

**TENDER FOR A. C. SYSTEM OF BANK OF INDIA,  
VIDYUTNAGAR BRANCH AT VADODARA**

ISSUED TO : .....  
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**CLIENT :**

Zonal Manager  
Bank of India,  
Zonal Office,  
Vadodara Zone,  
Ellorapark VADODARA

**ARCHITECT :**

**Shyamal Gandhi & Associates**  
21, Virnagar society  
Nr. Gayatri hospital, Kiranpark,  
AHMEDABAD - 380 013  
Phone: 079 - 27640161  
Fax: 079-27640161

**MEMORANDUM OF WORK**  
**BANK OF INDIA INVITES ITEM RATES SEALED TENDERS FROM THE INTERESTED CONTRACTORS FOR THE WORK MENTIONED BELOW.**

1.	<b>NAME OF WORK</b>	Tender for supplying, installations, commissioning & testing of <b>A. C. SYSTEM BANK OF INDIA, VIDYUTNAGAR BRANCH AT VADODARA, GUJARAT</b>
2.	<b>REGISTRATION AND MINIMUM ELIGIBILITY CRITERIA</b>	( i ) The vendor having experience in such type of works.  (ii ) The vendor should be authorized dealers of specified brand  The authentic certificates / testimonials in support of eligibility criteria shall have to be enclosed with the tender documents failing which the tender shall be rejected out right.
3	<b>TENDER FEES</b>	THE BLANK TENDER FORMS CAN BE OBTAINED FROM THE OFFICE OF THE ZONAL MANAGER, BANK OF INDIA BUILDING, ZONAL OFFICE, ELLORA PARK, VADODARA BETWEEN 3.00 PM TO 5.00 PM FROM 05/03/2010 TO 14/03/2010 ON PAYMENT OF RS. 150/- (RS. ONE HUNDRED FIFTY ONLY) IN CASH OR BY PAY ORDER/ DEMAND DRAFT PAYABLE AT AHMEDABAD, NON REFUNDABLE, IN FAVOR OF M/S. SHYAMAL GANDHI & ASSOCIATES AHMEDABAD OR CAN BE DOWN LOADED FROM BANK'S WEB SITE <a href="http://WWW.BANKOFINDIA.COM">WWW.BANKOFINDIA.COM</a> AND SAID PAYMENT CAN BE MADE ALONG WITH TENDER SUBMISSION
4.	<b>TIME LIMIT</b>	15 DAYS
5.	<b>EARNEST MONEY DEPOSIT</b>	RS.5000/- TO BE SUBMITTED IN THE FORM OF D.D. IN FAVOUR OF BANK OF INDIA, VADODARA <b><i>(D.D TO BE ENCLOSED WITH THE TENDER WITH TECHNICAL BID)</i></b>
6.	<b>LAST DATE OF RECEIVING TENDERS.</b>	15/03/2010 UP TO 14.00 HRS. TENDERS RECEIVED AFTER THIS DATE AND TIME WILL NOT BE ENTERTAINED UNDER ANY CIRCUMSTANCES.
7.	<b>DATE OF OPENING OF TENDER</b>	TECHANICAL BID ON DT. 15/03/2010 AT 16.00 HRS. PRICE BID THE DATE WILL BE INFORMED LATER TO QUALIFIED CONTRACTOR
8.	<b>MODE OF SENDING THE TENDER DOCUMENTS IN DUPLICATE. I.E. TWO SETS</b>	By RPAD or Speed Post or courier or by hand delivery addressed to. THE ZONAL MANAGER BANK OF INDIA ZONAL OFFICE, ELLORAPARK VADODARA,

**CONDITIONAL TENDERS WILL NOT BE ACCEPTED. BANK OF INDIA RESERVES THE RIGHT TO REJECT ANY OR ALL THE TENDERS WITHOUT ASSIGNING ANY REASONS THEREOF.**

