

TENDER ID: MUM201903003

DATE : 12.03.2019

# SBI INFRA MANAGEMENT SOLUTIONS PVT.LTD.

CIRCLE OFFICE, THIRD FLOOR, STATE BANK OF INDIA, SYNERGY BUILDING, C-6, G-BLOCK, BANDRA KURLA COMPLEX, BANDRA EAST, MUMBAI-400051 PH. NO. 022-26445665

**PART - A: TECHNICAL BID** 

# **TENDER FOR:**

# SUPPLY & INSTALLATION OF FIRE RESISTANT COMPACTOR STORAGE SYSTEM On Ground floor of State Bank of India Administrative Building, Kingsway, Nagpur-440001

# TENDER SUBMITTED BY : NAME : \_\_\_\_\_\_\_ ADDRESS : \_\_\_\_\_\_ DATE : \_\_\_\_\_\_

# **TENDER INVITED BY:**

Vice President & Circle Head, SBI Infra Management Solutions Pvt. Ltd; 3<sup>rd</sup> floor, Circle Office, State Bank of India, Synergy building, C-6, G-Block, Bandra -Kurla complex, Bandra East, Mumbai-400051.

# ARCHITECT:

M/S RANADE & RANADE, Architects & Interior Designers 104, First Floor, Dwarka Sahaniwas, 104, Shivaji Nagar, Nagpur - 440010

TEL: 91 7122249627, 98225 70164, E-MAIL: vbranade@yahoo.com



# **NOTICE INVITING TENDERS**

SBIIMS on behalf of SBI through its Architect **M/s. Ranade & Ranade, Architects & Interior Designers,** invites "online rate E-tender" from Original Equipment Manufacturers (OEMs) / Authorised Distributors for 'Supply & Installation of Fire Resistant Compactor Units on the Ground Floor of State Bank of India Administrative Building, Kingsway, Nagpur-440001'.

<u>Original Equipment Manufacturers (OEMs) / Authorized Distributors are only entitledto quote for this tender.</u>

The details of tender are as under:

S.No.	Description		
1	Name of work	Supply & Installation of Fire Resistant Compactor Units on the Ground Floor of State Bank of India Administrative Building, Kingsway, Nagpur-440001	
2	Nature of Work	Supply & Installation of Fire Resistant Compactors with 120 minutes Fire rating as per BIS standards	
3	Time allowed for completion	3 (Three) Months	
4	Cost of Tender Documents	Rs. 6000/- (Rs. Six Thousand Only) to be paid through State Bank Collect ONLY as detailed under; 1) login https://www.onlinesbi.com 2) Select SB Collect from Top Menu, click the check box and "Proceed" 3) Select "All India" in "State of Corporate/Institution" & Select "Commercial Services" in "Type of Corporate/Institution" then "Go" 4) Select "SBI Infra Management Solutions Pvt.Ltd" in Commercial Services Name and "Submit" 5) Select "Tender Application Fee" in "Payment Category" and enter the "Tender ID" exactly as given in first page top of this tender (characters in uppercase Only). 6) Fill up all fields such as email, GST No. Mobile No, Vendor/Firm Name etc and make payment. 7) Enclose payment receipt having unique reference No. along with EMD.	
5	Earnest Money Deposit	Rs.90,000/- (Rs. Ninety Thousand only) by means of Demand Draft /Pay Order (Valid for a period of 90 Days from thelast date of submission of the tender) from anyscheduled Nationalized Bank drawn in favour of SBI Infra Management Solutions Pvt. Ltd. and payable in Mumbai.	
6	Initial Security Deposit	2% of contract amount including EMD	
7	Date of issue of tender documents from Bank's website	13-03-2019 to 28-03-2018 www.sbi.co.in under <link/> procurement news.	
8	Last date & time for submission of Technical bid, EMD and cost of tender document	28-03-2019 by 3.00 PM	
9	Address at which Technical bid (hard copy) along with EMD& Cost of Tender document has to be submitted.	SBI Infra Management Solutions Pvt. Ltd; State Bank of India Zonal (Administrative Office) 2 <sup>nd</sup> Floor, Premises Department, Kingsway, S V Patel Marg, Nagpur - 440001	
10	Last date & time for submission	30-03-2019 at 3.00 PM	



