.70	2.00
10	DOUBLE	60 X 80	2.20	3.00	2.00
11	DOUBLE	60 X 80	2.40	3.00	2.00
12	DOUBLE	60 X 80	2.70	3.00	2.20
13	DOUBLE	60 X 80	3.00	4.00	2.20
14	TRIPPLE	50 X 70	1.60	2.50	2.00
15	TRIPPLE	50 X 70	2.00	3.00	2.00
16	TRIPPLE	50 X 70	2.20	3.00	2.00
17	TRIPPLE	50 X 70	2.40	2.70	2.00
18	TRIPPLE	50 X 70	2.40	3.00	2.00

ADVANTAGES OF GABION STRUCTURES

Flexibility

Our products can tolerate different settlements without fracture. This property is very important when a structure is on unstable ground or in an area where scour from waves or currents can undermine it. Twisted hexagonal steel wire mesh structure tolerates against huge forces without breaking or cracking. It adapts itself to some degree of movement.

Strength

Our products are designed to withstand and absorb the forces generated by retained earth or flowing water. It can absorb the huge amount of energy and very strong under tension generated by the nature.

Permeability

Our products combine drainage and retention functions becoming ideal structures for slope stabilization. The hexagonal wire mesh structure filled with stones provide an effective permeability throughout the structure, they are self-draining.

Durability

Our products efficiency increases instead of decreasing with age since further consolidation takes place as silt and soil collect in the voids and vegetation becomes established. Galvanized wire mesh has very long life. If the galvanized wire is coated with PVC, the life of structure gets longer & is better for hydraulic works.

Economy

Gabion Structures are very economical compared to the conventional structures especially when the stones to fill the structure are close to the work area. Low maintenance is required for the construction works (Life Time Economy)

Ecology

Gabion structure permits the growth of vegetation and maintains the existing environment.

APPLICATIONS OF GABION STRUCTURE

Gabions (from Italian Gabbione meaning “big cage”; from Italian Gabbia and Latin Cavea meaning “cage”) are cages, cylinders, or boxes filled with soil or sand that are used in civil engineering, road building, and military applications. For erosion control caged riprap (Bundle of stones) is used. For dams or foundation construction, cylindrical metal structures are used. In a military context, earth or sand-filled gabions are used to protect artillery crews from enemy fire.

Gabions used as landfill

Barriers at the rivers

Retaining Structure / Walls

Earth Control and Soil Erosion

Marine and sea wall protection

Protection of bridges through gabions

OTHER APPLICATION OF GABIONS:-

- Bridges and culvert protection.
- Lining of Steep Slopes or Slope Protection.

STRUCTURE ALONG OR ACROSS RIVER:-

ALONG	River Bank Protection.	River Front Development.	Flood Protection Walls.
ACROSS	Lining of Canals and Dams.	Drop Structure of weirs.	

ASSEMBLY OF GABION BOXES

STEP - 1

Unwrap the bundle & unfold the each flattend gabion box on the flat surface.

STEP - 2

Fold the sides & end panels to form rectangular box. Join top corners with selvedges starting from corner of each panel to ensure that all edges are in one level.

STEP - 3

Lacing to be done from top corners giving single loops and double loops alternatively and finally fasten the wire at bottom corner. Lacing can be done by hand or can be done by stapler type machine for lacing.

STEP - 4

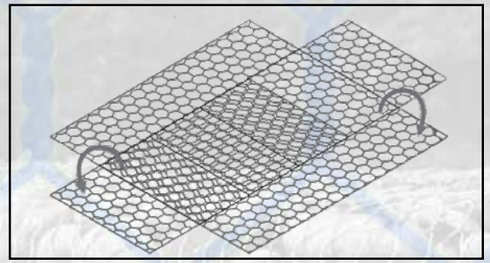
Diaphragms are attached to from & back panels.

