

ROTARY TABLE : SIZE - 3000 X 4000

PART- A		
ROTARY TABLE : 3000 X 4000 MM		
SECTION - I : QUALIFYING CRITERIA		
The BIDDER has to compulsorily meet the following requirements to get qualified for considering the technical offer for the ROTARY TABLE - 3000 X 4000 MM		
SL NO	REQUIREMENTS	VENDOR'S RESPONSE
1.0	Only those vendors (OEMs), who have supplied and commissioned at least one Rotary Table of Size :2000mm x 2000mm & Weight carrying capacity of 15 Tons , or more in the past ten years (on the date of opening of Tender) and referred Rotary Table is presently working satisfactorily for more than one year (on the date of opening of Tender) after commissioning, should quote. However, if referred Rotary Table (s) has/ had been supplied to BHEL, then the Rotary Table should be presently working satisfactorily for more than six months (on the date of opening of Tender) after its commissioning and acceptance in BHEL. The following information should be submitted by the vendor about the companies where referred Rotary Table (s) have been supplied.	
The vendor should submit following information where similar machine has been supplied for qualification of their offer.		
1.1	Name and postal address of the customer or company where similar machine is installed.	
1.2	Name and designation of the contact person of the customer.	
1.3	Phone, FAX no and email address of the contact person of the customer	
1.4	Month and Year of commissioning of the machine.	
1.5	Application for which the machine is supplied.	
1.6	Performance certificate from the customers regarding satisfactory performance of machine supplied to them (Original Certificate or Through e-mail directly from the customer. Refer Clause 10.0 below).	
1.7	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/ incorrect, the offer shall be rejected.	
SECTION- II		
The BIDDER / VENDOR is requested to provide the following information:		
SL NO	REQUIREMENTS	VENDOR'S RESPONSE
2.0	The BIDDER / VENDOR to furnish Reference List of Customers, with full address, details of contact person, where similar ROTARY TABLES have been supplied in the past.	
3.0	Specify details of ROTARY TABLES supplied to other units of BHEL, if any. (Year of commissioning, Table size, Load capacity etc.)	

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4.0	Details on SERVICE-AFTER-SALES Set-up in India Including the Address of Agents / Service Centers in South India.	
5.0	Any Additional data to supplement the manufacturing capability of the BIDDER for the subject equipment.	
SECTION-III		
The BIDDER to note:		
SL NO	REQUIREMENTS	VENDOR'S RESPONSE
6.0	The BIDDER / VENDOR shall submit the offer in TWO PARTS. 1. Technical Offer [with PART A & PART B] 2. Commercial Offer.	
7.0	The Technical Offer shall contain a comparative statement of Technical Specifications demanded by BHEL and Offer Details submitted by the Bidder , against each clause.	
8.0	The Technical Offer shall be supported by product Catalogues & Data Sheets and also technical details of Bought- Out- Items with copies of Product Catalogue to the extent possible.	
9.0	The Commercial Offer (given with the Technical Offer) shall contain the Scope of Supply and the Un-Priced Part of the Price-Bid, for confirmation.	
10.0	For obtaining the performance certificate from the customer, a suggestive format is provided in SECTION-IV	
SECTION -IV		
The Performance certificate should be produced on Customer's Letter Head .		
PERFORMANCE CERTIFICATE		
1	Supplier of the Machine	
2	Make & Model of the Machine	
3	Month & Year of Commissioning	
4	Table Details:	
4.1	Size of Table	
4.2	Load carrying capacity	
5	Performance of the Table (Satisfactory/ Un-satisfactory)	
6	Any Other remarks	
	Date:	Signature & Seal of the Authority Issuing the performance Certificate

