

ITER-India, Institute for Plasma Research

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ENQUIRY - LOCAL

OFFICE COPY

ENQUIRY NO

: I-IEN19041

Date

: 22/10/2019

Due Date

: 10/12/2019 by 5:00 PM (IST)

We invite your rate/s for the following item/s. The Instructions to bidders and Terms & Conditions are attached herewith.

Important Note:

1. Enquiry No., Date & Due Date should appear on the envelope otherwise your offer will be rejected.

2. Address quotation only to the Purchase officer.

3. ITER-India, IPR is entitled to avail concessional rate of GST @ 5% (2.5% CGST and 2.5% SGST) as per Central Goods and Services Tax (CGST) Notification No. 45/2017-Central Tax (Rate) dated 14th November, 2017, State Goods and Services Tax (SGST) Notification No. 45/2017 – State Tax (Rate) dated 15th November, 2017 and IGST @5% as per Notification No. 47/2017-Integrated Tax (Rate) dated 14th November, 2017. Therefore, please consider GST in your quotation accordingly.

Sr No.	Material Description	Quantity	Unit
	Manufacturing, Inspection and supply of metal Items for Assembly of PR-SA	1	SET

Note:

- (1) Submit your quotation AT THE ABOVE ADDRESS.
- (2) Any clarification on this enquiry may be sought from the Purchase Officer, ITER-India
- (3) Quote with complete technical details.
- (4) Quotation should invariably be submitted in the attached format (Quotation Format) ONLY else ITER-India may not consider your offer.
- (5) Attached herewith Technical Specifications Annexure II for Engineering drawings. (Total pages 20)
- (6) Payment shall be made within 30 days from the date of final acceptance of ordered items of purchaser and on receipt of error free invoice and other necessary documents at our end.
- (7) Bidder shall sign & stamp each & every page of Enquiry, Annexures and Drawings which will be considered as an acceptance by the bidder.
- (8) The bidder under the category of MSME Enterprise shall attach a MSME Certificate (Udhyog Aadhar) along with the offer.
- (9) Each Party shall bear their own expenses including travel, boarding, lodging & other for visit to other Party's end. Encl:- as above

Rakhi Dharamdasani

OFFICER-I (PURCHASE & STORES)

ITER-India (IPR)