### Information to Tenderers

**Name of Work: A. C. SYSTEM for B.O.I VIDYUTNAGAR BRANCH AT VADODARA**

1. **Earnest Money Deposit** : Rs.5000 /- to be submitted in the form of D.D. in favour of BANK OF India, Vadodara valid for 180 days
2. **(A) Security Deposit** : Total 10 % of tender amount as S.D. Initially 2 % to be given after the work is awarded and rest 8 % to be recovered from running bills.
3. **Mode of sending the tenders in duplicate.**  
**In sealed cover by R P A D/ Speed post / courier or hand delivery only.** : In sealed envelope super scribed the name of work.
4. **Tender validity period** : 90 days
5. **Time of completion** : 15 Days. (Work shall be taken up on hand immediately after the date of issue of work order )
6. **Retention Money** : 8 % of tender amount. Retention money will be recovered from bill
7. **Defect liability period** : 12 months after issue of completion certificate. The performance guarantee or retention money shall be released after completion of defect liability period. free services is provided during this period.
8. **Compensation for delay** : Rs.1000 per day but not exceeding 10 % of total contract value, there after client may arrange to get the work done through some other agency.
9. **Last date of receipt of tender by RPAD /speed post /courier** : As mentioned in tender notice.
10. **Place of receiving Tender Copies** : **THE ZONAL MANAGER  
BANK OF INDIA  
ZONAL OFFICE,  
ELLORAPARK,  
VADODARA,**
11. **Minimum value of work for interim bills** : NIL
12. **Insurance:** : Workers insurance  
Contractor's risk policy

The bank will not be bound to accept the lowest tender and reserves the right to accept or reject any or all the tenders without assigning any reason what so ever.

## **General instructions to contractors**

Sealed Tender in duplicate should be addressed to

**THE ZONAL MANAGER  
BANK OF INDIA  
ZONAL OFFICE,  
ELLORAPARK,  
VADODARA,**

1. No tender will be received after **2.00 p.m.** on date 15/03/2010 under any circumstances whatsoever.
3. The contractors are not expected to include any conditions contrary to tender provisions. However, if it is necessary to include certain conditions, the same should be submitted in separate sealed cover. To facilitate the processing of offers, two separate sealed envelopes, one containing conditions or non-conditions statement and the other containing the prices tender only in the stipulated form should be submitted. All letters, enclosures, tenders etc., should be submitted in duplicate. The tenders should be put in 2<sup>nd</sup> envelopes. The covers should be suitably super scribed indicating the contents. All letters, enclosures, tenders etc., should be submitted in duplicate. The tenders should clearly indicate on each copy of the priced tender, under their full signature, whether it is the original or duplicate copy.

### **A. MODE OF SUBMISSION OF TENDER:**

The tender shall be submitted in accordance with the procedure detailed herein. Specified documents shall be sealed in two envelopes of appropriate sizes and envelope should be properly super scribed as: Envelope no. 1. EMD and other documents; and envelop no. 2; prices & bill of quantities only.

#### **(a) ENVELOPE MARKED AS FIRST COVER:**

Envelope marked as first shall contain

- I. Earnest money deposit in the form as indicated.
- II. Covering letter to the tender and tender documents issued by the Architects. (excluding priced tender duly signed.)
- III. Any comment which the tenderer desired to make in the form of a statement as brief as possible and with proper reference to the items, clauses and pages of the documents to which the comments pertain.
- IV. The name and addresses of the bankers to the tenderer.
- V. Latest income tax Clearance certificate.
- VI. Complete set of tender drawings with signature of the tenderer and seal.
- VII. Whether the tendering firm has ever been black listed ? If yes, give details.
- VIII. Details of registration with Nationalized Banks / Public sector undertakings / government / Semi Government organizations.
- IX. Certificate of performance from their previous clients.
- X. Detail about constitution of firm - whether proprietorship, partnership, private public ltd Co., cooperative body etc.
- XI. Name/s or proprietor / partners / Directors etc.
- XII. Registration date.
- XIII. Other relevant information as per enclosed format.

