

भारत सरकार
अन्तरिक्ष विभाग
सतीश धवन अन्तरिक्ष केन्द्र
शार
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Government of India
Department of Space
Satish Dhawan Space Centre
SHAR
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NOTICE INVITING TENDER

NO. SDSC SHAR/Sr.HPS/PT/SMPC/UNIT-2/52/2022-2023

On behalf of President of India, Sr. Head, Purchase & Stores, SDSC SHAR, Sriharikota invites **on line quotations** for the following:

Sl No	Ref. No.	Description	Qty.
01	SDSC SHAR/SMPC-U2 PURCHASE/SH2022001161 01 e-procurement - [Two Part basis]	Supply of Motorized Trolley with Roller Stands	2 No.

Bid Submission Start Date (online) : 07-11-2022, 16:00 hrs.
Bid clarification Due date (online) : 22-11-2022, 17:00 hrs.
Bid submission due date (online) : 30-11-2022, 14:00 hrs.
Bid opening date (online) : 30-11-2022, 14:30 hrs.

Instructions to Tenderers:

No tender fee and EMD shall be applicable for tenders submitted through EGPS

- 1) For full details/scope of work and terms and conditions etc., please see the enclosed annexures.
- 2) **Interested tenderers can download the e-tender from ISRO e-procurement website <https://eproc.isro.gov.in> and submit the offer online in the e-procurement portal. Offers sent physically by post/courier/in person will not be considered.**
- 3) Tender documents are also available on ISRO website www.isro.gov.in , ISRO e-procurement website <https://eproc.isro.gov.in> and SDSC SHAR, Sriharikota website www.shar.gov.in. The same can be downloaded and offer shall be submitted online in the e-procurement portal.
- 4) Tenderers shall submit their offers within the given time as specified above and last moment rush for bid submission shall be avoided. Request for new vendor approval shall be submitted online and the same shall be intimated by mail (mentioned in the tender document) referring the tender number.
- 5) Sr. Head, Purchase and Stores, SDSC-SHAR, Sriharikota reserves the right to accept or reject any/or all the quotations.

Date: 07-11-2022


Sr. Head, Purchase and Stores
Satish Dhawan Space Centre, Sriharikota

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA (SDSC SHAR)
NELLORE**

**Tender for Supply of 2 Nos. Units of Motorized Trolley with Roller
Stands**

Bids to be submitted online

**Tender No.: SDSC SHAR/SMPC-U2 PURCHASE/SH202200116101 dated 07-11-
2022**

A. Tender Details

Tender No :	SDSC SHAR/SMPC-U2 PURCHASE/SH202200116101
Tender Date :	07-11-2022
Tender Classification:	GOODS
Purchase Entity :	SMPC-U2 PURCHASE
Centre :	SATISH DHAWAN SPACE CENTRE SHAR SRIHARIKOTA (SDSC SHAR)

Realization of 2 Nos. Units of Motorized Trolley with Roller Stands

1) SUPPLY OF MATERIALS, FABRICATION, INSPECTION AND TESTING, SUPPLY, ERECTION, ON-SITE TESTING AND COMMISSIONING OF 2 Nos. 'MOTORIZED TROLLEY WITH ROLLER STAND (WELD ROTATOR) UNITS' for HARDWARE INSULATION LINING, Unit-2/SMPC AS PER DRAWINGS & TECHNICAL SPECIFICATION DOCUMENTS

2) GeM Report ID: GEM/GARPTS/06112022/0EV9SZIUTO9M

3) Please note that the price bid opening date mentioned below is tentative only. However, price bids will be opened only after completion of technical evaluation and intimation regarding price bid opening will be given to technically qualified vendors.

4) Price details shall not be disclosed anywhere in technical bid (Part-I), failing to which offer will be rejected.

A.1 Tender Schedule

Bid Submission Start Date :	07-11-2022 17:00
Bid Clarification Due Date :	22-11-2022 17:00
Bid Submission Due Date :	30-11-2022 14:00
Bid Opening Date :	30-11-2022 14:30
Price Bid Opening Date :	07-12-2022 10:00

B. Tender Attachments

NA

Instructions To Vendors

1. STANDARD TERMS & CONDITIONS

1. Tele No.08623-225174/226048

Fax No.08623-225170/22-5028

e-Mail ID : hps@shar.gov.in, nair_binu@shar.gov.in, satyach@shar.gov.in

1. Instruction to Indigenous Suppliers:

a) Payment Terms shall be as specified in RFP. If not specifically mentioned Our Normal payment term is 100% within 30 days after receipt and acceptance of the item at our site. Please confirm acceptance in your quotation.

b) GST/IGST: Please specify GST percentage, if any, in your offer. Please mention HSN/SAC code in your offer and Our GST No. is. 37AAAGS1366J1Z1.

c) Purchase / Price preference to MSEs

Purchase/Price preference will be applicable to the product reservation admissible to the Micro and Small Enterprises. Purchase/Price Preference shall be extended to the MSEs under the Public Procurement Policy for MSEs formulated under the Micro, Small and Medium Enterprises Development Act, 2006. The participating MSEs in a tender, quoting price within the band of L-1 + 15% may also be allowed to supply a portion of the requirement by bringing down their price to the L-1 price, in a situation where L-1 price is from someone other than an MSE. Such MSEs may be allowed to supply up to 25% of the total tendered value. In case of more than one such eligible MSE, the supply will be shared equally.

Micro & Small Enterprises which have technical capability to deliver the goods & Services as per prescribed technical & quality specifications and may not be able to meet the qualification criterion relating to prior experience-prior turnover may be relaxed as per guidelines issued by Ministry of MSMEs & as amended from time to time.

Interested vendors shall specifically claim the benefit with supporting documents.

d) Purchase / Price preference to Make-in-India Products: Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall

be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in-India) order 2017 date 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 04.06.2020 will be eligible to bid. Non Local supplies as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate. In case Buyer has selected Purchase Preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

2. Instruction to Foreign Suppliers:

a) Payment Terms shall be as specified in RFP. If not specifically mentioned Our normal payment term is SIGHT DRAFT, Please confirm acceptance in your offer, if you insist for L/C, and all bank charges shall be to your account. Confirm acceptance.

b) Please specify whether any export clearance is required in case of an order on you.

c)Warranty/Guarantee applicable for the item shall be mentioned in your offer

d)Special Certification for packing Material : as per Plant Quarantine (Regulation of Control into India) Order 2003, Articles packed with packing material of plant origin viz., hay, straw, wood shavings, wood chips, saw dust, wood waste, wooden pallets, Dunn age Mats, wooden packages, coir pith, pear or sphagnum moss etc., will be allowed entry by Customs only with a Phytosanitary Certificate. In case if a Purchase Order, if you propose to us any of the above material for packing such a certificate issued by your local Plant Quarantine Authority shall be furnished.

e) Confirm whether any Export License is required and for which End User Certificate is to be provided by us, in case of an Order on you. (Enclose format for EUC, if applicable)

f) Either Indian Agent on behalf of the foreign principals or the foreign principal directly can quote against this order, but not both. In either case an Indian agent cannot represent more than one principal against the same tender.

g) In case the quote is in INR we prefer to execute the same on HSS Basis and for which Concessional Customs duty as per Notification no.50/2017 Customs dated 30.06.2017, Serial No.539(A) as amended by Notification no.05/2018 dated 25.01.2018. In case the quote is on Indian Rupee (Outside High Sea Sale), the price shall include taxes and duties if any. We shall not able to provide any duty or tax exemption/concession certificates. If the item quote is of USA make, please quote for all-inclusive price since we prefer to get the item on FOR destination basis.

h) Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with Competent Authority as specified in Office Memorandum no.F.No.6/18/2019-PPD, Ministry of Finance, Department of Expenditure, Public Procurement Division dated 23rd July 2020. All the conditions mentioned in the above OM is applicable for this tender.

Common terms to Indigenous and foreign suppliers:

3.Warranty

You shall provide applicable warranty for the items offered by you without fail. For the applicable period you shall provide necessary warranty certificate.

4.Performance Bank Guarantee

Towards the performance of the systems during the warranty period you shall submit a performance bank guarantee equivalent to 3% of the order value to cover the warranty period. This PBG shall be interest free and the same shall be returned to you on successful completion of all contractual obligations. The said PBG shall have a further claim period of 2 months.

5.Security Deposit

On acceptance of the order, you shall submit an interest free amount equivalent to 3% of the total contract/order value towards security deposit. This security deposit is collected towards the performance of the Contract. The said Security Deposit shall be submitted either in the form of Bank Guarantee/Demand Draft/FDR receipts duly endorsed in the name of the centre. The Security Deposit will be returned to you on successful completion of the Contractual obligations; failing which it shall be forfeited/adjusted.

6.Offer Validity

Your offer shall be valid for 120 days in case of 2 part / 90 days in case of single part from the date of tender opening. In case you offer validity is less than the mentioned above, the said offer is liable for rejection which may please be noted.

7.Liquidated Damages:

If you fail to deliver the ordered items satisfactorily within the time specified or any extension thereof, Liquidated Damage @ 0.5%(zero point five percent) of the order value or part thereof the un-delivered items for each calendar weeks of delay shall be recovered from your bill. However total Liquidated Damage shall not exceed 10% (ten percent) of the order value.

FORCE MAJEURE:

Should a part or whole work covered under this contract be delayed in delivery/completion of work due to reasons of Force majeure which shall include legal lockouts, strikes, riots, civil commotion, fire, accidents, quarantines, epidemic, acts of God & War, stoppage of deliveries by the Government , freight embargoes etc; the delivery period/completion of work referred to in this Contract shall be extended by a period not in excess of duration of such Force Majeure. The occurrence shall be notified by either party within reasonable time.

8.Offers received through post, courier, fax or email will not be considered.

9. Technical and commercial bid (Part-I) shall not contain any price details. Optional accessories or other price details, if any shall be uploaded in Supporting documents related to Price Bid, to be opened along with Price Bid.

10. In respect of FIM being issued, the fabricator shall submit Bank Guarantee for equivalent sum compulsorily. In case, submission of Bank Guarantee is not possible, the reasons there for shall be clearly mentioned. However, for such cases the fabricators at their cost shall secure such FIM through

Insurance Policy with Director, SDSC SHAR as beneficiary. In case of PSU and Government Organization, Indemnity Bond in lieu of Bank Guarantee is acceptable. Balance FIM/Scrap, if any shall be returned along with the supply of the items. Please confirm acceptance in your quotation.

11. SDSC SHAR shall have the right to place part order among the parties for the items for which they are the lowest.

12. Arbitration:

In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted in Bengaluru in the Arbitration and Conciliation Centre Bengaluru (Domestic and International) as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be English only.

Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the DEPARTMENT or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained.

2. General Instructions to Vendor

1. Instructions to tenderers

TeleNo.08623-225174/226048

Fax No.08623-225170

e-Mail ID : hps@shar.gov.in, nair_binu@shar.gov.in, satyach@shar.gov.in

1. Interested tenderers may, at their option, login to <https://eproc.vssc.gov.in> and submit your offers.

2. TENDER FEE IS NOT APPLICABLE.

3. EARNEST MONEY DEPOSIT IS NOT APPLICABLE IF NOT MENTIONED IN THE RFP SPECIFICATION.

4. Indian agents while quoting on behalf of their principals are requested to attach Principals original quote, necessary authorization letter from their Principals, copy of agency agreement etc. in their bid.

5. TWO PART BIDS: In case of Two part tender, price details shall not be uploaded in the Technical & Commercial Bids (Part I), failing to which the bid will be treated as INVALID.
6. The offer should be valid for a minimum period of 120 days for 2 part / 90 days for single part from the date of opening.
7. Due date & time: Sufficient time has been allotted for Bid submission. Vendors are requested to complete Bid submission well in advance. Last minute requests for due date extension citing server problems etc. will not be entertained. Bids will not be entertained after the due date and time.
- 7 (A). Request for the extension of the due date will not be considered.
- 8.
- (a) Bid Opening for Public Tender: In case of Public Tender-Two Part Tenders: Technical and Commercial Bids will be opened on the first day specified for Tender opening. Interested vendors can attend the tender opening session to know the bidding details (Bidders presence is not mandatory to consider the quote for evaluation). Price Bid opening of the selected vendors will be scheduled later and it will be intimated to the selected Bidder (s).
- (b) For Limited Tender: Bidders participation is not allowed.
9. Prices are required to be quoted according to the units indicated.
10. Preference will be given to those tenderers offering supplies from ready stocks and on the basis of FOR destination delivery at site.
11. (a) All available technical literature, catalogues and other data in support of the specifications and detail of the items should be furnished as attachments.
- (b) Samples, if called for, should be submitted free of all charges by the tenderer and the Purchaser shall not be responsible for any loss or damage thereof due to any reason whatsoever. In the event of non-acceptance of tender, the tenderer will have to remove the samples at his own expense.
- (c) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensions details are available the same should be indicated in your offer.
- (d) Specifications: Stores offered should strictly conform to our specifications. Deviations, if any, should be clearly indicated by the tenderer in their quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples wherever necessary. Test certificates wherever necessary should be attached. Whenever options are called for in our specifications, the tenderer should address all such options. Wherever specifically mentioned by us the tenderer could suggest changes to specifications with appropriate response for the same.

12. The purchaser shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of quantity offered and the tenderers shall supply the same at the rates quoted.

13. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.

14. The tenderer will be required to furnish a document containing the name of his bankers as well as the latest income-tax clearance certificate duly counter signed by the Income-tax Officer of the Circle concerned under the Seal of his office, if required by the Purchaser.

15. The Purchaser reserves the right to place order on the successful tenderers for additional quantity up to 25% of the quantity offered by them at the rates quoted.

16. Sr. Head, Purchase and Stores, SDSC SHAR SRIHARIKOTA reserves the right to accept or reject any bid in part or full without assigning any reason thereof.

17. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with Competent Authority as specified in Office Memorandum no.F.No.6/18/2019-PPD, Ministry of Finance, Department of Expenditure, Public Procurement Division dated 23rd July 2020. All the conditions mentioned in the above OM is applicable for this tender.

18. Vendors are requested to register in National Public Procurement Portal i.e., Government e-Market Place (GeM).

3. Tender- Two part Instructions

1. 1. This requirement can be quoted only through online e-procurement mode using ISRO portal <https://eproc.isro.gov.in>. No manual tender will be considered.

2. The vendors have to get themselves registered in above site to download the tender details. To register in above ISRO portal (<https://eproc.isro.gov.in>) the vendors need to have digital certificate The digital certificate can be obtained from any digital certifying authority like M/s (n)Code solutions; M/s Tata Consultancy Ltd., M/s Satyam Information System etc.

3. The parties are advised to download the tender and submit the bid on online at least two days prior to tender closing date to avoid last minute network problem. The due date shall not be extended due to network or computer related problems.

4. Tender fee is not applicable.

5. This being a two part tender i.e. Technical & Commercial Part and Price Part, the tenderer should not attach any documents containing Pricing information along with Technical & Commercial Bid. Normally we do not open PART-II (Price bid), if PART-I (Technical Offer) does not meet with our technical specification requirements. Price bid opening date mentioned in the tender document/ Schedule is tentative only. However, price bid opening will be made only after satisfactory completion of Part-I technical bid evaluation and with prior intimation to vendors.
6. Our Tender Enquiry contains technical requirements and specification. The detailed technical specification of your offer should be covered in the technical part. The Technical documents need to be attached online as a single PDF file without any prior information. The tender attachments containing Price details will be treated as unsolicited offers and rejected.
7. The quote should indicate quantity wise unit rate separately which have to be filled online. The Prices are to be mentioned both in figures as well as in words. The taxes, duties etc. are to be calculated and indicated in the column provided in online forms explicitly.
8. Bidders are expected to comply with the technical & commercial and other terms and conditions given in vendor specified terms of this tender. In case of any deviation, the reasons thereof should be clearly specified in the vendor specified terms column.
9. The vendors have to compulsorily submit the compliance statement online otherwise their offer will not be considered for further evaluation. Before entering the compliance statement, vendors are advised to refer the detailed specification provided in the Technical Write-up/ Drawings document. The specification offered by the vendors may also be indicated in the compliance statement wherever necessary.
10. The Technical Specification / Drawing / Product Catalogues / Works carried by vendor / Make offered etc. as a single PDF file without any financial details has to be uploaded online mode by the vendor. This being TWO PART TENDER the PDF document uploaded should not contain any commercial/pricing details. If the attached PDF contains any pricing detail the offer will be treated as unsolicited and will be summarily rejected.
11. Original Equipment Manufacturer (OEM) or their representative can submit bid. Indian agents while quoting on behalf of their principals are requested to attach necessary authorization letter from their Principals in their bid.
12. Instructions on Indian Agent (if any):- Bidders are required to provide the following information in respect of their authorized Indian Agent, if any, alongwith technical bid as the same is mandatory as is required for consideration of the bid. Name, Address, Telephone no. , fax no., email of the Indian Agent including the contact person.
13. A letter from the OEM in the current date certifying that the said Indian Agent is their authorized Indian Agent and also indicating the responsibilities/role of the Indian Agent under the proposed purchase. Remuneration/service charges payable to the Indian Agent under the proposed purchase.
14. Offer validity: - In case of single part tender - the validity of offers/tenders should be 90 days. In case of two part tender - 120 days from the date of opening of Part-I bid and 60 days from the date of opening of Part-II bid. Tenders shorter than offer validity mentioned above will not be considered for evaluation.
15. Due date & time: Sufficient time has been allotted for Bid submission. Vendors are requested to complete Bid submission well in advance. Last minute requests for due date extension citing server

- problems etc. will not be entertained. Bids will not be entertained after the due date and time.
17. The vendors may contact +91471 2565454/4574/2527/3753/3289 or eproc@vssc.gov.in for any technical assistance in bid submission.
 18. Once the offer is submitted in on line mode by the vendor and bid submission period is over, vendor will not be able to provide revised offer.
 19. Request for the extension of the due date will not be considered.
 20. Tender which are not prepared in terms of these instructions are liable to be rejected.
 21. Based on the response to the Tender Notice, SDSC SHAR reserves the right to change any milestone date of the tendering activity.
 22. SDSC SHAR reserves the right to verify all claims made by the bidder.
 23. Tender Opening : The Technical and Commercial Bid [Part-I] will be opened on the specified day mentioned in the schedule and in case any further clarification/ discussion are required, such clarification/discussion shall be called for before opening the Price Bid.
 24. The exact date and time of opening of price bid of successful tenderers will be intimated later (in case of Public Tender).
 25. Tenderers can participate in the said tender opening to know the details on for which, the representative of the firm shall be duly authorized by Competent Authority. Against proper authorization only such representatives shall be allowed to attend the tender opening (only in case of public tender). Tenderer Presence is not mandatory to consider the Quote for evaluation.
 26. SDSC SHAR, SRIHARIKOTA reserves the right to accept or reject any/or all the tenders in part or full without assigning any reasons thereof.
 27. Vendors are requested to register in National Public Procurement Portal i.e., Government e-Market Place (GeM).

