

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
ISRO PROPULSION COMPLEX (IPRC)  
MAHENDRAGIRI**

**Tender for Spring Energized seals**

**Bids to be submitted online**

**Tender No.: IPRC/PURGP1/IP202100085701 dated 04-01-2022**

## A. Tender Details

Tender No :	<b>IPRC/PURGP1/IP202100085701</b>
Tender Date :	<b>04-01-2022</b>
Tender Classification:	<b>GOODS</b>
Purchase Entity :	<b>PURGP1</b>
Centre :	<b>ISRO PROPULSION COMPLEX (IPRC)</b>

## Procurement of Spring Energized seals

This is a two-part bid. Price details shall NOT be mentioned in technical Bid/attachments, failing which the offer will be considered as invalid.

This is a TWO-PART tender i.e. Techno-Commercial Bid (Part-I) and Price Bid (Part-II) shall be submitted separately. All technical and commercial terms and conditions shall be furnished in the Techno Commercial Bid while price shall be indicated only in the Price Bid.

- 1.Foreign vendors are not permitted to quote.
- 2.Only Class-I and Class-II Local suppliers as per Make in India Policy are eligible to participate in the bid.
  - a. The percentage of local content with documentary should be specifically mentioned in the offer, without which it will be summarily rejected.
  - b. Preference will be given to Class-I Local Supplier and in their absence, Class-II Local Supplier will be considered.
- 3.If MSME, please provide documentary proof.
- 4.Last minute clarification on tenders will not be entertained.
- 5.This is an E Tender. Hence Postal/Fax/Email tenders will not be accepted.
- 6.Acceptance of Guarantee / Warranty, PBG, SD & LD are mandatory. Quotations not accepting these conditions will not be considered.

## **A.1 Tender Schedule**

**Bid Submission Start Date : 04-01-2022 17:01**

**Bid Clarification Due Date : 13-01-2022 10:00**

**Bid Submission Due Date : 03-02-2022 10:00**

**Bid Opening Date : 03-02-2022 10:01**

**Price Bid Opening Date : 07-02-2022 10:01**

## **B. Tender Attachments**

### **Technical Write-up/Drawings**

**Document : Specifications of Spring Energized Seals**

### **Instructions To Vendors**

#### **2. STANDARD TERMS AND CONDITIONS ( DOS PM:19)**

1. Arbitration in the event of any dispute or difference arising under these terms & conditions or any condition contained in the Purchase Order or in connection with this Contract. (except as to any matter the decision of which is specially provided for by these conditions), the same shall be referred to the sole arbitration of the Head of the Purchase Office or of some other person appointed by him, and the dispute further processed in terms of the Arbitration & Conciliation Act, 1996. There will be no objection that the arbitrator is a Government Servant that he had to deal with matter which the Contract relates to or that in the course of his duties as Government Servant has expressed views on all or any of the matters in dispute or difference. The award of the arbitrator shall be final and binding on the parties of this Contract.

2. Corrections, if any, in the quotation must be attested. All amounts shall be indicated both in words as well as in figures. When there is difference between the amount quoted in words and figures, the amount quoted in words shall prevail.

3. Guarantee: The stores offered should be guaranteed for a minimum period of twelve months against defective stores design, operation or manufacture. For defects noticed during the guarantee period, replacement/repair should be arranged free of cost within a reasonable period of such notification. In cases where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.

4. If the arbitrator is a person appointed by the Head of the Purchase Office, In the event of his denying or neglecting or refusing to act, or resigning or being unable to act, for any reason, shall be lawful for the Head of the Purchase Office either to proceed with the reference himself or to appoint another person as arbitrator in place of the outgoing arbitrator subject, as aforesaid, to the Arbitration and Conciliation Act, 1996, and the rules there under and any statutory modifications thereof for the time being in force shall be deemed to apply to the arbitration proceeding under the clause. The Arbitrator shall have the power to extend with the consent of the Purchaser and the Contractor the time for making and publishing the award. The venue of arbitration shall be the place as the Purchaser in his absolute discretion may determine. Work under the Contract shall, if reasonably possible, continue during Arbitration Proceedings.

