GOVERNMENT OF INDIA
Bhabha Atomic Research Centre
Integrated Fuel Fabrication Facility

Ref: IF3/2019/PK/200240

Tender No.: BARC/IF3/PK/2019/TE/200240
Due Date: 15/11/2019

Sub: Fabrication and supply of SS drying pot and containers at IF3

Sealed quotations are invited by Speed post for and on behalf of the President of India for “Fabrication and supply of SS drying pot and container at IF3”

The following should be super scripted on the top of envelope containing quotation.
- Tender due date and subject
- Tender No.,
- Party’s Name & address and “Kind Attention: P K Srivastava, Scientific Officer, IF3/BARC

Sealed offers should reach by post at the following address on or before DUE DATE: 15/11/2019, TIME: 16:00 Hrs.

Address: To,
Head, IF3
South Site, BARC
Trombay, Mumbai-085
Contact no.: 022 2559 4473/4596

(The scope of work, completion schedule, quantity and technical specifications are as given below)
1. **SS 316L Drying Pot**

   Quantity: 03 Nos.

   The drying pot is a customized SS316L pot. The pot has two detachable type portions viz. top & bottom. The top portion is conical-cylindrical type having removable type top flange with a view port. The view port is made of toughened glass of suitable thickness to withstand a vacuum of $10^{-2}$ mbar. The bottom portion is cylindrical type with dished end as shown in the drawing (drawing no. BARC/IF3/PPI/2019/01). Both the top and bottom portions of the drying pot are connected through detachable type C-clamp with "O"-ring. The bottom portion of the drying pot is provided with ½" nozzle with ball valve for liquid drain. The top cylindrical portion is provided with ¼" nozzle with needle valve for vacuum pump connection.

   i. MOC: SS316L
   ii. Operating pressure: $10^{-2}$ mbar
   iii. Thickness: 14G
   iv. Dimensions: Top cylindrical portion diameter 100 mm & bottom cylindrical portion diameter 200 mm. The other dimensions as shown in the drawing.
   v. Leak tightness: The complete drying pot assembly must be leak tight at operating pressure of $10^{-2}$ mbar

2. **SS 304L air tight container A**

   Quantity: 40 Nos.

   i. Type: Air tight small container with "O" ring
   ii. Capacity: 1.4 liters
   iii. MOC: SS304L
   iv. Size: 120 mm(ID) x 120 mm (H)
   v. Wall thickness: 26 gauge thickness
   vi. Gasket: Neoprene "O"-ring of suitable diameter
   vii. Top lid: should be provided with lid tightening arrangement as shown in the drawing (drawing no. BARC/IF3/PPI/2019/02)
   viii. Surface finish: External and internal surfaces should be mirror finished.

4. **SS 304L air tight container B**

   Quantity: 40 Nos.

   i. Type: Air tight small container with "O" ring
   ii. Capacity: 2.2 liters
   iii. MOC: SS304L
   iv. Size: 135 mm(ID) x 155 mm (H)
   v. Wall thickness: 26 gauge thickness
vi. Gasket: Neoprene "O-ring of suitable diameter

vii. Top lid: should be provided with lid tightening arrangement as shown in the drawing (drawing no. BARC/IF3/PPL/2019/03)

viii. Surface finish: External and internal surfaces should be mirror finished.

Scope of BARC: Free water and electricity will be available at site.

Supplier's scope: All the materials and machines required for above mentioned job are to be arranged by the vendor itself.

Supplier should be ready to accommodate minor modifications.

Note: The job is "important and urgent" in nature. Hence, the vendor is expected to have a clear understanding of the job in the first place, so that this "important" execution can be fast.

TERMS AND CONDITIONS:

Confidentiality Clause:

1. Confidentiality: No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any other third party without the prior consent of the original disclosing party.

2. "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, advisor or the employees of a contractor will invite penal consequences under the aforesaid legislation.

3. Prohibition against use of BARC's name without permission for publicity Purposes:- The contractor, sub-contractor, consultant, advisor or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any media like press, radio, TV or internet without prior written approval of BARC.

Fabrication Drawing: Prefabrication drawing should be submitted to user department for approval before starting the actual fabrication.
Pre-Dispatch Inspection
- The equipments should be inspected and cleared by BARC representative at the vendor's site, before final dispatch.
- Party should maintain records for all inspection and tests done by BARC.
- Purchasers' representatives may visit the works site during fabrication also.

Spares
1. Gaskets for SS304L air tight containers A & B: 5 nos. of each size
2. Gasket for SS316L drying pot: 02 Nos.