	of online price bid.	At: - https://tenderwizard.com/
11	Last date & time for openingof online price bid.	30-03-2019 at 3.30 PM At: - https://tenderwizard.com/
12	Place of opening tenders	SBI Infra Management Solutions Pvt. Ltd; State Bank of India Zonal (Administrative Office) 2 <sup>nd</sup> Floor, Premises Department, Kingsway, S V Patel Marg, Nagpur - 440001
13	Liquidated Damages	0.50% of contract amount per weeks subject to max. 5% of contract value or final bill value.
14	Defects liability period	12 Months from the date of Virtual Completion
15	Validity of offer	90 days from the date of opening of Price-bid

- 17. Tenders can be downloaded from the bank's website **www.sbi.co.in** (link)<Procurement News>.It shall be responsibility of the contractor to arrange and ensure that all pages of technical and financial bid are properly bound separately. Tenders in loose pages may be disqualified.
- 18. The contractor shall sign and stamp each page of the tender document there by ensuring the number and sequence of all pages.
- 19. No conditions other than mentioned in the tender will be considered, and if given they will have to be withdrawn before opening of the price-bid.
- 20. The bidding contractor shall possess valid BIS license for the product and should submit the same along with technical bid failing which their tender is liable for disqualification.
- 21. The SBIIMS Pvt. Ltd. reserve their rights to accept or reject any or all the tenders, either in whole or in part without assigning any reason(s) for doing so and no claim /correspondence shall be entertained in this regard.
- 22. Tenders received without EMD and Cost of Tender Documents shall be summarily rejected and such tenders shall not be allowed to participate in the online price bidding process.
- 23. In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.
- 24. SBIIMS Pvt. Ltd. has the right to accept / reject any / all tenders without assigning anyreasons and no correspondence shall be entertained in this regard.
- 25. **Note:** All the applicants are advised to visit the site and cross check the enclosed drawing measurements before submission of the bid. In case of any discrepancies / doubts, the same may be got clarified during the Pre-Bid meeting as scheduled above.

Yours Faithfully,

For & On-behalf of SBI Infra Management Solutions Pvt. Ltd.



### A.MINIMUM ELIGIBILITY CRITERIA FOR PREQUALIFICATION:

(Ensure to enclose supporting documents for all the desired criteria)

1. The applicant shall be Original Equipment Manufacturer (OEM)/ Authorized Distributor.

All the supporting documents justifying Original Equipment Manufacturer)/ Authorized Distributor shall be furnished including BIS License for Fire Resistance up to 120 minutes.

- 2. The applicant shall have a well established office/ service facilities in Maharashtra state. Supporting documents for proof of office/ service facilities shall be attached.
- **3.** The applicant shall have a valid **Income Tax registration/ PAN, GST registration and digital certificate** for participating in the tender/ e- reverse auction (enclose proof)
- **4.** Applicant shall submit the details of service personnel attending the service calls.

# **B.BID EVALUATION PROCESS:**

For the purpose of Tender, the eligible applications will be evaluated in thefollowing manner:

1. Sealed envelope superscribing "Selection of OEM/ Authorized Distributors for Supply & installation of Fire Resistant Compactor units at Ground Floor of SBI Zonal Office, Administrative Building, Kingsway, S. V. Patel Marg, Nagpur-440001" and containing twoseparate sealed covers

(Cover –I: the technical bid, documents supporting desired eligibility criteria, duly filled Annexures 'A' to 'G', Receipt of payment of tender fee fromSBI collect and one no DD towards EMD

&

# Cover:II: Indicative price bid)

**This** should be submitted to **SBI Infra Management Solutions Pvt. Ltd**; State Bank of India Zonal (Administrative Office) 2<sup>nd</sup> Floor, Premises Department, Kingsway, S V Patel Marg, Nagpur – 440001, before the due date and time specified for receipt of tender.

