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## ITER-India, Institute for Plasma Research

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Email : purchase@iter-india.org

### ENQUIRY - LOCAL

OFFICE COPY

ENQUIRY NO

: I-IEN20036

Date

: 24/08/2020

Due Date

: 15/09/2020 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
1	CERAMIC INSULATORS	10	NOS

#### 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) Payment shall be made within 30 days from the date of final acceptance of ordered items of purchaser's site and on receipt of error free invoice and other necessary documents at our end.
- (6) Technical specifications (pages 04) and Drawing (page 01) for ceramic insulator are as per attached Annexure-I
- (7) Bidders are requested to fill Annexure-A Compliance sheet (duly signed and stamped) and return back along with the offer.
- (8) Bidder under the category of Micro & Small Enterprise (MSE) for the quoted item shall attach MSE certificate. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible under the policy, Traders are excluded from the purview of this Policy.
- (9) TDS as per CGST Act: As per provisions of section No. 51 of the CGST Act 2017, TDS @ 2% (IGST 2% or CGST 1% and SGST 1%) will be deducted while making payment to the suppliers where total value of orders/contracts/work orders exceeds Rs. 2.5 lakhs, in the event of order in Indian Rupees. Necessary TDS Certificate will be issued to the supplier after TDS deduction.

Encl:- as above

Rakhi Dharamdasani  
OFFICER-I (PURCHASE & STORES)  
ITER-India (IPR)



## TERMS AND CONDITIONS

1. 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 the same in to
2. 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.
3. 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 quoted prices should be firm for a period of 90 days from due date for placing order. ITER-India is not bound to accept lowest rate/s. Bidder shall submit the price bid/offer on Bidder's letter head with official seal and sign on each page.
4. The bid documents shall be prepared in English language only
5. All pages of the bid documents shall be numbered. Each page of the bid document shall be stamped and initialized.
6. 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
7. 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 loaded for price comparison purpose
8. ITER-India and their authorized representatives may visit the Contractor/Sub-contractors if required as part of technical evaluation process.
9. ITER-India reserves the right to place order on one or more parties.
10. 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.
11. 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 whatsoever 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.
14. 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.
15. 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 offered and the tenderers shall supply the same at the rates quoted. ITER-India also reserves the right to split the order at its sole discretion.
16. 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.
19. 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.
20. 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.
21. No correspondence will be entertained within 30 days from the date of receipt of material and bills, whichever is later.
22. 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.
23. 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.
24. Successful tenderer will have to furnish in the form a Bank Guarantee or in Indemnity Bond form as called for by the Purchaser towards a 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.
25. 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 binding on the bidders.
26. Canvassing in any form with regard to this tender will lead to rejection of the bid.
27. 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.
30. Unsuccessful bidders will not be intimated about the results of the enquiry/tender.
31. Purchase will not be responsible for payment of any interest to the Supplier, in case of delay in releasing payment.
32. The price evaluation shall be carried out on Landed price.

## FORMAT FOR SUBMISSION OF QUOTATION

Enquiry No. : I-IEN20036  
 Name Of Party : OFFICE COPY  
 Quotation No. & Date :  
 Due on : 15/09/2020 by 5:00 PM(IST)

Sr No.	Material Description	Qty	Unit	Basic Rate	Total
1	CERAMIC INSULATORS	10	NOS		
				Grand Total	

### COMMERCIAL TERMS & CONDITIONS \*

Sr.No	Description	Bidder's Compliance
1	Free Door delivery	
2	Packing & Forwarding (To Specify, if any)	
3	Safe Delivery Charges (Please mention if not included in rate mention above)	
4	Delivery Period (Refer Sr. No. 12 of Annexure-I)	Comply Yes/No (In case of No Please provide details)
5	Payment: ITER-India payment terms will apply (Refer Sr. No. 5 of Note)	Comply Yes/No (In case of No Please provide details)
6	Warranty (Refer Sr. No. 22 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 (Refer Sr.No.3 of Important Note)	Comply Yes/No (In case of No Please provide details)
9	GST (Not to be included in quoted rates)	
10	GST Registration No. (To specify)	
11	HSN Code	
12	Udhyog Aadhar No. & Category (Micro/Small Enterprise)	
13	Discount (If any)	
14	Remarks	

\* Fill in the applicable details

Place:

Authorised Signatory:

Date:

Company Seal



## Annexure-I Technical Specification of Alumina Post Insulators

Enq. No. : I-EN20036

Date: 24.08.2020

### 1. Purpose:

The Purpose of this document is to define the technical specification for the ceramic post insulators. This specification covers the requirement of manufacturing, testing and supply of high purity (>99%) high vacuum compatible (less than equal to  $10^{-6}$  mbar) alumina post insulators with Inconel made helicoil inserts.

### 2. Scope of Supplier

Supply of 10 Nos. Ceramic Post Insulators as per technical Specifications

Provide the material test certificate as per the clause 6 of the technical specification.

Packaging, handling and delivery of the post insulator is also in the scope of supplier and shall follow the clause 11 and 12.