C. Bid Templates

C.1 Technical Bid - Supply of 2 Nos. Units of Motorized Trolley with Roller Stands

1. MECHANICAL FAB GENERAL Supply of 2 Nos. of Units of Motorized Trolley with Roller Stands units (SWL 30T) as per RFP (specifications document)

Item specifications for MECHANICAL FAB GENERAL

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Motorized Trolley with Roller Stands (SWL 30T)	As per the RFP (specifications document)	Yes / No / Explain		

[Document : Roller Stand drawings](#)

[Document : Motorized Trolley dwgs 1 of 2](#)

[Document : Motorized Trolley dwgs 2 of 2](#)

[Document : RFP Document](#)

Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Motorized Trolley with Roller Stands (SWL 30T)	As per RFP document	Yes / No / Explain		

Supporting Documents required from Vendor

1. Schedule of Price as per Section-D of RFP (Price Bid Related)

2. As per RFP document

3. Duly filled compliance statement as per ANNEXURE-II of Specification document (RFP)

4. Duly filled compliance statement as per ANNEXURE-III of Specification document (RFP)

5. Duly filled compliance statement as per ANNEXURE-IV of Specification document (RFP)
6. Duly filled compliance statement as per ANNEXURE-V of Specification document (RFP)
7. Solvency Certificate from Nationalized Bank for the current financial year
8. Supporting documents for Similar orders executed
9. Supporting documents for Annual financial turnover
10. MSME certificates, if any
11. Make- In - India Declaration indicating percentage of Local Content and Details of location(s), where value addition will be made in line with Order no.P-45021/2/2017-PP(BE-II) dated 16.09.2020
12. compliance to GFR 144 (XI) as per order No. F.No.6/18/2019 PPD dated 23.07.2020 and amendments thereof by Ministry of Finance, Government of India
13. Compliance to Technical Specifications

5 additional documents can be uploaded by the vendor

C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	As per RFP document	Yes / No / Explain	
2	GST AND OTHER COSTS, IF ANY: Percentage of applicable GST for the quoted items shall be indicated along with SAC/HSN Code.	Yes / No / Explain	
3	DELIVERY TERM: FOR SRIHARIKOTA	Yes / No / Explain	

4	<p>DELIVERY PERIOD: As delivery is the essence of the Contract. Delivery shall be completed as per the Schedules detailed below (Page No. 14 and 48 of RFP):</p> <ol style="list-style-type: none"> 1. Party shall submit detailed QAP based on partys manufacturing unit within 15 days from the date of purchase order. 2. Party shall submit detailed fabrication drawings along with electric circuit and cabling for the entire unit of Roller Stand (Weld Rotator) mounted on Motorized Trolley within 21 days from the date of purchase order. 3. Party shall get the approval of the above submissions from Department within 30 days from the date of purchase order. 4. Party shall submit the unpriced PO copies of all bought out components within 30 days from the date of purchase order. 5. The entire unit of Roller Stand (Weld Rotator) mounted on Motorized Trolley with all other accessories shall be offered for pre-delivery inspection within 150 days from the date of receipt of approval for fabrication by the purchaser. 6. The entire unit of Roller Stand (Weld Rotator) mounted on Motorized Trolley with all other accessories shall be delivered to HIL, SMPC-II site of SDSC SHAR within 180 days from the date of purchase order. 7. Erection, Load testing & Commissioning of the entire units (2 Nos.) of Roller Stand (Weld Rotator) mounted on Motorized Trolley shall be completed within 30 days from the date of issue of site clearance at SDSC-SHAR. The test loads shall be made available to the vendor at SDSC SHAR. 	Yes / No / Explain	
5	<p>PAYMENT TERM: As mentioned in the Clause No.6 of Specification document / RFP (Page No.12).</p>	Yes / No / Explain	

6	LIQUIDATED DAMAGES (LD): In the event of the Vendor failing to complete the work within the delivery period specified in the contract agreement, the Purchaser shall reserve the right to recover from the Vendor as liquidated damages, a sum of 0.5 percentage per week or part thereof of the undelivered portion of the total contract price of equipment or work. The Total liquidated damages shall not exceed the 10.0 percentage of the total Contract price.	Yes / No / Explain	
7	WARRANTY / GUARANTEE: As per Clause No.16 & 17 of Specification document / RFP (Page No.16).	Yes / No / Explain	
8	PERFORMANCE BANK GUARANTEE (PBG): A Bank Guarantee for 3% of the order value shall be provided along with supply towards the performance of the system. The Bank Guarantee should be from a Nationalized / Scheduled Bank in Rs.100/- non-judicial stamp paper valid till the successful completion of warranty period plus 60 days. This will not carry any interest and shall be returned to you after successful completion of warranty period against your request. In case of non-performance/poor performance the Bank Guarantee shall be forfeited.	Yes / No / Explain	
9	SECURITY DEPOSIT: If Order value exceeds Rs. 5 Lakhs, A Bank Guarantee for the faithful execution of the contract / PO for 3% of the order value shall be provided immediately within 10 days after receipt of the order towards the performance of the contract. The Bank Guarantee should be from a Nationalized / Scheduled Bank in Rs.100 non-judicial stamp paper valid till the completion of the total scope of work / Delivery period as per the order plus 60 days. This will not carry any interest and shall be returned to you after successful completion of full scope of work against your request. In case of non-performance/poor performance the Bank Guarantee shall be forfeited. If you are not submitted the BG within the specified period, this order is liable to be cancelled.	Yes / No / Explain	

10	COMBINED BANK GUARANTEE: In case, if You are unable to provide two separate BGs, i.e., one for SD and one for PBG, You can submit a combined BG for SD & PBG for 3% of the Order value valid till the completion of total contractual obligation (i.e. Delivery period plus Warranty period plus 60 days). Please confirm.	Yes / No / Explain	
11	INSURANCE: Being a Govt. Of India Dept., Insurance is not required at our cost. Please ensure the safe delivery of the ordered item with proper transport worthy pack.	Yes / No / Explain	
12	VALIDITY OF OFFER: - The validity of offers/tenders should be 90 days from date of Bid opening. Tenders shorter than offer validity mentioned above will not be considered for evaluation.	Yes / No / Explain	
13	Compliance to the Technical specifications shall be mentioned.	Yes / No / Explain	
14	Please furnish Contact details i.e. valid E-mail id, Mobile no/ Landline no. etc. for further communication.	Yes / No / Explain	

15	<p>Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1 plus 15% (Selected by Buyer) of margin of purchase preference/price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25% (selected by Buyer) percentage of total QUANTITY. Please specify whether you belong to MSE or not. If YES, supporting documents shall be uploaded.</p>	Yes / No / Explain	
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16	<p>Make-In-India (MII) Clause: For this procurement, provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industries vide letter No. P-45021/2/2017-PP(BE-II) dated 16.09.2020 & directives related shall be followed. Accordingly, you are requested to indicate the percentage of local content in the material, clearly mentioning the details of location(s) at which value addition is made in line with clause 9 to O.M dated 16.09.2020 referred above. It may be noted that Local Content shall not include services such as Transportation, Insurance, Installation, Commissioning, Training and after sales service support like AMC/CMC etc.</p>	Yes / No / Explain	
17	<p>The bidder shall provide compliance to Order No. F.No.6/18/2019 PPD dated 23.07.2020 and amendments thereof by Ministry of Finance, Department of Expenditure, Public Procurement Division regarding restrictions on procurement from a bidder of a country which shares a land border with India and comply to all the provisions of the Order. In this regard, you shall certify that the bidder entity is not from such a country or, is from such a country, has been registered with the Competent Authority.</p>	Yes / No / Explain	
18	<p>Do you have Unique GeM Seller ID? If YES, provide details. If NO, As per Office Memorandum No 6/9/2020-PPD dated 24/08/2020 of Department of Expenditure, it is mandatory for sellers providing Goods and Services to Central Government Organizations to be registered on GeM and obtain a Unique GeM Seller ID, at the time of Placement of Order/acceptance of contract. Tenderers shall ensure the same.</p>	Yes / No / Explain	
19	Remarks, if any	Yes / No / Explain	

C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
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1	MECHANICAL FAB GENERAL Supply of 2 Nos. of Units of Motorized Trolley with Roller Stands units (SWL 30T) as per RFP (specifications document)	2.00 Nos.		-		
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Common charges (Applicable for all items)

Additional Charges, if any (P&F, Freight etc.)	
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REQUEST FOR PROPOSAL

for

**SUPPLY OF MATERIALS, FABRICATION, INSPECTION &
TESTING, SUPPLY, ERECTION, ON-SITE TESTING AND
COMMISSIONING OF
2 Nos. of 'MOTORIZED TROLLEY WITH ROLLER STAND
(WELD ROTATOR) UNITS' for HARDWARE INSULATION
LINING, Unit-2/SMPC
AS PER DRAWINGS & TECHNICAL SPECIFICATION
DOCUMENTS**



**Satish Dhawan Space Centre SHAR
Indian Space Research Organization
Government of India
Sriharikota -524 124, A.P**

Acronyms

ISRO	Indian Space Research Organization
SDSC	Satish Dhawan Space Centre
CISF	Central Industrial Security Force
HIL	Hardware Insulation Lining Facility
HF	High Frequency
LC	Letter of Credit
CCTV	Close Circuit Television
GA (drawing)	General Arrangement (drawing)
SS	Stainless Steel
IP	Ingress Protection
UPS	Uninterrupted Power Supply
ECS	Electronic Clearance System
RFP	Request for Proposal
GOI	Government of India
LOI	Letter of Intent

PROPOSAL DOCUMENT

Proposals are invited from the interested Bidders for the enclosed scope of work as two-part bid.

Part-1: Technical and Unpriced part of the work and

Part-2: Priced Commercial bid.

The RFP document is organized in four sections as follows.

Section–A	General Terms and Conditions of the Contract
Section–B	Scope of Work
Section–C	Technical Specifications
Section–D	Annexures

Title of the Entity: Hardware preparation & Insulation Lining Facility, Unit-2/SMPC, SDSC SHAR / SRIHARIKOTA

Title of Proposal: Proposal for ‘Supply of materials, fabrication, inspection & testing, supply, erection, on-site testing and commissioning of 2 Nos. of Motorized Trolley with Roller Stand (Weld Rotator) Units as per drawings & technical specification documents’

1. PROPOSAL DOCUMENT

- a. Overall specifications and functional requirements are detailed in the proposal document. Bidder shall sign and stamp each page of 'Original' in token of his acceptance.
- b. The proposal shall be completely filled in all respects and shall be tendered together with requisite information and Annexures. Any tender incomplete in any particulars shall be liable for rejection.
- c. If space in the proposal or any schedule or annexure thereto, is insufficient, pages shall be separately added. These shall be consecutively page-numbered, also shall carry the proposal document number, shall be signed by the bidder and entered in the index for the proposal.
- d. The sealed proposals must reach before the time limit specified in the proposal Inviting Bid.
- e. Bidders shall send their quotations in firm figures and without qualifications or variations or additions in the terms of the proposal documents. Proposals containing qualifying expressions such as ‘subject to minimum acceptance’ or ‘subject to prior sale’, or any other qualifying expressions or incorporating terms and conditions at variance with the terms and conditions incorporated in the proposal documents shall be liable for rejection.

1.1. Clarification requests by bidder

- a. Although, details presented in the proposal document i.e., conditions of contract, scope of work and technical specifications have been compiled with all reasonable care, it is the bidder’s responsibility to ensure that the information provided is adequate and clearly understood.
- b. Bidder shall examine the proposal document thoroughly in all respects and if any conflict, discrepancy, error or omission is observed, bidder may request clarification at any time up to one

week prior to the bid closing date. Such clarification requests shall be directed to Sr. Head, Purchase & Stores, SDSC SHAR, Sriharikota, in his mail hps@shar.gov.in/pramesh@shar.gov.in.

- c. Any failure by bidder to comply with the aforesaid requirement shall not excuse the bidder, after subsequent award of contract, from performing the work in accordance with the agreement.

1.2. Amendment of proposal document

- a. Department may, for any reason whether at its own initiative or in response to the clarification requested by the prospective bidder, issue amendment in the form of addendum/corrigendum during the bid period and subsequent to receiving the bids. Any addendum/ corrigendum thus issued shall become part of proposal document and bidder shall scan and upload as addendum / corrigendum duly signed and stamped in token of his acceptance.
- b. For addendum / corrigendum issued during the bid period, bidder shall consider the impact in his bid. For addendum / corrigendum issued subsequent to receiving the bids, bidder shall follow the instructions issued along with addendum / corrigendum.

2. PREPARATION OF BIDS

2.1. Site Visit

The Bidder may visit SDSC SHAR and acquaint himself fully with the requirements and no claims whatsoever will be entertained on the plea of ignorance of difficulties in the execution of the work. Before submitting the tender, the Bidder shall be deemed to have clearly understood and satisfied himself regarding the work and services, all conditions liable to be encountered during the execution thereof and that prices quoted in the offer are adequate and all-inclusive with respect to all factors, circumstances and conditions likely to be incidental, both direct and indirect, to the work and services. If the bidder wishes to see the site, the bidder may do so within 15 days from the date of issue of tender enquiry.

2.2. Validity of offer

Bid shall remain valid for acceptance for a period of 3 (three) months from the due date of submission of the bid. The bidder shall not be entitled during the said period to revoke or cancel his bid or to vary the bid except and to the extent required by Department in writing. Bid shall be validated for extended period as required by Department in writing. In such cases, unless otherwise specified, it is understood that validity is sought and provided without varying either the quoted price or any other terms and conditions of bid finalized till that time.

2.3. Cost of bidding

All direct and indirect costs associated with the preparation and submission of bid (including clarification meetings and site visit, if any, shall be to bidder's account and the Department will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bid process.

2.4. Applicable language

The bid and all correspondence incidentals to and concerning the bid shall be in English language. For supporting document and printing literature submitted in any other language, an accurate English translation shall also be submitted. Responsibility for correctness in translation shall lie with the bidder.

2.5. Arrangement of bid

- a. The bid shall be neatly presented on white paper with consecutively numbered pages. It should not contain any terms and conditions which are not applicable to the bid. The bid and all details submitted by the bidder shall be signed and stamped on each page as token of acceptance by a person, legally authorized to enter into agreement on behalf of the bidder. Corrections / alteration, if any, shall also be signed by the same person. Bidder shall submit Power of Attorney in favor of the person who signs the bid and subsequent submissions on behalf of the bidder.
- b. Department will not be bound by any Power of Attorney granted by the bidder or changes in the constitution of the firm made subsequent to submission of the bid or after the award of the contract. Department may, however, recognize such Power of Attorney and changes after obtaining proper legal advice, the cost of which will be borne by the bidder.
- c. The cancellation of any document such as Power of Attorney, Partnership deed etc. should be communicated by the bidder to the Department in writing well in advance; failing which Department shall have no responsibility or liability for any action taken by bidder on the strength of the said documents.
- d. Should the bidder have a relative or relatives or in the case of firm or company, one or more of its shareholders or a relative or relatives of the shareholder (s) employed in a senior capacity in Department's organization, the authority inviting bids shall be informed of the fact at the time of submission of the bid, failing which the bid may be disqualified or, if such fact subsequently comes to light, Department reserves the right to take any action as it deems fit in accordance with any applicable law, rules and regulations of the like in force for the time being.

2.6. Compliance to proposal requirement

Department expects bidder's compliance to requirement of proposal document without any deviation. Deviation on clauses, if felt absolutely necessary should be furnished in the Techno commercial part (and not in proposal document or Price part) as per the format attached as Annexure-V. Department shall not take cognizance of any deviation stipulated elsewhere in the bid. Any willful attempt by the bidders to camouflage the deviations by giving them in the covering letter or in any other documents that are enclosed may render the bid itself non-responsive. Department reserves

the right to evaluate the offers containing deviations with financial implications after adding cost for such deviations as determined by Department.

