

**ANNEXURE-A**

**SCOPE OF SUPPLY FOR DRO SYSTEM FOR CENTRE LATHES,PLAN NO. 1-022 & 2-181,BLOCK-3**

**A. SCOPE OF SUPPLY:**

<b>Sl. No</b>	<b><u>Description of item</u></b>	<b>Qty. per <u>M/c</u></b>	<b>Total Qty.For two <u>M/cs</u></b>	<b>Vendor to provide details of items (i.e its make, module etc.)</b>	<b>Compliance (agreed/ not agreed)</b>
1.	Linear <b>Magnetic Scale</b> Encoder with Scanning Head of Electronica / Fagor / Heidenhain make only for Z-axis Signal : 5V TTL/1Vpp Measuring length : <b>9000 mm</b> Accuracy : $\pm 5$ micron per mtr. Resolution : 5 micron Magnetic scale shall be supplied with a protective tape.	1 No.	02 Nos.		
2.	Linear <b>Magnetic Scale</b> Encoder with Scanning Head of Electronica / Fagor / Heidenhain make only for X-axis Signal : 5V TTL/1Vpp Measuring length : <b>1000 mm</b> Accuracy : $\pm 5$ micron per mtr. Resolution : 5 micron Magnetic scale shall be supplied with a protective tape.	1 No.	02 Nos.		
3.	Digital readout 2-axes (linear) compatible to above	1 No.	02 Nos.		

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	stated linear scales at S.No 1. and 2.				
4.	Preassembled Shielded Signal Cable armoured/sheathed on the outside with wire-mesh / shrouded with metallic conducting sleeve; with connectors compatible for above mentioned scanning head & DRO (Length = 5 Meters)	1 No.	02 Nos.		
5.	Preassembled Shielded Signal Cable armoured/sheathed on the outside with wire-mesh / shrouded with metallic conducting sleeve; with connectors compatible for above mentioned scanning head & DRO (Length = 3 Meters)	1 No.	02 Nos.		
6.	True Surface Plate for mounting of X-axis scale as mentioned in para A./2.	1 No.	02 Nos.		
7.	Protection covers for above mentioned Linear scales and scanning heads at S.No 1. and 2.	1 Set	02 Sets		
8.	DRO mounting stand (Height = 800 mm), mounting brackets for scanning heads, connectors and other accessories required for Interfacing and commissioning of above DRO system	1 Set	02 Sets		
9.	Operation, Installation and commissioning Manuals of the DRO & Linear Scale	2 Set	02 Sets		

**B. SPARES:**

<u>Sl. No.</u>	<u>Description of item</u>	<u>Qty.</u>	<u>Vendor to provide details of items (i.e its make, <u>module</u> etc.)</u>	<u>Compliance (agreed/ not agreed)</u>
1.	Scanning Head for Z-axis as mentioned in S.No. A./1.	2 Nos.		

Vendor's Name & Signature

2.	Scanning Head for X-axis as mentioned in S.No. A./2.	2 Nos.		
3.	Preassembled Signal Cable as mentioned in S.No. A./4.	2 Nos.		
4.	Preassembled Signal Cable as mentioned in S.No. A./5.	2 Nos.		

**C. SCOPE OF WORK**

Sl.No.	Work	Compliance (agreed/ not agreed)
1.	<p><b>(a.)</b> Z-axis scale shall be mounted on an existing true surface plate (already fitted on the machine). However, dialing and any adjustments on this surface shall be in the scope of party.</p> <p><b>(b.)</b> Supplied True surface plate for X-axis shall be fixed and dialed on the machine by the party before mounting of linear scale.</p> <p><b>(c.)</b> Scanning head shall be installed on both the linear scales.</p> <p><b>(d.)</b> Protection covers shall be provided on the linear scales and scanning heads.</p> <p><b>(e.)</b> DRO shall be mounted on mounting bracket &amp; stand.</p> <p><b>(f.)</b> Proper routing, laying and connection of signal cables shall be done</p> <p><b>(g.)</b> Party shall commission DRO system and ensure calibration of the display values with required accuracy for each axis. Its calibration shall be ensured with actual measurements taken by micrometer/measuring rod or screw gauge.</p>	

