



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
PROJECT ENGINEERING MANAGEMENT

Enq No.: PE/PG/RTC/E-5455/2016

Date: 20.02.2017

TENDER ENQUIRY THROUGH E-PROCUREMENT

DUE DATE
MARCH, 14, 2017
02.00 P.M. (IST)

Subject: Tender Enquiry for Rate Contract of Spring for BFP, Fan and Mill foundation

Dear Sir,

We are pleased to invite your tender offers for subject package. Please upload your best quotation/ offer in two (2) parts on <https://bheleps.buyjunction.in> for the requirement strictly as per schedule of price format before above mentioned due date & time. The details of the tender enquiry is as mentioned below:

Sl. No	Description for which Rate Contract is desired	Tentative Quantity	Delivery required
1	<u>Spring for BFP, Fan and Mill foundation</u> - Refer Technical specification no PE-TS-RC-600-C001 for detailed description.	As per BOQ cum price schedule in Annexure-I & II) cumulative for the Prospective Projects as per Annexure-IV.	For Supply: The delivery period for all the items of spring for BFP, Fan and Mill foundation shall be four (04) months from drawing/doc approval for respective project/requirement under the RC. Other schedules like submission of drawings, approval of drawings, inspection etc. shall be as per the Technical Specification no. PE-TS-RC-600-C001 (Drawings/Documents submission schedule shall be as per clause no. 3.0 of section-I of technical specification). Delays due to non-fulfilment of the requirements as specified in the specification shall be to the vendor's account. Vendors shall be informed that delivery period mentioned above is for contractual LD calculation purpose, however in case of exigencies BHEL may ask for early delivery. For Supervision of E&C: 30 days from the date of intimation for sending person for E&C supervision, failing which LD @ 0.5% per week of total contract value for E&C supervision for that project shall be levied limited to 10%.

(i) Rate contract on firm price basis is proposed for one year from placement of Rate Contract PO with a provision for further extension on mutual consent.

Please reply to:
PEM -Power Sector
PPEI Building,
BHEL House
HRD & ESI Complex,
Plot-25, Sector-16-A NOIDA – 201301

Phone: 0120-4213591
Fax : 0120-4329026
e-mail: ncsharma@bhelpem.co.in

Regd. Office:

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(ii) Bidders to note that they have to quote same ex-works (for indigenous vendors)/ C&F (foreign bidders) in both the bids (Annexure-I & Annexure-II) for same items as CIF has no bearing on C&F/Ex-works prices. However indigenous bidders having CIF for raw material have to mention CIF % of total ex-works in their bid (Price Schedule-Annexure-I) and % discount on ex-works prices in lieu of availing CIF.

(iii) Bidders shall be informed the following:

- a) Though evaluation is proposed on Grand total FOR SITE (for main supply + Tools for E&C + Supervision charges). But there is % allocation against BOQ quantity of each item which shall be used for arriving at price break-up. Bidders need to give only their total Ex. Works price of spring modules for given BOQ at column A11.
- b) Bidders also requires to mention % of taxes/duties (against respective columns for ED, CST and service tax) applicable for each spring module, tools and tackles and on E&C supervision charges.
- c) Bidders to give % of freight charges considering delivery anywhere in India in the freight column.
- d) Foreign bidders to give Total C&F Price for given BOQ of spring modules at column A17.
- e) Rest of the prices shall be derived by BHEL in line with % allocation fixed for each item.
- f) For better clarity to the bidders where value is to be filled is noted as "to be quoted" and for other columns it will be noted as "derived" which denotes shall be derived by BHEL as per % allocation fixed against each item.

(iv) Two rate Contracts (One for CIF available projects and other for NIL CIF projects) are proposed to be done with L1 vendor for 100% value at L1 FOR site price for Spring for BFP, Fan and Mill foundation. However, ordering against respective project under this RC is subject to customer approval.

(v) **Pre-bid meeting** for the tender is planned for 27/02/2017.

(vi) Foreign bidders to quote on C & F (Cost & Freight) basis instead of FOB basis:

For importing materials on C&F basis, bidders will be informed the following:

a) As per Incoterms (CFR), risk transfers to buyer when the goods have been loaded on board the ship in the country of Export. Hence, shipped on board date mentioned on the clean Bill of Lading or Air way Bill, shall be treated as the date of Shipment/ Dispatch for all contractual purposes including calculation of LD.

b) Usance period (90 days) of the L/C shall start from the date of Bill of lading/Air Way Bill.

(vii) Spring for BFP, Fan and Mill foundation of different module are required for different projects (refer Annex-IV), however indigenous bidders to consider delivery anywhere in India. Quantity variation shall be applicable in line with cl. no. 6 of GCC rev-06. Project list is indicative only, BHEL may ask for delivery anywhere in India for any of the project added in the project list during RC period.

(viii) Bidders to note that Rate contract shall be decided on the basis of Grand Total FOR site price (separately for CIF and Non-CIF projects) of Spring for BFP, Fan and Mill foundation as listed in price formats Annexure-I & II for items at sl. A to C, Indigenous Vendor shall be asked to quote Ex-work price, ED, CST/VAT & Freight charges (Including service tax) as percentage (%) of ex-work prices strictly as per schedule of price format and foreign bidders shall be asked for quoting C&F Indian sea port for other costs like custom duty, port handling charges, inland freight from port to BHEL site loading as per GCC rev-06 shall be done to calculate FOR BHEL site price.

(ix) Drawings/ documents submission, equipment manufacture inspection & dispatch requirement will be as per Technical Specification no. PE-TS-RC-600-C001.

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(x) **Pre-Qualifying Requirements (PQR):** All the bidders (registered/ non-registered) will be asked to submit documents fulfilling PQR requirements (as per enclosed annex-V) with the bid & their further evaluation shall be done based on qualification in PQR.

(xi) Bidders to note that their bid shall be conditional subject to qualify PQR by registered vendors & non-registered vendors have to qualify PQR & get registered with PEM for the package.

For registration in PEM "Bidders needs to apply & get registered for subject package with PEM before P-2 (price bid opening) & hence you need to apply online for registration on PEM web portal & have to enclose acknowledgement with this effect with the bid documents else your bid will not be considered for evaluation"

Online Registration Portal is operational in BHEL. Non-registered Vendors, who wish to apply for registration with BHEL-PEM, have to apply through Online Registration Portal available at www.bhelpem.com → vendor section → Online Supplier Registration. All credentials and/or documents duly signed and stamped related to registration has to be uploaded on the website and submit the application for registration. One set of hard copy of the filled-up SRF downloaded from Online Registration Portal duly signed and stamped has to be submitted.

(xii) **Integrity Pact (IP) shall be applicable for subject tender:**

IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. A Panel of Independent External Monitors (IEMs) has been appointed to oversee implementation of IP in BHEL.

The IP (Refer Annexure-IX, as per GCC Rev-06) is to be submitted (duly signed by authorized signatory who signs in the offer) along with techno-commercial bid. Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.

Details of IEM for this tender are furnished below:-

Name: - Sh. Shri D.R.S Chaudhary, IAS (Retd.)

Address: - Flat No. L-202 & L-203 (1st Floor), Ansal Lake View Enclave, Shamla Hills, Bhopal-462013 (M.P.)

Email: - dilip.chaudhary@icloud.com

No routine correspondence shall be addressed to the IEM (phone/post/email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department.

For all clarifications/ issues related to the tender, Please contact:

Mr. N.C Sharma, Sr.ENGR./MM e-mail : ncsharma@bhelpem.co.in Ph. No. 0120- 4213591	Mr. I P Singh, Sr. Mgr./ CMM e-mail: INDRA@bhelpem.co.in Ph. No. 0120-4368749
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However, for **Technical clarifications**, following persons may be contacted:

Mr Sushil Kumar Mahato, MGR/CIVIL e-mail : skmahato@bhelpem.co.in Ph. No.0120- 4547112	Mr Tarun Kumar Mehta, SDGM/CIVIL e-mail : tkmehta@bhelpem.co.in Ph. No.0120- 4547111
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(xiii) Bidder are required to submit offer strictly in accordance with the requirements of the above tender documents. Deviations (Technical as well as Commercial) from NIT are generally not acceptable, if any, Technical deviations and Commercial deviations shall be furnished in "Cost of Withdrawal sheet" (as per Annexure-II of GCC Rev. 06, copy enclosed) only under the headings "TECHNICAL DEVIATIONS" and "COMMERCIAL DEVIATIONS" respectively, along with reasons for taking

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such deviations. Deviations (Technical & Commercial) taken other than as mentioned on cost of withdrawal sheet shall not be considered.

(GCC Rev. 06 is available on <http://www.bhelpem.com/Documents/GCC/GCC-Rev-06.pdf> , you are requested to kindly download the same).

Tender Enquiry Terms and Conditions: -

1. Offers should be submitted in two parts online at <https://bheleps.buyjunction.in> as follows:
Part-I: TECHNO-COMMERCIAL BID (along with un-priced copy of Annexure-I, II, III, A & B)
Part-II: PRICE BIDS (along with priced copy of Annexure-I & II)
2. For detailed instructions, please see clause no. 2 of "Instructions to Bidders" of GCC, Rev. 06.
3. Standard pre-printed terms & conditions of the tenderers shall not be considered valid.
4. Bidder to submit complete tender in all respects duly signed & stamped on each and every page by the authorized signatory of the bidder as a token of acceptance of all the terms and conditions of tender.
5. Unsolicited fresh/ revised price bids shall not be entertained.
6. Tender will be opened at **03.00 PM (IST) on 14/03/2017.**
7. Purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any/ all tender(s) in part or full without assigning any reason whatsoever.
8. Purchaser reserves the right to split up the scope of the tender enquiry and place the orders for different scope/ items with different bidders and also increase or decrease the quantity.
9. BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.
Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).
The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. **The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.**
If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com)."
As a reminder to the bidders, system will flash following message (in RED Color) during the course of 'online sealed bid':

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“Bidders to submit online sealed bid less than or equal to their envelope sealed bid already submitted to BHEL”

Detailed guidelines of **reverse auction 2016** are available in “information section” of **www.bhelpem.com**, same are applicable for subject tender.