TERMS AND CONDITIONS

- The quotation and any order resulting from this enquiry shall be governed by our Conditions of Order and supplier quoting against this enquiry shall be deemed to have read and understood 1.
- Where counter terms and conditions have been offered by the Tenderer, the same shall not be deemed to have been accepted by ITER-India unless our specific written acceptance thereof is obtained.
- Quotation: Your quotation superscripting our enquiry No., date, due date and brief description of item should be submitted to the Purchase Officer, ITER-India in sealed envelope on or before the due date. Late/Delayed/incomplete quotations will not be considered. Envelopes received without Enquiry number, date, due date and brief description of item may be rejected. The date of the da $quoted \textit{prices} should \textit{be} \textit{firm} \textit{for a period} \textit{of} 90 \textit{days} \textit{from} \textit{due} \textit{date} \textit{for placing} \textit{order}. \textit{ITER-India is} \textit{not} \textit{bound} \textit{to} \textit{accept lowest} \textit{rate/s}. \textit{Bidder shall} \textit{submitthe} \textit{price} \textit{bid/offeron} \textit{Bidder's} \textit{letter} \textit{date} \textit{for} \textit{placing} \textit{order}. \textit{ITER-India is} \textit{not} \textit{bound} \textit{to} \textit{accept lowest} \textit{rate/s}. \textit{Bidder shall} \textit{submitthe} \textit{price} \textit{bid/offeron} \textit{Bidder's} \textit{letter} \textit{for} \textit{placing} \textit{order}. \textit{ITER-India is} \textit{not} \textit{bound} \textit{to} \textit{accept lowest} \textit{rate/s}. \textit{Bidder shall} \textit{submitthe} \textit{price} \textit{bid/offeron} \textit{Bidder's} \textit{letter} \textit{for} \textit{placing} \textit{order}. \textit{ITER-India is} \textit{not} \textit{bound} \textit{to} \textit{accept lowest} \textit{for} \textit{bid/offeron} \textit{bid/off$ head with official seal and sign on each page.
- The bid documents shall be prepared in English language only 4.
- All pages of the bid documents shall be numbered. Each page of the bid document shall be stamped and initialized. 5.
- In the event of any date indicated above is a declared Holiday, the next working day with the same time limit shall become operative for the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the respective purpose mentioned herein the declared Holiday and the declared Holiday a6.
- In case of deviation in payment terms including demand of advance other than specified in payment schedule and accepted by ITER-India, prevailing Prime Lending Rate (PLR) of SBI will be 7. loaded for price comparison purpose
- ITER-India and their authorized representatives may visit the Contractor/Sub-contractors if required as part of technical evaluation process
- ITER-India reserves the right to place order on one or more parties. 9
- Specifications: Material should be offered strictly conforming to our specifications/drawings, if any, Deviation, if any, should be clearly indicated by the supplier in their quotation. The Tenderer should also indicate the Make/Type number of the materials offered and catalogues, technical literature and samples, wherever necessary should accompany the quotation. Clarification/s on specifications/drawings should be obtained from Purchase Officer before submitting quotation.
- Terms of Prices: Quotation should be submitted on door delivery basis, duly packed & insured without extra charge wherever possible.. In the case of Indian suppliers, the material is to be delivered at our stores free of charge duly packed & insured.
- 12. Unit rate/s should be valid throughout the validity of Purchase Order for addition/deletion purposes. Break-up of price should be furnished. The quoted price should not be subject to price escalation for what so ever reasons. The quoted price shall be firm, fixed and non-revisable during the validity/extended validity of Purchase Order.
- 13. Prices are required to be quoted according to the units indicated in the tender form/Enquiry. When Quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished
- Tender should be free from Correction and Erasures. Corrections, if any, must be attested. 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. Unsigned quotations will summarily be rejected.
- ITER-India 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 the quantity of fered and the lowest or any tender of the lowest or any part of the tender or portion of the quantity of fered and the lowest or any part of the lotenderers shall supply the same at the rates quoted. ITER-India also reserves the right to split the order at its sole discretion.
- Octroi is not applicable at present.
- 17. Delivery Date/Period: Delivery period is essence of the Order. Supplier must indicate the firm delivery date by which the materials will be dispatched / delivered by them from the date of our order.
- 18. Delivery period shall be clearly indicated against each item separately.
- Liquidated Damages The successful Vendor/Bidder should pay liquidated damages @ ½% (half percent) of the total order value for the delay of each week in the scheduled date of delivery / completion of the work envisaged in the Order subject to a maximum of 5% (Five percent) of the total Order value.
- Inspection: Materials on its arrival at ITER-India will be inspected by our Engineer/Stores In-Charge, and his decision in the matter will be final. However, where the items are required to be inspected at the Suppliers Premises, Supplier has to give advance notice to the Purchaser regarding readiness of the material to enable Purchase/Stores section to depute his representative for inspection.
- Payment: Payment will be arranged for accepted materials only within 30 days from the date of acceptance of materials at ITER-India and receipt of error free bills in our accounts section, complete in all respects.
- 22. No correspondence will be entertained within 30 days from the date of receipt of material and bills, whichever is later.
- 23. Warranty: The Stores/Items offered should be guaranteed for a minimum period of twelve months from the date of acceptance, against defective materials, design, workmanship, operation or manufacture. For defects noticed and communicated during the Guarantee period, replacement/rectification should be arranged free of cost within a reasonable period of such notification. In case where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.
- The Contractor/Supplier shall at all times indemnify the purchaser against all claims which may be made in respect of the stores for infringement of any right protected by Patent, Registration of design or Trade Mark and shall take all risk of accidents or damage, which may cause failure of supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfillment of the Order.
- 25. Successful tenderer will have to furnish in the form a Bank Guarantee or in Indemnity Bond form as called for by the Purchaser towards adequate security for the materials/property provided/issued by the Purchaser as Free Issue Material for the due execution of the Order. Insurance for the Free Issue Material shall be arranged by the Supplier/Contractor at his risk and cost.
- Non-compliance to tender specifications and/or tender scope and/or tender terms and conditions are liable for rejection. Decision of ITER-India in respect of non-compliance shall be final and 26. binding on the bidders.
- Canvassing in any form with regard to this tender will lead to rejection of the bid.
- $The Project Director, ITER-India \, reserves \, the \, right to \, accept \, or \, reject \, any \, quotations \, fully \, or \, partly \, or \, to \, cancel \, the \, enquiry \, without \, assigning \, any \, reasons.$ 28
- This enquiry is not a commitment and the Purchaser reserves the right to reject or cancel any or all offers. 29.
- Jurisdiction: The Order shall be governed by the Laws of India for the time being in force. The Courts of Ahmedabad/Gandhinagar only shall have jurisdiction to deal with and decide any legal or dispute arising out of this Order.
- 31. Unsuccessful bidders will not be intimated about the results of the enquiry/tender.
- 32. Purchase will not be responsible for payment of any interest to the Supplier, in case of delay in releasing payment.
- 33. The price evaluation shall be carried out on Landed price.