Heavy Power Equipment Plant, Bharat Heavy Electricals Limited, Ramachandrapuram -502032, Andhra Pradesh, INDIA.		Enquiry No. & Dt.:	
		Due Date :	
		Supplier's Ref.:	
		Date :	
Specification cum Compliance Certificate for ROTARY TABLE			
Note:-			
1. The Column " VENDOR'S OFFER WITH TECHNICAL DETAILS & REMARKS" of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous or unsustainable information against any of the clauses of the specifications / requirements shall be treated as non-compliance.			
2. The offer and all documents enclosed with offer should be in English language only.			
Name & Address of the supplier:		Name & Address of the Indian Agent:	
Telephone No.		Telephone No.	
Fax No.		Fax No.	
e-mail :		e-mail :	
Scope: Supply, Erection & Commissioning of ROTARY TABLE complying with specification as below.			
SNO	DESCRIPTION OF BHEL REQUIREMENT	REQUIRED	VENDOR'S OFFER WITH TECHNICAL DETAILS & REMARKS
1.0	PURPOSE		
1.1	This Rotary Table will be used to hold and orient jobs to required position during milling/drilling operations.	Vendor to note & confirm	
2	SPECIFICATION:		
2.1	ROTARY TABLE :		
2.1.1	Table size (LxB)	3000 x 4000 mm or more	
2.1.2	Load carrying capacity (Tons)	30T or more	
2.1.3	Chart/Table showing relation of weight and distance of CG from centre of Rotary Table (loading chart of table) to be submitted.	Vendor to confirm & submit.	
2.1.4	Table rotation	360 indexing positions	
2.1.5	Resolution of Rotary axis	1° or less	
2.1.6	Maximum machining torque on B-axis (N-m)	Vendor to specify	
2.1.7	Maximum clamping torque on B-axis (N-m)	Vendor to specify	
2.1.8	Size of T-slots	Suitable for M36 studs	
2.1.9	T-slots pitch (as per DIN standard)	Vendor to specify and confirm	
2.1.10	Longitudinal travel of table (V- Axis)	2500 mm or more	

2.1.11	Feed Rate for V-Axis	Vendor to specify.	
2.1.12	Cheveron type Metallic Telescopic Covers of stainless steel material are to be supplied with wipers for Table Linear axis. Joints of telescopic covers should be so sealed to avoid mixing of coolant and Hydrostatic oil.	Vendor to confirm	
2.1.13	Feed back devices :		
2.1.13.1	DRO for B-Axis	Vendor to confirm	
2.1.13.2	DRO for V-Axis	Vendor to confirm	
2.1.14	Feed drives : Details of Make, Model, Type etc. to be submitted.	Vendor to submit.	
2.1.15	Mechanism for locking/ clamping of Table axes	Vendor to specifyprovide details	
2.1.16	4 x 90 deg Precision Positioning (Details to be submitted.)	Vendor to confirm & submit details.	
2.1.17	Details of feed mechanism for linear axis to be submitted with the offer	Vendor to submit details.	
2.2	CONSTRUCTION:		
2.2.1	Vendor to furnish details of material, hardness & constructional details, including explanatory drawings, of various Components/ Assemblies	Vendor to submit	
2.3	MANUAL CONTROL :		
2.3.1	Complete manual control of table with required switches / keys should be provided on operator's panel.	Vendor to cofirm. Layout of panel to be submitted.	
2.4	HYDRAULIC (OR) PNEUMATIC SYSTEM:	Vendor to submit details.	
2.5	ELECTRICAL SYSTEM :		
2.5.2	Tropicalisation: All electrical/ electronic equipment shall be tropicalized.	Vendor to confirm	
2.5.6	Motors shall conform to IEC or Indian Standards	Vendor to confirm	
2.5.8	Vendor should ensure the proper earthing for the machine and its peripherals.	Vendor to confirm	
2.6	SAFETY ARRANGEMENTS:	Vendor to confirm & specify	
	All the pipes, cables etc. on the machine should be well supported and protected.	Vendor to confirm	
3	SPARES:		
3.1	Item-wise breakup of mechanical, hydraulic, electrical and electronic spares used on the machine in sufficient quantity as per recommendation of Vendor for 2 years of trouble free operation should be offered .	Vendor to confirm	
4	DOCUMENTATION : THREE SETS OF FOLLOWING DOCUMENTS (HARD COPIES & SOFT COPIES) IN ENGLISH LANGUAGE SHOULD BE SUPPLIED ALONG WITH THE MACHINE	Vendor to supply	

