

Short Notice Tender For

Rate Contract of Supply & Installation of Vertical Blinds

At

All India Institute of Medical Sciences, Raipur

No.	DME Stage	Start Date & Time
1.	NIT No.	ADMIN/Tender/Vertical Blinds/1/2014
2.	NIT Issue Date	30-10-2014
3.	Last Date of Submission	10-11-2014 at 3:00 PM
4.	Venue	Administrative Officer, AIIMS Raipur- 492099



आरोग्यम् सुख सम्पदा

All India Institute of Medical Sciences, Raipur

G.E. Road, Tatibandh, Raipur – 492099, Chhattisgarh

Tele: 0771- 2573777, email: admin@aiimsraipur.edu.in

Website: www.aiimsraipur.edu.in

Chapter I- Instruction to bidders

Notice Inviting Tender

“Rate Contract of Supply & Installation of Vertical Blinds”

All India Institute of Medical Sciences, Raipur, Chhattisgarh, an apex healthcare institute being established by Parliament of India under aegis of Ministry of Health & Family Welfare, Government of India, invites sealed Tenders for supply & installation of the following item(s) at the institute. You are requested to quote your best offer along with the complete detail of specifications, terms & conditions.

1. Interested parties may send their tender in sealed cover addressed to the Administrative Officer, All India Institute of Medical Sciences, Tatibandh, Raipur superscripted with tender number and complete in all respects latest by **10-11-2014** up to 3:00 pm. The Technical Bid will be opened on the same day at 03.30 PM in the Committee Hall, Medical College Building, All India Institute of Medical Sciences, Raipur. The tenders received after the scheduled date and time will be rejected out rightly.
2. The tender is in **two-bid** system i.e. Technical Bid & Financial Bid .The technical bid will be opened on the designated date by the Purchase Committee. The financial bid containing the rate of various item(s) will be opened on a suitable date, to be intimated later by the Purchase Committee in respect of those who qualify the terms and conditions of the technical bid.
3. The bidder should seal the technical bid and the financial bid in separate covers super scribed **“Technical bid for Tender for Rate Contract of Supply & Installation of Vertical Blinds“** and **“Financial Bid for Tender for Rate Contract of Supply & Installation of Vertical Blinds”**. Both Sealed Envelopes should be kept in a main/ bigger envelope super scribed as **“Tender for Rate Contract of Supply & Installation of Vertical Blinds”**. The ‘Technical Bid’ will be analyzed and ‘Financial Bid’ of only those firms who are found eligible in ‘Technical Bid’ will be opened in due course and the eligible firms would be intimated there of accordingly.
4. Tender document may be downloaded from this Institute's official website <http://www.aiimsraipur.edu.in> or www.tenders.gov.in and the tenderer shall deposit a separate Bank Draft/ Pay Order/ Banker’s cheque in favour of "All India Institute of Medical Sciences, Raipur" worth ₹ **1,000/-** along with tender Document (Technical Bid). The tenders submitted without tender cost or without EMD shall be liable to be rejected summarily. The cost of the bid document is non-refundable.

Administrative Officer
AIIMS, Raipur

Chapter-II- Conditions of Contract General Terms and Conditions

Subject: - Notice Inviting Tender for Rate Contract of Supply & Installation of Vertical Blinds at All India Institute of Medical Sciences, Raipur.

1. Earnest Money:

Earnest money by means of a Pay Order/DD/BG/FD of

- ₹ 27,000/- (Rupees Twenty Seven Thousand)

Should be enclosed with the quotation (Technical Bid). It is also clarified that the quotations received without earnest money will be summarily rejected. The pay Order/DD/BG/FD may be prepared in the name of "All India Institute of Medical Sciences, Raipur".

- a) No request for transfer of any previous deposit of earnest money or security deposit or payment of any pending bill held by the ministry in respect of any previous work will be entertained.
- b) Tenderer shall not be permitted to withdraw his offer or modify the terms and conditions thereof. In case the tenderer fail to observe and comply with stipulations made herein or backs out after quoting the rates, the aforesaid amount of earnest money will be forfeited.
- c) Tenders without Earnest Money or Tender cost will be summarily rejected.
- d) No claim shall lie against the AIIMS in respect of erosion in the value or interest on the amount of EMD.