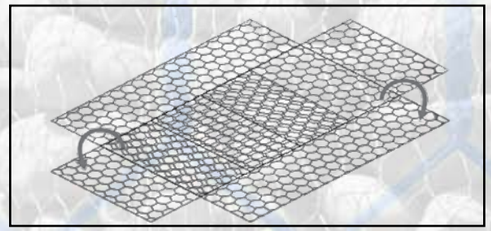
STEP - 5

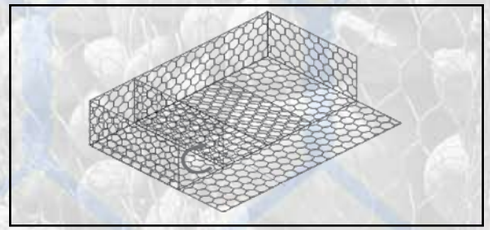
Diaphragms are attached

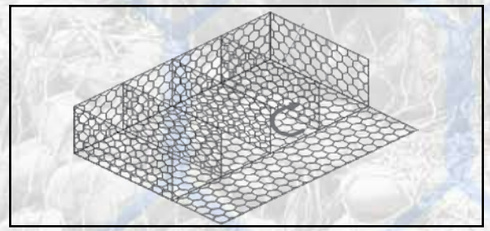
STEP - 6

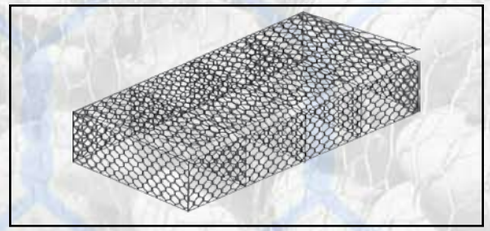
Fill gabions with boulders. Bigger size boulders are provided on sides & bottom. Smaller sized stones can be filled in central positions. Fill the gabions with tight packing to leave minimum voids in two or three layers specified. Top lid closed & laced from corner to corner.









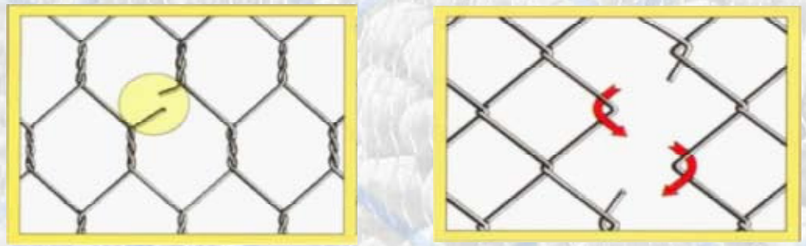


PERFORMANCE OF ROCK SHIELD NETTING

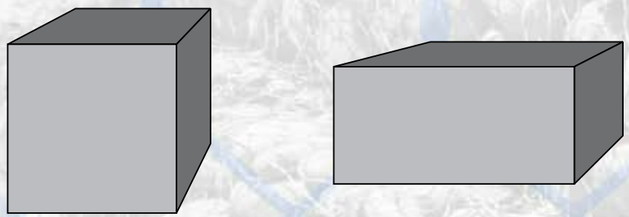
Rock Shield Netting is used as a drapery system to prevent rock fall and debris from falling in to roads, railways or where there is possibility of loss of property of life. It has very long service life and very strong resistance and also can meet with strict request of engineering structure.
Rock shield netting is good and economical substitute in comparison to the Chain Link Fencing and shall reduce the total cost incurred on this application in any project and at the same time achieve better strength.

Diagrammatic explanation of the advantages of rock shield netting over chain link fencing

1. MESH DOES NOT UNRAVEL WHEN ONE OR MORE WIRE FAILS.

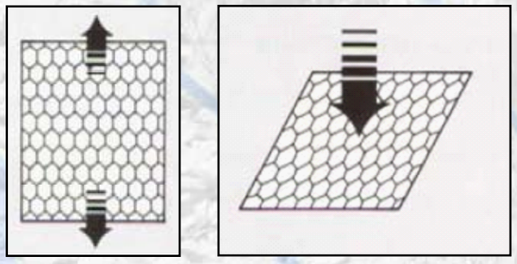


2. VOLUME OF MORTAR USED WILL BE LESS IN CASE OF ROCK SHIELD NETTING.



3. MAXIMUM CONTINUITY AT JOINTS WITH OUT THE NEED OF OVERLAPPING MESH PANELS.

4. HIGH TENSION AND PUNCHING STRESS RESISTANCE.



HOW TO STABILIZE SLOPE

Diagram showing various techniques adopted for Erection of Double Twisted / Hexagonal Wire Mesh for Shortcrete / Slope stabilization