10. Any taxes and duties applicable on the date of bid but not quoted by the bidders shall be to the bidder account.
11. Delivery terms for dispatches shall be FOR Dispatch Station.
12. CIF is available only for BOQ as mentioned in Price Schedule Annex-I for this package. CIF is not available for BOQ-cum-Price Schedule Annex-II.
13. Bidders to submit their offers strictly in line with the enclosed Price Formats (Annex-I & II).
14. This enquiry is subject to Conditions/ limits if any imposed in PMD / Vendor registration.
15. Procurement of the subject package shall be done through e-procurement.
16. All corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on EPS website (<https://bheleps.buyjunction.in>), BHEL website (www.bhel.com), BHEL-PEM website (www.bhelpem.com) & CPP Portal. Bidders should regularly visit websites to keep themselves updated.
17. Foreign and indigenous bidders participating through open tender will necessarily have to buy class III DSCs issued by the certifying authorities in India for future tenders. Basic procedure /checklist has been uploaded on www.bhel.com for participating in tender enquires through e-procurement.
18. Bidder to note that all other terms and condition shall be strictly as per NIT, GCC Rev. 06 & SCC. In the event of any contradiction in the terms and conditions mentioned, the order of preference shall be NIT (this letter) / SCC / GCC Rev. 06.

NOTE: In case you are not making an offer against this enquiry, you are requested to send a regret letter so as to reach us on or before the due date.

**NARESH
CHANDRA
SHARMA**

Digitally signed by NARESH CHANDRA
SHARMA
DN: c=IN, o=BHARAT HEAVY
ELECTRICALS LIMITED,
postalCode=201301, st=Uttar Pradesh,
2.5.4.20=c91e43cc0aaf0991ec0afa982eb
35b89dfce75ee7c2cbd25e5ff90143bad
581,
serialNumber=9bebceae2085efee2932
516e3366b5ccb489f36398689f8057af0c
2409e49ca, cn=NARESH CHANDRA
SHARMA
Date: 2017.02.20 18:17:29 +05'30'

Enclosures:

- a) NIT (this letter itself)
- b) Technical Specification No. PE-TS-RC-600-C001.
- c) Price Formats: Annexure-I & II
- d) Annexure-III: Special Conditions of Rate Contract (SCC).
- e) Annexure-IV: List of prospective projects
- f) Annexure-V: PQR (Pre-qualifying Requirement)
- g) Cost of Withdrawal sheet (Annexure-II of GCC Rev. 06)
- h) Integrity Pact

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TITLE :
TECHNICAL SPECIFICATION FOR RATE
CONTRACT OF
SPRING FOR BFP, FAN AND MILL FOUNDATION

SPECIFICATION NO. PE-TS-RC-600-C001

SECTION I

REV. NO. 0

DATE 20.01.2017

TECHNICAL SPECIFICATION FOR RATE CONTRACT OF SPRING FOR BFP, FAN AND MILL FOUNDATION



TITLE :
TECHNICAL SPECIFICATION FOR RATE
CONTRACT OF
SPRING FOR BFP, FAN AND MILL FOUNDATION

SPECIFICATION NO. PE-TS-RC-600-C001

SECTION I

REV. NO. 0

DATE 20.01.2017

COMPLIANCE CERTIFICATE

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

01. The scope of supply, technical details, construction features, design parameters, quality plan etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same.
02. There are no deviation with respect to specification other than those furnished in the 'schedule of deviations.'
03. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
04. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
05. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in 'BOQ-Cum-Price schedule' of the specification shall not be considered (i.e., technical description & quantities as per the specification shall prevail).
06. QP will be subject to BHEL/Customer approval in the event of order & customer hold points for inspection/ testing shall be marked in the QP at the contract stage. Inspection/ testing shall be witnessed as per same apart from review of various test certificates/ Inspection records etc.

The charges for 3rd party inspection (Lloyds, or equivalent) for imported components shall be included in the base price of the equipment by the bidder.

07. All drawings/data – sheets etc. to be submitted during contract shall be subject to BHEL/Customer review/ approval.
08. GA drawings/ datasheet / QP as submitted with offer at tender stage are for reference purpose only and shall be subject to approval during contract stage.
09. All sub vendors shall be subject to BHEL/CUSTOMER approval.
10. Any special tools & tackles, if required, shall be in bidder's scope.



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1.0 SCOPE

1.01 SUPPLY OF VIBRATION ISOLATION SYSTEM (VIS):

- i) Vibration Isolation System (VIS)
- ii) Tools and facilities required for erection and commissioning including seaworthy packing & transportation etc. complete.

1.02 SUPERVISION OF ERECTION AND COMMISSIONING OF THE VIS.

Vendor shall deploy experienced manpower for setting the VIS in position and final adjustments after machine installation. Vendor shall also confirm the readiness at site before deploying the manpower for supervision of erection. Vendor shall furnish proposed erection strategy of the entire system and procedure for replacement of VIS and downtime involved.

1.03 DOCUMENTATION

Vendor shall furnish following documents:

- i) Bill of materials of various elements included in the supply along with detailed specifications of system and various items included in supply and standards local or international standards to which they conform.
- ii) Methodology of providing the shuttering and its removal as well as concreting of deck slab, installation of VIS and sequence of above operation.
- iii) Installation and maintenance manual indicating equipment, procedures, etc. necessary for installation/maintenance of VIS.
- iv) List of power plants where such systems have been successfully installed for such applications.
- v) Performance certificate from the end user/customer for at least two successfully executed contracts for such system.
- vi) The list of sub-vendors for their brought out items

2.0 GENERAL:

- 2.1 The vibration isolation system shall consist of steel helical spring units and viscous dampers.
- 2.2 The supplier must have requisite experience and proven track record of similar installation in power plants of unit capacity not less than 250 MW.
- 2.3 The steel helical springs and viscous damper supplied should be of proven make and approved by BHEL.



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3.0 DOCUMENTS TO BE SUBMITTED BY VENDOR

3.1 Document submission schedule after the award of contract shall be as below:

	BHEL DRG NO	DRG TITLE	Drg Submission schedule
	Primary Documents - affecting Manufacturing/ Delivery Directly		
	PE-V0-XXX-YYY-C201	Data sheet of VIS	R-0 within Two (02) weeks from LOI/PO & subsequent revisions within 10 days of comments received from BHEL/customer.
	PE-V0-XXX-YYY-C202	Quality Plan	
	PE-V0-XXX-YYY-C203	Test certificate	

Project specific document number shall be furnished to the vendor during detailed engineering of particular project.

4.0 SPECIFIC REQUIREMENTS

- 4.1 The VIS module shall consist of a number of springs with same or different stiffness properties.
- 4.2 The total number of springs in a VIS module should be even (refer figure-1).
- 4.3 The VIS module should be structurally stable. Stability of the module in all direction needs to be ensured under maximum load carrying capacity.
- 4.4 The springs shall conform to codes DIN EN 13906-1 and DIN 2096 or equivalent.
- 4.5 The spring units shall have definite stiffness in both vertical and horizontal directions with the horizontal stiffness not less than 50% of vertical stiffness.
- 4.6 The stiffness should be such that the vertical natural frequency of any spring unit at its rated load carrying capacity is between 2.2 to 3.8 Hz.
- 4.7 The minimum load carrying capacity has been mentioned in the price schedule for each type of VIS module. In case, bidder offers to supply their standard VIS module with higher value of load carrying capacity than specified, same may be accepted by BHEL subject to fulfilment of technical requirements and without any price implication.
- 4.8 The damper units or spring cum damper units should be of viscous type offering velocity proportional damping.
- 4.9 The damper units shall be suitable for temperatures ranging from 0 to 50° c.
- 4.10 The damping resistance of the individual damper units shall be such that the designed damping can be provided using reasonable number of units.
- 4.11 Damper units are specified in price schedule for damping resistance range of 40kNsec/m to 750 kN-sec/m.
- 4.12 The approximate range of damping co-efficient has been specified under various categories of VIS module with damper (SPV type). In case, bidder offers to supply their standard VIS module with different value of damping resistance than specified, same may be accepted by BHEL subject to fulfilment of technical requirements and without any price implication.