5. If the arbitrator is the Head of the Purchase Office :

(i) In the event of his being transferred or vacating his office by resignation or otherwise, it shall be lawful for his successor in office either to proceed with the reference himself for to appoint another person as arbitrator, or In the event of his being unwilling or unable to act for any reason, it shall be lawful for the Head of the Purchase Office to appoint another person as arbitrator.

6. Late Tenders will not be considered.

7. Packing and Forwarding: The Contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packages shall be done by and at the expense to the Contractor.

8. Payment terms are full payment within 30 days from the date of receipt and acceptance of material ordered. Our Bankers are State Bank of India, Mahendragiri.

9. Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two systems of unit must be furnished.

10. Quotation should be valid for at least 90 days from the date of opening of the tender.

11. Sales Tax and/or other duties/levies, where legally leviable and intended to be claimed, should be distinctly shown separately in the tender.

12. Specifications: Stores offered should strictly conform to Purchaser's specifications. Deviations, if any, shall be clearly indicated by the tenderer in his quotation. The tenderer should also indicate the Make/Type number of the stores offered and provide catalogues, technical literature and samples, wherever necessary, along with the quotation. Test certificate, wherever necessary, should be forwarded along with supplies. Wherever options are called for in our specifications, the tenderer should address all such options, wherever specifically mentioned by us, and the tenderer could suggest changes to specifications with appropriate response for the same. Even in such case, the tenderer should state why he cannot meet our specifications and why he is suggesting the change.

13. Successful tenderer will have to furnish in the form of a Bank Guarantee or in any other form as called for by the Purchaser towards adequate security for the materials/property provided by the purchaser for the due execution for the Contract.

14. TERMS AND CONDITIONS OF TENDER:

Price quoted should be on the basis of FOR IPRC, Mahendragiri or delivery at site  
The Purchaser will not pay separately for transit insurance, and the risk and cost during transit shall be exclusively the responsibility of the Contractor and the purchaser shall pay only for such stores as are actually received in good condition in accordance with the Contract.

15. The Contractor shall at all times indemnify the Purchaser against all claims which may be in respect of the stores for infringement of any right protected by Patent, Registration or design or Trade Mark and shall take all risks of accidents or damage which may cause a failure of the supply from whatever causes arising and the entire responsibility for the sufficiency of all means used by him for the fulfillment of the Contract.

16. The Purchaser reserves the right to accept or reject any quotation fully or partly without assigning any reason thereof.

17. The time for and the date of delivery of the stores stipulated in the Purchase Order shall be deemed to be the essence of the Contract and delivery must be completed not later than the date specified therein, and failure to do so, without adequate justification, may involve cancellation of the Contract at the discretion of the Purchaser.

18. Where counter terms and conditions/printed or cyclostyled conditions of sale have been offered by the tenders, the same shall not be deemed to have been accepted by the Purchaser unless the Purchaser's specific written acceptance thereof is obtained.

### **3. GENERAL TERMS AND CONDITIONS:**

1. a) Facility of after sales service to be confirmed with details.
  - b) Permanent Account Number (PAN) allotted by Income-Tax authorities shall be furnished with documentary proof. Otherwise, documentary proof for having applied for PAN should be provided. Also PAN should be in the name of Company/Firm, if quoted by the Company/Firm and in the name of Individual, if quoted by individual.
  - c) GST No.
  - d) Local office in Tirunelveli / Nagercoil is preferable.
- Note: (b) to (d) are applicable for Indian Companies only.

2. 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.

3. GST where legally leviable and intended to be claimed should be distinctly shown separately in the tender. As per Notification No.45/2017 Central Tax(Rate) or Notification No. 47/17 Integrated TAX(Rate) of 14/11/17, We are eligible for availing Concessional GST@5% against certificate issued by an officer not below the rank of Dy. Secretary to Govt. of India.