Vendor's Name & Signature

**D. DELIVERY:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Material delivery period: Two (02) months from the date of award of the Work Order to the date of dispatch of the DRO system to BHEL, Hardwar. Early delivery is acceptable.	Vendor to confirm	
2.	Commissioning period: 02 week. Vendor shall depute their manpower within 15 days of intimation for commissioning of the DRO system on the machine at BHEL, Hardwar.	Vendor to confirm	

**E. DOCUMENTATION:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Vendor to provide the Operation and Maintenance manual of the supplied item.	Vendor to confirm	

**F. WARRANTY:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Party shall stand warranty for the material supplied and work done for 12 months from the date of successful commissioning of the system on the machine.	Vendor to confirm	

**G. TRAINING:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Party shall impart training to BHEL staff, for operation & maintenance of the DRO system supplied by them during installation & commissioning.	Vendor to confirm	

Vendor's Name & Signature

**H. GENERAL CONDITIONS:**

Sl. No.	Item	Vendor to confirm	Compliance (agreed/ not agreed)
1.	A compliance statement indicating agreement/deviation with the requirements stated in the scope of supply and scope of work shall be furnished by the vendor.	Vendor to confirm	
2.	Packing & Forwarding, Transportation & transit insurance will be on vendor's account. Prices to be quoted by the vendor shall be FOR, BHEL, Haridwar.	Vendor to confirm	
3.	The prices should be on F.O.R BHEL, Haridwar basis inclusive of Packing & Forwarding, transit insurance & Transportation charges. Applicable % of ED & Sales Tax, Installation/ Commissioning Charges & Service Tax should be clearly indicated	Vendor to confirm	
4.	Freight & transit insurance charges from Dispatching station to BHEL, Haridwar shall be borne by the party. The material will be dispatched to Central Plant Stores, HEEP, BHEL, Haridwar with instructions to forward the same to <b>Sr.Engr. (WEX-MCR/E), Block-6 Annexe, HEEP, BHEL, Haridwar-249403</b>	Vendor to confirm	
5.	Parties are advised to visit the site before making an offer.	Vendor to confirm	
6.	Any Material not specified in scope of supply but required at the time of commissioning shall be provided by the vendor free of charge.	Vendor to confirm	
7.	Party shall bring all tools and testing equipment with them required for successful commissioning	Vendor to confirm	

**I. OFFER**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	The offer should be submitted in two parts and in following manner.	Vendor to confirm	
	<b><u>Techno-commercial Bid</u></b> :		
	The envelop shall contain the Techno-commercial Bid with technical details		

Vendor's Name & Signature

	and commercial terms & conditions along with relevant documents like copies of ESI, PF code, PAN No., Service Tax Regn. No., TIN No., CST No., Experience Certificates, Audited Balance Sheet of last 3 years, and <b>EMD</b> .		
	The envelop shall be super scribed with "Techno-Commercial Bid", Name of work & NIT No.		
	Party should give un-priced price bid in the given format.		
	Point-wise compliance of this scope of supply and work is to be given by vendors while submitting their techno-commercial offer.		
	<b>Price Bid :</b>		
	The second envelope shall contain only the price bid with separate price for material & work on Price Bid Format as per <b>ANNEXURE 'B'</b> .		
	Any other information in the price bid shall not be considered and the quotation is likely to be rejected. Price bid document shall be signed by the bidder at the bottom of the page.		
	The envelope shall be sealed and super scribed with "Price Bid", Name of work & NIT No.		
	Price bids of techno commercially accepted vendors shall be opened.		
	Both the above two envelopes shall be kept in another sealed cover. The cover shall be super-scribed with "Quotation for (name of work), NIT No. & due date and shall be addressed to <b>Tender Box kept in the Tender room of Purchase department at the 4<sup>th</sup> floor of the Main Administrative Building of BHEL, HEEP, Haridwar</b> and it should also contain Bidder address.		
	Price bid must be valid for at least 120 days from the date of opening of tender.		