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- 4.13 The visco-liquid shall be silicon based visco-liquid of M/s Wacker make or equivalent satisfying QP requirements.
- 4.14 The spring unit to be used for Mill foundation shall be closed and sealed from all sides with proven durable, flexible material enclosure to avoid dust ingress inside the module. The figure-2 may be referred for reference.
- 4.15 The sizes of the spring units, damper units, spring cum damper units should be such that groups of such units can be accommodated on column heads in case of elevated foundations and on pedestals/walls in case of foundations at ground level.
- 4.16 The minimum plan dimension of contact area of the VIS module shall not be less than 100 mm x 280 mm. The VIS module in the same foundation should have same deflection under its rated load carrying capacity. The VIS modules having same deflection under its respective maximum rated load are categorised in same category. Plan dimension of the modules of same category may vary as per the required load carrying capacity. However, the height of all the modules of same category must be same.
- 4.17 The bolts in the VIS module shall be designed with minimum factor of safety of 2.
- 4.18 Double nut with washer plates shall be used in top and bottom plate.
- 4.19 The steel helical springs and viscous dampers shall be designed for ensuring "fit and forget" guarantee.
- 4.20 Bidder shall furnish manufactures' certificate for the bought out items.
- 4.21 Bidder shall furnish details of their sub vendors for approval of BHEL.
- 4.22 The quantity against VIS modules, Tools, Supervision visits etc., indicated in price schedule are tentative and the actual number may vary to any extent as per detailed engineering.
- 4.23 The VIS modules supplied by the bidder shall be of same categories with respect to deflection i.e. the deflection of all VIS modules under its rated load should be same for all the VIS modules supplied by the bidder.
- All the VIS modules in same category should have same deflection under its rated load carrying capacity
The vertical deflection of the VIS module under its rated nominal load has been mentioned in the price schedule. In case bidder offers to supply their standard VIS module with different value of deflection than specified, same may be accepted by BHEL subject to +/- 7 % variation with respect to the specified deflection. However, All the VIS modules in same category must have same deflection under its rated load carrying capacity.
- 4.24 L1 bidder shall be decided based on the lowest of the total quoted price.
- 4.25 Price per Visit is lumpsum which includes travel and accommodation charge. Payment for site visit shall be made on site certification for the actual number of days stayed at site.
- 4.26 The requirement has been mentioned in the reference quality plan. Requirement of major items again summarised below:



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Description of Items	REQUIREMENT
Material for boxes	IS 2062/DIN EN 10025/ JVHT 02/JVHHT 01B00/SAILMA 350 HI/SAILMA 350 or equivalent
Material for Springs	50 Cr V 4 As per DIN 17221 or 51 Cr V 4 As per EN10089 or Equivalent
Viscoliquid	Manufactures' certificate
Studs & Nuts	Material: Galvanised Mild steel
Viscoliquid	M/s Wacker make or equivalent satisfying QP requirements
Welding	Refer annexure-1
Shot Blasting	Sa 2-1/2 as per EN ISO12944-4
Painting	Refer Annexure-2

5.0 MATERIAL (DESIGN & SUPPLY)

5.1 Steel helical springs and viscous dampers shall consist of:

- Steel helical spring units and viscous dampers along with viscous liquid including associated auxiliaries for installation of the spring units and dampers like steel shims, adhesive pads, etc.
- Frames for pre-stressing of spring elements.
- Suitable hydraulic jack system including electric pumps, high pressure tubes, manifold, lifting hook, packing plate, supporting stool, etc. required for the erection, alignment etc. of the spring units. One set of extra hydraulic jacks, and hand operated pumps shall also be provided.
- Any other items may be required for the pre-stressing, erection, release of pre-stress, alignment and commissioning of the steel helical springs and viscous dampers.

6.0 MANUFACTURING & TESTING

Complete manufacturing and testing of the steel helical springs and viscous dampers shall be done at the manufacturing shop of the vendor. For this purpose, the vendor shall submit the detailed programme for approval of customer and take up the manufacturing / testing after approval of such programme. The programme (quality plan) shall include:

- Manufacturing schedule and quality check exercised during manufacturing.
- Detail of test to be carried out at the manufacturing shop with its schedule.
- Special requirements, if any, regarding concreting of top deck.
- Complete step- by- step procedure covering the installation and commissioning of the spring system.
- Manuals for erection, commissioning, testing and maintenance of the steel helical springs and viscous dampers.
- A checklist for confirming the readiness of the civil fronts for erection of steel helical springs and viscous dampers.
- Checklist for equipment required at each stage of erection.
- Bill of materials (data sheet) of various elements such as spring units, viscous dampers, with their rating, stiffness etc. included in the supply.



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- ix. Bill of material (data sheet) for frames for pre stressing, hydraulic jack including electric pump, high pressure tubes, hand operated pump etc. with their rating and numbers.
- x. Any other details which may be necessary to facilitate design and construction of the foundations / structures.

7.0 ERECTION AND COMMISSIONING AND SUPERVISION

- 7.1 Complete erection and commissioning of the steel helical springs and viscous dampers including pre-stressing of elements, placing of elements in position, checking clearances on the shuttering of the RCC top deck, releasing of pre-stress in spring elements, making final adjustments and alignments etc. all shall be supervised by a specialist supervisor.
- 7.2 The scope of work shall be deemed to include all activities, which may not have been explicitly mentioned but are reasonably implied for the successful commissioning of steel helical springs and viscous dampers.
- 7.3 The vendor shall guarantee the performance of the steel helical springs and viscous dampers for 24 months from the date of commissioning of each machine which shall be termed as "Guarantee Period".

8.0 REALIGNMENT OF SPRING SYSTEM

If any realignment of the steel helical springs and viscous dampers is required to be done for aligning the shaft or for any other reasons during the first one year of operation from the date of commissioning of the machine, the same shall be done by the vendor.

9.0 TRANSPORTATION

- 9.1 Steel helical springs and viscous dampers shall be suitably protected, coated, covered, boxed and crated to prevent damage or deterioration during transit and handling.
- 9.2 The vendor shall be responsible for any loss or damage during transportation, handling.

10.0 INSPECTION REQUIREMENTS

- 10.1 Minimum requirement for quality plan shall be as per quality plan attached in section –II of the specification. Quality plan shall be subject to approval during detail engineering. No price implication shall be admissible to QP approval by BHEL/Customer.
- 10.2 Inspection for imported item shall be done from third party like Lloyd or equivalent and certificate shall be submitted for review of BHEL.
- 10.3 In case of new bidder, bidder may need to carry out damping test, stiffness test etc. during customer approval stage before price bid opening. No price implication shall be admissible for these tests.
- 10.4 Vendor shall furnish the quality plan and Test certificate for the hardware in their scope of supply. The quality plan shall be reviewed by BHEL/Consultant wherein the inspection and hold points shall be indicated. Vendor shall submit test certificate based on approved quality plan. Despatch of material by the vendor shall only take place after the receipt of Material Dispatch Clearance Certificate (MDCC) issued by BHEL/Consultant on the basis of test reports/test certificates submitted by the Vendor after manufacture.

11.0 ENVIRONMENTAL PROTECTION

VIS shall be suitably protected against environmental damages e.g. abrasion, discolouration, corrosion, oily water etc. to give a prolonged service matching the plant life.



TITLE :
TECHNICAL SPECIFICATION FOR RATE
CONTRACT OF
SPRING FOR BFP, FAN AND MILL FOUNDATION

SPECIFICATION NO. PE-TS-RC-600-C001

SECTION I

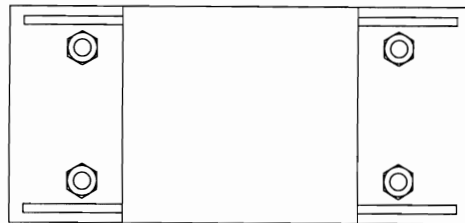
REV. NO. 0

DATE 20.01.2017

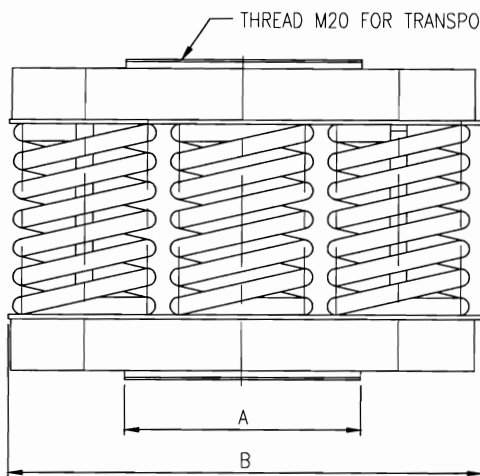
12.0 CODES AND STANDARDS

DIN: DIN EN 13906-1: Helical compression springs out of round wire and rod: calculation & design.

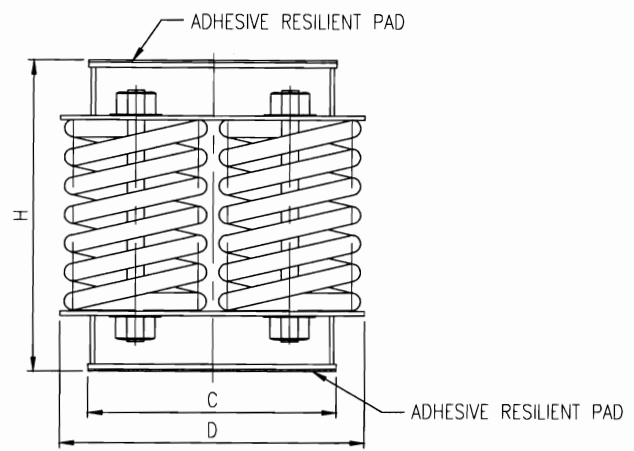
DIN: 2096 Helical compression springs out of round wire and rod: quality requirements for hot formed compression springs.