4. Guarantee / Warranty period as applicable shall be indicated, along with the quote. Guarantee/Warranty shall commence from the date of installation and acceptance of the complete equipment supplied under the contract/purchase order.
5. If an Indian agent submits bid on behalf of the Principal/OEM, the same Indian agent shall not submit a bid on behalf of another Principal/OEM in the same tender for the same item/product
6. In a tender, either the Indian Agent on behalf of the Principal/OEM or Principal/ OEM itself can bid but both cannot bid simultaneously for the same item/product in the same tender.
7. In case of imported items (stores), Ex-Works/FOB/FCA prices should be indicated. In case of indigenous stores the quotation should be on FOR-Destination / Door delivery basis.
8. In case the vendor falls in the category of Small Scale Industries (SSIs), who are registered with NSIC, Public Sector Undertakings (PSUs) and Micro & Small Enterprises (MSMEs) the same shall be mentioned in their quote for evaluation.
9. Indian Agents while quoting on behalf of their principals shall attach necessary authorization letter from their Principals along with the bid.
10. IPRC reserves the right to accept or reject any quotation in full or part thereof by recording the reasons.
11. IPRC shall not be responsible for failure of vendors in submitting bids online caused due to technical reasons at vendor end such as network or power failures, computer failure, internet-browser, mistakes / errors in filling the bids on line by vendor etc.
12. ISRO PROPULSION COMPLEX (IPRC) is exempted from payment of Customs Duty under Notification No. 50/2017-Customs dated 30.06.2017 and as amended by Notification No.5/18 Customs dt:25/1/18. For imported items IPRC will provide Customs Duty Exemption Certificate for availing Concessional CD and IGST.
13. Last minute request for the extension of the due date w.r.t. any technical issue at Vendors/Suppliers side will not be considered. You may submit your quotation online well in advance instead of waiting till the last date to ensure that Internet problem and network condition does not cause problem.
14. LIQUIDATED DAMAGES:Delivery is the essence of the contract. Items shall be delivered within stipulated period. If delivery is delayed beyond the stipulated delivery period mentioned in the purchase order or any extension thereof, an amount equal to 0.5% per week shall be recovered, subject to a maximum of 10% of the order value shall be deducted from your bills due.

15. Offers sent through post, telegram, fax, e-mail, courier will not be considered. Partially completed / incomplete tenders shall not be considered.

16. Only authorized dealers/agents or their accredited representatives for original manufacturers have to submit the quotation with documentary evidence.

17. PAYMENT: 100% through RTGS within 30 days from the date of receipt and acceptance of items at our site is the normal payment for Indigenous supply. In the case of direct Import, normal terms of payment are by Sight Draft / Wire Transfer after receipt of items. However, other terms of payment like establishment of Letter of Credit may be considered by the Purchaser on such terms and conditions as may be agreed upon.

18. PERFORMANCE BANK GUARANTEE :

The Supplier shall guarantee the successful and satisfactory performance/commissioning of equipment/machinery under the conditions specified in the Purchase Order. As a performance security, the SUPPLIER shall furnish a performance bank guarantee (in the prescribed format) from Nationalized Bank/Scheduled Bank for an amount equal to the sum of 3% of the order value ensuring the due performance of equipment/machinery in accordance with all the specifications and terms specified in the Purchase Order herein valid for the period of two months beyond warranty period. On due performance, the performance bank guarantee shall be automatically cancelled and returned to the Supplier within 30 days after expiry of the Warranty period.

19. SECURITY DEPOSIT : Security Deposit @ 3% of order value shall be submitted in the form of DD/FDR duly endorsed in favour of Accounts Officer, IPRC or by way of Bank Guarantee (in the prescribed format) within 30 days after receipt of order and valid up to the successful execution of the order.

20. The goods or material offered should be strictly as per our specifications. Change(s) in specifications, if any, should be clearly indicated by the supplier in his quotation. The supplier should also indicate make/type No. of the materials or equipment offered. Vague terms such as Best Indian, Best Indigenous and Imported make should not be used.

21. The offer should be valid for a minimum period of 120 days from the date of Technical bid opening & 90 days from the date of Price Bid opening (in case of two-part tender).

22. 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 portions of the quantity offered and the tenderer shall supply the same at the rates quoted.

23. Wherever the tenderer is asked to submit sample for evaluation of tenders, the same shall be submitted along with your quote.



#### **4. Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA**

1. Any false declaration and non-compliance of the above would be a ground for immediate rejection of offer or termination of the contract and further legal action in accordance with the laws.