2. Preparation and Submission of Tender:

- The tender should be submitted in two parts i.e. Technical Bid and Financial Bid. The Technical Bid and the Financial Bid should be sealed by the bidder in two separate covers "Technical Bid for Tender for Rate Contract of Supply & Installation of Vertical Blinds" and "Financial Bid for Tender for Rate Contract of Supply & Installation of Vertical Blinds". Both Sealed Envelopes should be kept in a main/ bigger envelope super scribed as "Tender for Rate Contract of Supply & Installation of Vertical Blinds"
- Tender shall be rejected if the copy of sales tax registration certificate (now called as VAT) is not furnished. Firm shall furnish a certificate on their firm's letterhead stating that up to date returns have been filed and there are no dues with the concerned department. Firm will also submit the copies of such returns (latest) submitted to the department of trade & taxes.
- Hand written quotations shall be accepted at bidder's risk. In case of any discrepancy in the figures, the rate mentioned in words will only be considered.
- All the item quoted should be supplied along with the original catalogue with detailed data sheet.

1. Signing of Tender:

All the duly filled/completed pages of the tender should be given serial /page number on each page and signed. The individual signing the tender or other documents connected with contract must specify whether he sign as:

- a) A sole proprietor of the concern or constituted attorney of such sole proprietor;
- b) A partner of the firm, if it is a partnership firm in which case he must have authority to execute the contracts on behalf of the firm and to refer to arbitration disputes concerning the business of the partnership either by virtue of the partnership agreement or by a power of attorney duly executed by the partners of the firm.
- c) Director or a principal officer duly authorized by the Board of Directors of the Company, if it is a company.

N.B.

- i. In case of partnership firms, a copy of the partnership agreement, or general power of attorney duly attested by a Notary Public, should be furnished on stamped paper duly sworn or affirmed by all the partners admitting execution of the partnership agreement or the general power of attorney. The attested copy of the certificate of registration of firm should also be enclosed along with the tender.
- ii. In the case of partnerships firm, where no authority to refer disputes concerning the business of partnership firm has been conferred on any partner, the tender and all other related document must be signed by all partners of the firm.
- iii. A person signing the tender form or any document forming part of the tender on behalf of another person should have an authority to bind such other person and if, on enquiry it appears that the person so signing had no authority to do so, AIIMS, Raipur may without prejudice, cancel the contract and hold the signatory liable for all costs, consequences and damages under the civil and criminal remedies available.
- iv. The tenderer should sign and affix his firm's stamp at each page of the tender and all its annexure as the acceptance of the offer made by tenderer will be deemed as a contract and no separate formal contract will be drawn. **NO PAGE SHOULD BE REMOVED/ DETACHED FROM THIS NOTICE INVITING TENDER.**

2. Opening of Tender

The tenderer is at liberty to present either him or authorize not more than one representative to be present at the opening of the tender. The representative present at the opening of the tender on behalf of the tenderer should bring with him a letter of authority from the tenderer and proof of identification

3. Validity of the bids:

The bids shall be valid for a period of one year from the date of opening of the tender. This has to be so specified by the tenderer in the commercial bid which may be extended if required.

4. Right of acceptance:

AllIMS, Raipur reserve the right to accept or reject any or all tenders /quotations without assigning any reason there of and also does not bind itself to accept the lowest quotation or any tender. AllIMS, Raipur also reserves the rights to accept all the items in the given tender or only part of it in any given schedule without assigning any reason. Any failure on the part of the contractor to observe the prescribed procedure and any attempt to canvass for the work will prejudice the contractor's quotation or any tender.

5. Communication of Acceptance / Right of Acceptance:

AllIMS, Raipur, reserves all right to reject any tender including of those tenderers who fails to comply with the instructions without assigning any reason whatsoever and does not bind itself to accept the lowest or any specific tender. The decision of this Institute in this regard will be final and binding. Any failure on the part of the contractor to observe the prescribed procedure and any attempt to canvass the work prejudice the contractor's quotation.

