## MANUFAB INDIA PVT. LTD. I.G.C PHASE 2 SAMBA J&K





## Manufab India Gabions

Gabion-Boxes
Gabion-Mattresses
Rockfall Protection Netting
Sack Gabions







Website: www.manufabindia.com E mail: info@manufabindia.com/jammuconsultants@gmail.com Mob: 0191-2467245 +9419141889/+91-9086757691 Address: I.G.C Phase 2 Samba J&K India.

## About us

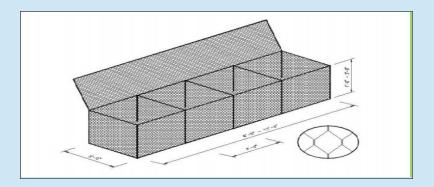
Manufab-India is ISO 9001:2015 certified company and specialized manufacturer of gabion baskets, gabion walls, gabion cages, gabion fencing and custom made hexagonal steel mesh system. All of our products are basing on strong and heavy galvanized mesh. Our wide products range is multi-purpose and used in building industry, fencing, garden design, street architecture and construction. We deliver standard and bespoke gabion baskets solution. With 20 employees and modern machinery . We are able to supply each sophisticated order and all our products comply to BIS,MORTH AND ASTM specifications.





## What are Gabions?

The term gabion refers to a modular containment system that enables rock, stone or other inert materials to be used as a construction material. The modules or cages as they are known, are formed of wire mesh fabric panels, jointed to form square, rectangular or trapezoidal shaped units. These units are part Pre-assembled in the factory to form a flat pack system. These flat pack units are then supplied to the customer and formed into the final shaped module on site with the necessary lacing wire, helicals and / or rings as required. Each module has to be connected to adjacent modules to form a monolithic structure. The types of mesh used, must be of a non ravelling type such as welded wire mesh or hexagonal woven wire mesh and provided with corrosion protection to suit the required exposure conditions. The gabions are normally machined filled in layers with the contractor picking the stone over by hand to reduce excessive voids. The exposed faces are also systematically hand packed to provide an appearance of a dry stone wall. Although some structures are only machine filled, this procedure is not normally recommended. For gabion structures to perform correctly the quality of installation is of paramount important.



Gabion – Box

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## Our products

- 1. Gabions and River/Reno Mattresses are made from hexagonal woven steel wire mesh material
- 2. Rockfall Protection Netting
- 3. Sack gabions

### Our services

- 1. Site advice and installation assistance
- 5. Technical presentations and knowhow

2. Gabion structure design

6. Practical on site Gabion training

3. Price estimates

7. Experienced installations

4. Gabion Installations

## **Advantages**



(River Training)

(Flood control)

(Soil erosion and road protection)

## **Functions**



### Drainage and erosion control

Gabions and Reno Mattresses structures can be designed to control the movement of water within an area and restrict the movement of soil from the site or localised area.





#### **Environmental enhancement**

Gabions and Reno Mattresses structures are regularly designed to enhance the environment in which they exist. Such structures are either vegetated or designed to encourage entrapment of sediment and seed, contributing to the health and diversity of the natural environment.



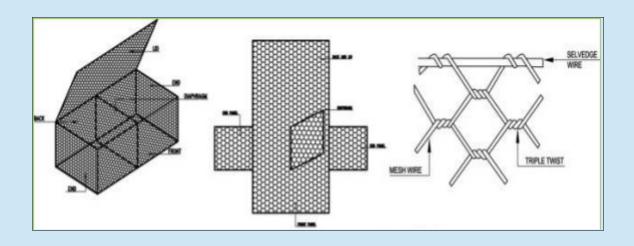


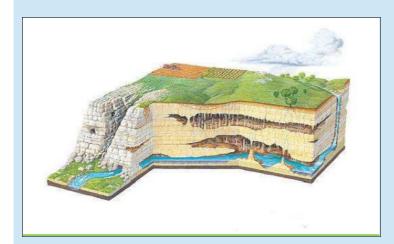
#### **Energy dissipation**

Gabions and Reno Mattresses structures can be designed to dissipate the energy of the water flowing through a specific area.