2.7. Documents comprising the bid

- a. This is e-procurement tender. All the documents need to be scanned and attached to the bid under “documents solicited from Vendor” form. In case it is not possible to upload due to higher file size, hard copy of the balance documents (without any price figures) shall be submitted physically before due date.
- b. Bidder may note that Department intends to fully evaluate the technical and unpriced commercial submissions. It is important that bidder clearly demonstrates his experience and capability, giving to Department a high level of confidence that if awarded, the bidder will be able to perform the works within the stipulated time schedule and quoted price and meeting all other requirements listed in the proposal document.
- c. Bidder is requested to furnish the complete and correct information required for evaluation of his bid. If the information with regard to resources or any other information / documentation forming basis of evaluation is found incomplete / incorrect, the same may be considered as adequate ground for rejection of the bid.

2.8. Schedule of price

- a. The schedule of prices shall be read in conjunction with all the sections of proposal document.
- b. The payment schedule shall be the basis of releasing milestone payments on pro-rata basis as applicable.
- c. The vendor has to provide cost of the items as per Schedule of prices given in Annexure- I

2.9. Online bids shall consist of the following:

a. Part-1: Technical and unpriced commercial part

All the documents shall be scanned and uploaded in the ISRO e-procurement portal. Technical and unpriced commercial part shall comprise the attachments, specifying attachment number arranged in the order as follows:

- i. Submission of bid letter along with one set of proposal document duly signed and stamped as token of acceptance.
- ii. Submission of all relevant Technical details, catalogues, detailed drawings, Power & circuit drawings, catalogues etc., as applicable and any other drawing, document as mentioned in the proposal document along with the technical bid.
- iii. Submission of data sheets for all the equipment, bought out items & checklists enclosed in proposal duly filled, signed, & stamped.

- iv.** Submission of Inspection, Testing & Acceptance procedures of Motorized Trolley with Roller Stand (Weld Rotator) units as described in Clause-C & D of technical specification documents of Section-C of this Document.
- v.** Submission of Inspection, Testing & Acceptance procedures of Electrical, Instrumentation & Control Systems is described in Clause-C & D of technical specification documents of Section-C of this Document.
- vi.** All the annexures and Sections enclosed in proposal duly filled, signed and sealed
- vii.** Unpriced copy of schedule of prices with all other commercial terms and conditions duly filled (Prices to be kept blank), signed and stamped
- viii.** The bidder shall furnish a list of all critical items / sub-assemblies along with offer which are bought out by the bidder and proposed to be used, along with necessary details such as manufacturer's name, brand, model no etc.
- ix.** The party shall submit technical bid as per the technical specifications format of RFP.
- x.** Submission of technical offers and engineering details, if any, required as per proposal document. Any other relevant documents bidder desires to submit.
- xi.** Power of attorney in favor of authorized signatory of the bid / proposal document.
- xii.** Organization details
 - 1)** In case of proprietorship firm, the name and address of proprietor and certified copy of "Certificate of Registration of firm".
 - 2)** In case bidder is a partnership firm, certified copy of the partnership deed.
 - 3)** In case of company (whether private or public), certificate copy of the "Certificate of Incorporation" together with certified Memorandum/ Articles of Association.
- xiii.** Audited balance sheet including profit and loss account for last three financial years along with annual turnover statement of bidder.
- xiv.** List of projects in hand & completed during the last 3 financial year indicating the name of client, contact person, contract value, nature of work, work completed, work balance, name of Consultant, month & year of commencement & completion etc.
- xv.** Valid latest Income-Tax Clearance Certificate (ITCC) of bidder. In the absence of valid ITCC, bidder may not be considered for award of work.
- xvi.** Solvency certificate for ₹ 80 lakhs from any nationalized/scheduled bank. It shall be obtained within a month with respect to submission date.
- xvii.** Organization chart for the proposed work with bio data of key personnel.
- xviii.** Schedule Bar chart and Execution plan.
- xix.** Validity of offer as per requirement indicated under para 2.2 above.

Note:

1. All the above documents shall be uploaded in the ISRO e-procurement portal.
2. Price shall not be quoted in any of the documents mentioned under Part-I. If indicated, the bid will be considered as invalid.

b. Part-II: Price bid

Price bid shall contain "Schedule of Price" marked "PRICE - BID" duly filled in ISRO e-procurement portal as per price bid format given Annexure-I. No stipulation, deviation, terms and conditions, presumption basis etc. shall be stipulated in price part of bid. Department shall not take cognizance of any such statement and may at their discretion reject such bids.

3. SUBMISSION OF BID

- a. Bid shall be submitted in two parts
 - i. Part -1: Techno-Commercial part of the Bid
 - ii. Part-2: Price part of the Bid
- b. Offers should be submitted online using standard digital signature of class -3 with encryption/decryption options.
- c. Prices shall be mentioned in the space/column provided in the ISRO e- procurement portal only for such purpose.
- d. Physical copy of the techno commercial bid will be accepted only in case if the file size is bigger and not possible to upload the same. In such case, the hard copy shall be submitted within due date. Documents received after due date will not be considered.
- e. Prices quoted should be on the basis of FOR SDSC SHAR, Sriharikota.
- f. All risk in transit shall be exclusively borne by the contractor and the purchaser shall pay only for such items as are actually received in good condition in accordance with the purchase order.
- g. Bids duly filled in by the Bidder should invariably be submitted as stipulated in the e-procurement portal.
- h. Department may open Part – I of the bid on the due date of opening at stipulated time. Price Bid (Part-II) of the bid of the technically and commercially acceptable bids shall be opened at a later date.
- i. Department reserves the right to reject any or all the Bids without assigning any reasons thereof.
- j. The Price shall be quoted in the on-line price bid.

3.1. Checklist for submission of bid

- a. To assist bidder in ensuring the completeness of bid, a checklist for submission of various documents / details in 'Technical and unpriced commercial part of bid' is enclosed as per Annexure-IV& V. Bidder in his own interest is requested to fill the check list and submit along with his bid for ready reference.
- b. In case of incomplete submissions, Department will not be under any obligation to give the bidder an opportunity to make good such deficiencies and Department may at its discretion treat such bids as incomplete and not consider for further evaluation.

3.2. Corrections and alterations

- a. All corrections and alterations in the entries of proposal shall be signed in full by the bidder with date.
- b. No erasures or overwriting are permissible.

3.3 Pre-qualification criteria

Bidder shall meet the pre-qualification criteria for submitting the bids. Refer Annexure- III for pre-qualification criteria. Bids received without meeting the pre-qualification criteria as in Annexure-III will be duly rejected and will not be considered for evaluation.

4. BID OPENING AND EVALUATION

- a. The bidder shall provide all the relevant data/information/details required for evaluating the bid technical and commercially in the specific formats enclosed with the tender. Apart from this, Bidder is free to add any other relevant information.
- b. During evaluation, Department may request Bidder for any clarification on the bid/ additional documents/ information required. Bidder shall submit all clarifications/ additional documents/ information requested in original. If not submitted within the stipulated time department has right to reject such bids.
- c. The complete scope of work is defined in the tender document. Only those Bidders who undertake total responsibility for the complete scope of work as defined in the tender document will only be considered. Part/Spilt offer is NOT acceptable.
- d. Purchaser reserves right to visit client's site for verification/validation.
- e. The time schedule for completion is given in the Proposal document. Vendor is required to confirm the completion period unconditionally.
- f. Techno-commercial discussion shall be arranged with Bidder, if needed. Bidder shall depute his authorized representatives for attending discussions.
- g. Performance of Bidder on similar nature of works executed/ under execution shall be taken into consideration before selecting the Bidder for opening his price bid.

- h. Department shall not be obliged to furnish any information / clarification to unsuccessful bidder as regard to **non-acceptance** of their bids.
- i. Clarification & additional information: During evaluation, Department may request bidder for any clarification on the bid and additional documents. Bidder shall submit all additional documents in time.
- j. Techno-commercial discussions: Techno-commercial discussions with bidder shall be arranged, if needed. Bidder shall depute his authorized representative(s) for attending the discussions. The representative(s) attending the discussions shall produce authorization from his organization to attend the discussions and sign the minutes of meeting on behalf of his organization. The authorized representatives must be competent and empowered to settle all technical and commercial issues.

4.1. General

- a. Bid is the responsibility of bidder and no relief or consideration can be given for errors and omissions made by the bidder inadvertently or advertently. Bid with incomplete information is liable for rejection.
- b. The techno-commercial part of bid shall be evaluated as per bid evaluation criteria, wherever indicated in the proposal document.
- c. Non-submission of details / documents as per para may lead to rejection of bid.
- d. The bid of the bidder quoting completion time more than the time schedule specified in the proposal document may not be considered for evaluation.
- e. In case the bid does not fully comply with the requirement of proposal document and the bidder stipulates / retains exceptions and deviation to the clauses of proposal document considered unacceptable or to any other clause considered unacceptable in the opinion of Department, the bid will be rejected.

4.2. Evaluation of price bid

Priced bids containing overwriting / erasures in the quoted rates shall be liable to be rejected. Cutting shall be avoided. However, in case any cutting is unavoidable same shall be duly attested by the signatory of bid with signature, failing which such Priced bids shall be liable for rejection.

4.3. Process to be confidential

1. Information related to the examination, clarification, evaluation and comparison of bids and recommendations not be disclosed to bidder or other person not officially concerned with such process. Any effort by bidder to influence the Department in processing of bid or award decisions may result in rejection of such bidder's offer.

2. Advertisements, press release or other specialized publicity documents, which are related to or reveal the existence of a tender and are intended by the Bidder for public distribution and/or the press, broadcasting, or television, shall be cleared/approved by the Department.
3. Department may direct the Bidder to withhold such publicity or to require modifications to the publicity material. The Bidder shall comply with such direction.

4.4. Department's right to accept or reject a bid

Department reserves the right to accept a bid other than the lowest and to accept or reject any bid in whole or part, to annul the bid process or to reject all bids with or without notice or reasons. Such decisions by Department shall bear no liability whatsoever consequent upon such decisions.

5. DETERMINATION OF RESPONSIVENESS

SDSC SHAR will scrutinize the bids to determine whether the bid is substantially responsive to the requirements of the tender document. For the purpose of this clause, a substantially responsive bid is one which inter-alia conforms to all the terms and conditions of the entire Tender document without any deviations and reservations. The decision of Purchaser shall be final in this regard.

6. AWARD OF WORK

The bidder, whose bid is accepted by Department shall be issued a Purchase Order (PO) from the Director, Satish Dhawan Space Centre, SHAR or his representative, Government of India, Department of Space, to proceed with the work prior to expiry of bid validity.

SECTION-A

GENERAL TERMS AND CONDITIONS OF CONTRACT

1. INTRODUCTION

SDSC SHAR invites tenders in sealed covers from reputed firms with proven ability to 'Design, Supply of Materials, Fabrication, Automation, Supply, Erection, Testing and Commissioning at SDSC-SHAR' of 2 Nos. of 'Motorized Trolley with Roller Stand (Weld Rotator) Units' for SDSC SHAR, Sriharikota as per the scope and specifications.

2. SCHEDULE OF PRICE

The quoted price shall include all costs of **'Supply of materials, fabrication, inspection & testing, supply, erection, on-site testing and commissioning of 2 Nos. of Motorized Trolley with Roller Stand (Weld Rotator) Units for Hardware preparation and Insulation lining at Unit-II/SMPC as per drawings & technical specification document'**.

- a. Shop floor testing, packing, forwarding, transport to site, unloading, storage, all risk coverage, erection, installation, training, testing & evaluation and commissioning of equipment and civil works specific for the foundation, any other cost for proper and complete execution of the CONTRACT.
- b. Bid price shall include all travelling expenses, living expenses, salaries, overtime, benefit and any other compensation for engineers, supervisors, skilled, semiskilled workmen, watch and ward staff, laborer and other staff employed by the Vendor, cost of tools and tackles required for erection and other consumable material required, and all taxes, duties, and levies as applicable on the date of submission of bid.
- c. Price shall be firm & fixed during the entire contract period. The price shall be filled in the format available in e-procurement portal. The bidder shall also fill up the format enclosed (Annexure I) without price figures and shall confirm by filling the appropriate fields as "QUOTED".
- d. The rate quoted shall be on the basis of FOR SDSC SHAR, Sriharikota.
- e. All rates of taxes/duties/levies applicable with details of percentage and applicable portion of the price should be spelt out clearly in the offer.
- f. The taxes applicable for supply, erection & commissioning shall be indicated separately in terms of percentage in the price bid. If the offers submitted by the bidders are silent on taxes, it will be presumed that quoted rates are inclusive of taxes & duties and no claim in this regard will be entertained later.
- g. The variation in the GST or applicable statutory taxes shall be paid on documentary evidence submitted by the bidder during this contract.

3. DELIVERY TERMS

- a. The rate quoted shall be on FOR SDSC SHAR, Sriharikota basis.
- b. Vendor is responsible for clearing the consignment, transport of equipment to destination and erection & commissioning at site and all the necessary works till the equipment is commissioned and accepted by Purchaser.

4. DISCOUNTS

Supplier shall not indicate any discount separately and quoted price should be after deducting the discount.

5. MODE OF PAYMENT

Bidders can submit the banker details and payments can be made through NEFT/RTGS/ECS through PFMS.

6. PAYMENT TERMS

- a. In general, our payment terms will be 100% within 30 days after receipt, commissioning and acceptance.
- b. However, if Vendors/Suppliers are requesting for advance payment, department may consider as given below,
 1. After placement of confirmed Purchase Order: 30% of supply cost as advance against submission of bank guarantee for an equal amount from a nationalized/scheduled bank and shall be valid till Contract completion period plus 60 days. Format of Bank guarantee shall be obtained from Department after award of contract.
 2. After receipt of items and acceptance at SDSC SHAR, Sriharikota: 60% of supply cost of the Purchase order against receipt of materials at Purchasers / Department site along with GST (including for advance portion).
 3. After commissioning at SDSC SHAR, Sriharikota: Balance 10% of supply cost and 100% of commissioning charges after installation and acceptance by Department and submission of Performance bank guarantee of equal amount valid till warranty period plus 60 days.

c. Advance Payment

1. Wherever advance payment is requested, Bank Guarantee from any Nationalized Bank/Scheduled Bank should be furnished. In case of advance payments, if the vendor/supplier is not supplying the material within the delivery schedule, the advance amount will be recovered and interest will be levied as per the Marginal Cost of Lending Rate (MCLR) of SBI plus 2% penal interest.
2. Further wherever advance payments are requested, Interest will be loaded for advance payments/stage payments as per the MCLR of SBI and will be added to the landed cost for

comparison purpose while arriving at L1. In case of different milestone payments submitted by the parties, a standard and transparent methodology like NPV will be adopted for evaluating the offers.

7. MAKE IN INDIA CLAUSE

General Terms & conditions for Bidders: For this procurement, bids from Class-I & class-II Local Suppliers are admissible. hence provisions contained in Public Procurement (Preference to Make in India), Order 2017 issued by Department for Promotion of Industry and Internal Trade (DIPP), Ministry of Commerce & Industries vide letter No. P-45021/2/2017-PP(BE-II) dated 04.06.2020 and subsequent amendment & directives shall be followed. Accordingly, offer will be evaluated & processed in conformation with above referred GOI order (Specially mentioned below). The bidder shall provide compliance and undertaking as per order and hereafter amendments:

- a. Order no: F.No.6/18/2019 PPD dated 23.07.2020 of Department of Expenditure), Ministry of Finance Under Public procurement division for the General Financial rule (GFRs).
- b. Class-I local supplier means a supplier or service provider, whose goods, service or works offered for procurement, has local content equal to or more than 50%, as defined under order.
- c. Class-II local supplier means a supplier or service provider, whose goods, services or works offered for procurement, has local content more than 20% but less than 50%, as defined under this Order
- d. Verification of local content:
 - i. The Class I local supplier/ Class- II local supplier at the time to tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for Class-I local supplier / Class II local supplier as the case may be. They shall also give details of the location(s) at which the local value addition is made.
 - ii. In case bid value is in excess of Rs. 10 Cr., Class-I local supplier / Class-II local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
 - iii. False declarations will be in breach of the code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the general Financial Rules along with such other actions as may be permissible under Law.

- iv. A supplier who has been debarred by any procuring entry for violation of this order shall not be eligible for preference under this order for procurement by any other procuring entity for the duration of the debarment.
- e. The percentage of local content should be specifically mentioned in the offer, without which it will be summarily rejected.
- f. Preference will be given to Class-I Local supplier and in their absence, Class-II Local supplier will be considered.

8. DELIVERY SCHEDULE

- a. Vendor shall follow the delivery schedule, given in the table below, for executing the contract, installation, testing and commissioning of the item from the date of release of the PO.