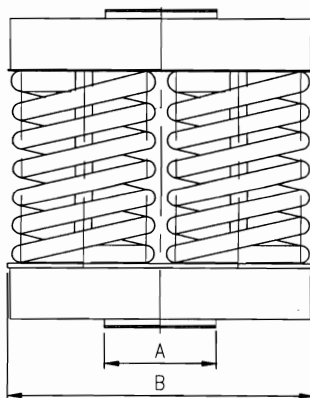
TOP VIEW



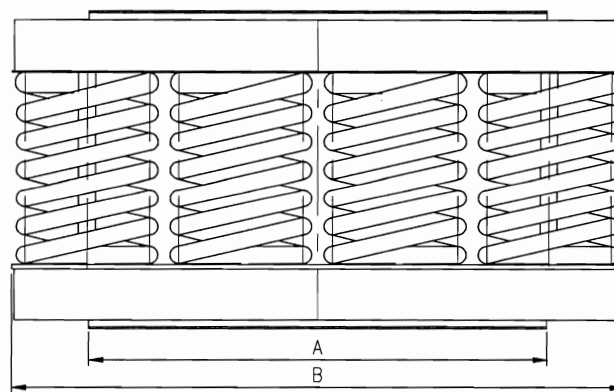
FRONT VIEW
SPRING 3x2 TYPE



SIDE VIEW FOR ALL TYPE



FRONT VIEW
SPRING 2x2 TYPE



FRONT VIEW
SPRING 4x2 TYPE

FIG. 1

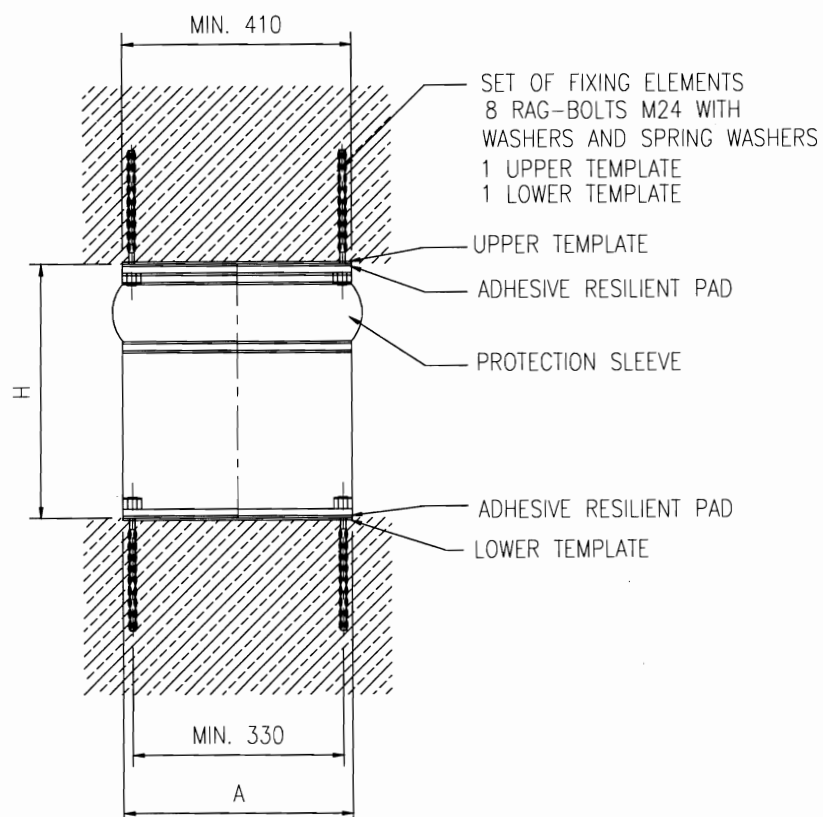
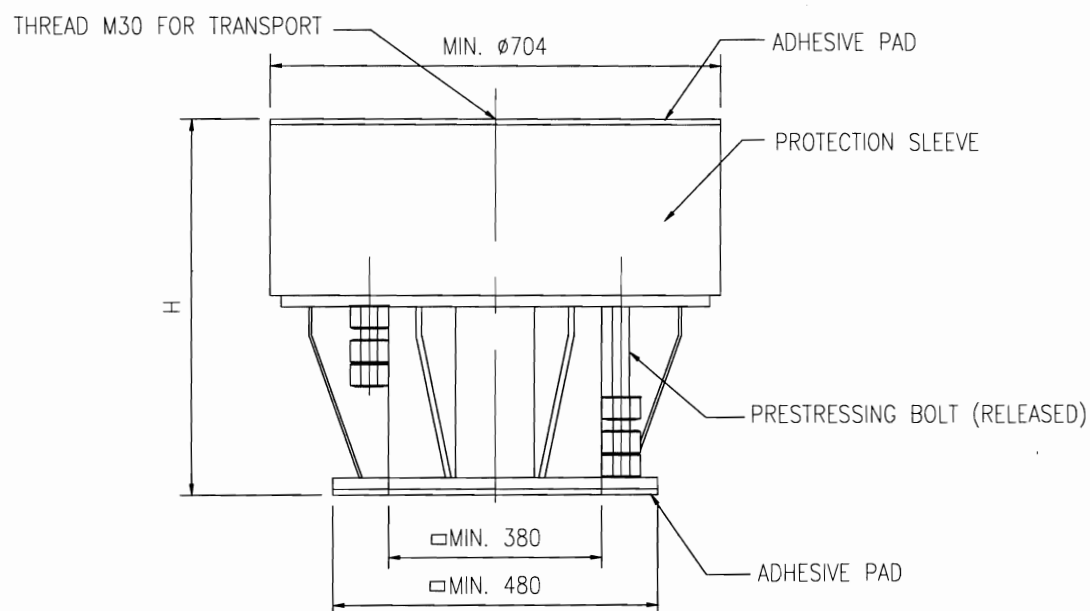


FIG. 2

PRICE SCHEDULE-I (with CIF)

PRICE SCHEDULE FOR SUPPLY OF VIS and SUPERVISION OF ERECTION & COMMISSIONING OF THE VIS

SL NO	DESCRIPTIONS						Ex Works Price in percentage of total cost of VIS modules	Exworks price (Rs)		Bidder's VIS module nomenclature	REMARKS	
1	2						3	4	5=6/3	6=4*A/100	7	8
A	MODULE TYPE	Category	Vertical Deflection under nominal load (mm)	Nominal Load carrying capacity(kN)	Damping resistance (kN-s/m)		Quantity (Nos.)		Unit rate per module (Rs)	Total(Rs)		
					VERTICAL	HORIOZONTAL						
1	SP145	1	47	145		NA	2	0.1747610	Derived	Derived		
2	SP220	1	47	220		NA	32	4.0749285	Derived	Derived		
3	SP240	1	47	240		NA	2	0.2683009	Derived	Derived		
4	SP290	1	47	290		NA	2	0.3246359	Derived	Derived		
5	SP330	1	47	330		NA	112	20.3152933	Derived	Derived		
6	SPV220	1	47	220	120-190	90-165	32	4.5639199	Derived	Derived		
7	SPV240	1	47	240	180-260	150-240	26	3.9064612	Derived	Derived		
8	SPV290	1	47	290	180-260	150-240	2	0.3635922	Derived	Derived		
9	SPV330	1	47	330	180-260	150-240	56	11.3765643	Derived	Derived		
10	SPV475*	2	17	475	500	500	29	9.5019065	Derived	Derived		
11	SPV560*	2	17	560	500	500	29	10.6801090	Derived	Derived		
12	SPV729*	2	17	729	500	500	58	26.6941697	Derived	Derived		
13	SPV0*	3		NIL	500	500	58	7.7553575	Derived	Derived	Only damping type	
A	Total cost of VIS module (1 to 13)						440	100				
B1	All Tools for erection & commissioning of VIS including electric pump						2 set	1.9156740	Derived	Derived		
B2	All Tools for erection & commissioning of VIS including electric pump for mill foundation						1 set	2.8381872	Derived	Derived		
	B=A+B1+B2									Derived		
	SUPERVISION OF ERECTION & COMMISSIONING OF VIS						No of Visit/ days	Ex Works PRICE in percentage of total cost of VIS modules	Ex Works PRICE per Visit (Rs.)	Total Ex-Works (Rs.)		
C1	Supervision charge per visit(one visit consists of 3 days stay at site)						43	6.8644986	Derived	Derived		
C2	Per day charge for staying extra number of days at site						30	0.6095326	Derived	Derived		
C	Cost of Supervision (C1+C2)									Derived		
	TOTAL (A+B1+B2+C)									Derived		
	NOTES:											
1	The quantity against VIS modules, Tools, Supervision visits etc., indiacted in price schedule above are tentative and the actual number may vary to any extent as per detailed engineering.											
2	The minimum load carrying capacity has been mentioned for each type of VIS module. In case, bidder offers to supply their standard VIS module with higher value of load carrying capacity than specified, same may be accepted by BHEL subject to fulfilment of technical requirements and without any price implication.											
3	The VIS modules supplied by the bidder shall be of same categories with respect to deflection i.e. the deflection of all VIS modules under its rated load should be same for all the VIS modules supplied by the bidder.											
	All the VIS modules in same category should have same deflection under its rated load carrying capacity											
	The vertical deflection of the VIS module under its rated nominal load has been mentioned in the price schedule. In case bidder offers to supply their standard VIS module with different value of deflection than specified, same may be accepted by BHEL subject to +/- 7 % variation with respect to the specified deflection. However, All the VIS modules in same category must have same deflection under its rated load carrying capacity.											
4	Plan dimension of the modules of same category may vary as per the required load carrying capacity. However the height of all the modules of same category must be same.											
5	The approximate range of damping co-efficient has been specified under various categories of VIS module with damper (SPV type). In case, bidder offers to supply their standard VIS module with different value of damping resistance than specified, same may be accepted by BHEL subject to fulfilment of technical requirements and without any price implication.											
6	The VIS with * marked shall be used preferably for mill foundation. These module shall be closed and sealed from all sides with proven durable, flexible material enclosure to avoid dust ingress inside the module.											
7	Price per Visit is lumpsum which includes travel and accomodation charge. Payment for site visit shall be made on site certification for the actual number of days stayed at site.											
8	L1 bidder shall be decided based on the lowest of the total quoted price.											
9	Packaging & forwarding charges is included in the Ex-work price of VIS module.											