2. As per the Rule 144(xi) of General Financial Rule, 2017, 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 the competent authority ie., Department for Promotion of Industry and Internal Trade (DPIIT).

3. Hence, Vendors or Agents of a Vendor (Indian or others) from a country sharing border with India shall submit copy of valid registration made with Department for Promotion of Industry and Internal Trade (DPIIT), Government of India along with the tender mandatorily, without which the offer will be treated as invalid.

#### **4. Model Certificate for Tenders**

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered

5. Validity of Registration: Registration should be valid at the time of submission of bids and should be valid at the time of placement of order.

## C. Bid Templates

### C.1 Technical Bid - Spring Energized seals

#### 1. Spring Energized Seals, Outer diameter(OD) : 33.4 mm, Inner Diameter(ID) : 24.4 mm, Depth : 2.5 mm

##### Item specifications for Spring Energized Seals

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Seal Groove dimensions	Outer diameter-33.4mm, Inner diameter-24.4 mm, Depth of groove-2.5 mm	Yes / No / Explain		
2	Type of joint	Static joint	Yes / No / Explain		
3	Working medium	Liquid hydrogen/Liquid oxygen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
4	Max. pressure	22 MPa	Yes / No / Explain		
5	Min. pressure	Vacuum	Yes / No / Explain		
6	Max. temperature	320 K	Yes / No / Explain		
7	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
8	Flange leak tightness	$\leq 1 \times 10^{-6}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
9	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
10	Coating (Jacket)	Silver	Yes / No / Explain		

#### 2. Spring Energized Seals, Groove dimensions OD : 39.7 mm, ID : 30.5 mm, Depth : 2.5 mm

##### Item specifications for Spring Energized Seals

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Minimum pressure	Vacuum	Yes / No / Explain		
2	Max. temperature	320 K	Yes / No / Explain		
3	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
4	Flange leak tightness	$\leq 1 \times 10^{-5}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
5	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
6	Coating (Jacket)	Silver	Yes / No / Explain		
7	Seal Groove dimensions	Outer diameter-33.4mm, Inner diameter-24.4 mm, Depth of groove-2.5 mm	Yes / No / Explain		
8	Type of joint	Static joint	Yes / No / Explain		
9	Working medium	Liquid hydrogen/Liquid oxygen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
10	Maximum pressure	22 MPa	Yes / No / Explain		

### 3. Spring Energized Seals, Groove dimensions OD : 204 mm, ID : 188.5 mm, Depth : 5 mm

#### Item specifications for Spring Energized Seals

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		
2	Working medium	Liquid Oxygen/Liquid Hydrogen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
3	Max. pressure	2 MPa	Yes / No / Explain		
4	Min. pressure	Vacuum	Yes / No / Explain		

5	Max. temperature	320 K	Yes / No / Explain		
6	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
7	Flange leak tightness	$\leq 1 \times 10^{-6}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		
10	Seal Groove dimensions	Outer diameter-204 mm, Inner diameter-188.5 mm, Depth of groove-5 mm	Yes / No / Explain		

#### 4. Spring Energized Seals, Groove dimensions OD : 48.1 mm, ID : 39.9 mm, Depth : 2.65 mm

##### Item specifications for Spring Energized Seals

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		
2	Working medium	Liquid Oxygen/Liquid Hydrogen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
3	Max. pressure	5 MPa	Yes / No / Explain		
4	Min. pressure	Vacuum	Yes / No / Explain		
5	Max. temperature	900 K (623 °C)	Yes / No / Explain		
6	Min. temperature	15K (-258 °C)	Yes / No / Explain		
7	Flange leak tightness	$\leq 1.0 \times 10^{-6}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		

10	Seal Groove dimensions	Outer diameter-48.1 mm, Inner diameter-39.9 mm, Depth of groove-2.65 mm	Yes / No / Explain		
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**5. Spring Energized Seals, groove dimensions of OD : 144.4 mm, ID : 128.6 mm, Depth : 4.7 mm**