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## Manufab India

I.G.C Phase II Samba Jammu & Kashmir India

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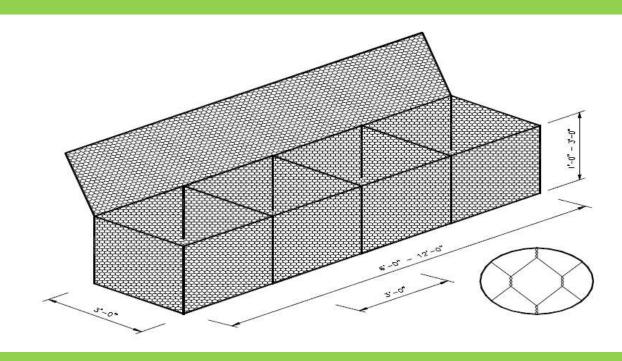
Pre-assembled in the factory to form a flat pack system.

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#### Gabion - Box

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    - 3. Sack Gabions

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    - 4. Gabion Installations
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  - 6. Practical on site Gabion training
    - 7. Experienced installations



# Minimum Strength Requirements For Gabions:

Test Description	Galvanized/Galfan Gabion	s PVC Coated Gabions
Tensile strength of mesh	3500 lbs/ft	2900 lbs/ft
parallel to wire twist:		
Tensile strength of mesh	1800 lbs/ft	1400 lbs/ft
perpendicular to wire twist:		
Connection to selvedge:	1400 lbs/ft	1200 lbs/ft
Panel to panel:	1400 lbs/ft	1200 lbs/ft
Punch strength of mesh:	6000 lbs/ft	5300 lbs/ft



River willow woven Gabions were first used by soldiers in previous centuries for fortification of their barracks and cylindrical Gabions(with rocks) were rolled down the slope at the approaching enemy during war times. The modern square/rectangular Gabion is now used predominently in the Civil Engineering and Mining Industries for retaining walls and for river structures to reduce water flows and prevent soil erosion. We offer further knowledge and expertise related to these products and their many solutions for private clients, civil engineering contractors and consultants alike.

We offer you up-to-date information in this exciting field, presented in a simple yet effective way, enhancing your project purchase and design experience. We have years of experience in the design and supply of Gabions and River Mattress products, installations and solutions in the marketplace. We assure you of our best intensions at all times and look forward to hearing from you.