PRICE SCHEDULE-II (without CIF)												
PRICE SCHEDULE FOR SUPPLY OF VIS and SUPERVISION OF ERECTION & COMMISSIONING OF THE VIS												
SL NO	DESCRIPTIONS						Ex Works Price in percentage of total cost of VIS modules	Exworks price (Rs)		Bidder's VIS module nomenclature	REMARKS	
1	2						3	4	5=6/3	6=4*A/100	7	8
A	MODULE TYPE	Category	Vertical Deflection under nominal load (mm)	Nominal Load carrying capacity(kN)	Damping resistance (kN-s/m)		Quantity (Nos.)	Unit rate per module (Rs)	Total(Rs)			
					VERTICAL	HORIOZONTAL						
1	SP145	1	47	145		NA	3	0.1177062	Derived	Derived		
2	SP220	1	47	220		NA	88	5.0317177	Derived	Derived		
3	SP240	1	47	240		NA	38	2.2889659	Derived	Derived		
4	SP290	1	47	290		NA	48	3.4984156	Derived	Derived		
5	SP330	1	47	330		NA	318	25.8997621	Derived	Derived		
6	SPV220	1	47	220	120-190	90-165	13	0.8325206	Derived	Derived		
7	SPV240	1	47	240	180-260	150-240	64	4.3177125	Derived	Derived		
8	SPV290	1	47	290	180-260	150-240	3	0.2448891	Derived	Derived		
9	SPV330	1	47	330	180-260	150-240	114	10.3989988	Derived	Derived		
10	SPV475*	2	17	475	500	500	56	8.2388076	Derived	Derived		
11	SPV560*	2	17	560	500	500	56	9.2603904	Derived	Derived		
12	SPV729*	2	17	729	500	500	112	23.1456843	Derived	Derived		
13	SPV0*	3		NIL	500	500	112	6.7244293	Derived	Derived	Only damping type	
A	Total cost of VIS module (1 to 13)						1.025	100				
B1	All Tools for erection & commissioning of VIS including electric pump						8 sets	3.4406871	Derived	Derived		
B2	All Tools for erection & commissioning of VIS including electric pump for mill foundation						2 sets	2.5487932	Derived	Derived		
	B=A+B1+B2									Derived		
SUPERVISION OF ERECTION & COMMISSIONING OF VIS							No of Visit/ days	Ex Works PRICE in percentage of total cost of VIS modules	Ex Works PRICE per Visit (Rs.)	Total Ex-Works (Rs.)		
C1	Supervision charge per visit(one visit consists of 3 days stay at site)						90	6.4512883	Derived	Derived		
C2	Per day charge for staying extra/less number of days at site during site visit						59	0.5382590	Derived	Derived		
C	Cost of Supervision (C1+C2)									Derived		
	TOTAL (A+B1+B2+C)									Derived		
NOTES:												
1	The quantity against VIS modules, Tools, Supervision visits etc., indicated in price schedule above are tentative and the actual number may vary to any extent as per detailed engineering.											
2	The minimum load carrying capacity has been mentioned for each type of VIS module. In case, bidder offers to supply their standard VIS module with higher value of load carrying capacity than specified, same may be accepted by BHEL subject to fulfillment of technical requirements and without any price implication.											
3	The VIS modules supplied by the bidder shall be of same categories with respect to deflection i.e. the deflection of all VIS modules under its rated load should be same for all the VIS modules supplied by the bidder.											
	All the VIS modules in same category should have same deflection under its rated load carrying capacity											
	The vertical deflection of the VIS module under its rated nominal load has been mentioned in the price schedule. In case bidder offers to supply their standard VIS module with different value of deflection than specified, same may be accepted by BHEL subject to +/- % variation with respect to the specified deflection. However, All the VIS modules in same category must have same deflection under its rated load carrying capacity.											
4	Plan dimension of the modules of same category may vary as per the required load carrying capacity. However the height of all the modules of same category must be same.											
5	The approximate range of damping co-efficient has been specified under various categories of VIS module with damper (SPV type). In case, bidder offers to supply their standard VIS module with different value of damping resistance than specified, same may be accepted by BHEL subject to fulfillment of technical requirements and without any price implication.											
6	The VIS with * marked shall be used preferably for mill foundation. These module shall be closed and sealed from all sides with proven durable, flexible material enclosure to avoid dust ingress inside the module.											
7	Price per Visit is lumpsum which includes travel and accomodation charge. Payment for site visit shall be made on site certification for the actual number of days stayed at site.											
8	L1 bidder shall be decided based on the lowest of the total quoted price.											
9	Packaging & forwarding charges is included in the Ex-work price of VIS module.											

TECHNICAL DATASHEET TO BE FURNISHED BY THE BIDDER

TECHNICAL DATASHEET TO BE FURNISHED BY THE BIDDER																		
SPECIFIED PROPERTIES							TECHNICAL DATA						Dimensional Configuration of model as per sketch					Remarks
Sl no	Module Type	Nominal Load carrying capacity (kN)	Category	Vertical Deflection under nominal load (mm)	Damping resistance (kN-s/m)		Bidder's VIS module nomenclature	Nominal Load carrying capacity(kN)	Stiffness(kN/mm)		Damping resistance (kN-s/m)		A (mm)	B(mm)	C (mm)	D(mm)	Height at nominal Load(H,mm)	
					Vertical	Horizontal			Vertical	Horizontal	Vertical	Horizontal						
1	SP145	145	1	47		NA												
2	SP220	220	1	47		NA												
3	SP240	240	1	47		NA												
4	SP290	290	1	47		NA												
5	SP330	330	1	47		NA												
6	SPV220	220	1	47	120-190	90-165												
7	SPV240	240	1	47	180-260	150-240												
8	SPV290	290	1	47	180-260	150-240												
9	SPV330	330	1	47	180-260	150-240												
10	SPV475*	475	2	17	500	500												
11	SPV560*	560	2	17	500	500												
12	SPV729*	729	2	17	500	500												
13	SPV0**	NIL	3		500	500												
Bidder needs to furnish the information of the datasheet of VIS module against each specified category.																		

Bidder needs to furnish the information of their datasheet of VIS module against each specified category.

Manufacturer's logo		Manufacturer's name and Address				MANUFACTURING QUALITY PLAN (I-QAP)					Project: Main supplier: BHEL BHEL P.O NO:										
ITEM : Vibration isolation system Equipment: Spring Unit: Module name as per Vendor		QP No: Rev : Date : Page :				REFERENCE DOCUMENT		ACCEPTANCE NORMS		FORMAT OF RECORD		AGENCY		REMARKS							
Sl. No.		COMPONENT AND OPERATION		CHARACTERISTICS		CLASS		TYPE OF CHECK		QUANTUM OF CHECK		7		8		9		10		11	
1		1		3		4		5		6		7		8		9		10		11	
1 Materials																					
1.1	For boxes			Chemical/Mechanical	Minor	Verify	One / Heat	IS 2062/DIN EN 10025/ JvHT 02/JvHHT 01B00/SAILMA 350 HI/SAILMA 350 or equivalent		Same as column "7"		Certificate		✓	P	V	V				
1.2	For Springs	a) Chemical		Major	Verify	One / Lot	50 Cr V 4 As per DIN 17221 or 51 Cr V 4 As per EN10089 or Equivalent		Same as column "7"		Certificate		✓	P	V	V					
		b) Grain Size		Major	Verify	One / Lot	ASTM E 112		ASTM 5 or finer		Certificate		✓	P	V	V					
		c) NMI		Major	Verify	One / Lot	IS 4163		2.0/1.5		Certificate		✓	P	V	V					
		d) Micro structure		Major	Verify	One / Lot	--		DIN 17221 or equivalent		Certificate		✓	P	V	V					
1.3	Springs at Manufacturer's end	Hardness		Major	Test	One/Lot	IS 1500		415-460 BHN		Certificate		✓	P	V	V					
1.4	Springs at Manufacturer's end	Decarburization		Major	Test	One / Lot	IS 6396		Max. depth 0.5% of bar dia - partial		Certificate		✓	P	V	V					
1.5	Springs at Manufacturer's end	NDE after compression		Major	Test	100%	IS 3703		No cracks		Certificate		✓	P	V	V					
1.6	Springs (at vendor end)	Spring Rate		Major	Test	AQL 4.0	DIN 2096		Same as column "7"		Lab Register		✓	P	V	V					
1.7	Adhesive pads (jute), 4mm thick, Steel shims	Dimensions (mm)		Minor	Measure / Visual	5 %	Drawing		DIN 7168 Sg		Internal Record		✓	P	V	V					
1.8	Viscoliquid	Penetration speed (mm/sec)		Major	Test	Sample	DIN 53019 or equivalent		Same as column "7"		Certificate		✓	P	V	V					
1.9	Damping resistance (To be done once for each visco damper module)	kN-s/m		Major	test	Sample	Vendor's datasheet		Same as column "7"		Certificate		✓	P	V	V					
1.10	Studs & Nuts	Chemical Dimensions (mm)		Minor	Verify Measure	One / Lot 5%	IS 1367 (Grade 6.8 & Class 6) IS 4218 (Tolerance Class 6g & 6H)		Same as column "7"		Lab Test Report		✓	P	V	V					
2																					
In Process Inspection																					
2.1	Welding	Visual / Surface exam (mm)		Major	Visual / Measure	10% on welds	Annexure-1 (attached)		Same as column "7"		Certificate		✓	P	V	V					
2.2	Boxes	NDE		Major	DPT	10% Random	ASTM / E 165		Same as column "7"		Certificate		✓	P	V	V					
		Dimensions (mm)		Major	Measure	10%	Drawing & data sheet		EN ISO 13920 C		Internal record		✓	P	V	V					
3																					
Final Inspection																					
3.1	Shot Blasting	Picture		Major	Compare	10%	EN ISO 12944-4		SA - 2 ½		Certificate		✓	P	V	V					
3.2	Painting	Thickness (270 microns)		Major	Measure / Visual	10%	Annexure-2 (attached)		Same as column "7"		Certificate		✓	P	V	V					
3.3	Spring Unit	Dimensions (Except HF&HV Load Vs Displacement)		Minor	Measure	10%	Drawing / Datasheet		EN ISO 13920 C		Internal Record		✓	P	W	V					
3.4	Constant of Spring Units (Vertical: Kv)	Displacement (kN/mm)		Critical	Test	10%	DIN 2096 & DIN 2089		Data Sheet		Certificate		✓	P	W	V					
3.5	Document Control	Verification of above documents		Major	Compare	All	MQP		Same as column "7"		Certificate		✓	P	V	V					
3.6	Packing / Marking	Visual		Major	Visual / Compare	100%	As per vendor's standard		Same as column "7"		Certificate		✓	P							
MANUFACTURER/ SUB-CONTRACTOR		CONTRACTOR		LEGEND:																	
				# RECORDS, IDENTIFIED WITH 'TICK' SHALL BE ESSENTIALLY INCLUDED BY MANUFACTURER IN QA DOCUMENTATION																	
				M: MANUFACTURER/ SUB-CONTRACTOR C: MAIN SUPPLIER, B: CUSTOMER INDICATE 'P' PERFORM 'W' WITNESS AND 'V' VERIFICATION																	
SIGNATURE				REVIEWED BY		NAME & SIGNATURE OF APPROVING AUTHORITY WITH SEAL															