FORMAT FOR SUBMISSION OF QUOTATION

Enquiry No.

: I-IEN19041

Name Of Party

: OFFICE COPY

Quotation No. & Date

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Due on

: 10/12/2019 by 5:00 PM (IST)

Sr No.	Material Description	Qty	Unit	Rate	Total
1	Manufacturing, Inspection and supply of metal Items for Assembly of PR-SA	1	SET		i Otal
				Grand Total	

COMMERCIAL TERMS & CONDITIONS *

Sr.N	o Description	Bidder's Response
1	Free Door delivery	
2	Packing & Forwading (To Specify, if any)	
3	Safe Delivery Charges (Please mention if not included in rate mention above)	
4	Delivery Period (Please refer Sr. No. 6 of attached Annexure - I))	Comply Yes/No (In case of No Please provide details)
5	Payment:ITER-India payment terms will apply (Refer Sr. No. 6 of Note)	Comply Yes/No (In case of No Please provide details)
6	Warranty (Refer Sr. No. 23 of Terms and Conditions)	Comply Yes/No (In case of No Please provide details)
7	Validity Period (Refer Sr.No. 3 Of Terms and Condition)	Comply Yes/No (In case of No Please provide details)
8	GST (Not to be included in quoted rates)	Comply Yes/No (In case of No Please provide details)
9	GST(Refer Sr.No.3 of Important Note)	Comply Yes/No (In case of No Please provide details)
10	GST Registration No. (To specify)	
11	Udhyog Aadhar No. & Category (Micro/Small/Medium Enterprise)	
12	HSN Code	
13	Discount (To specify, If any)	
14	Remarks	

^{*} Fill in the applicable details

Place:

Authorised Signatory:

Date:

Company Seal

Technical Specifications of Manufacturing, Inspection, Testing and Supply of Metal Items for Assembly of Porcelain Ring-Sub Assembly

Site Location: DNB Lab, ITER-India Building, Institute for Plasma Research, Bhat, Gandhinagar.

ITER-India

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1 Subject of this technical specifications

ITER-INDIA aims to get manufactured, tested and supplied the metallic items as listed in table 1 & 2. Technical specifications of the metallic items are given in this document in detail.

2 Scope of supply

2.1 Hardware

Present technical specifications cover the manufacturing, fabrication, testing and supply of following items given in Table 1 and 2. They are in the scope of supply of the supplier.

Table 1Scope of supply

S. No.	Item list	Quantity	Material	Reference figure in this document	Drawing No.
1	Support Plate	1	SS 304	Figure 1	PRSA-00-01
5	M16 Stud	30	Class 10.9	Figure 2	PRSA-00-03
2	Test Flange	1	SS 304	Figure 3	PRSA-00-04
3	Aluminium Blocks	20	Aluminium Alloy 6061 T6	Figure 4	PRSA-00-05
4	Top Ring	1	SS 304	Figure 5	PRSA-00-06
6	Clamp 1	45	SS 304	Figure 6	PRSA-00-07
7	Clamp 2	45	SS 304	Figure 7	PRSA-00-08

Table 2Bolts and other accessories for INTF HVB

S. No.	Nuts, Bolts and washers	Quantity	Reference
1.	Hexagon socket head cap screw ISO 4762-M6X12-A2-70	Thirty	As per ISO 4762
2.	Hexagon socket head cap screw ISO 4762-M10X30-A2-70	Fifty	As per ISO 4762
3.	Hexagon socket head cap screw ISO 4762-M12X65-A2-70	Forty	As per ISO 4762
4.	Hexagon socket head cap screw ISO 4762-M16X40-A2-70	Thirty	As per ISO 4762
5.	Hexagon socket head cap screw ISO 4762- M8X20-A2-70	Eighty	As per ISO 4762
6.	Hexagon socket head cap screw ISO 4762- M8X16-A2-70	Eighty	As per ISO 4762
7.	Hexagon socket head cap screw ISO 4762-M10X35-A2-70	Fifty	As per ISO 4762
8.	Hexagon regular nut ISO 4032 - M16 - A2-70	Thirty	As per ISO 4032