6. Performance Security:

The successful tenderer will be required to furnish a Performance Security Deposit of 10% of tender amount in the form of Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any Nationalized Bank duly pledged in the name of the "**All India Institute of Medical Sciences, Raipur**". The security deposit can be forfeited by order of this Institute in the event of any breach or negligence or non-observance of any condition of contract or for unsatisfactory performance or non-observance of any condition of the contract.

Performance Security shall be submitted in the form of Demand Draft, Bank Guarantee or Fixed Deposit Receipt issued by any Nationalized Bank. Performance Security will be valid upto 60 days after completion of contractual obligations under the contract.

7. Delivery & Installation:

The successful bidders should strictly adhere to the following delivery schedule supply should be effected within **15 days** & install the ordered quantity satisfactorily within **20 days** from the receipt of Purchase order and this clause should be strictly adhere to failing which administrative action as deemed fit under rules will be taken against the defaulter.

8. Inspecting, Testing and Quality control

- i. The purchaser or its nominal representative will inspect and test the ordered goods and the related services to confirm their conformity to the contract specification and other quality control details incorporated.
- ii. The Purchaser reserves the right for stage inspection during manufacturing process, pre-dispatch inspection or post-delivery inspection. The Purchaser as deemed fit shall resort to all these inspection or may waive off any of the inspection.
- iii. Stage Inspection: The Supplier shall offer semi-finished product without paint for stage

inspection supported with invoice & test report of major raw material as per relevant specification standards.

- iv. Before resorting to Bulk Manufacture, the supplier shall offer/send the prototype/actual-finished sample for approval by the Inspector. The approval of Samples shall be in respect of workmanship and finishing and shall be without prejudice to the rights of purchaser/user to get random testing of items during pre-dispatch inspection or from the actual lot offered. In the event of the failure of the supplier to deliver the sample by the date specified in the contract or any other date agreed by the purchaser or in the event of rejection of the sample second time, the purchaser shall be entitled to cancel the contract and purchase the stores at the risk and cost of the supplier.
- v. The Inspector shall have full and free access at any time during the execution of the contract to the supplier's work for satisfying himself that the goods are being manufactured in accordance with the specification mentioned in the Contract, and he may require the Supplier to make arrangements of inspection of the goods or any part thereof or any material at his premises or at any other place specified by the Inspector and if the Supplier has been permitted to employ the services of a sub-inspection of the goods after they have been inspected by the Inspector for the purpose aforesaid. The decision of the purchaser/inspection authority in this regard shall be final and binding on the Supplier. All terms and condition of the contract as they apply to the inspection shall also apply to the re- inspection.
- vi. The Supplier shall provide, without any extra charge, all material, tools, labour and assistance of every kind, which the Inspector may demand of him for any test, and examination, which he shall require to be made on the Supplier's premises and the Supplier shall bear and pay all costs attendant thereon. If the Supplier fails to comply with condition aforesaid, the Inspector shall, in his sole judgment, be entitled to remove for test and examination all or any of the goods manufactured by the Supplier to any premises other than his (Supplier's) and in all such cases the Supplier's shall bear the cost of transport/and carrying out such tests elsewhere. A certificate in writing of the Inspector, that the Supplier has failed to provide the facilities and the means for test and examination, shall be final.
- vii. The Supplier shall also provide and deliver for test, free of charge, at such place other than his premises as the Inspector may specify such material or goods as he may require for tests for which Supplier does not have the facilities or special/independent tests.
- viii. The Inspector shall have the right to put all the goods or materials forming part of the same or any part thereof to such tests as he may think fit and proper. The Supplier shall not be entitled to object on any ground whatsoever to the method of testing adopted by the Inspector.
- ix. Goods accepted by the purchase/AIIMS, Raipur and/or its inspector at initial inspection and in final inspection in terms of the contract should in no way dilute purchasers/AIIMS, Raipur's right to reject the same later.
- x. The Purchaser's Inspector reserves the right to may draw samples through random sampling

method after receiving the finished goods at destination. All the supplies shall be accompanied with the Manufacturer's certificate that the material conforms to the specifications.