S.No.	Mile Stone	Duration	Expected date of completion
1.	Placement of Purchase order date	T ₀	T ₀
2.	Submission of <ul style="list-style-type: none"> • Detailed QAP and detailed fabrication drawings duly approved by user • Unpriced PO copies of all bought out components along with technical data sheets 	30 Days	T ₀ + 30 Days
3.	Delivery of 2 Nos. of Motorized Trolley with Roller Stand units at purchaser’s site after dispatch clearance	150 Days	T ₀ + 180 Days
4.	Installation, On-site testing & Commissioning	30 Days	30 Days from the date of site clearance

- b. The Supplier shall inform the Purchaser within 30 days of any occurrence that is likely to cause delay in delivery. The Purchaser shall determine, in the light of circumstances reported, whether or not any respite or modification of the delivery requirements of the contract can be permitted on this account.
- c. An extension of the time limit for execution or postponement of delivery shall be granted only in the respect of delay, which is not attributable to the fault or the negligence of the Supplier. An extension of the time limit for execution shall be granted to the supplier to the extent that he establishes force majeure events or that any action or inaction on the part of the Purchaser makes

the execution of the Contract impossible within the limit specified thereon. In other case and with due regard to the justification provided, the Purchaser may grant respites.

9. LIQUIDATED DAMAGES/PENALTY CLAUSE

In the event of the Vendor failing to complete the work within the delivery period specified in the contract agreement or any extension agreed thereto, the Purchaser shall reserve the right to recover from the Vendor as liquidated damages/Penalty Clause, a sum of **0.5** percentage per week or part thereof of the undelivered portion of the total contract price of equipment or work. The Total liquidated damages shall not exceed the **10.0** percentage of the total Contract price.

10. FOREIGN EXCHANGE OUTGO AND VARIATION

Vendor shall indicate the Foreign exchange component considered in their offer. The foreign exchange component shall be included in the composite price quoted / unit rates quoted. The foreign exchange component shall be limited to the amount indicated.

11. TAXES AND DUTIES

11.1. GST

Tenderers has to provide applicable GST rate/s as well as HSN/SAC Code for the item/services quoted, for evaluation of the offer.

11.2. INCOME TAX

Income tax at the prevailing rate as applicable and if applicable from time to time shall be deducted from the supplier's bills as per Income Tax Act and a certificate issued (TDS Certificate).

12. RISK COVERAGE

SDSC SHAR will not pay any insurance taken by the vendor. The Vendor shall include the cost of arranging comprehensive risk coverage at his own cost covering the value of equipment including transportation to the site from manufacturer's works, storage at site, fabrication, erection, testing and commissioning at site. The period of such coverage shall be up to contractual completion period or any extension granted by Purchaser thereof.

13. SECURITY DEPOSIT

13.1. The vendor whose tender is accepted will be required to furnish by way of Security Deposit for the due fulfillment of the contract such a sum as will amount to 3 % of the contract price of the work awarded in the form of Bank Guarantee valid till the satisfactory execution of the contract and acceptance with claim period of 60 days.

13.2. The security deposit (bearing no interest) shall be held by the Purchaser as security till satisfactory completion, testing and handing over of all the system and for the due performance of all vendors' obligations under the contract as per delivery period or extension granted thereof by the Purchaser.

13.3. Within 10 days from the date of receipt of contract, vendor shall deposit the security deposit to the Accounts officer, Satish Dhawan Space Centre SHAR, Sriharikota as detailed above by any of the following modes.

- a. By a crossed demand draft in favor of Accounts officer, Satish Dhawan Space Centre SHAR drawn on SBI and payable at Sriharikota.
- b. By an acceptable bank guarantee. The bank guarantee shall be from a reputed international/nationalized/scheduled bank.

13.4. In case of breach of contract, the Security deposit shall stand forfeited in addition to other relief available to the Purchaser under this contract.

14. PERFORMANCE BANK GUARANTEE

The vendor shall guarantee for the performance of the Autoclave plant by providing bank guarantee in favor of the Purchaser for an amount equivalent to 3 % (ten percent) of the total value of this contract valid till the warranty period of the contract and claim period of 60 days. The performance bank guarantee shall be submitted by the vendor with in fifteen days from the date of acceptance of the system as per the CONTRACT. The format for the performance bank guarantee shall be furnished along with contract.

15. PACKING AND FORWARDING

- a. The Vendor shall arrange to have all the material suitably packed as per the standards & statutes and as specified in the contract. Unless otherwise provided for in the contract, all containers (including packing cases, boxes, tins, drums, and wrappings) used by the Vendor shall be non-returnable.
- b. All packing and transport charges, transit handling costs, transit risk coverage and transport fees of agents employed at the place of delivery or elsewhere, shall be deemed included in the price to be paid to the Vendor.

16. WARRANTY

The vendor shall provide **twelve months'** warranty for the entire Autoclave plant for a defect liability, after final official handing over and acceptance. During this period, vendor has to provide and adhere to the following:

- a. This period shall include maintenance; replacement of defective/failed parts at free of cost.
- b. Vendor has to attend to unlimited breakdown calls.
- c. Purchaser will not provide any transport/accommodation for this purpose.
- d. Upon oral or written notification of defects in or malfunctioning of the goods during the warranty period which require corrective action, Vendor shall send the necessary personnel to job site to supervise and assume responsibility for repairs and/or replacement, if necessary, of the defective

goods or material at his own cost. If Vendor does not respond, within seven (7) days after receipt of notification, take steps to correct the breach, Purchaser may do so at the cost and expense of Vendor. Vendor shall reimburse Purchaser all expenses incurred by Purchaser to repair or replace malfunctioning or non-conforming goods.

- e. Where defects items are replaced by new ones, the full warranty period stipulated in the PO shall apply to such replacement items as from the date of their delivery.
- f. The vendor shall ensure availability of spares for all the supplied parts for a period of 20 years.

17. GUARANTEE

- a. The Bidder shall guarantee that the equipment furnished by him are in conformance with the requirement of the specifications.
- b. Goods covered by the contract shall be free from defects in design, materials or workmanship for a period of twelve months from the date of successful commissioning & acceptance by Purchaser.

18. DISCLOSURE AND USE OF INFORMATION BY THE VENDOR

- a. Vendor shall take all necessary steps to ensure that the requirements of the contract or any specification, plan, drawing, pattern, sample or information supplied by, or on behalf of, the Purchaser in connection therewith shall not be disclosed to any person other than a person employed or engaged by the Vendor, whether under sub-contract or otherwise, for the performance of the contract.
- b. Bidder shall guarantee that all information and data received during execution of Contract from Purchaser shall be classified as confidential within the meaning of the Official Secrets Act and will not be divulged to any third bidder without prior written permission of Purchaser. All drawings & documents shall be returned after execution of work.

19. ARBITRATION

The Work Order shall be interpreted, construed and governed by the Laws in India. In the event of any dispute/s, difference/s or claim/s arising out of or relating to the interpretation and application of the Contract, such dispute/s or difference/s or claim/s shall be settled amicably by mutual consultations of the good Offices of the respective Parties and recognizing their mutual interests attempt to reach a solution satisfactory to both the parties. If such a resolution is not possible, within 30 days from the date of receipt of written notice of the existence of such dispute/s, then the unresolved dispute/s or difference/s or claim/s shall be referred to the Sole Arbitrator appointed by the Parties by mutual consent in accordance with the rules and procedures of Arbitration and Conciliation Act 1996 as amended from time to time. The arbitration shall be conducted at Sriharikota as per its rules and regulations. The expenses for the Arbitration shall be shared equally or as may be determined by the

Arbitrator. The considered and written decision of the Arbitrator shall be final and binding between the Parties. The applicable language for Arbitration shall be “English” only.

Work under the Contract shall be continued by the CONTRACTOR during the pendency of arbitration proceedings, without prejudice to a final adjustment in accordance with the decision of the Arbitrator unless otherwise directed in writing by the DEPARTMENT or unless the matter is such that the works cannot be possibly continued until the decision (whether final or interim) of the Arbitrator is obtained. In case order is concluded on the Public Sector Undertakings, the following Arbitration Clause will be applicable:

In the event of any dispute(s) or difference(s) relating to the interpretation and application of the provisions of the commercial contracts between ISRO/SDSC SHAR & Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between ISRO/SDSC SHAR & CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute(s) or difference(s) shall be taken by either party for resolution through the “Administrative Mechanism for Resolution of CPSEs Disputes (AMRCD)”, as mentioned in the Office Memorandum F No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22nd May, 2018 issued by the Director of the Department of Public Enterprises (DPE) under the Ministry of Heavy Industries and Public Enterprises, Government of India.

20. IPR

Any IPR related issues arising out of infringement by the Vendor shall be totally to his account and SDSC SHAR shall not be held responsible in any manner.

21. APPLICABLE LAW AND JURISDICTION

The laws of India shall govern this contract for the time being in force. The Courts of Andhra Pradesh, India only shall have jurisdiction to be with and decide any legal matters or disputes what so ever arising out of the contract.

22. FORCE MAJEURE

- a. Force Majeure is an event beyond the control of the bidder and not involving the bidder’s fault or negligence and which is not foreseeable. Such events may include, but are not restricted to, acts of the purchaser either in its sovereign or contractual capacity, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts, and freight embargoes.
- b. If there is delay in performance or other failures by the bidder to perform its obligation under its contract due to event of a Force Majeure, if a Force Majeure situation arises, the bidder shall promptly notify the purchaser in writing of such conditions and the cause thereof within twenty-one (21) days of occurrence of such event.

- c. Unless otherwise directed by the purchaser in writing, the bidder shall continue to perform its obligations under the contract as far as reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- d. There may be a Force Majeure situation affecting the purchase organization only. In such a situation the purchase organization is to take up with the bidder on similar lines as above for further necessary action.

23. EXTENSION OF WORK COMPLETION PERIOD

- a. If the completion of deliveries of equipment or site work is delayed due to reason of Force Majeure the Bidder shall without delay give notice to the Purchaser in writing of their claim for an extension of time. The Purchaser on receipt of such notice may agree to extend the Contract period or delivery date as may be reasonable but without prejudice to other terms and conditions of the Contract.
- b. Both parties shall keep a record of the circumstances referred to above which are responsible for causing delays in the execution of the services and shall give notice to the other bidder of any such cause as soon as it occurs. An event of Force Majeure, where so ever it occurs, provided it affects either bidder in fulfilling its obligations under this contract, shall justify the affected bidder's claim of Force Majeure. Should one or both the parties be prevented from fulfilling their contractual obligations by a state of Force Majeure lasting continuously for more than a month, the parties shall consult with each other regarding the future execution of the contract.

24. SAFETY AND SECURITY

Vendor shall follow the safety regulations / codes or safety instructions issued by PURCHASER and shall take necessary measures at his own cost. The contractor personnel have to undergo security checks by security force i.e. CISF. All the working personnel shall comply with code of conduct during their stay inside the SHAR campus.

25. SITE DETAIL

The indented HOT AIR AUTOCLAVE plant is to be erected inside a facility in SDSC SHAR, Sriharikota, the place "Sriharikota" is 20 km East of Sullurupeta (nearest town) which is 80 km North of Chennai, Tamilnadu, INDIA. SDSC SHAR, Sriharikota is prohibited place. Hence, no contractor, working personnel will be allowed to stay and they have to be accommodated in Sullurupeta on his own arrangement. The contractor may have to transport working personnel on day to day basis by his own arrangement. Location of the site is worked out to be 25 km (approx.) from Sullurupeta.

26. POWER SUPPLY

Electrical power provided by the purchaser during installation of AUTOCLAVE plant is NOT chargeable subjected to availability & approval. Reasonable quality of normal power will be made available at

one point (415V, 3 phases, 50 Hz). However, onward distribution shall be done by the vendor. All electrical installation by the vendor shall be as per safety regulation & standard and will be subjected to purchaser inspection & approval.

27. WORK RULES

Generally, NO work shall be carried out during night or public holidays unless a written permission is obtained from Purchaser.

28. SITE CLEARANCE

Upon completion of work, Vendor shall remove all his equipment and material from the site within one month or time mutually agreed. Vendor at all times shall keep site in clean condition and remove all unwanted material at regular intervals. In case vendor fails to remove all his equipment and material within the mutually agreed time it is deemed that Purchaser will arrange to remove the same at the vendor's cost besides imposing penalty for failure.

29. ACCOMMODATION

- a. Very limited accommodation may be provided by Purchaser to senior supervisory staff of the Vendor on chargeable basis subject to availability.
- b. Vendor shall make his own arrangement for accommodation & canteen facility for all its staff, technicians, labor & workers. Transportation shall be arranged by Vendor at his own expenses for entire staff.

30. MEDICAL FACILITIES

No medical facilities will be provided by Purchaser at site for Vendor's site personnel. Vendor shall make his own arrangement at his own expenses for medical facilities for site personnel.

31. PROJECT EXECUTION AND MONITORING

Upon placement of purchase order, bidder shall prepare a detailed program schedule for review/approval by Purchaser. Bidder shall identify a project team with one senior official as a project leader. Bidder shall submit the project status report every 15 days giving the status of various activities w.r.t. planned schedule for realization of systems. Bidder shall depute their Project team/ engineers for monthly meeting to review the status and discuss/ resolve minor issues related to project execution at SDSC SHAR/ bidder's site based on mutual agreement on mutually agreeable dates.

32. SUB-CONTRACTS & OTHER TERMS

- a. Whole of the work shall not be subcontracted.
- b. The portion of the work for which the bidder is not expert, may be sub-contracted to proven / reputed OEM in that field. Such sub- contract, if any, shall be given only after obtaining prior approval of the Purchaser. Details of works planned to sub-contract shall be provided in the bid.

- c. The bidder shall be wholly responsible for the proper execution of any sub-contract placed by him in connection with this contract.
- d. The conditions of the sub-contracts if any, shall be framed by the bidder such that interest of the Purchaser and its rights are protected in accordance with the original contract terms and conditions.
- e. Written permission, if given, shall not relieve Bidder from his obligations under the Contract and bidder shall take full responsibility for all work done by Sub-Contractors. Bidder shall be responsible for transmitting pertinent data of all Contract terms and conditions to Sub-Bidders. Bidder shall furnish to Purchaser, copies of all un-priced sub-orders showing promised delivery dates and places.
- f. Should there be any ambiguity or doubt as to the meaning of any of the tender clause/condition or if any further information is required, the matter shall be immediately brought to the notice of Head, Purchase & Stores, SDSC SHAR in writing for necessary clarifications prior to the opening of the tenders.

33. CHANGES & MODIFICATION to SPECIFICATIONS, DESIGNS, DRAWINGS and QUALITATIVE/ QUANTITATIVE REQUIREMENTS

- a. Bidder shall obtain approval from the Purchaser before initiating the action for procurement / fabrication.
- b. Change in make/model for bought item is NOT allowed unless approved by purchaser.
- c. Bidder has to carry out minor modifications suggested by the Purchaser without any extra cost to meet overall specification of the machine & sub systems to meet the functional requirement.
- d. Any item/detail or work which may not have been specifically mentioned herein but, are needed to complete the equipment or system to meet the functional requirement shall also be treated as included and the same shall also be furnished and erected.
- e. The Purchaser reserves the right at any time to modify the Quantitative Requirement, Specifications, patterns or drawings relating to the work covered by the contract. The Bidder shall inform the Purchaser, within 15 days, of any objection/reservation to the modifications required.
- f. Unless the Purchaser directs otherwise, the Bidder shall in either case, submit within a reasonable time limit to be specified by the Purchaser, an estimate of the effect of any such modification in the cost of performance of the contract and/ or on the delivery schedule.
- g. Any amendment to the contract, which may be necessary in this respect, will be established within a reasonable time in the form of an Amendment to Contract to be signed by both parties.

34. ACCEPTANCE AND REJECTION

- a. On completion of the work or part of the work as specified in the contract by the bidder, bidder shall inform the same to the Purchaser as soon as possible. The Purchaser / its representative shall inspect as per mutually agreeable schedule.
- b. If the ordered systems, sub-systems etc., do not meet the prescribed specifications or are damaged at the time of delivery or fail during inspection/testing, they shall be rejected and the Bidder / manufacturer shall replace them at their own cost.
- c. Purchaser has the right to reject the goods on receipt at site during final inspection though the goods have already been inspected and cleared at pre-dispatch stage by the purchaser's inspector, if they found not meeting the overall performance requirements.
- d. Goods accepted by the purchaser at initial inspection and in final inspection in terms of the contract shall in no way dilute purchaser's right to reject the same later, if found deficient in terms of the warranty clause of the contract.

35. SUSPENSION

- a. Purchaser may notify the Bidder to suspend performance of any or all of his obligations under the Contract. Such notice will specify the reasons for suspension and the effective date of suspension. Bidder there upon shall suspend the performance of such obligations until ordered in writing to resume performance of Contract by Purchaser.
- b. If Bidder's performance or his obligations remain suspended or the rate of progress is reduced, then, the time of completion will be suitably extended and all costs incurred by Bidder as a result of suspension or reduction in rate of progress will be paid to Bidder provided that the suspension or reduction in the rate of progress is not by reasons of Bidder's default or breach of Contract.

36. CANCELLATION

- 36.1. GENERAL RULE:** The Purchaser shall have the right at any time to cancel a contract either wholly or in part by giving written notice by registered mail. From the time of receipt of the written notice the Bidder shall undertake to observe the instructions of the Purchaser as to the winding up of the contract both on his own part and on the part of his sub-bidders.
- 36.2. WITHOUT FAULT OF BIDDER:** In the case of cancellation of a contract by the Purchaser without any fault of the Bidder, the Bidder shall on receipt of Purchaser's instructions forthwith take the necessary steps to implement them. The period to be allowed to implement them shall be fixed by the Purchaser after conclusion with the Bidder and, in general, shall not exceed three months.
- 36.3.** Subject to the Bidder confirming, Purchaser shall take over from the Bidder at a fair and reasonable price all finished parts not yet delivered to the Purchaser, all unused and undamaged material, bought-out components and articles in course of manufacture in the possession of the

bidder and property obtained by or supplied to the Bidder for the performance of the contract, except such material, bought-out components and articles in course of manufacture as the bidder shall, with the agreement of the Purchaser, elect to retain.