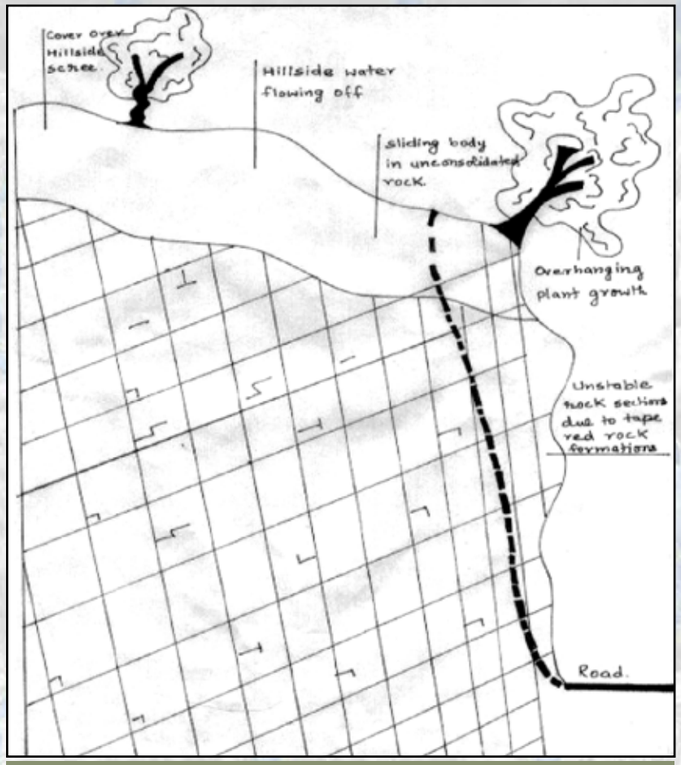
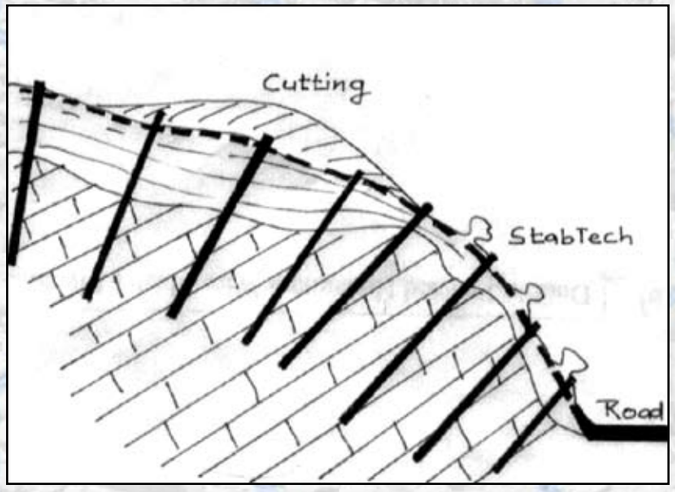
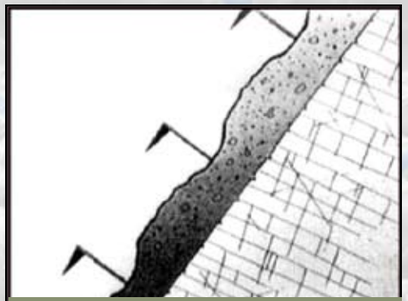
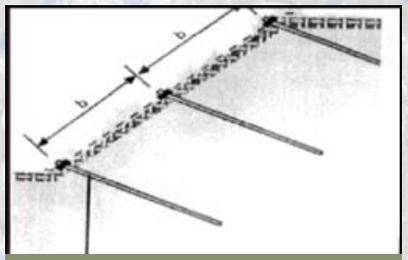