- XIV. Please take a careful note that the quoted tender price should not be indicated in any of the documents enclosed in envelope marked FIRST.
- XV. The aforesaid information / document EMD along with tender documents (excluding priced tender) issued by the Architects should be put in the envelope marked FIRST in **duplicate and duly signed by the tenderer and should**

(b) ENVELOP MARKED AS SECOND COVER:

Envelop marked SECOND COVER shall contain only price tender in duplicate duly signed and duly filled in rates and amount in words and figures by the tenderer and should be properly sealed.

B. OPENING OF TENDERS:

(a) The sealed envelopes marked FIRST COVER containing the tender documents / EMD / OPENING OF TENDERS:

- (a) The sealed envelopes marked FIRST COVER containing the tender documents / EMD / other information as mentioned in a paragraph A (a) above shall be opened in the office of The ZONAL MANAGER, BANK OF INDIA, ZONAL OFFICE Ellorapark, Vadodara.. on Dt 15/03/2010 at 4, P.M in presence of representatives of the Architects and authorized representatives of tenderers who choose to remain present.
- (b) If the earnest money deposit and other information / documents called for are not found as prescribed in paragraph A(a) above, the tender shall be rejected.
- (c) The tender which is found suitable technically as well as financially whose past performance is found satisfactory to carry out works of similar nature and magnitude as per the details submitted by them and who have fulfilled all other requirements as mentioned in paragraph A(a) will be considered for discussing conditions, if any and then priced tender enclosed in envelope marked as SECOND COVER will be opened of such selected contractors. on date informed on later. The price bid of rejected tenderer keeping in view the FIRST COVER will not be opened and E.M.D. without interest will be returned to them as soon as the bank takes any decision to this effect.
- (d) The selected contractors will be intimated by the bank regarding opening of the SECOND COVER containing priced tender. The tenderer or his authorized representative who is competent to take on the spot decision in the matter should be present. After discussing the conditions, if any, and after standardizing / withdrawing the conditions, the selected contractors will have to submit their offer in a separate cover and sealed cover containing priced tender (submitted earlier) will be opened simultaneously.
- (e) After opening the envelope containing the offer on the standardized conditions and opening of the priced tender, no correspondence / revised offer whatsoever may be in nature, will be entertained.
- (f) The tender shall remain open for acceptance by the bank for a period of 3 (three) months from the date of opening of the SECOND COVER containing the priced tender which may be extended further by mutual agreement and the tenderer during validity period failing which EMD will be forfeited.
- (g) The tenderer must use only the tender forms/documents issued by the Bank. If given space falls short for furnishing the information / separate sheet may be added duly signed by the contractors.
- (h) The bank reserves the right to reject or select the tender for opening the priced tender and also the bank will not be bound to accept the lowest tender and reserve

the right to accept or reject any or all the tenders without assigning any reason whatsoever.

4. The time allowed for the completion of work will be **15 Days** from the date of issue of work order.
5. The contractor should quote in figures as well as in words the rate, the amount tendered by them. The amount for each item should be worked out and requisite totals given.
  - (1) The vendor should be authorized dealers of specified brand.
  - (2) The vendors are requested to read the documents and offer most competitive rate.
  - (3) The vendors in their own interest are advised to visit the site & get themselves familiarize in the prevailing situations before submitting their rates. No claim whatsoever for ignorance, misunderstanding shall be entertained later.
  - (4) The vendors shall be responsible for making good in expeditions & workman like manner. Any defects, which may be found within six months of the handing over the premises or premises, put to beneficial use. In case contractor fails to do so, the same would be got done at his cost & risk. The cost incurred by the bank shall be deducted from the retention money or any other dues.
  - (5) Rates quoted shall be inclusive of all taxes, levies, duties all applicable & all charges such as freight, insurance, octroi, loading/unloading, unpacking & moving the position in site, etc. for complete item.
  - (6) The tender documents shall be duly filled in and signed by the vendors and shall be addressed (in sealed cover) to the office of **The ZONAL Manager, Bank of India, Zonal Office Ellorapark, Vadodara**
  - (7) All entries in the documents shall be clearly written and shall be in corrections if any shall be clearly made any duly signed and dated by The vendors, erasing and over writings and shall not be permitted and the tender liable for rejection.
  - (8) The vendors shall sign and every page of the tender documents including the layout drawings attached here to.
  - (9) Unless otherwise specified all the rates and prices in the tender shall cover sales taxes, octroi, other taxes and duties, and transportation, sales tax on work contract etc.
  - (10) The samples of all the material & work item shall be got approved from the Architect or his representative before proceeding further on the work.
  - (11) Any damage done to the property of the bank during execution of the work shall be responsibility of the contractor & it shall be made good by him, at his cost to the entire satisfaction of Architect/Bank.
  - (12) The Architects shall have full power to get the material or workmanship etc. inspected & tested by an independent agency for its soundness & adequacy at the cost of contractor.
  - (13) The work shall be of highest standard both as regard to material & workmanship. Modern tools & first-class latest techniques shall be employed for its execution.
  - (14) The scope of works consist supplying, installation, testing & commissioning work with all incidental as directed by Architect.

