



Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

An ISO 9001
Company

ENQUIRY	Phone: +91 431 257 79 38 Fax : +91 431 252 07 19 Email : tvenkat@bheltry.co.in Web : www.bhel.com
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	Enquiry Number:	Enquiry Date:	Due date for submission of quotation:
	2620800020	27.04.2008	20.05.2008

You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order

Item	Description	Quantity	Delivery (Item required at BHEL on)
10	Tubular Type Mancooler in assembled condition as per the technical specification & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	76 Nos.	30.07.2008

BHEL commercial terms & conditions with Price Bid and Bank Guarantee formats along with technical specifications can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference “2620800020”.

Tenders should reach us before 14:00 hours on the due date
Tenders will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

Manager / Capital Equipment / MM

Specification for Tubular Type Mancooler				
Sl.No.	Description for BHEL Requirement	Specified / To be confirmed by	Offered	Deviations if any
	General purpose Tubular Type 610 mm sweep mancooler meant for industrial application and suitable for operation on 3phase, 415V, 50Hz a.c.supply, RPM 1450 approx, input 550 watts, air delivery 28000 (m3/h)			
1.0	Mancooler Construction			
1.1	Tubular Type Mancooler Construction	Fan mounted on a tubular, mild steel support cradle. Casing to be of mild steel, with inlet and outlet coned to improve airflow. Motor mounted on a platform inside the casing. Swivel in the vertical plane with locking arrangement. Whole unit to be robustly built to stand firmly and withstand rough handling.		

Sl.No.	Description for BHEL Requirement	Specified / To be confirmed by	Offered	Deviations if any
2.0	Impeller	610 mm sweep aerofoil axial impeller of die cast aluminum alloy for high efficiency and long throw. Blades to be dynamically and statically balanced. Impeller to be directly coupled to the motor. The impeller shall be aerodynamically balanced and it will have a swing of 180 degree and vertical angle of 15 degree and to be provide with wire guard both ends of the tubular.		
2.1	Number of blades in the impeller	Vendor to specify		
2.2	Safety Guard	Air inlet and outlet to be provided with safety guards.		
3.0	Motor Specification	Foot mounted, squirrel cage, 4 Pole induction motor with class B insulation suitable for 415, 3-phase, 50Hz a.c. supply.		
3.1	Motor Power	Not less than 0.75 H.P. Vendor to specify actual power.		
3.2	Make and Frame size of motor	Reputed make. Vendor to specify make and frame size.		
4.0	Make of the Mancooler	Reputed make. Vendor to specify the make.		
5.0	Air Flow	Vendor to specify		

Sl.No.	Description for BHEL Requirement	Specified / To be confirmed by	Offered	Deviations if any
5.1	Air velocity at outlet	Vendor to specify		
5.2	Noise level at 1m distance in dbA	Vendor to specify		
6.0	Dimensions	Technical and Dimensional details with catalogue to be enclosed.		
6.1	Conformance to IS standard	Vendor to specify		
7.0	Scope of supply	Quantity		
7.2	Tubular Type Man cooler with motor as specified above	76 nos.		

Item	Description	Quantity	Delivery Schedule
10	<p>Push button operated, sheet steel enclosure Direct On Line starter, for operation on (550WATTS) 500 Volts, 50Hz, AC Supply. Range: 1 – 1.6 Amps as specified in the annexure.</p> <p>SIEMENS & L&T MAKES PREFERABLE</p>	76 Nos.	

Specification for 3 Phase DOL Starter				
Sl.No.	Description for BHEL Requirement	Specified / To be confirmed by	Offered	Deviations if any
	Supply of 3 Phase Direct on line Starter in sheet steel enclosure as specified below			
1.0	Starter Suitability	Suitable for starting 3 Phase, 415V, 50Hz, 0.75/1.0 HP induction motor		
1.1	Housing	Sheet steel enclosure corrosion resistant and with cord packing to keep the interior dust and vermin proof.		
1.2	Overload Relay	Bi-metal thermal overload relay of range suitable for 0.75 HP /1.0 HP motor. Vendor to specify the range offered.		
1.3	Contactor current rating	Vendor to specify		
1.4	Coil Voltage	415V a.c.		
1.5	Input Power supply	415V, 3 phase, 50 Hz. A.C1		
1.6	Push buttons	Green/Red ON/OFF push buttons		
1.7	Dimensional details	Vendor to specify		
1.8	Technical catalogue	Vendor to furnish with the offer		
1.9	Earthing	Earthing terminals shall be provided		

Specification for 3 Phase DOL Starter				
Sl.No.	Description for BHEL Requirement	Specified / To be confirmed by	Offered	Deviations if any
2.0	Make of the DOL starter	Reputed make		
2.1	Type No./Make	Vendor to specify		
3.0	Conformance to IS or IEC standard	Vendor to specify		
4.0	Scope of supply	Quantity		
4.1	3 Phase DOL starter in sheet steel enclosure as specified above	76 nos.		

Specification for Isolator				
Sl.No.	Description for BHEL Requirement	Specified / To be confirmed by	Offered	Deviations if any
	Supply of Medium Voltage Switch Disconnecter Isolator conforming to the specification and features given below.			
1.0	Switch Disconnecter Isolator:			
1.1	Current rating at 415V, 50Hz	63A. STANDARD AND INDO ASIAN MAKES PREFERABLE.		
1.2	Configuration	Three poles and neutral		
1.3	Type of enclosure	Sheet steel		
1.4	Voltage rating	415V, 50Hz, a.c		
1.5	Overall dimensions of the isolator	Vendor to confirm		
1.6	Make of the isolator switch	Reputed make		
1.7	Type no. and make of the isolator switch offered	Vendor to confirm		
1.8	Conformance to IS/IEC specification	Vendor to confirm		
	Technical leaflet of the isolator switch offered to be enclosed with the offer	Vendor to confirm		

Specification for Isolator				
Sl.No.	Description for BHEL Requirement	Specified / To be confirmed by	Offered	Deviations if any
2.0	General Features of the Switch Disconnecter isolator:			
2.1	The switches shall be totally enclosed and fully shrouded with side handle operation.			
2.2	Provided with On/Off flag indication and two external earth terminals			
2.3	Cable entry holes at top and bottom to be provided, kit-kat in porcelain, powder coated Grey paint with seven tank system.			
2.4	Quick make, quick break mechanism, independent of the speed of the operator.			
2.5	All current carrying parts shall be hard silver plated			
2.6	Units to be provided with bolted type neutral links with facility to disconnect neutral easily.			
2.7	Interlock to ensure the lid cannot be opened until the switch is in off position and the possibility to defeat the interlock by a competent examiner.			
2.8	Provided with phase-phase, phase-earth barrier			
2.9	Generous space for wiring, inspection and maintenance			
2.10	Conduit knock-outs at top and bottom or removable gland plates			
3.0	Scope of Supply	Quantity		
3.1	Switch Disconnecter Isolator of 32A current rating as specified above	76 nos.		