Diagram Shows How Hexagonal Wire Mesh is used to Stablize Slope

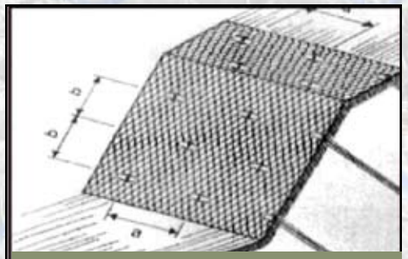




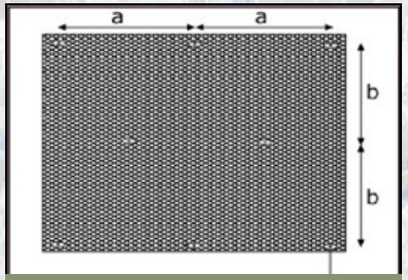
Side View



Top View

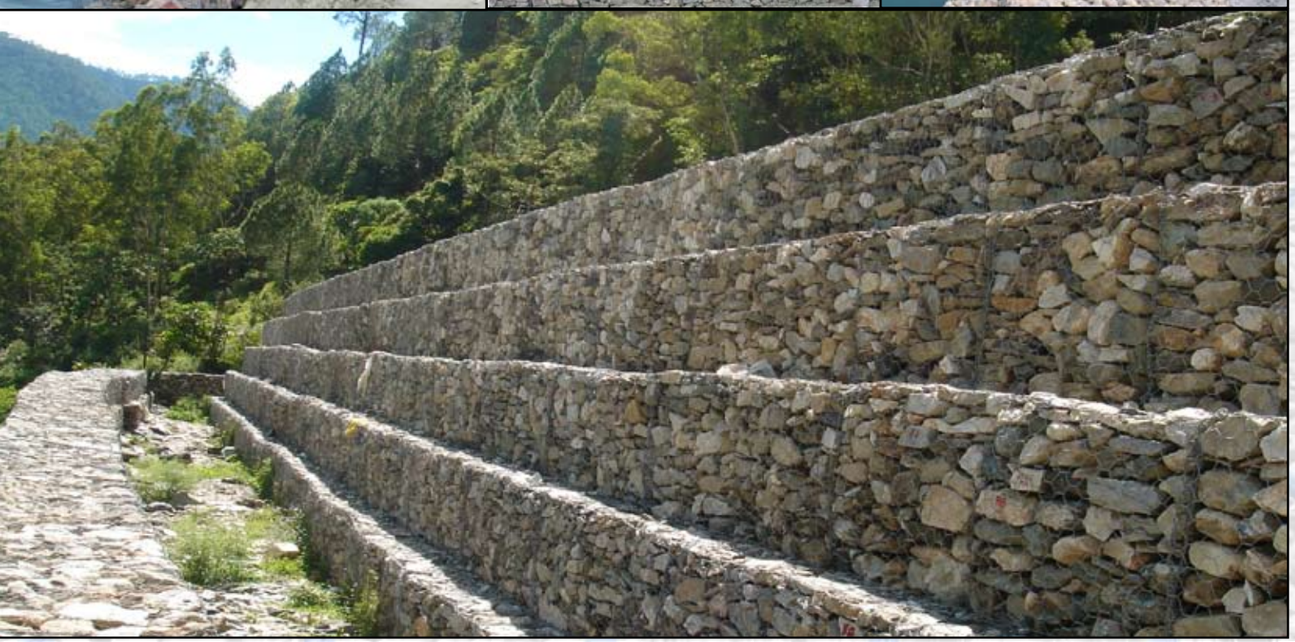


Side View



Top View

PROJECT SITES WHERE OUR PRODUCT HAS BEEN USED.



ROCK SHIELD NETTING ERECTION.

PROTECTION WALL AGAINST ROCK FALL

GABION RETAINING STRUCTURE AT TEHRI DAM (UTTRANCHAL)

Reg. Office : 4906, Hauz Qazi, Delhi - 110006 Tel.: 011- 23211512, 23217663| Fax : 011-23215083
Mktg. Office : F-17, Geetanjali Enclave, New Delhi - 110017 Tel.: 011-64702404 | Telefax : 011-26691740
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