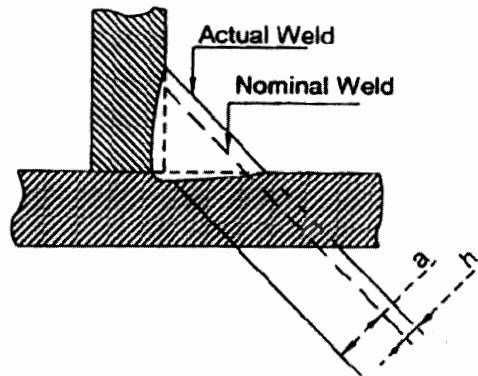
ANNEXURE - 1

WELDING

WELDING DETAILS

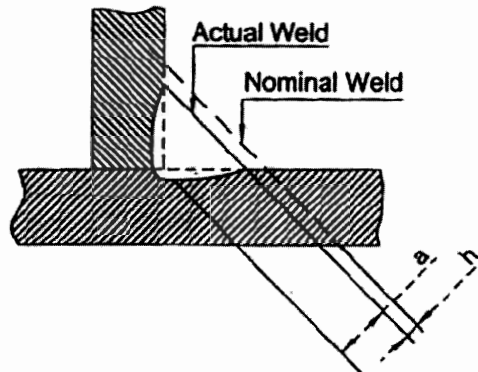
SI No	Imperfection Designation	Outside status	Limits for Imperfection with reference to quality level: DIN EN 25817 / D
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1. Excessive convexity



$$h \leq 1\text{mm} + 0.25\text{ } b ; \text{max. } 5\text{mm}$$

2. Fillet weld having a throat thickness smaller than the nominal value

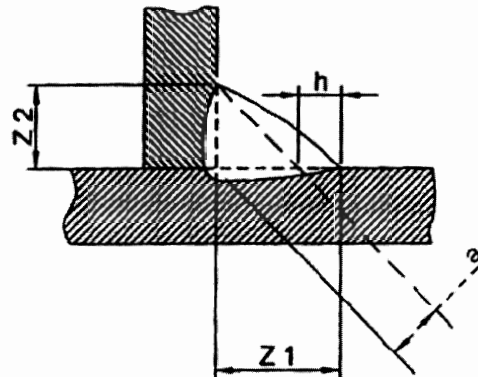


A fillet weld with an apparent throat thickness smaller than that prescribed should not be regarded as being imperfect if the actual throat thickness with a compensating greater depth of penetration complies with the nominal value.

Short imperfections: $h \leq 0.3\text{ mm} + 0.1.a ; \text{max. } 2\text{mm}$

Long imperfections: Not Permitted

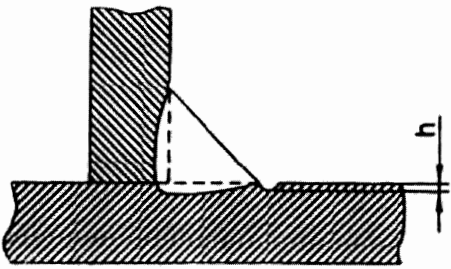
3. Excessive asymmetry of fillet weld



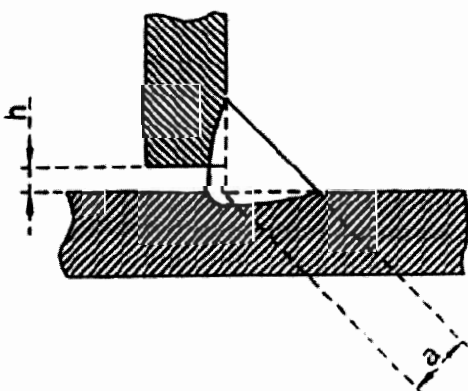
It is assumed that the asymmetric fillet weld has not been expressly prescribed.

$$h \leq 2\text{mm} + 0.2\text{ } a$$

WELDING DETAILS

SI No	Imperfection Designation	Outside status	Limits for Imperfection with reference to quality level: DIN EN 25817 / D
4.	Undercut		$h \leq 1.5\text{mm}$
5.	Gas pores and porosity	The following conditions and limits for imperfections shall be fulfilled a) Maximum dimension of the summation of the projected or surface crack area of the imperfection. b) Maximum dimension of a single pore for -butt welds -fillet welds c) Maximum dimension for a single pore	4% $d \leq 0.5 s$ $d \leq 0.5 a$ 5 mm
6.	Localised (clustered) porosity	The total pore area within the cluster should be summed and calculated as a percentage of the greater of the two areas; an envelop surrounding all the pores or a circle with a diameter corresponding to the weld width. The permitted porous area should be local. The possibility of masking other imperfections should be taken into consideration. The following conditions and limits for imperfections shall be fulfilled: a) Maximum dimension of the summation of the projected or surface crack area of the imperfection b) Maximum dimension of a single pore for -butt weld -fillet weld c) Maximum dimension for localised clustered porosity.	16% $d \leq 0.5 s$ $d \leq 0.5 a$ 4mm

WELDING DETAILS

WELDING DETAILS			Limits for Imperfection with reference to quality level: DIN EN 25817 / D
SI No	Imperfection Designation	Outside status	
7.	Elongated cavities, worm holes	Long imperfections for -butt welds -fillet welds In any case, maximum dimension for elongated cavities, worm holes	$h \leq 0.5 s$ $h \leq 0.5 a$ 2mm
		Short imperfections for -butt welds -fillet welds In any case, maximum dimension for elongated cavities, worm holes	$h \leq 0.5 s$ $h \leq 0.5 a$ 4mm or Not Larger Than Thickness (NLTT)
8.	Solid inclusions (other than copper)	Long imperfections for -butt welds -fillet welds In any case, maximum dimension for elongated cavities, worm holes	$h \leq 0.5 s$ $h \leq 0.5 a$ 2mm
		Short imperfections for -butt welds -fillet welds In any case, maximum dimension for elongated cavities, worm holes	$h \leq 0.5 s$ $h \leq 0.5 a$ 4mm or Not Larger Than Thickness (NLTT)
9.	Lack of fusion (Incomplete fusion)		Permitted, but only intermittently and not breaking the surfaces
10.	Bad fit-up, fillet weld	 An excessive or insufficient gap between the parts to be joined. Gaps exceeding the appropriate limit may in cases be compensated for by a corresponding increase in the throat.	
			$h \leq 1\text{mm} + 0.3 a$ max. 4mm

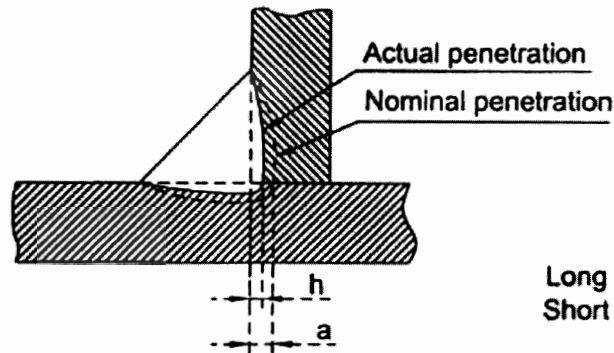
WELDING DETAILS

Outside status

Limits for Imperfection with
reference to quality level:
DIN EN 25817 / D

SI
No Imperfection
 Designation

11. Incomplete penetration



Long imperfections: Not permitted
Short imperfections: $h \leq 0.2 s$,
max. 2mm

12. Cracks

All types of cracks

Not Permitted

13. Crater cracks

Permitted

14. Spatters

Fused welding splashes are material trickless
(drops) fused to the basic material or welding
seam.

Permissible

15. Stray flash or
arc strike

Ignition points are local fuses caused by the
electric arc on the surface of the basic material
or welding seam.