).	Washer ISO 7089-16-200 HV-A2	Thirty	As per ISO 7089
0.	Washer ISO 7089-10-200 HV-A2	Fifty	As per ISO 7089

Bolts, nuts and washers specified in the Table2 of the scope of supply, are the standard products. Supplier shall submit a material certificate, for these items, which shall include at least hardness, tensile strength and elongation.

Threads on bolts and nuts must be of good surface finish and free from tears and rags.

2.2 Documentation

Along with the hardware as given in section 2.1, following documents are the part of supply.

- a. Manufacturing drawings
- b. Materials test certificates,
- c. Inspection reports (dimensional inspection, visual inspection, He leak test, surface roughness measurement),
- d. Release note for procurement transport and delivery

3 Scope of work

The scope of work includes but not limited to the following activities.

- 1. Preparation of Manufacturing drawings and submit the same to ITER-INDIA for approval.
- 2. Procurement of raw material as per section 8 of this document. Submission of material test certificates for ITER-India's approval.
- 3. Manufacturing of metallic items as per drawings & technical specifications
- 4. Perform factory acceptance test.
- 5. Cleaning and packaging of all the items
- 6. Transport & Safe delivery of components at ITER-India Lab, IPR, Bhat, Gandhinagar.
- 7. Unloading the components at ITER-India Lab, IPR, Bhat, Gandhinagar.

4 Technical details of metallic items

Detailed description of the items is given below:

- a) Material requirements of items, specified in table 1, are given in section 7.
- b) The general requirement of surface finish of the metallic items is better than or equal to $6.3\mu m$ Ra. The sealing surface shall have the surface finish better than or equal to $3.2 \mu m$ Ra.

Overall dimensions of all the items are shown in figures below. For detailed dimensions, please refer corresponding drawings.