Further to above if on the goods being rejected by the Inspector or AIIMS, Raipur at the destination, the Supplier fails to make satisfactory supply within the stipulated period of delivery the Purchaser shall be at liberty to:-

- a. Require the Supplier to replace the rejected goods forthwith but in any event not later than a period of 30 days from the date of rejection and the Supplier shall bear all cost of such replacement, including freight, if any, on such replacing and replaced goods but without being entitled to any extra payment on that or any other account.
- b. Purchase or authorize the purchase of quantity of the goods rejected or goods of a similar description when goods exactly complying with particulars are not in the opinion of the Purchaser, which shall be final, readily available without notice to the supplier at his risk and cost and without affecting the Supplier's liability as regards the supply of any further installment due under the contract, or
- c. Cancel the contract and purchase or authorized the purchase of the goods or goods of a similar description (when goods complying with particulars are not in the opinion of the Purchaser, which shall be final, readily available) at the risk and cost of the Supplier.
- d. The Inspector shall have the power:-
 - Before any goods or part thereof are submitted for inspection to certify that they cannot be in accordance with the contract owing to the adoption of any unsatisfactory method of manufacture.
 - To reject any goods submitted as not being accordance with particulars.
 - To reject the whole of the installment tendered for inspection, if after inspection of such portion thereof as he may in his discretion thinks fit, he is satisfied that the same is unsatisfactory.
 - To demand all cost incurred in the inspection and/or test. Cost of test shall be assessed at the rate charged by the Laboratory to private persons for similar work however if goods are accepted all cost incurred shall be borne by the Purchaser.

Inspector's decision as regards the rejection shall be final and binding on the Supplier.

9. Liquidated Damages

The time for the date of delivery/ dispatch/installation stipulated in supply order shall be deemed to be essence of the contract and if the supplier fails to delivery/ dispatch/installation any consignment within the period prescribed for such delivery/ dispatch/installation in the supply order, liquidated damages may be deducted from the **bill @ 0.5%** per week subject to maximum of **10%** of the value of the delayed goods or services under the contract. The

competent authority of the institute may also cancel the supply. In such a case, bid security of the supplier shall stand forfeited.

10. FORCE MAJEURE:

If, at any time during the subsistence of this contract, the performance in whole or in part by either party of any obligation under this contract is prevented or delayed by reasons of any war or hostility, act of public enemy, civil commotion, sabotage, fire, floods, explosion, epidemics, quarantine restriction, strikers lockout or act of God (hereinafter referred to as events) provided notice of happening of any such eventuality is given by party to other within 21 days from the date of occurrence thereof, neither party shall by reason of such event be entitled to terminate this contract nor shall either party have any claim for damages against other in respect of such non-performance or delay in performance, and deliveries have been so resumed or not shall be final and conclusive.

Further, that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, AIIMS, Raipur party may, at least option to terminate the contract.

11. Insolvency etc.:

In the event of the firm being adjudged insolvent or having a receiver appointed for it by a court or any other order under the Insolvency Act made against them or in the case of a company the passing any resolution or making of any order for winding up, whether voluntary or otherwise, or in the event of the firm failing to comply with any of the conditions herein specified AIIMS, Raipur shall have the power to terminate the contract without any prior notice.

12. Breach of Terms and Conditions:

In case of breach of any terms and conditions as mentioned above, the Competent Authority, will have the right to cancel the work order/ job without assigning any reason thereof and nothing will be payable by AIIMS, Raipur. In that event the security deposit shall also stand forfeited.

13. Subletting of Work:

The firm shall not assign or sublet the work/job or any part of it to any other person or party without having first obtained permission in writing of AIIMS, Raipur, which will be at liberty to refuse if thinks fit. The tender is not transferable. One tenderer shall submit only one tender.

14. Right to call upon information regarding status of work:

The AIIMS, Raipur will have the right to call upon information regarding status of work/ job at any point of time.