36.4. WITH FAULT OF BIDDER: The Purchaser reserves the right, after full consideration of all relevant circumstances, including the observations of the bidder, to cancel a contract in any of the following circumstances.

- a. In the event of the Bidder's failure to meet requirement of the purchase order.
 - 1) The Technical requirements of the Bidder.
 - 2) The Progress and/or delivery requirements.
- b. If the Bidder has not observed the provisions of the contract concerning the disclosure and use of information provided by the Purchaser.
- c. If the Bidder fails to comply with the provisions of the contract concerning the equipment, supplies and technical documents made available by the Purchaser.
- d. If the Bidder transfers his contract without the Purchaser's authorization or concludes sub-contracts against the Purchaser's explicit directives.
- e. In the event that Bidder unjustifiably repudiates the Contract or fails to ship or dispatch all or part of the goods ordered for reasons other than those attributed to the Purchaser's actions or as provided in the Force Majeure clause, the Purchaser may, by giving an appropriate notice in writing to the Bidder, fix a Date of Essence by which the Bidder shall complete the dispatch in full. If the Bidder fails to do so, the Purchaser, in addition to his right to recover Liquidated Damages in terms of the Contract, shall also have the right to cancel this Contract and make substitute purchases from other sources. If the goods are in a partial state of fabrication, Purchaser may have the fabrication completed by other means, in which event Bidder shall be liable to the Purchaser for the additional expenses incurred thereby, but shall not have any claim on savings, if any, in such cases.
- f. In the event of such cancellation, the Purchaser shall unless otherwise specified in the contract, there is no obligation on the Purchaser to pay losses incurred by the bidder.
- g. In the event of such cancellation, the Purchaser shall unless otherwise specified in the contract, only pays.
 - 1) In the case of a fixed-cost contract for the supply of equipment or material – The contractual value of items delivered and accepted under the contract before receipt of notification of cancellation, or to be accepted under the special conditions of cancellation.
 - 2) In the other cases – A fair and reasonable price in respect of such work as has been carried out prior to the receipt by the Vendor of notification of cancellation.

SECTION B

SCOPE OF WORK

1. INTRODUCTION

- 1.1. Motorized Trolley with Roller Stand (Weld Rotator) unit with SWL 30T has as a Motorized Trolley assembled with a Roller Stand (Weld Rotator). Intended purpose of 'Motorized Trolley with Roller Stand' is to load a Cylindrical object on Roller Stand (Weld Rotator) in High bay area and move it into a low bay area for working.
- 1.2. Motorized Trolley is mounted on rails, is powered with 2 Nos. of motors. Trolley with overall dimensions of 15000mm (length) x 4000mm (width) is mounted with Roller Stand (Weld Rotator).
- 1.3. Roller Stand (Weld Rotator) is constituted by a Drive Roller frame and an Idler Roller frame. Cylindrical object assembled with End rings / Handling rings is mounted on the Roller Stand (Weld Rotator).
- 1.4. Details of the cylindrical objects to be rotated on Roller Stand (Weld Rotator) are
 - a. **Object-1:** Cylindrical Object of \varnothing 3.20 m assembled with \varnothing 4.0 m x 0.35 m width 'End Rings/Handling Rings' at both ends. There are three variants of Object 1 namely Object 1A (Approx. wt. 24 T), Object 1B (Approx. wt. 19 T) and Object 1C (Approx. wt. 17 T). End to End length of the above three variants of Object1 are 9.1m, 8.9m and 3.7m respectively.
 - b. **Object-2:** Cylindrical Object of \varnothing 2.0 m assembled with \varnothing 2.4 m x 0.25 m width 'End Rings/Handling Rings' at both ends. End to End length of Object 2 (approx. wt.10 T) is 7.56 m.
- 1.5. Trolley has provision to assemble the Idler roller frame at required location based on the length of the various cylindrical objects to be rotated.
- 1.6. Loading configurations of these cylindrical objects with End rings on the Roller Stand is shown in Figure-1 & 2 (Annexure- VI). Each configuration shall be provided with skew arrester to restrict the axial shift of the cylindrical object assembled on slotted base plate to accommodate 80mm axial length difference.
- 1.7. 2 Nos. of such Motorized Trolley with Roller Stand (Weld Rotator) units (SWL 30T) are required for the site requirement. **Note:** 1 No. of Unit includes 1 No. of Motorized Trolley assembled with Roller Stand unit along with a pair of rails for a length of 52380 mm (+ 2 %) with rail clamps as per drawings.

2. FUNCTIONAL REQUIREMENT

- 2.1. Motorized Trolley with Roller Stand (Weld Rotator) Unit-1 is identified for Working area 1 & 2 and Motorized Trolley with Roller Stand (Weld Rotator) Unit-2 is identified for Working area 3 & 4 as shown in Figure-3 (Annexure-VI). Motorized Trolley with Roller Stand (Weld Rotator) units are to be positioned on long rails with rail span of 2.30 m for the purpose of operation.

- 2.2. 300mm Embedment plates are provided in pit to accommodate rails in-flush with FFL all along the length. Rails shall be in flush to FFL. Of the total length, 16m length at both ends are in low-bay region where EOT crane approach is not possible. 20.0m mid portion is in high-bay area equipped with EOT crane as shown in the Figure-3 (Annexure-VI). Each 16m low bay area is a working bay area.
- 2.3. Motorized Trolley with Roller Stand (Weld Rotator) unit shall be loaded with cylindrical objects in high bay area. This setup of Cylindrical object loaded on Motorized Trolley with Roller Stand (Weld Rotator) unit shall facilitate the movement of Cylindrical object, into and out of the working low bay area smoothly i.e., Motorized Trolley with Roller Stand (Weld Rotator) unit-1 shall have provision to be moved in and out of either work areas 1 & 2 and Motorized Trolley with Roller Stand (Weld Rotator) unit-2 shall have provision to be moved in and out of either work areas 3 & 4.
- 2.4. Care shall be envisaged during fabrication and erection of rails and Motorized Trolley with Roller stand units such that in any of the loading condition, drive wheels of the Motorized Trolley shall always be in contact with the rails.
- 2.5. Motorized Trolley with Roller Stand (Weld Rotator) unit shall be equipped with electrical, instrumentation & control system to meet the functional requirement for rugged and smooth operation as detailed in Section-C.
- 2.6. Safety and operational interlocks as described in Section-C shall be incorporated.

3. SCOPE OF THE VENDOR

- 3.1. Supply of Materials, Fabrication, Testing at Vendor's site, Erection, On-site Testing and Commissioning at SDSC-SHAR' of **2 Nos. of 'Motorized Trolley with Roller Stand (Weld Rotator) Units'** to suit the functional requirement as per the scope and specifications as detailed in Section-C.
- 3.2. Supply, erection and commissioning of electrical & instrumentation equipment including local power panel with fuses, switch gears, drives & motors to suit the functional requirement as per the scope and specifications as detailed in Section-C.
- 3.3. Suitable armored 4-core cable shall be supplied and laid via wall trench including fixing materials for powering the Motorized Trolley with Roller Stand (Weld Rotator) units from the available incoming electrical supply at a point at 415V, available at nearby PCC panel at about 100m distance.
- 3.4. Vendor shall supply & erect the rails along with base plate & clamps for motorized trolley movement on the civil embedment plate of the concrete pit at purchaser's site for a length of

52380 mm (+ 2 %) as per the Drawing No. 10-03-SPAG-03-009/A1/R2 for 2 Nos. of Motorized Trolley with Roller Stand (Weld Rotator) units.

- 3.5.** All tools and tackles along with necessary measuring and testing equipment required right from supply to final commissioning shall be in the scope of the Vendor. EOT crane of SWL 40T shall be available for use at purchaser's site during erection & commissioning phase.
- 3.6.** Minor deviations in the dimensions shown in the schematic drawings are allowed to suit the functional requirement and existing Civil construction. However, the same shall be informed to supplier can be incorporated with the approval of the purchaser.
- 3.7.** DP test chemicals shall be supplied by the party.
- 3.8.** Speed test and Load test of Roller Stand (Weld Rotator) and Motorized Trolley units individually & in assembly shall be done by the Vendor at Purchaser's site.
- 3.9.** Any item/detail or work which may not have been specifically mentioned herein but are needed to complete the equipment / system to meet the functional requirement shall also be treated as included and the same shall also be furnished and erected, unless otherwise specifically excluded as indicated.
- 3.10.** Any suggestions to improve the functionality, efficiency, reliability and safety of the Motorized Trolley with Roller Stand (Weld Rotator) Unit may be proposed and will be accepted subjected to the approval of purchaser. Such proposal if any shall be spelt out in the offer document. In case the proposal is made after placement of order, the same shall be accepted subjected to review and approval by purchaser.
- 3.11.** Deviation from purchaser specification, if any shall be clearly brought out in the offer itself. In the absence of such clear spelling out of deviation, it will be presumed that the offer is fully and completely meeting the tender specifications.
- 3.12.** Vendor shall accommodate slight modifications to suit the functional requirement.
- 3.13.** Warranty of the machine to be provided for 1 year from the date of commissioning.
- 3.14.** It is not the intent to specify completely herein all details of design, supply, manufacture and construction of 'equipment / work'. However, the equipment, materials and services shall conform in all respects to high standards of engineering design, workmanship and be capable of performing in continuous commercial operation in a manner acceptable to the DEPARTMENT, who will interpret the meaning of drawings and specifications and shall have the power to reject any 'work/equipment' or material which in his judgment are not in full accordance with the specification.

4. SCOPE OF PURCHASER

- 4.1.** Supply of Cylindrical object assembled with End rings is in the scope of the purchaser.

- 4.2.** A concrete pit with civil embedded plate for a length of 52380 mm (+ 2 %) will provided at the purchaser's site for 2 Nos. of Motorized Trolley with Roller Stand (Weld Rotator) units.
- 4.3.** Incoming electrical supply at a point at 415V will made be available at nearby PCC panel at about 100m distance by the purchaser. Suitable armored 4-core cable shall be supplied and laid via wall trench including fixing materials for powering the Motorized Trolley with Roller Stand (Weld Rotator) units by the Vendor.
- 4.4.** Necessary Test Loads for Load Testing of Roller Stand (Weld Rotator) & Motorized Trolley will be provided by the purchaser.
- 4.5.** EOT crane of SWL 40T shall be made available for use at purchaser's site during erection & commissioning phase by the purchaser.

SECTION C
TECHNICAL SPECIFICATIONS FOR
MOTORIZED TROLLEY WITH ROLLER STAND (WELD ROTATOR) UNITS

1. TECHNICAL SPECIFICATIONS:

Motorized Trolley with Roller Stand (Weld Rotator)		
1.1.	Quantity of Motorized Trolley with Roller Stand (Weld Rotator) units to be supplied	2 Nos.
1.2.	Capacity of Motorized Trolley with Roller Stand (Weld Rotator) unit	SWL 30T
1.3.	Rails with Clamps	A pair of rails for 1 No. of Unit installed with rail clamps as per Drawing No. 10-03-SPAG-03-009/A1/R2 – Sheet 1 of 2
1.4.	Factory acceptance test (FAT)	Functional check of the motorized trolley and Roller Stand (Weld Rotator). The detailed checklist and the parameters to be tested shall be finalized with the consultation of the purchaser for all mechanical & electrical equipment as per standards
1.5.	Load Test (As a part of Site Acceptance Test-SAT)	<p>a. Motorized Trolley with Roller Stand (Weld Rotator) Unit shall be load tested for SWL and 1.25 times of the SWL (i.e. 37.5 tons) at our site during acceptance test.</p> <p>b. Trolley & Roller Stand (Weld Rotator) frame deflection shall be less than span/1000 with full load testing.</p>
1.6.	Speed Test (As a part of SAT)	Motorized Trolley with Roller Stand (Weld Rotator) Unit shall be tested at No-load, full load condition i.e. at SWL and over-load condition i.e. at 1.25 times SWL for specified speed range of 1.0 m/min to 6.0m/min in both Forward and Reverse directions as well as 0 rpm to 2 rpm rotation range of Roller Stand (Weld Rotator) at our site during acceptance test.

Roller Stand (Weld Rotator) Specifications		
1.7.	Capacity of Roller Stand (Weld Rotator)	30,000 Kg (for a Unit of one driver and one idler unit)
1.8.	No. of roller units per Roller Stand (Weld Rotator)	One Drive Frame with 2Nos. of Drive Rollers & One Idler Frame with 2Nos. of Idler Rollers
1.9.	Details of Roller Stand (Weld Rotator)	As per attached Roller Stand (Weld Rotator) Drawings Dwg No.: SHAR\30 Ton\100-00 (Roller Stand General Assembly)
1.10.	Direction of rotation	Clockwise and anticlockwise
1.11.	Speed of rotation of \varnothing 4.0 m diameter object	0- 2 rpm
1.12.	Worm Reducer	Ratio: 70:1, Efficiency: \geq 74.0%, Output torque: \geq 5070Nm Qty.: 2 Nos. for each Motorized Trolley with Roller Stand Unit (Preferred Make: Shanthi Gears, Elecon, Radicon with the approval of purchaser) Note: Gear box dimensions shall suit the Drive Roller Frame dimensions for Gear box assembly or minor modifications shall be done to the Drive Roller Frame to suit the selected gear box to meet the functional requirement with the approval of the Purchaser
1.13.	Motor powered with VVVF Drive Details	3 phase squirrel cage induction motor 415 V \pm 10%, 50Hz, 11KW, 975 rpm Frame: 160 L; IE2 or better with IP55 protection Qty.: 1 Nos. for each Motorized Trolley with Roller Stand Unit Motor type—inverter duty type along with electromagnetic disc type brake. Space heaters are to be provided to avoid low IR value during idle period. (Preferred Make: Bharat Bijilee, Siemens, Crompton Greave with VVVF Drive of preferred

		<p>Make: ABB/Siemens/ or equivalent with the approval of purchaser)</p> <p>Note: Electric motor dimensions shall suit the Drive Roller Frame dimensions for Electric motor assembly or minor modifications shall be done to the Drive Roller Frame to suit the selected electric motor to meet the functional requirement with the approval of the Purchaser</p>
1.14.	Speed control	Through VVVF drive
1.15.	Electric Motor to Gear Box Coupling	<p>Torque rating: ≥ 265 Nm to suit the selected electric motor</p> <p>(Preferred Make: KTR- Rotex42, SKF, Unique, Rathi, Fenner)</p> <p>Qty.: 1 Nos. for each Motorized Trolley with Roller Stand Unit</p> <p>Note: Coupling dimensions shall suit the Drive Roller Frame dimensions along with motor shaft & gear box input shaft dimensions for Coupling assembly between Electric motor to Gear Box input or minor modifications shall be done to the Drive Roller Frame to suit the selected Coupling to meet the functional requirement with the approval of the Purchaser</p>
1.16.	Gear Box Output to Drive Roller Shaft Assembly Coupling	<p>Pin-Bush type Coupling</p> <p>Nominal Torque: ≥ 8729 Nm</p> <p>Qty.: 2 Nos. for each Motorized Trolley with Roller Stand Unit</p> <p>(Preferred Make: Fenner-Model N8C8B, SKF, Unique Pin Bush – Model PB 630 Bore 85H8/70H8, Rathi)</p> <p>Note: Coupling dimensions shall suit the Drive Roller Frame dimensions along with Gear box output shaft & Drive roller shaft assembly dimensions for Coupling assembly between Gear Box to Drive Roller assembly or minor modifications shall be done to the</p>

		Drive Roller Frame to suit the selected Coupling to meet the functional requirement with the approval of the Purchaser
1.17.	Gear Box to Connecting Shaft Coupling	<p>Pin-Bush type Coupling</p> <p>Nominal Torque: ≥ 621 Nm</p> <p>Qty.: 2 Nos. for each Motorized Trolley with Roller Stand Unit</p> <p>(Preferred Make: Fenner- Model BC3, SKF, Unique Pin Bush – Model PB 160 Bore 45H8/45H8, Rathi)</p> <p>Note: Coupling dimensions shall suit the Drive Roller Frame dimensions along with Gear box shaft & Connecting shaft assembly dimensions for Coupling assembly between Gear Box to Connecting Shaft assembly or minor modifications shall be done to the Drive Roller Frame to suit the selected Coupling to meet the functional requirement with the approval of the Purchaser</p>
1.18.	Adapter Sleeve Bearing for Roller Shafts	<p>Adapter sleeve bearing (SN520-22220K +H320) (sealed for life)</p> <p>Load Rating:</p> <p>Dynamic Load(C): ≥ 433 KN</p> <p>Static Load(C0): ≥ 490 KN</p> <p>Qty.: 4 Nos. for each Motorized Trolley with Roller Stand Unit</p> <p>(Preferred Make: SMR/SKF/FAG/NTN with the approval of purchaser)</p> <p>Note: Bearing dimensions shall suit the Assembly Roller Shaft Assembly or minor modifications shall be done to the Drive Roller Frame to suit the selected Bearing to meet the functional requirement with the approval of the Purchaser</p>

