

**ITEM: DYNAMIC SEAL FOR DIA 25MM SHAFT AS PER SPEC
TFS:1003/Rev.01**

REMARKS:

1. THE VENDOR SHALL SUBMIT ALL THE CREDENTIALS AS PER PQR REQUIREMENT.
2. THE VENDOR SHALL SUBMIT ALL THE TEST CERTIFICATE DOCUMENTS AT THE TIME OF DISPATCH.

Technical Pre-Qualification requirement for Dynamic Shaft Seal

1. The vendor shall be an established manufacturer of Dynamic Shaft Seal having adequate Engineering, Manufacturing and testing facilities. Vendor shall furnish technical backup documents in proof for above requirements.
2. The **Dynamic Shaft Seal** offered shall be from the existing regular manufacturing range of the supplier. The supplier shall have experience in supplying the Shaft Seal for application of similar severity and to meet the technical parameters as specified in the enquiry. Vendor shall provide the Product catalogue / general reference list supplied to various customers along with the offer.
3. Vendor shall submit at least **three free samples** of enquired **Dynamic shaft seal** to BHEL-Tiruchirappalli which will be evaluated for specification requirement, workmanship and dimensions. **Alternatively**, bidder can furnish **BHEL P.O reference** for previous supply of **Dynamic shaft seal**.

4. Instructions to Bidder

- I. BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, as per BHEL evaluation procedure.
- II. Final acceptance of the bidder is subject to BHEL and end customer's approval to consider in this tender.

5. Backup document checklist to meet PQR:

S. No	Document description	Check list
1	Documents to meet Clause(1)	☐
2	Supply reference document (PO /Inspection Reports)	☐
3	Product Catalogues / General reference list	☐
4	Supply of Free samples for evaluation	☐

1.0 Scope:

Design, manufacture and supply of Spring Energized Dynamic Shaft seals to seal the hot secondary air around low speed rotating shafts of wind-boxes/burners.

2.0 Purpose

The seals shall be used to prevent the leakage of secondary air of maximum temperature 350 °C (continuous). The seals are mounted around the low speed rotating shafts fitted into a stationary bushing.

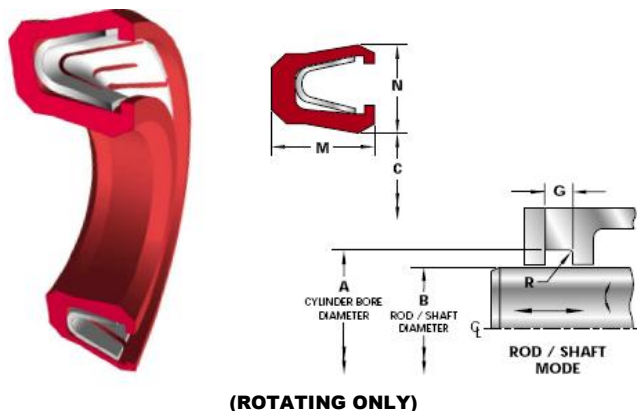
3.0 Item Description

The seals shall be energized by Stainless steel springs as shown in the figure. The pitch of the retainer spring shall be approx. 2.5 mm and shall ensure spring retention under all working conditions

4.0 Technical parameters

Description	Dim	Variant-01	Variant-02
Elastomer material		Vendor to specify (suitable for 350°C continuous temperature)	
Retainer material		Stainless steel grade SS 304	
Material Code		<u>961340010000</u>	<u>961340020000</u>
Bore diameter (mm)	(A)	34.5 (-0 +0.05)	53.90 (-0 +0.05)
Shaft diameter (mm)	(B)	25 (-0.05 +0)	44.42 (-0.05 +0)
Cavity length (mm)	(G)	7.00 to 7.40	
Cavity corners (mm)	(R)	0.8 x 45° Chamfer	
Shaft Seal Internal dia*	(C)		
Shaft Seal width*	(M)		
Shaft Seal height*	(N)		
Shelf Life		Vendor to specify (Minimum 1 year)	

* - Vendor to specify in mm



5.0 Documents required

- Point-wise confirmation to the specification.
- Dimensional drawing indicating all the dimensions as enquired in the above specification.
- Specification sheet with listed chemical and mechanical properties for the offered elastomeric material. Shelf life of the product shall also be specified.

6.0 Guarantee

The performance of the seal shall be guaranteed for a period of 18 months from the date of purchase or 12 months from the date of commissioning, whichever earlier.

7.0 Inward Inspection

Dimensional check

Visual inspection

REV 01: Max Working temp. revised from 400 to 350 °C. Material code, Retainer spring matl. & pitch specified. Elastomer material specified as silicone rubber removed. Shelf life clause added. Doc. requirement and Guarantee clause modified.