15. Guarantee / Warranty, Service:

A. Guarantee / Warranty

All the goods items should have at least **One** year on site Guarantee/Warranty against any defect in manufacturing & functioning of pulley & railing with effect from the date of installation such defects should be repaired within **3 working days** without any charges. No offer of the vendor will be accepted without guarantee/warranty of their products.

B. Service

The supplier will ensure regular maintenance service by the appropriate person having the technical know-how of the items. The supplier shall also ensure the presence of resident person in the geographical location of this city of Raipur so that he attends the call without loss of time.

16. Terms of payment:

1. The payment would be made for actual supply taken and no claim in this regard should be entertained. 100% payment will be made on receiving of goods/installation in store satisfactorily with approved quality & ordered quantity.
2. No payment shall be made for rejected Stores. Rejected items must be removed by the supplier within two weeks of the date of rejection at their own cost & replace immediately. In case these are not removed these will be auctioned at the risk and responsibility of the suppliers without notice.

c. OTHER TERMS & CONDITIONS OF THE TENDER:

1. Rates quoted should be inclusive of packing, forwarding, postage and transportation charges at **FOR AIIMS Raipur**.
2. All the rates should be mention in Indian national currency (INR) only. The rates quoted in foreign currency will not be entertained in this tender enquiry & such tenders will be cancelled straightway.
3. The offer should be typed or written in Ink Pen/ Ball Pen without any correction. Offers in pencil will be cancelled. Telegraphic/ Telex/ Fax offers will not be considered and cancelled straightway.

D. Legal Jurisdiction:

The agreement shall be deemed to have been concluded in Raipur, Chhattisgarh and all obligations hereunder shall be deemed to be located at Raipur, Chhattisgarh and Court within Raipur, Chhattisgarh will have Jurisdiction to the exclusion of other courts.

**Administrative Officer
AIIMS, Raipur**

Chapter III - Specifications and allied Technical Details

Parameters and Technical Specifications for Executing the Work:

1. The firm should be registered and should have the turnover of atleast ₹ 4,50,000/- of business in India the last three consecutive financial years.
2. The firm has to submit Balance Sheet & Profit & Loss A/s as a proof of turnover duly attested by C.A. documentary materials.
3. Tenderer must provide evidence of having supplied to any government / reputed private organizations in India & atleast ₹ 3,00,000/- value in the last three years.
4. The supplier shall submit a notarised affidavit on Indian Non Judicial Stamp Paper of ₹ 10/- that you have not quoted the price higher than previously supplied to any government Institute/Organisation/reputed Private Organisation or DGS&D rate in recent past. Therefore, if at any stage it has been found that the supplier has quoted lower rates than those quoted in this tender; the Institute (the purchaser) would be given the benefit of lower rates by the Supplier. If such affidavit is not submitted, tender will be out rightly rejected.
5. The tenderer can quote for either/all of the schedules mentioned in the bid. If the tenderer is quoting all the Schedules it has to include separate financial bid for each schedule in a separate envelope labeled with the respective schedule on the envelope. Price of the individual item in each schedule should be mentioned in the financial Bid of the quoted schedule, if not the bid for that schedule will be out rightly rejected.
- 6. AIIMS, Raipur also reserves the rights to accept all the items in the given tender or only part of it in any given schedule without assigning any reason.**
7. The delivery of the items will have to be made at AIIMS Raipur. No transportation and cartridge charges will be provided for the same.
8. The rate quoted should be firm and final and written in ink or typed against each item and should in no case be overwritten.

