

1. Scope of supply :-

- a) The scope of supply covers, manufacture and supply of mechanically woven, double twisted, hexagonal shaped steel wire mesh, Zinc + PVC coated Gabions and galvanized wire for lacing wire, used for manufacturing, assembling and installation of the product. It also cover gabions, gabion mattresses in which the wire mesh and lacing wire are PVC coated after the galvanizing.
- b) Double twisted wire mesh for gabions, gabion mattresses is produced in different styles, based on type of coating.

2. Specifications :-

- a) The specifications followed for manufacturing of steel gabions are indicated as per ASTM Standards as under :-

i. Mesh type	:	(100 mm x 120 mm)
ii. Mesh opening Dia (mm)	:	100
iii. Mesh Tolerance	:	+16% to -4%
iv. Unit Dimensions	:	L x W x H
v. Tolerances in size of units	:	L&W +/-5%: H<=0.3m +/-10%: H>0.3m +/-5%
vi. Characteristics	:	ZN + PVC Coated
vii. Mesh Wire Dia (mm)	:	2.70 + 1.00
viii. Tolerance (+/-) (mm)	:	0.08
ix. Zn Coating Min (gsm)	:	250
x. Selvedge / Edge Wire dia (mm)	:	3.4 + 1.00
xi. Tolerance (+/-)	:	0.10
xii. Zn Coating Min (gsm)	:	260
xiii. Lacing Wire dia (mm)	:	2.2 + 1.00
xiv. Tolerance (+/-) (mm)	:	0.06
xv. Zn Coating Min (gsm)	:	220
xvi. PVC Thickness	:	Nominal mm (0.5mm)

- 3 The PVC compound should be designed to perform -35 C to resists the weather

Condition of Ladakh.

Terminology: - Definitions of Terms specific to this statement: -

- a) Gabion, mechanically woven, double twisted, hexagonal shaped steel wire mesh cage of variable sizes, uniformly partitioned by providing diaphragms at every 1.00 m interval along the length, inter-connected with other similar units, and filled with stones of appropriate sizes and shapes at the site to form flexible, permeable monolithic structures such as retaining walls, slope protection structure, erosion and scour protection measures, various types of Hydraulic structures for river and channel protection like weirs, check dams, groynes, channel lining etc.
- b) Double twisted wire mesh, n-a non-raveling mesh manufactured by twisting continuous pairs of wires through three one —half turns (commonly called double-twisted) to form hexagonal shaped mesh openings which are then



interconnected to adjacent wires to form hexagonal meshes.

- c) Selvedge wire, n-a terminal wire used to edge the wire mesh perpendicular to the double twist by mechanically wrapping the mesh
- d) wires around it at least 2.5 times.
- e) Edge wire, n-a terminal wire of the same diameter as the selvedge wire used to edge the wire mesh parallel to the double twist by continuously weaving it mechanically into the wire me
- f) Lacing wire, n-galvanized wire used to assemble and interconnect empty units, to close and secure stone-filled units, and for internal bracings.
- g) Stiffener, n-a length of galvanized wire used for support of facing by connecting the front panel to the back panel of a gabion and having the same diameter as the lacing wire.

**4. Classification: -**

- a) Double — twisted wire gabions, gabion mattresses and rock fall netting are classified according to coating, as follows
- b) Style 1, consists of double-twisted wire mesh made from wire which is zinc coated before being double-coated into mesh. Lacing wire and stiffeners are produced from zinc-coated wire.
- c) Style 2, consists of double twisted mesh, lacing wire and stiffeners as Style 1 and over coated with PVC.

**5. Material and manufacture: -**

- a) The wire used in the manufacture of double-twisted mesh for use in gabions, gabion mattresses and rock fall netting shall be of TATA/SAIL/JINDAL and shall conform to the specifications ASTM A 641, Class 3 coating, soft temper.
- b) Style 1 double twisted mesh shall be manufactured from zinc-coated steel wire conforming to specification ASTM A 641, Class 3 coating, soft temper.
- c) Style 2 double twisted mesh shall be manufactured from the same type of galvanized steel wire as Style 1 with an additional PVC coating extruded onto the galvanized steel wire.
- d) Lacing wire and stiffeners shall be made of wire having the same coating material as the double-twisted wire mesh furnished on the order and conforming to specification ASTM A 641, with a tensile strength.
- e) Gabions and gabion mattresses shall be manufactured with all components mechanically connected at the production facility with the exception of the mattress lid which is produced separately from the base. All gabions, gabion mattresses shall be supplied in the collapsed form either folded and bundled or rolled for shipping.