**Signature of Contractor with seal**

**Date:**

## **TECHNICAL SPECIFICATIONS**

UNITARY REFRIGERATION EQUIPMENT  
AIR DISTRIBUTION  
THERMAL INSULATION  
MAKES OF MATERIAL  
REFERENCE DRAWINGS  
PRICE SUMMARY  
SCHEDULE OF WORK

### **UNITARY REFRIGERATION EQUIPMENTS SCOPE**

The scope under this section shall cover the unitary refrigeration equipments such as, split units.

### **STANDARDS**

The following standards shall be applicable

- a) IS : 4283 Hot air fans
- b) IS : 8272 Industrial cooling fans
- c) IS : 1391 Room Air conditioners
- d) IS : 8148 Packaged Air conditioners
- e) IS : 2997 Air circulator type electrical fan and regulator

### **GENERAL REQUIREMENTS**

The unitary air conditioners shall include refrigeration compressor, drive motor, air cooled condensing unit, evaporator, refrigeration piping automatic control system enclosure etc.

The equipment assembly shall be well balanced to achieve minimum vibration and noise. The condensing unit mounted outdoor shall be suitable for the climate and atmosphere condition prevailing to avoid / minimize corrosion . Necessary anti corrosive treatments shall be provided for the metallic components.

The equipments shall meet the requirements indicated in the equipment data and shall meet the cooling load specified at the outdoor design data furnished and the distance / static head between the outdoor and the indoor units.

### **EQUIPMENTS**

Assembled Units

The unitary air-conditioning units shall be of factory assembled and tested and of the following category as indicated on the drawing and bill of materials.

- a) Split air conditioners having compressor and condenser housed in one unit located outdoor evaporator and controls house in another unit located indoor.

Refrigerant piping and power / control wiring interconnecting condensing unit and evaporators laid externally.

The components for the various equipment assembly shall be as specified in the following section.

#### COMPRESSORS

The compressors shall preferably be hermetically sealed scroll / rotary permanently lubricated.

#### CONDENSERS

The condenser shall be air cooled consisting of copper coils with aluminum fins, propeller fan with motor, sheet steel enclosure with air inlet and exhaust louvers mounting frame, platform/ brackets etc.

The condenser and all its components shall be provided with suitable anticorrosive treatment. The enclosure shall be GI /Aluminum powder coated.

#### EVAPORATOR

The evaporators shall be ducted or non-ducted concealed or exposed as indicated in the drawing and bill of materials. The evaporators shall include copper coils with aluminum fins, expansion valve, centrifugal fan with motor return air filter, supply and return air grilles and louvers, automatic control panel with thermostat and enclosure. The enclosure for concealed unit shall be of GI powder coated whereas that for exposed units shall be of ABS plastic.

The filters shall be antibacterial washable and shall be of minimum 20 micron filtration. The filters shall be easily removable for cleaning.

#### CONTROLS

The controls shall be automatic digital electronic LCD display having the following minimum requirements.