1.19.	Connecting shaft Key	<p>Dimensions of Key: 14 mm (width) x 9 mm (height) x 48 mm (length) to suit connecting shaft assembly (Ref. Dwg. No.: SHAR\30Ton\100-17)</p> <p>Material: IS2062 Gr B</p> <p>Qty.: 2 Nos. for each Motorized Trolley with Roller Stand Unit</p>
1.20.	Roller shaft Key	<p>Dimensions of Key: 22 mm (width) x 14 mm (height) x 121 mm (length) to suit connecting shaft assembly (Ref. Dwg. No.: SHAR\30Ton\100-15)</p> <p>Material: IS2062 Gr B</p> <p>Qty.: 2 Nos. for each Motorized Trolley with Roller Stand Unit</p>
1.21.	Lining on steel wheels	<p>a. Lining on steel wheels to be done with POLYURETHANE of thickness 25 mm to take the load (Dwg No.: SHAR\30 Ton\100-00 (Roller Stand General Assembly)</p> <p>b. Hardness test of Polyurethane on metallic rollers of the Roller Stand (Weld Rotator) shall be carried out & shall be 95 shore A grade.</p> <p>c. Physical properties test certificate for Polyurethane 95 Shore A grade (ASTM D2240) as per standards shall be submitted</p> <p>d. Make: Jini Polymech Engg. Pvt Ltd. or equivalent with the approval of the purchaser</p> <p>e. Earthing provision for each polyurethane roller shall be provided and grounded.</p>
1.22.	Skew Arrestor	<p>To prevent the axial movement of the cylindrical object during rotation on Rollers, end stoppers/Skew arrestor(wheels) shall be provided.</p> <p>Qty: 6 Nos. as per Dwg No.: SHAR\30 Ton\100-00 (Roller Stand General Assembly)</p>
1.23.	Skew Arrestor Bearings	Deep Groove Ball Bearing (sealed for life)

		6314-2z Dimension: 70 x150x35 mm Dynamic load rating =104 KN Qty: 2 Nos. of bearings for each skew arresting roller (Preferred Make: SKF/FAG/NTN with the approval of purchaser)	
1.24.	Material of construction & Bill of Materials	Refer Drawing No.: SHAR\30 Ton\100-00 (Roller Stand General Assembly and Drawing No. 10-03-SPAG-03-009/A1/R2 – Sheets 2 of 2	
1.25.	Reference Drawings	Drawing No. SHAR\30 Ton\100-00 (Roller Stand General Assembly & Drawing No.: 10-03-SPAG-03-009/A1/R2 – Sheet 2/2	
1.26.	Roller Stand Part Drawings referred in Drawing No. SHAR\30 Ton\100-00 (Roller Stand General Assembly	Refer below	
Item No.	Description	Qty	Reference Drawing No.
1	Idler Roller Frame	1	SHAR\30Ton\100-01 (3 Sheets)
2	Drive roller frame	1	SHAR\30Ton\100-03 (3 Sheets)
3	Connecting Channel	2	SHAR\30Ton\100-04 (2 Sheets)
4	Connecting Frame -1 for Roller Stand	2	Ref Dwg No.:10-03-SPAG-03-009/A2/R2 Sheet 2of 2
5	Connecting Frame -2 for Roller Stand	2	
6	Roller Bracket	4	SHAR\30Ton\100-07 (3 Sheets)
7	Skewing Bracket	6	SHAR\30Ton\100-08 (3 Sheets)
8	Anti-Skew Roller	6	SHAR\30Ton\100-09 (1 Sheets)
9	Retainer	6	SHAR\30Ton\100-10 (1 Sheets)
10	Spacer	6	SHAR\30Ton\100-11 (1 Sheets)
11	Skew Arrester Bracket	4	SHAR\30Ton\100-12 (3 Sheets)
12	FU Spacer plate (Gear Box)	4	SHAR\30Ton\100-13 (1 Sheets)
13	Spacer plate	8	SHAR\30Ton\100-14 (1 Sheets)
14	Drive Roller	2	SHAR\30Ton\100-15 (3 Sheets)
15	Idle Roller	2	SHAR\30Ton\100-16 (3 Sheets)
16	Connecting Shaft	1	SHAR\30Ton\100-17 (1 Sheets)
1.27.	All the couplings between gear box, motor and drive shaft shall be covered with sheet suitably		
Motorized Trolley			
1.28.	Overall dimensions of Motorized Trolley	15000 mm (length) x 4000 mm (width) As per attached Motorized Trolley Drawings	

		(Drawing No. 10-03-SPAG-03-009/A1/R2 – Sheets 1/2 & 2/2)
1.29.	Speed Range of the Trolley movement at 1.25 times SWL load	1.0 m/min to 6.0 m/min in both Forward and Reverse directions.
1.30.	Mechanical End Stoppers & Mechanical locking	In order to prevent the over travel of the trolley, mechanical stoppers should be provided suitably for considering Work area-1&2 for Unit-1 & Work area-3&4 for Unit-2. Provision for this shall be incorporated during commissioning. Also, provision for Mechanical locking shall be provided on the drive side edge of the Trolley ends.
1.31.	Motor powered with VVVF drive	Geared Motor with in-built electromagnetic brake with Specifications as per attached Motorized Trolley Drawings Motor type—Inverter Duty Type powered with suitable VVVF Drive. Power rating: 0.75 KW to deliver Motorized Trolley linear speed of 1.0 m/min to 6.0 m/min in both Forward and Reverse directions. Motor Size: 90S Maximum current drawn during full load shall be less than 80 % of the motor rating. Space heaters are to be provided to avoid low IR value during idle period. As per the design. 2Nos. of electric motors (bi-directional) shall power 2Nos. of trolley wheels as per the Motorized Trolley Drawing. Note: The specification supersedes Motor specifications in Drawing No. 10-03-SPAG-03-009/A1/R2 – Sheets 1/2 & 2/2). However, Geared motor with drive shall be selected only with the approval of the purchaser.
1.32.	Effectiveness of braking	Trolley rotation should stop within 3 seconds of issue of stop command.

1.33.	Material of construction	As per attached Motorized Trolley Drawing No. 10-03-SPAG-03-009/A1/R2 – Sheets 1/2 & 2/2
1.34.	Reference Drawings	Drawing No. 10-03-SPAG-03-009/A1/R2 – Sheets 1/2 & 2/2
	Interlocks	
1.35.	Safety Interlocks	<ol style="list-style-type: none"> 1. Emergency stop button for Trolley movement in on the operating panel. 2. Emergency stop button for Roller Stand (Weld Rotator) rotation on the operating panel. 3. Trolley movement shall not be initiated when Roller Stand (Weld Rotator) is in operation as well as Roller Stand (Weld Rotator) rotation shall not be initiated when Trolley is in motion.
1.36.	All the electrical & instrumentation systems shall comply with specifications mentioned in Section-C.	
1.37.	All the Electric equipment shall be selected to meet the following specifications: Ambient conditions: Temperature range is 18 – 50°C. Relative Humidity range is 40% - 98%.	
1.38.	All routine tests shall be conducted in the presence of purchaser’s representative on all equipment as per relevant IS standards.	
1.39.	All commissioning tests shall be carried out as part of pre-delivery inspections as well as at purchaser’s site and in the presence of purchaser’s representative and approval for same shall be obtained before commissioning the installations.	

2. GENERAL SPECIFICATIONS

2.1. RAW MATERIALS & BOUGHT OUT ITEMS

- a. All raw materials used for Motorized Trolley with Roller Stand (Weld Rotator) units shall be of good quality and standard make for all structures.
- b. All pins shall be from forged material bars and shall be UT tested & qualified.
- c. All materials shall have Mechanical & Chemical test certificates with Heat No and Lot No. from original manufacturer.
- d. All the materials shall comply drawing specifications.
- e. Make of steel shall be: M/s. SAIL/ TATA/ JINDAL /VIZAG STEEL /ESSAR only. Supplier Certificate to be provided.
- f. Make of alloy steel forgings for pins shall be M/s. SAIL/ JINDAL/ TATA/ ESSAR/ VIZAG-RINL/

Mahindra UGINE Steel (MUSCO)/ Hindustan Forgings.

- g. Fasteners shall be of TVS/UNBRAKO or equivalent with the approval of purchaser.
- h. Eyebolts shall be Cross-by or equivalent with the approval of purchaser.
- i. Preferred makes for other bought-out items shall be as per Technical specifications table (Clause-1 of Section-C).
- j. Preferred makes for Electrical equipment**

Item Description	Preferred Make
Roller Stand Motor	SIEMENS/Bharat Bijilee/Crompton greaves
VVVF drive	SIEMENS/ABB
Geared Motor for Motorized Trolley	PBL/ELECON/SEW/reputed only with the approval of department
4P MCCB	SIEMENS/L&T
Semiconductor fuses with base	SIEMENS/BUSMAN
Brake contactor	SIEMENS
Brake MPCB	SIEMENS
Power wiring	LAPP/IGUS/ POLYCAB
Control wiring	LAPP/IGUS/POLYCAB
Proximity sensors	P&F
IS Barriers	P&F
Stainless Steel IGUS Chain	IGUS
Line filter	REPUTED
Load side choke	REPUTED
Indication Lamps	SIEMENS/L&T
Emergency stops	REPUTED
Local control panels	RITTAL
VVVF drive panel	RITTAL
Power cables 4C x 4Sq.mm	LAPP/IGUS/POLYCAB
Power cable for brakes and space heaters	LAPP/IGUS/POLYCAB
Control cable for proximity sensors	LAPP/IGUS

If for any reason, the supplier is planning to use different make, and he has to get prior approval for the same from the purchaser. However, purchaser reserves the right to reject such proposal. Also, all the documents of the bought-out items including the list of suppliers and their address shall be submitted for any future requirement/procurement.

2.2. FABRICATION

- a. Manufacturing includes cutting of rolled sections & plates in required lengths, finishing edges, Edge preparation, welding, inspection of welds, stage inspection, removal of burrs, finishing.
- b. The Entire fabrication activity shall be performed in a planned/sequential manner to achieve

desired dimensional/geometrical tolerances specified in the drawing.

- c. In assembling and joining parts of a structure, or of build-up member the procedure and approved sequence of welding shall be followed such as to avoid distortion and minimize shrinkage stress.
 - d. All pins shall be forged and finish machined and of alloy steel as mentioned in drawings.
 - e. Welding shall be done by qualified welder according to IS 817- 1966, following the standard welding practices. WPS and PQR shall be prepared as per IS.
 - f. All fillet welds shall be of minimum 6mm size unless otherwise specified in the drawing. The effective throat thickness of a fillet weld shall be shortest distance from the root to face of the diagrammatic weld.
 - g. Wherever welded attachments are used to facilitate fabrication, same shall be removed carefully by cutting or chipping and surface of material shall be finished smooth by grinding. As far as possible, hammering shall be avoided.
 - h. All welds shall be masked before painting in order to facilitate DP testing at our site after load testing.
- 3. Surface Preparation and Painting:** Painting of the equipment (both Motorized Trolley & Roller Stand) shall be done after completion and clearance during Pre-delivery inspection. The entire exposed, un-insulated carbon steel surface shall be painted as per following:
- a. **Surface preparation:** Sand blasting as per Sa 2 ½ as per SIS 05-5900-1967.
 - b. **Primer:** One coat of zinc rich epoxy primer with red oxide and zinc phosphate pigments to achieve total DFT of 70 to 75 microns.
 - c. **Intermediate Coat:** One coat of Polyurethane to achieve total DFT of 80 microns.
 - d. **Final Coat:** One coat of Polyurethane enamel paint of 40 microns DFT.
 - e. The grade of paint shall be chosen such that it will withstand the maximum temperature to which the components painted will be subjected to.
 - f. Any intermediate cleaning required between successive coats of paint shall also be carried out as per the manufacturer's standard.
 - g. All the machined surfaces shall be applied with anti-corrosive varnish.
 - h. All welds shall be masked to facilitate D.P testing at our site after load testing.
 - i. These welds after D.P testing shall be cleaned thoroughly and apply one coat of epoxy primer and two coats of epoxy paint.
 - j. Surfaces that may become inaccessible after fabrication shall be prepared and painted while accessible, with two coats Epoxy Primer.
 - k. Shade of the epoxy paint for Motorized Trolley & shall be approved by the purchaser.

- I. Any intermediate cleaning required between successive coats of paint shall also be carried out as per the manufacturer's specification and guidelines.

4. SYSTEM DESCRIPTION (ELECTRICAL)

- 4.1.** The electrical systems shall be designed based on the 415V \pm 10%, 50 Hz \pm 3%, 3 phases, 4 wire AC.
- 4.2.** All the equipment/item shall be suitable for coastal area (saline environment) application.
- 4.3.** All equipment shall be given tropical used treatment.
- 4.4. Motor and VVVF drive for Roller Stand (Weld Rotator):**
 - a. Necessary Type test and routine test certificates are to be provided for verification and approval.
 - b. Suitable Line side filter and load side choke is to be provided for VVVF drive.
 - c. Semiconductor fuses /MCCBs shall be provided as per the recommendations of the drive manufacturers for VVVF drive protection.
 - d. Brake opening shall be interlocked with VVVF drive operation. Interposing relays shall be used for digital outputs of control unit to drive the power contactors/ Indication lamps.
 - e. 20% Spare capacity of the DI/DOs and AI /AOs shall be available in Control units of VVVF drive.
- 4.5. Motor and VVVF drive for Motorized Trolley:**
 - a. Speed range of Motorized Trolley shall be 1 m/minute to 6 m/ minute with the help of VVVF drive.
 - b. Capacity of the motor shall be as per the Motorized Trolley Drawing (Drawing No. 10-03-SPAG-03-009/A1/R2). Selection of the motor along with drive to meet the functional requirement shall only be with the purchaser's approval
 - c. Suitable Line side filter and load side choke is to be provided for VVVF drive.
 - d. Semiconductor fuses /MCCBs shall be provided as per the recommendations of the drive manufacturers for VVVF drive protection.
 - e. Brake opening shall be interlocked with VVVF drive operation. Interposing relays shall be used for digital outputs of control unit to drive the power contactors/ Indication lamps.
 - f. Brake opening shall be interlocked with VVVF drive operation. Interposing relays shall be used for digital outputs of control unit to drive the power contactors/ Indication lamps.
 - g. 20% Spare capacity of the DI/DOs and AI /AOs shall be available in Control units of VVVF drive.
 - h. One step higher capacity contactors shall be used wherever required.
 - i. Two motors shall be powered through separate contactors and interlocks. MPCB shall be provided to each motor for over load and Short circuit protections. MPCB shall have Trip/Off/ON status provision. MPCB healthy status shall be taken as interlock for issue of ON command to motors. If any motor is not healthy, the ON command shall be withdrawn for both motors and shall not be powered.

- 4.6. Low and High-speed selection for Trolley Operation:** There shall be a selector switch for selection of low /high speed of trolley. However, the operation philosophy shall be such that whenever it reached 200mm before end limits, it shall automatically switch over to Low speed. Proximity sensors for detection of the location before 200mm shall be provided in addition to actual end limits proximity sensors for complete stop.
- 4.7. Panel for Roller Stand (Weld Rotator) drive and Motorized trolley starters:** A panel with 14 GWG sheet steel with powder coating shall be provided to accommodate VVVF drive, power contactors, SDF, SMPS, Control transformer and other components. The panel shall have space liberally between components for good air circulation. Creepage and clearances shall be liberal and as per the relevant standards.
- 4.8. Preferred Make of the panel:** Rittal/president
- 4.9.** Panel shall be non-compartment type. Trolley motors starters and Roller Stand (Weld Rotator) VVVF drive shall be accommodated in a single panel.
- 4.10.** Panel shall be front operated and shall be protected from dust and vermin.
- 4.11.** Roller Stand (Weld Rotator) drives shall be provided with provision to operate from panel with MOP (Motorized Potentiometer) mode.
- 4.12.** Control transformer and SMPS shall be selected based on the actual load requirement and selection details along with calculation shall be provided for verification and approval.
- 4.13.** Panel shall be mounted on Floor /Wall based on the site conditions.
- 4.14.** The panels shall have sealed membrane construction (for switches/push button) to IP-65. The push buttons shall be dust & vermin tight.
- 4.15.** All the electronic/digital/microprocessor-based components shall be selected/designed by the package vendor to minimize ingress of dust these shall be vermin proof.
- 4.16.** All the panels shall have captive stainless-steel cover bolts (to ensure that they are not lost during installation)
- 4.17.** Gaskets shall be neoprene rubber. Hardware shall be stainless steel.
- 4.18.** The layout of the panel shall be such that, all components are accessible easily for proper maintenance.
- 4.19.** VVVF drive Speed increase /decrease input shall be made by Potentiometer operation of VVVF drive. A separate rpm indicator for motor speed shall be provided on the panel door and LCPs for Roller stand drive. The rpm indicator for Roller Stand shall be linked with analog output of VVVF drive for roller stand.
- 4.20.** IGUS Chain system shall be provided to enable the safe movement of cables during forward and reverse movement of the motorized trolley. All power cables, control cables, signal cables of

motorized trolley and Roller Stand (Weld Rotator) shall be routed through IGUS chain. Sufficient space is to be maintained between power cables and signal cables to avoid EMI effect.