### 3. Applicable Standards

IEC 60672-1	Ceramic and Glass Insulating Materials - Part 1: Definition and Classification
IEC 60672-3	Ceramic and Glass Insulating Materials - Part 3: Specification for Individual materials

### 4. Drawings:

The drawings of the ceramic post insulators shall be provided by the ITER-India for manufacturing. See attachments on drawings (Reference drawing No. INTF\_PI\_00\_01)


### 5. Number of Items Required

INTF Source Support Post Insulator with Helicoil Inserts (Inconel made)	10 nos. (Each Post insulators shall contain 12 nos. of Inconel made Helicoil inserts)
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### 6. Material:

The Post insulators shall be of high alumina ceramics and the material properties shall be as per the standard IEC-60672-3 Table 1e-C799. Following are the essential properties, to be met.

Properties	Value
Alumina Content	>99%
Water Absorption/Open Porosity (Maximum)	0%
Bulk Density	>3.7 g/cc
Flexural strength (glazed)	Min. 300 MPa

	<b>Annexure-I Technical Specification of Alumina Post Insulators</b>	Enq. No. : I-IEN20036
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Modulus of Elasticity	Min. 300 GPa
Mean Coefficient of Linear Thermal Expansion (30°C- 1000°C)	7-9 (10 <sup>-6</sup> C <sup>-1</sup> )
Electric Strength / Dielectric Strength	Min. 17 kV/mm
Dissipation Factor tan δ <sub>1M</sub> (at 1MHz)	Less than 0.001
Relative Permittivity / Dielectric constant	9-10
Volume Resistivity	>10 <sup>12</sup> ohm-m

### 7. Service Condition (For Information Only)

The insulators shall be suitable for use under the following service conditions. (This is just for information)

Table: Service Condition for the Insulators

Characteristic	Value
Normal System Operating Voltage	112 kV DC
Testing Voltage	140 kV DC
System condition	Vacuum (10 <sup>-06</sup> ) mbar
Temperature	30°C

### 8. Testing on each post insulator at Vendor's site

Each of the Alumina post Insulator shall be tested for the following:

1. Visual Inspection
2. Dimensional check as per approved drawings.
3. Check for the proper fitting of Helicoil inserts - Manual

Tests shall be performed in presence of ITER-India representative.


Vendors must provide the test report of the inspection to ITER-INDIA before dispatch for Clearance.

### 9. Testing of each post insulator at ITER-INDIA site

After delivery of the post insulator at ITER-INDIA site, each of the post Insulator shall be tested for following:

1. Visual Inspection
2. Dimensional check as per approved drawings.
3. Check for the proper fitting of Helicoil inserts – Manual

### 10. Documentation

	<b>Annexure-I Technical Specification of Alumina Post Insulators</b>	Enq. No. : I-IEN20036
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Following documents shall be provided by Vendor at different stages as described below:

Document type	Milestone
Material test Certificate of compliance for the material properties described in clause 5	Material Test Certificate to be sent by supplier within 15 days of receipt of PO. After approval from ITER-India, supplier shall start manufacturing of the Post Insulators.
Visual and dimensional inspection test report/certificates- For all manufactured Post Insulators	Before dispatch (for dispatch clearance)

### 11. Packaging and Handling

Packaging shall be in the wooden box/enclosure with shock sensors. Packaging shall be labelled as Fragile with proper marking Top and Bottom Side of the wooden box. Damage occurring during transit from factory to ITER-India will be under the scope of supplier. Supplier shall replace the damaged units without any extra cost.

### 12. Delivery Time

Supply of Post Insulators at ITER-India	Within 6 months from the date of approval of material TC
Approval from ITER-India	Within 15 days from the receipt of the material

### 13. Delivery of Post Insulators


Transportation, packaging, freight etc. shall be under the scope of supplier. Any damaged piece(s) received at the site shall be replaced by supplier unconditionally

The Insulators shall be delivered to the below mentioned address:

ITER-India Lab  
 Institute for Plasma Research  
 Bhat, Ahmedabad-382428

### 14. General Terms & Conditions

- Bidders shall submit the quotation including all the taxes and charges.
- Bidder shall submit the quote along-with compliance sheet in Annexure A duly signed and stamped.
- Partial delivery is not allowed.

	<b>Annexure-I Technical Specification of Alumina Post Insulators</b>	Enq. No. : I-IEN20036
		Date: 24.08.2020

**Annexure A**

**Compliance Sheet to be filled by the Bidder**

Sr. No.	Description	Required by ITER-India	Offer from M/s
1	Alumina Content	>99%	
2	Water Absorption/Open Porosity (Maximum)	0%	
3	Bulk Density	>3.7 g/cc	
4	Flexural strength	Min. 300 MPa	
5	Modulus of Elasticity	Min. 300 GPa	
6	Mean Coefficient of Linear Thermal Expansion (30 <sup>0</sup> C- 1000 <sup>0</sup> C)	7-9 (10 <sup>-6</sup> C <sup>-1</sup> )	
7	Electric Strength / Dielectric Strength	Min. 17 kV/mm	
8	Dissipation Factor tan δ <sub>1M</sub> (at 1MHz)	Less than 0.001	
9	Relative Permittivity / Dielectric constant	9-10	
10	Volume Resistivity	>10 <sup>12</sup> ohm-m	
11	Helicoil Inserts with the Post Insulator	Inconel made	
12	Details from Sr.1 to Sr.13 are completely understood. Do you agree and abide the same? ( Yes/No)		
13	Do you agree with Terms and Conditions? (Yes/No)		

