

**TENDER DOCUMENT FOR COMPREHENSIVE  
AMC OF BLUE STAR RECIPROCATING CHILLERS  
AIR CONDITIONING PLANT AND AHUs  
THEREOF AT MMTC LIMITED, BANDRA KURLA  
COMPLEX, MUMBAI**

**List of Documents:**

1. Tender Document containing Terms & Conditions and Scope of Work : Doc-I
2. Technical Bid: Doc-II
3. Financial Bid: Doc-III
4. Declaration : Doc IV

**MMTC LIMITED,  
Regional Office, MMTC House,  
C-22, E-BLOCK, Bandra Kurla Complex, Mumbai-400051**

**NOTICE INVITING TENDER**

Tender Ref. No. : MMTC/TENDER/AC/2015-16

11.04.2016

**Tender for 1 Year Comprehensive Annual Maintenance Contract of Blue Star  
Reciprocating Chiller Plant and all the AHUs thereof installed at MMTC House, BKC,  
Bandra Kurla Complex, Mumbai – 400 051.**

1. MMTC Limited intends to invite tender for above-cited work. Only those Agencies / Firms / Contractors shall be eligible to quote who are in similar line of activity/business and have, at present or in past activities, provided services of comprehensive maintenance (AMCs) of air-conditioning Units/Plants. Submission of details of such AMCs with documentary evidence is desirable.
2. The tender form can be obtained from the office of The Assistant General Manager, MMTC Limited, C-22, E Block, Bandra Kurla Complex, Bandra East, Mumbai – 400 051 from 12-04-2016 to 29-05-2016 on all working days between 10.00 AM to 5.00 PM free of cost. Alternatively, the tender documents can also be downloaded from our website.
3. EMD of Rs. 50,000/- in the form of Demand Draft favouring MMTC Limited payable at Mumbai is also to be submitted along with the bid.
4. Submission of tender : The bid is to be submitted in two separate envelopes, each sealed and clearly indicating envelop number and contents as indicated below :-

**Envelope No. 1 (Technical Bid)** : Shall contain the following :

- a. Tender Form / Tender documents.
- b. Earnest money deposit of Rs. 50,000/- in the form of demand draft .
- c. Details of work in hand and documentary evidence regarding eligibility.
- d. Technical bid.
- e. Declaration.

**Envelope No. 2 (Financial Bid)** : Shall contain only financial bid duly filled in and signed by the tenderer. Price quoted by you should be all inclusive and shall remain firm and be valid till stipulated

contract period. No commercial or technical condition or qualification of any sort shall be indicated by the tenderer in this envelop, otherwise the bid shall be liable for rejection.

Tender duly filled in and signed and sealed, should be dropped in the tender box kept at the Reception of MMTC Limited, C-22, E-Block, Bandra (East), Bandra-Kurla Complex, Mumbai- 400 051 on or before 03:00 PM on 02.05.2016.

5. Tenders received late on account of any reason whatsoever and telegraphic tenders will not be entertained.

6. MMTC Limited discourages the stipulation of any condition by the tenders. The conditional tenders shall be rejected.

7. **Opening of Tender** : *The Envelop No. 1(Technical Bid) shall be opened at 3:00 PM on 02.05.2016 before all the representatives of the bidders who wish to witness the opening. Envelop No. 2 (Financial Bid) may also be opened on the same day and, if not, the date for opening of Envelop No.2 will be informed to bidders separately.*

8. **Validity of Tender** : The tender shall be valid for a period of 30 days, from the last date of award of the tender.

9. MMTC Limited is not bound to accept the lowest bid and reserves the right to reject any or all the bids without assigning any reason thereof.

**Note** : Bidders are advised to visit above-mentioned site (office address) where the subject air - conditioning plant and AHUs thereof are installed, in order to ascertain the condition of the Plant.