Permissible

Abbreviations

- a nominal fillet weld throat thickness (fillet thickness), in mm
- b width of weld reinforcement, in mm
- d pore diameter in mm
- h size (height or width) of imperfection, in mm
- l length of imperfection, in mm
- s nominal butt weld thickness or, in the case of partial penetration, the prescribed depth of penetration, in mm
- t tube-wall- or plate thickness, in mm
- z leg length of fillet welds (in case of isoscele-right angle triangular section $z = a \cdot \sqrt{2}$) in mm



TITLE :
TECHNICAL SPECIFICATION FOR RATE
CONTRACT OF
SPRING FOR BFP, FAN AND MILL FOUNDATION

SPECIFICATION NO. PE-TS-RC-600-C001

SECTION I

REV. NO. 0

DATE 20.01.2017

ANNEXURE-2

CORROSION PROTECTION PAINTING

1. Painting requirement for MS plate except springs & stud & nuts

All steel parts must be coated immediately after shot blast cleaning to near white metal surface (Sa 2- 1/2) according to EN-ISO 12944-4 / SIS05-5900. Surface must be free of fat.

a. Material, Execution & colour:

- i. Prime coat of minimum 25 microns (DFT) of applying epoxy based zinc phosphate primer
- ii. Intermediate coating of epoxy based Titanium dioxide (TiO₂) or micaceous iron oxide (MIO) of minimum 75micron DFT.
- iii. two coats of epoxy based colour finish paint with minimum 70 micron total dry film thickness (DFT) of approved make and shade to achieve an even shade including further finishing with top coat of UV resistant (minimum 30 micron DFT) polyurethane of approved shade.

RAL 6011 Green or equivalent

RAL 1000 Black or equivalent

RAL 1004 Yellow colour or equivalent

b. Coating:

Coating is performed with spray gun. Baking temperature 80 °C. furnace exposing time 45 minutes.

c. Coating thickness control:

Measurements to be taken at 5 random points. Acceptable thickness is 10% below specified thickness.

2. Painting requirement for Springs

All the springs must be powder coated by "Electrostatic powder coating spray process" (EPS).

a. Preparation:

Springs must be oil free

b. Execution:

Electrostatic spray coating with an epoxy polyester powder. Baking temperature 190 °C +10 °C. furnace exposing time of 40 minutes.

Colour: Black.

c. Coating thickness:

Coating thickness must be minimum of 70 microns.

Note.

1. The colour of paint is subjected to as per customer requirement.

[illegible]

Note: The quantity against VHS modules. Tools. Substitution with air indicated in price schedule above are tentative and the actual number may vary to any extent as per detailed engineering

2 The minimum load carrying capacity has been mentioned for each type of VIS module. In case, bidder offers to supply their standard VIS module with different value of load carrying capacity than specified, same may be accepted by BHEL, subject to fulfillment of technical requirements and without any price implication.

3 The VIS modules supplied by the bidder shall be of same categories with respect to deflection i.e. the deflection of all VIS modules under its rated load should be same for all the VIS modules supplied by the bidder.

4	All the VIS modules in same category should have same deflection under its rated load carrying capacity The vertical deflection of the VIS module under its rated nominal load has been mentioned in the price schedule. In case bidder offers to supply their standard VIS module with different value of deflection than specified, same may be accepted by JHEL, subject to $\pm 7\%$ variation with respect to the specified deflection. However, All the VIS modules in same category must have Plan dimension of the modules of same category may vary as per the specified load carrying capacity. However the height of all the modules of same category must be same.
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6	The VIS with * marked shall be used preferably for mill foundation. These module shall be closed and sealed from all sides with proven durable, flexible material enclosure to avoid dust ingress inside the module.
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7	Price per unit is lumpsum which includes travel and accommodation charge.
a	L1 bidder shall be decided based on the lowest of the Grand Total cost to BHEL (A+B+C)

9	packaging & forwarding charges is included in the ex-work price of VIS module. Whenever "denial" is written to be calculated based on "TO BE QUOTED" value
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PRICE SCHEDULE-II (Without CIF)																						Annexure	
RATE CONTRACT OF SPRING FOR BFP, FAN AND MILL FOUNDATION																							
Applicable for Indian Bidders (Price in INR)																							
Applicable for Foreign Bidders (Bidder to indicate their Currency)																							
Sl.No	DESCRIPTIONS OF ITEMS										SUPPLY OF DIFFERENT TYPES OF VIS MODULES												
A	MODULE TYPE	Category	Vertical Deflection under nominal load (mm)	Nominal Load carrying capacity(kN)	Damping resistance (kN/ mm)	Quantity (No.)	Ex-Works Price including forwarding in percentage of total cost of forwarding per module as per IS-A1 to A13 col. no. 8 (Rs.)	Total Ex-Works Price (Rs.)	ED (Including cases) (Rs.)	CST against From C and form E (Rs.)	FREIGHT CHARGES (Including Service Tax) (Rs.)	TOTAL F.O.R. SITE PRICE (Rs.)	Unit Q & F Indian Price (Currency)	Total Q & F Indian Price (Currency)	OCEAN / MARINE INSURANCE	PORT HANDLING CHARGE (INR)	CUSTOM DUTY AVAILING BENEFIT IF APPLICABLE (INR)	INLAND FREIGHT CHARGES (INCLUDING SERVICE TAX) (INR)	F.O.R. SITE IMPORTED SUPPLY PRICE Derived in INR	REMARKS			
1	2	3	4	5	6	7	8	9	10=9*A/100	11=9*A/100	12	13	14	15=11+12+13+14	16	17	18	19	20	21	22	23	
A1	SPV45	1	47	145	VERTICAL	NA	3	0.1177052	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A2	SPV220	1	47	220	NA	NA	88	5.0317177	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A3	SPV240	1	47	240	NA	38	2.2889659	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A4	SPV290	1	47	290	NA	NA	48	3.4984156	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A5	SPV330	1	47	330	NA	318	25.897621	Derived	% TO BE QUOTED	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A6	SPV220	1	47	220	120-180	90-165	13	0.8325206	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A7	SPV240	1	47	240	180-260	150-240	64	4.3171125	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A8	SPV290	1	47	290	180-260	150-240	3	0.2448891	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A9	SPV330	1	47	330	180-260	150-240	114	10.3898988	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A10	SPV475	2	17	475	500	500	56	8.238076	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A11	SPV560	2	17	560	500	500	56	9.2603604	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A12	SPV729	2	17	729	500	500	112	23.1458643	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A13	SPV0	3		NIL	500	500	112	6.724293	Derived	% TO BE QUOTED	% TO BE QUOTED	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived	Derived		
A	Total cost of VIS module(A1 to A13)										TO BE QUOTED		Derived	Derived	TO BE QUOTED		TO BE QUOTED		TO BE QUOTED		Derived		
SUPPLY OF TOOLS FOR ERECTION & COMMISSIONING OF VIS																							
B1	All Tools for erection & commissioning of VIS including electric pump										8 SET		3.440871		Derived		Derived		Derived		Derived		
B2	All Tools for erection & commissioning of VIS including electric pump for mill foundation										2 SET		2.5467932		Derived		Derived		Derived		Derived		
B	B+B1+B2										TO BE QUOTED		Derived	Derived	TO BE QUOTED		TO BE QUOTED		TO BE QUOTED		Derived		
SUPERVISION OF ERECTION & COMMISSIONING OF VIS																							
C1	Supervision charge per visit, one visit consists of 3 days stay at site										90		6.4512883		Derived		Derived		Derived		Derived		
C2	Per day charge for staying extra-base number of days at site										59		0.5382590		Derived		Derived		Derived		Derived		
C	C=(C1+C2)										TO BE QUOTED		Derived	Derived	TO BE QUOTED		TO BE QUOTED		TO BE QUOTED		Derived		
GRAND TOTAL COST TO BHEL (A+B+C)										TO BE QUOTED		Derived	Derived	TO BE QUOTED		TO BE QUOTED		TO BE QUOTED		TO BE QUOTED		Derived	
Note:																							
1 The quantity against VIS modules, Tools, Supervision visits etc., indicated in price schedule above are tentative and the actual number may vary to any extent as per detailed engineering.																							
2 The minimum load carrying capacity has been mentioned for each type of VIS module. In case, bidder offers to supply their standard VIS module with different value of load carrying capacity than specified, same may be accepted by BHEL subject to fulfillment of technical requirements and without any price implication.																							
3 The VIS modules supplied by the bidder shall be of same categories with respect to deflection i.e. the deflection of all VIS modules under its rated load should be same for all the VIS modules supplied by the bidder.																							
4 All the VIS modules in same category should have same deflection under its rated load carrying capacity.																							
5 The vertical deflection of the VIS module under its rated nominal load has been mentioned in the price schedule. In case, bidder offers to supply their standard VIS module with different value of deflection than specified, same may be accepted by BHEL subject to fulfillment of technical requirements and without any price implication. However, All the VIS modules in same category must have same Plan dimension of the modules of same category may vary as per the required load carrying capacity. However the height of all the modules of same category must be same.																							
6 The approximate range of damping co-efficient has been specified under various categories of VIS module with damper (SPV type). In case, bidder offers to supply their standard VIS module with different value of damping resistance than specified, same may be accepted by BHEL subject to fulfillment of technical requirements and without any price implication.																							
7 The VIS with "marked" shall be used preferably for mill foundation. These modules shall be closed and sealed from all sides with proven durable, flexible material enclosure to avoid dust ingress inside the module.																							
8 Price per Visit is lumpsum which includes travel and accommodation charge.																							
9 L.T. bidder shall be decided based on the lowest of the Grand Total cost to BHEL (A+B+C).																							
10 Packaging & forwarding charges is included in the Ex-work price of VIS module.																							
11 Wherever "derived" is written to be calculated based on "TO BE QUOTED" value of (A).																							