	(m)	Mesh Opening (cm)	Mesh Wire (mm)	Selvedge Wire (mm)	Wire (mm)	Square meter	Wire Material	Plastics Coated	Standard
			1.80-2.8	2.5-3.2		***	Electro-galvanized		
Dephragm		3.5	2.00-3.05	2.7-3.8			Hot dip galvanized		A975-11
Hughi	2x1x0.5	10x12	2.00-3.20	2.7-4.0	2.2-3.0	7.5	High galvanized	PVC	A641/A641M
<b>人</b>		33	2.00-3.80	2.7-4.2		7.5	5% zinc aluminum alloy	or PE	A856/A856M
Width		8	8 9	8		88	10% zinc-aluminum alloy		BS EN 10223-2 BIS 16014:2012
100	7		1.80-2.8	2.5-3.2	19	19	Electro-galvanized	3	2
Congressors See		18	2.00-3.05	2.7-3.8			Hot dip galvanized		1075.11
Test (		**	2.00-3.20	2.7-4.0	2.2-3.0		High galvanized	PVC	A975-11 A641/A641M
	2x1x1	10x12	2.00-3.80	2.7-4.2	İ	11	5% zinc aluminum alloy	or	A856/A856M
		(3)	8:	-	19	88	10% zinc-aluminum alloy	PE	BS EN 10223-2 BIS 16014:2012
1		85			- 2	33	The state of the s		
	8	8	1.00.0.0	0500		*			
		10x12	1.80-2.8	2.5-3.2	2.2-3.0		Electro-galvanized  Hot dip galvanized	PVC or	A975-11 A641/A641M A856/A856M BS EN 10223-2 BIS 16014:2012
$\langle - \rangle$			2.00-3.05	2.7-3.8					
Moder	3x1x1		2.00-3.20	2.7-4.0		16	High galvanized	PE	
			2.00-3.80	2.7-4.2		200	5% zinc aluminum alloy		
			2.7-4.0	3.0-5.0			10% zinc-aluminum alloy		
		2	1.80-2.8	2.5-3.2		18	Electro-galvanized	3	
			2.00-3.05	2.7-3.8			Hot dip galvanized		
		10x12	2.00-3.20	2.7-4.0	2.2-3.0		High galvanized		A975-11
	4x1x1	95	2.00-3.80	2.7-4.2		21	5% zinc aluminum alloy	PVC or PE	A641/A641M
8 1 1/2	i Jesse Gradelli	99	2.7-4.0	3.0-5.0			10% zinc-aluminum alloy		A856/A856M BS EN 10223-2
Service CO		95	12 92 12 12 12 12 12 12 12 12 12 12 12 12 12		- 0				BIS 16014:2012
10,000 2		6	1.80-2.8	2.5-3.2	8		Electro-galvanized	2	
		9	2.00-3.05	2.7-3.8	-		Hot dip galvanized		******
		10x12	2.00-3.20	2.7-4.0	2.2-3.0		High galvanized		A975-11 A641/A641M
		2.200.000.0000	2.00-3.80	2.7-4.2			5% zinc aluminum alloy	D) 10 DE	A856/A856M
	1.5x1x1			)		8	10% zinc-aluminum alloy	PVC or PE	BS EN 10223-2
		73	3		- 0		1111		BIS 16014:2012
The same of the sa			9						

Tolerances: Height, Width: ±5%; Length: ±10%.other Size: 3x1x0.5m; 4x1x0.5m; 2x1x0.3m etc. special specifications can be customized.

Gabion Mattresses	LxWxH (m)	Mesh Opening (cm)	Mesh Wire (mm)	Selvedge Wire (mm)	Lacing Wire (mm)	Square meter	Wire Material	Plastics Coated	Standard
		8	1.80-2.8	2.5-3.2			Electro-galvanized		
			2.00-3.05	2.7-3.8	2.2		Hot dip galvanized		A975-11
		10x12	2.00-3.20	2.7-4.0			High galvanized		A975-11 A641/A641M
The state of the s	4x2x0.3					21.4	5% zinc aluminum alloy 10% zinc-aluminum alloy		A856/A856M
			*			1		У	BS EN 10223-2
8		× ×	91						BIS 16014:2012











AMERICAN STATE OF THE PARTY OF	6x2x0.3	10x12	1.80-2.8 2.00-3.05 2.00-3.20	2.5-3.2 2.7-3.8 2.7-4.0	2.2	31.8	Electro-galvanized Hot dip galvanized High galvanized 5% zinc aluminum alloy		A856/A856M
MANAGEMENT AND STORY						66 57	10% zinc-aluminum alloy	2	BS EN 10223-2 BIS 16014:2012

 $\label{tolerances: Height, Width: \pm 5\%; Length: \pm 10\%. other Size: 4x2x0.17m; 6x2x0.17m; 4x2x0.23m; 6x2x0.23m etc. \\ special specifications can be customized. \\$ 

Reinforced Gabions	LxWxH (m)	Mesh Opening (cm)	Mesh Wire (mm)	Selvedge Wire (mm)	Lacing Wire (mm)	Square meter	Wire Material	Plastics Coated	Standard
Reinforred gabion unit			1.80-2.8	2.5-3.2			Electro-galvanized		
	10x12 2x4x1		2.00-3.05 2.7-3.8	7	Hot dip galvanized		a satisfacea a sacra		
		10x12	2.00-3.20	2.7-4.0	2.2-2.7.	15	High galvanized 5% zinc aluminum alloy 10% zinc-aluminum alloy		A975-11 A641/A641M A856/A856M BS EN 10223-2
			2.00-3.80	2.7-4.2					
			2.00-3.80	3.0-4.5					
		27							BIS 18014;2012
		18 20					32	ç	j