## Terms and conditions

1. No escalation will be given on any ground whatsoever may be the reason. The rate quoted in the tender shall remain firm and should be valid till the stipulated contract period and should include all charges and Taxes, except Service Tax which is to be mentioned separately. During contract period, contractor will have to provide 4 regular attendants during office hours (from 9.00 am to 6.00 pm).

2. Payments will be made on yearly basis in advance for the amount quoted in the bid for the entire contract period. However, a bank guarantee for the equivalent amount shall have to be submitted as per practice on the prescribed proforma.

3. This maintenance contract will be inclusive of all the parts such as motor, electrical parts, compressor, gas charging etc. and no payment will be made for these during contract period.

4. Your engineer/ technician should attend the complaint within 4 working hours from receipt of complaint from MMTC Limited.

7. In case your services are found un-satisfactory, this contract shall be terminated before completion of contract period with prior notice of 30 days, without assigning any reasons whatsoever. MMTC shall invoke the bank guarantee submitted by the successful bidder in full and remit the balance amount to the contractor.

8. The contractor shall have to observe and abide by all the prevalent laws, including contract labour laws, safety laws etc.

The Assistant General Manager (Admn.),  
MMTC Limited.,  
C-22, E Block, Bandra-Kurla Complex,  
Bandra [E]. Mumbai- 400 051.

I accept all the above terms and conditions.

Contractor's Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Company with seal: \_\_\_\_\_

Address: \_\_\_\_\_

## **SCOPE OF WORK AND SPECIFICATIONS**

### **Comprehensive Contract for Maintenance of two chillar plants and AHUs at MMTC House, Bandra – Kurla Complex, Mumbai.**

Water chilling AC plants (Reciprocating compressors) – 2x75 Tr

Air handling units – 17 Nos.

Chilled water pump sets 12.5 HP each (1 standby) – 3 Nos.

Condenser water pump sets 12.5 HP each (1 standby) – 3 Nos.

FRP induced draft-cooling tower – 2 Nos.

Centrifugal fans/blowers for basement exhaust – 4 nos.

FRP induced draft-cooling tower – 7.5 HP each – 2 Nos.

Electrical panel & cabling at plant room and all control cabling.

Operation & Maintenance of BMS with skilled technician as per O & M manual.

Operation & Maintenance of exhaust and ventilation system.

Regular checks and servicing of various equipment shall be carried out as per checklist attached and schedule giving scope of the work.

Quarterly checking and servicing of the plant.

Half-yearly de-scaling/cleaning of condensers, cooling coils, cleaning of chillers if found necessary as required.

Checking the air-conditioning system, comprising of the refrigeration plant, air distribution network, condensers/chillers water pumps, cooling tower and their respective motors and starters.

Lubricating all bearings as required.

Inspection of the safety operating controls for proper operation.

Checking/rectifying of alignment of coupling in direct driven components.

Testing & rectifying leakage in the refrigeration system with replacing refrigerant in case gas is leaking.

Checking the plant performance.

Repairs and replacement of faulty spare parts of all electrical panels/motor control panel, pump panels, winding of motors and relay etc. and taking out defective spares against repaired or new spares.

Checking of cooling tower fan motors, bearing etc. replacement of faulty spare parts, as & when required, for all electrical and mechanical items for cooling tower.

Checking of belt tension and alignment of motor.

Routine maintenance such as oiling, greasing, checking of tension of belt, cleaning of filters, changing of bearings & routine maintenance of AHU to be carried.

Checking/cleaning/replacement of coil as required.

Annual oil/gas charging of compressor.

## **SCOPE OF WORK FOR EXHAUST & VENTILATION SYSTEM INCLUDES :-**

Cleaning of filters all material required will be provided by the contractor.

Checking of motors, blowers for smooth operation.

Periodically greasing of the bearings of the blowers.

Tightening of 'V' belts and its adjustments as and when required.

Attending to emergency complaints/break-down by employing additional workmen as required within the quoted rates.

The contractor shall maintain Logbooks indicating daily.

Starting/stopping of various plants, inlet outlet temperatures etc, as required.