Annexure-III: Special Condition of Rate Contract for Spring for BFP, Fan and Mill Foundation

1. BHEL/PEM intends to enter into Rate Contract for the tendered different module of spring for BFP, Fan and Mill foundation for a period of one year. The Rate Contract shall come into force from the date of issue of Purchase order for Rate Contract. Validity for ordering shall be one year from the purchase order for Rate Contract.
2. In case of indigenous bidders, freight charges shall be paid on percentage on ex-works prices or actual freight charges paid to transporter whichever is lower against production of documentary evidence. Vendor to quote freight charges as percentage (%) of ex-works price for destination anywhere in India.
3. Indigenous bidders to note that Excise Duty is payable on self manufacturing item only as per clause no 4.1.2 of GCC Rev 06 & hence for their BOI may quote Excise Duty is inclusive or Nil.
4. The prices shall remain firm during the validity period of RC.
5. **In case of Indigenous bidders:** Inspection of materials shall be carried out by BHEL / CQA and or by Customer or by an authorized agency at manufacture's works before dispatch, if required. Dispatch of material to be done, only after receipt of BHEL/Customer MDCC. It is responsibility of vendor to for obtain Material Dispatch Clearance Certificate (MDCC) from BHEL or CUSTOMER as required before dispatch of material.

Foreign Bidders: In case of imported Supplies, advance notice of 30 days for participation in inspection (if applicable, in line with approved QAP/ Customer Hold Point shall be given by vendor. Third party inspection agency shall be informed to vendor by BHEL-PEM. Test certificate /Inspection report (as applicable) duly accepted by the inspection agency in line with approved QAP / Customer Hold point shall be submitted to BHEL/PEM, Noida. The above inspection report / Test Certificate shall be reviewed by PEM-Engineering in line with the Technical Specification & Approved Data sheets and then sent to customer for their clearance. The dispatch clearance (MDCC) by customer shall be given to the foreign Supplier (or their representative in India) through BHEL/PEM after acceptance of above test certificates by Customer. Inspection charges shall be borne by the vendor and the same shall be included in his offer to BHEL-PEM. Items have to be manufactured as per specification and supplied strictly in accordance with the approved BHEL / Customer's Drawings & Quality Plan. The items/ test certificate of items, which for any reason are not acceptable to BHEL / Customer, shall be required to be retested. No extra charge shall be payable on those account by BHEL.

6. Items have to be manufactured as per specification and supplied strictly in accordance with the approved BHEL / Customer's Drawings & Quality Plan. The items/ test certificate of items, which for any reason are not acceptable to BHEL / Customer, shall be required to be retested. No extra charge shall be payable on those account by BHEL.
7. Mode dispatch shall be by road through Schedule Bank/BHEL (PEM) approved transporters.
8. Other terms and conditions shall be as per Standard Technical specification no. PE-TS-RC-600-C001 & GCC Rev 06, Enquiry letter.
9. This enquiry is subject to Conditions/ limits if any imposed in PMD/ Vendor registration.
10. The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendor/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL web site <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud as soon as it comes to their notice.

ANNEX-IV

Sl no.	Prospective Project List
1	1X800 MW North Chennai STPP
2	2X800 MW UPPUR STPP
3	2x660 MW Ennore SEZ STPP
4	1X800MW Krishnapattnam
5	1X800MW Vijaywada
6	1X525 MW MEIL Tuticorin

Annex-V

FORM NO. PEM 6100-0

	PRE - QUALIFYING REQUIREMENTS	DOCUMENT NO: PE-TS-RC-600-C002
		REVISION NO: 0 DATE: 25-01-2017
		SHEET: 1 of 1
ENQUIRY NO: PE-PI-20-615-9643		
PROJECT: RATE CONTRACT		
PACKAGE: SPRINGS FOR BFP, FAN AND MILL FOUNDATION		
CRITERIA FOR EVALUATION (TECHNICAL / FINANCIAL): a. Vendor should have supplied and commissioned vibration isolation system (VIS), consisting of steel helical springs with or without viscous damper for BFP, FAN and MILL foundation or similar machine foundation in power plants (minimum 200 MW rating) or equivalent large sized industrial plants and furnish experience list of at least two recently executed contracts where such systems have been successfully installed for such applications. 2 (two) nos. purchase orders shall be submitted which should not be more than 10 (ten) years old as on date of bid submission for establishing continuity in business. The vibration isolation system shall be of proven make and should be in successful operation for such foundation for at least one year. b. The vendor should have at least two-year design experience in design of VIS module. c. Performance certificate (along with copy of relevant purchase order) from the end user/customer for at least two (different Customers) successfully executed contracts which are in successful operation for at least one year for the applying package shall be furnished. OR The supplier has been awarded Repeat Purchase order from same customer (placed with minimum gap of 1 (one) year after commissioning of machine supported on VIS of previous contract). Repeat purchase orders shall be furnished from two different customers. In case supplier is not OEM, offer shall be evaluated as per point 1. of Notes to PQR available at http://bhelpem.com/vensection/PMD/PMD.aspx		
PREPARED BY: NAME: Pankaj Kumar DESIGNATION : Sr. Engineer DEPT.:Civil	REVIEWED BY: NAME: Sushil Kr. Mahato DESIGNATION : Manager DEPT.:Civil	APPROVED BY: NAME: Tarun Kr. Mehta DESIGNATION : Sr.DGM DEPT.: Civil

ANNEXURE-II: DEVIATION SHEET (COST OF WITHDRAWAL)



PROJECT:-

PACKAGE:-

TENDER ENQUIRY REFERENCE:-

NAME OF VENDOR:-

SL NO	VOULME/ SECTION	PAGE NO.	CLAUSE NO.	TECHNICAL SPECIFICATION/ TENDER DOCUMENT	COMPLETE DESCRIPTION OF DEVIATION	COST OF WITHDRAWAL OF DEVIATION	REFERENCE OF PRICE SCHEDULE ON WHICH COST OF WITHDRAWAL OF DEVIATION IS APPLICABLE	NATURE OF COST OF WITHDRAWAL OF DEVIATION (POSITIVE/ NEGATIVE)	REASON FOR QUOTING DEVIATION
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TECHNICAL DEVIATIONS

COMMERCIAL DEVIATIONS

PARTICULARS OF BIDDERS/ AUTHORISED REPRESENTATIVE

NAME	DESIGNATIONS	SIGN & DATE

NOTES:

- For self manufactured items of bidder, cost of withdrawal of deviation will be applicable on the basic price (i.e. excluding taxes, duties & freight) only.
- For directly dispatchable items, cost of withdrawal of deviation will be applicable on the basic price including taxes, duties & freight.
- All the bidders have to list out all their Technical & Commercial Deviations (if any) in detail in the above format.
- Any deviation not mentioned above and shown separately or found hidden in offer, will not be taken cognizance of.
- Bidder shall submit duly filled unpriced copy of above format indicating "quoted" in "cost of withdrawal of deviation" column of the schedule above along with their Techno-commercial offer, wherever applicable.
- Bidder shall furnish price copy of above format along with price bid.
- The final decision of acceptance/ rejection of the deviations quoted by the bidder shall be at discretion of the Purchaser.
- Bidders to note that any deviation (technical/commercial) not listed in above and asked after Part-I opening shall not be considered.
- For deviations w.r.t. Payment terms, Liquidated damages, Firm prices and submission of E1/ E2 forms before claiming 10% payment, if a bidder chooses not to give any cost of withdrawal of deviation loading as per Annexure-VIII of GCC, Rev-06 will apply. For any other deviation mentioned in un-priced copy of this format submitted with Part-I bid but not mentioned in priced copy of this format submitted with Priced bid, the cost of withdrawal of deviation shall be taken as NIL.
- Any deviation mentioned in priced copy of this format, but not mentioned in the un-priced copy, shall not be accepted.
- All techno-commercial terms and conditions of NIT shall be deemed to have been accepted by the bidder, other than those listed in unpriced copy of this format.
- Cost of withdrawal is to be given separately for each deviation. In no event bidder should club cost of withdrawal of more than one deviation else cost of withdrawal of such deviations which have been clubbed together shall be considered as NIL.
- In case nature of cost of withdrawal (positive/negative) is not specified it shall be assumed as positive.
- In case of discrepancy in the nature of impact (positive/ negative), positive will be considered for evaluation and negative for ordering.

	PROJECT ENGINEERING MANAGEMENT	GENERAL CONDITIONS OF CONTRACT (GCC) Revision No. 06	ANNEXURES (wef from 01-03-2014)
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ANNEXURE– IX

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

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1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or

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document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

2.1.4 The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process & exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors". framed by the Principal.

Section 4 – Compensation for Damages

4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/Bid Security.

4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

Section 5 – Previous Transgression

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5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors

6.1 The Bidder(s)/ Contractor(s) undertake(s) to obtain from all subcontractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20 % of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/ Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).

6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.

6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 – Criminal Charges against violating Bidders / Contractors / Sub-contractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 –Independent External Monitor(s)

8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

	PROJECT ENGINEERING MANAGEMENT	GENERAL CONDITIONS OF CONTRACT (GCC) Revision No. 06	ANNEXURES (wef from 01-03-2014)
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8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.

8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality.

8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.

8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.

8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.10 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

9.1 This Pact begins and shall be binding on and from the submission of bid(s) by

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bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 – Other Provisions

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal
(Office Seal)

For & On behalf of the Bidder/ Contractor
(Office Seal)

Place-----

Date-----

Witness: _____

(Name & Address) _____

Witness: _____

(Name & Address) _____