### Tolerances: Height, Width: ±5%; Length: ±10%

Sack Gabion	LxDiameter (m)	Mesh Opening (cm)	Mesh Wire (mm)	Selvedge Wire (mm)	Lacing Wire (mm)	Capacit y(cm <sup>3)</sup>	Wire Material	Plastics Coated	Standard
	1.8x0.6	6x8	1.80-2.8	2.5-3.2		0.54	Electro-galvanized	PVC or PE	BIS 16014:2012
	1.8x0.9		2.00-3.05	2.7-3.8		1.2	Hot dip galvanized		19992
1	2x0.65	10x12	2.00-3.20	2.7-4.0	0000	0.66	High galvanized	DVO DE	A975-11 A641/A641M
	2x0.95		2.00-3.80	2.7-4.2	2.2-3.0	5% zinc aluminum alloy	PVC or PE	A856/A856M BS EN 10223-2	
	2.7x0.6					0.8	10% zinc-aluminum allo	Ý	BIS 16014:2012
	2.7x0.9			8		1.8			
Rockfall Netting	W x L (m)	Mesh Opening (cm)	Mesh Wire (mm)	Selvedge Wire (mm)	Lacing Wire (mm)	Square meter	Wire Material	Plastics Coated	Standard
	1 x 50	3	1.80-2.8	2.5-3.2		50	Electro-galvanized	A975-11 A641/A641M	
6	2 x 40		2.00-3.05	2.7-3.8		80	Hot dip galvanized		A641/A641M
	3 x 35	10x12	2.00-3.20	2.7-4.0	2.2-3.0	105	High galvanized	PVC or PE	A856/A856M BS EN 10223-2
	4 x 30		2.00-3.80	2.7-4.2		120	5% zinc aluminum alloy		BIS 16014:2012
	4x30		3.0-4.0	4.0-4.8		120	10% zinc-aluminum alloy		2.44/3.0000000000000000000000000000000000



## Advantages of Gabions

Proven Durability	Our <b>Gabions and Reno Mattresses</b> are supported with well documented research and certifications regarding the durability of the structures. The use of more advanced, durable wire and coating types provide reassurance that when selected appropriately, a 120-year design life can be achieved.						
Design and Installation Support	Our <b>Gabions and Reno Mattresses</b> are supported by sophisticated design software and design assistance from our Geofabrics engineers. Conceptual drawings and pneumatic installation tools are also available to help ensure efficient and correct installation.						
Environmentally Friendly	Gabions and Reno Mattresses become part of the environment in which they are placed, promoting rapid growth of natural vegetation.						
Cost Effective	Gabions and Reno Mattresses compare favourably to traditional building materials and methods of construction, both with installed cost and whole-of-life costings.						
Aesthetically Appealing	Correct installation and the right detailing of rock will create an impressive, eye catching feature.						

Properties	Gabions	Reno' Mattresses		
Wire Diameter (mm)	2.7 (min)	2.0 (min)		
Nominal Mesh Size (mm)	120 x 100	120 x 100		
Selvedge Wire Diameter (mm)	3.4 (min)	2.4 (min)		
Binding Wire Diameter (mm)	2.2 (min)	2.2 (min)		
Galmac Coating (gsm)	275 (min)	245 (min)		
PVC Coating (mm)	ımm (min) Grey	ımm (min) Grey		
Rock Fill Size AS2758.4-2000	100mm (min) 250mm (max)	75mm (min) to 2/3 the thickness of the mattress, or 250mm, whichever is the lesser		



## **FUNCTIONS**



### Drainage and erosion control

Gabions and Reno Mattresses structures can be designed to control the movement of water within an area and restrict the movement of soil from the site or localised area.