The Contractor shall also undertake operation of suction/delivery valves, control valves/starter/switches and checking of air flow as per laid down procedure/manufacturers recommendations.

Checking to be done to notice abnormal operational noise in the running of plant/condenser/chilled water pump and corrective action to be taken as required.

The contractor should check over-heating of compressors/Condenser/chilled water pumps, and corrective action be taken as required.

The responsibility for the maintenance, servicing and requisite inspection of pumps, compressors etc. shall totally lie with the contractor. Periodical inspection for pump sets be undertaken within quoted rates for ensuring serviceability of the plant to ensure smooth working of the system.

All pumps & compressors shall be serviced by experienced mechanic/electrician as per manufacturers recommendation.

Any leakage due to gland packing of pumps/refrigerant or otherwise is to be checked and corrective action should be taken immediately.

The contractor is required to carry out periodical greasing, replacement of gland packing, inspection and cleaning of pumps, repair/replacement of control valves etc within quoted rates.

Pump and motor shaft and coupling should be periodically checked for alignment and tightness of nuts and bolts. Motor terminal shall be checked periodically and corrective action to be taken as required. Dismantling, de-coupling and re-fixing of motor/compressor to be done as required within the quoted rates. Contractor shall ensure proper ground earthing of plant, motors and requisite corrective action is to be taken.

The contractor should attend to the breakdown of plant on priority basis. Records of the break down should be maintained by him as directed by MMTC. Efforts should be made to restore working of plant within 8 hours of break so that regular air conditioned supply to users is maintained. If need be, the extra workmen shall be arranged by the contractor within quoted rates. Rewinding pump motor sets are included in the scope of this section. IN case of failure to rectify and complete the work as explained in the scope of work within the time limit as mentioned below, the work shall be got carried out through other agency at the risk and cost of contractor without further notice to them.

Minor complaints	- 04 hours.
Major complaints	- 24 hours.
Compressor Motor winding	- 08 days
Compressor overhauling	- 08 days

The complaints which cannot be attended to within above specified time limit on technical grounds, be brought to knowledge of Engineer in- charge for taking suitable remedial action.

The contractor shall immediately intimate, MMTC about the breakdown of plant if any, and likely time which shall be taken by contractor to restore the plant, failing which he will be liable to the penalty of RS. 500/-. If A/C operator/operators fail to attend duty during a shift a penalty of Rs. 200/- shall be imposed and if a helper fails to attend duty during a shift of RS. 150/- shall be imposed.

Failing to attend minor complaints such equipment, cable system, performance, electrical replacement of glands in wearer valves etc will attract a penalty of Rs. 500/- per day.

In case of major complaints such as down of system more than 08 hours whenever the standby equipment is not available for service a penalty of Rs. 500/- for each shift shall be imposed subject to maximum of Rs. 15,000/- depending upon the continuity of the shutdown. And the operating charges will be deducted proportionally for the period. All penalties will be null and void under Force Major circumstances.

The scope of work includes preventive maintenance of air conditioning plant, etc. The same should be carried out on Saturdays and Sundays and on holidays with prior intimation to MMTC and Contractors shall work out time schedule for carrying out preventive maintenance in consultation with Engineer in-charge.

The Contractor shall abide by and strictly follow all the requirements of security to prevent the accident or damage to the property of MMTC. The contractor shall be entirely responsible for all safety precautions required.

The contractor shall be liable for all penalties, claims, compensations, damages on account of electrical/fire accidents, if any caused due to negligence of his workmen/non compliance of safety requirement. The contractor shall indemnify MMTC from all such penalties, claims, compensations and damages etc. on this contract.

Gas filling shall be free of cost, as and when required.