Prepared: Dheeraj Kumar

Checked: MCHS Gangadhar

Approved: G.S.K.

Date: 6 March 2018

**ITEM: DYNAMIC SEAL FOR DIA 44.42 MM SHAFT AS PER SPEC
TFS:1003/Rev.01**

REMARKS:

1. THE VENDOR SHALL SUBMIT ALL THE CREDENTIALS AS PER PQR REQUIREMENT.
2. THE VENDOR SHALL SUBMIT ALL THE TEST CERTIFICATE DOCUMENTS AT THE TIME OF DISPATCH.

Technical Pre-Qualification requirement for Dynamic Shaft Seal

1. The vendor shall be an established manufacturer of Dynamic Shaft Seal having adequate Engineering, Manufacturing and testing facilities. Vendor shall furnish technical backup documents in proof for above requirements.
2. The **Dynamic Shaft Seal** offered shall be from the existing regular manufacturing range of the supplier. The supplier shall have experience in supplying the Shaft Seal for application of similar severity and to meet the technical parameters as specified in the enquiry. Vendor shall provide the Product catalogue / general reference list supplied to various customers along with the offer.
3. Vendor shall submit at least **three free samples** of enquired **Dynamic shaft seal** to BHEL-Tiruchirappalli which will be evaluated for specification requirement, workmanship and dimensions. **Alternatively**, bidder can furnish **BHEL P.O reference** for previous supply of **Dynamic shaft seal**.

4. Instructions to Bidder

- I. BHEL reserves the right to assess the capabilities and capacity of the bidder to perform the contract, as per BHEL evaluation procedure.
- II. Final acceptance of the bidder is subject to BHEL and end customer's approval to consider in this tender.

5. Backup document checklist to meet PQR:

S. No	Document description	Check list
1	Documents to meet Clause(1)	☐
2	Supply reference document (PO /Inspection Reports)	☐
3	Product Catalogues / General reference list	☐
4	Supply of Free samples for evaluation	☐

1.0 Scope:

Design, manufacture and supply of Spring Energized Dynamic Shaft seals to seal the hot secondary air around low speed rotating shafts of wind-boxes/burners.

2.0 Purpose

The seals shall be used to prevent the leakage of secondary air of maximum temperature 350 °C (continuous). The seals are mounted around the low speed rotating shafts fitted into a stationary bushing.

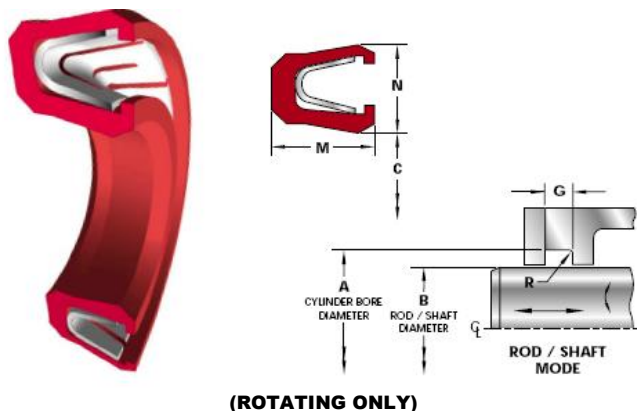
3.0 Item Description

The seals shall be energized by Stainless steel springs as shown in the figure. The pitch of the retainer spring shall be approx. 2.5 mm and shall ensure spring retention under all working conditions

4.0 Technical parameters

Description	Dim	Variant-01	Variant-02
Elastomer material		Vendor to specify (suitable for 350°C continuous temperature)	
Retainer material		Stainless steel grade SS 304	
Material Code		<u>961340010000</u>	<u>961340020000</u>
Bore diameter (mm)	(A)	34.5 (-0 +0.05)	53.90 (-0 +0.05)
Shaft diameter (mm)	(B)	25 (-0.05 +0)	44.42 (-0.05 +0)
Cavity length (mm)	(G)	7.00 to 7.40	
Cavity corners (mm)	(R)	0.8 x 45° Chamfer	
Shaft Seal Internal dia*	(C)		
Shaft Seal width*	(M)		
Shaft Seal height*	(N)		
Shelf Life		Vendor to specify (Minimum 1 year)	

* - Vendor to specify in mm



5.0 Documents required

- Point-wise confirmation to the specification.
- Dimensional drawing indicating all the dimensions as enquired in the above specification.
- Specification sheet with listed chemical and mechanical properties for the offered elastomeric material. Shelf life of the product shall also be specified.