### **Environmental enhancement**

Gabions and Reno Mattresses structures are regularly designed to enhance the environment in which they exist. Such structures are either vegetated or designed to encourage entrapment of sediment and seed, contributing to the health and diversity of the natural environment.



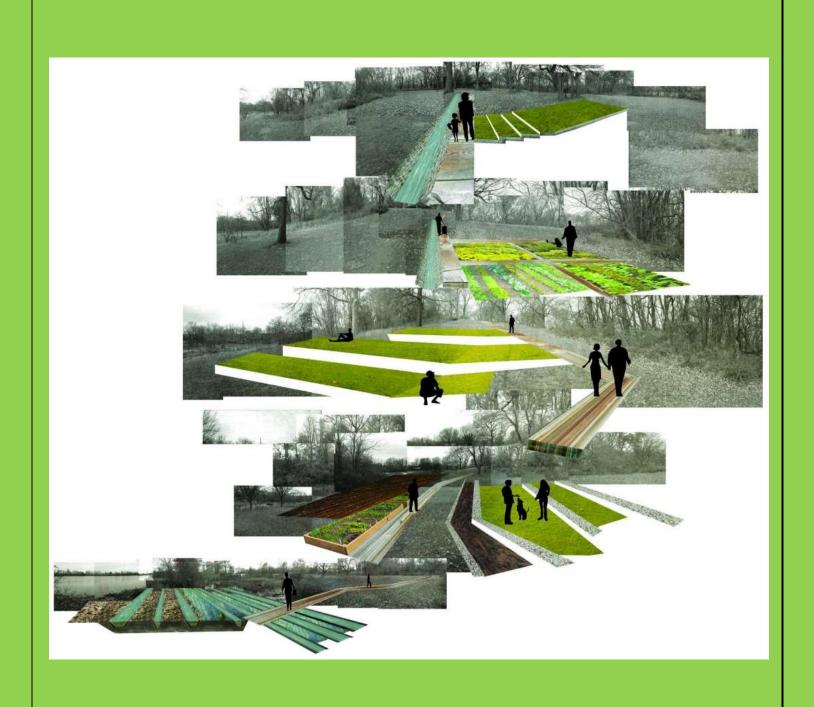


### **Energy dissipation**

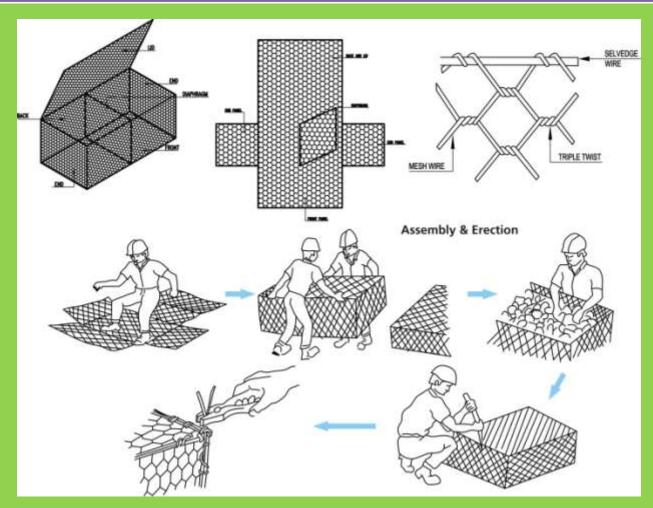
**Gabions and Reno** Mattresses structures can be designed to dissipate the energy of the water flowing through a specific area.