- 2. Technical Bid shall be evaluated based on verification of credentials, confidential reports/ inputs received from the previous clients etc.
- 3. Thereafter, Indicative Price bids of all the eligible vendors will be opened. Thereafter, e-Reverse auction will be conducted to identify the L-1 bidder.
- **5.** Please note, the applications received are duly evaluated based on the details/supporting documents furnished by the applicants. It is the sole responsibility of the applicants to submit the desired documents. Applications without supporting documents/incomplete applications are liable to be rejected.

### **C.GENERAL INSTRUCTIONS TO BIDDERS:**

- 1. Please read these instructions carefully before filling up the application form.
- 2. Conditional Tenders are liable to be rejected. Any conditions which may not involve any financial implications should be submitted in a separate cover enclosed within the main cover. Bank may, at its discretion, accept or reject the conditions and the tender.



- 3. Separate DD for EMD should be enclosed along with Technical Bid. Applications without prescribed DDs and other relevant documents as specified in the tender shall be summarily rejected.
- 4. The Tenderer must obtain, at his/ their own responsibility and expenses, all the information that may be necessary for the purpose of filling of this tender before submitting the tender. The tenderer must scrutinize the drawings, inspect the site of work and acquaint himself/ themselves with all local conditions & matter pertaining there to, before submitting the tender.
- 5. The tender forms must be filled in English. Each page of the tender documents isrequired to be signed by the person/ duly authorized persons as token of his/theirhaving acquainted himself/ themselves with the general conditions etc. as laid downherein. Any tender with any of the documents not so endorsed is liable to be rejected;
- 6. Timelines pertains to tendering shall be strictly as per the schedule mentioned in tableunder NIT. In case of any extension/modification, the same will be announced in Bank's website.
- 7. The application must be submitted in the proforma to be downloaded from our website without altering meaning of the text whatsoever. Any violation of this condition shall render the application invalid.
- 8. If the space in proforma is insufficient for furnishing full details, such information may be supplemented on separate sheet stating therein the part of proforma and serial number. Separate sheets may be used for each part of application. While filling up the application with regard to list of important works completed or on hand the applicant shall only include major works handled by the firm.
- 9. Bank's representatives may visit the applicant's projects and contact his past clients for verification of information given by the applicant. The applicant will be required to give them the necessary facilities and arrangements for verification.
- 10. The ability and competence of the applicant to render required services within thespecified time frame and other relevant factors will be considered while deciding the empanelment of contractors.
- 11. Decision of the State Bank of India/ SBI Infra Management Solutions Pvt. Ltd regarding short listing of contractors for online reverse auction will be final and binding. Shortlisted Contractors will be informed within one month from the date of opening of Technical bid.
- 12. Application found with false and/ or incomplete information at any stage is liable for rejection.
- 13. The EMD money will be retained in case of the successful Tenderer as part of the Initial Security Deposit for the due fulfillment of the contract and will be refunded without any interest thereon to the unsuccessful Tenderers within 02 weeks from date of award of contract. EMD of successful bidder shall be forfeited if he fails to commence the work within the stipulated time or to execute agreement/ submit ISD or any other relevant documents.
- 14. Successful bidder shall submit Demand Draft, favouring 'State Bank of India' payable at Mumbai, for a sum of 2% of the contract value less EMD within 7 days of receipt of Work Order and the same along with EMD shall form Initial Security Deposit. Initial Security Deposit shall be forfeited if the contractor fails to commence the work within the stipulated time/ complete the works satisfactorily.
- 15. Canvassing in connection with tenders is strictly prohibited and Tenders submitted by the contractors who resort to canvassing are liable to be rejected.