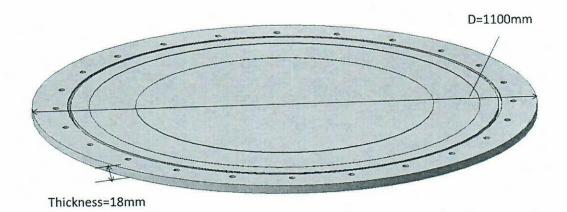


Figure 1 Support Plate



Figure 2-M16 Stud

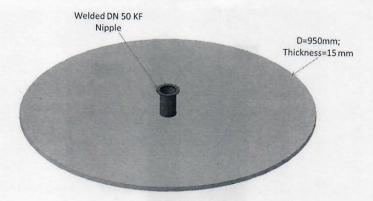


Figure 3- Test Flange

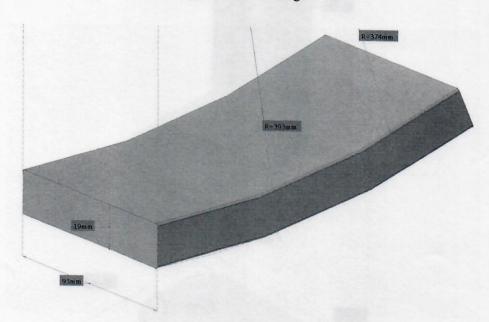


Figure 4- Aluminium Blocks

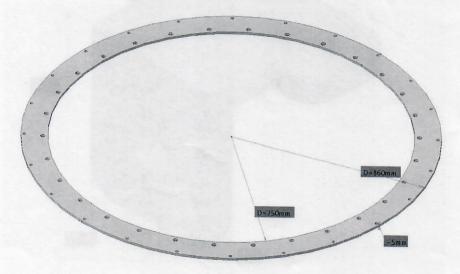


Figure 5-Top Ring

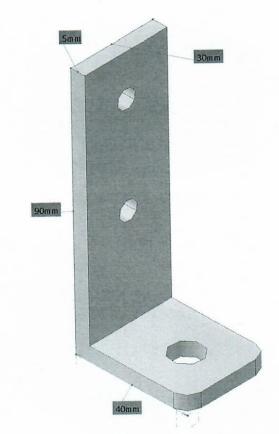


Figure 6 Clamp 1

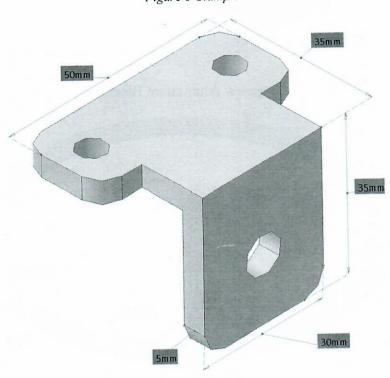


Figure 7Clamp 2

Note:

1. All dimensions, unless otherwise specified, are in mm.

2. If discrepancy is found between dimensions provided in the **figures of this specification** and the **drawings**, then in that case dimensions specified in drawings shall only be considered as final approved dimensions.

5 Purpose of Metallic items (Just for information)

Use of metallic items, specified in table 1/section 4 of this document, is to assemble the High Voltage Bushing (HVB) insulator (Porcelain Ring) as shown in figure 8. Achieving tolerances as specified in corresponding drawings is essential so as to assemble the mating parts with each other. Therefore, it is supplier's responsibility to achieve the desired tolerances as per requirement for the fitment.

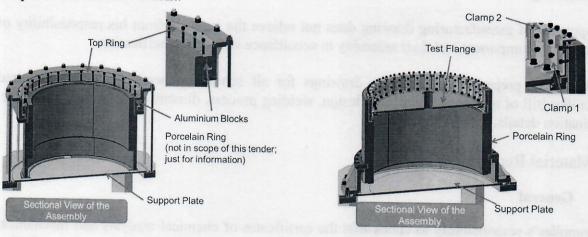


Figure 8Two different assembly configurations of insulator assembly

6 Engineering Drawings

- The details provided in the engineering drawings are comprehensive and provide necessary information to manufacturer for the preparation of manufacturing drawings.
- The ITER-INDIA reserves the right to make minor dimensional changes prior to machining of the components. Such changes shall be considered within the scope of the specified work and shall not be considered extra.
- The Supplier shall scrutinize the drawings and bring out in writing any missing information /discrepancy /mismatch etc. if any to the notice of the purchaser at the time of submission manufacturing drawings. If not done so by Supplier, then the Supplier shall be fully responsible for any difficulties/problems faced during the manufacturing and testing of the component and shall bear the cost of any repair/rework carried out to solve the problems.

7 Delivery Schedule

The delivery of all the items, as listed in table 1 & 2, and the documents, as specified in section 2.2, shall be completed within 2 months from the date of acceptance of manufacturing drawings. Manufacturing drawings shall be submitted within 15 days from the date of PO. Any revision, as needed, in manufacturing drawings shall not take more than 5 working days, by vendor.

8 Preparation of Manufacturing Drawings and Documents

Supplier shall submit the manufacturing drawings to ITER-India for approval before start of manufacturing.

The approval of manufacturing drawing does not relieve the supplier from his responsibility of providing the component and their assembly in accordance with this specification.

Supplier shall prepare manufacturing drawings for all sub components, indicating required details like Bill of material, Weld joint design, welding process, dimensions and their tolerance, examination details, surface finish etc.

9 Material Requirements

9.1 General

It is supplier's responsibility to check that the certificates of chemical analysis and mechanical test results of the stock material meet with the required standards, and to carry out any further tests, if not available in the test certificate. All material shall be free from all kinds of defects like cracks, fissures, pits, lamination or any other defects.

9.2 SS 304

The metallic items, of SS 304 construction, specified in this document shall be made either from plate/sheet or forging.

For metallic parts made from Plates/Sheets shall meet the requirement of ASTM A240 and the parts made from forgings shall meet the requirement of ASTM A 182.

Supplier shall submit the test certificate for the material SS304 confirming the required chemical composition, material properties and ultrasonic examination reports as per ASTM A240/ASTM A182, whichever is applicable.

9.3 Aluminium Alloy 6061 T6

The metallic items, of Aluminium alloy construction, specified in this document shall meet the requirement of ASTM B 209. Supplier shall submit the test certificate for the material 6061 T6 confirming the required chemical composition, material properties and ultrasonic examination reports as per ASTM B 209.