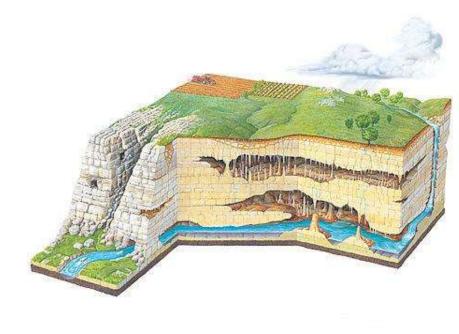




GABION-BOX WEIGHT CHART							
ZINC PLUS PVC COATED	WEIGHT OF BOX (KG)	ZINC COATED	WEIGHT OF BOX (KG)				
SIZE(1X1X1) IN MTRS	9.65	SIZE(1X1X1) IN MTRS	8.4				
SIZE(1.5X1X1) IN MTRS	13.2	SIZE(1.5X1X1) IN MTRS	11.4				
SIZE(2X1X1) IN MTRS	18	SIZE(2X1X1) IN MTRS	15.5				
SIZE(3X1X1) IN MTRS	25	SIZE(3X1X1) IN MTRS	22.5				
SIZE(4X1X1) IN MTRS	32.5	SIZE(4X1X1) IN MTRS	30				
SIZE(4.5X1X1) IN MTRS	36	SIZE(4.5X1X1) IN MTRS	32				
SIZE(6X1X1) IN MTRS	48	SIZE(6X1X1) IN MTRS	44				
SIZE(6X1.2X1.2) IN MTRS	54	SIZE(6X1.2X1.2) IN MTRS	50				
SIZE(3X1.2X1.2) IN MTRS	32	SIZE(3X1.2X1.2) IN MTRS	28				
SIZE(6X1.5X1.5) IN MTRS	73	SIZE(6X1.5X1.5) IN MTRS	66.15				
SIZE(3X1X0.5) IN MTRS	18.5	SIZE63(3X1X0.5) IN MTRS	16				
SIZE(6X1.5X0.5) IN MTRS	49	SIZE(6X1.5X0.5) IN MTRS	43				
SIZE(5X1.5X1.5) IN MTRS	63	SIZE(5X1.5X1.5) IN MTRS	58				
SIZE(4X1.5X1.5) IN MTRS	53	SIZE(4X1.5X1.5) IN MTRS	48				
SIZE(3X1.5X1.5) IN MTRS	39	SIZE(3X1.5X1.5) IN MTRS	34				
SIZE(2X1.5X1.5) IN MTRS	27	SIZE(2X1.5X1.5) IN MTRS	23.5				







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## R . R TECHNICAL ENTERPRISES CHAIN LINK FENCING & BARBED WIRE

"Whatever your fencing need is, R. R TECHNICAL ENTERPRISES can help..."





Chain link fence, also referred to as hurricane fence or diamond-mesh fence, is one of the most durable yet inexpensive fencing materials that brings you and your properties security.

Typical areas include home yards fencing, factory and construction

rt, leisure sports field, park, boundary

- Visibility◆ Security◆ I
- Easy to repair

ility • Maintenance free

CATEGORIES BY DIFFEREN

A) GALVANIZED CHAIN I

<u>S:-</u>



B) PVC CHAIN LINK FENCE:-



C) STAINLESS STEEL CHAIN LINK FENCE:-



**ALUMINIUM CHAIN LINK FENCE:-**



### **APPLICATIONS:-**

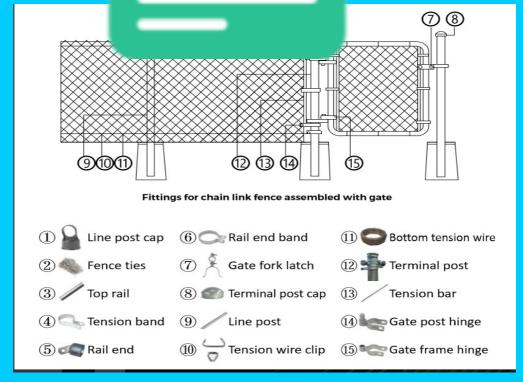
Chain link fence is a cost effective fencing option for residential, commercial and industrial areas, its countless applications includes (to name a few):