I / We hereby accept the terms and Conditions given in the tender

(Signature & Stamp of the bidder)

Note- Please sign each page of document including terms & conditions & tender

Chapter - IV Contract Form**TENDER FORM - 1 - TECHNICAL INFORMATION AND UNDERTAKING**

(Tenderer may use separate sheet wherever required)

(In separate sealed Cover-I super scribed as "Technical Bid")

S. N.	Description	Document Required	Document Supplied (Yes/No)	If yes, provide Reference page number
1.	Name & Address of Tenderer with phone number, email, name and telephone/mobile	Mention in Letter head		
2.	Specify you are Company / Proprietorship / Partnership firm	Mention in Letter head		
3.	Specify your firm / company is a authorised dealer / distributor / Agency	Mention in Letter head		
4.	Name, Address & designation of the authorized person for signing the bid documents. (Authorization Letter)	Mention in Letter head		
5.	Tenderer must provide evidence of having supplied government hospital / reputed private hospital organizations in India similar nature of items of at least ₹ 3,00,000/- amount in the last three years.	<ul style="list-style-type: none"> • Copy of the all the Supply orders. • Satisfaction certificates (along with contact details) from any government / reputed private organizations 		
6.	The Average annual turnover of the bidder in the last three financial years should not be less than ₹ 4,50,000/-	Copies of authenticated balance sheet for the past three financial years		
7.	A partner of the firm, if it is a partnership firm in which case he must have authority to execute the contracts on behalf of the firm and to refer to arbitration disputes concerning the business of the partnership either by virtue of the partnership agreement or by a power of attorney duly executed by the partners of the firm.	Undertaking authorization letter		
8.	Permanent Account Number	Copy of the PAN Card		
9.	Please attach copy of last three years of Income Tax Return			
10.	VAT Certificate	Copy of Certificate		
11.	Acceptance of terms & conditions attached (Yes/No). Whether each page of NIT and its annexure have been signed and stamped	Please sign each page of terms & conditions as token of acceptance and submit as part of tender document with technical bid. Otherwise your tender will be rejected.		

S. N.	Description	Document Required	Document Supplied (Yes/No)	If yes, provide Reference page number
12.	Please submit a notarised affidavit on Indian Non judicial stamp paper of ₹ 10/- that no case is pending with the police against the Proprietor / firm / partner or the Company (Agency). Indicate any convictions in the past against the Company/firm/partner. Please also declare that proprietor/firm has never been black listed by any organization.			
13.	Have you previously supplied these items to any government/ reputed private organization? If yes, attach the relevant poof. Please provide a notarised affidavit on Indian Non Judicial stamp paper of ₹ 10/- that you have not quoted the price higher than previously supplied to any government Institute / Organisation / reputed Private Organisation or DGS&D rate in recent past. If you don't fulfil these criteria, your tender will be out rightly rejected			
14.	Details of the FDR/DD/BG of bid security (EMD) ₹ 27,000/-	FDR/DD/BG No: Date: Payable at:		
15.	Detail of cost of Tender for ` 1,000/- (downloaded from website)	DD/Pay Order No. Date: Payable at-		

Note:

- i. Page number/serial number may be given to each and every page of Tender Documents and photocopies of the attested documents attached. Mention Page number, wherever the copy (ies) of the document(s) is kept.
- ii. In case of non-fulfillment of any of the above information/ document(s), the Tender will be summarily rejected without giving any notice.

(Dated Signature of the Tenderer with stamp of firm)

Declaration by the Tenderer:

- 1) That I/we have carefully studied all the terms & conditions of NIT and shall abide by it.
- 2) That I/We shall supply the items of requisite quality.
- 3) That I/We undertake that the information given in this tender are true and correct in all respect and I/We hold the responsibility for the same.

Place:.....

Date:.....

(Signature of Tenderer with seal)

Name:

Address :

“Rate Contract of Supply & Installation of Vertical Blinds”**AIIMS Raipur****FINANCIAL BID**

(In sealed Cover-II super scribed “Financial Bid”)

S No.	Description	Quantity	Unit	Rate (In Rs.)	Taxes (if applicable)	Total Amount (with tax)
A	B	C	D	E	F	G
1.	Supply a fixing of Vertical Blinds as per requirement at different places in AIIMS Raipur as per direction of the Officer in charge.	500	Sqm			
2.	Cloths Curtain for door/window of different size Superior Quality fixing with Stainless Steel Rod & bracket with center support complete fitting chargers. Two curtains will be providing in one door for full coverage of the door heavy stainless steel pipe & bracket with center support will be provided curtain will be Superior Quality Fabrics with rings complete fitting.	250	Sqm			
3.	Plastic Curtain for door/window will be Superior Quality Fabrics with rings complete fitting with wash rooms.	200	Sqm			
	Grand Total					

1. The cost shows in column 'G' should be inclusive of delivery, installation, Testing, commissioning & other Expenses of the item with **One** year guarantee/warranty.
2. No other charges would be payable by Client.