6.0 Guarantee

The performance of the seal shall be guaranteed for a period of 18 months from the date of purchase or 12 months from the date of commissioning, whichever earlier.

7.0 Inward Inspection

Dimensional check

Visual inspection

REV 01: Max Working temp. revised from 400 to 350 °C. Material code, Retainer spring matl. & pitch specified. Elastomer material specified as silicone rubber removed. Shelf life clause added. Doc. requirement and Guarantee clause modified.

Prepared: Dheeraj Kumar

Checked: MCHS Gangadhar

Approved: G.S.K.

Date: 6 March 2018

Annexure – A- Additional Terms and Conditions for GeM Enquiry

The terms and condition mentioned in this document are applicable in addition to the GeM General Terms and Conditions. Bidders shall furnish pointwise confirmation/details.

Description of the Equipment:	DYNAMIC SHAFT SEALS	
Projects	STOCK ITEMS	
BHEL Tender No. & Date	BID NO:	
Name of the firm (Bidder)	:	
Address:	:	
Contact details	<u>Contact person 1</u> Name: Designation: Office Phone: Mobile: e-mail: <u>Contact person 2</u> Name: Designation: Office Phone: Mobile: e-mail:	
<i>To be filled by bidder</i>		
Sl. No.	Terms and conditions	Vendor's confirmation
1 (a)	Technical: Bidder shall comply the specification requirements as per respective catalogues. Any clarifications/deviations to the specification requirements are to be clearly indicated. Hidden deviations indicated elsewhere in the offer will not be evaluated.	
1 (b)	Pre-qualification requirement: Offer shall be considered only if bidder is meeting Tender Prequalification requirement. Vendor to comply with Pre-Qualification requirement of the tender and submit along with their technical bid - the credentials and other documents as indicated in the PQR in the format prescribed. Otherwise their offer will get rejected.	
1 (c)	Inspection by BHEL TRICHY STORES along with all required TC documents shall be submitted. Any deviation from our specification requirement, the vendor shall replace the same.	
2	Firm Price: The quoted / finalised rates shall be Firm till execution of the supplies. Offer with PVC clause will not be considered.	
3	Delivery term: The quote shall be on FOR/BHEL TRICHY STORES inclusive of Packing, forwarding, Freight also to yours account. Transit Insurance is under BHEL scope. ITEM WISE EVALUATION IS APPLICABLE	
4	TENDER FINALIZATION: Tender will be finalized on total ITEM WISE EVALUATION basis through Reverse Auction in GeM.	

5 (a)	Guarantee / Warranty Period: 18 months from the date of supply or 12 months from the date of actual put in use, whichever is earlier.	
5 (b)	Repair & replacements: Within the guarantee period vendor has to replace / rectify the defective/ damaged items on free of cost within a reasonable time of reporting from our end.	
5 (c)	Loading Criteria: Guarantee / Warranty Period: No Deviation is permitted. If still vendor offered any deviation on the Guarantee / warranty period, it may lead to rejection of offer.	
6 (a)	Kindly Indicate the HSN Code for all items	
6 (b)	Rate quoted in GeM portal should be on FOR destination basis inclusive of all taxes, freight etc. Transit Insurance is under BHEL scope. Please indicate the applicable GST %.	
7 (a)	Delivery Period: Delivery Period shall be 90 Days from the Manufacturing clearance. Material shall be dispatched after obtaining dispatch clearance from BHEL. Delivery period mentioned anywhere else in the bid document is for indicative purpose. Delivery schedule shall be strictly as per this clause.	
7 (b)	Document Submission: In case of PO placements, required documents have to be submitted for approval within 15 days from the date of PO & reply for any further clarification has to be within 4 days. Any delay beyond the above specified period will be considered during LD calculation.	
8	Invoice date/Bill of Lading date/Airway Bill date/Lorry way bill date/Railway Receipt date, whichever is later will be considered for LD calculation.	
9	Documents are to be submitted along with technical bid (Part-1) - Covering letter - Unpriced offer. - Duly Signed Technical documents as indicated in the tender without deviation. - Filled BHEL Terms and condition sheet (Annexure-A) - Filled PQR along with supporting documents. - Self-Certification as per Make In India clause - MSE Certificates (if applicable) Note: All the pages of documents are to be signed and sealed by authorized signatory of the company. Any query during enquiry stage shall be replied within three days failing which offer may be rejected as non-responsive.	
10	Inspection and testing requirements: Inspection and testing requirements are to be carried out as per BHEL Specification Requirement. Inspection notice period: For TPI inspector visit to vendor works, a minimum of 3 working days' notice period.	
11	O & M manuals: BHEL require 1 sets of printed O & M manuals with 3	