- a) Automatic capacity control
- b) Temperature and fan speed control with digital display
- c) Timer control
- d) Corded /corded remote control wherever specified.

The control system features shall be as shown below :

Sr.No.	Feature	Standard	Regular	Deluxe
1	Type of control	Unit Mounted	Remote	Remote
2	Type of Remote Control	Corded	Cordless	
3	Temperature Setting	Yes	Yes	Yes
4	Fan Speed Selection	Yes	Yes	Yes
5	Timer Control	Yes	Yes	Yes
6	Digital Display	Yes	Yes	Yes
7	Delayed Starting	Yes	Yes	Yes
8	Filter Cleaning Indicator	No	Yes	Yes
9	In built – ON /OFF	No	No	Yes
10	Quick Cooling Mode	No	Yes	Yes
11	Auto reset	No	No	Yes
12	Auto fan speed	No	No	Yes
13	Night set mode	No	Yes	Yes
14	Self Diagnosis	No	No	Yes

## SUPPORTS & PIPING

### Supports & Brackets

The equipment's shall be properly supported with brackets, hangers, platforms base frame etc. depending upon the type, location and capacity of the unit.

The supports shall be MS fabricated duly treated and painted for anticorrosion. The outdoor condensing units shall be properly supported on MS frame work/ platform properly grouted to the RCC Slab / brick walls using bracket.

The floor mounted packaged unit shall be provided with base frame and pedestals with necessary ant vibration pads. The ceiling suspended evaporator shall be supported using anchor fasteners and suspension rods. The wall-hung evaporators shall have GI stenciled back plate for mounting the unit, grouted to the wall/beam using anchor fasteners.

### REFRIGERANT PIPING

The refrigerant piping shall be of half – hard copper RS 250 conforming to EN .1057 Table Y. The fittings shall be of shot end capillary brazing conforming to EN 1254. The pipes shall be supplied on coils and cut to required length to achieve fall length without joints between the condenser and evaporator.

The fittings for connection to the condenser evaporator expansion valve etc shall be through copper – brass composite fitting. The brazing / soldering material shall conform to EN. 29453.

The refrigerant lines shall be insulated with 9mm Nitride rubber tubing to prevent heat loss and condensation .

Refrigerant piping running along the partition wall shall be concealed in the wall with necessary chasing in the wall and closing the same with sand cement plastic with chicken wire mesh.

### DRAIN PIPING

The evaporator shall be piped to the nearest drain point / drain line using UPVC pipe conforming to 4985 . Necessary water seal trap shall be provided at the evaporator at the discharge point.

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The evaporator shall be piped to the nearest drain point / drain line using UPVC pipe conforming to 4985 . Necessary water seal trap shall be provided at the evaporator at the discharge point.

condensate from the evaporator unit shall be drained through properly installed drain piping designed to prevent any accumulation of condensate in the drain pan.

Drain piping shall be made of 1.1/4" & /2" rigid pvc pipe of kg/cm2 pressure rating with water tight threaded connection , leading from the room unit to a suitable drain point. Complete drain piping shall be made leak proof and water tight by means of precises installation and the use of leak proof sealant / adhesives. Insulation of drain piping by expanded polyethylene.

#### MAKES OF MATERIAL

##### SCOPE

The scope of this section covers the recommended makes of equipments, material components. The final choice of makes shall be indicated at the time of finalization of the order.

The makes of material offered by the contractor shall be indicated at the space provided for proper evaluation of the offer and shall be one of the recommended makes. In the absence of such indication, the decision rests with the Consultants/Clients.

For items, make are not recommended contractor shall obtain approval from Consultant prior to procurement.

##### MAKES RECOMMENDED

The makes of material recommended are as shown below. The offers shall be strictly on the basis of the makes underlined. However, the bidders can offer alternative makes under section deviation. Such deviation shall follow with technical literature of the material/equipment offered.