- 16. Bidders should have not been blacklisted/ barred by any of the state/ Central government department/ PSU/ any other organization. **Self-declaration shall be submitted by thebidder.** Bidders should provide necessary supporting documents as proof in support ofall the above items as part of eligibility verification.
- 17. Validity period of Offer: The Tender shall remain valid for 90 days from the date of e-reverse auction.
- 18. The successful tenderer will have to enter in to Agreement with the Bank as per thestandard format within 10 days from the date of receipt of work order.
- 19. Under no circumstances shall SBI/ SBIIMS Pvt Ltd be held responsible for compensation or loss to the contractor due to any increase in the cost of labour and/ or material etc. The rates quoted shall be inclusive of all costs including transportation &installation charges and all other taxes, levies etc complete. GST shall be paid separately.
- 20. It is imperative that the contractors submit their application in the prescribed format along with certificates of satisfactory completion of the job from their respective previous clients. Tenderers not giving the full particulars as mentioned above or as called for in the special Conditions or not complying with any of the conditions set forth above or therein are liable to be summarily rejected.
- 21. SBI/ SBIIMS Pvt Ltd does not bind themselves to accept the lowest or any tender and reserve to themselves the right to accept or reject any or all tenders, either in whole or in part, without assigning any reasons whatsoever for doing so;
- 22. Delivery and installation should be made within 6 weeks from the date of receipt of the Purchase order or from the date of handing over of site whichever is later.
- 23. **Payment Terms:** 95% Payment shall be made within 30 days from the date of the bill, raised after completion of delivery and installation of the units at our site and verification of the unit at the site by Bank's Officials. Remaining 5% value of actual final work including the value of EMD/ ISD will be withheld as Retention Money with the Bank and**SBIIMS, MAHARASHTRA CIRCLE** & shall be released upon successful completion of Defects Liability Period (DLP) of **one year** from the date completion of the work.
- 24. **Testing of work and material:** The OEM/ Authorized Distributor shall, if required by the Bank, arrange to test materials and/ or portions of the work from laboratories (at his own cost), as directed by the Engineer in charge, in order to prove their soundness, efficiency, strength, physical & dimensional properties. In case any such test results are below par values, the contractor shall pull down whole or part of the structure and redo the same at his own cost and the defective materials and the debris shall immediately be removed from the site.
- 25. **Liquidated Damages / Penalty:** A penalty @ 0.5% of the purchase order value per week or part thereof, subject to a maximum of 5% of the purchase order value, shall be levied as liquidated damages for delay in supply and completion of the work. However, for the delay due to reasons which shall not be attributable to agency, LD will not be imposed and on request by the vendor/ supplier before expiry of the original contract period, time extension can be granted without LD.
- 26. **Guarantee / defect liability period:**-. Defect liability period of 1 year will be applicable for this tender. During the said period, the OEM/ Authorized Distributor shall make good all the defects, at his own cost, as and when intimated. After the defect liability period, the OEM/ Authorised Distributor shall provide continuous maintenance support & spare parts supply at a reasonable cost for the entire lifetime of the product, failing which the OEM/Authorized Distributor may not be allowed to participate in Bank's all future tenders.



- 27. **Maintenance during defect liability period:** The supplied items shall be maintained during defect liability period of one year or the warranty duration whichever is later. All defective/ faulty part or parts exhibiting unusual wear and tear during guarantee period shall be replaced at the cost of vendor and such replacement shall be new, equal or better than original. All labour, tools, materials, transportation etc. required in performance of guaranteed works shall be at the supplier's expenses.
- 28. Any Service calls should be attended within 48 hours.
- 29. Supply to be made at the address mentioned above (i.e., **Ground Floor of SBI Zonal Office**, **Administrative Building**, **Kingsway**, **S. V. Patel Marg**, and **Nagpur 440001**)
- 30. The bidders are requested to quote their rate against each & every items mentioned in the indicative price bid. No item should be left unquoted and in such case the entire bid is liable to be rejected.
- 31. Bank reserves the right to accept or reject any or all tenders or distribute the orders between vendors / bidders, increase / decrease the value of work without assigning anyreason whatsoever.

**D.GENERAL TERMS AND CONDITIONS OF e-TENDERING & e-REVERSE AUCTION** Against this tender, SBI will resort to "e-REVERSE AUCTION PROCEDURE" i.e. ONLINEBIDDING VIA INTERNET.