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9 Manufacturing Requirements:

9.1 Surface Cleaning

- To minimize the risk of trapped contamination which can subsequently cause leaks or enhanced outgassing, parts and sub-components shall be degreased using solvents or alkaline detergents, rinsed with water and dried.
- After the final cleaning procedure, it shall be handled with care and using appropriate gloves.

9.2 Surface finish requirements

All the metallic surfaces shall be finished with criteria as follows;

 Ra≤3.2 μm for sealing surfaces of flanges, Ra≤6.3 μm for flanges except sealing surfaces,

Flanges shall be checked by surface roughness tester and results shall be reported to ITER-INDIA.

10 Acceptance Requirements

10.1 Factory Acceptance Test

10.1.1 Visual Inspection

All finished metallic parts shall be checked visually in the proper presence of light. Finished parts shall be free from any surface defects.

10.1.2 Dimensional Test

Dimensional check shall be carried out on all the dimensions of each metal parts. The Dimensions shall conform to those of the drawings. Exact list of dimensions and checking procedure shall be proposed by the supplier and after mutual agreement between ITER-INDIA and supplier on it, dimensional check shall be carried out by the supplier.

10.1.3 He Leak Test

The Test Flange shall be tested for leak rate of 10⁻⁹ mbar.l/s of He using MSLD. Following requirements of testing shall be followed by supplier:

For the test, a document must be prepared showing the mechanical set-up, base pressure, calibration and measured leak rate which must be equal to or less than 10^{-9} mbar.l/s at 20° C

In case of failure of test, supplier shall submit a recovery procedure and after mutual agreement between ITER-India and supplier, supplier shall proceed with next course of action accordingly.

ITER-India shall witness all above specified tests.

Only after positive results of the Factory Acceptance Tests satisfying the conformance with the requirements as set out in the contract, the transport and delivery of manufactured items shall be done by supplier.

Acceptance of the tests results and certificates does not relieve the Supplier of the responsibility

for compliance with all the contractual requirements.

If any of the Factory Acceptance Tests prescribed in the present specification reveals a defect or a fault of the components, the Supplier shall perform a timely and effective repair or shall guarantee the replacement of the faulty deliverable free of charge, managing the repair or replacement by means of a proper non conformity management procedure.

Note:

All required testing equipment, fixtures, clamps and other necessary items required for testing and inspection for factory acceptance test as specified above shall be arranged by supplier.

10.2 Site Acceptance Test

After delivery of components at ITER-INDIA's Site, the supplier shall unpack the items. ITER-INDIA will inspect every component and check the physical state and condition of the packing for possible damage during transportation.

Final Site Acceptance Tests (SAT) include

- Checks of the physical state and condition of the packing for possible damage during transportation.
- Checks of the component cleaning and conservation.
- Successful completion of the visual inspection.
- He leak Test

If any of the SAT prescribed in the present specification reveals a defect due to a fault or damage during transport or unloading, the Supplier shall perform an urgent and effective repair or shall guarantee the replacement of the faulty component free of charge, managing the repair or replacement by means of a proper non conformity management procedure.

After positive results of all the Site Acceptance Tests, delivery of the complete contractual documentation and ITER-INDIA's review of the delivered documentation, the metallic components will be eventually accepted.

11 Packaging and Transportation

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During storage and transport all the components, suitably cleaned before transportation, shall be packed in new, clean, sealed polythene bags.

They shall be located in purpose built plywood containers to avoid damage during handling and transport and to provide medium term storage (up to 2-3 months) on Site. Desiccant elements shall be included in the packages, on the packaging all references to the contents and other information shall be clearly shown in English language, including at least:

- Contents description;
- Dimensions;
- Weight;
- Centre of gravity;
- Lifting Points.

Transport to Site

1. The metallic components shall be delivered at the following address:

DNB Lab, ITER-India building, Institute for Plasma Research (IPR) Bhat , Ghandhinagar - 382428 Gujarat , India

2. The mail correspondence of documents / reports shall be at following address:

Institute for Plasma Research Bhat, Gandhinagar 382428, Gujarat, India

The precise building location for delivery, the name of the contact person on-site and access formalities will be communicated in advance to the Supplier.

Transshipment in transit shall be avoided and the Supplier shall arrange specially hired conveyance for direct transport to the delivery site.

ITER-India