**Item specifications for Spring Energized Seals**

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		
2	Working medium	Liquid Oxygen/Liquid Hydrogen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
3	Max. pressure	2 MPa	Yes / No / Explain		
4	Min. pressure	Vacuum	Yes / No / Explain		
5	Max. temperature	320 K	Yes / No / Explain		
6	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
7	Flange leak tightness	$\leq 1 \times 10^{-5}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		
10	Seal Groove dimensions	Outer diameter-144.4 mm, Inner diameter-128.6 mm, Depth of groove-4.7 mm	Yes / No / Explain		

**6. Spring Energized Seals, Groove dimensions OD : 76.1 mm, ID : 67.9 mm, Depth : 2.65 mm**

**Item specifications for Spring Energized Seals**

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		

2	Working medium	Liquid Hydrogen/liquid Oxygen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
3	Max. pressure	3 MPa	Yes / No / Explain		
4	Min. pressure	Vacuum	Yes / No / Explain		
5	Max. temperature	900 K (627 °C)	Yes / No / Explain		
6	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
7	Flange leak tightness	$\leq 1 \times 10^{-5}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		
10	Seal Groove dimensions	Outer diameter-76.1 mm, Inner diameter-67.9 mm, Depth of groove-2.65 mm	Yes / No / Explain		

## 7. Spring Energized Seals, Groove dimensions of OD : 32.1 mm, ID : 23 mm, Depth : 2 mm

### Item specifications for Spring Energized Seals

Sl No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		
2	Working medium	Liquid Oxygen/Liquid Hydrogen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
3	Max. pressure	2 MPa	Yes / No / Explain		
4	Min. pressure	Vacuum	Yes / No / Explain		
5	Max. temperature	320 K	Yes / No / Explain		
6	Min. temperature	15 K (-258 °C)	Yes / No / Explain		

7	Flange leak tightness	$\leq 1 \times 10^{-6}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		
10	Seal Groove dimensions	Outer diameter-32.1 mm, Inner diameter-23 mm, Depth of groove-2 mm	Yes / No / Explain		

### 8. Spring Energized Seals, Groove dimensions of OD : 230 mm, ID : 215 mm, Depth : 4.75 mm

#### Item specifications for Spring Energized Seals

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		
2	Working medium	Liquid Oxygen/Liquid Hydrogen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
3	Max. pressure	1.6 MPa	Yes / No / Explain		
4	Min. pressure	Vacuum	Yes / No / Explain		
5	Max. temperature	320 K	Yes / No / Explain		
6	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
7	Flange leak tightness	$\leq 1 \times 10^{-6}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		
10	Seal Groove dimensions	Outer diameter-230 mm, Inner diameter-215 mm, Depth of groove-4.75 mm	Yes / No / Explain		

### 9. Spring Energized Seals, Groove dimensions of OD : 290.41 mm, ID : 280.21 mm, Depth : 3.24 mm

### Item specifications for Spring Energized Seals

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		
2	Working medium	Liquid Hydrogen/Liquid Oxygen/Gaseous Oxygen/Gaseous Hydrogen	Yes / No / Explain		
3	Max. pressure	1.6 MPa	Yes / No / Explain		
4	Min. pressure	Vacuum	Yes / No / Explain		
5	Max. temperature	320 K	Yes / No / Explain		
6	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
7	Flange leak tightness	$\leq 1 \times 10^{-6}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		
10	Seal Groove dimensions	Outer diameter-290.41 mm, Inner diameter-280.21 mm, Depth of groove-3.24 mm	Yes / No / Explain		

### 10. Spring Energized Seals, Groove dimensions of OD : 58.2 mm, ID : 50 mm, Depth : 2.6 mm

### Item specifications for Spring Energized Seals

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type of joint	Static joint	Yes / No / Explain		
2	Working medium	Liquid hydrogen/Liquid oxygen/Gaseous oxygen/Gaseous hydrogen	Yes / No / Explain		
3	Max. pressure	2 MPa	Yes / No / Explain		