	soft copies in CD-ROM at no cost to be sent to BHEL/ Trichy.	
12	Supplier shall mention their GSTN registration number in all their invoices and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No which is linked/uploaded in GSTN network shall be clearly indicated), item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, etc.	
13	All invoices shall bear the HSN Code for each item separately (Harmonized System of Nomenclature)/ SAC code (Services Accounting Code).	
14	Invoices will be processed only upon completion of statutory requirement and further subject to following: • Vendor declaring such invoice in Form GST ANX-1 • Receipt of Goods or Services and Tax invoice by BHEL	
14	As the continuous uploading of tax invoices in GSTN portal (in GST ANX-1) is available for all (i.e. both Small & Large) tax payers under proposed new GST Return System, all invoices raised on BHEL may be uploaded immediately in GST portal on despatch of material /rendering of services. The supplier shall ensure availability of Invoice in GST portal before submission of invoice to BHEL. Invoices will be admitted by BHEL only if the invoices are available in GSTN portal (in BHEL's GST ANX-2).	
16	In case of discrepancy in the data uploaded by the supplier in the GSTN portal or in case of any shortages or rejection in the supply, then BHEL will not be able to avail the tax credit and will notify the supplier of the same. Supplier has to rectify the data discrepancy in the GSTN portal or issue credit note or debit note (details also to be uploaded in GSTN portal) for the shortages or rejections in the supplies or additional claims, within the calendar month informed by BHEL.	
17	In cases where invoice details have been uploaded by the vendor but failed to remit the GST amount to GST Department (Form PMT-08 or Form GST RET-01 to be submitted) within stipulated time, then GST paid on the invoices pertaining to the month for which GST return not filed by the vendor will be recovered from the vendor along with the applicable interest (currently 24% p.a) and all subsequent bills of the vendor will not be processed till filing of the GST return by the vendor	
18	In case GST credit is denied to BHEL due to non-receipt or delayed receipt of goods and/ or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount claimed in the invoice shall be disallowed to the vendor.	
19	Where any GST liability arising on BHEL under Reverse Charge (RCM), the vendor has to submit the invoices to BHEL well within the timeline prescribed in GST Law, to enable BHEL to discharge the GST liability. If there is a delay in submission of invoice by the vendor resulting in delayed payment of GST by BHEL along with Interest, then such Interest payable or paid shall be recovered from the vendor.	
20	Under GST regime, BHEL has to discharge GST liability on LD recovered from suppliers/contracts. Hence applicable GST shall also	

	be recoverable from suppliers/contractors on LD amount. For this Tax Invoice will be issued by BHEL indicating the respective supply invoice number.	
21	GST TDS will be deducted as per Section 51 of CGST Act 2017 and in line with Notification 50/2018 – Central Tax dated 13.09.2018. GST TDS certificate which will be generated in GST portal subsequent to vendor accepting the TDS deduction in the GST portal, will be issued to the vendor.	
22	A declaration to the effect that all invoice particulars are/were uploaded in the GSTN network/ portal & all tax liability as per GST rules and regulations have been and will be discharged, shall be mentioned in the invoice. If not mentioned in the invoice, a separate declaration shall be submitted as per the requirement of BHEL	
23	MSE VENDOR: <i>Udyam Registration certificate shall be submitted by MSE vendors for availing the benefits.</i>	
24	<u>Make in India:</u> The local supplier at the time of tender, bidding or solicitation shall be required to provide self-certification that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made. Counter offering for Make in India will be on package basis (non-splittable)	
25	<u>Fraud Prevention Policy</u> Bidder along with its associate /collaborators /sub-contractors /sub-vendors / consultants / service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.	
26	<u>PRICE IMPACT:</u> All the technical / commercial details given in the enquiry shall be taken care and offer shall be quoted accordingly. No price impact / implication will be accepted within the validity period.	
Note	1. In the event of our customer order covering this tender being cancelled /placed on hold / otherwise modified, BHEL would be constrained to accordingly cancel / hold / modify the tender at any stage of execution. 2. BHEL may negotiate the L1 rate, if not meeting our budget / estimated cost. BHEL may re-float the tender opened, if L1 price is not acceptable to BHEL. 3. BHEL reserves its right to reject an offer due to unsatisfactory past performance by the respective Vendor in the execution of any contract to any BHEL project / Unit. 4. Any other Techno –Commercial Terms indicated by the vendor in their offer elsewhere will be ignored. BHEL will proceed with tender evaluation as per Annexure A only.	