- 1. For the proposed e-tendering & e-reverse auction, technically and commercially acceptable bidders who are shortlisted only shall be eligible to participate.
- 2. SBI/ / SBIIMS Pvt Ltd will inform the vendors the details of service provider viz., M/s. e-Procurement Technologies Pvt. Ltd. for e-tendering & e-reverse auction to enable themto contact and get trained (if required).
- 3. Business rules like event date, time, start price, bid decrement value, extensions, etc.also will be communicated through service provider for compliance.
- 4. Vendors have to e-mail the scanned copy of compliance form in the prescribed format (will be provided by service provider) before start of e-Reverse auction. Without this the vendor will not be eligible to participate in the event.
- 5. e-Reverse auction will be conducted on schedule date & time.
- 6. At the end of e-reverse auction event, the lowest bidder value will be known on thenetwork.
- 7. The lowest bidder has to mail the duly signed and filled-in price confirmation in the prescribed format as provided on case-to-case basis to SBI/ SBIIMS Pvt Ltd through service provider within 24 hours of auction without fail.
- 8. The e-reverse auction will be treated as closed only when the bidding process gets closed in all respects for the items listed in the tender.
- 9. After the closure of e-Reverse auction, the lowest bidder has to submit the Price confirmation letter & detailed breakup for his offer (in the same format of 'Indicative Price Bid') containing the final rates of all the items. The break up shall be arrived by tabulating the rates quoted in the e-reverse auction proportionate to the rates of individual items quoted in the indicative price bid.



# **ANNEXURE - A**

Supply & Installation of Fire Resistant Compactor Units on the Ground Floor of State Bank of India Administrative Building, Kingsway, Nagpur-440001

# **BIDDER INFORMATION:**

1	Name of the organization	
2	Address	
3	Name, mobile/ telephone Nos. and e-mail id of the contact person	
4	Constitution of the Firm (whether company/ firm/ Proprietary	
5	Year of Establishment	
6	Whether registered with the Registrar of Companies /Registrar of firms. (if yes, mention number and date)	
7	Registration with Govt. Authorities (If the vendor does notpossess or fails to submit the said registration details,bids will be rejected)	
а	Income-tax (PAN) No.	
b	GST no.	
8	Name, Address & Phone nos of Office/ Service facilities in Maharashtra State (Enclose proof)	
9	Names of Directors / Proprietor / Partners / Associate	
10	Banker's Name & address(Enclose proof)	
11	Name, Address & Phone nos of the persons (at least 2 or3 persons) who will be in a position to certify about the quality as well as performance	1.
	of your firm	3.
		-
12	If the Digital signature is not in the name of the applicant(s)/ their Co / or firm give the name	



n	mobile no. and email ID of the person/ firm who	
V	will be participating in the e tendering on behalf	
C	of the applicant	

Annexure 'B')

# PREQUALIFICATION AND SELECTION OF OEMs/ AUTHORISED DISTRIBUTORS FOR SUPPLY & INSTALLATION OF FIRE RESISTANTCOMPACTOR STORAGE SYSTEM

**ANNEXURE - B** 

# MAN POWER LIST / DETAILS OF SERVICE PERSONNEL ATTENSING THE SERVICE CALLS

S. No.	Name & Contact No.	Office address & Phone No.

**ANNEXURE -C** 

# DETAILS OF WORKSHOP / MANUFACTURING UNIT FACILITIES ALONG WITH TOOLS, PLANT AND EQUIPMENTS

- 1. Details of Workshop / Manufacturing Unit facilities:
  - a. Location of Workshop / Unit
  - b. Year of establishment
  - c. Area of workshop / unit
  - d. Type of Infrastructure
  - e. Type of facilities



# PREQUALIFICATION AND SELECTION OF OEMs/ AUTHORISED DISTRIBUTORS FOR SUPPLY & INSTALLATION OF FIRE RESISTANTCOMPACTOR STORAGE SYSTEM

**ANNEXURE - D** 

# **DECLARATION**

(To be furnished in the letter head of organization)

- 1. I / We have read the application and instructions appended to the proforma and I / We understand that if any false information is detected at a later date, any future contract madebetween ourselves and State Bank of India/ SBI Infra Management Solutions Pvt. Ltd, on the basis of the information given by me / us can be treated as invalid by the Bank/ SBIIMS and I / We will be solely responsible for the consequences.
- 2. I / We agree that the decision of State Bank of India/ SBIIMS Pvt Ltd in selection of contractors and award of work will be final and binding to me / us.
- 3. All the information furnished by me hereunder is correct and complete to the best of my knowledge and belief.
- 4. I / We agree that I / we have no objection if enquiries are made about the work listed by me/ us in the accompanying sheets.
- 5. I / We agree that I / We have not applied in the name of sister concern for the subjectproject.
- 6. I / We give undertaking that I / We have not been blacklisted/ penalized by any of the companies at any instance for the similar type of works.