Date:

Sign \_\_\_\_\_

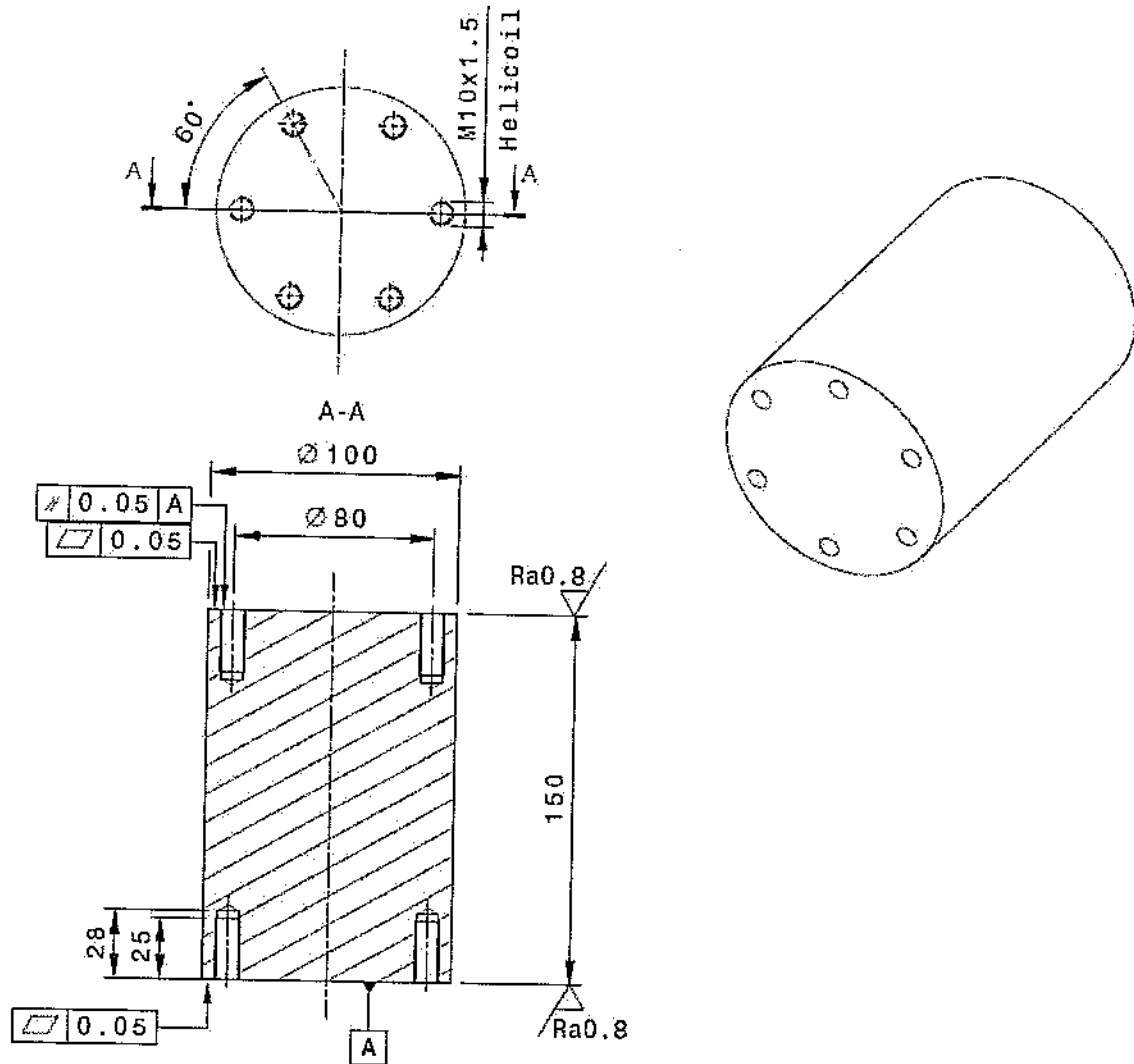
(with Official Seal/Stamp)



Drawing No.

INTF - PI - 00 - 01

INTF Source Support Post Insulator



### ALUMINA POST INSULATOR

This ceramic is later to be joined with metallic flanges (these flanges and subsequent joining is not part of scope of supply).

At present, for this joining, threads in the ceramic as shown in the drawing are envisaged, this will be provided with threaded inserts (e.g. Helicoils).

M10 Helicoil (Inconel made) are also included under scope of supply. Each ceramic post insulator shall be supplied with required number of helicoil inserts as shown in drawing.