**CHECK LIST :**

S.No.	Description	Hourly	Daily	Weekly	Monthly
1)	<u>Compressors</u>				
2)	Oil Pressure				
3)	Temperature				
4)	Chamber oil level				
5)	Float chamber oil level				
6)	Checking lubrication				
7)	Checking operating pressure				
8)	Observe compressor & motor bearing temperature				
9)	Check for unusual noise and vibration				
10)	Chillers check entering & leaving water temperature				
11)	Check entering & leaving water pressure.				
12)	condensers : refrigerant pressure				
13)	Check entering & leaving water temperature				
14)	Check entering & leaving water pressure.				
15)	Check water level in sump and float valve operation				
16)	Checking motor gear boxes fan checking of oil level and topping up if necessary.				
17)	Checking for unusual vibration				
18)	Check oil leakages through gear box seal chambers.				
19)	Cleaning of cooling towers and its basin				
20)	Check oil leakages through gear box seal chambers.				
21)	Check bearing temperature.				
22)	Check noise and vibration				
23)	Check all motors, starters for level heating.				
24)	Replacing gland packing for pumps and valves if necessary				
25)	Check motor, blower & bearing for level of heating				
26)	Check for leakages through joint and valves if necessary.				
27)	Air handling units : check motor, blower & bearing for level of heating				



28)	Lubricating the pump motors/ compressors/motors of airhandling unit, motor bearing etc. If necessary check belt tension & alignment.				
29)	Clean AHU filters.				
30)	Motors : Check for heating				
31)	Alignment				
32)	Current				
33)	Vibration				

**Technical Bid**

The technical bid shall contain following information in a sealed cover super-scribed “**Technical Bid for comprehensive AMC of Blue Star Reciprocating Chiller Plant and its AHUs**”. It shall consist of the following documents/ information :

1	Name, Address, Set up Status of organization.	
2	Contact person with telephone	
3	Details of experience (with documentary proof).	
4	Details of PAN card of the company (copy to be attached).	
5	Details of registration with various bodies (Government bodies , ROC, Mumbai Sales Tax, Work Contact Tax etc ).	
6	Details of Demand Draft	
7	Details of Technicians	
8	List of Clients.	

- A General undertaking that all terms and conditions of this Tender Document are acceptable in the format given in Doc-IV to this document.
- Tender documents duly signed in all pages with seal

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Company with seal : \_\_\_\_\_

Address : \_\_\_\_\_

**Financial Bid**

Tender for 1 Year Comprehensive Annual Maintenance Contract of Blue Star Reciprocating Chiller Plants and its AHUs installed at MMTC House, BKC, Bandra East, Mumbai – 400 051

Description	Total AC Units	Total Tonnage Rate per Ton	Total Amount (for 1 year)
Comprehensive Annual Maintenance contract of Air-conditioning Plant and 16 AHUs along with Cooling Towers (as per terms and conditions given in tender form.	BLUE STAR RECIPROCATING CHILLER PLANTS AND ITS AHUs	Amount - Rs. _____	
		Service Tax - Rs. _____	
		Total - Rs. _____	
		Name: _____	

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Company with seal : \_\_\_\_\_

Address : \_\_\_\_\_

**DECLARATION REGARDING ACCEPTANCE OF TERMS & CONDITIONS CONTAINED IN THE  
TENDER DOCUMENT**

To

The Assistant General Manager (Admn),  
MMTC LIMITED.,  
C-22, E BLOCK,  
Bandra-Kurla Complex,  
Bandra [E],  
Mumbai- 400 051.

Sir,

I have carefully gone through the Terms & Conditions contained in the Tender Document (No. MMTC/TENDER/AC/2015-16 dated 11.04.2016) regarding on site Comprehensive Annual Maintenance Contract (AMC) of Air Conditioner Plant situated at the above-mentioned address. I hereby declare that all the provisions/conditions of this Tender Document are acceptable to my Company. I further certify that I am an authorized signatory on behalf of my company and, therefore, competent to make this declaration. I hereby declare that all the stated facts are true and correct to the best of my information, knowledge and belief.

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Company with seal : \_\_\_\_\_

Address : \_\_\_\_\_