# PREQUALIFICATION AND SELECTION OF OEMs/ AUTHORISED DISTRIBUTORS FOR SUPPLY & INSTALLATION OF FIRE RESISTANTCOMPACTOR STORAGE SYSTEM

# BENCHMARK TECHNICAL SPECIFICATIONS FOR FIRE RESISTANT COMPACTOR SYSTEM

These are the general specifications proposed for the compactors and minor deviations in these specifications can be considered at the sole discretion of SBI at the pre-tendering stage (i.e., before the e-reverse auction), without compromising to the quality, strength etc, subject to approval of the competent authority of the Bank. The contractor should indicate the details of deviations from the general specifications in a separate letter, while submitting the prequalification documents/ technical bid. The deviation which may cause substantial financial implications or affect the quality & strength of the unit will not be considered.

### **General Specifications**

The compactor should be movable and bolted to undercarriage which rolls on the channels and is firmly embedded to the ground. The main body should be rigid knock down construction is made of out of Side/back/top Panels. The storage body units to take the load bearing capacity of 70-90 Kg uniformly distributed

load per shelf. The shelves should be mounted on support brackets & its level should be adjustable. Centralized locking arrangement should be provided at the end unit facilitating locking of the units when allthe units are brought together.

All the Mobile Units should be provided with the features such as mechanical drive with a handle for mechanically assisted drive mechanism consisting of a series of sprocket and chain mechanism for smooth movement of the compactor with minimum effort. It should be fitted with safety guard preventing the compactor units moving away from the rail and proper braking mechanism preventing reverse collision of mobile units. The guide track should be provided with an end stopper to avoid derailment of the units. Each compactor unit at the drive wheel face shall be provided with the label holders. No welding at site is allowed.

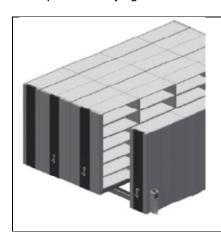
The Construction shall be rigid knock down type made out of 0.8 thick CRCA steel conforming to IS: 513. Finish shall be Epoxy polyester powder coated. Shelf construction shall be made from CRCA steel 0.8 mm thick IS:513 with uniformly distributed load capacity of 70 to 90 Kg. Undercarriage shall have construction in welded frame made of HR sheet 3.15 mm thick conforming to IS: 10748. Finish shall be with epoxy polyester powder coat of approved color & shade with a dry film thickness of minimum 35 microns. The Movements of the units shall be through chain drive type mechanism. There shall be centralized locking arrangement through locking stiffener mounted onto back of single movable last unit so that it gets locked on channels when all the units are brought together. Each Drive Type units shall have Locking Knob near the drive wheel for manual locking of individual units when a person is using those units. End stoppers shallbe provided to prevent derailment. Guide channels shall have 'C' channels'/ 'J' section 2 mm thick HR & 25mm Square bright bar. Each movable undercarriage shall have 4 nos. of antifriction ball bearings for rolling on to channels & 4 no. of antifriction ball bearings for guiding between channels & 'J' section. Fasteners shall be galvanized/ Zinc plated.



# PREQUALIFICATION AND SELECTION OF OEMs/ AUTHORISED DISTRIBUTORS FOR SUPPLY & INSTALLATION OF FIRE RESISTANTCOMPACTOR STORAGE SYSTEM

# TYPICAL IMAGE OF THE PRODUCT

Compactor unit lying between LD1 to LD4 comprising of 1 SFFU, 'N' nos of DFMU and 1 SFMU



# Typical image of the product

Above image shown with 4 Units viz. 2 DFMU & 1 SFMU & 1 SFFU.
Each face of the unit has 4 bays X 6 level shelves. Hence total no of compartments will be 24 nos.
SFFU - Single Faced Fixed Unit DFMU - Double Faced Movable Unit SFMU - Single Faced Movable Unit