**6. Mechanical properties: -**

- a) Tensile Strength: - The tensile strength of wire used for mechanically woven, double twisted hexagonal shaped mesh, lacing wire, and stiffener, when tested shall be in accordance with the requirements of specifications EN (10223-3:1997 - (350-500 N/mm<sup>2</sup>) at minimum elongation of 10%.
- b) Zinc Coating :- The coating weights shall be Heavily Galvanized conforming to the requirements of specifications ASTM A 641.
- c) Adhesion of Zinc Coating:- No flakes shall be observed while testing for adhesion of Zinc coating as per ASTM A 641.

Technical Officer to  
Executive Engineer,  
I&FC Divn. Leh.

Executive Engineer  
I&FC Division leh.



No: -I&FC/E-Tendering-01/2016-17/ 1730-1748  
Dated: - 07 /11/2016

Executive Engineer  
I&FC Division Leh.

**Copy to the :-**

1. Deputy Commissioner/CEO, LAHDC, Leh for information.
2. District Superintending Engineer, PWD Circle, Leh for information.
- ✓ 3. Technical Director National Information Centre Leh. He is requested to kindly publish the Gist of NIT on the official Distt. Web Site
- 4 Chief Controller of Finance, LAHDC, Leh for information.
- 5-11.Executive Engineers,(R&B)/Const/PHE/Igo-Phey/~~R&B~~/SSD Nyoma/ Khaltsi and Nobra for information.
- ✓ 12. Assistant Director Information Leh.He is requested to publish the NIT for wide publicity.
13. P.A to Hon'ble Executive Councilor Works LAHDC, Leh for kind information of Hon'ble EC Works.
- 14. Assistant Executive Engineer, Leh Mech Sub Division-Leh for information.
15. President Contractor Association, Leh for information.
16. Head Draftsman Divisional Office for information.
- 17. Head Assistant Divisional Office for information.
18. Notice Board Divisional Office.



20,000]				<b>EMD Amount (INR)</b>	5,00,000	<b>EMD Exemption Allowed</b>	No
<b>Tender Fee(INR)</b>	20,000			<b>EMD Fee Type</b>	fixed	<b>EMD Percentage</b>	NA
<b>Fee Payable To</b>	Executive Engineer I and FC Division Leh	<b>Fee Payable At</b>	Executive Engineer I and FC Division Leh	<b>EMD Payable To</b>	District Superintending Engineer PWD Circle Leh	<b>EMD Payable At</b>	District Superintending Engineer PWD Circle Leh
<b>Tender Fee Exemption Allowed</b>	No						

Work /Item(s)					
<b>Title</b>	Supply of Zinc plus PVC Coated Gabions				
<b>Work Description</b>	Supply of Zinc plus PVC Coated Gabions				
<b>Pre Qualification Details</b>	Please refer Tender documents.				
<b>Independent External Monitor</b>	NA				
<b>Tender Value</b>	INR 3,00,00,000	<b>Product Category</b>	Supply of Materials	<b>Sub category</b>	NA
<b>Contract Type</b>	Rate Contract	<b>Bid Validity(Days)</b>	90	<b>Period Of Work(Days)</b>	30
<b>Location</b>	Leh	<b>Pincode</b>	194101	<b>Pre Bid Meeting Place</b>	NA
<b>Pre Bid Meeting Address</b>	NA	<b>Pre Bid Meeting Date</b>	NA	<b>Bid Opening Place</b>	District Superintending Engineer PWD Circle Leh

Critical Dates			
<b>Publish Date</b>	11-Nov-2016 04:00 PM	<b>Bid Opening Date</b>	30-Nov-2016 11:00 AM
<b>Document Download / Sale Start Date</b>	12-Nov-2016 10:00 AM	<b>Document Download / Sale End Date</b>	24-Nov-2016 04:30 PM
<b>Clarification Start Date</b>	NA	<b>Clarification End Date</b>	NA
<b>Bid Submission Start Date</b>	13-Nov-2016 10:00 AM	<b>Bid Submission End Date</b>	24-Nov-2016 04:30 PM

Bid Openers List			
S.No	Bid Opener Name	Bid Opener Designation	Bid Opener Login Id
1	Mr TASHI CHOMBEL	District Superintending Engineer	chombel@gmail.com
2	Mr ghulam mohd	Executive Engineer	gola.aee@gmail.com
3	Mr tsering dorje	Executive Engineer	dorjekukshow123@gmail.com
4	Mr phurbu sandup	AEE	phurbusandup@yahoo.in

Tender Documents
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NIT Document	S.No	Document Name	Description	Document Size (in KB)
	1	NIT_1.pdf		NIT

  

Work Item Documents	S.No	Document Name	Document Type	Description	Document Size (in KB)
	1	BOQ_60092.xls	BOQ	BOQ	

**Tender Inviting Authority**

Name	District Superintending Engineer PWD Circle Leh
Address	District Superintending Engineer PWD Circle Leh

**Tender Creator Details**

Created By	phurbu sandup
Designation	AEE
Created Date	08-Nov-2016 04:48 PM