**J. BHELS' OBLIGATION:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Crane facility and lifting tackles like slings, rope, D-Shackles shall be provided.	Vendor to confirm	

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	Minor machining facility required for rectification/fitting of supplied material, subject to the extent available in BHEL, shall be provided.		
	Electricity, water, fasteners, welding sets, Gas cutting equipment, general purpose welding rods and holders required during commissioning shall be provided.		
	All perishable items, consumables like lubricants, Kerosene oil, cotton waste etc. will be supplied free of cost during commissioning of DRO system inside BHEL premises. However the vendor should make his own arrangements for all types of hand tools including pneumatic/electrical drill machines, grinders, scraping machines etc. along with the necessary tooling, general purpose measuring instruments, straight edges etc.		

**K. QUALIFYING CONDITIONS:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Experience of having successfully completed similar works during last 7 years ending on 31 augustl 2012 should be either of the following:	Vendor to confirm	
1.1	Three similar completed works costing not less than the Rupees 1.60 lakhs.		
	OR		
1.2	Two similar completed works costing not less than the Rupees 1.97 lakhs		
	OR		
1.3	One similar completed work costing not less than the Rupees 3.15 lakhs		
	<b>Definition of similar works:</b> Similar works shall mean supply and commissioning of Linear <b>Magnetic Scale</b> Encoder with Scanning Head for measuring length not less than <b>9000mm</b>		
2.	Following information should be furnished by the vendor about the customer for whom similar works have been executed.		

Vendor's Name & Signature

	<p>(a) Name of the customer  (b) Address of the customer  (c) Month and year of commissioning  (d) Name and designation of the contact person, his telephone no and email id  (e) Performance certificate from the customer/commissioning certificate on completion of the work/letter of successful commissioning</p>		
3.	BHEL reserves the right to verify the information provided by the vendor. Vendor shall agree to arrange a visit by a BHEL executive to his customer's premises for verification of details provided, if BHEL so desires.		

**L. LATE DELIVERY CLAUSE:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Penalty against LD shall be deducted from the amount(s) payable by BHEL to the vendor if the delivery of the DRO system is delayed beyond the delivery period. LD shall be applicable as 0.50% (1/2 Percent) per week of the Contract value. Maximum amount of the LD shall be limited to 5% (Five Percent) of the Contract Value.	Vendor to confirm	
2.	Late commissioning @ 2% per week subject to a max. of 10% of the Commissioning Charges shall be applicable for delay beyond scheduled commissioning date for reasons attributed to the party.		

**M. EARNEST MONEY DEPOSIT (EMD):**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Vendors have to deposit the EMD. EMD may be deposited in cash, through pay order in favor of Account Officer Cash BHEL, Hardwar or through demand draft only. The rate of EMD will be as below:	Vendor to confirm	
2.	<ul style="list-style-type: none"> <li>• Work costing upto Rs. 2 Lakhs : Nil</li> <li>• Work costing more than Rs. 2 Lakhs &amp; upto 5 Lakhs : Rs. 10,000/-</li> <li>• Work costing more than Rs. 5 Lakhs &amp; upto 10 Lakhs : Rs. 20,000/-</li> </ul>		

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	<ul style="list-style-type: none"> <li>• Work costing more than Rs. 10 Lakhs &amp; upto 20 Lakhs : Rs. 40,000/-</li> <li>• Work costing more than Rs. 20 Lakhs &amp; upto 30 Lakhs : Rs. 60,000/-</li> <li>• Work costing more than Rs. 30 Lakhs &amp; upto 50 Lakhs : Rs. 1,00,000/-</li> <li>• Work costing more than Rs. 50 Lakhs &amp; upto 100 Lakhs : Rs. 1,50,000/-</li> <li>• Work costing more than Rs. 100 Lakhs : Rs. 2,00,000/-</li> </ul>		
	EMD shall be converted to security deposit if the work is awarded.		
	EMD of unsuccessful bidders shall be refunded back normally within fifteen days of acceptance of award of work by the successful bidder.		
	EMD shall not carry any interest.		
	EMD by bidder will be forfeited as per tender document, if		
	After opening the tender, the tenderer revokes his tender within the validity period or increases his earlier quoted rates		
	The tenderer does not commence the work within the period as per LOI/contract.		
	<b>Offers without EMD will be rejected and will not be considered for evaluation.</b>		