(Shown above is indicative only. Actual requirement of bays/ shelves are as per details given in technical specification/ indicative price bid)

# Design codes:

SEMA - Code of practice for the design of Mobile Shelving Systems, SEMA - Code of practice for the designof High and Low Rise Static steel shelving , BS: 5950 (V): 1998 - Code of practice for design of coldformed thin gauge sections, IS: 513 , IS: 10748 etc

# Raw material General Specification:

Steel Type	Minimum guaranteed yield strength	Applicable standards	Component Usage
Galvanized	210 Mpa	IS:277 D	G50 Upright, Shelf Panel, G50 inner cladding,
Galvanized	255 Mpa	ASTM A 653M SS GRADE 37 (CLASS 1)	Shelf Clip, Cladding clamp
HR	255 Mpa	IS: 5986 - Fe 410 / Equivalent (or) IS:2062 - E 250/ Equivalent JIS 3101: SS 400 EN 10025 : S 235	Undercarriage 'C' Channels
CR	210 Mpa	IS:513 D JIS ; G3141	Peripheral Claddings, Top panel
SG 500	500 Mpa	IS 1865: 1991	Stepped wheel, Plain wheel

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Boltless superstructure uses NO bolts for assembly of panels, panel stiffeners, back tie, fixed dividers. Fasteners are used in understructure assembly & cladding assembly. Fasteners used shall be of minimum

Grade 8.8. All fasteners are with galvanized finish to suit industrial atmosphere as per IS 3655 & IS 1367. The contractor shall give an undertaking to the effect that the items proposed to be supplied confirms to the

specifications stipulated in the indicative price bid/ technical bid and the said IS specifications.

PREQUALIFICATION AND SELECTION OF OEMs/ AUTHORISED DISTRIBUTORS FOR SUPPLY & INSTALLATION OF FIRE RESISTANTCOMPACTOR STORAGE SYSTEM

### Surface finish:

For long life and protection from corrosion, all Powder coated components shall be given 4 stage 7 tank Antirust/ anti corrosive surface treatment viz. de-greasing as per IS 6005:1970, rinsing, phosphate treatment as per IS 3618:1966 and RO water rinsing. The dry film thickness (DFT) of powder coating wouldbe average 35 microns (Minimum).

# Undercarriage:

Movable undercarriage shall be provided with high strength, high precision cast iron wheels which runs on the rails. Drive unit is connected to the under-carriage via sprocket & chain assembly. Undercarriage is made up of 'C' Profiles which are assembled together to provide rigid base for the system. Suitable antitipping elements shall be incorporated in the undercarriage, to provide redundant safety to the operator.

Fixed undercarriage is the sub assembly of the system which is grouted on the rails with ability to carry the entire pay load & super structure weight. Suitable anti-tipping elements are to be incorporated in the undercarriage, to provide redundant safety to the operator.

# Rail assembly:

Rails shall be enabling the undercarriage to move in a guided path & anti-tilt assembly also takes support from rail assembly ensuring less effort for the operator by spreading the total load to the ground uniformly. Rails are grouted with the ground using anchor bolts. There are minimum '12' bolts per meter length of rail provided with slope plates at both sides to avoid hindrance to people who are walking around the system.

# **Anti-Toppling:**

Anti-toppling assembly is a stability member, that is used when the height of the system with respect to its depth, goes beyond permissible limit.

### **Locking Arrangement:**

A centralized locking arrangement should be provided at the appropriate location facilitating the locking the whole unit when all the units are brought together.

# **Drive unit assembly:**

Drive unit assembly is provided with unit locking arrangement preventing unit from moving when in use. The unit should be ensuring hassle free operation with much ease to the user. Preferably finished with ABS plastic/ PU/ chrome plated handles as directed by Engineer in-charge.

# Aisle space:

Aisle space between the units, when in opened position shall be minimum 90cm. Additional aisle space of 90cm may also be provided, if required, within the same cost.

Note: Compactors with pulley & belt type system (instead of chain drive type) may also be considered subject to the full satisfaction/ approval of the Bank.