Quality Assurance Plan for Fabrication.

1. Procurement of raw materials:
   All raw materials viz. SS 304L, SS316L required for the above work should be purchased from reputed and approved dealers only. The materials shall be offered for material inspection and identification. After receipt and stamping the materials only, it will be sent for testing at govt. approved testing labs. The sample will be drawn, identified, sealed in front of I/O or his authorized representative. After testing and final approval only this material will be used for further fabrication. Raw material and weld material shall meet the requirements of ASME Sec. II or ASTM standards.

2. Transportation:
   - The materials should be packed so that no damage during transit occurs
   - Contamination of two different metals should be avoided.

3. Welding procedures and qualifications tests

Welding procedure for SS welds should be GTAW (TIG Welding) process for all passes. All joints should be full penetration welds. The root passes for weld joints, accessible from only outside should be continuously back purged with Argon during welding. The argon gas used should be of 99.95% purity. Compatible filler wires for the TIG welding should be used.
Surface to be welded should be made free from paint, oil, grease, dust or any other contamination. Cleaning of surfaces / weld edge preparations / completed weldments should be done by use of approved solvents.
Tack welds should be examined for cracks before continuing with further welding and any defects observed should be done by qualified and approved welders.
QA procedures for Weld joints:

i) Visual inspection
ii) D.P. test of all welded joints

4. Records

- The test and guarantee certificates of all the bought out items should be submitted along with three copies of detailed as built drawing at the time of supply.
- The vendor should also submit a list containing part no., material identification, material specification and material test report.

General Conditions

**Important:** In technical bid, vendor should address all the points as mentioned in our technical specifications. No point should be kept blank or ambiguous as it seriously affects bid evaluation.

- Material quality assurance plan shall be submitted for Inconel 600, SS304, and SS316L. Test certificate and chemical analysis report shall be provided.
- Prompt after sales service during and after guarantee period has to be provided by supplier.
- Supplier should also have flexible approach to accommodate any minor changes for betterment of the system.

**SAFETY:** Contractor shall take all the safety precautions while working in the department and shall be solely responsible for any incident happening to his employees during the course of work in the department.

**PRICE:** Offered cost shall be valid for the entire scope of work.

**VALIDITY:** Offer should be firm and valid for next three months.

**TAX:** As applicable shall be indicated clearly and separately.

**GUARANTEE:** Guarantee for material and workmanship for at least one year.

**COMPLETION PERIOD:** 8 weeks from the date of the releasing the work order. The work completion schedule should be strictly adhered to. Any delay which is attributable to the
contractor is liable for penalty @ 0.5% per week (max 5%) on total work order value. In case extension in work completion period is required, request for it with proper and valid justification is to be sent to us positively before the expiry of work completion period.

**Disposal of waste:** All the generated waste at BARC site during the work is to be properly segregated by the vendor. Segregated waste is to be kept proper drum for disposal. Segregation of waste and its disposal is to be done in supervision of shift in-charge/officer in-charge.

**INCOME TAX:** Income Tax @ 2% and GST TDS @ 2% will be deducted from vendor’s bill.

**PAYMENT:** Payment: 100% payment including taxes will be made after delivery of material and successful completion of work and submission of following documents:

a. Original bill
b. Advance stamped receipt
c. Guarantee Certificate
d. GST undertaking

**Important note:**
- Contractor shall obtain Police Verification Certificate for his Supervisor and Workers engaged in the work in BARC.
- Please mention GSTIN & PAN No. clearly in the quotation, without which the offers will not be considered.

(P K Sivastava)
Scientific Officer-D, IF3
Contact no. 25594473

(Santanu Das)
Superintendent, PPL, IF3

(P K Sivastava)
Scientific Officer-D, IF3
Contact no. 25594473
ITEM NO.-2

M10 STUD

3 NO.5 STOPPERS FOR COVER
18 G

ELEVATION

WING BOLT FOR CLAMPING 'O' RING 19 G

'O' RING

120 I/D 26 G

3 NO.5 STOPPERS FOR COVER 20 x 10 x 10 G

PLAN

Drawing no.: BARC/IF3/PPL/2019/02
ITEM NO.-3

M-10 STUD
WING NUT FOR CLAMPING
'O' RING
19 G

135 T/D
26 G

ELEVATION

3 NOS STOPPERS
FOR COVER
20 X 10 X 18 G

NOTE: 1. All dimensions are in mm. 2. Drawings are not as per scale.

Drawing no.: BARC/IF3/PPL/2019/03