Special terms and conditions:

1. The tenders should keep their offer valid upto **One** year from the date of entering into rate contract.
2. There would be **no increase** in rates during the **Contract Period**.
3. The firm/supplier should have its outlet at **Raipur** also, as after sales services should be ensured during guarantee warranty period.
4. The tenders must confirm in writing that the goods supplied by them shall be as per specification of goods mentioned in **Annexure – I**.
5. Along with their bids, the firm(s) should also submit the samples duly signed by the owner / authorized representative of the firm, as on getting sample approved, financial bid will be opened. If it is found that the sample is not of standard quality, the item will not be purchase from the firm even if they are L-1. AIIMS, Raipur will not accept duplicate / substandard items or items not matching the samples / prescribed specifications.

Date:

(Signature of Bidder with seal)

TECHNICAL SPECIFICATION OF VERTICAL BLINDS

1. Metal Part:-

- (1) **Head Rail**: Head rail is of 25mm high and 47mm wide extruded High strength aluminium alloy section with minimum wall thickness of 0.9mm. The section is anodized for smooth operations and has the provision of fabric valance matching with louvers fabric.
- (2) **End Control Unit (Reduction Gear Box)**: End Control unit (reduction gear box) having the reduction ratio of 3.5:1 for a very smooth operation of the blind. This unit consists of a planetary gear in the outer housing, four small transmission gears fitted in the middle assemble and an end receiving gear attached to central sprocket unit.
- (3) **Tilt Rod**: It is made of extruded aluminium having three keyways. The tilt rod is fixed in the end control unit and drives the carrier gear mechanism to rotate the louvers. The average diameter is 5.8mm to achieve minimum torsional deflection.
- (4) **Tilt Chain**: This is made of 4.5mm plastic beads moulded on 1.5mm thick polyester cord. The pitch of the beads is 6mm. The chain drives the sprocket fixed in the end control unit to rotate the louvers by 180 degrees. The pitch of the chain corresponds to the sprocket in perfect match for trouble free operation.
- (5) **Carrier (Runner)**: This is moulded component having anti friction additive. It consists of polymer housing with wheels mounted on sides and has a gear and worm mechanism with vertical worm fixed a tongued poly carbonate stem to hold the louvers. The worm and gear mechanism are driven by tilt rod fixed to end control unit to rotate louvers by 180 degrees. The mounted wheels on sides of casing move on rails of head rail section for resistance free stacking of louvers.
- (6) **Spacer**: This is made of molded High Polymer ABS, having anti friction additive. It maintains proper spacing of the runners and ensures overlapping of louvers for perfect light control (100 mm).
- (7) **Installation Bracket**: This is made of galvanized steel "L" bracket of thickness 3mm, which is fitted with pressure clip, made of spring steel to hold the head-rail.
- (8) **Cord Weight**: This is made of ABS material hollow casing with a steel weight inside.
- (9) **Cord**: It is 2.2 mm in diameter, Nylon braided high strength cord having maximum abrasion resistance and minimum elongation.
- (10) **Bottom Mechanism(Weight and Chain)**:
 - (i) The bottom weight is powder coated galvanized steel strip of 1.6mm thickness.
 - (ii) Bottom weight is fixed with U-type of clips attached at equal distance on cord having 0.8mm dia. With moulded plastic beads on it.

2. Fabric Part:-

- (i) The Fabric of Blind should be 100% polyester having glazed Acrylic Coating on both sides. The weight of fabric should be more than 400 gm/sq Mtrs and thickness should be more than 0.8mm. The fabric should be available in 4-5 shades & designs.
- (ii) It shall be of width 100mm and treated With chemicals for dust repellency (Dust Guard Series of Vista, Marvel, Mac or equivalent).