5. SWITCHGEAR SELECTION

- 5.1.** Power will be available at nearby Power Control Centre (PCC) panel at about 100m distance. Suitable capacity armored 4-core cable shall be supplied and laid via wall trench including fixing materials.
- 5.2.** Suitable capacity 4 Pole MCCB with Over load and short circuit, Instantaneous and Ground fault (LSIG) protections shall be provided as incomer switchgear. Input MCCB ON/OFF /Trip indication lamps shall be provided on front panel.
- 5.3.** All MCBs shall be 4 Pole/2 Pole construction/All the poles including neutral pole shall be full 100% rated.
- 5.4.** Electrical panels shall have finger touch protection, for human safety viz. working on one component shall not cause shock to the personnel due to any other live component in the panel. Also, the terminal live parts shall not be accessible by fingers (finger should not come in contact with live parts of the terminals)
- 5.5.** Equipment name plates shall be fixed by screw/rivets and shall not be pasted.
- 5.6.** For all design purpose ambient temperature shall be considered as 50°C. Temperature rise shall be as per IS-8623.
- 5.7.** The main switch of starter unit shall be permanently fixed on the drive unit itself at a convenient height for operating.
- 5.8. LOCAL CONTROL PANEL(LCP):**
 - a. Local operating panels shall be available at high bay area as well as in the low bay area i.e., 2 Nos, of LCPs shall be available.
 - b. LCP in low-bay area shall be movable type (with trolley) and LCP in high bay area shall be fixed. LCPs positioning shall be with the approval of the purchaser.
 - c. Local operating panel shall be provided to operate both Roller Stand (Weld Rotator) and Trolley motors.
 - d. Necessary Push buttons, selector switches, Potentiometers, for roller stands shall be provided in LCP. Speed indicator shall be available in LCP for roller stand RPM.
 - e. Emergency stop shall be provided at LCP for both Roller Stand (Weld Rotator) and trolley motors individually. Emergency stop shall be available at Panel also.
 - f. Motor or Drive Status information like Run, Trip, Ready, Incoming Power R-Y-B shall be provided for both Roller Stand (Weld Rotator) s and trolley.
 - g. LCP shall be provided with sufficient cables to move throughout the length of the rail.

- h. Roller Stand (Weld Rotator) RPM indicator shall be provided at LCP.
- i. Self-illumination push buttons shall be provided on LCP.
- j. **Interlock:** Three locks and one key system shall be adopted to provide interlock between the operating stations to avoid the simultaneous commands for operation.

6. CABLES

- 6.1. All power and control cables shall be in the scope of supplier.
- 6.2. Within the facility cables shall be laid in cable trays/ conduits supported on embedment plates on wall, column beams etc.
- 6.3. In the Control Room the cables shall be laid in cable trays.
- 6.4. All Cable trays shall be provided with top cover.

6.5. Type of cables:

Conductor Material, Insulator, sheathing material and armoring for the cables in the plant shall be as follows –

- a. **Conductor Material:** All cables shall be Copper only. Minimum Power cable size shall be 4CX4 sq.mm, (all cables shall be with standard conductor)
 - b. **Insulation Material:** All power cables for 415 V AC System and control cables shall be PVC insulated.
 - c. **Voltage Grade:**1100V
 - d. **Armoring:** All power and control cables shall be armored.
- ### 6.6. Sheathing Material
- a. Power cable for 415 V AC systems: Inner Sheath-PVC & Outer Sheath – PVC.
 - b. Control cables: Inner Sheath – PVC & Outer Sheath – PVC
 - c. Outer Sheath should with anti-rodent properties.
- 6.7. All endeavor should be made to do away with jointing especially inside facility bay and at in accessible place.
 - 6.8. Cable ties shall be used for cable dressing.
 - 6.9. No Stress or twist shall be left on cables.
 - 6.10. Cable glanding and termination is totally under Vendor's scope.
 - 6.11. **Cable Glands:** The cable glands shall be of double compression type with high quality neoprene gaskets. Cable glands shall be SS on both sides of cable.
 - 6.12. **Cable Lugs:** Cable lugs used for copper cables shall be of copper and aluminum cables shall be of aluminum. Bi-metal strip/Bimetallic Lugs shall be used whenever two different metals are to be connected together. Lugs shall be of tinned copper or aluminum solderless crimping type.

6.13. Cable trays: Cable trays shall be perforated of hot dipped galvanized steel with powder coating. All cable trays shall be of 100 mm height. Cables within buildings shall be laid on cable trays supported on wall, column, beams etc. In Room, the cables shall be laid in cable trays. (Cable tray supply and erection in Room shall be in the scope of Vendor.)

6.14. Flexible Cable Trench: Flexible cable trench shall be provided to carry all the cables along with Trolley mounted with Roller Stand (Weld Rotator).

6.15. Wiring:

- i. All inter cubical and internal wiring for all Control Panels shall be carried out with 1100V grade, stranded tinned copper conductors with HFFR insulation. The minimum size of the stranded copper conductor used for the panel wiring shall be 1.5 mm² for 24 VDC control commands. For power supply, the conductor size shall be provided as per the load rating (min. 2.5 sq. mm for 230 V AC and 1.5 sq.mm. for 24 V DC). Control & Power wiring shall be segregated and routed in PVC troughs. Different color wires shall be used for different voltages.
- ii. Engraved core identification plastic ferrules, marked to correspond with the panel wiring diagram shall be fitted at both ends of each wire. Cross ferruling shall be done.
- iii. For termination of cables emanating/entering Control Panels MIL (MIL-26482 for 4- 20 mA signal and MIL-5015C for 24 V DC) qualified multipin circular connectors shall be provided. Terminal blocks shall not be acceptable.
- iv. All spare contacts and spare terminals of the panel mounted equipment and devices shall be wired to the connectors.

6.16. Cable Terminations: For cables upto 1.5 sq.mm., crimped pins shall be provided and for cable sizes above 1.5 sq.mm. Crimped lugs shall be provided suitable for terminating on MIL- 26482 and MIL-5015C multipin circular connectors in Control Panel. All necessary cable terminating accessories such as removable gland plates, compression glands, supporting clamps and brackets, wiring troughs and gutters, etc. shall be included in the Vendor's scope of supply.

6.17. Plug Points and Interior Lighting

- i. A 5/15 Amp 230V, 1 phase, 50 Hz, AC 3 pin plug point shall be provided in the interior Control Panel with on/off control switch and fuse.
- ii. For interior lighting 230V, 1 Phase, 50 Hz, 40W fluorescent lamp with operating door switch and protective fuses shall also be provided.

6.18. Relays: All interlocks and logics executed in Control Panel for interfacing commands with electrical panels and for multiplication of digital output signals relays shall be used. Relays of suitable rating shall be provided considering the load. Each Relays shall have minimum 4 changeover contacts.

6.19. Labels: All front mounted equipment, as well as equipment mounted inside the Control Panel shall be provided with individual labels with equipment designation engraved. These shall be Phenolic overlays (1.6 mm thick) with black background and white lettering and shall be fixed to the panel by stainless steel screws (counter sunk).

6.20. Earthing: All Panels shall be provided with suitable earth including providing necessary earth cables/strips.

a. Earthing Connection: 230 V equipment shall be earthed at one point. However, the 415 V equipment shall be earthed at two points. Metallic frame of all current carrying equipment, structures, support and neutral points of various systems shall be connected to the earthing system. All the rollers shall be earthed during installation.

b. Armour of three core cables shall be earthed at both end cable glands using double compression gland. Armour of single core cables shall be earthed at only one end.

c. Equipment earthing: Taps from main earthing system and/or earthing pad provided near the equipment/structure shall be connected to earthing terminals of the equipment/structure.

d. Earthing of Motors: Frames of all electric motors shall be connected to the earthing system by two distinct paths.

e. Mode of Wiring: Separate Neutral shall be provided in each circuit for isolation.

6.21. Vendor shall provide 20 % spare I/O's for VVVF drives.

7. GENERAL CONSTRUCTION:

7.1. The panel should be designed, manufactured and tested in accordance with IS 8623(Pt1), IS 13947(Pt4/Sec1) and as per the specifications issued by us.

7.2. The panels shall be of modular design with a horizontal bus bar compartment running at the top and the cable entry shall be from the bottom for MCC.

7.3. MCC shall be provided with suitable nameplate showing feeder name with rating as given in the bill of quantities table. Name plates should be made of aluminum black enamel painted and names should be engraved and screw fixing type. Inscription shall also be provided for indication lamps, meters, operating handle and panel opening lock.

7.4. All live parts shall be shrouded with non – deteriorating insulating barrier to prevent against accidental contact.

7.5. Height of panel should not be more than 2.0 meters and length of panel should be within 1.2m. The depth of the panel is to be minimum of 400mm.

7.6. Cable shall be bottom entry.

7.7. The degree of protection shall be IP 54 as per IS: 2147.

7.8. The MCC should have necessary electrical switch gear as mentioned in below BOM table.

- 7.9. Provision shall be made for lifting and handling of panel by eyebolts.
- 7.10. Bus bar support conductors shall be FRP type firmly fitted to the frame work of the panel.
- 7.11. Necessary MCB protections are to be planned for control circuit with suitable capacity.
- 7.12. Control transformer for suitable capacity to be planned to extend control supply to the individual feeder. Input and output shall be provided with suitable MCBs for protection.
- 7.13. The harmonic components are to be kept within limit at 5% VTHD. Necessary input/output chokes are to be planned. Selection sheet shall be provided.
- 7.14. The fuses for protection of drive should be of semiconductor fuses. (If the party is using normal HRC fuse the compatibility of the same within drive should be proven through documents.

8. SHOP INSPECTION & QAP

- 8.1. The Representative of the purchaser shall have access and right to inspect the work at all times, during the course of fabrication. Any work which is proved faulty shall be corrected by the supplier without delay.

8.2. Quality Assurance Plan (minimum requirement)

S.No.	Characteristics/ type of checks	Quantum of check	Reference document	Acceptance norms	Formats of record	Party	SHAR	Remarks
1	3	4	5	6	7	8	9	10
Raw material identification								
1.	Visual & dimensional	100%	Drawing	Drawing	Material inspection report	W	R	
2.	Manufacturers TC verification with material specification/ drawings.	100%	ASME sec II part A/ IS 2062	ASME sec II part A/ IS 2062		R	R	
3.	Chemical properties Mechanical properties	100%	Drawing	Drawing	Mill TC	R	R	
4.	Identification mark verification and transfer of identification					W	R	
Bought-out Items								
5.	Details of all bought out items, shall be submitted for Purchaser's approval.	100%				R	A	
Power & Control Drawings								
6.	Power and control drawings to the department for Purchaser's approval. FAT and SAT shall be carried out as per the approved drawing. Functional	100%				R	A/W	

S.No.	Characteristics/ type of checks	Quantum of check	Reference document	Acceptance norms	Formats of record	Party	SHAR	Remarks
1	3	4	5	6	7	8	9	10
	and routine tests shall be conducted as per mutually agreed terms.							
Welding procedure qualification								
7.	Selected electrodes for welding	100%		ASME standard		R	A	
8.	Verification of WPS, PQR and WPQR	100%	WPS & WPQR	ASME SEC IX	WPS & WPQR	R	R	
Fabrication								
9.	Marking and cutting Dimensions and bevel preparation	100%	DRAWING	DRAWING	---	W	R	
10.	Fit-up inspection - Dimensions bevel details mismatch	100%	DRAWING	DRAWING	Dimensional inspection report	W	R	
11.	DPT on root and final pass	100%	ASME Sec -5, Art - 6	ASME SEC VIII, App 8	DPT report	W	R	
12.	DPT on back grinding	100%	ASME Sec -5, Art - 6	ASME SEC VIII, App 8	DPT report	W	R	
13.	Heat treatment – review of SR charts		ASME SEC VIII, Div – 1, UW - 40	ASME SEC VIII, Div – 1, UCS- 56	H.T. chart	W	R	
14.	Methodology for Rollers Lining with Polyurethane before process	100%		As per standard practice		W	A	
Pre-Delivery Inspection								
15.	Full Assembly of the Motorized Trolley with Roller Stand (Weld Rotator) units inspected at the Vendor's works	100%	Specifications document	Specifications document	Inspection report	W	W	
Surface Preparation & Painting								
16.	Color of the paint for Purchaser's approval	100%				W	A	
17.	Visual Paint thickness measurement		Drawing Specification & specification document	Drawing Specification & specification document	Painting report	W	R	
Final Certification								
18.	Hard Stamping Document Verification, final inspection	100%	Drawing Specification	Drawing Specification	Inspection release note	W	W	
Final Acceptance (SAT)								
19.	Full Assembly of the Motorized Trolley with Roller Stand (Weld Rotator) units inspected at the Purchaser's site	100%	Specifications document	Specifications document	Inspection report	W	W	
20.	Installation of Rail with clamps as per	100%	Drawing Specification &	Drawing Specification &	Inspection report	W	W	

S.No.	Characteristics/ type of checks	Quantum of check	Reference document	Acceptance norms	Formats of record	Party	SHAR	Remarks
1	3	4	5	6	7	8	9	10
	Gant rail installation standard		specification document	specification document				
21.	Load test	100%	Specification document	Specification document	Inspection report	W	W	
22.	Speed Test	100%	Specification document	Specification document	Inspection report	W	W	

R – Review, A – Approval, W - Witness

9. DOCUMENTS TO BE SUBMITTED

9.1. After Placement of order:

- a. Supplier shall submit detailed Quality Assurance Plan, detailed drawings, bought-out item details, power & circuit drawings for department's approval.

9.2. Prior to fabrication

- a. Raw materials identification & physical and chemical test certificates for all materials used in manufacturing of the equipment.
- b. Heat No. & Lot No. of raw materials shall be transferred and this shall be visible and traceable after full completion of fabrication in presence of department engineers.
- c. UT test reports for plate thicknesses 20 mm or above.
- d. UT test reports of Pins & bars.

9.3. During & After completion of fabrication

- a. Hardness test reports for forged pins.
- b. Details of stage wise inspection records, rectification records if any for fabricated items and machined articles.
- c. DP reports for root and final weld passes.
- d. Dimensional inspection reports.
- e. Final hardness report, Hardening & tempering charts and stress relieving chart.
- f. Physical properties test certificate for Polyurethane 95 Shore A grade (ASTM D2240) as per standards
- g. Two sets of all inspection and test reports in hard bound book form shall be provided.
- h. All the bought-out items list with relevant certificates and catalogues along with un-priced POs and supplier details shall be submitted.

10. GENERAL CONDITION OF SUPPLY

- 10.1. Detailed QAP to be submitted by the party for approval before start of fabrication.
- 10.2. Supplier shall not off load the contract or part of contract to any sub supplier without prior permission from Department.
- 10.3. The party shall deliver the fabricated, finished and painted motorized trolleys at SDSC SHAR.

- 10.4. All equipment supplied shall have capacities not less than specified and necessary test certificates shall be furnished in this regard.
- 10.5. Party shall supply first fill of lubricants and consumables.
- 10.6. Bought-out item details to be submitted for approval and clearance.
- 10.7. List of recommended spares shall be submitted along with technical bid.
- 10.8. Any item/detail or work which may not have been specifically mentioned herein but are needed to complete the equipment/system shall also be treated as included and the same shall also be furnished and erected.
- 10.9. The detailed fabrication drawings shall be submitted to the purchaser within 4 weeks of the receipt of purchase order. The fabrication shall start only after the detailed fabrication drawings are approved by the department.
- 10.10. After the entire installation work has been completed, the contractor shall make all required adjustments until all guaranteed performance requirements are meet.
- 10.11. If the stipulated performance requirements are not fulfilled, the contractor shall alter or replace the whole system/equipment free of charge to the purchaser immediately. All rejected equipment shall be removed from the site at contractor's expense.
- 10.12. All Routine tests and commissioning tests shall be carried out as per relevant IS standards in the presence of purchaser's representative and approval for the same shall be obtained before commissioning the installations.
- 10.13. All the fasteners used shall be electro-galvanized
- 10.14. All Welding shall be DP tested. All welds shall be free from any cracks or any other defects.
- 10.15. Four Lifting brackets shall be welded on the frame of each Rollers set & Motorized Trolley units for balanced horizontal lifting of the units.
- 10.16. The drive system everywhere should be covered with proper coverings as a safety measure against interference with persons on other systems.

11. ERECTION & COMMISSIONING

- a. Erection of rail shall be as per Gant rail installation code of practice.
- b. Erection of base plate shall be such that rails shall meet the Gant rail Installation specifications.
- c. Tolerances to be maintained during the installation of rail & Motorized Trolley with Roller Stand (Weld Rotator) units are as below

S.No.	Description	Tolerance specification
i.	Span over wheels	+4mm maximum
ii.	Diagonal on wheels	±5mm maximum.
iii.	Parallelism of Rails (measured at every 1m interval).	<1/1000 of wheel gauge
iv.	Verticality of Rails (measured at every 1m interval).	<2mm

v.	Trolley wheel gauge (measured at every 1m interval).	± 2mm
vi.	Difference in Height between trolley rails at 1m interval.	<1/1000 of wheel gauge maximum
vii.	Rail alignment w.r.t Base plate centre (measured at every 1m interval).	±1mm
viii.	Tilt of wheels (both horizontal & vertical)	<D/1000 mm where D=diameter of wheels.
ix.	Travelling speed	+10%/-5% of specified speed.