- Dog kennel
- Sports grounds and facilities
- Parks and reserves
- Commercial properties
- Home yard
- Golf courses
- Schools
- Airports
- Zoo
- Temporary fencing
- Factory



## CHAIN LINK FENCE FITTIN

We provide several types of hot-offence system. For most residential commonly used. Whereas for corconstructed from cast iron or mal consult our experts to formulate y emble a complete chain link eel or aluminum fittings are fittings are usually the size the chain link fabric,



## R . R TECHNICAL ENTERPRISES CHAIN LINK FENCING & BARBED WIRE

## **CHAIN LINK FENCING TYPES, DIMENSIONS AND TOLERANCES**

Heights: 1.6' to 20' (Special heights available on request).

Gauges: 6, 8, 9, 10, 11, 11-1/2, 12, 12-1/2, 14, 16.

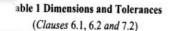
Mesh size: 3/8", 5/8", 3/4", 1", 1-1/4", 1-1/2", 1-3/4", 2", 2-1/4", 2-1/2",

3", 3-1/2", 4".

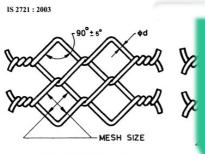
Roll length: 32' to 165'.

Selvage: Twisted-Twisted, knuckle-knuckle, knuckle-twisted. "Knuckle" design to avoid

sharp ends; "Twisted" method for more security.

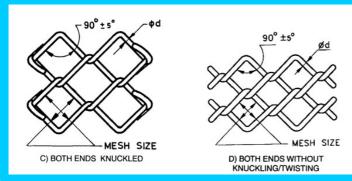


	Nominal		Line Wire	
	Dia of Mesh Wire	Diameter	Number	of Wires
5	mm	mm	Up to and including 2 m width	Above 2 m width
_	(2)	(3)	(4)	(5)
_	2.00	2.50	2	3
	2.50	3.15	2	3
	3.15	4.00	2	3
	2.00	2.50	2	3
40 ± 4	2.50	3.15	2	3
40 1 4	3.15	4.00	2	3
	4.00	4.50	2	3
	2.50	3.15	2	3
50 ± 4	3.15	4.00	2	3
20 1.4	4.00	4.50	2	3
	4.50	5.00	2	3
	3.15	4.00	2	3
$63 \pm 4$	4.00	4.50	2 2	3
	4.50	5.00	2	3
	3.15	4.00	2	3
75 ± 4	4.00	4.50	2 2	3
10 14	4.50	5.00	2	3
	5.00	5.50	2	3
	3.15	4.00	2	3
100 ± 5	4.00	4.50	2	3
100 2 3	4.50	5.00	2 2	3
	5.00	5.50	2	3
125 ± 5	4.00	4.50	2	3
	4.50	5.00	2	3
	5.00	5.50	2	3
$150 \pm 5$	4.00	4.50	2	3
	4.50	5.00	2	3
	5.00	5.50	2	3



A) BOTH ENDS TWISTED

ONE END KNUCKLED



## **BARBED WIRE**

Being a customer centric organization, we are involved in manufacturing and supplying a supreme quality range of BIS Barbed Wire in Samba Jammu, J&K. These wires are manufactured by utilizing supreme quality raw materials and innovative technology. These are extremely admirable by our customers for their fine finish and robust construction. Furthermore, we provide this BIS Barbed Wire at very nominal rates.

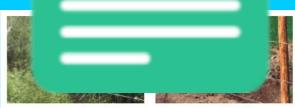
### **FEATURES:-**

- . Hi-tech Uniform zinc coating.
- . Provides higher length per kg.

### **BENEFITS:-**

- . Strong and lasts the longest.
- . Protects and keeps trespassers
- . You get more coverage for the





Property Fencing. Farms & Ranches.

Landholdings.



Can be added to Chain Link mesh and Field Fence.

## **BARBED WIRE TYPES:-**

- 1) Type A
- 2) Type B