4	Min. pressure	Vacuum	Yes / No / Explain		
5	Max. temperature	320 K	Yes / No / Explain		
6	Min. temperature	15 K (-258 °C)	Yes / No / Explain		
7	Flange leak tightness	$\leq 1 \times 10^{-6}$ mbar-l/s at 1.1 MPa with GHe	Yes / No / Explain		
8	Seal material	Inconel 718 (Jacket + Spring) or equivalent	Yes / No / Explain		
9	Coating (Jacket)	Silver	Yes / No / Explain		
10	Seal Groove dimensions	Outer diameter-58.2 mm, Inner diameter-50 mm, Depth of groove-2.6 mm	Yes / No / Explain		

### Common Specifications (Applicable for all items)

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Drawings approval before fabrication	IPRC	Yes / No / Explain		
2	Seal material(Jacket and spring)	Inconel 718 or equivalent	Yes / No / Explain		
3	Coating	Silver with minimum thickness of 0.002 - 0.003 mm	Yes / No / Explain		
4	Chemical Test certificates	chemical composition for the jacket/inner spring/coating	Yes / No / Explain		
5	Mechanical Test certificates	Mechanical properties for the jacket/inner spring/coating	Yes / No / Explain		
6	Dimensional inspection	Dimension report for each C-ring to be submitted	Yes / No / Explain		
7	Coating thickness measurement	Silver coating thickness to be measured for each seal	Yes / No / Explain		
8	Cleaning	Cleaning to be done as per MIL-100 of MIL-STD-1246	Yes / No / Explain		
9	Seal load	Seal load for 20% seal compression(in N/mm) shall be specified.	Yes / No / Explain		

10	Supply of seals during tender evaluation	During tender evaluation stage, the party shall provide few seals of 2 different sizes for carrying out performance tests on seals for evaluation purposes.	Yes / No / Explain		
11	Pre-Qualification Criteria-1	The bidder shall be a manufacturer of Spring Energized Seals	Yes / No / Explain		
12	Pre-Qualification Criteria-2	The bidder shall provide the catalogue of the Spring Energized Seals being manufactured	Yes / No / Explain		
13	Pre-Qualification Criteria-3	The bidder shall provide details of previous purchase orders/TPI reports/client acceptance reports as evidence for previous supply of spring energized seals for cryogenic service like liquid nitrogen/liquid oxygen/liquid hydrogen service with seal sizes from 25mm to 300mm for operating pressure range from 2 MPa to 22 MPa during the past 5 years	Yes / No / Explain		
14	Pre-Qualification Criteria-4	Bidder shall provide the clientele specifying the clients to whom the vendor has supplied similar Spring Energized seals indicating their address, telephone, fax, email, contact person, etc.	Yes / No / Explain		
15	Pre-Qualification Criteria-5	At the discretion of Purchaser, during tender evaluation stage, the party shall provide few seals of 2 different sizes for carrying out performance tests on seals for evaluation purposes.	Yes / No / Explain		

### Supporting Documents required from Vendor

**1. details of previous purchase orders/TPI reports/client acceptance reports as evidence for previous supply of spring energized seals for cryogenic service like liquid nitrogen/liquid oxygen/liquid hydrogen service in the past 5 years**

**2. Proof for being supplier for Spring Energized seals**

**3. clientele list specifying the clients to whom the vendor has supplied similar Spring Energized seals indicating their address, telephone, fax, email, contact person, etc.**

**4. Catalogue of the Spring Energized Seals being manufactured.**

5 additional documents can be uploaded by the vendor

## C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Individual C-ring should be separately packed in a plastic bag (vacuum packed) each ring to be put in a non collapsible plastic box to avoid damage. Date of manufacture and shelf life to be indicated on the package.	Yes / No / Explain	
2	Validity of Offer (specify)	Yes / No / Explain	
3	Delivery Period (specify)	Yes / No / Explain	
4	Delivery Terms: Normal delivery terms - FOR Destination (i.e., IPRC, Mahendragiri)	Yes / No / Explain	
5	Payment Terms: 100% within 30 days after receipt and acceptance of items (No advance payment is acceptable). Specify your Payment Terms.	Yes / No / Explain	
6	Security Deposit: The Supplier shall provide Bank Guarantee for an amount equivalent to the 3% (THREE PERCENT) of the total Order value towards Security Deposit for the due performance of the Purchase Order. The Security Deposit can be submitted in the form of Bank Guarantee or Fixed Deposit Receipt obtained from any Nationalized/ Scheduled Bank and it shall be kept valid for a period of sixty days beyond the date of completion of the Purchase Order. This Security Deposit will be returned to the Supplier only upon successful completion of all the contractual obligations or shall be adjusted/ forfeited against non-fulfilment of any of the contractual obligations. The Security Deposit shall be submitted within 30 days from the date of receipt of Purchase Order.	Yes / No / Explain	
7	Confirm: Conditions for BIDDER FROM A COUNTRY WHICH SHARES LAND BORDER WITH INDIA	Yes / No / Explain	

