

TENDER ENQUIRY

Ref.:

Feb 9, 2022

To, AFD/ESAS/TE/1/2022/I/14019

**Sub: Tender enquiry for "Design, supply, fabrication & erection of MS Structural Rack for storage of Salt Drums and supply, fabrication & fixing of SS304 anchor fasteners at AFD as per specifications"**

Sealed offer is invited for and on behalf of The President of India for "Design, supply, fabrication & erection of MS structural Rack for storage of Salt Drums and supply, fabrication & fixing of SS304 anchor fasteners at AFD as per specifications". The scope of work, technical specifications and general terms and conditions are as following:

**A) Scope of Work and Specifications:-**

**1) Design parameters:**

- i. Drum storage rack: 1 no. (approx. max. outside dim. 4.6m L x 1.1m W x 4.0m H)
  - ii. Drum storage capacity: 90 nos.
  - iii. Drum size: Dia 400 mm x 550 mm H
  - iv. Effective Weight of each drum: 50 kg max.
  - v. Design load bearing capacity of rack: ~ 5 Tons, Column load bearing capacity: ~ 1.5 tons, Beam load bearing capacity : ~ 1.5 tons
  - vi. Environmental conditions: humid
- Storage rack shall be designed to meet above requirements.
- The tentative layout drawing and specifications are provided for reference and dimensional limitations only.
- **Entire Supply of material is in the Supplier's scope only.** Suppliers shall prepare its own design and fabrication drawings and get it approved. It is to be ensured by the supplier that the fabricated storage structure have sufficient rigidity, strength, stability and life to serve intended purpose. Hence, estimation of total quantity and weight of material for this fabrication work is the responsibility of supplier.

**2) Design, supply, fabrication & erection of MS structural rack for storage of salt drums: Qty 1 no.**

1. MS structural Storage Rack shall be fabricated from standard structural C-Channels, angles and plates etc. as per approved drawings.
2. Overall maximum outside dimensions of rack shall be approx. 4.6m L x 1.1m W x 4.0m H comprising of 5 tiers storage arrangements to accommodate total 90 containers of size OD 400 mm x 550 mm H.
3. Rack shall be fabricated from vertical box columns made out of C-channels of min. ISMC 100x50 sizes. Horizontal support frame beams and tie beams shall be fabricated from min. ISMC 100x50 sizes. Top horizontal frame shall be fabricated from C-channels of min. ISMC100x50 sizes.
4. Stiffeners of MS angles of min. ISA 50x50x5 shall be provided at all base frames to support the load of drums.
5. MS plate of min 5 mm thick shall be provided over all 5 support base frames to support the drums. It is ensured that the plates are aligned and firmly fixed with the structure.
6. Column gussets shall be of min. 10 mm thk triangular plates and welded to base plates. Base plates of min. 200x200x10 mm thk ms plate shall be provided at bottom of all vertical box columns. It shall then be fixed with M16x150 L grouting bolts and nuts.
7. Beam support gussets of min. ISA 50x50x5 sizes shall be provided below all load bearing beams. It is ensured that the racks are rigid and sufficiently strong and should not bent/deflect under loads.
8. Supply, fabrication and fixing of SS304 material anchor fasteners of M8x200L for ss lined flooring lumpsum

### 3) Painting of entire structure:

1. Scaling shall be removed by chipping or using wire brush of all welded joints of structure to make it smooth. If required polish papers can also be used to make surface smooth and rust free.
2. All burrs, projections, sharp edges etc. shall be removed by properly grinding
3. Entire structure shall be coated with one coat of red-oxide primer.
4. Entire structure shall then be painted with two coats of enamel paint of black color.
5. Sufficient time shall be given for soaking/drying of each coat of paint.
6. Entire structure shall be installed and fixed at proposed location.
7. All fasteners, clamps, bolts etc. should be firmly tightened at its place.

### B) General technical requirements:-

1. Entire supply of material is in the scope of Supplier. Supplier shall utilize all relevant IS standard materials.
2. All structural material shall be tested for Mech, Chem tests as per relevant test standards. Tests shall be performed at standard, NABL accredited labs only. Supplier shall bear the charges of material testing. Material identification, testing shall be witnessed by departmental concerned person.
3. Supplier shall carry out actual measurements at site and suggest deviations/corrections/modifications if any to make necessary changes if required. In case of any technical doubts, supplier shall contact concerned authority for clarifications.
4. Supplier shall have to arrange for arc/tig welding m/c along with all consumables (welding electrodes etc) required for this work. All welding shall be carried out by SMAW technique.
5. Cutting, arc welding, grinding work etc. shall be carried out with utmost care. Supplier shall follow all safety measures while carrying out such work. Department shall provide gas cylinders for gas cutting purpose depending upon availability of gas cylinders, otherwise supplier shall apply other safe metal cutting methods.
6. Burrs, sharp edges, projections etc. caused as a result of cutting, welding etc shall be removed to maintain smooth surface. Workmanship of best quality should be maintained.
7. Supplier shall use its manpower to shift, move or clear off any material lying at site to make the work site available before commencement of the fabrication work at its own cost.
8. Supplier shall clear off all left out/unwanted material at the end of the work and ensure clean work area before handing over it for departmental use.
9. Supplier should have previous experience in structural metal fabrication and erection work or similar site work along with quality assurance plan and should provide documentary evidence of the same for site visit clearance.
10. Suppliers having knowledge and experiences of preparing documentations, BARC procedures, standard welding procedures, safety procedures, material testing and inspection facilities, calibrated equipments etc. shall be preferred for the work contract.
11. Supplier shall obtain Medical Fitness certificates for all his workers involved in this work.
12. The required safety gears i.e. safety shoes, soap & undergarments etc. shall be provided by the supplier to their employees engaged in this work
13. No personal or medical insurance charges will be borne by the department. No transport allowance, vehicle allowance etc will be borne by the department. Hence, it is the responsibility of the supplier to provide necessary arrangements to their personnel.
14. QAP (Quality Assurance Plan):-  
Supplier shall submit a documented procedure for Quality Assurance Plan for fabrication of MS grids assembly as mentioned against this work.  
QAP should include:-
  - i) Raw material Testing,
  - (ii) Fabrication Steps,
  - (iii) In-process Inspection Stages,
  - (iv) Final testing methods,
  - (v) Welding procedures, Weld sequencing and Cleaning procedures,
15. Welding requirements:-
  - i) Welding procedures and welder shall be qualified as per ASME section IX proper to production weld.
  - ii) All the welding if any on MS to MS shall be done by SMAW using E6018/E7018 welding electrodes.
  - iii) All weld joints shall be ground flushed and finished smooth.