4.1	Operating manuals	Vendor to supply	
4.2	Detailed Maintenance manual of machine with all drawings of machine assemblies/sub-assemblies/parts including Electrical / Hydraulic circuit diagrams. All Assembly/ Sub Assembly Drawings shall be supplied with the part list also. Part names on all drgs & circuit diagrams should be written in English only.	Vendor to supply	
4.3	Catalogues, O&M Manuals of all bought out items including drawings, wherever applicable.	Vendor to supply	
4.4	Detailed specification of all rubber items and hydraulic/ lube oil fittings are to be supplied.	Vendor to supply	
4.5	One additional set of all the above documentation on CD ROM, wherever possible.	Vendor to submit	
5 ERECTION & COMMISSIONING			
5.1	Schedule of Erection and Commissioning shall be submitted with the offer.	Vendor to submit	
5.2	Charges, duration, terms & conditions for E&C should be furnished in detail separately along with offer.	Vendor to offer	
6 ACCURACY TESTS:			
6.1	Geometrical Accuracy Tests shall be in accordance with Supplier's applicable standard. Detailed Test Charts for the same, clearly showing the accuracies to be achieved , shall also be submitted with the offer.	Vendor to confirm & submit test charts	
6.2	The above accuracies to be demonstrated to BHEL engineers during pre-acceptance tests at Suppliers works and during Erection & Commissioning at BHEL Works.	Vendor to confirm	
7 AMBIENT CONDITIONS & THERMAL STABILITY :			
7.1	Total machine should work trouble free and efficiently under following operating conditions . Power Supply: Voltage: 415 V with fluctuation - 10%, +10% Frequency: 50 Hz with fluctuation +3%, - 3% No. of phases: 3 with neutral Ambient Conditions: Temperature = 5 to 45 degree celsius Relative Humidity = 95% max. (Confirm that machine is suitable for above and details of provisions	Vendor to confirm	
7.2	Weather conditions are tropical. Atmosphere may be dust laden during some part of the year. Rotary Table shall be kept in the normal shop floor condition. Max. temperature variation is up to 20 deg Celsius in 24 hours.	Vendor to confirm	

8	MACHINE ACCEPTANCE (TESTS/ACTIVITIES TO BE PERFORMED & DEMONSTRATED BY THE VENDOR)	Should be accepted & confirmed by Vendor	
8.1	TESTS/ACTIVITIES TO BE CARRIED OUT AT VENDOR'S WORKS ON THE MACHINE BEFORE DISPATCH :		
8.1.1	Geometrical Accuracy Tests as per Supplier's test chart.	vendor to accept and confirm	
8.1.2	Demonstration of all features of the table and all Accessories.	vendor to accept and confirm	
8.2	TESTS/ACTIVITIES TO BE CARRIED OUT AT BHEL WORKS WHILE COMMISSIONING THE MACHINES:	vendor to accept and confirm	
8.2.1	Accuracy Tests as per Supplier's test chart.	vendor to accept and confirm	
8.2.2	Demonstration of all features & all accessories to the satisfaction of BHEL for their efficient and effective use. Full load test of the table to its rated load carrying capacity.	vendor to accept and confirm	
8.2.3	Training of BHEL machine operators in operation by the supplier's experts / engineers during their stay at BHEL works	vendor to accept and confirm	
9	PACKING:	vendor to accept and confirm	
9.1	Sea worthy & rigid packing for all items of Rotary Table and other supplied items to avoid any damage/loss in transit. When Rotary Table is dispatched in containers, all small loose items shall be suitably packed in boxes. In case Rotary Table is despatched in container, the container shall be brought upto BHEL, Hyderabad. De- stuffing of container shall be carried out at BHEL, Hyderabad by the vendor's representative. Any type of material handling equipment required for the de-stuffing of the container shall be brought by the vendor at Hyderabad on returnable basis.	Vendor to confirm	
10	GUARANTEE :		
10.1	24 months from the date of acceptance of the machine.	Vendor to comply	
11	GENERAL : The vendor should submit the following information:		
11.1	Model	Vendor to specify	
11.2	Total connected load (KVA):	Vendor to specify	
11.3	Painting	Vendor to specify	
11.4	Total weight of the table	Vendor to specify	
11.5	Weight of the heaviest assembly/ subassembly of Rotary Table	Vendor to specify	
11.6	Dimensions of largest part/ subassembly/ assembly of the Rotary Table	Vendor to specify	

11.7	Vendor to submit, along with offer, the reference list of customers where similar Rotary Tables have been supplied mentioning the customer, Model, major specifications, Year of Supply etc.	Vendor to specify	
11.8	Detailed catalogues , sketch/ photographs of the Rotary Table should be submitted with the offer.	Vendor to specify	
11.9	Hydraulic& oil pipings should be preferably metallic except places where flexible pipings are essential.All the pipes required for the same shall be included in the standard scope of the machine.	Vendor to specify	