8	Liquidated Damages: The delivery period / completion period shall be the essence of the Purchase Order. If the Supplier fails to meet delivery date within the time specified above or any extension thereof, the Department will recover from the Supplier as Liquidated Damages (LD) a sum of 0.5% of the total order value for each calendar week of delay subject to a maximum of 10% of the total order value. Confirm your acceptance.	Yes / No / Explain	
9	Name of PRINCIPAL, Address, Contact No, E-mail Id etc. (specify):	Yes / No / Explain	
10	Name of INDIAN AGENT, Address, Contact No, E-mail Id etc. (specify):	Yes / No / Explain	
11	Currency quoted (specify)	Yes / No / Explain	
12	Warranty / Guarantee Period: (specify)	Yes / No / Explain	
13	Taxes and other costs, if any: (specify). As per Notification No. 45/2017 - Central Tax and 47/2017-Integrated Tax (rate) dated 14/11/2017, we are eligible for concessional rate of GST @ 5%. Relevant Certificate shall be issued as and when required.	Yes / No / Explain	
14	Performance Bank Guarantee: Performance Bank Guarantee (PBG) for 3% of the order value shall be submitted along with your Invoice/prior to final payment. It shall be valid till the warranty/ guarantee period and shall have an additional claim period of 60 days.	Yes / No / Explain	
15	Percentage of Local Content with documentary proof: (specify)	Yes / No / Explain	
16	If MSME, provide documentary proof: (specify)	Yes / No / Explain	

### C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Item wise Packing & Forwarding Charges in %	Item wise Freight Charges in %	Item wise Third Party Inspection Charges in %	Item wise Testing Charges in %	Item wise Other Charges (If any) in %	Remarks

1	Spring Energized Seals, Outer diameter(OD) : 33.4 mm, Inner Diameter(ID) : 24.4 mm, Depth : 2.5 mm	60.00 Nos.	-								
2	Spring Energized Seals, Groove dimensions OD : 39.7 mm, ID : 30.5 mm, Depth : 2.5 mm	132.00 Nos.	-								
3	Spring Energized Seals, Groove dimensions OD : 204 mm, ID : 188.5 mm, Depth : 5 mm	12.00 Nos.	-								
4	Spring Energized Seals, Groove dimensions OD : 48.1 mm, ID : 39.9 mm, Depth : 2.65 mm	20.00 Nos.	-								

5	Spring Energized Seals, groove dimensions of OD : 144.4 mm, ID : 128.6 mm, Depth : 4.7 mm	4.00 Nos.	-								
6	Spring Energized Seals, Groove dimensions OD : 76.1 mm, ID : 67.9 mm, Depth : 2.65 mm	12.00 Nos.	-								
7	Spring Energized Seals, Groove dimensions of OD : 32.1 mm, ID : 23 mm, Depth : 2 mm	25.00 Nos.	-								
8	Spring Energized Seals, Groove dimensions of OD : 230 mm, ID : 215 mm, Depth : 4.75 mm	3.00 Nos.	-								

9	Spring Energized Seals, Groove dimensions of OD : 290.41 mm, ID : 280.21 mm, Depth : 3.24 mm	3.00 Nos.	-								
10	Spring Energized Seals, Groove dimensions of OD : 58.2 mm, ID : 50 mm, Depth : 2.6 mm	12.00 Nos.	-								

**Common charges (Applicable for all items)**

<b>1. Other Charges in Price (If any)</b>	
<b>2. Other Charges in Price (If any)</b>	
<b>3. Other Charges in Price (If any)</b>	