- d. Erection & Commissioning of the 2 Nos. of Motorized Trolley with Roller Stand (Weld Rotator) units shall be as per standard code of practice and shall meet the functional requirement.
- e. Care shall be envisaged during fabrication and erection of rails and Motorized Trolley with Roller stand units such that in any of the loading condition, drive wheels of the Motorized Trolley shall always be in contact with the rails.

12. WARRANTY

Performance of 2 Nos. of Units of Motorized Trolley with Roller Stand (Weld Rotator) shall be guaranteed for a period of one year against any workmanship defects from the date of commissioning. The party shall rectify failure of any components/under performance free of cost during the warrantee period.

13. DELIVERY SCHEDULE

- 13.1.** Party shall submit detailed QAP based on party's manufacturing unit within 15 days from the date of purchase order.
- 13.2.** Party shall submit detailed fabrication drawings along with electric circuit and cabling for the entire unit of Roller Stand (Weld Rotator) mounted on Motorized Trolley within 21 days from the date of purchase order.
- 13.3.** Party shall get the approval of the above submissions from Department within 30 days from the date of purchase order.
- 13.4.** Party shall submit the unpriced PO copies of all bought out components within 30 days from the date of purchase order.
- 13.5.** The entire unit of Roller Stand (Weld Rotator) mounted on Motorized Trolley with all other accessories shall be offered for pre-delivery inspection within 150 days from the date of receipt of approval for fabrication by the purchaser.
- 13.6.** The entire unit of Roller Stand (Weld Rotator) mounted on Motorized Trolley with all other accessories shall be delivered to HIL, SMPC-II site of SDSC SHAR within 180 days from the date of purchase order.

13.7. Erection, Load testing & Commissioning of the entire units (2 Nos.) of Roller Stand (Weld Rotator) mounted on Motorized Trolley shall be completed within 30 days from the date of issue of site clearance at SDSC-SHAR. The test loads shall be made available to the vendor at SDSC SHAR.

14. FINAL DOCUMENTS

Contractor shall submit the 5 Nos. copies of operation and maintenance manuals well before the dispatch of the equipment. The manual shall be in sufficient detail with step by step- instructions to enable others to inspect erect, commission, maintain, dismantle, repair, reassemble and adjust all parts of the equipment. Each manual shall also include a complete set of approved as built drawings to gather with maintenance schedule and test certificates wherever applicable.

15. DISPATCH

- a. The items are to be dispatched to SHAR center Sriharikota only after inspection & clearance by the representatives of the purchaser.
- b. Any damages during transportation are to be rectified by the supplier at free of cost.
- c. Final acceptance of the systems will be at site in Sriharikota.

**SECTION D
ANNEXURES**

ANNEXURE-I

SCHEDULE OF PRICE

S. No	Description	UOM	VALUE IN (Rs.)
1.	Cost for Supply of materials, fabrication, inspection, factory testing & Supply to SDSC-SHAR as per the technical specifications & approved drawings for 2 Nos. of Motorized Trolley with Roller Stand (Weld Rotator) units. (excluding transportation cost) Note: 1 No. of Unit includes 1 No. of Motorized Trolley assembled with Roller Stand unit along with a pair of rails for a length of 52380 mm (+ 2 %) with rail clamps as per drawings.	1 No. of Unit	Cost for 1 No. of Unit = ₹ ----- Total value: 2 x Cost for 1 No. of Unit = ₹-----
2.	Transportation cost	L.S.	
3.	Erection, On-site Testing & Commissioning charges at SDSC-SHAR as per the specification document	L.S.	
4.	Applicable Taxes for supply portion of equipment	%	
5.	Applicable Taxes for Transportation, Erection and Commission portion	%	
6.	Total Value		

(SIGNATURE OF VENDOR)

EXCEPTIONS AND DEVIATIONS

In line with Proposal Document, Bidder may stipulate Exceptions and deviations to the Proposal conditions if considered unavoidable.

SL.NO	Reference in Specification		Dept. Spécification	Offered Spécification	DEVIATION
	PAGE NO	CLAUSE NO			

NOTE :

Only deviations are to be written in this Annexure.

Any deviations taken by the Bidder to the stipulations of the Proposal document shall be brought out strictly as per this format and enclosed along with the bid.

Any deviations not brought out as per this format and written elsewhere in the Proposal document shall not be recognized and the same is treated as null and void.

Any willful attempt by the Bidder to camouflage the deviations by giving them in the covering letter or in any other documents that are enclosed may render the Bid itself non-responsive.

(SIGNATURE OF BIDDER)

PRE-QUALIFICATION CRITERIA

S.No.	Criteria		Compliance (YES*/NO)
1.	Similar field of experience	Bidder shall be an organization with experience more than three years as on 31.03.2021 in providing similar nature of work, i.e., should have supplied at least 3 Nos. of Trolley or Roller Stand (Weld rotator) of SWL \geq 20Ton to the Central/State Govt/ Public sector/Major Private Registered Organizations. Documentary proof of order execution shall be submitted along with the technical bid.	
2.	Similar orders executed	Bidder should have at least 5 years' experience in the field of Engineering, Manufacture, supply and erection & commissioning of special purpose Machines. Documentary proof of order execution shall be submitted along with the technical bid.	
3.	Similar orders executed	One similar work not less than ₹ 2.0 crores or Two similar works each not less than ₹ 1.0 crore or Three similar works each not less than ₹ 60 lakhs	
4.	Avg. annual turnover	The Bidder's average annual financial turnover shall be not less than INR 330 Lakhs per year during last three Financial years.	
5.	Solvency certificate	Bidder should possess a current Solvency Certificate from Nationalized Bank for an amount of not less than ₹80lakhs in the current financial year (FY 21-22).	

(SIGNATURE OF BIDDER)

BIDDER EVALUATION FORMAT

SDSC SHAR seeks response to the following questionnaire for assimilating data which would be used for evaluating the capability of the bidder for executing the referred work. Hence, the bidder is requested to provide only genuine data and any discrepancy found at a later point of time may result in rejection of the bidder from purchase process. Furnishing of data cannot be construed as automatic qualification for participation in the tender. Questionnaire should be signed by a responsible and authorized person of the Company / Agency.

S. No	Description	Bidder Response		
a.	Name of the company :			
b.	Type of the Company (Proprietary/Pvt. Ltd/Public Ltd/Joint Venture/Consortium) :			
c.	If Company is Consortium please provide the signed copy Consortium Agreement document. :			
d.	Registration number & certificate :			
e.	Name & Address of the Office of the Chief Executive of the Company :			
f.	Contact person for this tender with name & address and contact number :			
g.	Locations of the Branches of Company (if any) :			
h.	From which year the Company is in operation :			
i.	Current Annual turn-over of the company :			
j.	IT returns for the last 3 years :			
k.	The Profit & Loss Account details for the last 3 years which is duly audited and Submitted as part of the Annual Report. :			
	In Rs. Lakhs only	FY 2019-20	FY 2020-21	FY 2021-22
	Total assets (i) :			
	Current assets (ii) :			
	Total liabilities (iii) :			
	Current liabilities (iv) :			

S. No	Description	Bidder Response		
	Net Worth (i-iii) :			
	Working capital (ii-iv) :			
	Turnover ` in lakhs :			
	Profit/Loss in Rs. lakhs :			
l.	The major lines of business: :			
m.	Details of availability of machinery and Testing equipment :	Machine Type	Qty	No. of Persons familiar to work
n.	Manpower details (Technician, Supervisor, QA, Inspection) :	Description	No. of Persons	Remarks
		Admin& Acct		
		Design & Analysis		
		Workmen (floor)		
		Supervisor		
o.	The major customers for whom similar works are provided (Enclose copies of the Purchase Orders) :			
p.	Any customers feedback on the services which is in writing (Pl. enclose copies) :			
q.	Shop floor area& Handling system availability :			

Details of similar type of project, i.e., Configuration, Design/ Engineer, Manufacture, Test, Erect & Commission at least one special purpose Machine to Government or any reputed organization during the last three years which were completed:

Sl. No	Full postal address of the client with Contact Person	Description of the work	Value of the work (Rs. in Lakhs)	Completion Time as per PO	Actual period of completion	Reasons for delay
1						
2						

Note: In order to consider as valid experience, all the experience has to be supported with the completion certificate and purchase order

Details of similar type of project for Government or any reputed organization executed by the bidder:

Sl. No	Full postal address of the client with Contact Person	Description of the work	Value of the work (Rs. in Lakhs)

Note: copy of purchase orders shall be enclosed.

Signature of Authorized Person with Seal

COMPLIANCE STATEMENT

S. No	Description	Response by Supplier
1.	The detailed scope of work and technical specifications is understood and price was quoted accordingly	Yes / No
2.	All the general conditions of the contract as per the Section-A,B & C are acceptable.	Yes / No
3.	In case of some conditions of the contract as per the Section-A, B&C are not acceptable, deviation statement is to be enclosed as per Annexure-II of Section-D	Yes / No
4.	The supplier evaluation format as enclosed along the proposal document is filled-in and necessary supporting documents are enclosed.	Yes / No
5.	Un-priced copy of schedule of prices, payment schedule is enclosed in the techno-commercial bid.	Yes / No
6.	Taxes are quoted in the price bid	Yes / No
7.	List of essential spares and material are enclosed to the priced bid with unit rate	Yes / No
8.	Delivery schedule is acceptable. If not, the deviation is brought-out in the deviation statement (Annexure-II of Section-D)	Yes / No
9.	Terms of payment are acceptable. If not, the deviation is brought-out in the deviation statement (Annexure-II of Section-D)	Yes / No
10.	Liquidate damages/Penalty clause is acceptable. If not, the deviation is brought-out in the deviation statement (Annexure-II of Section-D)	Yes / No

Signature of Vendor with Seal

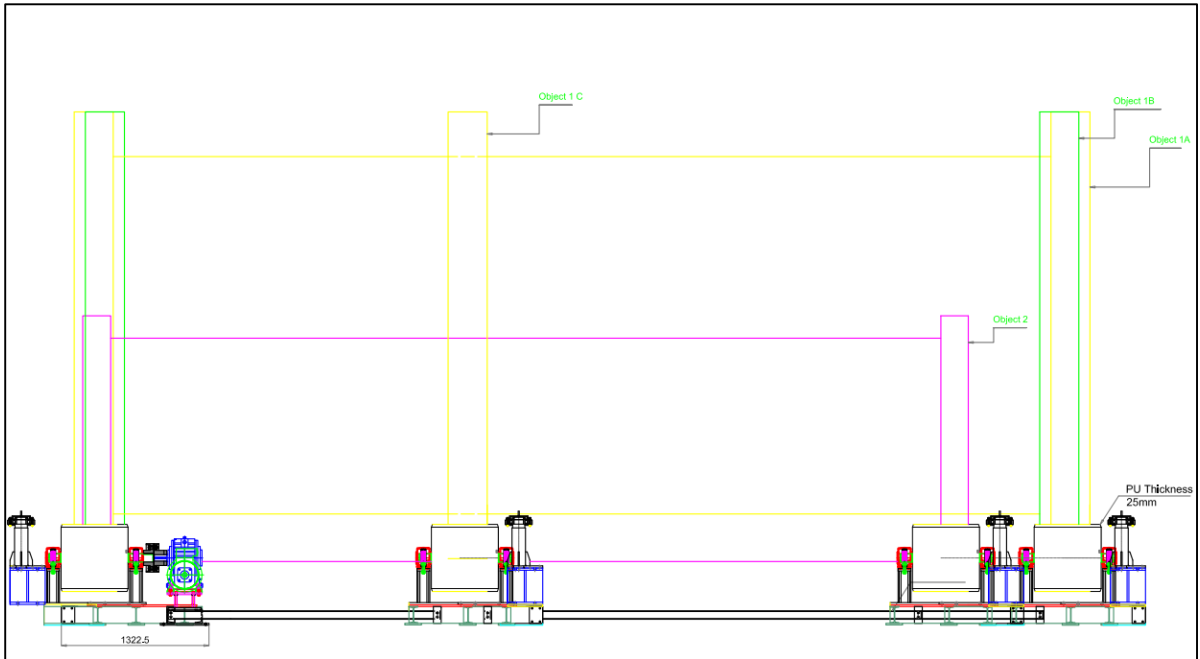


Figure 1 Schematic of Roller Stand (Weld Rotator) positioned with Object-1&2

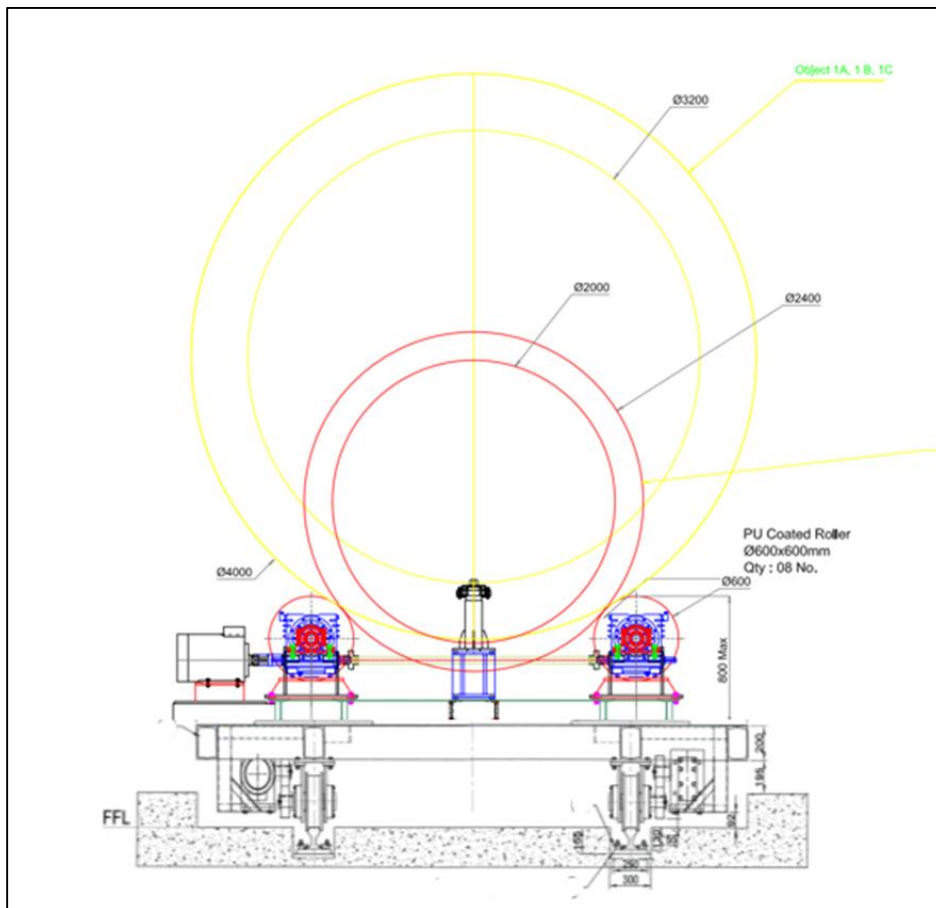


Figure 2 Schematic of Motorized Trolley with Roller Stand (Weld Rotator)

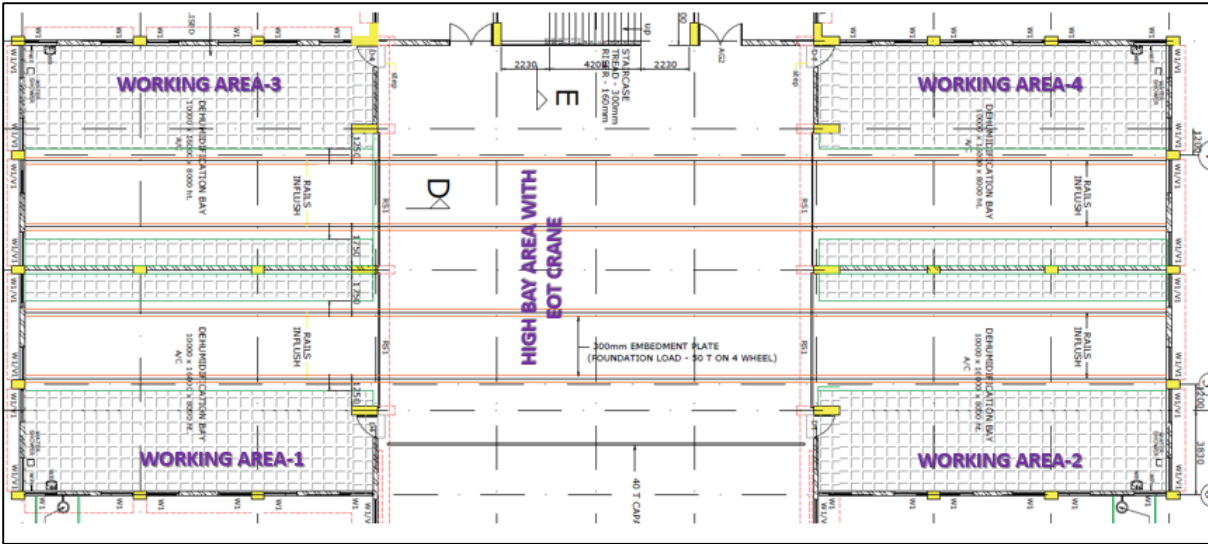


Figure 3 Schematic of Working area