16. Inspection and final acceptance:-

- i) Physical verification of all items as per technical specifications.
- ii) All weld surfaces shall have a smooth finish for easy decontamination.

**C) Terms and Conditions:-**

1. Taxes GST, if any, shall be specified separately.
2. Quotations/offers shall be valid for min. 90 days.
3. Supplier should **clearly and separately** mention the basic cost of supply, GST etc in the offer.
4. Supplier shall quote **lumpsum** for the entire work specified and not for each item individually.
5. Work completion period is **60 days** from the date of issue of the work order.
6. Any delay which is attributable to the contractor is liable for penalty @ ½ % per week (max. 10%) to be imposed on the contractor.
7. In case of delay in work completion, supplier may send request letter to concerned authority for extension in work completion period with proper justification for delay in work. Concerned authority may or may not give extension with or without penalty depending on the justification for delay.
8. Income tax @2% and GST TDS @2% will be deducted from the Suppliers bill.
9. The materials, fabricated items used against this work order shall be utilized for R&D purpose. Therefore, GST exemption is applicable and eligible for GST @5% against exemption certificate.
10. Supplier should give guarantee for a minimum period of One Year for the workmanship.
11. Contractor must furnish their PAN no. & GST Registration Certificate.
12. 100% payment will be arranged after satisfactory completion of work at AFD and on submission of:
  - a) Bills in triplicate, b) Advanced stamped receipt, c) Delivery Challan, d) Guarantee Certificate
  - e) Site Clearance Certificate, f) GST Undertaking, g) Work Completion certificate
13. Min. two workers & a supervisor shall be present at site during the work. During execution, all safety measures such as safety shoes, hand gloves, headgear for welding, certified machines for electrical jobs etc. are to be followed. The supervisor shall be experienced enough for safety (fire & personal) to oversee the site activities.
14. The upkeep of area is the responsibility of contractor. Any unwanted or extra materials shall be kept at designated area shown by departmental supervisor. For elevated jobs proper Safety Belts shall be used by all workers.
15. Contractor shall obtain police verification certificate (PVC) for all his employees including his supervisors and workers engaged in the work.
16. **Site Visit:-** The contractor shall have to visit the site to comprehend the scope of work and equipment conditions. The same will be arranged by the undersigned. The site can be visited on 15/02/2022 between 10.00 hrs to 14.00 hrs. only. However, for site visit, prior intimation of at least three working days is necessary for arranging the entry permits.  
**The quotations submitted without site visit will NOT be considered.**  
Contractor shall have to carry valid Photo identity card (Driving licence, passport, adhaar card) while visiting this premises. Failing to bring valid identity cards, vendors will not get access into our premises. Further, entry permits will not be arranged for next dates if vendors unable to visit the site on permitted dates for any reasons. Contractor should not carry any type of electronic items such as mobile, pen drive, camera etc with him/her at the time of visit. For preparing entry permit, you can contact the undersigned on ph. No. 25594869 or can mail to (pjpatil@barc.gov.in) giving complete details of firm, name of visitors, occupation/designation, identity proof, PVC details, probable date of visit etc.
17. In case of award of work order, the supplier shall give his acceptance through email or letter within 15 days of issue of work order.
18. Contractor working inside BARC is subjected to security clearance by BARC security, before or during the period of contract. Security instructions and guidelines must be followed strictly by the contractors.

**D) Confidentiality clause:-**

I. Confidentiality:-

No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any conformation identified as "Proprietary" in nature by the disclosing party shall be kept strictly

confidentiality by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force.

II. "Restricted information" categories under Section 18 of the Atomic Energy Act 1962 and "Official Secrets" under Section 5 of the Official Secrets Act 1923. :-

Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation

III. Prohibition against use of BARC's name without permission for publicity purposes. :-

The contractor of sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public media like Press, T.V. or Internet without the prior written approval of BARC.


- Quotations are to be in printed letter head / quotation format which should consists of **GST registration no., PAN** of the firm etc. Quotations that are received in computer generated form will be considered as invalid & rejected.
- Sealed quotations must be forwarded by **Registered or Speed Post ONLY**. Offer received through courier or person or after Due Date will be treated as Invalid
- *Sealed quotations should be super scribed on the envelope with the "Reference number and Due Date" of this tender enquiry and should be addressed to and reached by **(28-02-2022 by 16.00 hrs.)***

To:

*Shri P.J. Patil,  
SA/E, ESAS,  
Atomic Fuels Division,  
Bhabha Atomic Research Centre, Mumbai -400085*



(P. J. Patil)  
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(Surendra Kumar)  
Head, ESAS, AFD

(For & on behalf of The President of India)