**N. SECURITY DEPOSIT (SD):**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Successful vendor shall deposit security. The rate of security deposit will be as below:	Vendor to confirm	
2.	<ul style="list-style-type: none"> <li>• For work Up to Rs. 10 Lakhs : <u>10% of work order value</u></li> <li>• Above Rs.10 Lakhs upto Rs. 50 Lakhs : Rs. <u>1 Lakh + 7.5% amount exceeding Rs. 10 Lakhs</u></li> <li>• Above Rs. 50 Lakhs: Rs. <u>4 Lakhs + 5% amount exceeding Rs. 50 Lakhs</u></li> </ul>		
	The security deposit should be submitted before the start of work in the following forms:		
	i) Cash (As permissible under the Income Tax Act)		
	ii) Pay Order, Demand Draft in favour of BHEL, Hardwar		
	iii) Local cheques of Scheduled Banks, subject to realization.		

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	iv) Bank Guarantee from Scheduled Banks/Public Financial Institution as defined in the companies Act. The Bank guarantee format should have the approval of BHEL.		
	Security Deposit shall not carry any interest.		
	EMD of successful tenderer can be converted and adjusted against the Security Deposit.		
	100% of the Security Deposit amount shall be refunded to the vendor after post commissioning successful running of the machine for one month. <b>SD shall be released after the submission of Performance Bank Guarantee(PBG) by the vendor</b>		

**O. PERFORMANCE BANK GUARANTEE (PBG):**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	Vendor shall be required to submit a performance bank guarantee(PBG) for 10% of the total work order value which shall be valid for a period of 12 months from the date of commissioning.	Vendor to confirm	
2.	The PBG shall be submitted on a non-judicial stamp paper of value not less than Rs.80/- issued by any one of the nationalised banks.		

**P. PAYMENT TERMS:**

Sl. No.	Item		Compliance (agreed/ not agreed)
1.	80% of material cost along with 100% taxes & duties(Excise duty, CST / VAT as applicable) will be made after inspection & acceptance of material at BHEL Sales tax will be paid against Form 'C'. Vendor shall intimate to BHEL total service tax to be paid.	Vendor to confirm	
2.	Final payment of balance 20% of material cost +100% of commissioning charges +service taxes as applicable shall be paid after final acceptance of the machine and release of Performance Certificate by production and maintenance personnel of BHEL.This payment shall be released against submission of a B/G of 10% of the contract value. The BG should be valid till the expiry of the guarantee period.		

Vendor's Name & Signature

**ANNEXURE-B**

**PRICE BID FORMAT:**

Name of Work : **SCOPE OF SUPPLY & COMMISSIONING OF DRO SYSTEM FOR CENTRE LATHES, PLAN NO. 1-022&2-181,BLOCK-3**

Bidder's Offer No. & Date :

Sl. No.	Description of item	Unit	Qty	Basic Rate (in Rs.)	Excise Duty (in %)	VAT/CST (in%) (VAT with FORM-17 or CST with C-FORM)	Service Tax (in %)	Total Value (in Rs.)	
1	Material (As per Para A )	Set	01	Rs.	%	%		Rs.	
2	Spares(As per Para B )	Set	01	Rs.	%	%		Rs.	
3	Installation & Commissioning(As per Para E )	Set	01	Rs.			%	Rs.	
	<b>TOTAL COST (in Figures)</b>								Rs.
	<b>TOTAL COST (in Words) :</b>								

Note: Above prices shall be quoted F.O.R. BHEL Haridwar basis.

Vendor's Name & Signature