SL.NO. OFFERED	ITEMS	MAKES RECOMMENDED	MAKES
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1.0	Ref Units <b>3 STAR Quality)</b>	HITACHI ,VOLTAS, BLUE STAR,L.G Company	
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#### 3.0 INSULATION

3.1	Glass fibre	FGP, Kimmco, Pilkington, Thermoguard, Twiga	
3.2	Expanded polystyrene	Modiform, Thermocole, Adpak , Cooline	
3.3	Phenolic foam	Pneotherm or Equal	

## REFERENCE DRAWING

### SCOPE

The Scope under this section covers the basic drawings and details to understand.

- a) Scope of work
- b) Location of equipments
- c) General idea on the entire installation
- d) Material requirements and labour force required for the completion of work in the stipulated time schedule.

The reference drawings are basically schematic/diagrammatic to give idea on general requirements prepared on the basis of preliminary requirements and data available. They are subject to undergo changes and modifications subject to the finalization of details and requirements of the clients.

The detailed working drawings and the drawings required for the submission to statutory authorities shall be the responsibility of the contractor. Contractor shall submit minimum four copies of the drawings to the Consultants for their scrutiny/approval before issuing to the statutory authorities and site for execution.

NOTE : This specification is of the general type only and must be used in conjunction with the drawing of the particular item being made. Anything shown on the drawing and not in the specification must be compiled with, and vice versa.

**B.O.Q. FOR A. C. SYSTEM OF B.O.I VIDYUTNAGAR BRANCH AT VADODARA.**

SR NO	DESCRIPTION OF ITEMS	QUANTITY	UNIT	RATE RS.	AMOUNT RS.
	SUPPLY OF EQUIPMENTS – AC UNITS				
1.0	AOR COOLED SPLIT & WALL MOUNTED TYPE SPLITUNITS WITH THE FOLLOWING TECH.SPECIFICATIONS				
	a) indoor unit with DX cooling coil Fan with motor Nylone pre-filter, Drain Tray, Corded Remote control & powder coated unit enclosure etc.				
	b) outdoor condensing unit with compressors condenser coil, condenser Fan with motor & unit enclouser of powder coated type				
	c) Electrical control panel Board with controls and internal wiring.				
	WALL MOUNTED TYPE SPLIT UNIT				
--	2.0 TR	3	NO.		
--	1.5 TR	4	NO		
2.0	INSTALLATION OF AC UNITS				
	Installation, Erection, Testing & Commissioning of split units with following Items :				
	a) interconnected soft copper Refigerent piping between indoor & outdoor unit up to the 5.0 RMT distance with rubber sleeve insulation				
	b) Armoured ele.cabling between indoor & out door unit with earthing.				
	c) The pipes & cables shall be consealed in flexible PVC conduit of 50/65 mm dia. With proper clamping / saddling work.				
	d) First charge of Refrigerent Gas R-22.				
	f) Rigid CPVC Drain piping with black Armoure insulation covered with BOPP tape of 25/32 mm dia. For split unit upto indicated drain point.				
	WALL MOUNTED TYPE SPLIT UNIT				
---	2.0 & !.5 TR	7	NOS.		
3.0	ADDITIONAL INSULATED REFRI.PIPING AND ELE. WIRING PER RMT & GAS CHARGING. (INCL WIRING CABLE)				
---	Beyond 5.0 RMT for each SPLIT UNIT	80	RMT		
4.0	MS FABRICATED PLATFORM FOR OUTDOOR UNITS WITH TWO COATS OF ANTIRUSTING ENEMAL PAINTING APRX	150	KG		
5.0	MISC. CIVIL WORK LIKE WALL OPENING TO PASS DUCTS & PIPES, PLASTERING & RE-FINISHING OF THE SAME TO THE ORIGINAL FINISH AS PER THE SITE REQUIREMENTS.	1	LOT		
	<b>TOTAL AMOUNT Rs.</b>				

Amount In Words.  
Less Discount (If any)  
Net tender Amount  
Amount In Words

**SIGNATURE OF CONTRACTOR WITH SEAL**

**DATE:**



